



BULLETIN 1492

Digital/Analog Programmable Controller Wiring Systems



Bulletin 1492 Digital and Analog Wiring Systems

Table of Contents

| Description | Page | Description | Page |
|--|------|--------------------------------|------|
| Benefits | 3 | Dimensions | 180 |
| Options and Features | | Marking System | 181 |
| Digital (IFM/XIM and Cables) | 6 | Accessories | 184 |
| Analog (AIFM and Cables) | 21 | Web Site Information | 186 |
| Ordering Digital and Analog Wiring Systems | 28 | Quick Reference | 187 |
| Selection Tables | 29 | | |
| Specifications | | | |
| Digital IFM | 68 | | |
| Digital Cable | 138 | | |
| Analog Cable | 168 | | |

Description

Connecting to Allen-Bradley PLC I/O is fast, convenient, and reliable with the Allen-Bradley Bul. 1492 wiring system. Unlike conventional terminal blocks, the Bul. 1492 wiring system connects to digital, analog, and high speed counter PLC I/O modules through pre-wired and pre-tested cables. The Bulletin 1492 wiring systems are compatible with modular I/O modules for Bulletin 1756 ControlLogix, 1769 CompactLogix, 1746 SLC 500, and 1771 PLC-5. A select group of wiring system modules are also compatible with the base I/O of the MicroLogix 1200 (40 I/O base only) and 1500 packaged controllers, plus the PowerFlex 700H and 700S drives. In addition, wiring system solutions are available for 1794 Flex I/O through the Flex D-shell type base modules, 1794-TB37DS and 1794-TB62DS. The interface modules are mounted onto a standard DIN #3 Rail. Pre-printed adhesive label cards containing field-wiring information are included for each interface module and I/O module combination.

Benefits

Reduced Wiring Time

PLC I/O module to field device wiring is completed in a fraction of the time when Bulletin 1492 wiring systems are used as compared with the traditional method of wiring each point to the PLC I/O swing arm and field-side terminal blocks. Pre-wired cables are factory-wired to the I/O wiring arm on one end and a connector for the Interface Module (IFM) on the other. IFMs enhance the capability of the I/O systems with added terminations, field-side LED status indicators, isolation circuits, overcurrent protection, and higher amp outputs. Both standard and specific build to order length cables are available, providing the correct length for any panel in a neat, space-efficient wiring solution.

Reduced Wiring Errors

Wiring system cables are pre-tested to ensure 100% accurate connections and eliminate the need for point-to-point checking of wiring—no more crossed wires and loose connections between the I/O module and the terminal block. Even one error in wiring 128 I/O points in a point-to-point system may require a complete check of the wiring. Wiring errors can take several minutes or hours to track down and correct before the panel is ready for startup.

When IFMs and cables are snapped in place, they fit every time — no need to find the wrong or loose connection, resulting in a much higher rate of success at system startup.

Faster Troubleshooting and Easier Maintenance

Normal terminal blocks can't offer the benefits of Bulletin 1492 wiring systems, such as LED indication on each I/O point. Wiring systems improve system startup and ease troubleshooting and maintenance. Diagnostic capabilities in the form of fuses, blown fuse indication, and field-side ON-

Benefits, Continued

State LEDs — in a reduced space — allow maintenance personnel to quickly locate faults, reduce downtime, and improve overall productivity.

Increased Volume and Productivity

Cable interconnections for a Bulletin 1492 wiring system can be up to 30 times faster to install than traditional point-to-point wiring, enabling OEMs and panel builders using wiring systems to build panels faster and produce more machines.

Reduced Wire Preparation and Routing

Pre-wired Bulletin 1492 wiring system cables eliminate the time and costs associated with stripping and cutting wires. Routing wires is much easier with wiring systems, since engineers only have to worry about routing one pre-wired cable versus the 20 or 40 wires needed in the traditional wiring method.

Labeling and Marking

Pre-printed, PLC I/O-specific adhesive label strips for quick marking of IFM module terminals save labor compared with point-to-point wiring that requires labor-intensive wire markers. Pre-wired cables require no wire labels. Pre-printed I/O-specific labels ensure neat, easy-to-read identification of wires and I/O points for all users.

The marking of traditional terminal blocks has even caused some OEMs to move toward a high-tech approach of plotting markers, requiring additional equipment in the form of a plotter system and a PC to run the plotter software.

Simplified Design

Design engineers can simplify their panel drawings by calling out an IFM and pre-wired cable instead of having to detail every single wire and terminal block on their drawings. Simplified panel drawings aid both the installer and the end user who receives the panel.

Increased DIN Rail Density

An increasing trend in the industry is to pack more products into the same DIN Rail space. Wiring systems support this trend, as they require less DIN Rail space than traditional terminal blocks. For example, if an OEM were to use a 40-point IFM in place of 40 terminal blocks, DIN Rail space can be reduced by more than 50%.

Benefits, Continued

Increased DIN Rail Density, Continued

All IFMs have terminals for connecting the I/O field wiring. In addition, extra terminal, sensor, fusible IFMs, and relay IFMs contain common terminals that are used as power busses for sensors and actuators. No additional terminal blocks are needed to provide power to the sensors/actuators — saving valuable panel/DIN Rail space.

To further reduce panel space, narrow IFMs (e.g., Catalog Number 1492-IFM20FN) have been designed. They require 45% less space than the standard length IFMs, making them well-suited for tightly packed enclosures. The high-density narrow IFMs have two rows of 10 field-wiring terminals with an overall length of 60 mm (2.36 in.).

Quality-Looking Panels

The pre-wired cables and IFM wiring system modules organize the wiring in your panel and provide a consistent look. Pre-printed adhesive labels for the terminals neatly identify field-wiring connections, which correspond to the I/O module address. A large marking area is also available for identifying I/O information on the IFM.

Fewer Parts, Less Inventory and Lower Carrying Cost

A wiring system involves an IFM and the cable, versus the block, barrier, jumper, markers, wires, and swing arms associated with traditional hardwired systems. Therefore, it requires fewer components and, in turn, less inventory and lower carrying costs.

Design Flexibility

To develop a cost-effective system, the hardware components must meet the needs of the design engineer. Rockwell Automation provides the broadest range of digital and analog systems in the industry. Allen-Bradley Wiring Systems deliver a lower life-cycle cost.

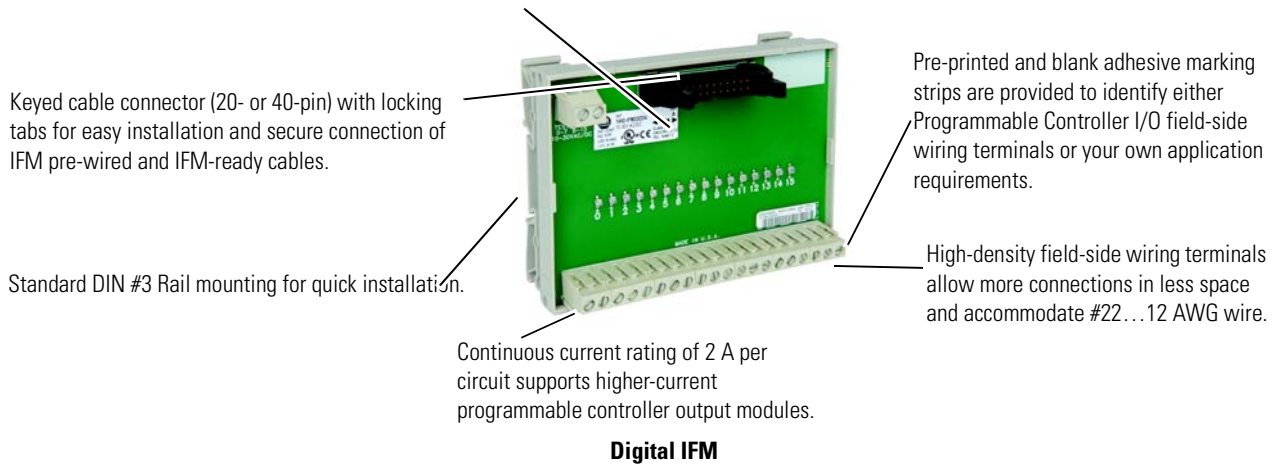
Digital IFM Options and Features

Digital IFMs, similar to groups of terminal blocks, are available with either 20-pin (typically 8 to 16 PLC I/O points) or 40-pin (typically 16 to 32 PLC I/O points) cable connectors. The number of field-side wiring terminals varies with the type of module — from one to three terminals per I/O point. LEDs and fuse clips are available on-board the IFMs to customize your wiring system to your application and provide assistance with troubleshooting your control panel. The IFMs are compatible with both the pre-wired cables and the IFM-ready cables.

All of the digital IFMs have the following features:

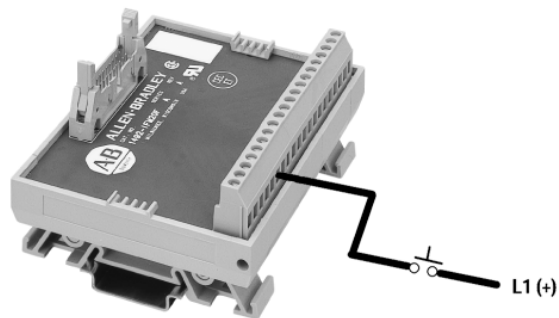
cULus: Hazardous Locations: Class I Div 2 (all modules, except those with relays); Groups A, B, D, and D.
 Temperature Code: T3C @ 60 °C.
 UL File No. E10314, Guide No. NRAG
 cULus: Ordinary Locations; Module with relays; UL File No. E113724 Guide No. NRAQ
 CE Compliant for all applicable directives

Refer to Specifications, page 191.



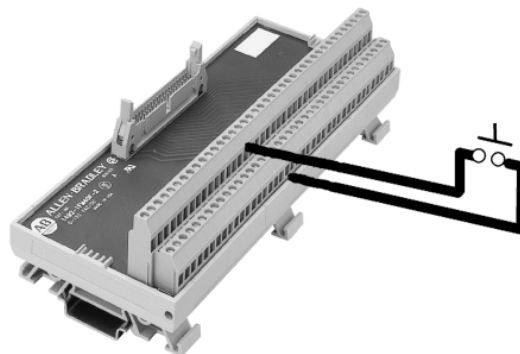
Digital IFM Options and Features, Continued

Standard Terminal Modules



Standard terminal IFM modules provide **one field-side** wiring terminal per programmable controller input or output point, as well as enough terminals for the I/O module power connections. The standard terminal modules are ideal for applications in which the I/O device commons are terminated in the field or remotely from the I/O module panel.

Extra Terminal Modules

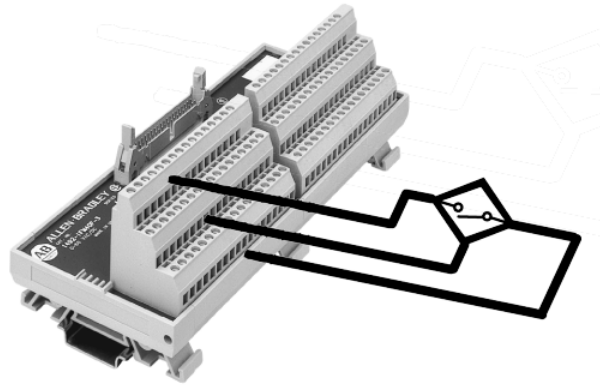


Extra terminal modules provide **two or four** field-side terminals per input or output point. IFMs which are not point-to-point isolated have two terminals per input or output point. Point-to-point isolated IFMs have two or four terminals per input or output point. Non-isolated IFMs have the lower row of extra terminals commoned together in groups of 10 ^❶, to serve as a power bus for the field device commons. Isolated IFMs have terminals isolated into 8 or 16 groups, which allows each group of I/O devices to reference a different power source. The extra terminal modules are beneficial in applications in which the I/O devices are terminated within the same panel as the I/O modules — eliminating the need for many additional terminal blocks. These modules are also available with optional field-side status LEDs for troubleshooting inputs and outputs.

❶ Except Catalog Numbers 1492-IFM20D24A-2 and -IFM20D120A-2, which are in groups of 20.

Digital IFM Options and Features, Continued

Sensor Modules



Sensor modules provide **three** field-side terminals per input point. The middle and lower rows of terminals, commoned together in groups of 18, serve as power busses for 3-wire sensor types of devices — eliminating additional terminal blocks and jumpering systems. The sensor modules provide a compact method of terminating and powering 24V AC/DC or 120V AC (Catalog Number IFM20F-3 only) 3-wire devices.

LED Modules



Voltage-indicating LEDs are available on the standard, extra terminal, and sensor IFMs. The LEDs provide field-side troubleshooting diagnostics: the on/off status of an input device or the on/off status of the programmable controller output circuit. When used in conjunction with the **logic**-side programmable controller LEDs, the IFM LEDs can help determine whether a problem resides in the I/O module or field device/wiring. The LED modules have unique circuitry that allows compatibility with sinking or sourcing input or output modules.

Digital IFM Options and Features, Continued

Fusible Modules



Fusible modules provide a convenient method of adding overcurrent protection into your programmable controller field wiring. These modules have 5 x 20 mm fuse clips on-board and are available with and without blown fuse indication. The 24V or 120V blown fuse indicators reduce the troubleshooting time to locate and replace a blown fuse on the IFM. The fusible modules have an easy-to-remove see-through acrylic cover to prevent objects from contacting fuse circuitry under normal operation. Standard fuse holders reside in the IFM, aiding in the removal of a fuse with a fuse puller (fuses are not included). The fusible modules also have two or four terminals per I/O point to create a power bus for input or output load connections. Fusible modules are available in both isolated and non-isolated versions. There are a select number of fusible IFMs available for input modules.

Relay and Relay Expander Modules

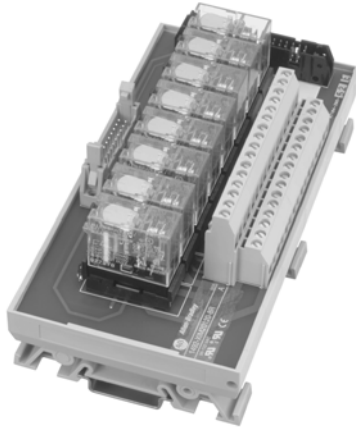
Relay and Relay Expander Interface Modules (XIMs) were developed to maximize the effectiveness of users' applications that require output contact ratings greater than 2 A. Driving large loads up to 10 A for applications such as motor starters is now possible with Bulletin 1492 Wiring Systems. In addition, the Relay Modules provide a means to isolate output points.

The Relay and Relay Expander product line consists of a Relay Master module and Expander Module(s) with expander cable. The 8 or 16 point Relay Master modules provide the connection for the 20- or 40-pin cable connectors for the pre-wired Bulletin 1492 cable.

Digital IFM Options and Features, Continued

Relay and Relay Expansion Modules, Continued

Relay Master



Relay Master with Fusing



Relay master XIMs feature field-replaceable relays with 120V or 24V rated coils. The field-side Form C contacts are rated 240V 10 A (de-rated to 12 A per adjacent pair on the XIM). The Form C relay output provides isolated output channels and a different voltage level from one output channel to the next. Other features include coil-side LED indicating the PLC output module status, and transient suppression on each coil. In addition, 16-point relay masters are available with or without 5 x 20 fuse holders so customers can fuse the output contacts.

Relay Expanders



Relay Expander (16) with Fusing

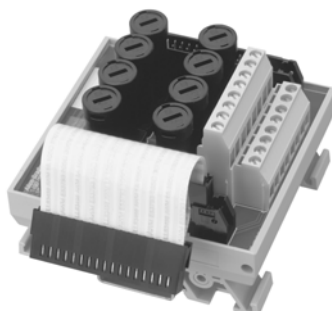


Relay expander XIMs feature eight field-replaceable relays with 120V or 24V rated coils. The field-side Form C contacts are rated 240V 10 A (de-rated to 12 A per adjacent pair on the XIM). The Form C relay output provides isolated output channels and a different voltage level from one output channel to the next. Other features include coil-side LED indicating the PLC output module status, and transient suppression on each coil. In addition, a relay expander can have 5 x 20 fuse holders so customers can fuse the output contacts. An expander cable is provided for connection to the mating module.

Digital IFM Options and Features, Continued

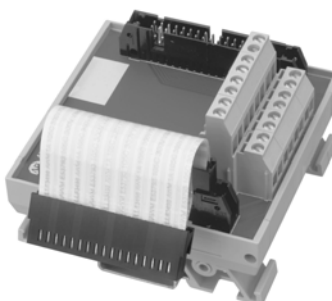
Relay and Relay Expansion Modules, Continued

Fusible Expanders



The fusible expander modules feature eight 5 x 20 mm finger-safe fuse holders, blown fuse indicators, and extra terminals for landing two wires per field-side device. They are offered with eight fuse holders for both 24V and 120V applications. An expander cable is provided for connection to the mating module. Fuses are not provided.

Feed-Through Expanders



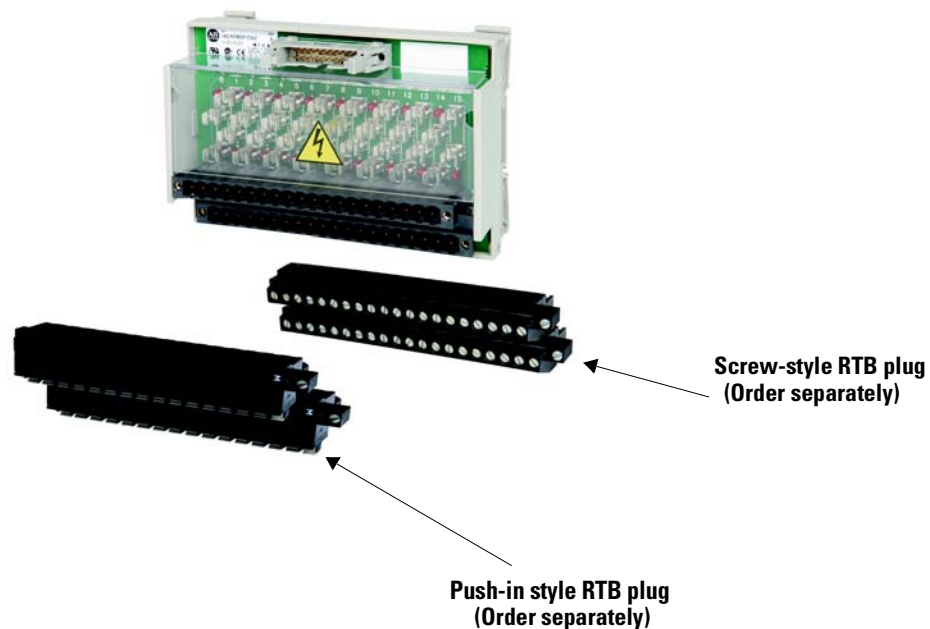
The feed-through expander modules feature eight channels with extra terminals for landing two wires per field-side device. An expander cable is provided for connection to the mating module.

Digital IFM Options and Features, Continued

Digital IFM Modules with Field Removable Terminal Blocks (RTBs)

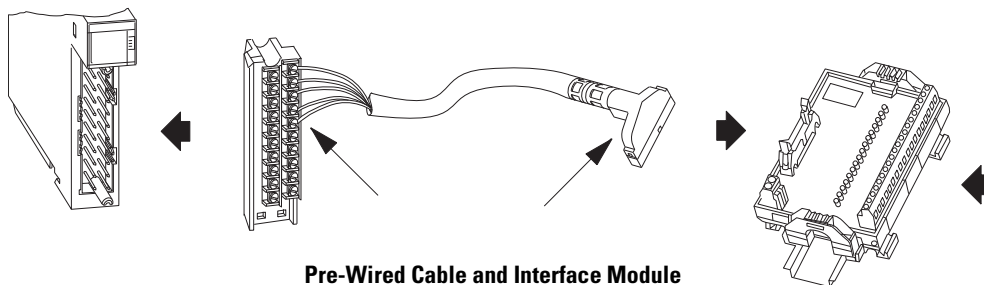
Select groups of standard, fused and relay digital Bulletin 1492 wiring system modules (refer to Selection Tables) have field terminal blocks that can be removed (RTB). This RTB feature can provide easier wiring of field devices in a control cabinet where the IFM is located in a hard to reach area, or where hand-access is limited. It can also provide easier and faster replacement of a damaged or defective Bulletin 1492 wiring system module. The removable plug portion of the RTB assembly has a screw at each end to securely fasten it to the RTB socket, which is mechanically secured to the module circuit board hand housing. Modules are shipped with the RTB socket, but without the removable plug(s). Plugs are available with screw style (e.g., 1492-RTB20**N**) or push-in style (e.g., 1492-RTB16**P**) terminals and must be ordered separately (two pieces cat. no., refer to page 17 for details). Refer to the selection tables for the particular PLC I/O system of interest to determine which modules are offered with field removable terminal blocks.

All of the features available on fixed terminal block products (e.g. labels, agency certification, etc.) are also provided for the removable terminal block Bulletin 1492 wiring system modules.



Digital IFM Options and Features, Continued

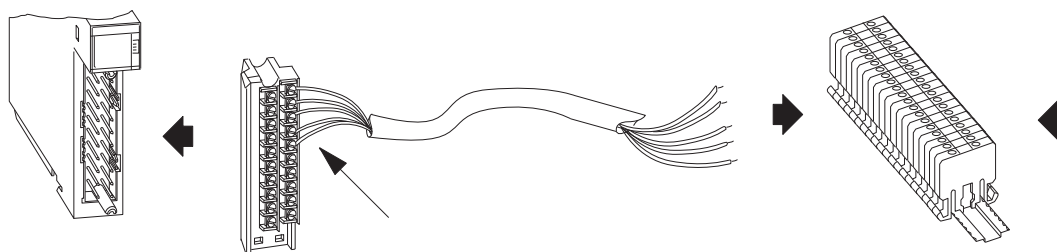
Digital Pre-Wired Cables



Pre-Wired Cable and Interface Module

Bulletin 1492 pre-wired cables are designed to minimize control wiring in a panel. Pre-wired cables, when used with an IFM, replace the point-to-point wiring between Allen-Bradley programmable controller I/O modules and individual terminal blocks. The pre-wired cables have a removable terminal block or wiring arm at the I/O end of the cable and a cable connector on the other end to connect to the IFM. All of the pre-wired cables use #22 AWG wire and are 100% tested for continuity to make a perfect connection every time. The digital pre-wired cables are offered in four standard lengths of 0.5, 1.0, 2.5, and 5.0 m to fit a variety of applications. Other cable lengths are also available as build-to-order products. Pre-wired cables are available for many of the Bulletin 1756 ControlLogix, 1769 Compact I/O used with CompactLogix and MicroLogix 1500, 1794 Flex, and 1771 I/O modules. Plus availability for the base I/O of the MicroLogix 1500 and 40 I/O base of the MicroLogix 1200 packaged controllers. A select group of modules are also available for the PowerFlex 700H and 700S drives.

Ready-to-Wire Digital Cables



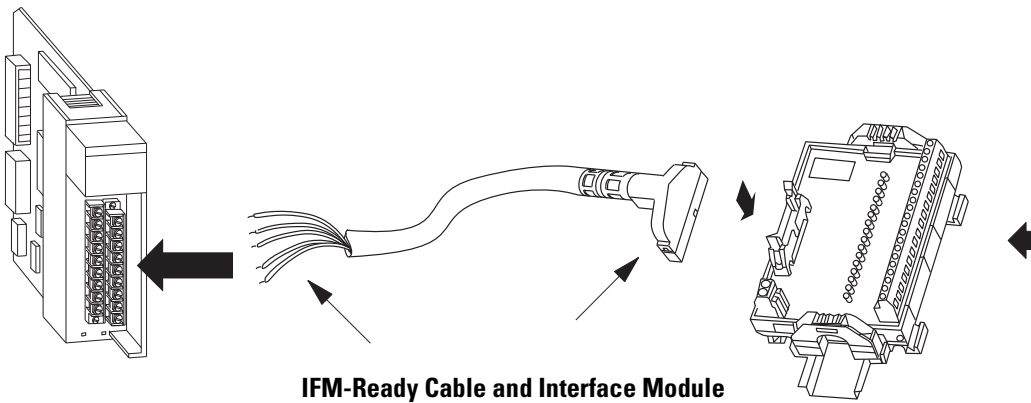
Digital I/O Module-Ready Cable and Standard Terminal Block

Digital I/O module-ready cables have an I/O removable terminal block or wiring arm pre-wired to one end of the cable and free connectors on the other end for wiring into standard terminal blocks or other type of connectors. I/O-ready cables have individual color-coded conductors for quick wire-to-terminal coordination. Most I/O-ready cables use #18 AWG conductors for higher current applications or longer cable runs. The I/O-ready cables are offered in standard lengths of 1.0, 2.5, and 5.0 m to fit a variety of applications. Other cable lengths are also available as build-to-order products. Digital I/O

module ready cables are available for many of the Bulletin 1756 ControlLogix, 1769 Compact I/O used with CompactLogix and MicroLogix 1500, 1794 Flex, and 1771 I/O modules. Plus availability for the base I/O of the MicroLogix 1500 and 40 I/O base of the MicroLogix 1200 packaged controllers. A select group of modules are also available for the PowerFlex 700H and 700S drives.

Digital IFM Options and Features, Continued

Ready-to-Wire Digital Cables, Continued



IFM-Ready Cable and Interface Module

IFM-ready cables have a cable connector that attaches to the IFM pre-wired to one end and free connectors ready to wire to I/O modules or other components on the other end. IFM-ready cables use #22 AWG wire and have individual color-coded conductors for quick wire-to-terminal coordination. The digital IFM-ready cables are offered in standard lengths of 1.0, 2.5, and 5.0 m to fit a variety of applications. Other cable lengths are also available as build-to-order products.

IFM Catalog Number Explanation for Digital I/O Modules

Important: The following IFM catalog number breakdown is for explanation purposes only. It is **not** a product configurator. Not all combinations of fields are valid product catalog numbers. First, select the desired IFM using the steps in Ordering Digital and Analog Wiring Systems on page 28. Then, use this breakdown for verification and explanation only.

1492-IFM 20 F-F120-2**Bulletin No.****Digital Interface Modules**

| | |
|------|--------------------------------------|
| IFM | Fixed (non-removable) terminal block |
| RIFM | Removable terminal block |

No. of Cable Connector Pins

| | |
|----|---------|
| 20 | 20 pins |
| 40 | 40 pins |

Status Indication

| | |
|--------|--|
| F | No LEDs |
| FN | Narrow IFM |
| D24 | 24V AC/DC LEDs for input and output modules |
| D24N | Narrow IFM with 24V AC/DC LEDs |
| D24A | 24V AC/DC LEDs for input modules |
| DS24 | Isolated IFM with 24/48V AC/DC LEDs for output modules |
| DS24A | Isolated IFM with 24V AC/DC LEDs for input modules |
| D120 | 120V AC LEDs for input and output modules |
| D120N | Narrow IFM with 120V AC LEDs |
| D120A | 120V AC LEDs for input modules |
| DS120 | Isolated IFM with 120V AC LEDs for output modules |
| DS120A | Isolated IFM with 120V AC LEDs for input modules |
| D240 | 240V AC LEDs for output modules |
| DS240A | Isolated IFM with 240V AC LEDs for input modules |
| D240A | 240V AC LEDs for input modules |

No. of Field-Side Wiring Terminals

| | |
|-------|--------------------------|
| Blank | One per I/O connection |
| 2 | Two per I/O connection |
| 3 | Three per I/O connection |
| 4 | Four per I/O connection |

Fuses and Their Indicators

| | |
|---------|---|
| Blank | No fuse clips |
| F | 5 x 20 mm fuse clips |
| F24 | 5 x 20 mm fuse clips with 24V blown fuse indicators for output modules |
| F24A | 5 x 20 mm fuse clips with 24V blown fuse indicators for input modules |
| F120 | 5 x 20 mm fuse clips with 120V blown fuse indicators for output modules |
| F120A | 5 x 20 mm fuse clips with 120V blown fuse indicators for input modules |
| F240 | 5 x 20 mm fuse clips with 240V blown fuse indicators for output modules |
| F24D-2 | 5 x 20 mm fuse clips with 24V blown fuse low leakage indicators for the 1756-OB16D diagnostic output module |
| F24AD-4 | 5 x 20 mm fuse clips with 24V blown fuse low leakage indicators for the 1756-IB16D diagnostic input module |
| FS | Isolated IFM with 5 x 20 mm fuse clips |
| FS24 | Isolated IFM with 5 x 20 mm fuse clips with 24V blown fuse indicators for output modules |
| FS24A | Isolated IFM with 5 x 20 mm fuse clips with 24V blown fuse indicators for input modules |
| FS120 | Isolated IFM with 5 x 20 mm fuse clips with 120V blown fuse indicators for output modules |
| FS120A | Isolated IFM with 5 x 20 mm fuse clips with 120V blown fuse indication for input modules |
| FS240 | Isolated IFM with 5 x 20 mm fuse clips with 240V blown fuse indication for output modules |

Terms for Relay Master/Expander IFMs

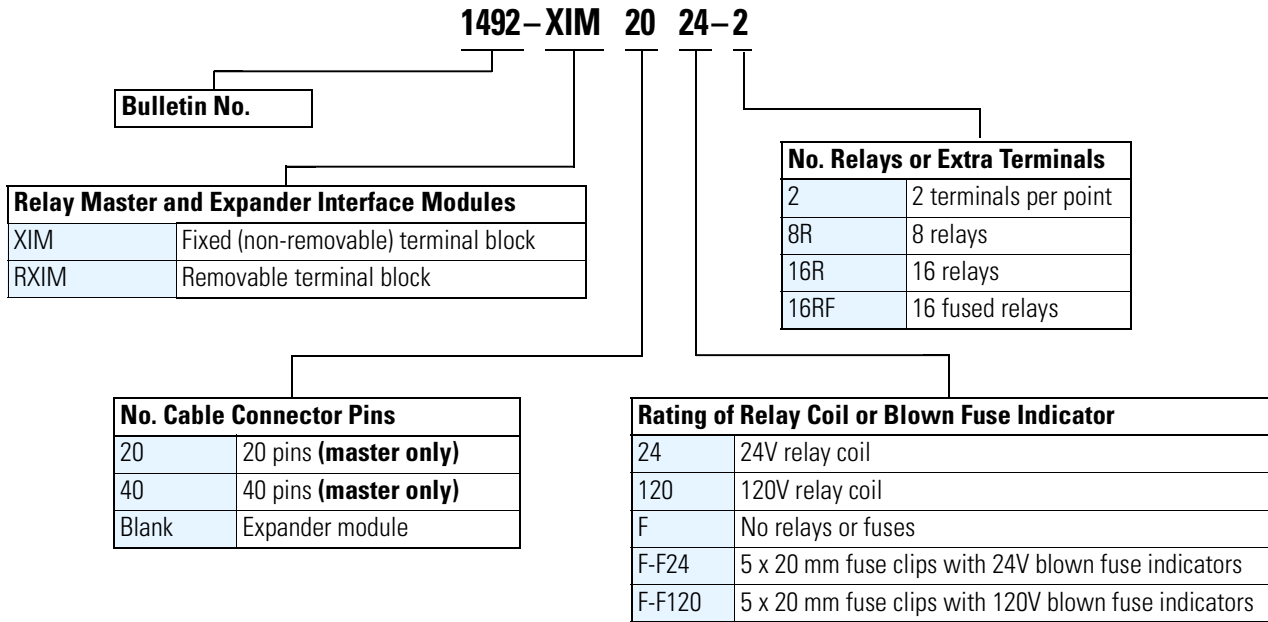
Relay master and expander XIMs are available for Bulletin 1746, 1756, 1769, and 1771 digital output modules.

Relay Master XIM — Provides 8 or 16 relay outputs for a digital output module.

Expander XIM — In addition to the relay master XIM, an expander XIM provides eight or sixteen additional outputs. There are five types of expander XIMs: eight-channel relays, eight-channel fusing, and eight-channel feed-through XIMs.

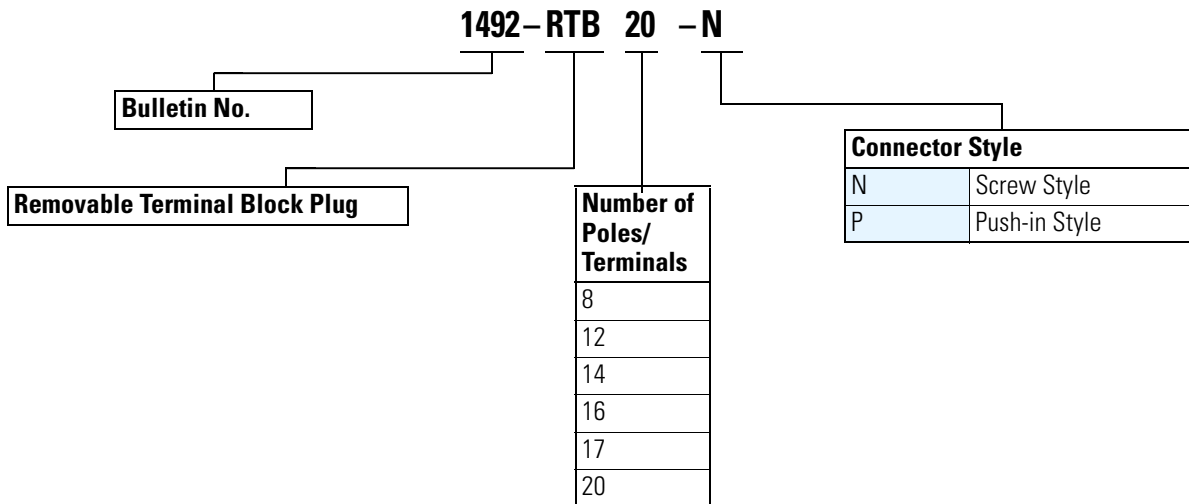
Relay Master/Expander XIMs Catalog Number Explanation for Digital I/O Modules

Important: The following XIM catalog number breakdown is for explanation purposes only. It is **not** a product configurator. Not all combinations of fields are valid product catalog numbers. First, select the desired XIM using the steps in Ordering Digital and Analog Wiring Systems on page 28. Then, use this breakdown for verification and explanation only.



Removable Terminal Block (RTB) Plug Catalog Number Explanation

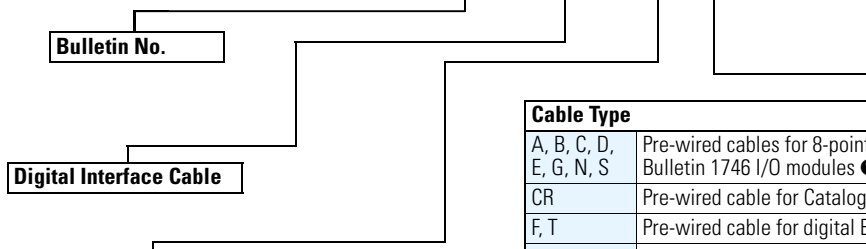
Important: The following RTB plug catalog number breakdown is for explanation only.



IFM and XIM Cable Catalog Number Explanation for Digital I/O Modules

Important: Use the following tables as a product configurator for pre-wired, IFM-ready, and I/O module-ready cables for Bulletins 1746, 1756, and 1771 digital I/O module cables. All combinations of these fields make valid product catalog numbers. Refer to selection tables for IFM/XIM compatibility and ordering.

1492-CABLE 010 A



| Standard or Build-to-Order Length Cable | | |
|---|--|-----------------------|
| 005 | 0.5 m (1.64 ft) | Standard Length |
| 010 | 1.0 m (3.28 ft) | |
| 025 | 2.5 m (8.20 ft) | |
| 050 | 5.0 m (16.40 ft) | |
| 001... 020 | 0.1...2.0 m (0.328...6.56 ft) 0.1 m (0.328 ft) increments | Build-to-Order Length |
| 020... 100 | 2.0...10.0 m (6.56...32.8 ft) 0.5 m (1.64 ft) increments | |
| 100... 300 | 10.0...30.0 m (32.8...98.4 ft) 1.0 m (3.28 ft) increments | |

| Cable Type | |
|---------------------------|--|
| A, B, C, D, E, G, N, S | Pre-wired cables for 8-point isolated and 16-point digital Bulletin 1746 I/O modules ❶ |
| CR | Pre-wired cable for Catalog Number 1746-OA16 (XIM only) |
| F, T | Pre-wired cable for digital Bulletin 1771 I/O modules ❷ |
| FF | Pre-wired cable with fused wiring arm for 16-point digital Bulletin 1771 output modules ❸ |
| H | Pre-wired cable for 32-point digital Bulletin 1746 I/O modules ❶ |
| J, K, L, M, R | Pre-wired cables for 16-point isolated and 32-point digital Bulletin 1771 I/O modules ❷ |
| U, V, W, X | Pre-wired cables for 8- and 16-point digital Bulletin 1756 I/O modules ❸ |
| Y, Z | Pre-wired cables for 16-point isolated and 32-point digital Bulletin 1756 I/O modules ❸ |
| P | Digital IFM-ready cable with 20 conductors |
| Q | Digital IFM-ready cable with 40 conductors |
| N3 | Digital I/O module-ready cable with 40-point Catalog Number 1746-N3 cable connector |
| RTBB | Digital I/O module-ready cable with 16-point Catalog Number 1746-RT25B terminal block (blue) |
| RTBO | Digital I/O module-ready cable with 16-point Catalog Number 1746-RT25C terminal block (orange) |
| RTBR | Digital I/O module-ready cable with 16-point Catalog Number 1746-RT25R terminal block (red) |
| TBCH | Digital I/O module-ready cable with 36-pin Catalog Number 1756-TBCH removable terminal block |
| TBNH | Digital I/O module-ready cable with 20-pin Catalog Number 1756-TBNH removable terminal block |
| WA | Digital I/O module-ready cable with Catalog Number 1771-WA 8-point wiring arm |
| WD | Digital I/O module-ready cable with Catalog Number 1771-WD 6-point wiring arm |
| WH | Digital I/O module-ready cable with Catalog Number 1771-WH 16-point wiring arm |
| WHF | Digital I/O module-ready cable with Catalog Number 1771-WHF 16-point fused wiring arm |
| WN | Digital I/O module-ready cable with Catalog Number 1771-WN 32-point wiring arm |

- ❶ To make sure the Bulletin 1746 SLC 500 digital I/O module is compatible with the IFM/XIM, refer to pages 29, 31, and 34.
- ❷ To make sure the Bulletin 1771 PLC digital I/O module is compatible with the IFM/XIM, refer to pages 59, 60, and 62.
- ❸ To make sure the Bulletin 1756 ControlLogix digital I/O module is compatible with the IFM/XIM, refer to pages 36, 38, and 40.

The cables used for Relay Master/Expander XIMs are the same as those used for Digital I/O Modules (page 28) with the exception of the Catalog Number 1746-OA16 output module, which uses the 1492-CABLE*CR cable.

IFM and XIM Cable Catalog Number Explanation for Digital I/O Modules, Continued

Important: Use the following tables as a product configurator for pre-wired, IFM-ready, and I/O module-ready cables for Bulletins 1769 digital I/O module cables. All combinations of these fields make valid product catalog number. Refer to selection tables for IFM/XIM compatibility and ordering.

1492-CAB 010 A69

Bulletin No.

Digital Interface Cable

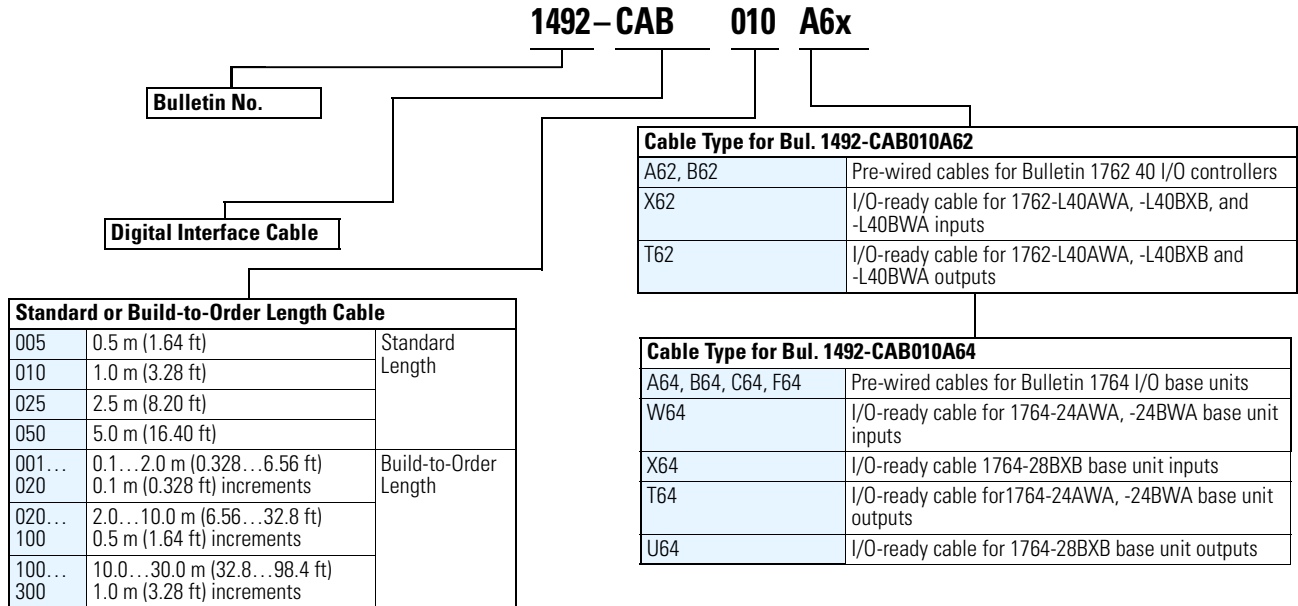
| Standard or Build-to-Order Length Cable | | |
|---|--|-----------------------|
| 005 | 0.5 m (1.64 ft) | Standard Length |
| 010 | 1.0 m (3.28 ft) | |
| 025 | 2.5 m (8.20 ft) | |
| 050 | 5.0 m (16.40 ft) | |
| 001-020 | 0.1...2.0 m (0.328...6.56 ft) 0.1 m (0.328 ft increments) | Build-to-Order Length |
| 020-100 | 2.0...10.0 m (6.56...32.8 ft) 0.5 m (1.64 ft) increments | |
| 100-300 | 10.0...30.0 m (32.8...98.4 ft) 1.0 m (3.28 ft) increments | |

| Cable Type | |
|--|--|
| A69, B69, C69, D69, E69, F69, G69, H69, J69, K69, L69, M69 | Pre-wired cables for 8, 16, and 32-point Bulletin 1769 digital I/O modules |
| RTN10 | I/O-ready cable with Catalog Number 1769-RTBN10 terminal block |
| RTN18 | I/O-ready cable with Catalog Number 1769-RTBN18 terminal block |
| RTN32I | I/O-ready cable for 1769-IQ32 module |
| RTN32O | I/O ready cable for 1769-OB32 module |
| R71 | Pre-wired cables for 16-channel isolated and 32-channel digital Bulletin 1771 I/O modules 1 |

1 To make sure the Bulletin 1771 PLC analog I/O module is compatible with the IFM, see pages 59 and 60.

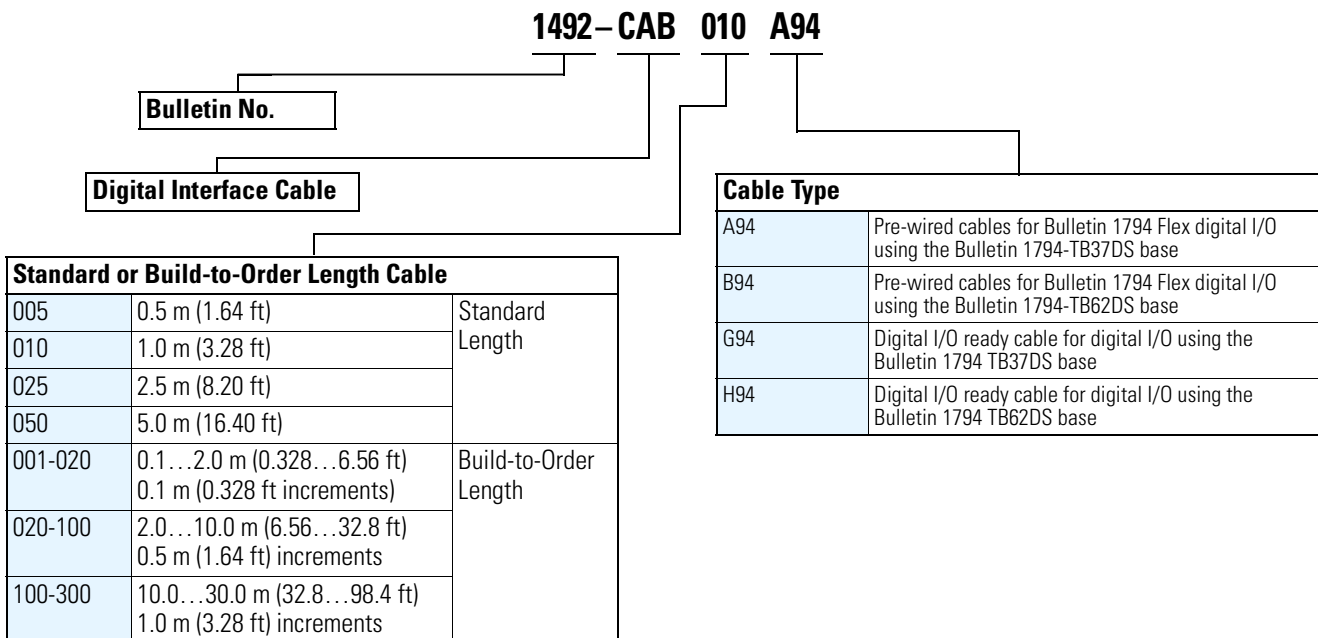
Cable Catalog Number Explanation for μ 1200 and μ 1500 Base I/O to IFM Modules

Important: Use the following tables as a product configurator for pre-wired, and I/O module-ready cables for Bulletin **1764** MicroLogix 1500 and **1762** MicroLogix 1200 40 I/O controller digital I/O cables. All combinations of these fields make valid product catalog numbers. Refer to selection tables for IFM compatibility and ordering.



Cable Catalog Number Explanation for 1794 Flex I/O to IFM Modules

Important: Use the following tables as a product configurator for pre-wired, and I/O module-ready cables for Bulletin **1794 Flex I/O, Cat. Nos. 1794-TB37DS, and 1794-TB62DS base units**. All combinations of these fields make valid product catalog number. Refer to selection tables for IFM compatibility and ordering.



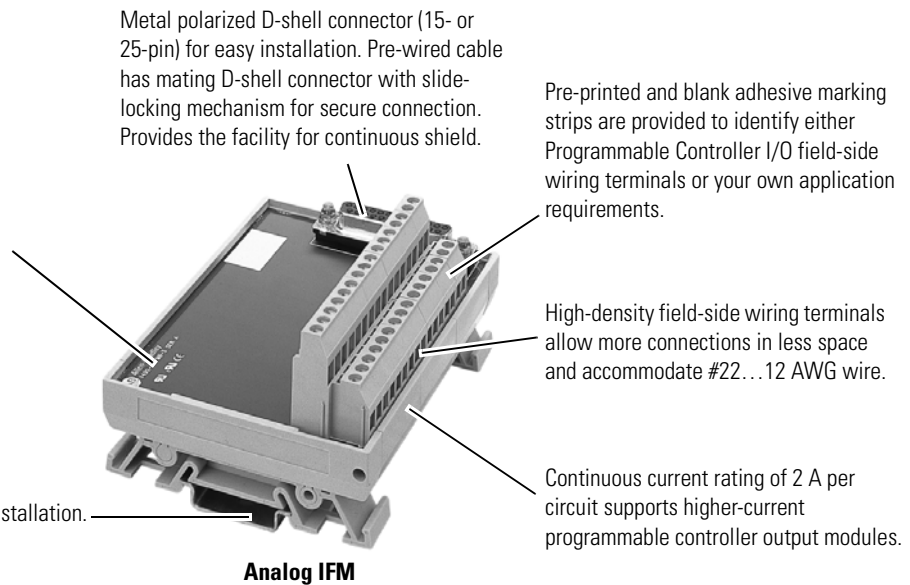
Analog IFM Options and Features

Analog IFMs (AIFMs), similar to groups of terminal blocks, are available with either 15- or 25-pin D-shell connectors. The number of field-side wiring terminals varies with the type of module — from three to five terminals per analog I/O channel. AIFMs are available as feed-through or fusible to customize the wiring system to your application.

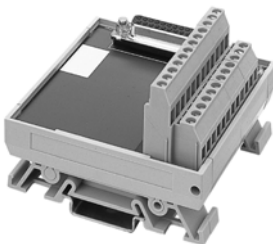
All of the AIFMs have the following features:

cULus: Hazardous Locations: Class I Div 2; Groups A, B, D, and D.
 Temperature Code: T3C @ 60 °C.
 UL File No. E10314, Guide No. NRAG
 Factory Mutual (FM): Hazardous Locations; Class I Div 2: Groups A, B, C, and D.
 Temperature Rating: T3C @ 60 °C. FM file J.I.3000590
 CE Compliant for all applicable directives

Refer to Specifications, page 191.



Analog Feed-Through Modules



Feed-through AIFMs have three terminals per analog I/O channel to wire the analog I/O device connections and shield. The shield terminals are internally bussed together and also tied to the D-shell housing to connect with the Bulletin 1492 cable shield and back to the PLC module. Some feed-through AIFMs also have special features (refer to page 26).

The **Catalog Number 1492-AIFM4-3** AIFM, when used with Catalog Numbers 1771-OFE2 and -OFE3 analog input modules, provides selectable current limiting resistors. Simply flip a DIP switch to add the 250 Ω series impedance into the output circuit. As a troubleshooting aid, test point loops access the circuit on either side of the series resistor and can be used to

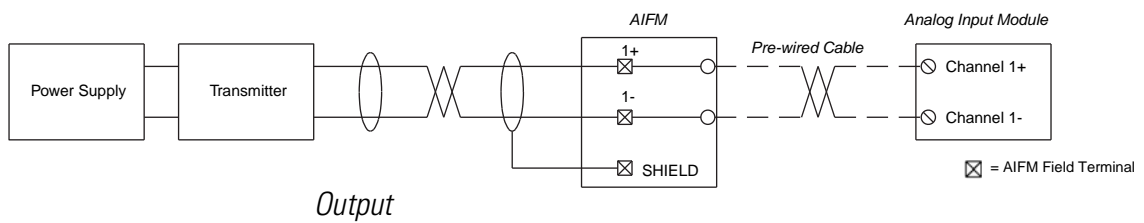
measure output circuit voltage/current. The limiting resistors are configured on a per channel basis.

The **Catalog Number 1492-AIFM6TC-3** AIFM for the Cat. Nos. 1756-IT6I and 1756-IT6I2 controllers provide on- or off-board cold junction compensation to allow thermocouples to be connected “remotely” while still correcting for temperature at the termination point. The combination thermistor and isothermal bar acquires temperature data at the AIFM for the Bul. 1756 thermocouple module to adjust the input value.

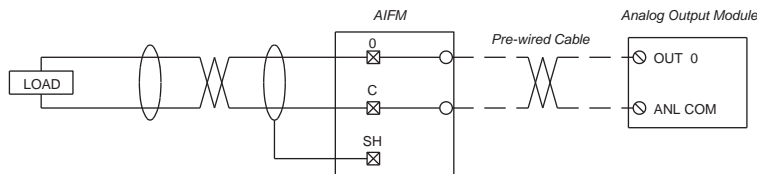
The **Catalog Number 1492-AIFM8-3** AIFM has eight extra terminals commoned together in a power bus that can be used for Module Common connections or power supply connections. The extra terminals and internal jumpering eliminate the need for some terminal blocks for power connections and jumper accessories.

Below are examples of the field-side connections available on the feed-through AIFMs.

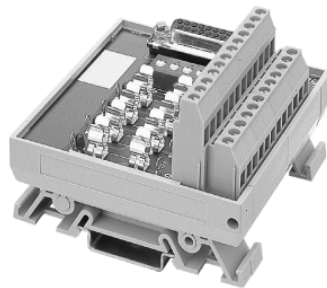
4-Wire Transmitter Input



Output



Analog Fusible Modules



Fusible AIFMs are available for analog input modules. These AIFMs enable you to fuse the **input device power source** on the field-side. The field-side power source is distributed through individual on-board 5 x 20 mm fuse clips. The fused AIFMs have 24V DC blown fuse indicators to reduce the troubleshooting time needed to locate and replace a blown fuse. The fuse holder has an integrated fuse puller to simplify fuse removal. Isolation switch

plugs or “dummy fuses” (refer to Accessories, page 184) are also available to isolate an input circuit after power is removed. In addition, once the circuit has been isolated and power restored, the input loop current can be measured in 2-wire transmitter applications.

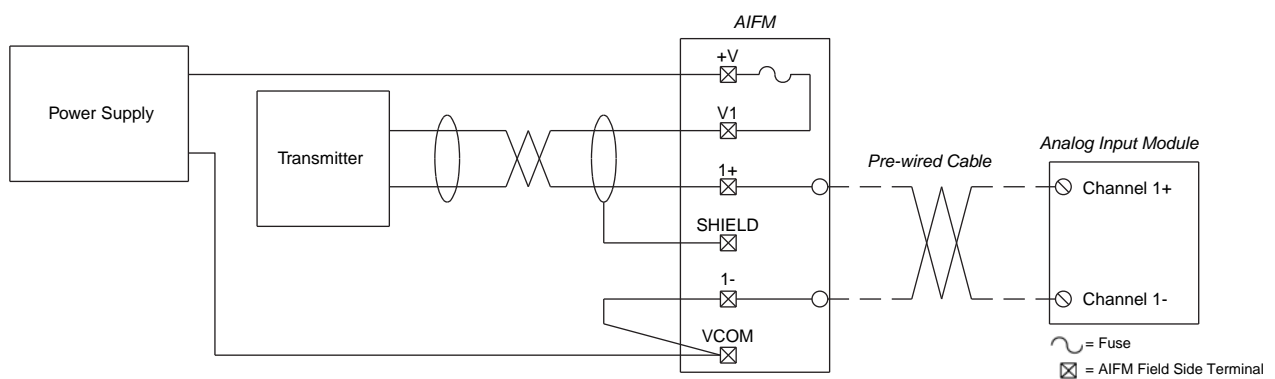
The fusible AIFMs have five terminals per input channel (except Catalog Number AIFM16-F-3, which has three terminals per channel) to wire the input-device connections, device shield, and power connections for 2-, 3-, and 4-wire transmitters. The shield terminals are internally bussed together and also tied to the D-shell housing to connect with the Bulletin 1492 cable shield and back to the PLC module. There are two separate power busses (4...16 terminals, depending on the AIFM) that can be used for +V and DC COM connections and/or device Common. The extra terminals and internal connections eliminate additional terminal blocks and jumpers — reducing spare parts inventory, saving panel space, and simplifying installation.

Several of the fusible AIFMs have on-board DIP switches to easily connect unused inputs to module common — reducing wiring on the field-side. You no longer need extra jumper wires or comb-style jumpers to properly terminate unused inputs, as recommended on many Bulletin 1746, 1756, and 1771 analog input modules. Inputs are jumpered via DIP switch on a per-channel basis.

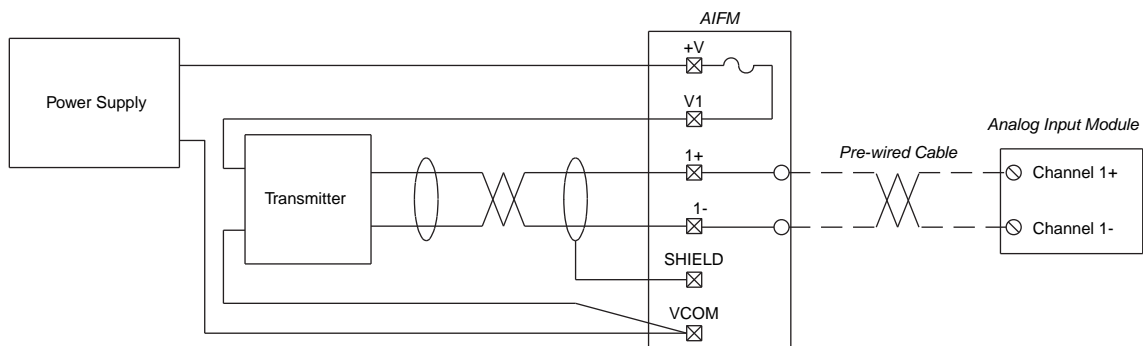
The **Catalog Numbers 1492-AIFM4I-F-5** and **1492-AIFM4C-F-5** AIFMs both have test point loops on either side of the fuse clips for easier access and connection of metering equipment. Metering equipment can also be attached to the fuse clips on other AIFMs for measuring input loop current.

Below are several examples of the field-side connections for 2- and 4-wire transmitters available on the fusible AIFMs.

2-Wire Analog Input Transmitter



4-Wire Analog Input Transmitter

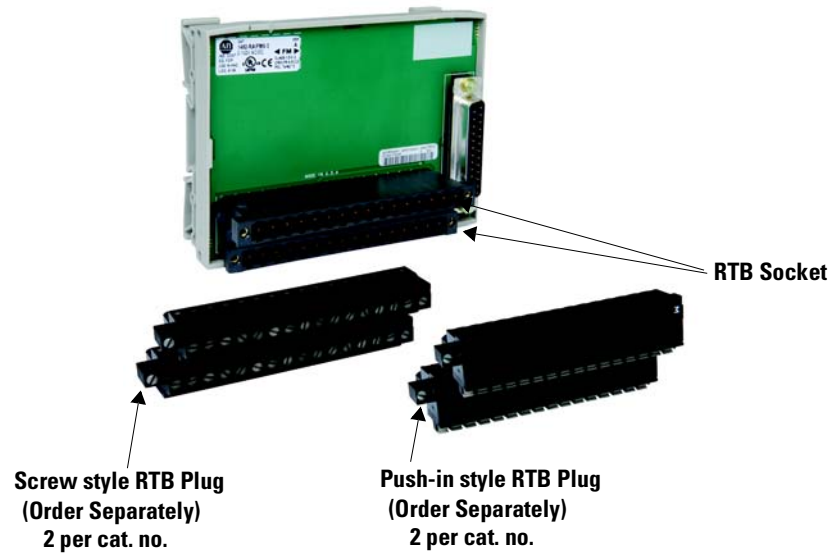


Note: Bulletin 1492 module wiring diagrams are available at www.ab.com. Refer to page 186.

Analog AIFM Modules with Field Removable Terminal Blocks (RTBs)

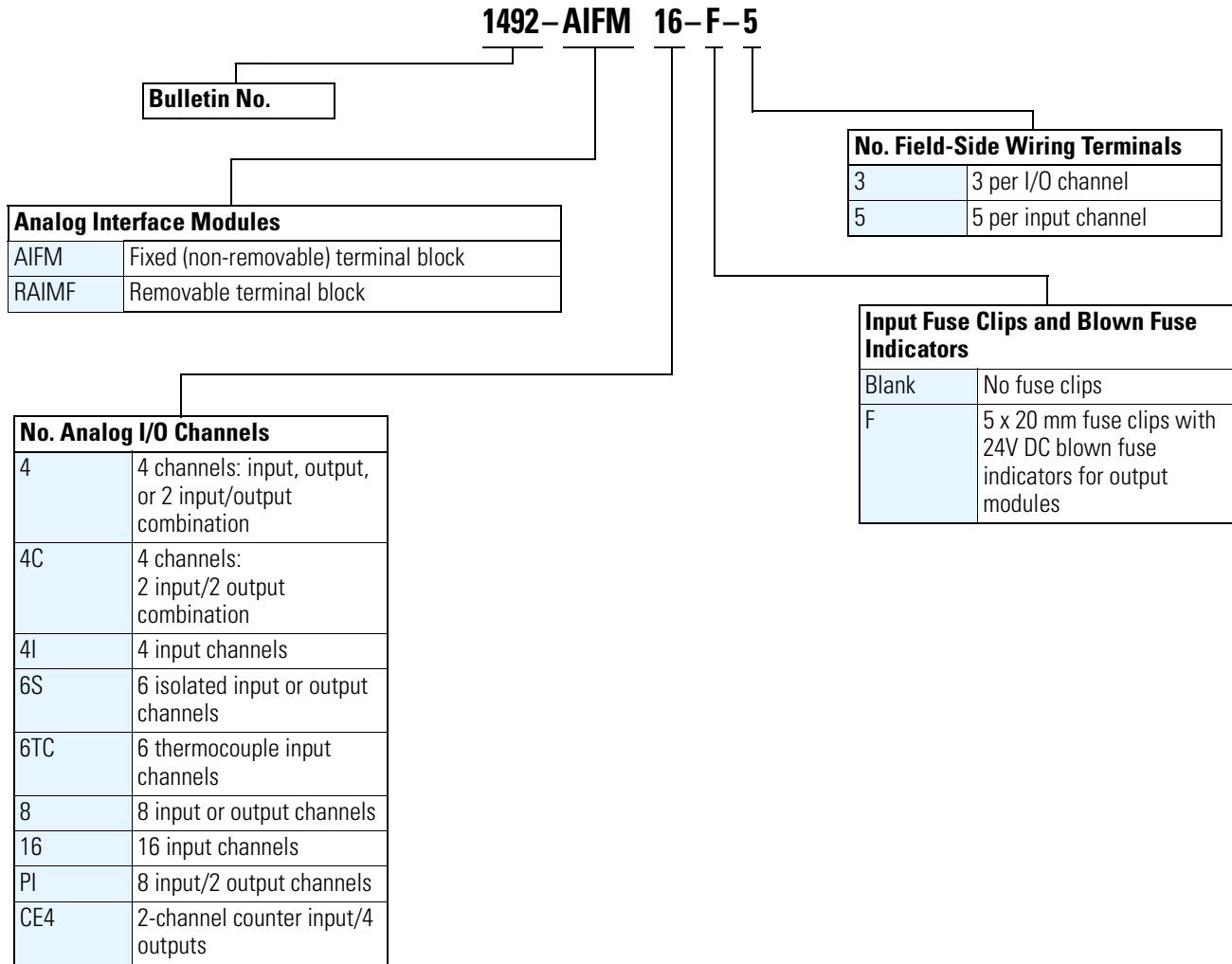
Select groups of analog Bulletin 1492 wiring system modules (refer to Selection Tables) have field terminal blocks that can be removed (RTB). This RTB feature can provide easier wiring of field devices in a control cabinet where the IFM is located in a hard to reach area, or where hand-access is limited. It can also provide easier and faster replacement of a damaged or defective Bulletin 1492 wiring system module. The removable plug portion of the RTB assembly has a screw at each end to securely fasten it to the RTB socket, which is mechanically secured to the module circuit board and housing. Modules are shipped with the RTB socket, but without the removable plug(s). Plugs are available with screw style or push-in style terminals and must be ordered separately. Refer to the Selection Tables for the particular PLC I/O system of interest to determine which modules are offered with field Removable Terminals Blocks.

All of the features available on analog fixed terminal block products (e.g. labels, agency certification, etc.) are also provided for the removable terminal block Bulletin 1492 wiring system modules.



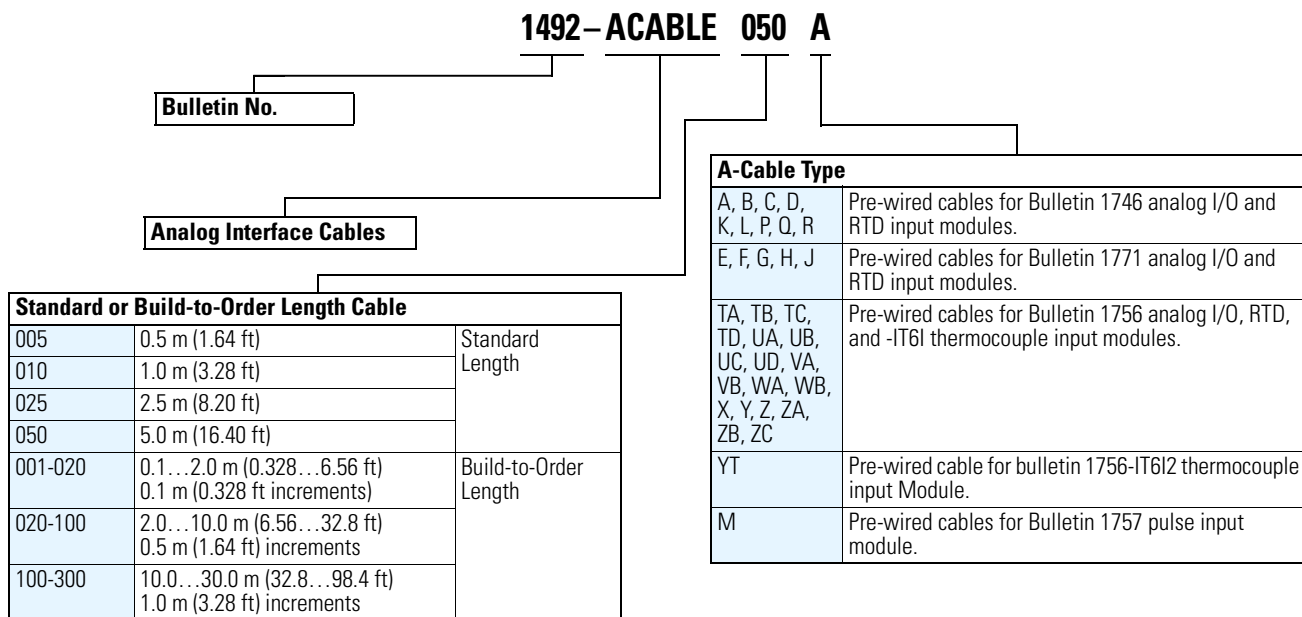
AIFM Catalog Number Explanation for Analog I/O Modules

Important: The following AIFM catalog number breakdown is for explanation purposes only. It is **not** a product configurator. Not all combinations of fields are valid product catalog numbers. First, select the desired AIFM using the steps in Ordering Digital and Analog Wiring Systems on page 28. Then, use this breakdown for verification and explanation only.



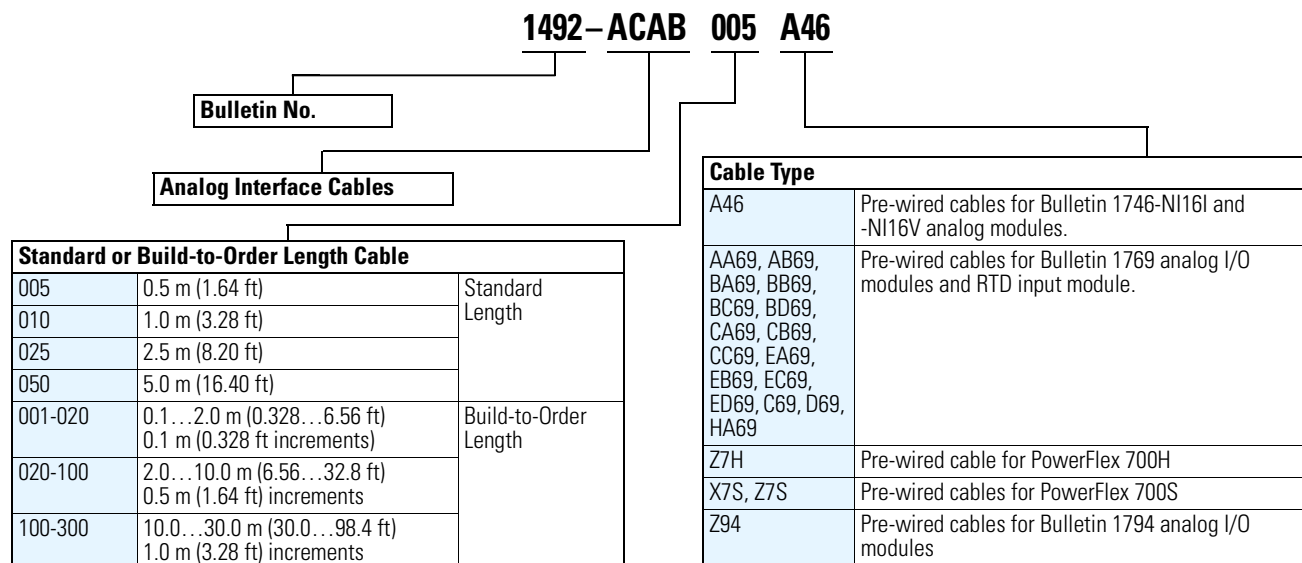
Pre-Wired Cable Catalog Number Explanation for Bulletins 1746, 1756, and 1771 Analog I/O Modules

Important: The following analog cable catalog number breakdown is for explanation purposes only. It is **not** a product configurator. All combinations of fields are not valid product catalog numbers. First, select the desired AIFM using the steps in Ordering Digital and Analog Wiring Systems on page 28. Then, use this breakdown for verification and explanation only.



Pre-Wired Cable Catalog Number Explanation for Bulletin 1746, 1769, 1794, and PowerFlex Analog I/O Modules

Important: The following analog cable catalog number breakdown is for explanation purposes only. It is **not** a product configurator. All combinations of fields are not valid product catalog numbers. First, select the desired AIFM using the steps in Ordering Digital and Analog Wiring Systems on page 28. Then, use this breakdown for verification and explanation only.



Ordering Digital and Analog Wiring Systems

To order the proper IFM/XIM/AIFM pre-wired cable:

1. Determine the PLC or PowerFlex I/O platform (e.g., Bulletin 1746, 1756, 1769, 1771, 1794, 700H,700S) you are using and the catalog number of the I/O module being specified (e.g., 1746-IB16).
2. Determine whether you require field-side LEDs, fusing for over-current protection, or relays (check voltage ratings for LEDs, fuse blown indication, relay, and coil voltage).
3. Determine your field-side wiring requirements. Are extra terminals needed?
4. Determine your desired PLC I/O module to IFM/XIM/AIFM cable length (0.5 m, 1.0 m, 2.5 m, 5.0 m, or build-to-order) based on wiring needs.
5. Refer to selection tables as follows:

Selection Table Quick Reference

| Platform | Page No. |
|---------------------------------|----------|
| Bulletin 1746 Digital (IFM/XIM) | 29 |
| Bulletin 1746 Analog (AIFM) | 35 |
| Bulletin 1756 Digital (IFM/XIM) | 36 |
| Bulletin 1756 Analog (AIFM) | 41 |
| Bulletin 1762/1764 | 43 |
| Bulletin 1769 Digital (IFM/XIM) | 45 |
| Bulletin 1769 Analog (AIFM) | 52 |
| Bulletin 1794 (IFM/XIM) | 53 |
| Bulletin 1794 (AIFM) | 58 |
| Bulletin 1771 Digital (IFM/XIM) | 59 |
| Bulletin 1771 Analog (AIFM) | 63 |
| Bulletin 700 PowerFlex | 66 |

Ordering Digital IFM-Ready Cables for IFMs/XIMs

(Refer to page 14 for definition of IFM-ready)

For pinout and wiring information, refer to IFM-Ready Cable Specifications on page 138 and the selection table on page 65.

Ordering Digital I/O Module-Ready Cables

(Refer to page 13 for the definition of I/O module-ready cables) To order the proper digital I/O module-ready cable, the following information is required:

- Type of connector needed for the I/O module(s) (catalog number of the wiring arm or removable terminal block).
- Code for the desired cable length:
 - 010 = 1.0 m
 - 025 = 2.5 m
 - 050 = 5.0 m
 - Build-to-order length

Selection Tables

Using Bulletin 1746 Selection Tables to Make Valid Bulletin 1492 Wiring System Module Catalog Numbers

Follow these steps when using the selection tables to make valid catalog numbers:

1. Find the appropriate table based on the catalog numbers of the 1746 I/O module.
2. Find the column for the 1746 I/O module.
3. Follow the column down to determine which Wiring Systems Modules are compatible with the I/O module as indicated by letter code. If there is no letter code, the Bulletin 1492 Wiring System Module is not compatible with the I/O module. NOTE: The letter codes designate the compatible Bulletin 1492 cable for that 1746 I/O and Bulletin 1492 Wiring System Module combination.
4. Select the desired Bulletin 1492 Wiring System Module.
5. Configure the cable catalog number using 1492-CABLE❶ (for digital cables) or 1492-ACABLE❶ (for analog cables). See footnote ❶ on pages 34 and 35.

Bulletin 1746 SLC 500 IFMs and Cables

Bulletin 1746 Digital 16-Point and 8-Point Isolated I/O Modules ❷

| Description of 20-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1746-... | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|------------------------------------|------|------|------|------|------|------|-------|-------|------|------|------|-------|-------|------|------|-------|------|-----|---------|---------|---------|----------|--|
| | | | IA16 | IB16 | IC16 | IG16 | IH16 | IM16 | IN16 | ITB16 | ITV16 | IV16 | OA16 | OB16 | OB16E | OBP16 | OG16 | OV16 | OVP16 | OW16 | OX8 | sc-IA8❸ | sc-IB8❸ | sc-IC8❸ | sc-OAP8❸ | |
| Feed-through | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Standard 264V AC/DC Max. | 1492-IFM20F | 1492-RIFM20F❹ | A | B | B | E | B | A | B | B | B | B | C | E | E | E | E | E | E | D | D | A | B | B | A | |
| Narrow standard 132V AC/DC Max. | 1492-IFM20FN | 1492-RIFM20FN❺ | A | B | B | E | B | — | B | B | B | B | G | E | E | E | E | E | E | N | N | A | B | B | A | |
| Extra terminals (2 per I/O) 264V AC/DC Max. | 1492-IFM20F-2 | 1492-RIFM20F-2❹ | A | B | B | E | B | A | B | B | B | B | C | E | E | E | E | E | E | D | — | — | — | — | | |
| 3-wire sensor type input devices 132V AC/DC Max. | 1492-IFM20F-3 | — | A | B | B | E | B | — | B | B | B | B | — | — | — | — | — | — | — | — | — | — | — | — | | |
| LED Indicating | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Standard with 24V AC/DC LEDs | 1492-IFM20D24 | — | — | B | — | — | — | — | B | B | B | B | — | E | E | E | — | E | E | D | — | — | — | — | | |
| Narrow standard with 24V AC/DC LEDs | 1492-IFM20D24N | — | — | B | — | — | — | — | B | B | B | B | — | E | E | E | — | — | — | N | — | — | — | — | | |

Note: Footnotes are on page 31.

Bulletin 1746 Digital 16-Point and 8-Point Isolated I/O Modules (Continued)

| Description of 20-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1746-... | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|------------------------------------|------|------|------|------|------|------|-------|-------|------|------|------|-------|-------|------|------|-------|------|-----|---------|---------|---------|---------|---|---|
| | | | IA16 | IB16 | IC16 | IG16 | IH16 | IM16 | IN16 | ITB16 | ITV16 | IV16 | OA16 | OB16 | OB16E | OBP16 | OG16 | OV16 | OVP16 | OW16 | OX8 | sc-IA81 | sc-IB81 | sc-IC81 | sc-OA81 | | |
| Standard with 120V AC/DC LEDs | 1492-IFM20D120 | — | A | — | — | — | B | — | — | — | — | — | C | — | — | — | — | — | — | D | — | — | — | — | — | — | |
| Narrow standard with 120V AC LEDs | 1492-IFM20D120N | — | A | — | — | — | — | — | — | — | — | — | G | — | — | — | — | — | — | N | — | — | — | — | — | — | |
| 24V AC/DC LEDs and extra terminals for outputs | 1492-IFM20D24-2 | — | — | — | — | — | — | — | — | — | — | — | — | E | E | E | — | E | E | D | — | — | — | — | — | — | |
| 24V AC/DC LEDs and extra terminals for inputs | 1492-IFM20D24A-2 | — | — | B | — | — | — | — | B | B | B | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 120V AC LEDs and extra terminals for outputs | 1492-IFM20D120-2 | — | — | — | — | — | — | — | — | — | — | — | C | — | — | — | — | — | — | D | — | — | — | — | — | — | |
| 120V AC LEDs and extra terminals for inputs | 1492-IFM20D120A-2 | — | A | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 3-wire sensor with 24V AC/DC LEDs | 1492-IFM20D24-3 | — | — | B | — | — | — | — | B | B | B | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 8 Individually isolated with 24/48V AC/DC LEDs and 4 terminals/output | 1492-IFM20DS24-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | S | — | — | — | — | — | |
| 8 Individually isolated with 120V AC LEDs and 4 terminals/output | 1492-IFM20DS120-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | S | — | — | — | — | — | |
| 240V AC LEDs and extra terminals for outputs | 1492-IFM20D240-2 | — | — | — | — | — | — | — | — | — | — | — | C | — | — | — | — | — | — | D | — | — | — | — | — | — | |
| 240V AC LEDs and extra terminals for inputs | 1492-IFM20D240A-2 | — | — | — | — | — | — | A | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Fusible | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 120V AC/DC with Extra terminals for outputs | 1492-IFM20F-F-2 | 1492-RIFM20F-F-2 | — | — | — | — | — | — | — | — | — | — | C | E | E | E | — | E | E | D | — | — | — | — | — | — | — |
| Extra terminals with 24V AC/DC blown fuse LED indicators | 1492-IFM20F-F24-2 | 1492-RIFM20F-F24-2 | — | — | — | — | — | — | — | — | — | — | — | E | E | E | — | E | E | D | — | — | — | — | — | — | — |
| Extra terminals with 120V AC/DC blown fuse LED indicators | 1492-IFM20F-F120-2 | 1492-RIFM20F-F120-2 | — | — | — | — | — | — | — | — | — | — | C | — | — | — | — | — | — | D | — | — | — | — | — | — | — |
| Extra terminals with 240V AC/DC blown fuse LED indicators | 1492-IFM20F-F240-2 | — | — | — | — | — | — | — | — | — | — | — | C | — | — | — | — | — | — | D | — | — | — | — | — | — | — |
| Extra terminals with 24V AC/DC blown fuse LED indicators for inputs | 1492-IFM20F-F24A-2 | 1492-RIFM20F-F24A-2 | — | B | — | — | — | — | B | B | — | — | — | — | — | — | — | E | E | — | — | — | — | — | — | — | — |
| Extra terminals with 120V AC/DC blown fuse LED indicators for inputs | 1492-IFM20F-F120A-2 | 1492-RIFM20F-F120A-2 | A | — | — | — | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated 120V AC/DC with extra terminals for outputs | 1492-IFM20F-FS-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | S | — | — | — | — | — | — |
| 8 Individually isolated with extra terminals output, and 24V AC/DC blown fuse indicators | 1492-IFM20F-FS24-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | S | — | — | — | — | — | — |
| Two 4-point isolated groups with four terminals/input and 24V AC/DC blown fuse LED indicators | 1492-IFM20F-FS24A-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated with extra terminals output, and 120V AC/DC blown fuse LED indicators | 1492-IFM20F-FS120-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | S | — | — | — | — | A | |
| 8 Individually isolated with four terminals/output and 120V AC/DC blown fuse LED indicators | 1492-IFM20F-FS120-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | S | — | — | — | — | — | |
| Two 4-point isolated groups with four terminals/input and 120V AC/DC blown fuse indicators | 1492-IFM20F-FS120A-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 8 Individually isolated with four terminals/output and 240V AC/DC blown fuse LED indicators | 1492-IFM20F-FS240-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | S | — | — | — | — | A | |

Note: Footnotes are on page 31.

Bulletin 1746 Digital 16-Point and 8-Point Isolated I/O Modules (Continued)

| Description of 20-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1746-... | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|------------------------------------|------|------|------|------|------|------|-------|-------|------|------|------|-------|-------|------|------|-------|------|-----|---------|---------|---------|---------|---|---|---|
| | | | IA16 | IB16 | IC16 | IG16 | IH16 | IM16 | IN16 | ITB16 | ITV16 | IV16 | OA16 | OB16 | OB16E | OBP16 | OG16 | OV16 | OVP16 | OW16 | OX8 | sc-IA81 | sc-IB81 | sc-IC81 | sc-OA81 | | | |
| Relay Master (LED Indicating) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20-pin master with eight (8) 24V DC relays | 1492-XIM2024-8R | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 20-pin master with eight (8) 120V AC relays | 1492-XIM20120-8R | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 20-pin master with sixteen (16) 24V DC relays | 1492-XIM2024-16R | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 20-pin master with sixteen (16) 24V DC relays with fusing | 1492-XIM2024-16RF | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 20-pin master with sixteen (16) 120V AC relays | 1492-XIM20120-16R | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 20-pin master with sixteen (16) 120V AC relays with fusing | 1492-XIM20120-16RF | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Relay Expander (LED Indicating) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Expander with eight (8) 24V DC relays | 1492-XIM24-8R | 1492-RXIM24-8R* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Expander with eight (8) 120V AC relays | 1492-XIM120-8R | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Fusible Expander | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8-ch. expander with 24V DC blown fuse indicators | 1492-XIMF-F24-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8-ch. expander with 120V AC blown fuse indicators | 1492-XIMF-F120-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Feed-through Expander | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Expander with eight feed-through channels | 1492-XIMF-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | A |

- ① Can have up to 1 expandable module depending upon master used (total 16 pts or less), extender cable is provided.
- ② Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number 005 = 0.5 m (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m), and insert the letter in the box. Example: **Catalog Number 1492-CABLE050A** is for a 5.0 m cable, and the letter A.
- ③ For information concerning this I/O module, contact Spectrum Controls (Phone: 425-641-9473) or at www.spectrumcontrols.com.
- ④ This IFM is not recommended for use with PLC I/O modules that have an off-state leakage current exceeding 0.5 mA. Use a 1492-IFM20D120N or 1492-IFM20D120A-2 for inputs. Use 1492-IFM20D120-2 for outputs.
- ⑤ The voltage rating is relay control/coil voltage. For relay contact ratings, refer to page 192.
- ⑥ The LED indicates the PLC output status.
- ⑦ Compatible Removable Terminal Block (RTB) plug; 1492-RTB20N (screw style terminals) or 1492-RTB20P (push-in style terminals). ORDER PLUGS SEPARATELY.
- ⑧ Compatible Removable Terminal Block (RTB) plug; 1492-RTB10N (screw style terminals) or 1492-RTB10P (push-in style terminals). ORDER PLUGS SEPARATELY.
- ⑨ Expandable to 16 using XIM24-8R or XIMF-24-2.
- ⑩ Expandable to 16 using XIM120-8R or XIMF-24-2.
- * Compatible Removable Terminal Block (RTB) plug; 1492-RTB12N (screw style terminals) or 1492-RTB12P (push-in style terminals). ORDER PLUGS SEPARATELY.

Bulletin 1746 SLC 500 IFMs and Cables, Continued

Bulletin 1746 Digital 32-Point I/O Modules

| Description of 40-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1746-... | | | | |
|---|---|--|------------------------------------|------|------|-------|------|
| | | | IB32 | IV32 | OB32 | OB32E | OV32 |
| Feed-through | | | | | | | |
| Standard 132V AC/DC Max. | 1492-IFM40F | 1492-RIFM40F | H | H | H | H | H |
| Extra terminals 132V AC/DC Max. | 1492-IFM40F-2 | 1492-RIFM40F-2 | H | H | H | H | H |
| 3-wire sensor type input devices 60V AC/DC Max. | 1492-IFM40F-3 | — | H | H | — | — | — |
| LED Indicating | | | | | | | |
| Standard with 24V AC/DC LEDs | 1492-IFM40D24 | 1490-RIFM40D24 | H | H | H | H | H |
| 24V AC/DC LEDs and extra terminals for outputs | 1492-IFM40D24-2 | — | — | — | H | H | H |
| 24V AC/DC LEDs and extra terminals for inputs | 1492-IFM40D24A-2 | 1492-RIFM40D24A-2 | H | H | — | — | — |

Note: Footnotes are on the following page.

Bulletin 1746 Digital 32-Point I/O Modules (Continued)

| Description of 40-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1746-... | | | | |
|--|---|--|------------------------------------|------|------|-------|------|
| | | | IB32 | IV32 | OB32 | OB32E | OV32 |
| 120V AC LEDs and extra terminals for outputs | 1492-IFM40D120-2 | — | — | — | — | — | — |
| 120V AC LEDs and extra terminals for inputs | 1492-IFM40D120A-2 | — | — | — | — | — | — |
| 3-wire sensor with 24V AC/DC LEDs | 1492-IFM40D24-3 | — | H | H | — | — | — |
| 16 Individually isolated with 24/48V AC/DC LEDs and four terminals/output | 1492-IFM40DS24-4 | — | — | — | — | — | — |
| 16 Individually isolated with 24V AC/DC LEDs and four terminals/input | 1492-IFM40DS24A-4 | — | — | — | — | — | — |
| 16 Individually isolated with 120V AC LEDs and four terminals/output | 1492-IFM40DS120-4 | — | — | — | — | — | — |
| 16 Individually isolated with 120V AC LEDs and four terminals/input | 1492-IFM40DS120A-4 | — | — | — | — | — | — |
| 16 Individually isolated with 240V AC LEDs and four terminals/input | 1492-IFM40DS240A-4 | — | — | — | — | — | — |
| Fusible | | | | | | | |
| 120V AC/DC with extra terminals for outputs | 1492-IFM40F-F-2 | — | — | — | H | H | H |
| Extra terminals with 24V AC/DC blown fuse LED indicators for outputs | 1492-IFM40F-F24-2 | 1492-RIFM40F-F24-2 ^⑥ | — | — | H | H | H |
| Extra terminals with 120V AC/DC blown fuse LED indicators for outputs | 1492-IFM40F-F120-2 | — | — | — | — | — | — |
| 16 Individually isolated with extra terminals for 120V AC/DC outputs | 1492-IFM40F-FS-2 | — | — | — | — | — | — |
| 16 Individually isolated with extra terminals and 24V AC/DC blown fuse indicators | 1492-IFM40F-FS24-2 | — | — | — | — | — | — |
| 16 Individually isolated with 24V AC/DC blown fuse indicators and four terminals/output | 1492-IFM40F-FS24-4 | — | — | — | — | — | — |
| 16 Individually isolated 240V AC/DC with 4 terminals/output | 1492-IFM40F-FS-4 | — | — | — | — | — | — |
| 16 Individually isolated with extra terminals and 120V AC/DC blown fuse LED indicators | 1492-IFM40F-FS120-2 | 1492-RIFM40F-FS120-2 ^⑥ | — | — | — | — | — |
| 16 Individually isolated with 120V AC/DC blown fuse LED indicators and four terminals/output | 1492-IFM40F-FS120-4 | 1492-RIFM40F-FS120-4 ^⑦ | — | — | — | — | — |
| 16 Individually isolated with 240V AC/DC blown fuse LED indicators and four terminals/output | 1492-IFM40F-FS240-4 | — | — | — | — | — | — |
| 16 Individually isolated with 24V AC/DC blown fuse LED indicators and four terminals/input | 1492-IFM40F-FS24A-4 | — | — | — | — | — | — |
| 16 Individually isolated 120V AC/DC with 4 terminals/input | 1492-IFM40F-FSA-4 | — | — | — | — | — | — |
| 16 Individually isolated with 120V AC/DC blown fuse LED indicators and four terminals/input | 1492-IFM40F-FS120A-4 | 1492-RIFM40F-FS120A-4 ^⑦ | — | — | — | — | — |
| 16 Individually isolated with 240V AC/DC blown fuse LED indicators and 4 terminals/input | 1492-IFM40F-FS240A-4 | — | — | — | — | — | — |
| Relay Master ④⑤ | | | | | | | |
| 40-pin master with eight (8) 24V DC relays | 1492-XIM4024-8R | — | — | — | H | H | — |
| 40-pin master with sixteen (16) 24V DC relays | 1492-XIM4024-16R | 1492-RXIM4024-16R ^⑧ | — | — | H | H | — |
| 40-pin master with sixteen (16) 24V DC relays with fusing | 1492-XIM4024-16RF | — | — | — | H | H | — |
| Relay Expander (LED Indicating) ④⑤ | | | | | | | |
| Expander with eight (8) 24V DC relays | 1492-XIM24-8R | 1492-RXIM24-8R ^⑨ | — | — | ① | ① | — |
| Expander with sixteen (16) 24V DC relays with fusing | 1492-XIM24-16RF | — | — | — | ③ | ③ | — |
| Expander with eight (8) 120V AC relays | 1492-XIM120-8R | — | — | — | — | — | — |
| Fusible Expander (LED Indicating) | | | | | | | |
| 8-channel expander with 24V DC blown fuse indicators | 1492-XIMF-F24-2 | — | — | — | ① | ① | — |
| 8-channel expander with 120V AC blown fuse indicators | 1492-XIMF-F120-2 | — | — | — | — | — | — |
| Feed through Expander | | | | | | | |
| Expander with eight feed-through channels | 1492-XIMF-2 | — | — | — | ① | ① | — |

Note: Footnotes are on the following page.

- ❶ Can have up to two or three expandable modules depending upon master used (total 32 pts or less), extender cable is provided.
- ❷ Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number 005 = 0.5 m (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m), and insert the letter in the box. Example: **Catalog Number 1492-CABLE050Y** is for a 5.0 m cable, and the letter Y.
- ❸ 1492-XIM24-16RF is to be used with 1492-XIM4024-16R and 1492-XIM4024-16RF 32 PT. Only.
- ❹ The voltage rating is relay control/coil voltage. For relay contact ratings, refer to page 192.
- ❺ The LED indicates the PLC output status.
- ❻ Compatible Removable Terminal Block (RTB) plug; 1492-RTB20N (screw style terminals) or 1492-RTB20P (push-in style terminals). ORDER PLUGS SEPARATELY.
- ❼ Compatible Removable Terminal Block (RTB) plug; 1492-RTB17N (screw style terminals) or 1492-RTB17P (push-in style terminals). ORDER PLUGS SEPARATELY.
- ❽ Compatible Removable Terminal Block (RTB) plug; 1492-RTB14N (screw style terminals) or 1492-RTB14P (push-in style terminals). ORDER PLUGS SEPARATELY.
- ❾ Compatible Removable Terminal Block (RTB) plug; 1492-RTB12N (screw style terminals) or 1492-RTB12P (push-in style terminals). ORDER PLUGS SEPARATELY.

Selection Tables, Continued

Bulletin 1746 SLC 500 IFMs and Cables, Continued

These **pre-wired cables** have a pre-wired removable terminal block (RTB) on one end to connect to the front of a Bulletin 1746 digital I/O module and a connector on the other end to plug into a 20- or 40-terminal IFM/XIM. You must first select the IFM/XIM from one of the preceding selection tables.

Pre-Wired Cables for Bulletin 1746 Digital I/O Modules

| Cable Cat. No. | Standard Cable Lengths | Build-to-Order Available | No. of Conductors | Mating 1746 I/O Module Catalog Number |
|----------------|------------------------|--------------------------|-------------------|--|
| 1492-CABLEⓐA | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1746-IA16, -IM16 |
| 1492-CABLEⓐB | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1746-IB16, -IH16, -IN16, -ITB16, -ITV16 |
| 1492-CABLEⓐC | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1746-OA16 |
| 1492-CABLEⓐCR | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1746-OA16 |
| 1492-CABLEⓐD | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1746-OW16, -OX8 |
| 1492-CABLEⓐE | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1746-IG16, -OB16, -OB16E, -OBP16, -OG16, -OV16, -OVP16 |
| 1492-CABLEⓐG | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1746-OA16 |
| 1492-CABLEⓐH | 0.5, 1.0, 2.5, 5.0 m | Yes | 40 | 1746-IB32, -IV32, -OB32, -OB32E, -OV32 |
| 1492-CABLEⓐN | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1746-OW16, -OX8 |
| 1492-CABLEⓐS | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1746-OX8 |

- ① Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CABLE005N** is for a 0.5 m cable that could be used to connect a Catalog Number 1492-IFM20D24N IFM to a Catalog Number 1746-OW16 I/O module. Build-to-order lengths are also available.

The **I/O module-ready cables** have a pre-wired RTB on one end to plug onto the front of a Bulletin 1746 I/O module and 20 or 40 individually colored #18 AWG conductors on the other end. These cables provide the convenience of pre-wired connections at the I/O module end, while still allowing the flexibility to field-wire to standard terminal blocks of your choice.

I/O Module-Ready Cables for Bulletin 1746 Digital I/O Modules ②

| Cable Cat. No. | Standard Cable Lengths | Build-to-Order Available | No. of Conductors | Mating 1746 I/O Module Catalog Number |
|-----------------|------------------------|--------------------------|-------------------|--|
| 1492-CABLE②N3 | 1.0, 2.5, 5.0 m | Yes | 40 | 1746-IB32, -IV32, -OB32, -OV32, -OB32E |
| 1492-CABLE②RTBB | 1.0, 2.5, 5.0 m | Yes | 20 | 1746-IB16, -IC16, -IG16, -IH16, -IN16, -ITB16, -ITV16, -IV16, -OB16, -OB16E, -OBP8, -OBP16, -OG16, -OV16, -OVP16 |
| 1492-CABLE②RTBO | 1.0, 2.5, 5.0 m | Yes | 20 | 1746-OW16, -OX8 |
| 1492-CABLE②RTBR | 1.0, 2.5, 5.0 m | Yes | 20 | 1746-IA16, -OA16, -OAP12, -IM16 |

- ② Cables are available in standard lengths of 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CABLE050RTBR** is for a 5.0 m cable with a pre-wired Catalog Number 1746-RT25R RTB on one end.
- ③ Digital I/O module-ready cables should not be used with analog module as a cable shield and drain wire is not provided.

Note: The following I/O Modules do not have RTBs: 1746-IA4, 1746-IA8, 1746-IB8, 1746-IM4, 1746-IM8, 1746-IV8, 1746-OA8, 1746-OB8.

Selection Tables, Continued

Bulletin 1746 SLC 500 AIFMs and Cables

Bulletin 1746 Analog I/O Modules ❶

| Description of AIFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1746-... | | | | | | | | | | | | | | |
|---|---|--|------------------------------------|---------------|-------|-------|-----|-----|-------|-------|------|------|------|------|-----|-----|-------|
| | | | HSCE (Diff.) | HSCE2 (Diff.) | FIO4I | FIO4V | NI4 | NI8 | NI04I | NI04V | NO4I | NO8I | NO4V | NO8V | NR4 | QS | NI16I |
| Feed-through | | | | | | | | | | | | | | | | | |
| 4-channel input, output or 2-in/2-out combination with 3 terminals/channel | 1492-AIFM4-3 | 1492-RAIFM4-3❸ | — | — | L | L | A | — | L | L | B | — | B | — | — | — | — |
| 6-channel isolated with 3...4 terminals/channel | 1492-AIFM6S-3 | 1492-RAIFM6S-3❹ | — | — | — | — | — | — | — | — | — | — | — | — | D | — | — |
| 8- or 16-channel input or output with 3 terminals/channel | 1492-AIFM8-3 | 1492-RAIFM8-3❺ | — | — | — | — | — | C | — | — | — | R | — | R | — | A46 | A46 |
| Thermocouple | | | | | | | | | | | | | | | | | |
| 6-channel with 3 terminals/channel❷ | 1492-AIFM6TC-3 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| High-Speed Counter/Encoder | | | | | | | | | | | | | | | | | |
| 2-channel center input/2 outputs | 1492-AIFMCE4 | — | K | P | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Fusible High Speed Counter/Encoder | | | | | | | | | | | | | | | | | |
| 2-channel fused counter input/4 fused outputs | 1492-AIFMCE4-F | — | K | P | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Fusible Analog | | | | | | | | | | | | | | | | | |
| 2-channel input, 2-channel output with 24V DC blown fuse indicators, test points, 5 terminals/input, 3 terminals/output | 1492-AIFM4C-F-5 | — | — | — | L | L | — | — | L | L | — | — | — | — | — | — | — |
| 4-channel input with 24V DC blown fuse indicators, test points, 5 terminals/input | 1492-AIFM4I-F-5 | — | — | — | — | — | A | — | — | — | — | — | — | — | — | — | — |
| 8-channel input with 24V DC blown fuse indicators, 5 terminals/channel | 1492-AIFM8-F-5 | — | — | — | — | — | — | C | — | — | — | — | — | — | — | — | — |
| 16-channel input with 24V DC blown fuse indicators, 3 terminals/channel | 1492-AIFM16-F-3 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | A46 | A46 |
| 16-channel input with 24V DC blown fuse indicators, 5 terminals/channel | 1492-AIFM16-F-5 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 4-input/4-output channel with 8 fuses and 24V DC blown fuse indicators | 1492-AIFMQS | — | — | — | — | — | — | — | — | — | — | — | — | — | Q | — | — |

- ❶ Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number 005 = 0.5 m (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m), and insert the letter in the box. Example: **Catalog Number 1492-ACABLE025A** is for a 2.5 m cable, and the letter A.
- ❷ Cannot be used with SLC I/O.
- ❸ Compatible Removable Terminal Block (RTB) plug; 1492-RTB8N (screw style terminals) or 1492-RTB8P (push-in style terminals). ORDER PLUGS SEPARATELY.
- ❹ Compatible Removable Terminal Block (RTB) plug; 1492-RTB12N (screw style terminals) or 1492-RTB12P (push-in style terminals). ORDER PLUGS SEPARATELY.
- ❺ Compatible Removable Terminal Block (RTB) plug; 1492-RTB16N (screw style terminals) or 1492-RTB16P (push-in style terminals). ORDER PLUGS SEPARATELY.

These **pre-wired cables** have a pre-wired RTB on one end to connect to the front of a Bulletin 1746 analog I/O module and a connector on the other end to plug into a 15- or 25-pin D-shell terminal AIFM. To use this table, you must first have selected an AIFM from the preceding table.

Pre-Wired Cables for Bulletin 1746 Analog I/O Modules

| Cable Catalog Number | Standard Cable Lengths (m) | Build-to-Order Available | AIFM Connector | Mating 1746 I/O Module Catalog Number |
|----------------------|----------------------------|--------------------------|----------------|---------------------------------------|
| 1492-ACABLE❶A | 0.5, 1.0, 2.5, 5.0 | Yes | 15-pin D-shell | 1746-NI4 |
| 1492-ACABLE❶B | 0.5, 1.0, 2.5, 5.0 | Yes | 15-pin D-shell | 1746-NO4I, -NO4V |
| 1492-ACABLE❶C | 0.5, 1.0, 2.5, 5.0 | Yes | 25-pin D-shell | 1746-NI8 |
| 1492-ACABLE❶D | 0.5, 1.0, 2.5, 5.0 | Yes | 25-pin D-shell | 1746-NR4 |
| 1492-ACABLE❶K | 0.5, 1.0, 2.5, 5.0 | Yes | 25-pin D-shell | 1746-HSCE |
| 1492-ACABLE❶L | 0.5, 1.0, 2.5, 5.0 | Yes | 15-pin D-shell | 1746-NIO4I, -NIO4V, -FIO4I, -FIO4V |
| 1492-ACABLE❶P | 0.5, 1.0, 2.5, 5.0 | Yes | 25-pin D-shell | 1746-HSCE2 |
| 1492-ACABLE❶Q | 0.5, 1.0, 2.5, 5.0 | Yes | 25-pin D-shell | 1746-QS |
| 1492-ACABLE❶R | 0.5, 1.0, 2.5, 5.0 | Yes | 25-pin D-shell | 1746-NO8I, NO8V |
| 1492-ACAB❶A46 | 0.5, 1.0, 2.5, 5.0 | Yes | 25-pin D-shell | 1746-NI16I, -NI16V |

- ❶ To order, insert the code for the desired cable length into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-ACABLE005A** is for a 0.5 m cable that could be used to connect a Catalog Number 1492-AIFM4I-F-5 IFM to a Catalog Number 1746-NI4 I/O module.

Selection Tables, Continued

Using Bulletin 1756 Selection Tables to Make Valid 1492 Wiring System Module Catalog Numbers

Follow these steps when using the selection tables to make valid catalog numbers.:

1. Find the appropriate table based on the catalog number of the 1756 I/O module.
2. Find the column in the selected table for the 1756 I/O module.
3. Follow the column down to determine which Wiring System Modules are compatible with the I/O module as indicated by letter code. If there is no letter code, the 1492 Wiring System Module is not compatible with the I/O module. NOTE: The letter codes designate the compatible 1492 cable for that 1756 I/O and 1492 Wiring System Module combination.
4. Select the desired 1492 Wiring System Module.
5. Configure the cable catalog number using 1492-CABLE❶ (for digital cables) or 1492-ACABLE❶ (for analog cables). See footnote ❶ on pages 40 and 42.

Bulletin 1756 ControlLogix IFMs and Cables

Bulletin 1756 Digital 8-Point and 16-Point I/O Modules ❷

| Description of 20-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1756-... | | | | | | | | | | | | | | |
|---|---|--|------------------------------------|------|------|------|------|------|-----|------|-----|------|-----|-------|-----|-----|-------|
| | | | IA8D | IA16 | IB16 | IC16 | IN16 | IV16 | OA8 | OA8D | OAE | OA16 | OB8 | OB16E | OC8 | ON8 | OV16E |
| Feed-through | | | | | | | | | | | | | | | | | |
| Standard 264V AC/DC Max. | 1492-IFM20F | 1492-RIFM20F❸ | U | X | X | X | X | X | U | U | U | X | U | X | U | X | |
| Narrow standard 132V AC/DC Max. | 1492-IFM20FN | 1492-RIFM20FN❹ | U | X | X | X | X | X | U | U | U | X | U | X | U | X | |
| Extra terminals (2 per I/O) 264V AC/DC Max. | 1492-IFM20F-2 | 1492-RIFM20F-2❸ | U | X | X | X | X | X | U | U | U | X | U | X | U | X | |
| 3-wire sensor type input devices 132V AC/DC Max. | 1492-IFM20F-3 | — | — | X | X | X | X | X | — | — | — | — | — | — | — | — | |
| LED Indicating | | | | | | | | | | | | | | | | | |
| Standard with 24V AC/DC LEDs | 1492-IFM20D24 | — | — | — | X | — | X | X | — | — | — | — | — | X | — | — | X |
| Narrow standard with 24V AC/DC LEDs | 1492-IFM20D24N | — | — | — | X | — | X | X | — | — | — | — | — | X | — | — | |
| Standard with 120V AC/DC LEDs | 1492-IFM20D120 ❺ | — | U | X | — | — | — | — | — | — | — | — | — | — | — | — | |
| Narrow standard with 120V AC LEDs | 1492-IFM20D120N | — | U | X | — | — | — | — | — | — | — | X | — | — | — | — | |
| 24V AC/DC LEDs and extra terminals for outputs | 1492-IFM20D24-2 | — | — | — | — | — | — | — | — | — | — | — | — | X | — | — | X |
| 24V AC/DC LEDs and extra terminals for inputs | 1492-IFM20D24A-2 | — | — | — | X | — | X | X | — | — | — | — | — | — | — | — | |
| 120V AC LEDs and extra terminals for outputs | 1492-IFM20D120-2 | — | — | — | — | — | — | — | — | — | — | X | — | — | — | — | |
| 120V AC LEDs and extra terminals for inputs | 1492-IFM20D120A-2 | — | U | X | — | — | — | — | — | — | — | — | — | — | — | — | |
| 3-wire sensor with 24V AC/DC LEDs | 1492-IFM20D24-3 | — | — | — | X | — | X | X | — | — | — | — | — | — | — | — | |
| 8 Individually isolated with 24/48V AC/DC LEDs and 4 terminals/output | 1492-IFM20DS24-4 | — | — | — | — | — | — | — | — | — | — | — | W | — | W | W | |
| 8 Individually isolated with 120V AC LEDs and 4 terminals/output | 1492-IFM20DS120-4 | — | — | — | — | — | — | — | W | V | V | — | — | — | — | — | |
| 240V AC LEDs with extra terminals for outputs | 1492-IFM20D240-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 240V AC LEDs with extra terminals for inputs | 1492-IFM20D240A-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Fusible | | | | | | | | | | | | | | | | | |
| 120V AC/DC with extra terminals for outputs | 1492-IFM20F-F-2 | 1492-RIFM20F-F-2❸ | — | — | — | — | — | — | — | — | — | X | — | X | — | — | X |
| Extra terminals with 24V AC/DC blown fuse LED indicators | 1492-IFM20F-F24-2 | 1492-RIFM20F-F24-2❸ | — | — | — | — | — | — | — | — | — | — | — | X | — | — | X |
| Extra terminals with 120V AC/DC blown fuse LED indicators | 1492-IFM20F-F120-2 | 1492-RIFM20F-F120-2❸ | — | — | — | — | — | — | — | — | — | X | — | — | — | — | — |

Note: Footnotes are on the following page.

Bulletin 1756 Digital 8-Point and 16-Point I/O Modules (Continued)

| Description of 20-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1756-... | | | | | | | | | | | | | | |
|---|---|--|------------------------------------|------|------|------|------|------|-----|------|------|------|-----|-------|-----|-----|-------|
| | | | IA8D | IA16 | IB16 | IC16 | IN16 | IV16 | OA8 | OA8D | OA8E | OA16 | OB8 | OB16E | OC8 | ON8 | OV16E |
| Extra terminals with 240V AC/DC blown fuse LED indicators | 1492-IFM20F-F240-2 | — | — | — | — | — | — | — | — | — | — | X | — | — | — | — | — |
| Extra terminals with 24V AC/DC blown fuse LED indicators | 1492-IFM20F-F24A-2 | 1492-RIFM20F-F24A-2 ^⑥ | — | — | X | — | X | — | — | — | — | — | — | — | — | — | — |
| Extra terminals with 120V AC/DC blown fuse LED indicators | 1492-IFM20F-F120A-2 | 1492-RIFM20F-F120A-2 ^⑥ | — | X | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated 120V AC/DC with extra terminals for outputs | 1492-IFM20F-FS-2 | — | — | — | — | — | — | — | — | W | V | V | — | W | — | W | W |
| 8 Individually isolated with extra terminals/output and 24V AC/DC blown fuse LED indicators | 1492-IFM20F-FS24-2 | — | — | — | — | — | — | — | — | — | — | — | W | — | W | W | — |
| Two 4-point isolated groups with four terminals/input and 24V AC/DC blown fuse LED indicators | 1492-IFM20F-FS24A-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated with extra terminals output, and 120V AC/DC blown fuse LED indicators | 1492-IFM20F-FS120-2 | — | — | — | — | — | — | — | — | W | V | V | — | — | — | — | — |
| 8 Individually isolated with 4 terminals/output and 120V AC/DC blown fuse LED indicators | 1492-IFM20F-FS120-4 | — | — | — | — | — | — | — | — | W | V | V | — | — | — | — | — |
| Two 4-point isolated groups with four terminals/input and 120V AC/DC blown fuse indicators | 1492-IFM20F-FS120A-4 | — | U | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated with 4 terminals/output and 240V AC/DC blown fuse LED indicators | 1492-IFM20F-FS240-4 | — | — | — | — | — | — | — | — | W | — | — | — | — | — | — | — |
| Relay Master (LED Indicating) ④⑤ | | | | | | | | | | | | | | | | | |
| 20-pin master with eight (8) 24V DC relays | 1492-XIM2024-8R ^⑧ | — | — | — | — | — | — | — | — | — | — | — | — | — | X | — | — |
| 20-pin master with eight (8) 120V AC relays | 1492-XIM20120-8R ^⑨ | — | — | — | — | — | — | — | — | — | — | X | — | — | — | — | — |
| 20-pin master with sixteen (16) 24V CD relays | 1492-XIM2024-16R | — | — | — | — | — | — | — | — | — | — | — | — | X | — | — | — |
| 20-pin master with sixteen (16) 24V DC relays with fusing | 1492-XIM2024-16RF | — | — | — | — | — | — | — | — | — | — | — | — | X | — | — | — |
| 20-pin master with sixteen (16) 120V AC relays | 1492-XIM20120-16R | — | — | — | — | — | — | — | — | — | — | X | — | — | — | — | — |
| 20-pin master with sixteen (16) 120V AC relays with fusing | 1492-XIM20120-16RF | — | — | — | — | — | — | — | — | — | — | X | — | — | — | — | — |
| Relay Expander (LED Indicating) ④⑤ | | | | | | | | | | | | | | | | | |
| Expander with eight (8) 24V DC relays | 1492-XIM24-8R | 1492-RXIM24-8R* | — | — | — | — | — | — | — | — | — | — | — | — | ① | — | — |
| Expander with eight (8) 120V AC Relays | 1492-XIM120-8R | — | — | — | — | — | — | — | — | — | — | ① | — | — | — | — | — |
| Fusible Expander | | | | | | | | | | | | | | | | | |
| Expander with eight (8) 24V channels with blown fuse indicators | 1492-XIMF-F24-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | ① | — | — |
| Expander with eight (8) 120V channels with blown fuse indicators | 1492-XIMF-F120-2 | — | — | — | — | — | — | — | — | — | — | ① | — | — | — | — | — |
| Feed-through Expander | | | | | | | | | | | | | | | | | |
| Expander with eight (8) feed-through channels | 1492-XIMF-2 | — | — | — | — | — | — | — | — | — | — | ① | — | ① | — | — | — |

- ① Can have up to 1 expandable module depending upon master used (total 16 pts or less) extender cable is provided.
- ② Cables are available in standard lengths of 0.5 m 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number 005 = 0.5 m (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m), and insert the letter in the box. Example: **Catalog Number 1492-CABLE050W** is for a 5.0 m cable, and the letter W.
- ③ This IFM is not recommended for use with PLC I/O modules that have an off-state leakage current exceeding 0.5 mA. Use a 1492-IFM20D120N or 1492-IFM20D120A-2 for inputs. Use 1492-IFM20D120-2 for outputs.
- ④ The voltage rating is relay control/coil voltage. For relay contact ratings, refer to page 192.
- ⑤ The LED indicates the PLC output status.
- ⑥ Compatible Removable Terminal Block (RTB) plug 1492-RTB20N (screw style terminals) or 1492-RTB20P (push-in style terminals). ORDER PLUGS SEPARATELY.
- ⑦ Compatible Removable Terminal Block (RTB) plug; 1492-RTB10N (screw style terminals) or 1492-RTB10P (push-in style terminals). ORDER PLUGS SEPARATELY.
- ⑧ Expandable to 16 using XIM24-8R or XIMF-24-2.
- ⑨ Expandable to 16 using XIM120-8R or XIMF-24-2.
- * Compatible Removable Terminal Block (RTB) plug; 1492-RTB12N (screw style terminals) or 1492-RTB12P (push-in style terminals). ORDER PLUGS SEPARATELY.

Selection Tables, Continued

Bulletin 1756 ControlLogix IFMs and Cables, Continued

Bulletin 1756 Digital 16-Point Isolated and 32-Point I/O Modules

| Description of 40-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1756-... | | | | | | | | | | | | | | | | | |
|---|---|--|------------------------------------|-------|-------|------|------|------|-------|-------|-------|-------|-------|-------|--------|------|-------|------|-------|------|
| | | | IA16I | IB16D | IB16I | IA32 | IB32 | IV32 | IH16I | IM16I | OA16I | OB8EI | OB16D | OB16I | OB16IS | OB32 | OV32E | OH8I | OW16I | OX8I |
| Feed-through | | | | | | | | | | | | | | | | | | | | |
| Standard 132V AC/DC Max. | 1492-IFM40F | 1492-RIFM40F [Ⓢ] | Y | Y | Y | Z | Z | Z | Y | — | Y | Y | Y | Y | Z | Z | Y | Y | Y | |
| Extra terminals (2 per I/O) 132V AC/DC Max. | 1492-IFM40F-2 | 1492-RIFM40F-2 [Ⓢ] | — | Y | — | Z | Z | Z | — | — | — | — | Y | — | — | Z | Z | — | — | |
| 3-wire sensor type input devices 60V AC/DC Max. | 1492-IFM40F-3 | — | — | — | — | — | Z | Z | — | — | — | — | — | — | — | — | — | — | — | |
| LED Indicating | | | | | | | | | | | | | | | | | | | | |
| Standard with 24V AC/DC LEDs | 1492-IFM40D24 | 1492-RIFM40D24 [Ⓢ] | — | — | — | — | Z | Z | — | — | — | — | — | — | Z | Z | — | — | — | |
| 24V AC/DC LEDs and extra terminals for outputs | 1492-IFM40D24-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | Z | Z | — | — | — | |
| 24V AC/DC LEDs and extra terminals for inputs | 1492-IFM40D24A-2 | 1492-RIFM40D24A-2 [Ⓢ] | — | — | — | — | Z | Z | — | — | — | — | — | — | — | — | — | — | — | |
| 120V AC LEDs and extra terminals for outputs | 1492-IFM40D120-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 120V AC LEDs and extra terminals for inputs | 1492-IFM40D120A-2 | — | — | — | — | Z | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 3-wire sensor with 24V AC/DC LEDs | 1492-IFM40D24-3 | — | — | — | — | — | Z | Z | — | — | — | — | — | — | — | — | — | — | — | |
| 16 Individually isolated with 24/48V AC/DC LEDs and 4 terminals/output | 1492-IFM40DS24-4 | — | — | — | — | — | — | — | — | — | — | Y | Y | Y | Y | — | — | Y | Y | |
| 16 Individually isolated with 24V AC/DC LEDs and 4 terminals/input | 1492-IFM40DS24A-4 | — | — | Y | Y | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 16 Individually isolated with 120V AC LEDs and 4 terminals/output | 1492-IFM40DS120-4 | — | — | — | — | — | — | — | — | — | — | Y | — | — | — | — | — | Y | Y | |
| 16 Individually isolated with 120V AC LEDs and 4 terminals/input | 1492-IFM40DS120A-4 | — | Y | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 16 Individually isolated with 240V AC LEDs and 4 terminals/input | 1492-IFM40DS240A-4 | — | — | — | — | — | — | — | — | Y | — | — | — | — | — | — | — | — | — | |
| Fusible | | | | | | | | | | | | | | | | | | | | |
| 120V AC/DC with extra terminals for outputs | 1492-IFM40F-F-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | Z | Z | — | — | |
| Extra terminals with 24V AC/DC blown fuse indicators for outputs | 1492-IFM40F-F24-2 | 1492-RIFM40F-F24-2 [Ⓢ] | — | — | — | — | — | — | — | — | — | — | — | — | — | Z | Z | — | — | |
| 16 Individually fused with 24V DC blown fuse low leakage (0.05 mA) LED circuit, 4 isolated groups, 2 terminals/output | 1492-IFM40F-F24D-2 | — | — | — | — | — | — | — | — | — | — | — | Y | — | — | — | — | — | — | |
| Individually Fused w/24V DC blown fuse low leakage (0.05 mA) LED circuit, 4 isolated groups, 4 terminals/input | 1492-IFM40F-F24AD-4 | — | — | Y | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Extra terminals with 120V AC/DC blown fuse indicators for outputs | 1492-IFM40F-F120-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 16 Individually isolated with extra terminals for 120V AC/DC outputs | 1492-IFM40F-FS-2 | — | — | — | — | — | — | — | — | Y | Y | Y | Y | Y | — | — | Y | Y | Y | |
| 16 Individually isolated with extra terminals and 24V AC/DC blown fuse indicators for outputs | 1492-IFM40F-FS24-2 | — | — | — | — | — | — | — | — | Y | Y | Y | Y | Y | — | — | — | Y | Y | |
| 16 Individually isolated with 24V AC/DC blown fuse indicators and 4 terminals/output | 1492-IFM40F-FS24-4 | — | — | — | — | — | — | — | — | Y | Y | Y | Y | Y | — | — | — | Y | Y | |
| 16 Individually isolated 240V AC/DC with 4 terminals/output | 1492-IFM40F-FS-4 | — | — | — | — | — | — | — | — | Y | Y | Y | Y | Y | — | — | — | Y | Y | |
| 16 Individually isolated with extra terminals and 120V AC/DC blown fuse LED indicators | 1492-IFM40F-FS120-2 | 1492-RIFM40F-FS120-2 [Ⓢ] | — | — | — | — | — | — | — | Y | — | — | — | — | — | — | — | Y | Y | |
| 16 Individually isolated with 120V AC/DC blown fuse indicators and 4 terminals/output | 1492-IFM40F-FS120-4 | 1492-RIFM40F-FS120-4 [Ⓢ] | — | — | — | — | — | — | — | Y | — | — | — | — | — | — | — | Y | Y | |

Bulletin 1756 Digital 16-Point Isolated and 32-Point I/O Modules (Continued)

| Description of 40-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1756-... | | | | | | | | | | | | | | | | | | |
|---|---|--|------------------------------------|-------|-------|------|------|------|-------|-------|-------|-------|-------|-------|--------|------|-------|------|-------|------|---|
| | | | IA16I | IB16D | IB16I | IA32 | IB32 | IV32 | IH16I | IM16I | OA16I | OB8EI | OB16D | OB16I | OB16IS | OB32 | OV32E | OH8I | OW16I | OX8I | |
| 16 Individually isolated with 240V AC/DC blown fuse indicators and 4 terminals/output | 1492-IFM40F-FS240-4 | — | | | | | | | | | | Y | | | | | | | | Y | Y |
| 16 Individually isolated with 24V AC/DC blown fuse indicators and 4 terminals/input | 1492-IFM40F-FS24A-4 | — | | 6 | Y | | | | | | | | | | | | | | | | |
| 16 Individually isolated 120V AC/DC with 4 terminals/input | 1492-IFM40F-FSA-4 | — | Y | Y | Y | | | | Y | | | | | | | | | | | | |
| 16 Individually Isolated with 120V AC/DC blown fuse indicators and 4 terminals/input | 1492-IFM40F-FS120A-4 | 1492-RIFM40F-FS120A-4 9 | Y | | | | | | Y | | | | | | | | | | | | |
| 16 Individually isolated with 240V AC/DC blown fuse indicators and 4 terminals/input | 1492-IFM40F-FS240A-4 | — | | | | | | | | Y | | | | | | | | | | | |
| Relay Master (LED Indicating) 4 6 | | | | | | | | | | | | | | | | | | | | | |
| 40-pin master with eight (8) 24V DC relays | 1492-XIM4024-8R | — | | | | | | | | | | | | | | | Z | | | | |
| 40-pin master with sixteen (16) 24V DC relays | 1492-XIM4024-16R | 1492-RXIM4024-16R 10 | | | | | | | | | | | | | | | Z | | | | |
| 40-pin master with sixteen (16) 24V DC relays with fusing | 1492-XIM4024-16RF | — | | | | | | | | | | | | | | | Z | | | | |
| Relay Expander (LED Indicating) 4 6 | | | | | | | | | | | | | | | | | | | | | |
| Expander with eight (8) 24V DC relays | 1492-XIM24-8R | 1492-RXIM24-8R 11 | | | | | | | | | | | | | | | 1 | | | | |
| Expander with eight (8) 120V AC relays | 1492-XIM120-8R | — | | | | | | | | | | | | | | | | | | | |
| Fusible Expander | | | | | | | | | | | | | | | | | | | | | |
| 8-channel expander with 24V DC blown fuse indicators | 1492-XIMF-F24-2 | — | | | | | | | | | | | | | | | 1 | | | | |
| 8-channel expander with 120V AC blown fuse indicators | 1492-XIMF-F120-2 | — | | | | | | | | | | | | | | | | | | | |
| Expander with sixteen (16) 24V DC relays with fusing | 1492-XIM24-16RF | — | | | | | | | | | | | | | | | 6 | | | | |
| Feed-through Expander | | | | | | | | | | | | | | | | | | | | | |
| Expander with eight (8) feed-through channels | 1492-XIMF-2 | — | | | | | | | | | | | | | | | 1 | | | | |

- 1 Can have up to two or three expandable modules depending upon master used (total 32 pts or less), extender cable is provided.
- 2 Cables are available in standard lengths of 0.5 m 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number 005 = 0.5 m (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m), and insert the letter in the box. Example: **Catalog Number 1492-CABLE050Y** is for a 5.0 m cable, and the letter Y.
- 3 One 1492-XIM24-16RF is to be used with one 1492-XIM4024-16R or 1492-XIM4024-16RF master (32 PT. Only).
- 4 The voltage rating is relay control/coil voltage. For relay contact ratings, refer to page 192.
- 5 The LED indicates the PLC output status.
- 6 The 1492-IFM40F-FS24A-4 module and 1492-CABLE2Y cable can be used with the 1756-IB16D module. However, due to the 1492-IFM40F-FS24A-4 module's blown fuse leakage current rating, the "wire off" diagnostic function of the 1756-IB16D will not indicate a blown or removed fuse as a wire off condition. If you require this diagnostic to function for a blown or removed fuse, you must use a 1492-IFM40F-F24AD-4.
- 7 The 1492-IFM40F-FS24-2 and 1492-IFM40F-FS24-4 module and 1492-CABLE2Y cable can be used with the 1756-OB16D module. However, due to the 1492-IFM40F-FS24-2 and 1492-IFM40F-FS24-4 module's blown fuse leakage current rating, the "no load" diagnostic function of the 1756-OB16D will not indicate a blown or removed fuse as a no load condition. If you require this diagnostic to function for a blown or removed fuse, you must use a 1492-IFM40F-F24D-2.
- 8 Compatible Removable Terminal Block (RTB) plug; 1492-RTB20N (screw style terminals) or 1492-RTB20P (push-in style terminals). ORDER PLUGS SEPARATELY.
- 9 Compatible Removable Terminal Block (RTB) plug; 1492-RTB17N (screw style terminals) or 1492-RTB17P (push-in style terminals). ORDER PLUGS SEPARATELY.
- 10 Compatible Removable Terminal Block (RTB) plug; 1492-RTB14N (screw style terminals) or 1492-RTB14P (push-in style terminals). ORDER PLUGS SEPARATELY.
- 11 Compatible Removable Terminal Block (RTB) plug; 1492-RTB12N (screw style terminals) or 1492-RTB12P (push-in style terminals). ORDER PLUGS SEPARATELY.
- Do not use this module in output sinking mode with fused IFM modules as the IFM module fuses will not properly protect the circuit.
- ⚡ IFMs LED provides PLC output ON/OFF indication. Due to the magnitude of current through the LED, the 1756-OB16D PLC module "No Load" diagnostic function will not work. If this function is required, use the 1492-IFM40F-2.

Selection Tables, Continued

Bulletin 1756 ControlLogix IFMs and Cables, Continued

These **pre-wired cables** have a pre-wired RTB on one end to connect to the front of a Bulletin 1756 digital I/O module and a connector on the other end to plug into a 20- or 40-terminal IFM/XIM. You must first select the IFM/XIM from one of the preceding selection tables.

Pre-Wired Cables for Bulletin 1756 Digital I/O Modules

| Cable Cat. No. | Standard Cable Lengths | Build-to-Order Available | No. of Conductors | Mating 1756 I/O Module Catalog Number |
|----------------|------------------------|--------------------------|-------------------|--|
| 1492-CABLE①U | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1756-IA8D, -OA8, -OA8D, -OA8E, -OB8, -OC8, -ON8 |
| 1492-CABLE①V | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1756-OA8D, -OA8E |
| 1492-CABLE①W | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1756-OA8, -OB8, -OC8, -ON8 |
| 1492-CABLE①X | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1756-IA16, -IB16, -IC16, -IN16, -IV16, -OA16, -OB16E, -OV16E |
| 1492-CABLE①Y | 0.5, 1.0, 2.5, 5.0 m | Yes | 40 | 1756-IA16I, -IB16D, -IB16I, -IH16, -IM16I, -OA16I, -OB8EI, -OB16D, -OB16I, -OB16IS, -OH8I, -OW16I, -OX8I |
| 1492-CABLE①Z | 0.5, 1.0, 2.5, 5.0 m | Yes | 40 | 1756-IB32, -OB32, -IV32, -OV32E |

- ① Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CABLE005Y** is for a 0.5 m cable that could be used to connect a Catalog Number 1492-IFM40F IFM to a Catalog Number 1756-IA16I I/O module.

The **I/O module-ready cables** have a pre-wired RTB on one end to plug onto the front of a Bulletin 1756 I/O module and 20 or 40 individually colored #18 AWG conductors on the other end. These cables provide the convenience of pre-wired connections at the I/O module end, while still allowing the flexibility to field-wire to standard terminal blocks of your choice.

I/O Module-Ready Cables for Bulletin 1756 Digital I/O Modules ②

| Cable Cat. No. | Standard Cable Lengths | Build-to-Order Available | No. of Conductors | Mating 1756 I/O Module Catalog Number |
|-----------------|------------------------|--------------------------|-------------------|---|
| 1492-CABLE②TBNH | 1.0, 2.5, 5.0 m | Yes | 20 | 1756-IA8D, -IA16, -IB16, -IC16, -IN16, -IV16, -OA8, -OA8D, -OA8E, -OA16, -OB8, -OB16E, -OC8, -ON8, -OV16E |
| 1492-CABLE②TBCH | 1.0, 2.5, 5.0 m | Yes | 40 | 1756-IA16I, -IA32, -IB16D, -IB16I, -IB32, -IV32, -IH16I, -IM16I, -OA16I, -OB8EI, -OB16D, -OB16I, -OB16IS, -OB32, -OV32E, -OH8I, -OW16I, -OX8I |

- ② Cables are available in standard lengths of 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CABLE050TBNH** is for a 5.0 m cable with a pre-wired Catalog Number 1756-TBNH RTB on one end.
- ③ Discrete I/O ready cables should not be used with PLC analog I/O modules as cable shield and drain wires are not provided.

Selection Tables, Continued

Bulletin 1756 ControlLogix AIFMs and Cables, Continued

These **pre-wired cables** have a pre-wired RTB on one end to connect to the front of a Bulletin 1756 analog I/O module and a D-shell connector on the other end to plug into a 15- or 25-pin D-shell terminal AIFM. You must first select the AIFM from the preceding selection table.

Pre-Wired Cables for 1756 Analog I/O Modules

| Cable Catalog Number | Standard Cable Lengths | Build-to-Order Available | AIFM Connector | Mating 1756 I/O Module Catalog Number |
|----------------------|------------------------|--------------------------|----------------|--|
| 1492-ACABLE01M | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1757-PIM |
| 1492-ACABLE01X | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-IF16 Current |
| 1492-ACABLE01Y | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-IF16 Voltage, -IT6I, -OF6CI, -OF6VI |
| 1492-ACABLE01YT | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-IT6I2 |
| 1492-ACABLE01Z | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-IR6I, -IF6CIS |
| 1492-ACABLE01TA | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-IF8 Single-Ended Voltage |
| 1492-ACABLE01TB | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-IF8 Single-Ended Current |
| 1492-ACABLE01TC | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-IF8 Diff. Voltage |
| 1492-ACABLE01TD | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-IF8 Diff. Current |
| 1492-ACABLE01UA | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-IF16 Single-Ended Voltage |
| 1492-ACABLE01UB | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-IF16 Single-Ended Current |
| 1492-ACABLE01UC | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-IF16 Diff. Voltage, -IF8H (Voltage) |
| 1492-ACABLE01UD | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-IF16 Diff. Current, IF8H (Current/Hart) |
| 1492-ACABLE01VA | 0.5, 1.0, 2.5, 5.0 m | Yes | 15-pin D-shell | 1756-OF4 Voltage |
| 1492-ACABLE01VB | 0.5, 1.0, 2.5, 5.0 m | Yes | 15-pin D-shell | 1756-OF4 Current |
| 1492-ACABLE01WA | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-OF8 Voltage, -OF8H (Voltage) |
| 1492-ACABLE01WB | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-OF8 Current, -OF8H (Current/Hart) |
| 1492-ACABLE01XA | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-HSC (24V DC Diff.) |
| 1492-ACABLE01XB | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-HSC (5V DC Diff.) |
| 1492-ACABLE01ZA | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-IF4FXOF2F (Cur In & Out) |
| 1492-ACABLE01ZB | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-IF4FXOF2F (Volt In & Out) |
| 1492-ACABLE01ZC | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1756-IF4FXOF2F (Cur In & Volt Out) |

- ① Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-ACABLE005Y** is for a 0.5 m cable that could be used to connect a Catalog Number 1492-AIFM6TC-3 analog IFM to a Catalog Number 1756-IT6I I/O module.

Selection Tables, Continued

Using Bulletin 1762/1764 Selection Tables to Make Valid 1492 Wiring System Module Catalog Numbers

Follow these steps when using the selection tables to make valid catalog numbers:

1. Find the appropriate table based on the catalog numbers of the 1762/1764 controller.
2. Find the column for the 1762/1764 I/O.
3. Follow the column down to determine which Wiring System Modules are compatible with the I/O as indicated by letter and number (e.g. A62) code. If there is no letter/number code, the Wiring System Module is not compatible with the I/O module. NOTE: The letter/number codes designate the compatible 1492 cable for that 1762/1764 I/O and Wiring System Module combination.
4. Select the desired Wiring System Module.
5. Configure the cable catalog number using 1492-CAB^❶. See footnote ^❶ on pages 43 and 44.

MicroLogix 1200 Embedded 40 I/O Controllers to IFM Selection Tables

Bulletin 1762-L40x Compatible 40-Terminal 1492-IFMs

| Description of 40-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | 1762 Embedded I/O Controller | | | | | |
|---------------------------------|---|--|------------------------------|----------------|----------------|-----------------|-----------------|-----------------|
| | | | -L40AWA Inputs | -L40BWA Inputs | -L40BXB Inputs | -L40AWA Outputs | -L40BWA Outputs | -L40BXB Outputs |
| Feed-through | | | | | | | | |
| Standard 132V AC/DC Max. | 1492-IFM40F ^❶ | 1492-RIFM40F ^{❶❷} | A62 | A62 | A62 | B62 | B62 | B62 |
| Extra terminals 132V AC/DC Max. | 1492-IFM40F-2 ^❶ | 1492-RIFM40F-2 ^{❶❷} | A62 | A62 | A62 | B62 | B62 | B62 |

^❶ When using this IFM module with the base I/O of the 1762 controller, the current rating of the outputs must be considered.

^❷ Compatible Removable Terminal Block (RTB) plug; 1492-RTB20N (screw style terminals) or 1492-RTB20P (push-in style terminals). ORDER PLUGS SEPARATELY.

These **pre-wired cables** have a pre-wired removable terminal block (RTB) on one end to connect to the front of the Bulletin 1762 controller embedded digital I/O and a connector on the other end to plug into a 40-terminal IFM. You must first select the IFM from the preceding selection table.

Pre-Wired Cables for 1762-L40x Embedded I/O Controllers

| Cable Cat. No. | Standard Cable Lengths | Build-to-Order Available | No. of Conductors | Mating 1762-L40x Embedded I/O Controller |
|---------------------------|------------------------|--------------------------|-------------------|---|
| 1492-CAB ^❶ A62 | 0.5, 1.0, 2.5, 5.0 | Yes | 40 | -L40AWA Inputs, -L40BWA Inputs, -L40BXB Inputs |
| 1492-CAB ^❶ B62 | 0.5, 1.0, 2.5, 5.0 | Yes | 40 | -L40AWA Outputs, -L40BWA Outputs, -L40BXB Outputs |

^❶ Pre-wired cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CAB005A62** is for a 0.5 m cable that could be used to connect a Catalog Number 1492-IFM40F to a Cat. No. 1762-L40AWA Input.

Selection Tables, Continued

The **I/O module-ready cables** have a pre-wired RTB on one end to plug onto the front of the Bulletin 1762 controller embedded I/O and 25 or 40 individually colored conductors on the other end. These cables provide the convenience of pre-wired connections at the controller embedded I/O end, while still allowing the flexibility to field-wire to standard terminal blocks of your choice.

I/O Ready Cables for 1762-L40x Embedded I/O Controllers

| Cable Cat. No. | Standard Cable Lengths | Build-to-Order Available | No. of Conductors ^① | Mating 1762-L40x Embedded I/O Controller |
|---------------------------|------------------------|--------------------------|--------------------------------|---|
| 1492-CAB ^② T62 | 1.0, 2.5, 5.0 m | Yes | 25 | -L40AWA Outputs, -L40BWA Outputs, -L40BxB Outputs |
| 1492-CAB ^② X62 | 1.0, 2.5, 5.0 m | Yes | 40 | -L40AWA Inputs, -L40BWA Inputs, -L40BxB Inputs |

^① I/O ready cables are available in standard lengths or 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m) Example: **Catalog Number 1492-CABLE050RTBR** is for a 5.0 m cable with a pre-wired Catalog Number 1746-RT25R RTB on one end.

^② 1492-CAB^①T62 uses 18AWG wire and 1492-CAB^①X62 uses 22AWG wire.

MicroLogix 1500 Base Unit I/O to IFM Selection Tables

Bulletin 1764, Base Units I/O and Compatible 20-Terminal 1492-IFMs

| Description of 20-PIN IFM | Catalog Number for Wiring System Module with Fixed Terminal Block | Catalog Number for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | 1764 Base Unit I/O | | | | | | |
|---|---|--|--------------------|------------|------------|-------------|-------------|-------------|-----|
| | | | AWA Inputs | BWA Inputs | BXB Inputs | AWA Outputs | BWA Outputs | BXB Outputs | |
| Feed-through | | | | | | | | | |
| Standard 264Vac/dc Max. | 1492-IFM20F ^① | 1492-RIFM20F ^{①②} | A64 | A64 | B64 | C64 | C64 | F64 | F64 |
| Narrow standard 132Vac/dc Max. | 1492-IFM20FN ^① | 1492-RIFM20FN ^{①③} | A64 | A64 | B64 | C64 | C64 | F64 | F64 |
| With Extra terminals (2 per I/O) 264Vac/dc Max. | 1492-IFM20F-2 ^① | 1492-RIFM20F02 ^{①②} | A64 | A64 | B64 | C64 | C64 | F64 | F64 |

^① When using this IFM module with the base I/O of the 1762 controller, the current rating of the outputs must be considered. Refer to appendix A

^② Compatible Removable Terminal Block (RTB) 1492-RTB20N (screw style terminal) or 1492-RTB20P (push-in style terminal, available March 2006). ORDER PLUGS SEPARATELY.

^③ Compatible Removable Terminal Block (RTB) plug; 1492-RTB10N (screw style terminals) or 1492-RTB10P (push-in style terminals, available March 2006). ORDER PLUGS SEPARATELY.

These **pre-wired cables** have a pre-wired removable terminal block (RTB) on one end to connect to the front of the Bulletin 1764 base unit digital I/O and a connector on the other end to plug into a 20-terminal IFM. You must first select the IFM from the preceding selection table.

Pre-Wired Cables for 1764 Base I/O

| I/O Ready Cable Cat. No. | Standard Cable Lengths | Build-to-Order Available | No. of Conductors | Mating 1764 Base Unit I/O |
|---------------------------|------------------------|--------------------------|-------------------|---------------------------|
| 1492-CAB ^① A64 | 0.5, 1.0, 2.5, 5.0 | Yes | 20 | AWA Inputs, BWA Inputs |
| 1492-CAB ^① B64 | 0.5, 1.0, 2.5, 5.0 | Yes | 20 | BXB Inputs |
| 1492-CAB ^① C64 | 0.5, 1.0, 2.5, 5.0 | Yes | 20 | AWA Outputs, BWA Outputs |
| 1492-CAB ^① F64 | 0.5, 1.0, 2.5, 5.0 | Yes | 20 | BXB Output |

^① Pre-wired cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CAB005A64** is for a 0.5 m cable that could be used to connect a Catalog Number 1492-IFM20F to a Cat. No. 1764-AWA Input.

Selection Tables, Continued

The I/O module-ready cables have a pre-wired RTB on one end to plug onto the front of the Bulletin 1764 base unit I/O and 20 individually colored conductors on the other end. These cables provide the convenience of pre-wired connections at the base unit I/O end, while still allowing the flexibility to field-wire to standard terminal blocks of your choice.

I/O Ready Cables for 1764 Base I/O

| Cable Cat. No. | Standard Cable Lengths | Build-to-Order Available | No. of Conductors | Mating 1764 Base Unit I/O |
|---------------------------|------------------------|--------------------------|-------------------|---------------------------|
| 1492-CAB ² T64 | 1.0, 2.5, 5.0 m | Yes | 20 ⁶ | AWA Outputs, BWA Outputs |
| 1492-CAB ² U64 | 1.0, 2.5, 5.0 m | Yes | 20 ⁶ | BXB Outputs |
| 1492-CAB ² W64 | 1.0, 2.5, 5.0 | Yes | 20 ⁹ | AWA Inputs, BWA Inputs |
| 1492-CAB ² X64 | 1.0, 2.5, 5.0 | Yes | 20 ⁹ | BXB Inputs |

² I/O ready cables are available in standard lengths of 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m) Example: **Catalog Number 1492-CABLE050RTBR** is for a 5.0 m cable with a pre-wired Catalog Number 1746-RT25R RTB on one end.

³ Uses #18 AWG wire.

⁴ Uses #22 AWG wire.

Using Bulletin 1769 Selection Tables to Make Valid 1492 Wiring System Module Catalog Numbers

Follow these steps when using the selection tables to make valid catalog numbers:

1. Find the appropriate table based on the catalog number of the 1769 I/O module.
2. Find the column in the selected table for the 1769 I/O module.
3. Follow the column down to determine which Wiring System Modules are compatible with the I/O module as indicated by letter code. If there is no letter code, the Wiring System Module is not compatible with the I/O module. NOTE: The letter codes designate the compatible 1492 cable for that 1769 I/O and Wiring System Module combination.
4. Select the desired Wiring System Module.
5. Configure the cable catalog number using 1492-CAB¹ (for digital cables) or 1492-ACAB¹ (for analog cables). See footnote ¹ on pages 50 and 53.

Bulletin 1769 Compact I/O for CompactLogix and MicroLogix 1500 IFMs and Cables

Bulletin 1769 Digital 8 and 16-Point I/O Modules ³

| Description of 20-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1769-... | | | | | | | | | | | | |
|--|---|--|------------------------------------|------|------|-------|------|-----|------|-----|------|------|-----|------|------|
| | | | IA8I | IA16 | IO16 | IO16F | IM12 | OA8 | OA16 | OB8 | OB16 | OV16 | OW8 | OW8I | OW16 |
| Feed-through | | | | | | | | | | | | | | | |
| Standard 264V AC/DC Max. | 1492-IFM20F | 1492-RIFM20F ² | F69 | A69 | B69 | B69 | G69 | C69 | M69 | L69 | E69 | E69 | C69 | D69 | M69 |
| Narrow standard 132V AC/DC Max. | 1492-IFM20FN | 1492-RIFM20FN ² | F69 | A69 | B69 | B69 | — | C69 | M69 | L69 | E69 | E69 | C69 | — | M69 |
| Extra terminals (2 per I/O) 264V AC/DC Max. | 1492-IFM20F-2 | 1492-RIFM20F-2 ² | — | A69 | B69 | B69 | G69 | C69 | M69 | L69 | E69 | E69 | C69 | — | M69 |
| 3-wire sensor type input devices 132V AC/DC Max. | 1492-IFM20F-3 | — | — | A69 | B69 | B69 | — | — | — | — | — | — | — | — | — |

Note: Footnotes are on the following page.

Bulletin 1769 Digital 8 and 16-Point I/O Modules (Continued)Ⓢ

| Description of 20-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1769-... | | | | | | | | | | | | | |
|---|---|--|------------------------------------|------|-------|-------|------|-----|------|-----|------|------|-----|------|------|-----|
| | | | IA8I | IA16 | IO16 | IO16F | IM12 | OA8 | OA16 | OB8 | OB16 | OV16 | OW8 | OW8I | OW16 | |
| LED Indicating | | | | | | | | | | | | | | | | |
| Standard with 24V AC/DC LEDs | 1492-IFM20D24 | — | — | — | B69 | B69 | — | — | — | — | — | E69 | E69 | — | — | M69 |
| Narrow standard with 24V AC/DC LEDs | 1492-IFM20D24N | — | — | — | B69 | B69 | — | — | — | — | — | E69 | — | — | — | H69 |
| Standard with 120V AC/DC LEDs | 1492-IFM20D120 Ⓢ | — | — | A69 | — | — | — | — | — | M69 | — | — | — | — | — | M69 |
| Narrow standard with 120V AC LEDs | 1492-IFM20D120N | — | — | A69 | — | — | — | — | — | H69 | — | — | — | — | — | H69 |
| 24V AC/DC LEDs and extra terminals for outputs | 1492-IFM20D24-2 | — | — | — | — | — | — | — | — | — | — | E69 | E69 | — | — | M69 |
| 24V AC/DC LEDs and extra terminals for inputs | 1492-IFM20D24A-2 | — | — | — | B69 | B69 | — | — | — | — | — | — | — | — | — | — |
| 120V AC LEDs and extra terminals for outputs | 1492-IFM20D120-2 | — | — | — | — | — | — | — | — | M69 | — | — | — | — | — | M69 |
| 120V AC LEDs and extra terminals for inputs | 1492-IFM20D120A-2 | — | — | A69 | — | — | — | — | — | — | — | — | — | — | — | — |
| 3-wire sensor with 24V AC/DC LEDs | 1492-IFM20D24-3 | — | — | — | B69 | B69 | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated with 24/48V AC/DC LEDs and 4 terminals/output | 1492-IFM20DS24-4 | — | — | — | — | — | — | — | — | — | — | — | — | C69 | D69 | — |
| 8 Individually isolated with 120V AC LEDs and 4 terminals/output | 1492-IFM20DS120-4 | — | — | — | — | — | — | — | C69 | — | — | — | — | C69 | D69 | — |
| 240V AC LEDs and extra terminals for outputs | 1492-IFM20D240-2 | — | — | — | — | — | — | — | — | M69 | — | — | — | — | — | M69 |
| 240V AC LEDs and extra terminals for inputs | 1492-IFM20D240A-2 | — | — | — | — | — | G69 | — | — | — | — | — | — | — | — | — |
| Fusible | | | | | | | | | | | | | | | | |
| 120V AC/DC with extra terminals for outputs | 1492-IFM20F-F-2 | 14792-RIFM20F-F-2 Ⓢ | — | — | — | — | — | — | — | M69 | — | E69 | E69 | — | — | M69 |
| Extra terminals with 24V AC/DC blown fuse LED indicators | 1492-IFM20F-F24-2 | 1492-IFM20F-F24-2 Ⓢ | — | — | — | — | — | — | — | — | — | E69 | E69 | — | — | M69 |
| Extra terminals with 120V AC/DC blown fuse LED indicators | 1492-IFM20F-F120-2 | 1492-RIFM20F-F120-2 Ⓢ | — | — | — | — | — | — | — | M69 | — | — | — | — | — | M69 |
| Extra terminals with 240V AC/DC blown fuse LED indicators | 1492-IFM20F-F240-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Extra terminals with 24V AC/DC blown fuse LED indicators | 1492-IFM20F-F24A-2 | 1492-RIFM20F-F24A-2 Ⓢ | — | — | B69 Ⓢ | B69 Ⓢ | — | — | — | — | — | — | E69 | — | — | — |
| Extra terminals with 120V AC/DC blown fuse LED indicators | 1492-IFM20F-F120A-2 | 1492-RIFM20F-F120A02 Ⓢ | — | A69 | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated 120V AC/DC with extra terminals for outputs | 1492-IFM20F-FS-2 | — | — | — | — | — | — | — | C69 | — | — | — | — | C69 | D69 | — |
| 8 Individually isolated with extra terminals output, and 24V AC/DC blown fuse indicators | 1492-IFM20F-FS24-2 | — | — | — | — | — | — | — | — | — | — | — | — | C69 | D69 | — |
| Two 4-point isolated groups with four terminals/input and 24V AC/DC blown fuse LED indicators | 1492-IFM20F-FS24A-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated with extra terminals output, and 120V AC/DC blown fuse LED indicators | 1492-IFM20F-FS120-2 | — | — | — | — | — | — | — | C69 | — | — | — | — | C69 | D69 | — |
| 8 Individually isolated with four terminals/output and 120V AC/DC blown fuse LED indicators | 1492-IFM20F-FS120-4 | — | — | — | — | — | — | — | C69 | — | — | — | — | C69 | D69 | — |
| Two 4-point isolated groups with four terminals/input and 120V AC/DC blown fuse indicators | 1492-IFM20F-FS120A-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated with four terminals/output and 240V AC/DC blown fuse LED indicators | 1492-IFM20F-FS240-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | D69 | — |
| Relay Master (LED Indicating) ⓈⓈ | | | | | | | | | | | | | | | | |
| 20-pin master with eight (8) 24V DC relays | 1492-XIM2024-8R Ⓢ | — | — | — | — | — | — | — | — | — | — | E69 | — | — | — | — |
| 20-pin master with eight (8) 120V AC relays | 1492-XIM20120-8R Ⓢ | — | — | — | — | — | — | — | — | H69 | — | — | — | — | — | — |
| 20-pin master with sixteen (16) 24V DC relays with fusing | 1492-XIM2024-16R | — | — | — | — | — | — | — | — | — | — | E69 | — | — | — | — |
| 20-pin master with sixteen (16) 24V DC relays with fusing | 1492-XIM2024-16RF | — | — | — | — | — | — | — | — | — | — | E69 | — | — | — | — |
| 20-pin master with sixteen (16) 120V AC relays | 1492-XIM20120-16R | — | — | — | — | — | — | — | — | H69 | — | — | — | — | — | — |
| 20-pin master with sixteen (16) 120V AC relays with fusing | 1492-XIM20120-16RF | — | — | — | — | — | — | — | — | H69 | — | — | — | — | — | — |

Bulletin 1769 Digital 8 and 16-Point I/O Modules (Continued)Ⓢ

| Description of 20-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1769-... | | | | | | | | | | | | |
|---|---|--|------------------------------------|------|-------|-------|------|-----|------|-----|------|------|-----|------|------|
| | | | IA8I | IA16 | IO16 | IO16F | IM12 | OA8 | OA16 | OB8 | OB16 | OV16 | OW8 | OW8I | OW16 |
| LED Indicating | | | | | | | | | | | | | | | |
| Standard with 24V AC/DC LEDs | 1492-IFM20D24 | — | — | — | B69 | B69 | — | — | — | — | E69 | E69 | — | — | M69 |
| Narrow standard with 24V AC/DC LEDs | 1492-IFM20D24N | — | — | — | B69 | B69 | — | — | — | — | E69 | — | — | — | H69 |
| Standard with 120V AC/DC LEDs | 1492-IFM20D120 Ⓢ | — | — | A69 | — | — | — | — | — | M69 | — | — | — | — | M69 |
| Narrow standard with 120V AC LEDs | 1492-IFM20D120N | — | — | A69 | — | — | — | — | — | H69 | — | — | — | — | H69 |
| 24V AC/DC LEDs and extra terminals for outputs | 1492-IFM20D24-2 | — | — | — | — | — | — | — | — | — | E69 | E69 | — | — | M69 |
| 24V AC/DC LEDs and extra terminals for inputs | 1492-IFM20D24A-2 | — | — | — | B69 | B69 | — | — | — | — | — | — | — | — | — |
| 120V AC LEDs and extra terminals for outputs | 1492-IFM20D120-2 | — | — | — | — | — | — | — | — | M69 | — | — | — | — | M69 |
| 120V AC LEDs and extra terminals for inputs | 1492-IFM20D120A-2 | — | — | A69 | — | — | — | — | — | — | — | — | — | — | — |
| 3-wire sensor with 24V AC/DC LEDs | 1492-IFM20D24-3 | — | — | — | B69 | B69 | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated with 24/48V AC/DC LEDs and 4 terminals/output | 1492-IFM20DS24-4 | — | — | — | — | — | — | — | — | — | — | — | — | C69 | D69 |
| 8 Individually isolated with 120V AC LEDs and 4 terminals/output | 1492-IFM20DS120-4 | — | — | — | — | — | — | — | C69 | — | — | — | — | C69 | D69 |
| 240V AC LEDs and extra terminals for outputs | 1492-IFM20D240-2 | — | — | — | — | — | — | — | — | M69 | — | — | — | — | M69 |
| 240V AC LEDs and extra terminals for inputs | 1492-IFM20D240A-2 | — | — | — | — | — | G69 | — | — | — | — | — | — | — | — |
| Fusible | | | | | | | | | | | | | | | |
| 120V AC/DC with extra terminals for outputs | 1492-IFM20F-F-2 | 14792-RIFM20F-F-2 Ⓢ | — | — | — | — | — | — | — | M69 | — | E69 | E69 | — | M69 |
| Extra terminals with 24V AC/DC blown fuse LED indicators | 1492-IFM20F-F24-2 | 1492-IFM20F-F24-2 Ⓢ | — | — | — | — | — | — | — | — | — | E69 | E69 | — | M69 |
| Extra terminals with 120V AC/DC blown fuse LED indicators | 1492-IFM20F-F120-2 | 1492-RIFM20F-F120-2 Ⓢ | — | — | — | — | — | — | — | M69 | — | — | — | — | M69 |
| Extra terminals with 240V AC/DC blown fuse LED indicators | 1492-IFM20F-F240-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Extra terminals with 24V AC/DC blown fuse LED indicators | 1492-IFM20F-F24A-2 | 1492-RIFM20F-F24A-2 Ⓢ | — | — | B69 Ⓢ | B69 Ⓢ | — | — | — | — | — | E69 | — | — | — |
| Extra terminals with 120V AC/DC blown fuse LED indicators | 1492-IFM20F-F120A-2 | 1492-RIFM20F-F120A02 Ⓢ | — | A69 | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated 120V AC/DC with extra terminals for outputs | 1492-IFM20F-FS-2 | — | — | — | — | — | — | — | C69 | — | — | — | — | C69 | D69 |
| 8 Individually isolated with extra terminals output, and 24V AC/DC blown fuse indicators | 1492-IFM20F-FS24-2 | — | — | — | — | — | — | — | — | — | — | — | — | C69 | D69 |
| Two 4-point isolated groups with four terminals/input and 24V AC/DC blown fuse LED indicators | 1492-IFM20F-FS24A-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated with extra terminals output, and 120V AC/DC blown fuse LED indicators | 1492-IFM20F-FS120-2 | — | — | — | — | — | — | — | C69 | — | — | — | — | C69 | D69 |
| 8 Individually isolated with four terminals/output and 120V AC/DC blown fuse LED indicators | 1492-IFM20F-FS120-4 | — | — | — | — | — | — | — | C69 | — | — | — | — | C69 | D69 |
| Two 4-point isolated groups with four terminals/input and 120V AC/DC blown fuse indicators | 1492-IFM20F-FS120A-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated with four terminals/output and 240V AC/DC blown fuse LED indicators | 1492-IFM20F-FS240-4 | — | — | — | — | — | — | — | — | — | — | — | — | D69 | — |
| Relay Master (LED Indicating) ⓈⓈ | | | | | | | | | | | | | | | |
| 20-pin master with eight (8) 24V DC relays | 1492-XIM2024-8R Ⓢ | — | — | — | — | — | — | — | — | — | — | E69 | — | — | — |
| 20-pin master with eight (8) 120V AC relays | 1492-XIM20120-8R Ⓢ | — | — | — | — | — | — | — | — | H69 | — | — | — | — | — |
| 20-pin master with sixteen (16) 24V DC relays with fusing | 1492-XIM2024-16R | — | — | — | — | — | — | — | — | — | — | E69 | — | — | — |
| 20-pin master with sixteen (16) 24V DC relays with fusing | 1492-XIM2024-16RF | — | — | — | — | — | — | — | — | — | — | E69 | — | — | — |
| 20-pin master with sixteen (16) 120V AC relays | 1492-XIM20120-16R | — | — | — | — | — | — | — | — | H69 | — | — | — | — | — |
| 20-pin master with sixteen (16) 120V AC relays with fusing | 1492-XIM20120-16RF | — | — | — | — | — | — | — | — | H69 | — | — | — | — | — |

Note: Footnotes are on the following page.

Bulletin 1769 Digital 8 and 16-Point I/O Modules (Continued)Ⓢ

| Description of 20-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1769-... | | | | | | | | | | | | |
|---|---|--|------------------------------------|------|------|-------|------|-----|------|-----|------|------|-----|------|------|
| | | | IA8I | IA16 | IO16 | IO16F | IM12 | OA8 | OA16 | OB8 | OB16 | OV16 | OW8 | OW8I | OW16 |
| Relay Expander (LED Indicating) ⓈⓈ | | | | | | | | | | | | | | | |
| Expander with eight (8) 24V DC relays | 1492-XIM24-8R | 1492-RXIM24-8R* | — | — | — | — | — | — | — | — | ② | — | — | — | |
| Expander with eight (8) 120V AC relays | 1492-XIM120-8R | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Fusible Expander | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 8-channel expander with 24V DC blown fuse indicators | 1492-XIMF-F24-2 | — | — | — | — | — | — | — | — | ② | — | — | — | — | |
| 8-channel expander with 120V AC blown fuse indicators | 1492-XIMF-F120-2 | — | — | — | — | — | — | — | ② | — | — | — | — | — | |
| Feed-through Expander | | | | | | | | | | | | | | | |
| Expander with eight (8) feed-through channels 132V AC/DC max. | 1492-XIMF-2 | — | — | — | — | — | — | — | ② | ② | ② | — | — | — | |

- ① In the input module's sink mode only.
- ② One expander module is connected to a master to provide a total of 16 outputs. An extender cable is included with each expander to connect it to the master.
- ③ Cables are available in standard lengths of 0.5 m 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number 005 = 0.5 m (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m), and insert the letter in the box. Example: **Catalog Number 1492-CABLE050A** is for a 5.0 m cable, and the letter A.
- ④ This IFM is not recommended for use with PLC I/O modules that have an off-state leakage current exceeding 0.5 mA. Use a 1492-IFM20D120N or 1492-IFM20D120A-2 for inputs. Use 1492-IFM20D120-2 for outputs.
- ⑤ The voltage rating is relay control/coil voltage. For relay contact ratings, refer to page 192.
- ⑥ The LED indicates the PLC output status.
- ⑦ Compatible Removable Terminal Block (RTB) plug; 1492-RTB20N (screw style terminals) or 1492-RTB20P (push-in style terminals). ORDER PLUGS SEPARATELY.
- ⑧ Compatible Removable Terminal Block (RTB) plug; 1492-RTB10N (screw style terminals) or 1492-RTB10P (push-in style terminals). ORDER PLUGS SEPARATELY.
- ⑨ Expandable to 16 using XIM24-8R or XIMF-24-2.
- ⑩ Expandable to 16 using XIM120-8R or XIMF-24-2.
- * Compatible Removable Terminal Block (RTB) plug; 1492-RTB12N (screw style terminals) or 1492-RTB12P (push-in style terminals). ORDER PLUGS SEPARATELY.

Bulletin 1769 Compact I/O for CompactLogix and MicroLogix 1500 IFMs and Cables, Continued

Bulletin 1769 Digital 32-Point I/O Modules ①

| Description of 40-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1769-... | | | | |
|---|---|--|------------------------------------|-------|------|-------|-------|
| | | | IQ32 | IQ32T | OB32 | OB32T | OV32T |
| Feed-through | | | | | | | |
| Standard 132V AC/DC Max. | 1492-IFM40F | 1492-RIFM40F⑥ | J69 | H | K69 | H | H |
| Extra terminals (2 per I/O) 132V AC/DC Max. | 1492-IFM40F-2 | 1492-RIFM40F-2⑥ | J69 | H | K69 | H | H |
| 3-wire sensor type input devices 60V AC/DC Max. | 1492-IFM40F-3 | — | J69 | H | — | — | — |
| LED Indicating | | | | | | | |
| Standard with 24V AC/DC LEDs | 1492-IFM40D24 | 1492-RIFM40D24⑥ | J69 | H | K69 | H | H |
| 24V AC/DC LEDs and extra terminals for outputs | 1492-IFM40D24-2 | — | — | — | K69 | H | H |
| 24V AC/DC LEDs and extra terminals for inputs | 1492-IFM40D24A-2 | 1492-RIFM40D24A-2⑥ | J69 | H | — | — | — |
| 120V AC LEDs and extra terminals for outputs | 1492-IFM40D120-2 | — | — | — | — | — | — |
| 120V AC LEDs and extra terminals for inputs | 1492-IFM40D120A-2 | — | — | — | — | — | — |
| 3-wire sensor with 24V AC/DC LEDs | 1492-IFM40D24-3 | — | J69 | H | — | — | — |
| 16 Individually isolated with 24/48V AC/DC LEDs and 4 terminals/output | 1492-IFM40DS24-4 | — | — | — | — | — | — |
| 16 Individually isolated with 24V AC/DC LEDs and 4 terminals/input | 1492-IFM40DS24A-4 | — | — | — | — | — | — |
| 16 Individually isolated with 120V AC LEDs and 4 terminals/output | 1492-IFM40DS120-4 | — | — | — | — | — | — |
| 16 Individually isolated with 120V AC LEDs and 4 terminals/input | 1492-IFM40DS120A-4 | — | — | — | — | — | — |
| 16 Individually isolated with 240V AC LEDs and 4 terminals/input | 1492-IFM40DS240A-4 | — | — | — | — | — | — |
| Fusible | | | | | | | |
| 120V AC/DC with extra terminals for outputs | 1492-IFM40F-F-2 | — | — | — | K69 | H | H |
| Extra terminals with 24V AC/DC blown fuse indicators for outputs | 1492-IFM40F-F24-2 | 1492-RIFM40F-F24-2⑥ | — | — | K69 | H | H |
| Extra terminals with 120V AC/DC blown fuse indicators | 1492-IFM40F-F120-2 | — | — | — | — | — | — |
| 16 Individually isolated with extra terminals for 120V AC/DC outputs | 1492-IFM40F-FS-2 | — | — | — | — | — | — |
| 16 Individually isolated with extra terminals and 24V AC/DC blown fuse indicators | 1492-IFM40F-FS24-2 | — | — | — | — | — | — |
| 16 Individually isolated with 24V AC/DC blown fuse indicators and 4 terminals/output | 1492-IFM40F-FS24-4 | — | — | — | — | — | — |
| 16 Individually isolated 240V AC/DC with 4 terminals/output | 1492-IFM40F-FS-4 | — | — | — | — | — | — |
| 16 Individually isolated with extra terminals and 120V blown fuse indicators | 1492-IFM40F-FS120-2 | 1492-RIFM40F-FS120-2⑥ | — | — | — | — | — |
| 16 Individually isolated with 120V AC/DC blown fuse indicators and 4 terminals/output | 1492-IFM40F-FS120-4 | 1492-RIFM-FS120-4⑦ | — | — | — | — | — |
| 16 Individually isolated with 240V AC/DC blown fuse indicators and 4 terminals/output | 1492-IFM40F-FS240-4 | — | — | — | — | — | — |
| 16 Individually isolated with 24V AC/DC blown fuse indicators and 4 terminals/input | 1492-IFM40F-FS24A-4 | — | — | — | — | — | — |
| 16 Individually isolated 120V AC/DC with 4 terminals/input | 1492-IFM40F-FSA-4 | — | — | — | — | — | — |
| 16 Individually isolated with 120V AC/DC blown fuse indicators and 4 terminals/input | 1492-IFM40F-FS120A-4 | 1492-RIFM40F-FS120A-4⑦ | — | — | — | — | — |
| 16 Individually isolated with 240V AC/DC blown fuse indicator and 4 terminals/input | 1492-IFM40F-FS240A-4 | — | — | — | — | — | — |
| Relay Master (LED Indicating) ④⑥ | | | | | | | |
| 40-pin master with eight (8) 24V DC relays | 1492-XIM4024-8R | — | — | — | K69 | H | — |
| 40-pin master with sixteen (16) 24V DC relays | 1492-XIM4024-16R | 1492-RXIM4024-16R⑧ | — | — | K69 | H | — |

Note: Footnotes are on the following page.

Bulletin 1769 Digital 32-Point I/O Modules (Continued)

| Description of 40-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1769-... | | | | |
|---|---|--|------------------------------------|-------|------|-------|-------|
| | | | IQ32 | IQ32T | OB32 | OB32T | OV32T |
| 40-pin master with sixteen (16) 24V DC relays with fusing | 1492-XIM4024-16RF | — | — | — | K69 | H | — |
| Relay Expander (LED Indicating) ④⑤ | | | | | | | |
| Expander with eight (8) 24V DC relays | 1492-XIM24-8R | 1492-RXIM24-8R⑨ | — | — | ② | ② | — |
| Expander with eight (8) 120V AC relays | 1492-XIM120-8R | — | — | — | — | — | — |
| Fusible Expander | | | | | | | |
| 8-channel expander with 24V DC blown fuse indicators | 1492-XIMF-F24-2 | — | — | — | ② | ② | — |
| 8-channel expander with 120V AC blown fuse indicators | 1492-XIMF-F120-2 | — | — | — | — | — | — |
| Expander with sixteen (16) 24V DC relays with fusing | 1492-XIM24-16RF | — | — | — | ③ | ② | — |
| Feed-through Expander | | | | | | | |
| Expander with eight (8) feed-through channels | 1492-XIMF-2 | — | — | — | ② | ② | — |

- ① Cables are available in standard lengths of 0.5, 1.0, 2.5, and 5.0 m. To order, insert the code for the desired cable length into the catalog number 005 = 0.5 m (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m), and insert the letter in the box. Example: **Catalog Number 1492-CABLE050A** is for a 5.0 m cable, and the letter A.
- ② Can have 2 or 3 expander modules depending on master used (32 pts. or less). Extender cable is provided.
- ③ One 1492-XIM24-16RF is to be used with one 1492-XIM4024-16R or 1492-XIM4024-16RF master (32 pts. max.).
- ④ The voltage rating is relay control/coil voltage. For relay contact ratings, refer to page 192.
- ⑤ The LED indicates the PLC output status.
- ⑥ Compatible Removable Terminal Block (RTB) plug; 1492-RTB20N (screw style terminals) or 1492-RTB20P (push-in style terminals). ORDER PLUGS SEPARATELY.
- ⑦ Compatible Removable Terminal Block (RTB) plug; 1492-RTB17N (screw style terminals) or 1492-RTB17P (push-in style terminals). ORDER PLUGS SEPARATELY.
- ⑧ Compatible Removable Terminal Block (RTB) plug; 1492-RTB14N (screw style terminals) or 1492-RTB14P (push-in style terminals). ORDER PLUGS SEPARATELY.
- ⑨ Compatible Removable Terminal Block (RTB) plug; 1492-RTB12N (screw style terminals) or 1492-RTB12P (push-in style terminals). ORDER PLUGS SEPARATELY.

Bulletin 1769 Compact I/O for CompactLogix and MicroLogix 1500 IFMs and Cables, Continued

These **pre-wired cables** have a pre-wired RTB on one end to connect to the front of a Bulletin 1769 digital I/O module and a connector on the other end to plug into a 20- or 40-terminal IFM/XIM. You must first select the IFM/XIM from the preceding selection table.

Pre-Wired Cables for Bulletin 1769 Digital I/O Modules

| Cable Cat. No. | Standard Cable Lengths | Build-to-Order Available | No. of Conductors | Mating 1769 I/O Module Catalog Number |
|----------------|------------------------|--------------------------|-------------------|---|
| 1492-CAB①A69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1769-IA16 |
| 1492-CAB①B69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1769-IQ16 |
| 1492-CAB①C69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1769-OA8, -OW8 |
| 1492-CAB①D69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1769-OW8I |
| 1492-CAB①E69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1769-OB16, -OV16 |
| 1492-CAB①F69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1769-IA8I |
| 1492-CAB①G69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1769-IM12 |
| 1492-CAB①H69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1769-OA16, -OW16 (IFM modules with single common) |
| 1492-CAB①J69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 40 | 1769-IQ32 |
| 1492-CAB①K69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 40 | 1769-OB32 |

Pre-Wired Cables for Bulletin 1769 Digital I/O Modules (Continued)

| Cable Cat. No. | Standard Cable Lengths | Build-to-Order Available | No. of Conductors | Mating 1769 I/O Module Catalog Number |
|---------------------------|------------------------|--------------------------|-------------------|--|
| 1492-CAB ^① L69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1769-OB8 |
| 1492-CAB ^① M69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1769-OA16, -OW16 (IFM modules with multiple commons) |
| 1492-CABLE ^① H | 0.5, 1.0, 2.5, 5.0 m | Yes | 40 | 1769-IQ32T, -OB32T, -OV32T |

- ① Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CAB005E69** is for a 0.5 m cable that can be used to connect a Catalog Number 1492-IFM20D24N IFM to a Catalog Number 1769-OB16 I/O module.

The **I/O module-ready cables** have a pre-wired RTB on one end to plug onto the front of a Bulletin 1769 I/O module and 20 individually colored #18 AWG conductors on the other end. These cables provide the convenience of pre-wired connections at the I/O module end, while still allowing the flexibility to field-wire to standard terminal blocks of your choice.

I/O Module-Ready Cables for Bulletin 1769 Digital I/O Modules

| Cable Catalog Number | Standard Cable Lengths | Build-to-Order Available | No. of Conductors | Mating 1769 I/O Module Catalog Number |
|------------------------------|------------------------|--------------------------|-------------------|---|
| 1492-CAB ^② RTN10 | 1.0, 2.5, 5.0 m | Yes | 12 | 1769-OA8, -OW8 |
| 1492-CAB ^② RTN18 | 1.0, 2.5, 5.0 m | Yes | 20 | 1769-IA8I, -IA16, -IQ16, -IQ16F, -OA16, -OB16, -OV16, -OW16, -OW8I, -IM12, -OB8 |
| 1492-CAB ^② RTN32I | 1.0, 2.5, 5.0 m | Yes | 40 ^③ | 1769-IQ32 |
| 1492-CAB ^② RTN32O | 1.0, 2.5, 5.0 m | Yes | 40 ^③ | 1769-OB32 |
| 1492-CABLE ^③ N3 | 1.0, 2.5, 5.0 m | Yes | 40 ^③ | 1769-IQ32T, -OB32T, -OV32T |

- ② 1492-CAB^②RTN32I and 1492-CAB^②RTN32O cables use 22 AWG wire.
- ③ Cables are available in standard lengths of 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CAB050RTN10** is for a 5.0 m cable with a wired Catalog Number 1746-RTBN10 on one end.
- ④ Discrete I/O ready cables should not be used with PLC analog I/O modules as a cable shield and drain wires are not provided.

Bulletin 1769 Compact I/O for CompactLogix and MicroLogix 1500 AIFMs and Cables

IFMs for Bulletin 1769 Analog I/O Modules^①

| Description of AIFM | Catalog Number for Wiring System Module with Fixed Terminal Block | Catalog Number for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1769-... | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|------------------------------------|-------------------------------------|---|-----|---------------|----------------|---------------|----------------|-----|---|-----|---|-----|
| | | | HSC (Differential) | IF4 (Single-Ended Voltage) | IF8 (Single-Ended Voltage) | IF4 (Single-Ended Current) | IF8 (Single-Ended Current) | IF4 (Differential Voltage) | IF8 (Differential Voltage) | IF4 (Differential Current) | IF8 (Differential Current) | IF4XOF2 or IF4XOF2F (Cur In & Out) | IF4XOF2 or IF4XOF2F (Volt In & Out) | IF4XOF2 or IF4XOF2F (Cur In & Volt Out) | IR6 | OF2 (Voltage) | OF8V (Voltage) | OF2 (Current) | OF8C (Current) | | | | | |
| Feed-through | | | | | | | | | | | | | | | | | | | | | | | | |
| 4-channel input, output or 2-in/2-out combination with 3 terminals/channel | 1492-AIFM4-3 | 1492-RAIFM4-3 ^② | — | BA69 | — | BB69 | — | BC69 | — | BD69 | — | — | — | — | — | — | AA69 | — | AB69 | — | | | | |
| 6-channel isolated with 3...4 terminals/channel | 1492-AIFM6S-3 | 1492-RAIFM6S-3 ^③ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | CA69 | CB69 | CC69 | C69 | — | — | — | — |
| 8- or 16-channel input or output with 3 terminals/channel | 1492-AIFM8-3 | 1492-RAIFM8-3 ^④ | — | — | EA69 | — | EB69 | — | EC69 | — | ED69 | — | — | — | — | — | — | — | — | — | — | D69 | — | D69 |
| Thermocouple | | | | | | | | | | | | | | | | | | | | | | | | |
| 6-channel with 3 terminals/channel | 1492-AIFM6TC-3 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| High-Speed Counter/Encoder | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-channel counter input/4 outputs | 1492-AIFMCE4 | — | HA69 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Fusible High-Speed Counter/Encoder | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-channel fused counter input/4 fused outputs | 1492-AIFMCE4-F | — | HA69 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Fusible Analog | | | | | | | | | | | | | | | | | | | | | | | | |
| 4-channel with 24V DC blown fuse indicators, test points, 5 terminals/input, 3 terminals/output | 1492-AIFM4I-F-5 | — | — | BA69 | — | BB69 | — | BC69 | — | BD69 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2-channel input, 2-channel output with 24V DC blown fuse indicators, test points, 5 terminals/input, 3 terminals/output | 1492-AIFM4C-F-5 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8-channel input with 24V DC blown fuse indicators, 5 terminals/channel | 1492-AIFM8-F-5 | — | — | — | EA69 | — | EB69 | — | EC69 | — | ED69 | CA69 | CB69 | CC69 | — | — | — | — | — | — | — | — | — | — |
| 16-channel input with 24V DC blown fuse indicators, 3 terminals/channel | 1492-AIFM16-F-3 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 16-channel input with 24V DC blown fuse indicators, 5 terminals/channel | 1492-AIFM16-F-5 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 4-input/4-output channel with 8 fuses and 24V DC blown fuse indicators | 1492-AIFMQS | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

- ① Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number 005 = 0.5 m (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m), and insert the letter in the box. Example: **Catalog Number 1492-ACAB025BA69** is for a 2.5 m cable, and the letters BA.
- ② Compatible Removable Terminal Block (RTB) plug; 1492-RTB8N (screw style terminals) or 1492-RTB8P. ORDER PLUGS SEPARATELY.
- ③ Compatible Removable Terminal Block (RTB) plug; 1492-RTB12N (screw style terminals) or 1492-RTB12P. ORDER PLUGS SEPARATELY.
- ④ Compatible Removable Terminal Block (RTB) plug; 1492-RTB16N (screw style terminals) or 1492-RTB16P. ORDER PLUGS SEPARATELY.

These **pre-wired cables** have a pre-wired RTB on one end to connect to the front of a Bulletin 1769 analog I/O module and a connector on the other end to plug into a 15- or 25-pin D-shell terminal AIFM. You must first select the AIFM from the preceding selection table.

Pre-Wired Cables for Bulletin 1769 Analog I/O Modules

| Cable Catalog Number | Standard Cable Lengths | Build-to-Order Available | AIFM Connector | Mating 1769 I/O Module Catalog Number |
|----------------------|------------------------|--------------------------|----------------|--|
| 1492-ACAB0AA69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 15-pin D-shell | 1769-OF2 Voltage |
| 1492-ACAB0AB69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 15-pin D-shell | 1769-OF2 Current |
| 1492-ACAB0BA69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 15-pin D-shell | 1769-IF4 Single-Ended Voltage |
| 1492-ACAB0BB69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 15-pin D-shell | 1769-IF4 Single-Ended Current |
| 1492-ACAB0BC69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 15-pin D-shell | 1769-IF4 Differential Voltage |
| 1492-ACAB0BD69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 15-pin D-shell | 1769-IF4 Differential Current |
| 1492-ACAB0C69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1769-IR6 Resist. Temperature Detector |
| 1492-ACAB0CA69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1769-IF4XOF2 or -IF4FXOF2F (Cur In & Out) |
| 1492-ACAB0CB69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1769-IF4XOF2 or -IF4FXOF2F (Volt In & Out) |
| 1492-ACAB0CC69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1769-IF4XOF2 or -IF4FXOF2F (Cur In & Volt Out) |
| 1492-ACAB0D69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1769-OF8C, 1769-OF8V |
| 1492-ACAB0EA69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1769-IF8 Single-Ended Voltage |
| 1492-ACAB0EB69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1769-IF8 Single-Ended Current |
| 1492-ACAB0EC69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1769-IF8 Differential Voltage |
| 1492-ACAB0ED69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1769-IF8 Differential Current |
| 1492-ACAB0HA69 | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1769-HSC Counter/Encoder (Differential) |

① Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-ACAB0050** is for a 0.5 m cable.

Selection Tables

Using Bulletin 1794 Selection Tables to Make Valid 1492 Wiring System Module Catalog Numbers

Follow these steps when using the selection tables to make valid catalog numbers:

Note: I/O modules must use Flex D-shell base cat. nos. 1794-TB37DS or 1794-TB62DS.

1. Find the appropriate table based on the catalog numbers of the 1794 I/O module.
2. Find the column for the 1794 I/O module.
3. Follow the column down to determine which Wiring Systems Modules are compatible with the I/O module as indicated by letter code. If there is no letter code, the 1492 Wiring System Module is not compatible with the I/O module. NOTE: The letter codes designate the compatible 1492 cable for that 1794 I/O and 1492 Wiring System Module combination.
4. Select the desired 1492 Wiring System Module.
5. Configure the cable catalog number using 1492-CAB0 (for digital cables) or 1492-ACAB0 (for analog cables). See footnote ① on page 57.

Note: Footnotes are on the following page.

Pre-Wired Cable and IFMs for Bulletin 1794 Digital 8-Point and 16-Point I/O Modules

| Description of 20-PIN IFM and Flex Distributed I/O | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | Cat. No. for Compatible Screw Style (N) and Push-in Style (P) RTB Plugs | Flex Digital I/O Module — Uses D-Shell Base 1794-TB37DS | | | | | | | | | | |
|---|---|--|---|---|-----|----------|------|------|-------|-----|-------|------|-------|-----|
| | | | | IB16 | IB8 | IB10XOB6 | IV16 | OB16 | OB16P | OB8 | OB8EP | OV16 | OV16P | OW8 |
| Feed-through | | | | | | | | | | | | | | |
| Standard 264V AC/DC Max. | 1492-IFM20F | 1492-RIFM20F | 1492-RTB20 | A94 | A94 | A94 | A94 | A94 | A94 | A94 | A94 | A94 | A94 | A94 |
| Narrow standard 132V AC/DC Max. | 1492-IFM20FN | 1492-RIFM20FN | 1492-RTB10 | A94 | A94 | A94 | A94 | A94 | A94 | A94 | A94 | A94 | A94 | A94 |
| Extra terminals (2 per I/O) 264V AC/DC Max. | 1492-IFM20F-2 | 1492-RIFM20F-2 | 1492-RTB20 | A94 | A94 | A94 | A94 | A94 | A94 | A94 | A94 | A94 | A94 | A94 |
| 3-wire sensor type input devices 132V AC/DC Max. | 1492-IFM20F-3 | — | — | A94 | A94 | — | A94 | — | — | — | — | — | — | — |
| LED Indicating | | | | | | | | | | | | | | |
| Standard with 24V AC/DC LEDs | 1492-IFM20D24 | — | — | — | — | — | — | A94 | A94 | A94 | A94 | A94 | A94 | — |
| Narrow standard with 24V AC/DC LEDs | 1492-IFM20D24N | — | — | A94 | A94 | — | — | A94 | A94 | A94 | A94 | — | — | — |
| Standard with 120V AC/DC LEDs | 1492-IFM20D120 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Narrow standard with 120V AC LEDs | 1492-IFM20D120N | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 24V AC/DC LEDs and extra terminals for outputs | 1492-IFM20D24-2 | — | — | — | — | — | — | A94 | A94 | A94 | A94 | A94 | A94 | — |
| 24V AC/DC LEDs and extra terminals for inputs | 1492-IFM20D24A-2 | — | — | A94 | A94 | — | A94 | — | — | — | — | — | — | — |
| 120V AC LEDs and extra terminals for outputs | 1492-IFM20D120-2 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 120V AC LEDs and extra terminals for inputs | 1492-IFM20D120A-2 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 3-wire sensor with 24V AC/DC LEDs | 1492-IFM20D24-3 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated with 24/48V AC/DC LEDs and 4 terminals/output | 1492-IFM20DS24-4 | — | — | — | — | — | — | — | — | — | — | — | — | A94 |
| 8 Individually isolated with 120V AC LEDs and 4 terminals/output | 1492-IFM20DS120-4 | — | — | — | — | — | — | — | — | — | — | — | — | A94 |
| 240V AC LEDs and extra terminals for outputs | 1492-IFM20D240-2 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 240V AC LEDs and extra terminals for inputs | 1492-IFM20D240A-2 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Fusible | | | | | | | | | | | | | | |
| 120V AC/DC with extra terminals for outputs | 1492-IFM20F-F-2 | 1492-RIFM20F-F-2 | 1492-RTB20 | — | — | — | — | A94 | A94 | A94 | A94 | A94 | A94 | — |
| Extra terminals with 24V AC/DC blown fuse LED indicators | 1492-IFM20F-F24-2 | 1492-RIFM20F-F24-2 | 1492-RTB20 | — | — | — | — | A94 | A94 | A94 | A94 | A94 | A94 | — |
| Extra terminals with 120V AC/DC blown fuse LED indicators | 1492-IFM20F-F120-2 | 1492-RIFM20F-F120-2 | 1492-RTB20 | — | — | — | — | — | — | — | — | — | — | — |
| Extra terminals with 240V AC/DC blown fuse LED indicators | 1492-IFM20F-F240-2 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Extra terminals with 24V AC/DC blown fuse LED indicators | 1492-IFM20F-F24A-2 | 1492-RIFM20F-F24A-2 | 1492-RTB20 | A94 | A94 | — | — | — | — | — | — | — | — | — |
| Extra terminals with 120V AC/DC blown fuse LED indicators | 1492-IFM20F-F120A-2 | 1492-RIFM20F-F120A-2 | 1492-RTB20 | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated 120V AC/DC with extra terminals for outputs | 1492-IFM20F-FS-2 | — | — | — | — | — | — | — | — | — | — | — | — | A94 |
| 8 Individually isolated with extra terminals and 24V AC/DC blown fuse LED indicators | 1492-IFM20F-FS24-2 | — | — | — | — | — | — | — | — | — | — | — | — | A94 |
| Two 4-point isolated groups with four terminals/input and 24V AC/DC blown fuse LED indicators | 1492-IFM20F-FS24A-4 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated with extra terminals output, and 120V AC/DC blown fuse LED indicators | 1492-IFM20F-FS120-2 | — | — | — | — | — | — | — | — | — | — | — | — | A94 |
| 8 Individually isolated with four terminals/output and 120V AC/DC blown fuse LED indicators | 1492-IFM20F-FS120-4 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Two 4-point isolated groups with four terminals/input and 120V AC/DC blown fuse indicators | 1492-IFM20F-FS120A-4 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated with 4 terminals/output and 240V AC/DC blown fuse indicators | 1492-IFM20F-FS240-4 | — | — | — | — | — | — | — | — | — | — | — | — | — |

Note: Footnotes are on the following page.

Pre-Wired Cable and IFMs for Bulletin 1794 Digital 8-Point and 16-Point I/O Modules (Continued)

| Description of 20-PIN IFM and Flex Distributed I/O | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | Cat. No. for Compatible Screw Style (N) and Push-in Style (P) RTB Plugs ① | Flex Digital I/O Module — Uses D-Shell Base 1794-TB37DS | | | | | | | | | | |
|--|---|--|---|---|-----|----------|------|------|-------|-----|-------|------|-------|-----|
| | | | | IB16 | IB8 | IB10XOB6 | IV16 | OB16 | OB16P | OB8 | OB8EP | OV16 | OV16P | OW8 |
| Relay Master (LED Indicating) ②③ | | | | | | | | | | | | | | |
| 20-pin master with eight (8) 24V DC relays | 1492-XIM2024-8R | — | — | — | — | — | — | — | A94 | A94 | A94 | — | — | — |
| 20-pin master with eight (8) 120V AC relays | 1492-XIM20120-8R | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 20-pin master with sixteen (16) 120V AC relays | 1492-XIM20120-16R | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 20-pin master with sixteen (16) 120V AC relays with fusing | 1492-XIM20120-16RF | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 20-pin master relay with sixteen (16) 24V DC relays | 1492-XIM2024-16R | — | — | — | — | — | — | A94 | A94 | — | — | — | — | — |
| 20-pin master with sixteen (16) 24V DC relays with fusing | 1492-XIM2024-16RF | — | — | — | — | — | — | A94 | A94 | — | — | — | — | — |
| Relay Expander (LED Indicating) ②③ | | | | | | | | | | | | | | |
| Expander with eight (8) 24V DC relays | 1492-XIM24-8R | 1492-RXIM24-8R | 1492-RTB12④ | — | — | — | — | ⑤ | ⑤ | — | — | — | — | — |
| Expander with eight (8) 120V AC relays | 1492-XIM120-8R | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Fusible Expander | | | | | | | | | | | | | | |
| 8-channel expander with 24V DC blown fuse indicators | 1492-XIMF-F24-2 | — | — | — | — | — | — | ⑤ | ⑤ | — | — | — | — | — |
| 8-channel expander with 120V AC blown fuse indicators | 1492-XIMF-F120-2 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Feed-through Expander | | | | | | | | | | | | | | |
| Expander with eight (8) feed-through channels | 1492-XIMF-2 | — | — | — | — | — | — | ⑤ | ⑤ | — | — | — | — | — |

- ① Order plugs separately (two plugs per catalog number). Plugs are available in screw style and push in style terminal types. To order, replace the ④ in the catalog number with the code for the desired terminal style. The code for screw style is N and the code for push in style is P. The number (i.e., 20) in the cat. no. indicates the number of connections/pole.
- ② Can have up to one relay expansion module depending upon relay master used (total 16 points or less). Extender cable is provided.
- ③ Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number 005 = 0.5 m (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m), and insert the letter in the box. Example: **Catalog Number 1492-CAB010A94** is for a 1.0 m cable, and the suffix A94.
- ④ This IFM is not recommended for use with PLC I/O modules that have an off-state leakage current exceeding 0.5 mA. Use a 1492-IFM20D120N or 1492-IFM20D120A-2 for inputs. Use 1492-IFM20D120-2 for outputs.
- ⑤ The voltage rating is relay control/coil voltage. For Relay Contact Ratings, refer to page 192.
- ⑥ The LED indicates the PLC output status.

Pre-Wired Cables and IFMs for Bulletin 1794 Digital 16-Point Isolated and 32-Point I/O Modules

| Description of 40-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | Cat. No. for Compatible Screw Style (N) and Push-in Style (P) RTB Plug ① | Flex Digital I/O Module — Uses D-Shell Base 1794-TB62DS... | | | |
|--|---|--|--|--|------------|------|-------|
| | | | | IB16D | IB16XOB16P | IB32 | OB32P |
| Feed-through | | | | | | | |
| Standard 132V AC/DC Max. | 1492-IFM40F | 1492-RIFM40F | 1492-RTB20② | B94 | B94 | B94 | B94 |
| Extra terminals (2 per I/O) 132V AC/DC Max. | 1492-IFM40F-2 | 1492-RIFM40F-2 | 1492-RTB20② | B94 | B94 | B94 | B94 |
| 3-wire sensor type input devices 60V AC/DC Max. | 1492-IFM40F-3 | — | — | — | — | — | — |
| LED Indicating | | | | | | | |
| Standard with 24V AC/DC LEDs | 1492-IFM40D24 | 1492-RIFM40D24 | 1492-RTB20② | — | — | B94 | B94 |
| 24V AC/DC LEDs and extra terminals for outputs | 1492-IFM40D24-2 | — | — | — | — | — | B94 |
| 24V AC/DC LEDs and extra terminals for inputs | 1492-IFM40D24A-2 | 1492-RIFM40D24A-2 | 1492-RTB20② | — | — | — | — |
| 120V AC LEDs and extra terminals for outputs | 1492-IFM40D120-2 | — | — | — | — | — | — |
| 120V AC LEDs and extra terminals for inputs | 1492-IFM40D120A-2 | — | — | — | — | — | — |
| 3-wire sensor with 24V AC/DC LEDs | 1492-IFM40D24-3 | — | — | — | — | — | — |
| 16 Individually isolated with 24/48V AC/DC LEDs and 4 terminals/output | 1492-IFM40DS24-4 | — | — | — | — | — | — |
| 16 Individually isolated with 24V AC/DC LEDs and 4 terminals/input | 1492-IFM40DS24A-4 | — | — | — | — | — | — |
| 16 Individually isolated with 120V AC LEDs and 4 terminals/output | 1492-IFM40DS120-4 | — | — | — | — | — | — |
| 16 Individually isolated with 120V AC LEDs and 4 terminals/input | 1492-IFM40DS120A-4 | — | — | — | — | — | — |

Pre-Wired Cables and IFMs for Bulletin 1794 Digital 16-Point Isolated and 32-Point I/O Modules (Continued)Ⓢ

| Description of 40-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | Cat. No. for Compatible Screw Style (N) and Push-in Style (P) RTB Plug Ⓢ | Flex Digital I/O Module — Uses D-Shell Base 1794-TB62DS... | | | |
|--|---|--|--|--|------------|------|-------|
| | | | | IB16D | IB16XOB16P | IB32 | OB32P |
| 16 Individually isolated with 240V AC LEDs and 4 terminals/input | 1492-IFM40DS240A-4 | — | — | — | — | — | — |
| Fusible | | | | | | | |
| 120V AC/DC with extra terminals for outputs | 1492-IFM40F-F-2 | — | — | — | — | — | B94 |
| Extra terminals with 24V AC/DC blown fuse indicators for outputs | 1492-IFM40F-F24-2 | 1492-RIFM40F-F24-2 | 1492-RTB20Ⓢ | — | — | — | B94 |
| Extra terminals with 120V AC/DC blown fuse indicators for outputs | 1492-IFM40F-F120-2 | — | — | — | — | — | — |
| 16 Individually isolated with extra terminals for 120V AC DC outputs | 1492-IFM40F-FS-2 | — | — | — | — | — | — |
| Individually isolated with extra terminals and 24V AC/DC blown fuse indicators for outputs | 1492-IFM40F-FS24-2 | — | — | — | — | — | — |
| 16 Individually isolated with 24V AC/DC blown fuse indicators and 4 terminals/output | 1492-IFM40F-FS24-4 | — | — | — | — | — | — |
| 16 Individually isolated 240V AC/DC with 4 terminals/output | 1492-IFM40F-FS-4 | — | — | — | — | — | — |
| 16 Individually isolated with extra terminals and 120V AC/DC blown fuse indicators for outputs | 1492-IFM40F-FS120-2 | 1492-RIFM40F-FS120-2 | 1492-RTB20Ⓢ | — | — | — | — |
| 16 Individually isolated with 120V AC/DC blown fuse indicators and 4 terminals/output | 1492-IFM40F-FS120-4 | 1492-RIFM40F-FS120-4 | 1492-RTB17Ⓢ | — | — | — | — |
| 16 Individually isolated with 240V AC/DC blown fuse indicators and 4 terminals/output | 1492-IFM40F-FS240-4 | — | — | — | — | — | — |
| 16 Individually isolated with 24V AC/DC blown fuse indicators and 4 terminals/input | 1492-IFM40F-FS24A-4 | — | — | — | — | — | — |
| 16 Individually isolated with 120V AC/DC 4 terminals/input | 1492-IFM40F-FSA-4 | — | — | — | — | — | — |
| 16 Individually isolated with 120V AC/DC blown fuse indicators and 4 terminals/input | 1492-IFM40F-FS120A-4 | 1492-RIFM40F-FS120A-4 | 1492-RTB17Ⓢ | — | — | — | — |
| 16 Individually isolated with 240 VAC/DC blown fuse indicators and 4 terminals/input | 1492-IFM40F-FS240A-4 | — | — | — | — | — | — |
| Relay Master (LED Indicating) ⓈⓉ | | | | | | | |
| 40-pin master with eight (8) 24V DC relays | 1492-XIM4024-8R | — | — | — | — | — | B94 |
| 40-pin master with sixteen (16) 24V DC relays | 1492-XIM4024-16R | 1492-RXIM4024-16R | 1492-RTB14Ⓢ | — | — | — | B94 |
| 40-pin master with sixteen (16) 24V DC relays with fusing | 1492-XIM4024-16RF | — | — | — | — | — | B94 |
| Relay Expander (LED Indicating) ⓈⓉ | | | | | | | |
| Expander with eight (8) 24V DC relays | 1492-XIM24-8R | 1492-RXIM24-8R | 1492-RTB12Ⓢ | — | — | — | ① |
| Expander with eight (8) 120V AC relays | 1492-XIM120-8R | — | — | — | — | — | — |
| Fusible Expander | | | | | | | |
| 8-channel expander with 24V DC blown fuse indicators | 1492-XIMF-F24-2 | — | — | — | — | — | ① |
| 8-channel expander with 120V AC blown fuse indicators | 1492-XIMF-F120-2 | — | — | — | — | — | — |
| Expander with sixteen (16) 24V DC relays with fusing | 1492-XIM24-16RF | — | — | — | — | — | ② |
| Feed through Expander | | | | | | | |
| Expander with eight (8) feed-through channels | 1492-XIMF-2 | — | — | — | — | — | ① |

- ① Two or three expanders are connected to a master to provide a total of 32 outputs max (depends on PLC module). An extender cable is included with each expander to connect it to the master.
- ② One 1492-XIM24-16RF is to be used with one 1492-XIM4024-16R AND 1492-XIM4024-16RF master (32 PT. only).
- ③ Cables are available in standard lengths of 0.5 m 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number 005 = 0.5 m (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m), and insert the letter in the box. Example: **Catalog Number 1492-CAB010A94** is for a 1.0 m cable, and the suffix A94
- ④ The voltage rating is relay control/coil voltage. For Relay Contact Ratings, refer to page 192.
- ⑤ The LED indicates the PLC output status.
- ⑥ Order plugs separately (two plugs per catalog number). Plugs are available in screw style and push in style terminal types. To order, replace the Ⓢ in the catalog number with the code for the desired terminal style. The code for screw style is N and the code for push in style is P. The number (i.e., 20) in the cat. no. indicates the number of connections/pole.

Bulletin 1794 Pre-wired Cables

These **pre-wired cables** have a 37- or 62-pin D-shell connector on one end to mate with the Flex base (Cat. No. 1492-TB37DS or -TB62DS) and a 20- or 40-pin AMP connector at the other end to mate with the IFM/XIM module. You must first select the IFM/XIM from one of the preceding selection tables.

Pre-Wired Cables for Bulletin 1794 Flex Digital I/O Modules Using Flex Base 1794-TB37DS or -TB62DS

| Cable Cat. No. | Standard Cable Lengths | Build-to-Order Available | No. of Conductors | Uses Flex Base | Mating 1794 I/O Modules Catalog Number |
|----------------|------------------------|--------------------------|-------------------|----------------|---|
| 1492-CAB0A94 | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1794-TB37DS | 1794-IB16, -IB8, -IV16, -OB16, -OB16P, -OB8, -OB8EP, -OV16, -OV16P, -OW8, -IB10XOB8 |
| 1492-CAB0B94 | 0.5, 1.0, 2.5, 5.0 m | Yes | 40 | 1794-TB62DS | 1794-IB16D, -IB32, -OB32P, -IB16XOB16P |

- ① Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CAB050A94** is for a 5.0 m cable that could be used to connect a Catalog Number 1492-IFM40F IFM to a Catalog Number 1794-IB16 I/O module.

The **I/O module-ready cables** have a 37- or 62-pin D-shell connector on one end to mate with the Cat. No. 1794-TB37DS or 1794-TB62DS Flex I/O base and 20 or 40 individually colored #22 AWG conductors (flying leads) at the other end. These cables provide the convenience of pre-wired connectors at the I/O module end, while allowing the flexibility to field-wire to standard terminal blocks of your choice.

I/O Module-Ready Cables for 1794 Flex Digital I/O modules Using Flex Base 1794-TB37DS or -TB62DS

| Cable Cat. No. | Standard Cable Lengths | Build-to-Order Available | No. of Conductors | Uses Flex Base | Mating 1794 I/O Modules Catalog Number |
|----------------|------------------------|--------------------------|-------------------|----------------|---|
| 1492-CAB0G94 | 1.0, 2.5, 5.0 m | Yes | 20 | 1794-TB37DS | 1794-IB16, -IB8, -IV16, -OB16, -OB16P, -OB8, -OB8EP, -OV16, -OV16P, -OW8, -IB10XOB8 |
| 1492-CAB0H94 | 1.0, 2.5, 5.0 m | Yes | 40 | 1794-TB62DS | 1794-IB16D, -IB32, -OB32P, -IB16XOB16P |

- ① Cables are available in standard lengths of 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CAB050G94** is for a 5.0 m cable.

Pre-Wired Cable, Analog, and Specialty IFMs for Bulletin 1794 Analog I/O Modules

| Description of AIFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | Cat. No. for Compatible Screw Style (N) and Push-in Style (P) RTB Plug ③ | I/O Module Catalog Number 1794-... ① | | | | | |
|---|---|--|--|--------------------------------------|-----|----------|------|-----|------|
| | | | | IE4XOE2 | IE8 | IF2XOF2I | IF4I | OE4 | OF4I |
| Feed-through | | | | | | | | | |
| 4-channel input, output or 2 in/2 out combination with 3 terminal/channel | 1492-AIFM4-3 | 1492-RAIFM4-3 | 1492-RTB8④ | — | — | — | — | — | — |
| 6-channel isolated with 3...4 terminals/channel | 1492-AIFM6S-3 | 1492-RAIFM6S-3 | 1492-RTB12④ | — | — | — | — | — | — |
| 8-channel differential 16-channel single-ended with 3 terminals/channel | 1492-AIFM8-3 | 1492-RAIFM8-3 | 1492-RTB16④ | Z94 | Z94 | Z94 | Z94 | Z94 | Z94 |
| Thermocouple | | | | | | | | | |
| 6-channel with 3 terminals/channel ② | 1492-AIFM6TC-3 | — | — | — | — | — | — | — | — |
| Fusible | | | | | | | | | |
| 4-channel with 24V DC blown fuse indicators, test points, 5 terminals/input | 1492-AIFM4I-F-5 | — | — | — | — | — | — | — | — |
| 2-channel with 24V DC blown fuse indicators, test points, 5 terminals/input, 3 terminals/output | 1492-AIFM4C-F-5 | — | — | — | — | — | — | — | — |
| 8-channel input with 24V DC blown fuse indicators, 5 terminals/channel | 1492-AIFM8-F-5 | — | — | Z94 | Z94 | Z94 | Z94 | — | — |
| 16-channel input with 24V DC blown fuse indicators, 3 terminals/channel | 1492-AIFM16-F-3 | — | — | — | — | — | — | — | — |
| 16-channel input with 24V DC blown fuse indicators, 5 terminals/channel | 1492-AIFM16-F-5 | — | — | — | — | — | — | — | — |
| 4-input/4-output channel with 8 fuses and 24V blown fuse indicators | 1492-AIFMMQS | — | — | — | — | — | — | — | — |

- ① Cables are available in standard lengths of 0.5 m 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number 005 = 0.5 m (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m), and insert the letter in the box. Example: **Catalog Number 1492-ACAB010Z94** is for a 1.0 m cable, and the suffix Z94.
- ② Cannot be used with 1794 I/O.
- ③ Order plugs separately (two plugs per catalog number). Plugs are available in screw style and push in style terminal types. To order, replace the ④ in the catalog number with the code for the desired terminal style. The code for screw style is N and the code for push in style is P. The number (i.e., 20) in the cat. no. indicates the number of connections/pole.

These **pre-wired cables** have a wiring arm on one end to connect to the front of a Bulletin 1794 analog I/O module and a connector on the other end to plug into a 15- or 25-pin D-shell terminal AIFM. You must first select the AIFM from the preceding selection table

Pre-Wired Cables for 1794 Flex Analog I/O modules Using Flex Base 1794-TB37DS or -TB62DS

| Cable Cat. No. | Standard Cable Lengths | Build-to-Order Available | No. of Conductors | Uses Flex Base | Mating 1794 I/O Modules Catalog Number |
|----------------|------------------------|--------------------------|-------------------|----------------|--|
| 1492-ACAB④Z94 | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1794-TB37DS | 1794-IE8, -IF4I, -OE4, -IE4XOE2, -IF2XOF2I |

- ① Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-ACAB050Z94** is for a 5.0 m cable, and the suffix Z94.

Note: Footnotes are on the following page.

Using Bulletin 1771 Selection Tables to Make Valid 1492 Wiring System Module Catalog Numbers

Follow these steps when using the selection tables to make valid catalog numbers:

1. Find the appropriate table based on the catalog number of the 1771 I/O module.
2. Find the column in the selected table for the 1771 I/O module.
3. Follow the column down to determine which Wiring System Modules are compatible with the I/O module as indicated by letter code. If there is no letter code, the Wiring System Module is not compatible with the I/O module. NOTE: The letter codes designate the compatible 1492 cable for that 1771 I/O and Wiring System Module combination.
4. Select the desired Wiring System Module.
5. Configure the cable catalog number using 1492-CABLE❶ (for digital cables) or 1492-ACABLE❶ (for analog cables). See footnote ❶ on pages 62 and 64.

Bulletin 1771 PLC-5 IFMs and Cables

IFMs for Bulletin 1771 Digital 8-Point and 16-Point I/O Modules

| Description of 20-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1771-... | | | | | | | | | | | | | | | | |
|---|---|--|------------------------------------|-----|-----|----|-----|-----|-----|-----|----|----|-----|----|------|------|-----|-----|------|
| | | | IA | IA2 | IA4 | IB | IBD | ICD | IGD | IMD | IH | IN | IND | IT | OAD❶ | ODD❶ | OGD | OMD | OND❶ |
| Feed-through | | | | | | | | | | | | | | | | | | | |
| Standard 264V AC/DC Max. | 1492-IFM20F | 1492-RIFM20F❶ | — | — | F | — | F | F | F | F | — | — | F | — | F,FF | F,FF | F | F | F,FF |
| Narrow standard 132V AC/DC Max. | 1492-IFM20FN | 1492-RIFM20FN❶ | — | — | F | — | F | F | F | — | — | — | F | — | F,FF | F,FF | F | — | F,FF |
| Extra terminals (2 per I/O) 264V AC/DC Max. | 1492-IFM20F-2 | 1492-RIFM20F-2❶ | — | — | F | — | F | F | F | F | — | — | F | — | F,FF | F,FF | F | F | F,FF |
| 3-wire sensor type input devices 132V AC/DC Max. | 1492-IFM20F-3 | — | — | — | F | — | F | F | F | — | — | — | F | — | — | — | — | — | — |
| LED Indicating | | | | | | | | | | | | | | | | | | | |
| Standard with 24V AC/DC LEDs | 1492-IFM20D24 | — | — | — | — | — | F | F | — | — | — | — | F | — | F,FF | F,FF | — | — | F,FF |
| Narrow standard with 24V AC/DC LEDs | 1492-IFM20D24N | — | — | — | — | — | F | F | — | — | — | — | F | — | F,FF | F,FF | — | — | F,FF |
| Standard with 120V AC/DC LEDs | 1492-IFM20D120❶ | — | — | — | F | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Narrow standard with 120V AC LEDs | 1492-IFM20D120N | — | — | — | F | — | — | — | — | — | — | — | — | — | F,FF | — | — | — | — |
| 24V AC/DC LEDs and extra terminals for outputs | 1492-IFM20D24-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | F,FF | F,FF | — | — | F,FF |
| 24V AC/DC LEDs and extra terminals for inputs | 1492-IFM20D24A-2 | — | — | — | — | — | F | F | — | — | — | — | F | — | — | — | — | — | — |
| 120V AC LEDs and extra terminals for outputs | 1492-IFM20D120-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | F,FF | — | — | — | — |
| 120V AC LEDs and extra terminals for inputs | 1492-IFM20D120A-2 | — | — | — | F | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 3-wire sensor with 24V AC/DC LEDs | 1492-IFM20D24-3 | — | — | — | — | — | F | F | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated with 24/48V AC/DC LEDs and 4 terminals/output | 1492-IFM20DS24-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated with 120V AC LEDs and 4 terminals/output | 1492-IFM20DS120-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 240V AC LEDs and extra terminals for outputs | 1492-IFM20D240-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | F | — |
| 240V AC LEDs and extra terminals for inputs | 1492-IFM20D240A-2 | — | — | — | — | — | — | — | — | F | — | — | — | — | — | — | — | — | — |
| Fusible | | | | | | | | | | | | | | | | | | | |
| 120V AC/DC with extra terminals for outputs | 1492-IFM20F-F-2 | 1492-RIFM20F-F-2❶ | — | — | — | — | — | — | — | — | — | — | — | — | F | F | — | — | F |
| Extra terminals with 24V AC/DC blown fuse LED indicators | 1492-IFM20F-F24-2 | 1492-RIFM20F-F24-2❶ | — | — | — | — | — | — | — | — | — | — | — | — | F | F | — | — | F |
| Extra terminals with 120V AC/DC blown fuse LED indicators | 1492-IFM20F-F120-2 | 1492-RIFM20F-F120-2❶ | — | — | — | — | — | — | — | — | — | — | — | — | F | — | — | — | — |
| Extra terminals with 240V AC/DC blown fuse LED indicators | 1492-IFM20F-F240-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | F | — |
| Extra terminals with 24V AC/DC blown fuse LED indicators | 1492-IFM20F-F24A-2 | 1492-RIFM20F-F24A-2❶ | — | — | — | — | F | F | — | — | — | — | F | — | — | — | — | — | — |
| Extra terminals with 120V AC/DC blown fuse LED indicators | 1492-IFM20F-F120A-2 | 1492-RIFM20F-F120A-2❶ | — | — | F | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

IFMs for Bulletin 1771 Digital 8-Point and 16-Point I/O Modules (Continued)

| Description of 20-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1771-... | | | | | | | | | | | | | | | | |
|---|---|--|------------------------------------|-----|-----|----|-----|-----|-----|-----|----|----|-----|----|------------------|------------------|------|-----|------------------|
| | | | IA | IA2 | IA4 | IB | IBD | ICD | IGD | IMD | IH | IN | IND | IT | OAD ^① | OBD ^① | OGD | OMD | OND ^① |
| 8 Individually isolated 120V AC/DC with extra terminals for outputs | 1492-IFM20F-FS-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 Individually isolated with extra terminals and 24V AC/DC blown fuse LED indicators | 1492-IFM20F-FS24-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Two 4-point isolated groups with four terminals/input and 24V AC/DC blown fuse LED indicators | 1492-IFM20F-FS24A-4 | — | — | — | T | — | — | — | — | T | T | — | T | — | — | — | — | — | |
| 8 Individually isolated with extra terminals output, and 120V AC/DC blown fuse LED indicators | 1492-IFM20F-FS120-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 8 Individually isolated with four terminals/output and 120V AC/DC blown fuse LED indicators | 1492-IFM20F-FS120-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Two 4-point isolated groups with four terminals/input and 120V AC/DC blown fuse indicators | 1492-IFM20F-FS120A-4 | — | T | T | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 8 Individually isolated with 4 terminals/output and 240V AC/DC blown fuse indicators | 1492-IFM20F-FS240-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Relay Master (LED Indicating) ②③ | | | | | | | | | | | | | | | | | | | |
| 20-pin master with eight (8) 24V DC relays | 1492-XIM2024-8R | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | F,FF | — | — |
| 20-pin master with eight (8) 120V AC relays | 1492-XIM20120-8R | — | — | — | — | — | — | — | — | — | — | — | — | — | — | F,FF | — | — | — |
| 20-pin master with sixteen (16) 120V AC relays | 1492-XIM20120-16R | — | — | — | — | — | — | — | — | — | — | — | — | — | — | F,FF | — | — | — |
| 20-pin master with sixteen (16) 120V AC relays with fusing | 1492-XIM20120-16RF | — | — | — | — | — | — | — | — | — | — | — | — | — | — | F,FF | — | — | — |
| 20-pin master relay with sixteen (16) 24V DC relays | 1492-XIM2024-16R | — | — | — | — | — | — | — | — | — | — | — | — | — | — | F,F | — | — | — |
| 20-pin master with sixteen (16) 24V DC relays with fusing | 1492-XIM2024-16RF | — | — | — | — | — | — | — | — | — | — | — | — | — | — | F,F | — | — | — |
| Relay Expander (LED Indicating) ②③ | | | | | | | | | | | | | | | | | | | |
| Expander with eight (8) 24V DC relays | 1492-XIM24-8R | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | ② | — | — |
| Expander with eight (8) 120V AC relays | 1492-XIM120-8R | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | ② | — | — |
| Fusible Expander | | | | | | | | | | | | | | | | | | | |
| 8-channel expander with 24V DC blown fuse indicators | 1492-XIMF-F24-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | ② | — | — |
| 8-channel expander with 120V AC blown fuse indicators | 1492-XIMF-F120-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | ② | — | — |
| Feed-through Expander | | | | | | | | | | | | | | | | | | | |
| Expander with eight (8) feed-through channels | 1492-XIMF-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | ② | ② | — |

- ① Either F or FF.
- ② One expander is connected to a master to provide a total of 16 outputs. An extender cable is included with each expander to connect it to the master.
- ③ Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number 005 = 0.5 m (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m), and insert the letter in the box. Example: **Catalog Number 1492-CABLE050A** is for a 5.0 m cable, and the letter A.
- ④ This IFM is not recommended for use with PLC I/O modules that have an off-state leakage current exceeding 0.5 mA. Use a 1492-IFM20D120N or 1492-IFM20D120A-2 for inputs. Use 1492-IFM20D120-2 for outputs.
- ⑤ The voltage rating is relay control/coil voltage. For Relay Contact Ratings, refer to page 192.
- ⑥ The LED indicates the PLC output status.
- ⑦ Compatible Removable Terminal Block (RTB) plug; 1492-RTB20N (screw style terminals) or 1492-RTB20P. ORDER PLUGS SEPARATELY.
- ⑧ Compatible Removable Terminal Block (RTB) plug; 1492-RTB10N (screw style terminals) or 1492-RTB10P. ORDER PLUGS SEPARATELY.

Bulletin 1771 PLC-5 IFMs and Cables, Continued

IFMs for Bulletin 1771 Digital 16-Point Isolated and 32-Point I/O Modules ③

| Description of 40-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1771-... | | | | | | | | | | | | | | | |
|---|---|--|------------------------------------|-----|------|------|-----|-----|-----|------|-----|------|-----|------|-----|------|---------------------|---------------------|
| | | | IAN | IBN | ID16 | ID16 | IVN | OAN | OBN | OD16 | ODD | OD16 | OVN | OW16 | OWN | OWNA | scIM16 ^④ | scOM16 ^④ |
| Feed-through | | | | | | | | | | | | | | | | | | |
| Standard 132V AC/DC Max. | 1492-IFM40F | 1492-RIFM40F ^⑤ | J | J | M | M | K | L | L | M | M | M | L | R | L | L | — | M |
| Extra terminals (2 per I/O) 132V AC/DC Max. | 1492-IFM40F-2 | 1492-RIFM40F-2 ^⑤ | J | J | — | — | K | L | L | — | — | — | L | R | L | L | — | — |

Note: Footnotes are on the following page.

IFMs for Bulletin 1771 Digital 16-Point Isolated and 32-Point I/O Modules (Continued)Ⓢ

| Description of 40-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1771-... | | | | | | | | | | | | | | | |
|--|---|--|------------------------------------|-----|------|------|-----|-----|-----|------|-----|------|-----|-------|-----|------|--------|---------|
| | | | IAN | IBN | ID16 | ID16 | IVN | OAN | OBN | OD16 | ODD | OD16 | OVN | OW16 | OWN | OWNA | scM16Ⓢ | scOM16Ⓢ |
| 3-wire sensor type input devices 60V AC/DC Max. | 1492-IFM40F-3 | — | — | J | — | — | — | K | — | — | — | — | — | — | — | — | — | — |
| LED Indicating | | | | | | | | | | | | | | | | | | |
| Standard with 24V AC/DC LEDs | 1492-IFM40D24 | 1492-RIFM40D24Ⓢ | — | J | — | — | — | K | — | L | — | — | — | L | — | L | L | — |
| 24V AC/DC LEDs and extra terminals for outputs | 1492-IFM40D24-2 | — | — | — | — | — | — | — | — | L | — | — | — | L | — | L | L | — |
| 24V AC/DC LEDs and extra terminals for inputs | 1492-IFM40D24A-2 | 1492-RIFM40D24A-2Ⓢ | — | J | — | — | — | K | — | — | — | — | — | — | — | — | — | — |
| 120V AC LEDs and extra terminals for outputs | 1492-IFM40D120-2 | — | — | — | — | — | — | L | — | — | — | — | — | — | L | L | — | — |
| 120V AC LEDs and extra terminals for inputs | 1492-IFM40D120A-2 | — | J | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 3-wire sensor with 24V AC/DC LEDs | 1492-IFM40D24-3 | — | — | J | — | — | — | K | — | — | — | — | — | — | — | — | — | — |
| 16 Individually isolated with 24/48V AC/DC LEDs and 4 terminals/output | 1492-IFM40DS24-4 | — | — | — | — | — | — | — | — | — | — | — | M | — | — | — | — | — |
| 16 Individually isolated with 24V AC/DC LEDs and 4 terminals/input | 1492-IFM40DS24A-4 | — | — | — | — | M | — | — | — | — | — | — | — | — | — | — | — | — |
| 16 Individually isolated with 120V AC LEDs and 4 terminals/output | 1492-IFM40DS120-4 | — | — | — | — | — | — | — | — | M | M | — | — | — | — | — | — | M |
| 16 Individually isolated with 120V AC LEDs and 4 terminals/input | 1492-IFM40DS120A-4 | — | — | — | M | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 16 Individually isolated with 240V AC LEDs and 4 terminals/input | 1492-IFM40DS240A-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | M | — |
| Fusible | | | | | | | | | | | | | | | | | | |
| 120V AC/DC with extra terminals for outputs | 1492-IFM40F-F-2 | — | — | — | — | — | — | L | L | — | — | — | L | — | L | L | — | — |
| Extra terminals with 24V AC/DC blown fuse indicators for outputs | 1492-IFM40F-F24-2 | 1492-RIFM40F-F24-2Ⓢ | — | — | — | — | — | — | L | — | — | — | L | — | L | L | — | — |
| Extra terminals with 120V AC/DC blown fuse indicators for outputs | 1492-IFM40F-F120-2 | — | — | — | — | — | — | L | — | — | — | — | — | L | L | — | — | — |
| 16 Individually isolated with extra terminals for 120V AC DC outputs | 1492-IFM40F-FS-2 | — | — | — | — | — | — | — | — | M | M | M | — | R71 Ⓢ | — | — | — | M |
| Individually isolated with extra terminals and 24V AC/DC blown fuse indicators for outputs | 1492-IFM40F-FS24-2 | — | — | — | — | — | — | — | — | — | — | M | — | R71 Ⓢ | — | — | — | — |
| 16 Individually isolated with 24V AC/DC blown fuse indicators and 4 terminals/output | 1492-IFM40F-FS24-4 | — | — | — | — | — | — | — | — | — | — | M | — | — | — | — | — | — |
| 16 Individually isolated 240V AC/DC with 4 terminals/output | 1492-IFM40F-FS-4 | — | — | — | — | — | — | — | — | — | — | M | — | — | — | — | — | — |
| 16 Individually isolated with extra terminals and 120V AC/DC blown fuse indicators for outputs | 1492-IFM40F-FS120-2 | 1492-RIFM40F-FS120-2Ⓢ | — | — | — | — | — | — | — | M | M | — | — | R71 Ⓢ | — | — | — | M |
| 16 Individually isolated with 120V AC/DC blown fuse indicators and 4 terminals/output | 1492-IFM40F-FS120-4 | 1492-RIFM40F-FS120-4Ⓢ | — | — | — | — | — | — | — | M | M | — | — | — | — | — | — | M |
| 16 Individually isolated with 240V AC/DC blown fuse indicators and 4 terminals/output | 1492-IFM40F-FS240-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | M |
| 16 Individually isolated with 24V AC/DC blown fuse indicators and 4 terminals/input | 1492-IFM40F-FS24A-4 | — | — | — | M | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 16 Individually isolated with 120V AC/DC 4 terminals/input | 1492-IFM40F-FSA-4 | — | — | — | M | M | — | — | — | — | — | — | — | — | — | — | — | — |
| 16 Individually isolated with 120V AC/DC blown fuse indicators and 4 terminals/input | 1492-IFM40F-FS120A-4 | 1492-RIFM40F-FS120A-4Ⓢ | — | — | M | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 16 Individually isolated with 240 VAC/DC blown fuse indicators and 4 terminals/input | 1492-IFM40F-FS240A-4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Relay Master (LED Indicating) Ⓢ | | | | | | | | | | | | | | | | | | |
| 40-pin master with eight (8) 24V DC relays | 1492-XIM4024-8R | — | — | — | — | — | — | — | L | — | — | — | — | — | — | — | — | — |
| 40-pin master with sixteen (16) 24V DC relays | 1492-XIM4024-16R | 1492-RXIM4024-16RⓈ | — | — | — | — | — | — | L | — | — | — | — | — | — | — | — | — |
| 40-pin master with sixteen (16) 24V DC relays with fusing | 1492-XIM4024-16RF | — | — | — | — | — | — | — | L | — | — | — | — | — | — | — | — | — |
| Relay Expander (LED Indicating) Ⓢ | | | | | | | | | | | | | | | | | | |
| Expander with eight (8) 24V DC relays | 1492-XIM24-8R | 1492-RXIM24-8RⓈ | — | — | — | — | — | — | ① | — | — | — | — | — | — | — | — | — |
| Expander with eight (8) 120V AC relays | 1492-XIM120-8R | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Fusible Expander | | | | | | | | | | | | | | | | | | |
| 8-channel expander with 24V DC blown fuse indicators | 1492-XIMF-F24-2 | — | — | — | — | — | — | — | — | ① | — | — | — | — | — | — | — | — |

IFMs for Bulletin 1771 Digital 16-Point Isolated and 32-Point I/O Modules (Continued)Ⓢ

| Description of 40-PIN IFM | Cat. No. for Wiring System Module with Fixed Terminal Block | Cat. No. for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1771-... | | | | | | | | | | | | | | | |
|---|---|--|------------------------------------|-----|------|------|-----|-----|-----|------|-----|------|-----|------|-----|------|---------|---------|
| | | | IAN | IBN | ID16 | IQ16 | IVN | OAN | OBN | OD16 | ODD | OQ16 | OVN | OW16 | OWN | OWNA | scIM16Ⓢ | scOM16Ⓢ |
| 8-channel expander with 120V AC blown fuse indicators | 1492-XIMF-F120-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Expander with sixteen (16) 24V DC relays with fusing | 1492-XIM24-16RF | — | — | — | — | — | — | — | ② | — | — | — | — | — | — | — | — | — |
| Feed through Expander | | | | | | | | | | | | | | | | | | |
| Expander with eight (8) feed-through channels | 1492-XIMF-2 | — | — | — | — | — | — | — | ① | — | — | — | — | — | — | — | — | — |

- ① Two or three expanders are connected to a master to provide a total of 32 outputs max (depends on PLC module). An extender cable is included with each expander to connect it to the master.
- ② One 1492-XIM24-16RF is to be used with one 1492-XIM4024-16R AND 1492-XIM4024-16RF master (32 PT. only).
- ③ Cables are available in standard lengths of 0.5 m 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number 005 = 0.5 m (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m), and insert the letter in the box. Example: **Catalog Number 1492-CABLE025J** is for a 2.5 m cable, and the letter J.
- ④ For information concerning this I/O module contact Spectrum Controls (phone: 425-641-9473 or www.spectrumcontrols.com).
- ⑤ Cable Catalog Number 1492-CABⓈ has the N.O. contacts only connected.
- ⑥ The voltage rating is relay control/coil voltage. For Relay Contact Ratings, refer to page 192.
- ⑦ The LED indicates the PLC output status.
- ⑧ Compatible Removable Terminal Block (RTB) plug; 1492-RTB20N (screw style terminals) or 1492-RTB20P. ORDER PLUGS SEPARATELY.
- ⑨ Compatible Removable Terminal Block (RTB) plug; 1492-RTB17N (screw style terminals) or 1492-RTB17P. ORDER PLUGS SEPARATELY.
- ⑩ Compatible Removable Terminal Block (RTB) plug; 1492-RTB14N (screw style terminals) or 1492-RTB14P. ORDER PLUGS SEPARATELY.
- Ⓢ Compatible Removable Terminal Block (RTB) plug; 1492-RTB12N (screw style terminals) or 1492-RTB12P. ORDER PLUGS SEPARATELY.

Bulletin 1771 PLC-5 IFMs and Cables, Continued

These **pre-wired cables** have a wiring arm on one end to connect to the front of a Bulletin 1771 digital I/O module and a connector on the other end to plug into a 20- or 40-terminal IFM/XIM. You must first select the IFM/XIM from one of the preceding selection tables

Pre-Wired Cables for Bulletin 1771 Digital I/O Modules

| Cable Cat. No. | Standard Cable Lengths | Build-to-Order Available | No. of Conductors | Mating 1771 I/O Modules Catalog Number |
|----------------|------------------------|--------------------------|-------------------|--|
| 1492-CABLE①F | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1771-IAD, -IBD, -ICD, -IGD, -IND, -OAD, -OBD, -OGD, -OMD, -OND, -IMD |
| 1492-CABLE①FF | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1771-OAD, -OBD, -OND |
| 1492-CABLE①J | 0.5, 1.0, 2.5, 5.0 m | Yes | 40 | 1771-IAN, -IBN |
| 1492-CABLE①K | 0.5, 1.0, 2.5, 5.0 m | Yes | 40 | 1771-IVN |
| 1492-CABLE①L | 0.5, 1.0, 2.5, 5.0 m | Yes | 40 | 1771-OAN, -OBN, -OVN, -OWN, -OWNA |
| 1492-CABLE①M | 0.5, 1.0, 2.5, 5.0 m | Yes | 40 | 1771-ID16, -IQ16, -OD16, -ODD, -OQ16, -SCIM16, -SCOM16 |
| 1492-CABLE①R | 0.5, 1.0, 2.5, 5.0 m | Yes | 40 | 1771-OW16 |
| 1492-CAB①R71② | 0.5, 1.0, 2.5, 5.0 m | Yes | 40 | 1771-OW16 |
| 1492-CABLE①T | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 1771-IA, -IA2, -IB, -IH, -IN, -IT |

- ① Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CABLE005M** is for a 0.5 m cable that could be used to connect a Catalog Number 1492-IFM40F IFM to a Catalog Number 1771-ODD I/O module.
- ② Cable Catalog Number 1492-CAB①R71 has only the N.O. contacts connected.

Note: Footnotes are on the following page.

The **I/O module-ready cables** have a wiring arm on one end to plug onto the front of a Bulletin 1771 I/O module and 20 or 40 individually colored #18 AWG conductors on the other end. These cables provide the convenience of pre-wired connections at the I/O module end, while still allowing the flexibility to field-wire to standard terminal blocks of your choice.

I/O Module-Ready Cables for 1771 Digital I/O Modules ③

| Cable Cat. No. | Standard Cable Lengths | Build-to-Order Available | No. of Conductors | Mating 1771 I/O Modules Catalog Number |
|----------------|------------------------|--------------------------|-------------------|--|
| 1492-CABLE③WA | 1.0, 2.5, 5.0 m | Yes | 12 | 1771-IA, -IA2, -IB, -IC, -IH, -IM, -IN, -IT, -IV, -OA, -OB, -OC, -OM, -ON, -OP |
| 1492-CABLE③WD | 1.0, 2.5, 5.0 m | Yes | 12 | 1771-ID, -ID01, -OD, -ODZ, -OR, -OW, -OYL, -OZL |
| 1492-CABLE③WH | 1.0, 2.5, 5.0 m | Yes | 20 | 1771-IAD, -IBD, -ICD, -IGD, -IMD, -IND, -OAD, -OBD, -OGD, -OMD, -OND |
| 1492-CABLE③WHF | 1.0, 2.5, 5.0 m | Yes | 20 | 1771-IBD ④, -OAD ④, -OBD ④, -OMD ④, -OND ④ |
| 1492-CABLE③WN | 1.0, 2.5, 5.0 m | Yes | 40 | 1771-IAN, -IBN, -ID16, -IQ16, -IVN, -OAN, -OBN, -OD16, -ODD, -OQ16, -OVN, -OW16, -OWN, -OWNA |

③ Cables are available in standard lengths of 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CABLE050WN** is for a 5.0 m cable with a pre-wired Catalog Number 1771-WN wiring arm on one end.

④ Includes an optional 3 A fuse in the Wiring Arm for 1771 PLC mating I/O Modules.

⑤ Discrete I/O ready cables should not be used with PLC analog I/O modules as a cable shield and drain wires are not provided.

Bulletin 1771 PLC-5 AIFMs and Cables

IFMs for Bulletin 1771 Analog I/O Modules

| Description of AIFM | Catalog Number for Wiring System Module with Fixed Terminal Block | Catalog Number for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1771-... | | | | | | | | | |
|---|---|--|------------------------------------|--------------------|--------------------|--------------------|----|----|------|------|------|---|
| | | | IFE (Differential) | IFE (Single-Ended) | IFF (Differential) | IFF (Single-Ended) | IL | IR | OFE1 | OFE2 | OFE3 | |
| Feed-through | | | | | | | | | | | | |
| 4-channel input, output or 2 in/2 out combination with 3 terminals/channel | 1492-AIFM4-3 | 1492-RAIFM4-3③ | — | — | — | — | — | — | — | G | G | G |
| 6-channel isolated with 3...4 terminals/channel | 1492-AIFM6S-3 | 1492-RAIFM6S-3④ | — | — | — | — | — | — | J | — | — | — |
| 8-channel differential 16-channel single-ended with 3 terminals/channel | 1492-AIFM8-3 | 1492-RAIFM8-3⑤ | E | F | E | F | H | — | — | — | — | — |
| Thermocouple | | | | | | | | | | | | |
| 6-channel with 3 terminals/channel② | 1492-AIFM6TC-3 | — | — | — | — | — | — | — | — | — | — | — |
| Fusible | | | | | | | | | | | | |
| 4-channel with 24V DC blown fuse indicators, test points, 5 terminals/input | 1492-AIFM4I-F-5 | — | — | — | — | — | — | — | — | — | — | — |
| 2-channel/input, 2-channel/output with 24V DC blown fuse indicators, test points, 5 terminals/input, 3 terminals/output | 1492-AIFM4C-F-5 | — | — | — | — | — | — | — | — | — | — | — |
| 8-channel Input with 24V DC blown fuse indicators, 5 terminals/channel | 1492-AIFM8-F-5 | — | E | — | E | — | — | — | — | — | — | — |

IFMs for Bulletin 1771 Analog I/O Modules (Continued)

| Description of AIFM | Catalog Number for Wiring System Module with Fixed Terminal Block | Catalog Number for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | I/O Module Catalog Number 1771-... | | | | | | | | |
|---|---|--|------------------------------------|--------------------|--------------------|--------------------|----|----|------|------|------|
| | | | IFE (Differential) | IFE (Single-Ended) | IFF (Differential) | IFF (Single-Ended) | IL | IR | OFE1 | OFE2 | OFE3 |
| 16-channel Input with 24V DC blown fuse indicators, 3 terminals/channel | 1492-AIFM16-F-3 | — | — | F | — | F | — | — | — | — | — |
| 16-channel Input with 24V DC blown fuse indicators, 5 terminals/channel | 1492-AIFM16-F-5 | — | — | F | — | F | — | — | — | — | — |
| 4-input /4-output channel with 8 fuses and 24V blown fuse indicators | 1492-AIFMQS | — | — | — | — | — | — | — | — | — | — |

- ❶ Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number 005 = 0.5 m (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m), and insert the letter in the box. Example: **Catalog Number 1492-ACABLE025H** is for a 2.5 m cable, and the letter H.
- ❷ Cannot be used with 1771 I/O.
- ❸ Compatible Removable Terminal Block (RTB) plug; 1492-RTB8N (screw style terminals) or 1492-RTB8P. ORDER PLUGS SEPARATELY.
- ❹ Compatible Removable Terminal Block (RTB) plug; 1492-RTB12N (screw style terminals) or 1492-RTB12P. ORDER PLUGS SEPARATELY.
- ❺ Compatible Removable Terminal Block (RTB) plug; 1492-RTB16N (screw style terminals) or 1492-RTB16P. ORDER PLUGS SEPARATELY.

These **pre-wired cables** have a wiring arm on one end to connect to the front of a Bulletin 1771 analog I/O module and a connector on the other end to plug into a 15- or 25-pin D-shell terminal AIFM. You must first select the AIFM from the preceding selection table

Pre-Wired Cables for Bulletin 1771 Analog I/O Modules

| Cable Catalog Number | Standard Cable Lengths | Build-to-Order Available | AIFM Connector | Mating 1771 I/O Modules |
|----------------------|------------------------|--------------------------|----------------|-----------------------------|
| 1492-ACABLE❶E | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1771-IFE, -IFF Differential |
| 1492-ACABLE❶F | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1771-IFE, -IFF Single-Ended |
| 1492-ACABLE❶G | 0.5, 1.0, 2.5, 5.0 m | Yes | 15-pin D-shell | 1771-OFE1, -OFE2, -OFE3 |
| 1492-ACABLE❶H | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1771-IL |
| 1492-ACABLE❶J | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-pin D-shell | 1771-IR |

- ❶ Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-ACABLE005E** is for a 0.5 m cable that could be used to connect a Catalog Number 1492-AIFM8-3 IFM to a Catalog Number 1771-IFE I/O module. Build-to-order lengths are also available.

Selection Tables, Continued

IFM-Ready I/O Cables

IFM-ready cables have a cable connector on one end to attach to the IFM and either 20 or 40 individually colored conductors on the other end (CABLE¹P and CABLE¹Q, respectively). These cables allow the IFM to be used in specialty applications that require a custom connection.

IFM-Ready I/O Cable

| Cable Catalog Number | Standard Cable Lengths | Insulation Rating | No. Conductors | Conductor Size | Nominal Outer Diameter | Current/Conductor | Compatible IFM Catalog Numbers |
|---------------------------|------------------------|-------------------|----------------|----------------|------------------------|-------------------|---------------------------------|
| 1492-CABLE ¹ P | 1.0, 2.5, 5.0 m | 300V, 80°C | 20 | 22 AWG | 9 mm (0.36 in.) | 2 A | 1492-IFM20..., 1492-XIM20... |
| 1492-CABLE ¹ Q | 1.0, 2.5, 5.0 m | 300V, 80°C | 40 | 22 AWG | 11.7 mm (0.46 in.) | 2 A | 1492-IFM40..., 1492-XIM40... |

- Cables are available in lengths of 1.0 m, 2.5 m, and 5.0 m. To order, insert the desired cable length into the catalog number (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CABLE025P** is for a 2.5 m, 20 conductor IFM-ready cable. Also refer to Build-to-Order Length Cables on page 65.

Build-to-Order Length Cables

Build-to-Order Length Cables

| Cable Lengths | Increment Size | Cable Length Codes | Example Catalog Number |
|---------------|----------------|--------------------|----------------------------------|
| 0.1...2.0 m | 0.1 m | 001...020 | 1492-CABLE015A (1.5 m cable) |
| 2.0...10.0 m | 0.5 m | 020...100 | 1492-CABLE075P (7.5 m cable) |
| 10.0...99.0 m | 1.0 m | 100...990 | 1492-CABLE150RTBB (15.0 m cable) |

All Bulletin 1492 cables are available in build-to-order lengths. Consult your distributor for availability.

Selection Tables, Continued

Using PowerFlex 700H & 700S Drive Selection Tables to Make Valid 1492 Wiring System Module Catalog Numbers

Follow these steps when using the selection tables to make valid catalog numbers:

1. Find the appropriate table based on the PowerFlex 700H or 700 S control I/O module.
2. Find the column in the selected table for the I/O module.
3. Follow the column down to determine which Wiring System Modules are compatible with the I/O module as indicated by letter code. If there is no letter code, the Wiring System Module is not compatible with the I/O module. NOTE: The letter codes designate the compatible 1492 cable for that PowerFlex 700H or 700S control I/O and Wiring System Module combination.
4. Select the desired Wiring System Module.
5. Configure the cable catalog number using 1492-CAB❶ (for digital cables) or 1492-ACAB❶ (for analog cables). See footnote ❶ on pages 50 and 53.

PowerFlex 700H and 700S Drive IFMs, AIFMs and Cables

PowerFlex 700H and 700S drive Digital Control I/O

| Description of 20-PIN IFM | Catalog Number for Wiring System Module with Fixed Terminal Block | Catalog Number for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | 700H Drive I/O Module | | 700S Drive I/O Module |
|---|---|--|-----------------------|--------------------|-----------------------|
| | | | 20C-D01 & 20CDA1-A | 20C-D01 & 20CDA1-B | TB2 |
| Feed-through | | | | | |
| Standard 264V AC/DC Max. | 1492-IFM20F | 1492-RIFM20F❶ | A7H | B7H | A7S |
| Narrow standard 132V AC/DC Max. | 1492-IFM20FN | 1492-RIFM20FN❷ | A7H | B7H | A7S |
| Extra terminals (2 per I/O) 264V AC/DC Max. | 1492-IFM20F-2 | 1492-RIFM20F-2❶ | A7H | B7H | A7S |

❶ Compatible Removable Terminal Block (RTB plug; 1492-RTB20N (screwstyle terminals) or 1492-RTB20P. ORDER PLUGS SEPARATELY.

❷ Compatible Removable Terminal Block (RTB plug; 1492-RTB10N (screwstyle terminals) or 1492-RTB10P. ORDER PLUGS SEPARATELY.

These **pre-wired cables** have a pre-wired removable terminal block (RTB) on one end to connect to the PowerFlex 700H or PowerFlex 700S drive digital control I/O board terminal. There is a second connector on the other end to plug into a 20-pin IFM. You must first select the IFM from the table below.

Pre-Wired cables for PowerFlex 700H and 700S Drive Digital I/O

| Cable Catalog Number | Standard Cable Length | Build-to-Order Available | Number of Conductors | Mating PowerFlex Control Board Cat. No or Terminal |
|----------------------|-----------------------|--------------------------|----------------------|--|
| 1492-CAB●A7H | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 20C-DA1-A and 20C-DO1 |
| 1492-CAB●B7H | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | 20C-DA1-B and 20C-DO1 |
| 1492-CAB●A7S | 0.5, 1.0, 2.5, 5.0 m | Yes | 20 | Terminal TB2 |

- Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CAB005A7H** is for a 0.5 m cable that could be used to connect a Catalog Number 1492-IFM20F IFM to a PowerFlex 700H drive 20C-DO1 and 20C-DA1-A module.

PowerFlex 700H and 700S Drive Analog Control I/O

| Description of Analog IFM | Catalog Number for Wiring System Module with Fixed Terminal Block | Catalog Number for Wiring System Module with Removable Terminal Block Socket Assembly (order plugs separately) | 700H Drive I/O Module | 700S Drive I/O Module | |
|---|---|--|------------------------|-----------------------|--------------------|
| | | | 20C-DA1-A or 20C-DA1-B | TB1 (Pins 1...12) | TB1 (Pins 13...24) |
| Feed-through | | | | | |
| 6-channel isolated with 3...4 terminals/channel | 1492-AIFM6S-3 | 1492-RIFM6S-3● | Z7H | Z7S | |
| 2-channel counter inputs with 4 output points | 1492-AIFMCE4 | — | — | — | X7S |
| 2-channel fused counter inputs with 4 fused output points | 1492-AIFMCE4-F | — | — | — | X7S |

- Compatible Removable Terminal Block (RTB) plug; 1492-RTB12N (screw style terminals) or 1492-RTB12P (push-in style terminals, available August 2007). ORDER PLUGS SEPARATELY. These pre-wired cables have a pre-wired removable terminal block (RTB) on one end to connect to the PowerFlex 700H or PowerFlex 700S drive analog control I/O board terminal. There is a 25-pin D-shell connector on the other end to plug into the mating AIFM module terminal. You must first select the AIFM from the table below.

Pre-Wired Cables for PowerFlex 700H and 700S Drive Analog I/O

| Cable Catalog Number | Standard Cable Length | Build-to-Order Available | Number of Conductors | Mating PowerFlex Control Board Cat. No or Terminal |
|----------------------|-----------------------|--------------------------|----------------------|--|
| 1492-ACAB●Z7H | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-Pin D-Shell | 20C-DA1-A or 20C-DA1-B I/O board |
| 1492-ACAB●Z7S | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-Pin D-Shell | Terminal TB1 (DINS 1...12) |
| 1492ACAB●Z7S | 0.5, 1.0, 2.5, 5.0 m | Yes | 25-Pin D-Shell | Terminal TB2 (DINS 13...24) |

- Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-ACAB005Z7S** is for a 0.5 m cable that could be used to connect a Catalog Number 1492-AIFM6S-3 analog IFM to a PowerFlex 700S drive analog terminal I/O.

Digital IFM Specifications

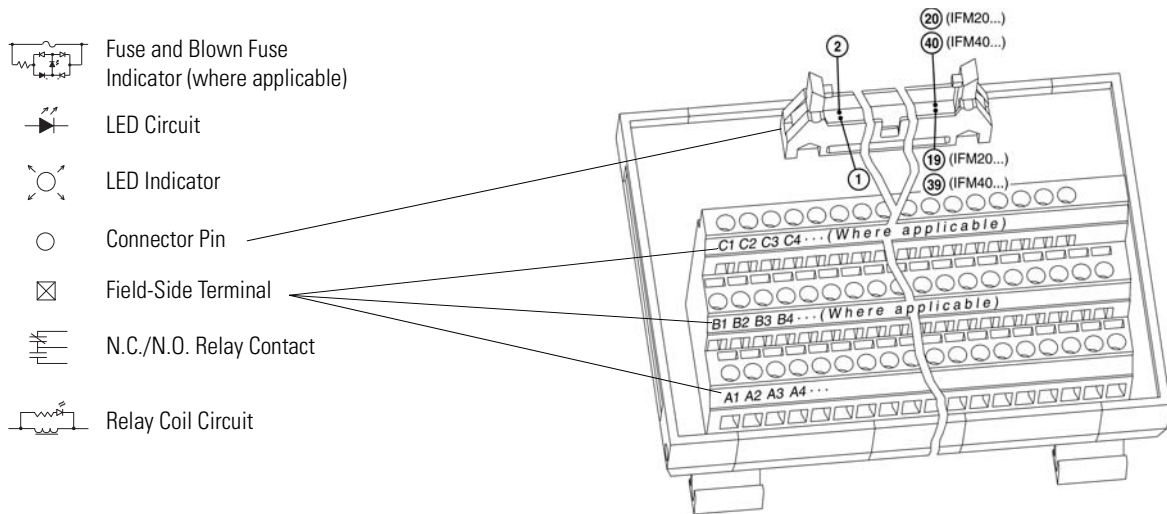
| IFM Catalog Number | Page No. for Application Notes and Pinout | Page No. for Specifications | IFM Catalog Number | Page No. for Application Notes and Pinout | Page No. for Specifications | IFM Catalog Number | Page No. for Application Notes and Pinout | Page No. for Specifications |
|---------------------------------------|---|-----------------------------|-----------------------------------|---|-----------------------------|---|---|-----------------------------|
| 1492-IFM20F, -RIFM20F | 70 | 187 | 1492-IFM20D240A-2 | 76 | 188 | 1492-IFM40DS120A-4 | 100 | 186 |
| 1492-IFM20F-2, -RIFM20F-2 | 71 | 187 | 1492-IFM20F-F240-2 | 82 | 188 | 1492-IFM40F-F120-2 | 106 | 187 |
| 1492-IFM20F-3 | 71 | 187 | 1492-IFM20F-FS240-4 | 88 | 188 | 1492-IFM40F-FS120-2, -RIFM40F-FS120-2 | 110 | 187 |
| 1492-IFM20FN, -RIFM20FN | 70 | 187 | 1492-IFM20DS24-4 | 78 | 188 | 1492-IFM40F-FS120-4, -RIFM40F-FS120-4 | 111 | 187 |
| — | — | — | 1492-IFM20F-F-2, -RIFM20F-F-2 | 80 | 188 | 1492-IFM40F-FS120A-4, -RIFM40F-FS120A-4 | 114 | 187 |
| 1492-IFM20D24N | 72 | 187 | 1492-IFM20F-FS-2 | 83 | 188 | 1492-IFM40DS240A-4 | 101 | 186 |
| 1492-IFM20D24-2 | 74 | 187 | 1492-IFM40F, -RIFM40F | 89 | 188 | 1492-IFM40F-FS240-4 | 112 | 187 |
| 1492-IFM20D24A-2 | 74 | 187 | 1492-IFM40F-2, -RIFM40F-2 | 89 | 188 | 1492-XIM4024-16R, -RXIM4024-16R | 123 | 188 |
| 1492-IFM20D24-3 | 77 | 187 | 1492-IFM40F-F-2 | 102 | 188 | 1492-XIM4024-16RF | 126 | 188 |
| 1492-IFM20F-F24-2, -RIFM20F-F24-2 | 80 | 187 | 1492-IFM40F-FS-2 | 107 | 188 | 1492-XIM4024-8R | 122 | 188 |
| 1492-IFM20F-F24A-2, -RIFM20F-F24A-2 | 81 | 187 | 1492-IFM40F-FSA-4 | 114 | 188 | 1492-XIM2024-8R | 115 | 188 |
| 1492-IFM20F-FS24-2 | 83 | 187 | 1492-IFM40F-FS-4 | 108 | 189 | 1492-XIM2024-16R | 118 | 188 |
| 1492-IFM20F-FS24A-4 | 84 | 187 | 1492-IFM40F-3 | 90 | 189 | 1492-XIM2024-16RF | 119 | 188 |
| 1492-IFM20D120 | 73 | 187 | 1492-IFM40DS24-4 | 97 | 189 | 1492-XIM24-8R, -RXIM24-8R | 127 | 188 |
| 1492-IFM20D120N | 73 | 187 | 1492-IFM40D24, -RIFM40D24 | 91 | 189 | 1492-XIM24-16RF | 131 | 188 |
| 1492-IFM20D120-2 | 75 | 187 | 1492-IFM40D24-2 | 92 | 189 | 1492-XIMF-F24-2 | 132 | 188 |
| 1492-IFM20D120A-2 | 75 | 187 | 1492-IFM40D24A-2, -RIFM40D24A-2 | 93 | 189 | 1492-XIM20120-16R | 120 | 188 |
| 1492-IFM20DS120-4 | 79 | 187 | 1492-IFM40D24-3 | 96 | 189 | 1492-XIM20120-16RF | 121 | 188 |
| 1492-IFM20F-F120-2, -RIFM20F-F120-2 | 81 | 187 | 1492-IFM40DS24A-4 | 98 | 189 | 1492-XIM20120-8R | 117 | 188 |
| 1492-IFM20F-F120A-2, -RIFM20F-F120A-2 | 82 | 187 | 1492-IFM40F-F24-2, -RIFM40F-F24-2 | 103 | 189 | 1492-XIM120-8R | 129 | 188 |
| 1492-IFM20F-FS120-2, | 85 | 187 | 1492-IFM40F-FS24-2 | 107 | 189 | 1492-XIMF-F120-2 | 134 | 188 |
| 1492-IFM20F-FS120-4 | 86 | 187 | 1492-IFM40D120A-2 | 95 | 189 | 1492-XIMF-2 | 136 | 188 |
| 1492-IFM20F-FS120A-4 | 87 | 187 | 1492-IFM40D120-2 | 94 | 189 | — | — | — |
| 1492-IFM20D240-2 | 76 | 187 | 1492-IFM40DS120-4 | 99 | 189 | — | — | — |

For all IFM dimensions, refer to page 180.

For general Adhesive Label Card information, refer to page 181.

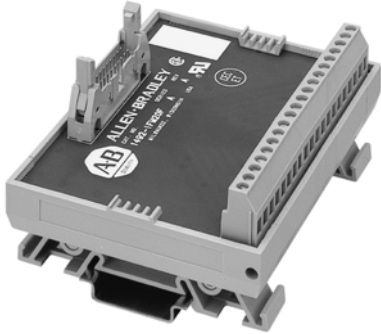
For Field-Side Wiring Diagrams, refer to the Wiring System web page at <http://www.ab.com/catalogs/RAISE>. Refer to page 186 for specific platform web site information. Refer to the online documentation for new product information.

Symbols and Terminal Identification Conventions Used Throughout the Pinout Section



1492-IFM20F
1492-RIFM20F

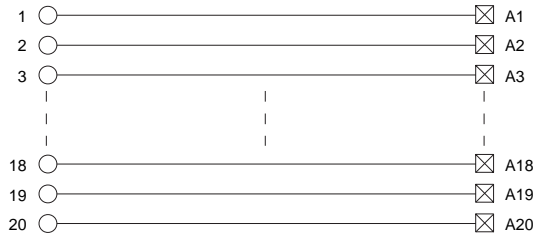
Feed-Through Standard 264V AC/DC Max.



Application Notes

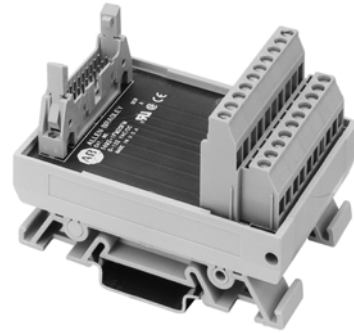
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Dimensions** — Refer to page 187.

Pinout



1492-IFM20FN
1492-RIFM20FN

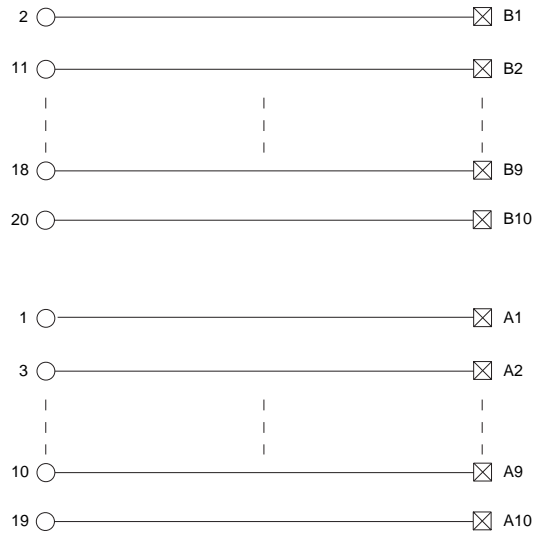
Feed-Through Narrow Standard 132V AC/DC Max.



Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Dimensions** — Refer to page 187.

Pinout



1492-IFM20F-2
1492-RIFM20F-2

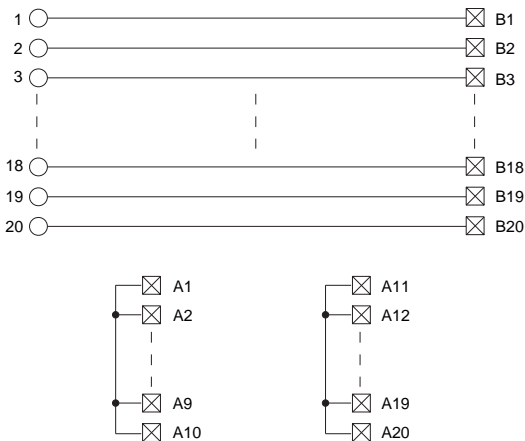
Feed-Through Extra Terminals (2 per I/O) 264V AC/DC Max.



Application Notes

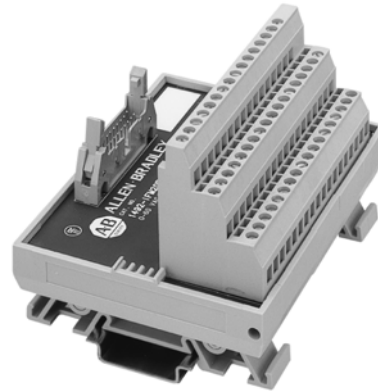
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — The power bus is isolated into two groups of 10 terminals. This allows each group of the I/O devices to reference a different power source.
4. **Dimensions** — Refer to page 187.

Pinout



1492-IFM20F-3

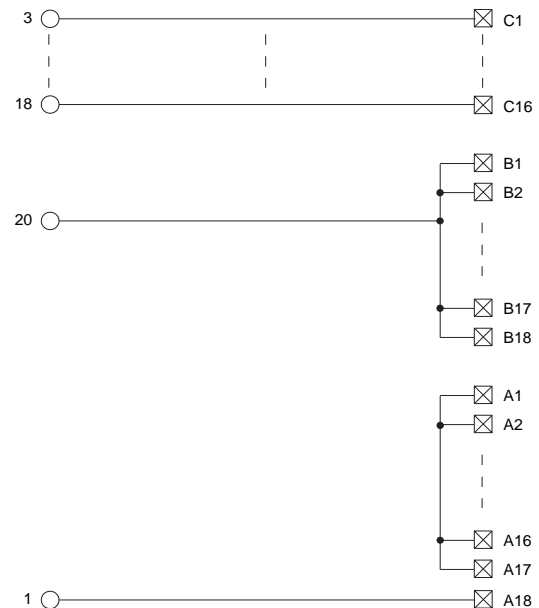
Feed-Through 3-Wire Sensor Type Input Devices 132V AC/DC Max.



Application Notes

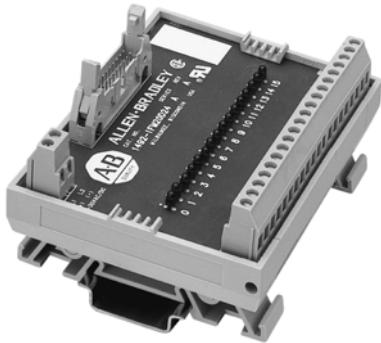
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — The power busses are connected to one common (one bus has 17 terminals, and one bus has 18 terminals). All of the input devices used must reference the same power source.
4. **Dimensions** — Refer to page 187.

Pinout



1492-IFM20D24

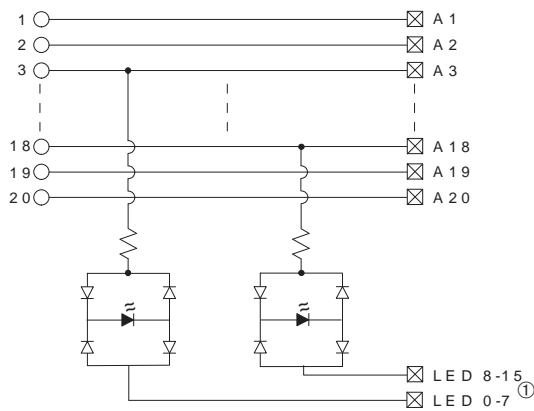
LED Indicating Standard with 24V AC/DC LEDs



Application Notes

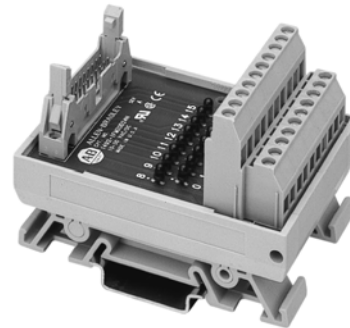
- 1. Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
- 2. Wiring** — The LEDs are powered from the two-position terminal block. Make only one connection to the power source for normal operation. Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- 3. Isolation** — The LEDs are broke into two separate groups. Group 1 is commoned at terminal “Test 0-7” and Group 2 is commoned at terminal “Test 8-15.”
- 4. Dimensions** — Refer to page 187.

Pinout



1492-IFM20D24N

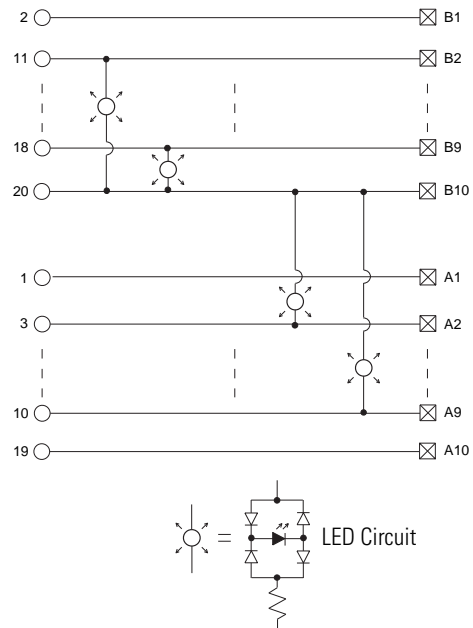
LED Indicating Narrow Standard with 24V AC/DC LEDs



Application Notes

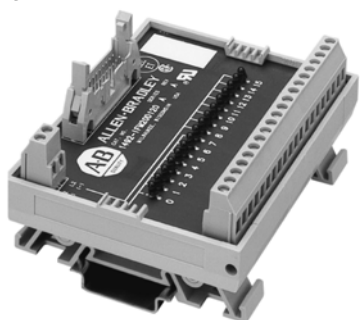
- 1. Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
- 2. Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- 3. Isolation** — The LEDs are connected to one common. All of the I/O devices must reference the same power source.
- 4. Dimensions** — Refer to page 187.

Pinout



1492-IFM20D120

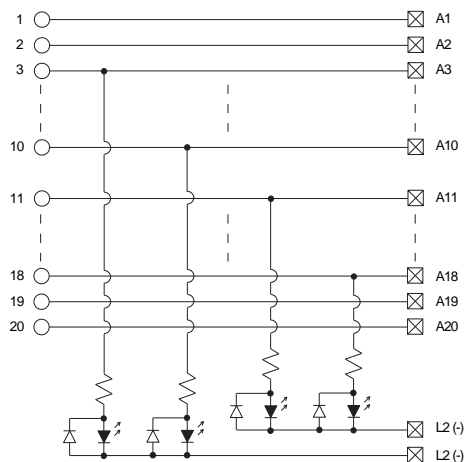
LED Indicating Standard with 120V AC/DC LEDs



Application Notes

- 1. Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. This IFM is not recommended for use with input devices or programmable controller output circuits having an off-state leakage current exceeding 0.5 mA. Use Cat. No. 1492-IFM20D120N instead, or use Cat. No. 1492-IFM20D120A-2 for input modules and Cat. No. 1492-IFM20D120-2 for output modules. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
- 2. Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- 3. Isolation** — The LEDs are isolated into two groups of eight terminals. This allows each group of the I/O devices to reference a different power source.
- 4. Dimensions** — Refer to page 187.

Pinout



1492-IFM20D120N

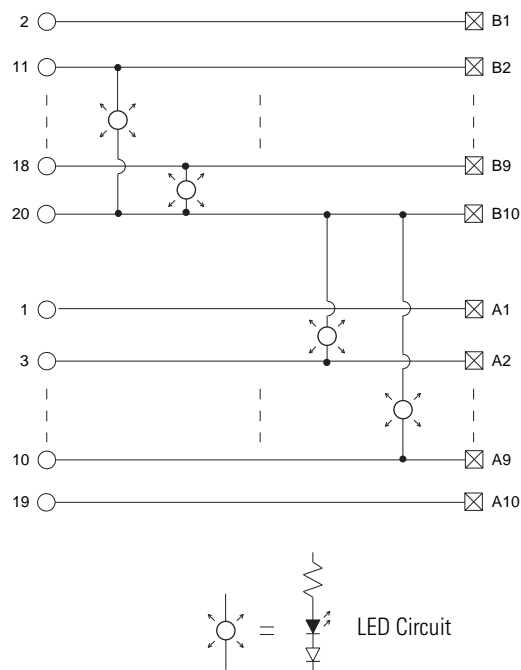
LED Indicating Narrow Standard with 120V AC LEDs



Application Notes

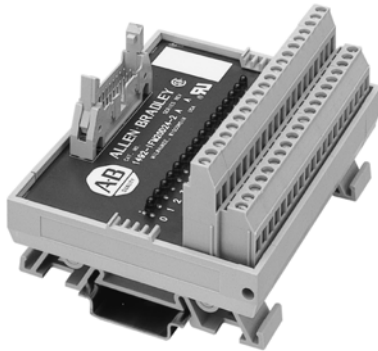
- 1. Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
- 2. Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- 3. Isolation** — The LEDs are connected to one common. All of the I/O devices must reference the same power source.
- 4. Dimensions** — Refer to page 187.

Pinout



1492-IFM20D24-2

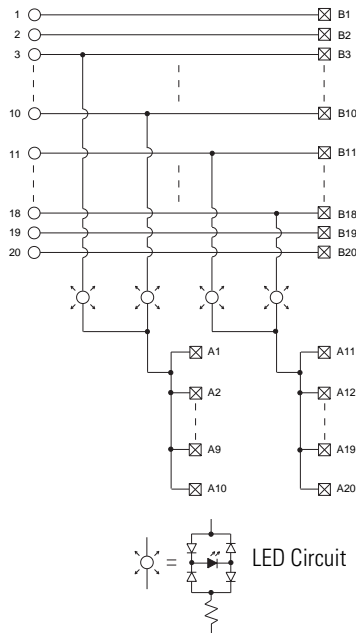
LED Indicating 24V AC/DC LEDs & Extra Terminals for Outputs



Application Notes

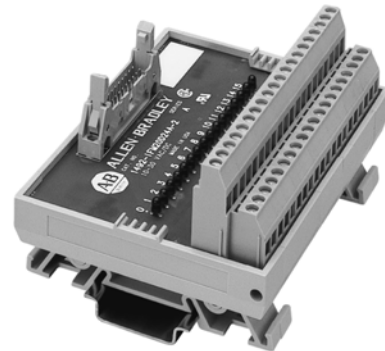
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — The power bus and LEDs are isolated into two groups of 10 terminals (eight LEDs). This allows each group of output devices to reference a different power source.
4. **Dimensions** — Refer to page 187.

Pinout



1492-IFM20D24A-2

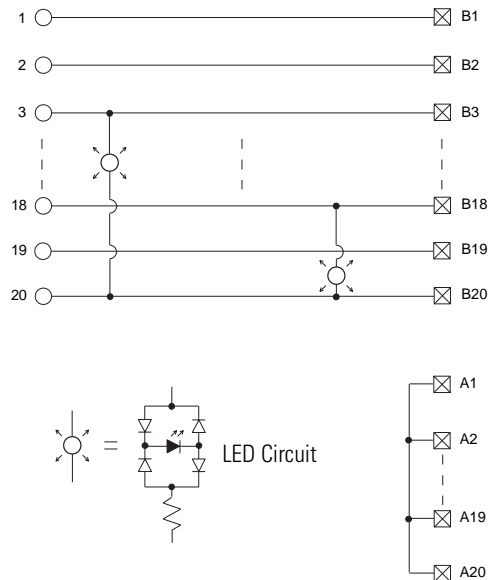
LED Indicating 24V AC/DC LEDs & Extra Terminals for Inputs



Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — The power bus comprises 20 terminals connected together. The LEDs are connected to one common. All of the I/O devices must reference the same power source.
4. **Dimensions** — Refer to page 187.

Pinout



1492-IFM20D120-2

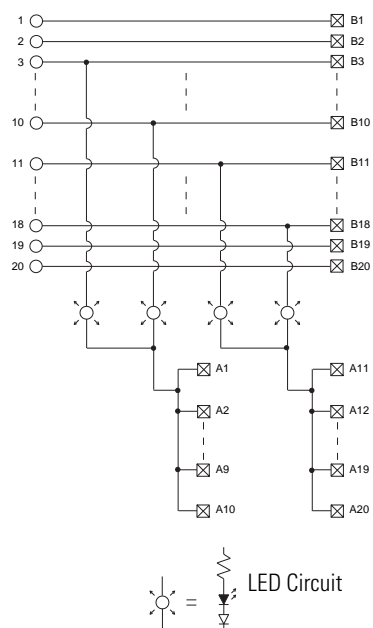
LED Indicating 120V AC LEDs & Extra Terminals for Outputs



Application Notes

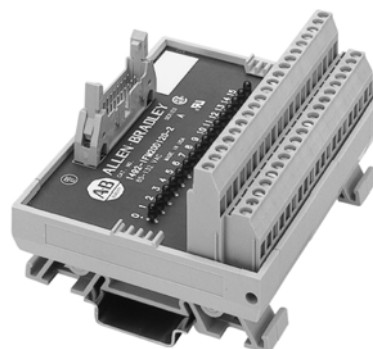
- 1. Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., an MOV wired across an AC load).
- 2. Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- 3. Isolation** — The power bus and LEDs are isolated into two groups of 10 terminals (8 LEDs). This allows each group of output devices to reference a different power supply.
- 4. Dimensions** — Refer to page 187.

Pinout



1492-IFM20D120A-2

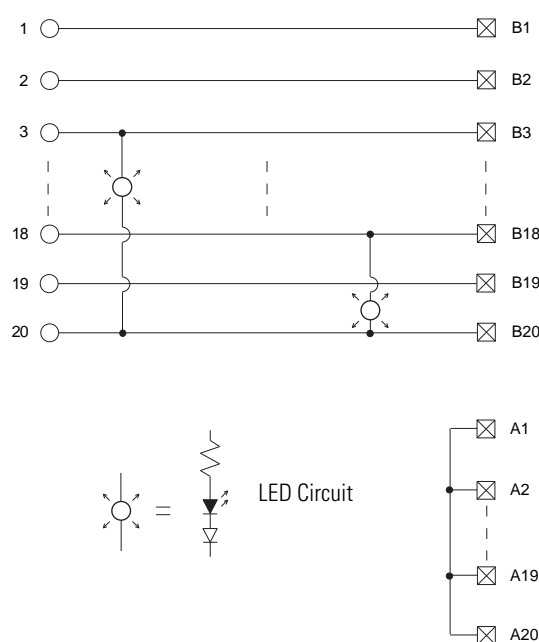
LED Indicating 120V AC LEDs & Extra Terminals for Inputs



Application Notes

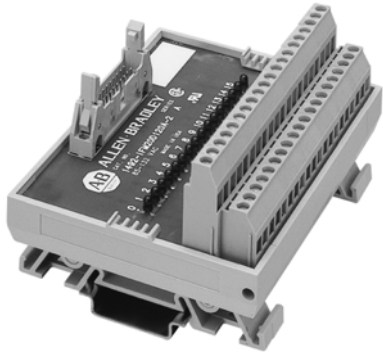
- 1. Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., an MOV wired across an AC load).
- 2. Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- 3. Isolation** — The power bus comprises 20 terminals connected together. The LEDs are connected to one common. All of the I/O devices must reference the same power source.
- 4. Dimensions** — Refer to page 187.

Pinout



1492-IFM20D240-2

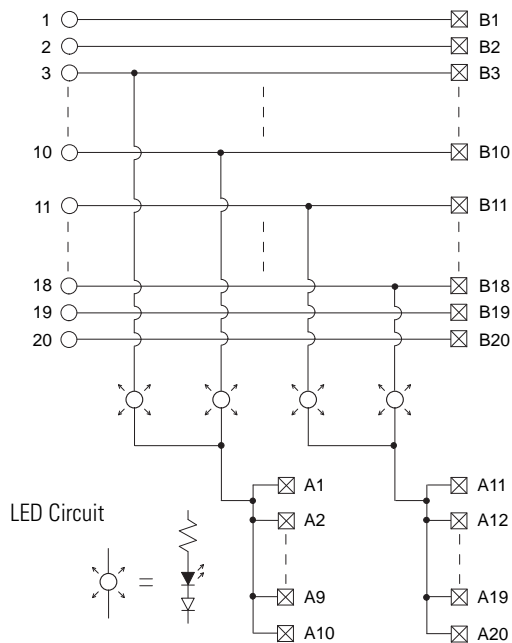
LED Indicating 240V AC LEDs & Extra Terminals for Outputs



Application Notes

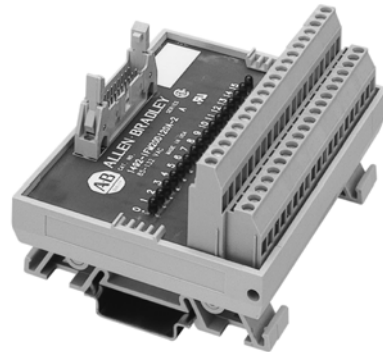
- 1. Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., an MOV wired across an AC load).
- 2. Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- 3. Isolation** — The power bus and LEDs are isolated into two groups of 10 terminals (8 LEDs). This allows each group of output devices to reference a different power supply.
- 4. Dimensions** — Refer to page 187.

Pinout



1492-IFM20D240A-2

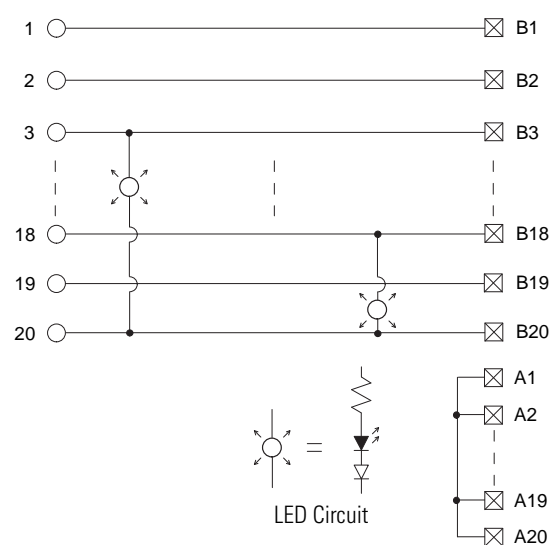
LED Indicating 120V AC LEDs & Extra Terminals for Inputs

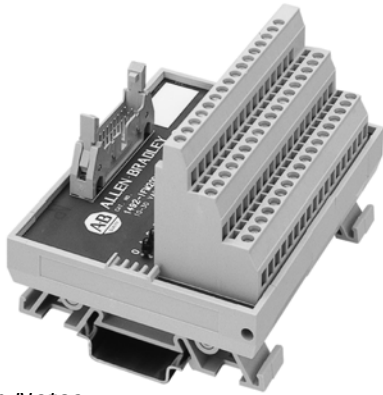


Application Notes

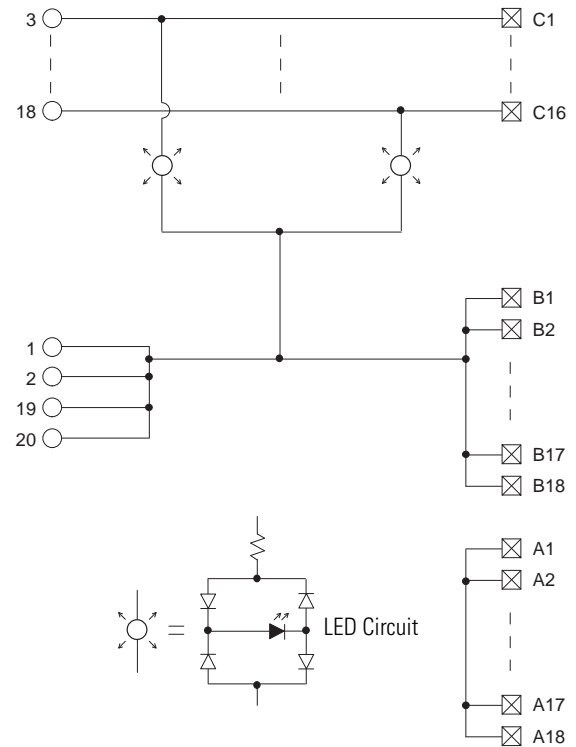
- 1. Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., an MOV wired across an AC load).
- 2. Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- 3. Isolation** — The power bus comprises 20 terminals connected together. The LEDs are connected to one common. All of the I/O devices must reference the same power source.
- 4. Dimensions** — Refer to page 187.

Pinout



1492-IFM20D24-3*LED Indicating 3-Wire Sensor with 24V AC/DC LEDs**Application Notes*

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — The LEDs are connected to one common. All of the field input devices must reference the same power source.
4. **Dimensions** — Refer to page 187.

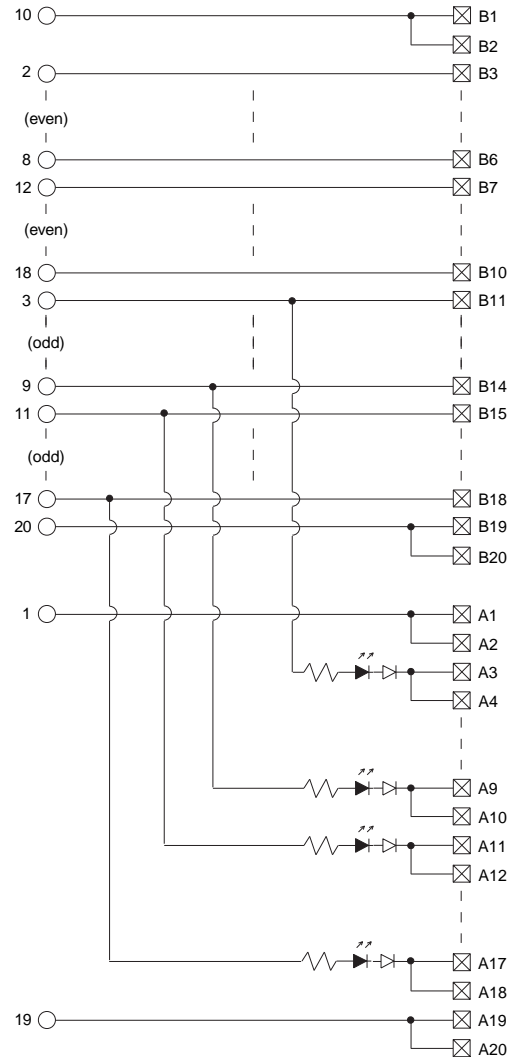
Pinout

1492-IFM20DS24-4

LED Indicating 8 Individually Isolated with 24/48V
AC/DC LEDs & 4 Terminals/Output

*Application Notes*

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — There are eight individually isolated channels. LED returns are individually isolated.
4. **Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
5. **Dimensions** — Refer to page 187.

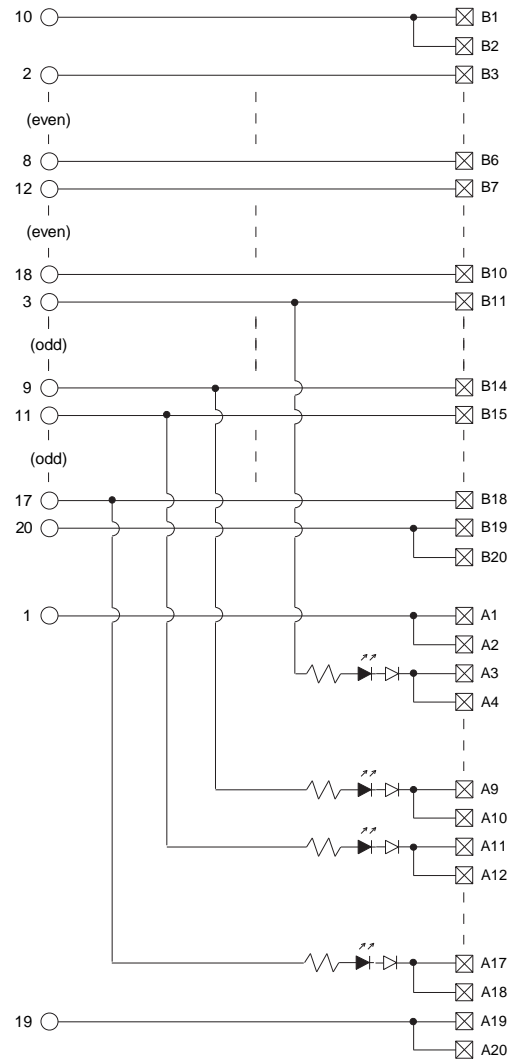
Pinout

1492-IFM20DS120-4

LED Indicating 8 Individually Isolated with 120V AC LEDs
& 4 Terminals/Output

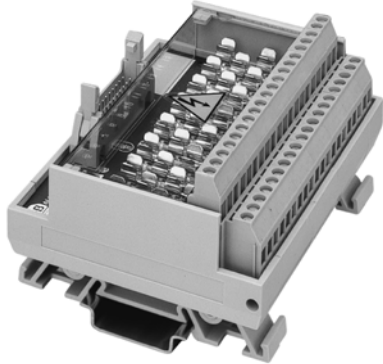
*Application Notes*

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., an MOV wired across an AC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — There are eight individually isolated channels. LED returns are individually isolated.
4. **Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
5. **Dimensions** — Refer to page 187.

Pinout

1492-IFM20F-F-2
1492-RIFM20F-F-2

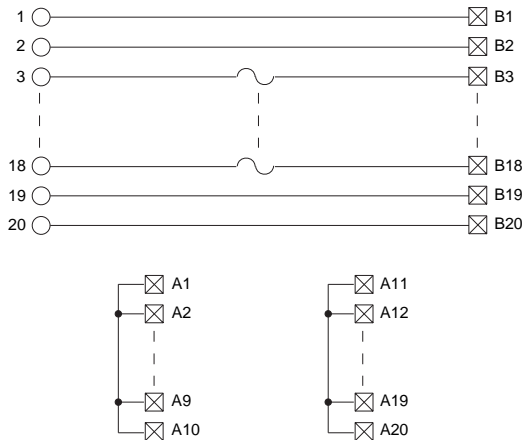
Fusible Extra Terminals for Outputs



Application Notes

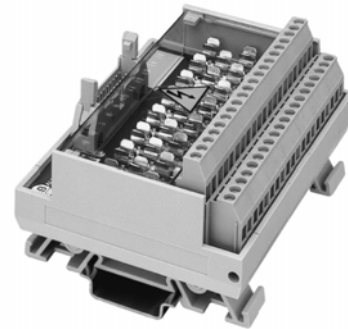
- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
- Isolation** — The power bus and fuse clips are isolated into two groups of 10 terminals (eight fuse clips). This allows each group of output devices to reference a different power source.
- Dimensions** — Refer to page 187.

Pinout



1492-IFM20F-F24-2
1492-RIFM20F-F24-2

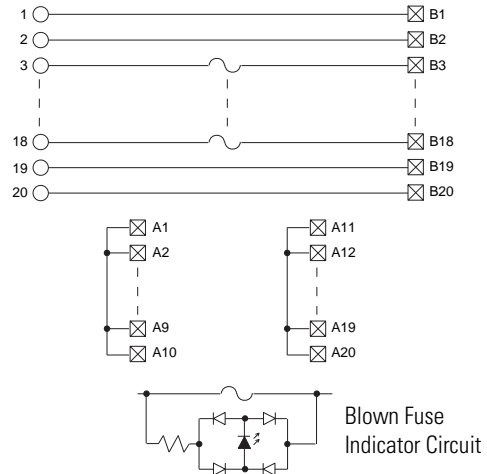
Fusible Extra Terminals with 24V AC/DC Blown Fuse Indicators



Application Notes

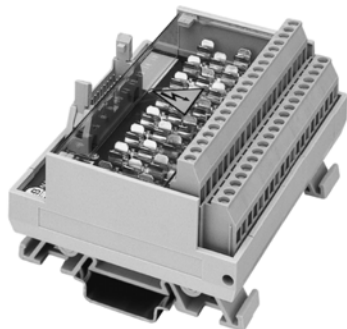
- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used.
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
- Isolation** — The power bus, fuse clips, and blown fuse indicators are isolated into two groups of 10 terminals (eight fuse clips and blown fuse indicators). This allows each group of output devices to reference a different power source.
- Dimensions** — Refer to page 187.

Pinout



1492-IFM20F-F24A-2
1492-RIFM20F-F24A-2

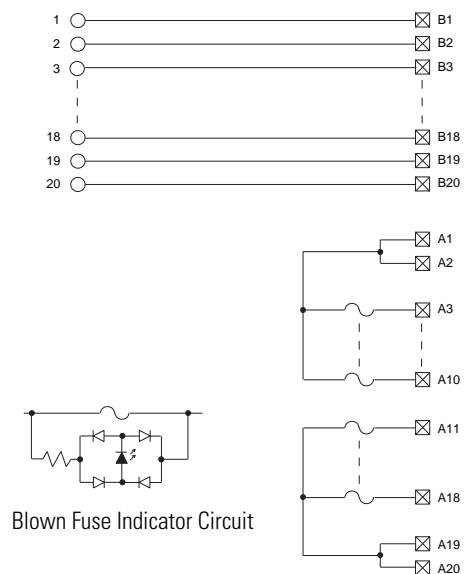
Fusible Extra Terminals with 24V AC/DC Blown Fuse Indicators



Application Notes

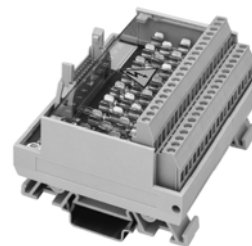
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Isolation** — The power bus, fuse clips, and blown fuse indicators are isolated into two groups of 10 terminals (eight fuse clips and blown fuse indicators). This allows each group of input devices to reference a different power source.
5. **Dimensions** — Refer to page 187.

Pinout



1492-IFM20F-F120-2
1492-RIFM20F-F120-2

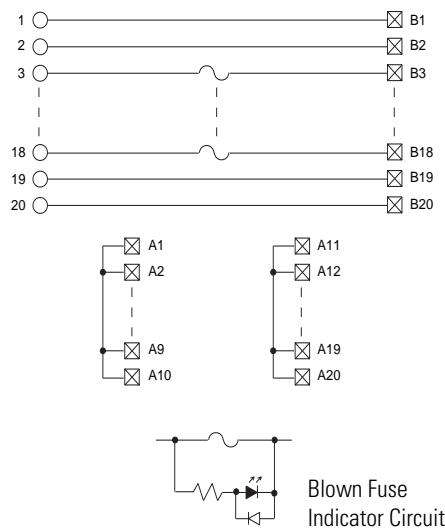
Fusible Extra Terminals with 120V AC/DC Blown Fuse Indicators



Application Notes

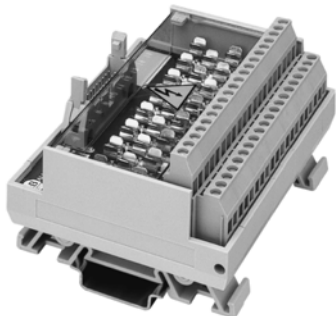
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., an MOV wired across an AC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Isolation** — The power bus, fuse clips, and blown fuse indicators are isolated into two groups of 10 terminals (eight fuse clips and blown fuse indicators). This allows each group of output devices to reference a different power source.
5. **Dimensions** — Refer to page 187.

Pinout



1492-IFM20F-F120A-2
1492-RIFM20F-F120A-2

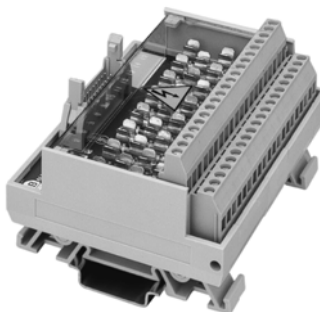
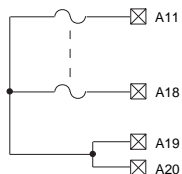
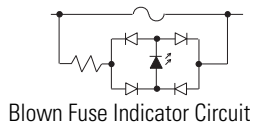
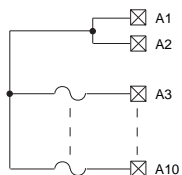
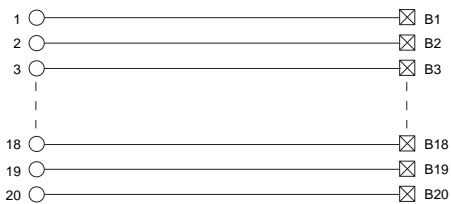
Fusible Extra Terminals with 120V AC/DC Blown Fuse Indicators



Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Isolation** — The power bus, fuse clips, and blown fuse indicators are isolated into two groups of 10 terminals (eight fuse clips and blown fuse indicators). This allows each group of input devices to reference a different power source.
5. **Dimensions** — Refer to page 187.

Pinout



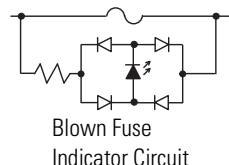
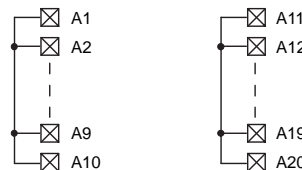
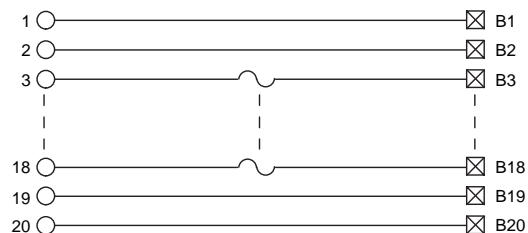
1492-IFM20F-F240-2

Fusible Extra Terminals with 240V AC/DC Blown Fuse Indicators

Application Notes

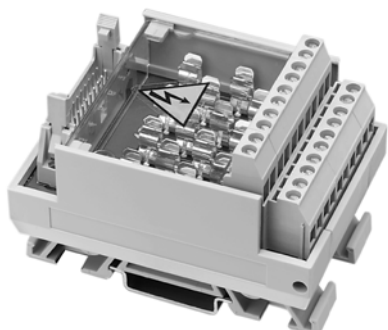
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Isolation** — The power bus, fuse clips, and blown fuse indicators are isolated into two groups of 10 terminals (eight fuse clips and blown fuse indicators). This allows each group of output devices to reference a different power source.
5. **Dimensions** — Refer to page 187.

Pinout



1492-IFM20F-FS-2

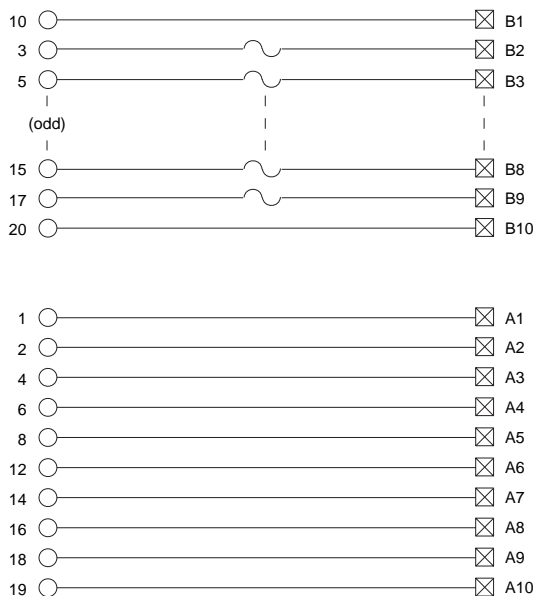
Fusible 8 Individually Isolated 120V AC/DC with Extra Terminals for Outputs



Application Notes

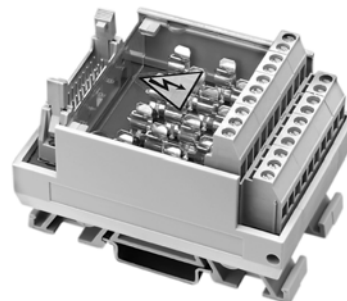
- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
- Isolation** — The fuse clips are isolated into eight groups of terminals. This allows each output device to reference a different power source.
- Dimensions** — Refer to page 187.

Pinout



1492-IFM20F-FS24-2

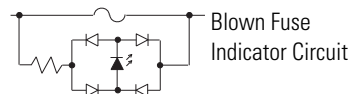
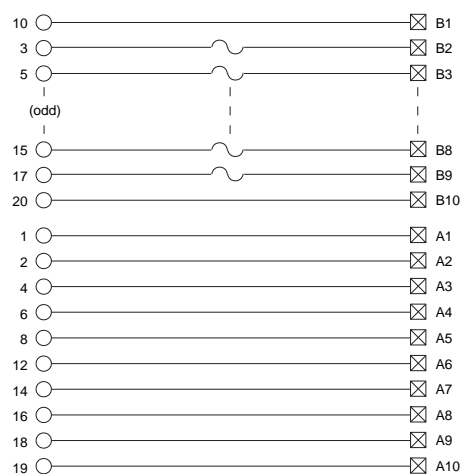
Fusible 8 Individually Isolated with Extra Terminals and 24V AC/DC Blown Fuse Indicators



Application Notes

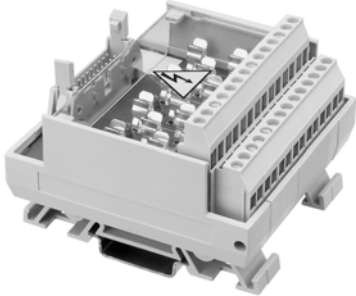
- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
- Isolation** — The fuse clips and blown fuse indicators are isolated into eight groups of terminals. This allows each output device to reference a different power source.
- Dimensions** — Refer to page 187.

Pinout



1492-IFM20F-FS24A-4

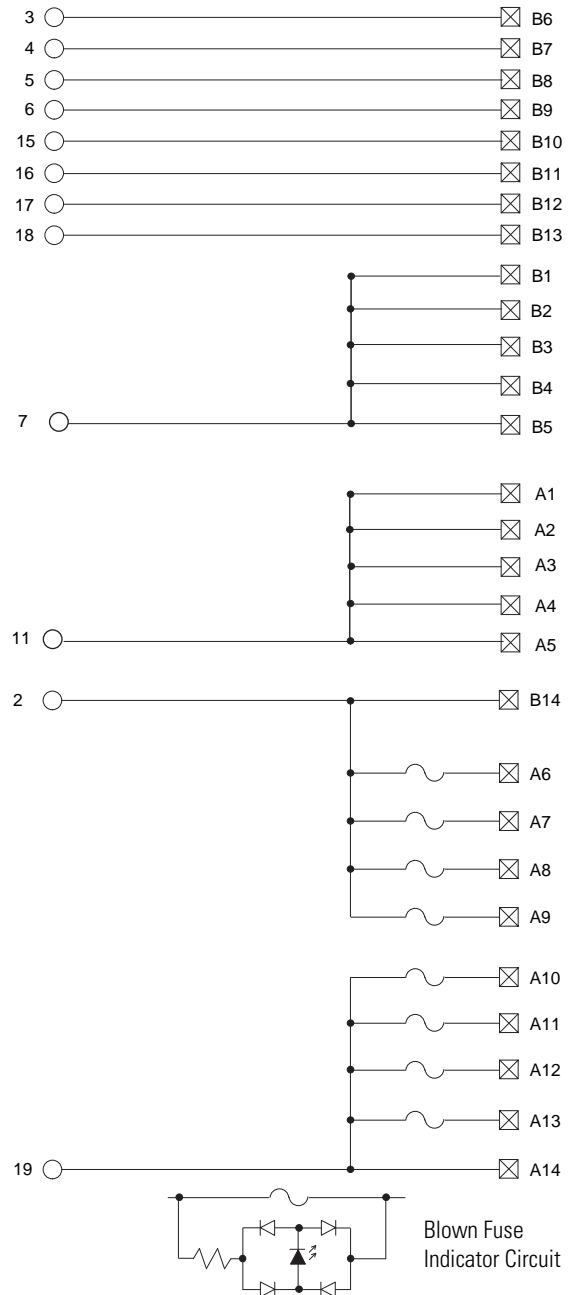
Fusible Two 4-Point Isolated Groups with 4 Terminals/Input and 24V AC/DC Blown Fuse LED Indicators



Application Notes

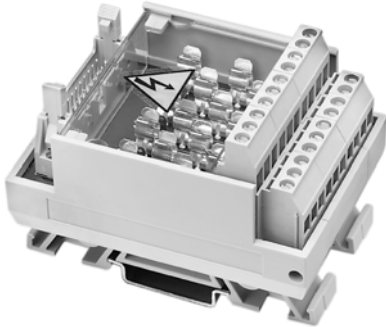
- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
- Isolation** — The fuse clips and blown fuse indicators are isolated into two groups of terminals. This allows each group of output devices to reference a different power source.
- Dimensions** — Refer to page 187.

Pinout

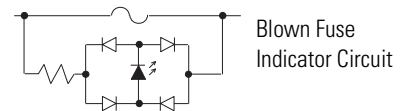
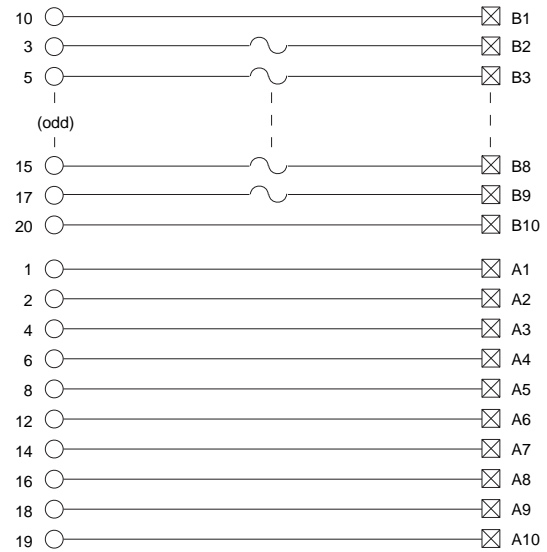


1492-IFM20F-FS120-2

Fusible 8 Individually Isolated with Extra Terminals and 120V AC/DC Blown Fuse LED Indicators

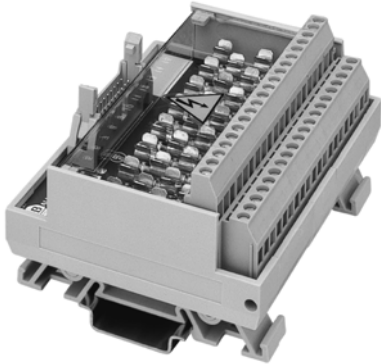
*Application Notes*

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., an MOV wired across an AC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Isolation** — The fuse clips and blown fuse indicators are isolated into eight groups of terminals. This allows each output device to reference a different power source.
5. **Dimensions** — Refer to page 187.

Pinout

1492-IFM20F-FS120-4

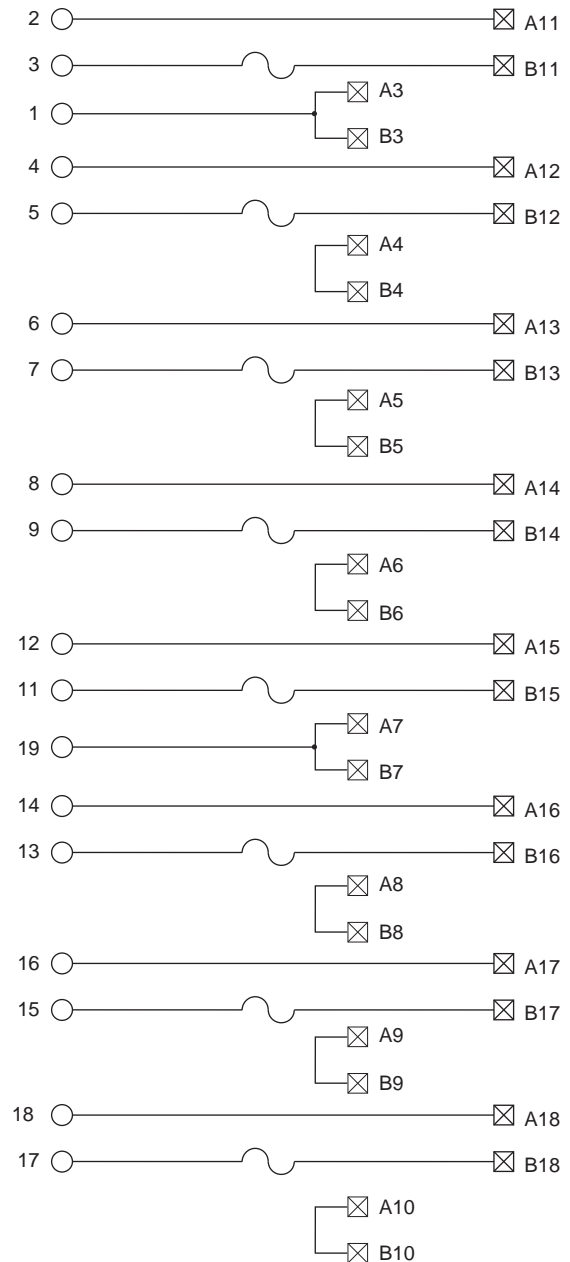
Fusible 8 Individually Isolated with 4 Terminals/Output and 120V AC/DC Blown Fuse LED Indicators



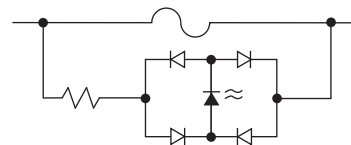
Application Notes

- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., an MOV wired across an AC load).
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Fusing** — Ten fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
- Isolation** — The fuse clips and blown fuse indicators are isolated into eight groups of terminals. This allows each output device to reference a different power source.
- Dimensions** — Refer to page 187.

Pinout

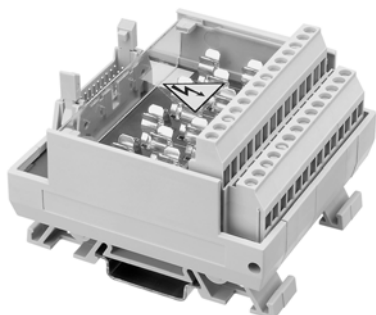


Blown Fuse
Indicator Circuit



1492-IFM20F-FS120A-4

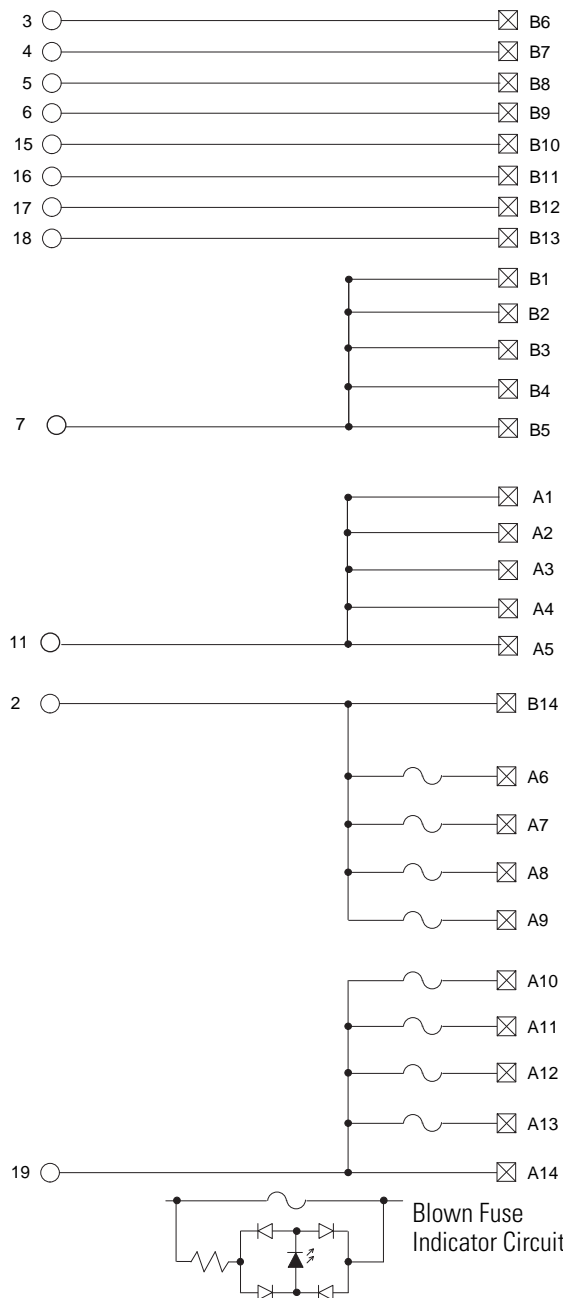
Fusible Two 4-Point Isolated Groups with 4 Terminals/Input and 120V AC/DC Blown Fuse LED Indicators



Application Notes

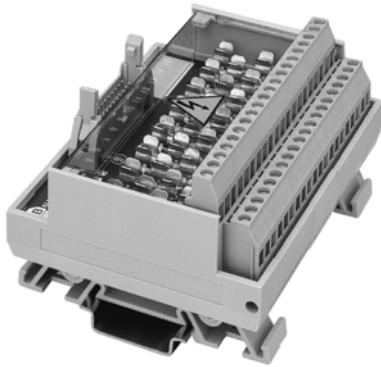
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load or an MOV across an AC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Ten fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Isolation** — The fuse clips and blown fuse indicators are isolated into two groups of terminals. This allows each group of input devices to reference a different power source.
5. **Dimensions** — Refer to page 187.

Pinout



1492-IFM20F-FS240-4

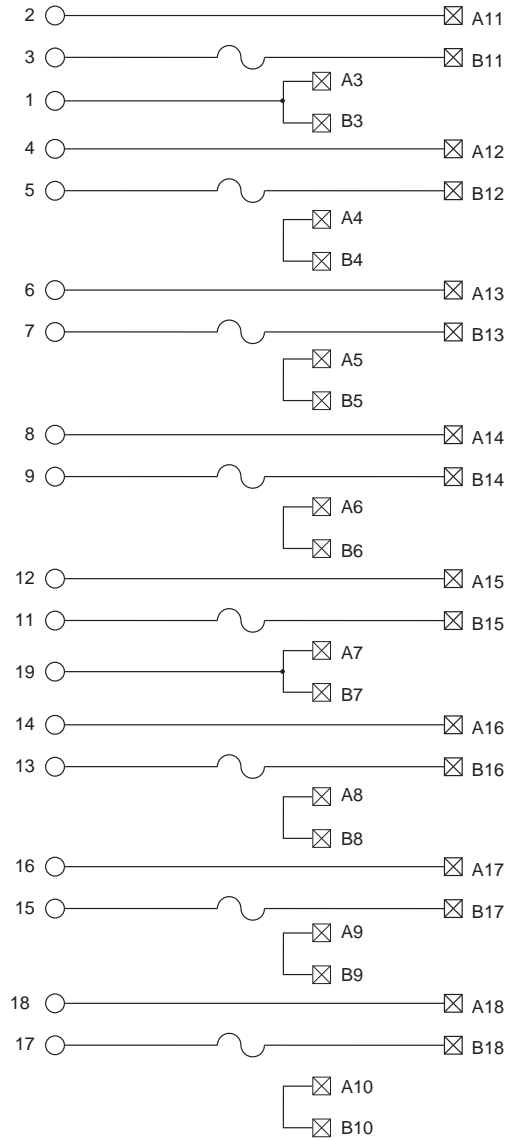
Fusible 8 Individually Isolated with 4 Terminals/Output and 240V AC/DC Blown Fuse LED Indicators



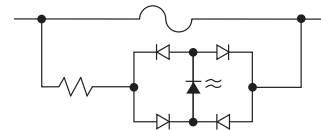
Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load or an MOV across an AC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Isolation** — The fuse clips and blown fuse indicators are isolated into eight groups of terminals. This allows each output device to reference a different power source.
5. **Dimensions** — Refer to page 187.

Pinout



Blown Fuse Indicator Circuit



1492-IFM40F
1492-RIFM40F

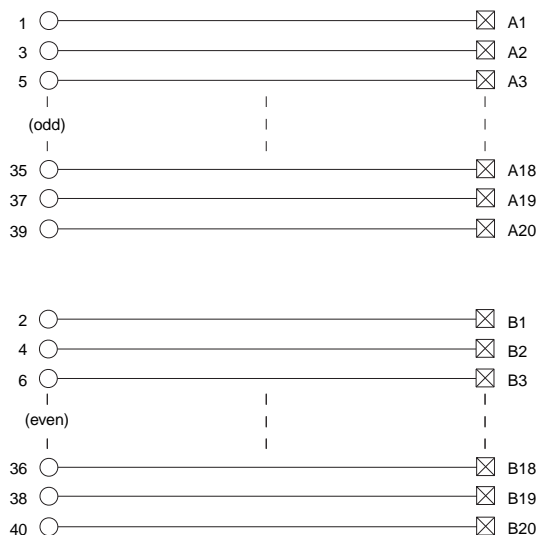
Feed-Through Standard 132V AC/DC



Application Notes

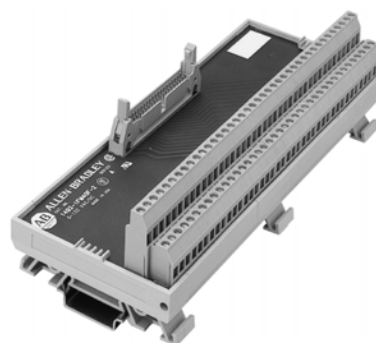
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Dimensions** — Refer to page 187.

Pinout



1492-IFM40F-2
1492-RIFM40F-2

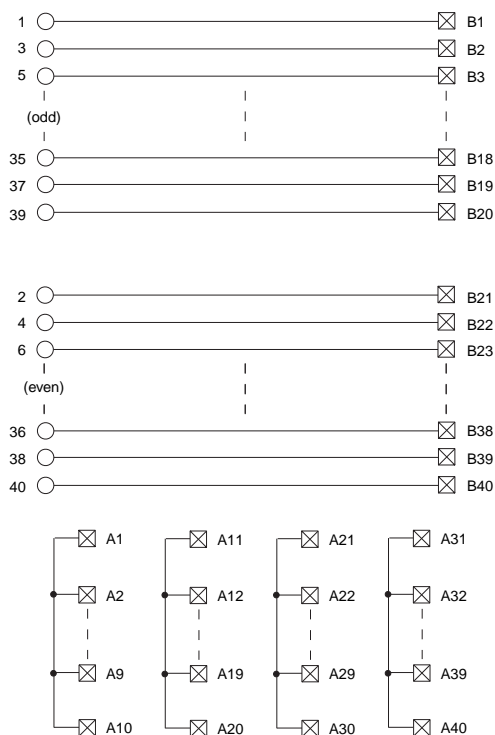
Feed-Through Extra Terminals (2 per I/O) 132V AC/DC



Application Notes

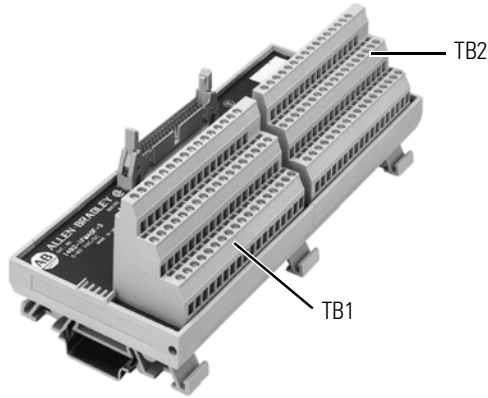
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — The power bus is isolated into four groups of 10 terminals. This allows each group of the I/O devices to reference a different power source.
4. **Dimensions** — Refer to page 187.

Pinout

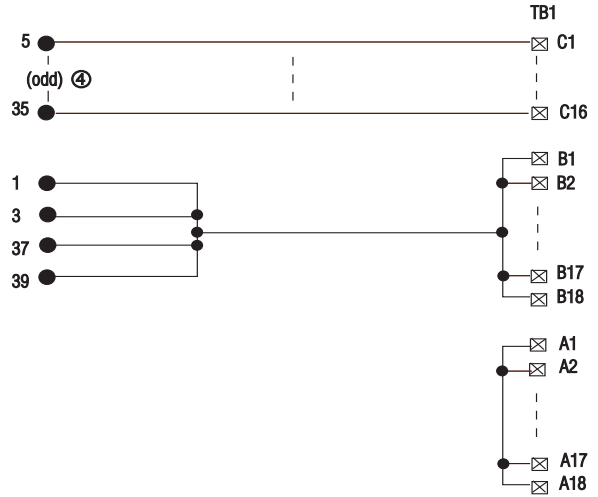


1492-IFM40F-3

Feed-Through 3-Wire Sensor Type Input Devices 60V AC/DC

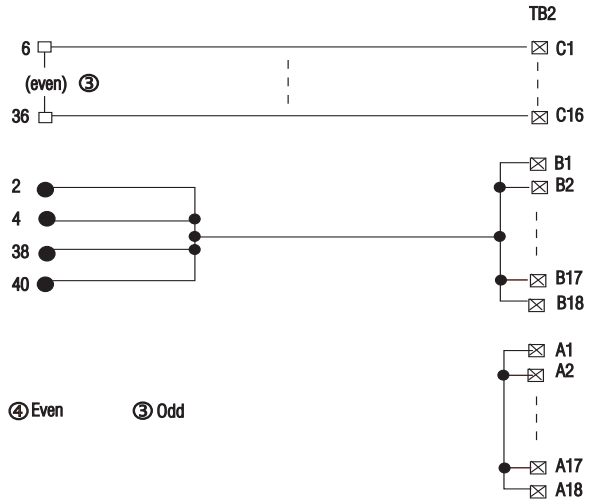


Pinout



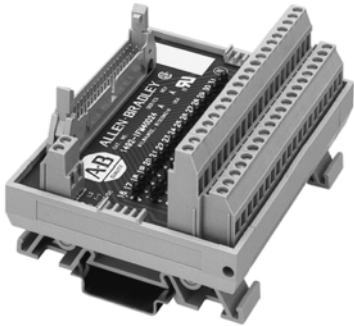
Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — The power busses are isolated into two groups of 18 terminals. This allows the input devices connected to the left field-side terminal block to reference a different power source than the input devices connected to the right field-side terminal block.
4. **Dimensions** — Refer to page 187.

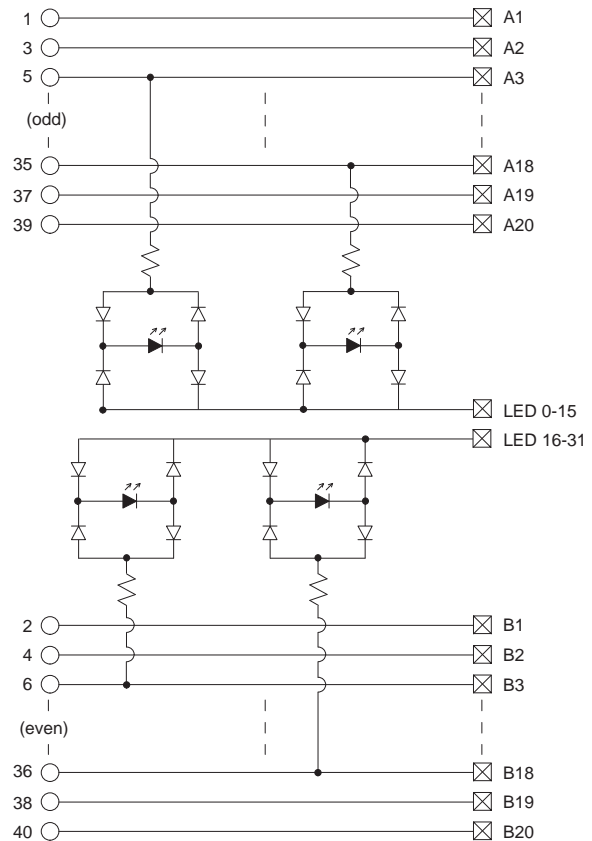


1492-IFM40D24**1492-RIFM40D24**

LED Indicating Standard with 24V AC/DC LEDs

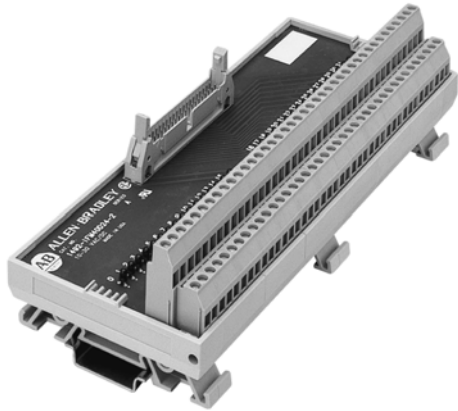
*Application Notes*

- 1. Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
- 2. Wiring** — The LEDs are powered off the two-position terminal block. Make only one connection to the power source for normal operation. Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- 3. Isolation** — The LEDs are connected to one common. All of the I/O devices used must reference the same power source.
- 4. Dimensions** — Refer to page 187.

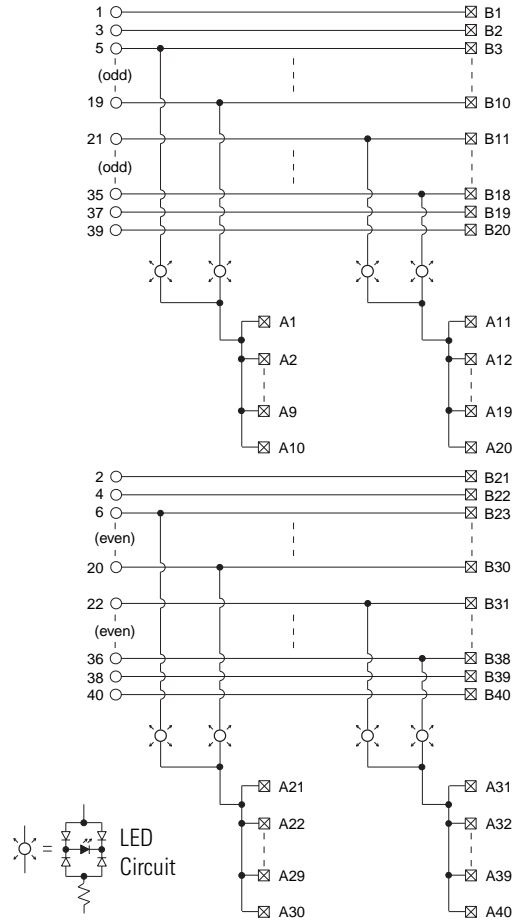
Pinout

1492-IFM40D24-2

LED Indicating 24V AC/DC LEDs and Extra Terminals for Outputs



Pinout

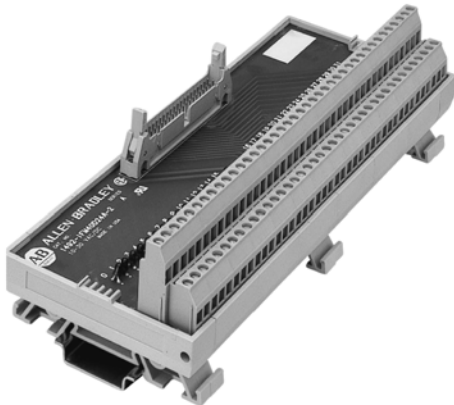


Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — The power bus and LEDs are isolated into four groups of 10 terminals (eight LEDs). This allows each group of output devices to reference a different power source.
4. **Dimensions** — Refer to page 187.

1492-IFM40D24A-2
1492-RIFM40D24A-2

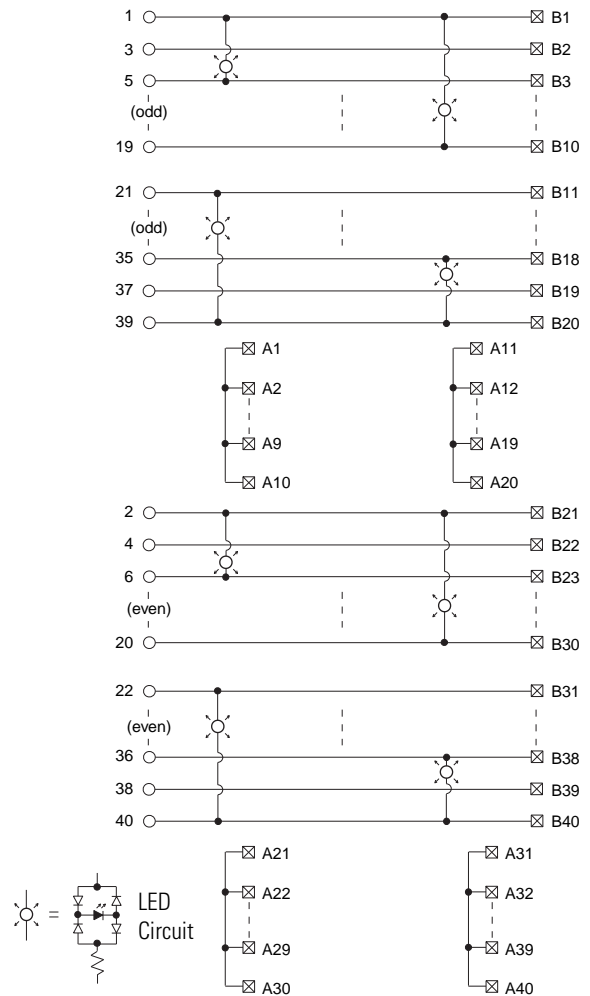
LED Indicating 24V AC/DC LEDs and Extra Terminals for Inputs



Application Notes

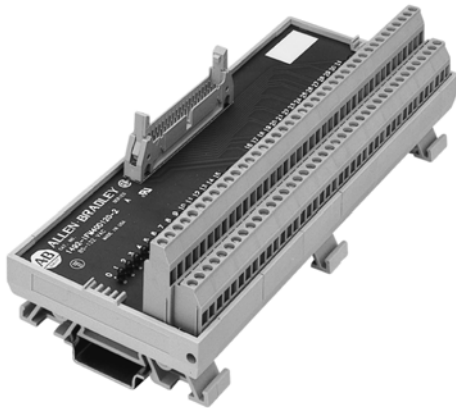
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — The power bus and LEDs are isolated into four groups of 10 terminals (eight LEDs). This allows each group of input devices to reference a different power source.
4. **Dimensions** — Refer to page 187.

Pinout



1492-IFM40D120-2

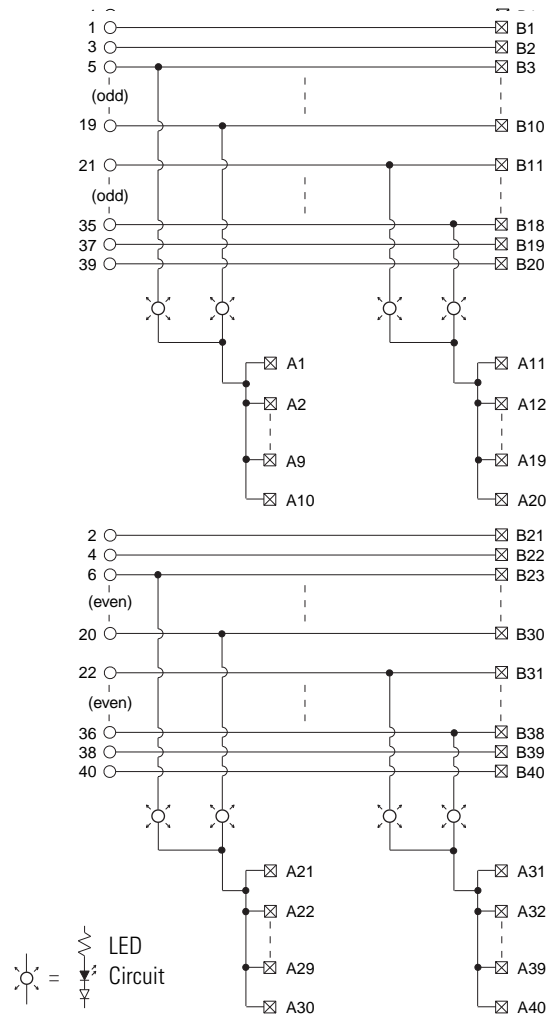
LED Indicating 120V AC LEDs and Extra Terminals for Outputs



Application Notes

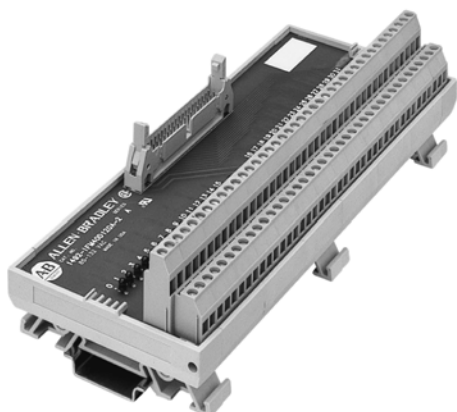
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., an MOV wired across an AC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — The power bus and LEDs are isolated into four groups of 10 terminals (eight LEDs). This allows each group of output devices to reference a different power source.
4. **Dimensions** — Refer to page 187.

Pinout



1492-IFM40D120A-2

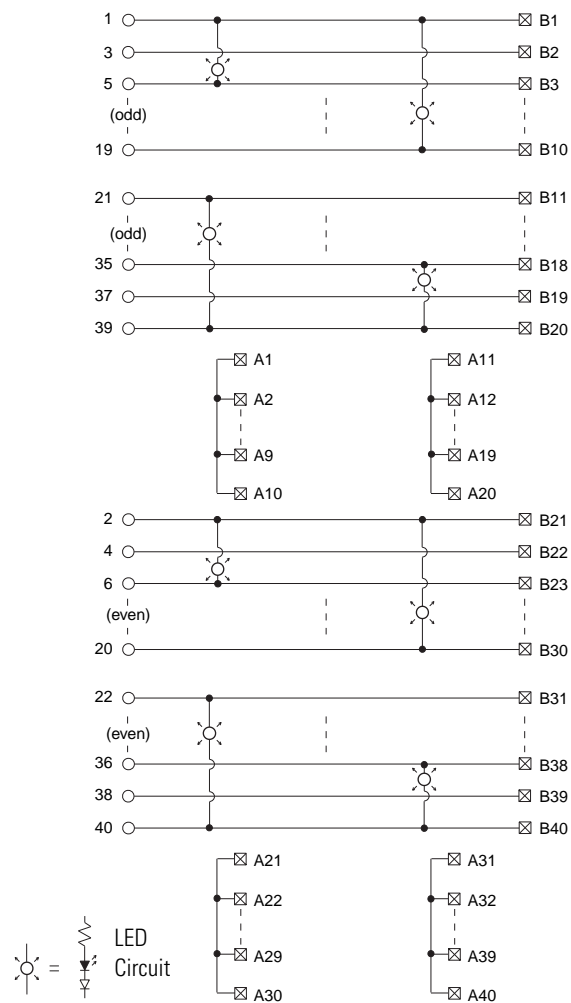
LED Indicating 120V AC LEDs and Extra Terminals for Inputs



Application Notes

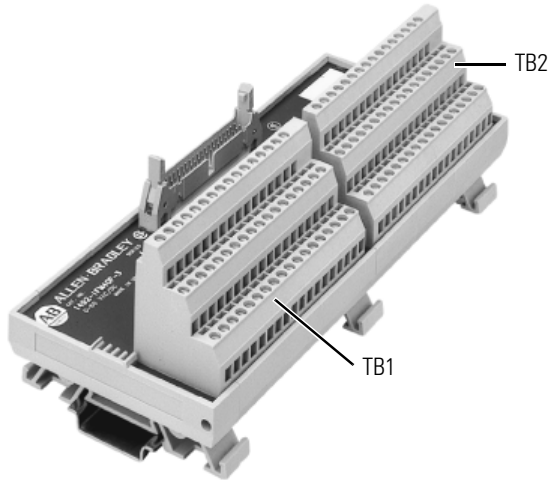
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., an MOV wired across an AC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — The power bus and LEDs are isolated into four groups of 10 terminals (eight LEDs). This allows each group of input devices to reference a different power source.
4. **Dimensions** — Refer to page 187.

Pinout



1492-IFM40D24-3

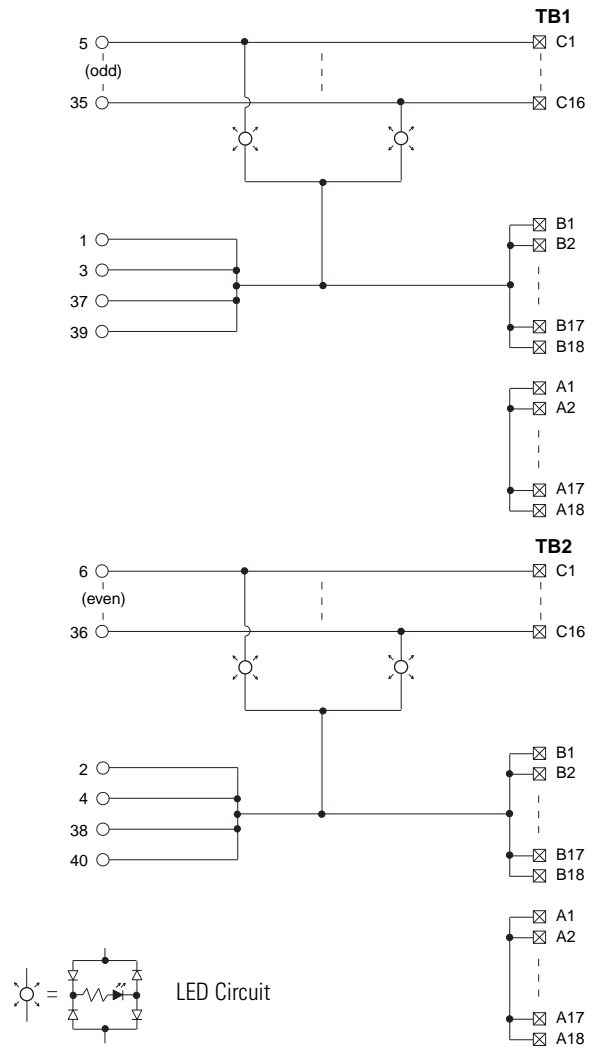
LED Indicating 3-Wire Sensor with 24V AC/DC LEDs



Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — The power busses and LEDs are isolated into two groups of 18 terminals (16 LEDs). This allows the input devices connected to the left field-side terminal block to reference a different power source than the input devices connected to the right field-side terminal block.
4. **Dimensions** — Refer to page 187.

Pinout

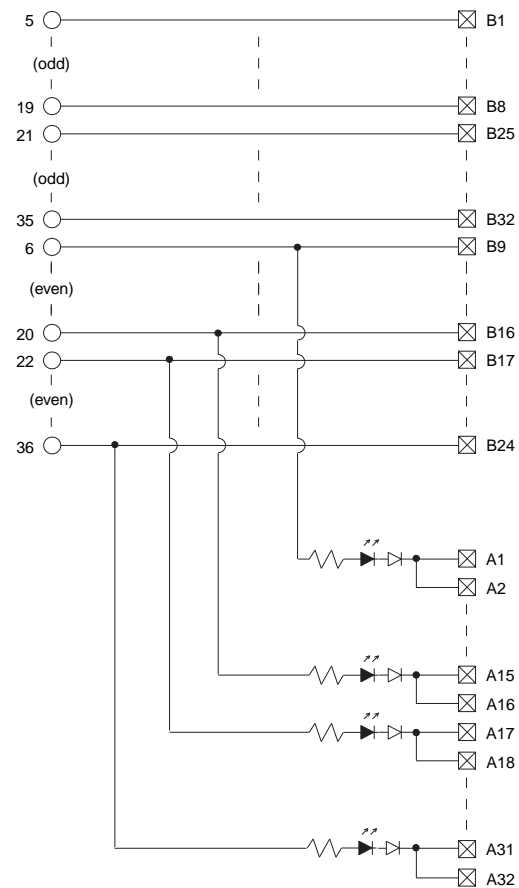


1492-IFM40DS24-4

*LED Indicating 16 Individually Isolated with
24/48V AC/DC LEDs and 4 Terminals/Output*

*Application Notes*

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — There are 16 individually isolated channels. LED returns are individually isolated.
4. **Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
5. **Dimensions** — Refer to page 187.

Pinout

1492-IFM40DS24A-4

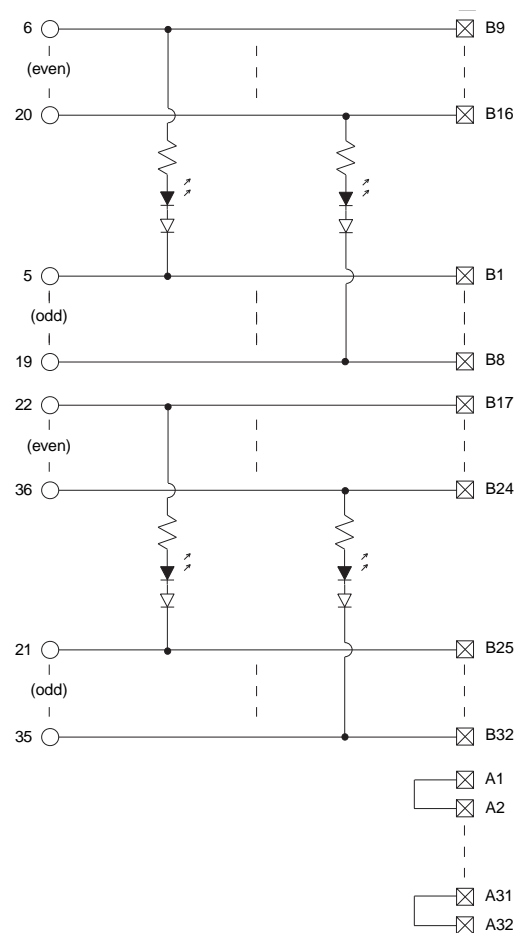
LED Indicating 16 Individually Isolated with 24V AC/DC LEDs and 4 Terminals/Input



Application Notes

- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Isolation** — There are 16 individually isolated channels. LED returns are individually isolated.
- Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
- Dimensions** — Refer to page 187.

Pinout

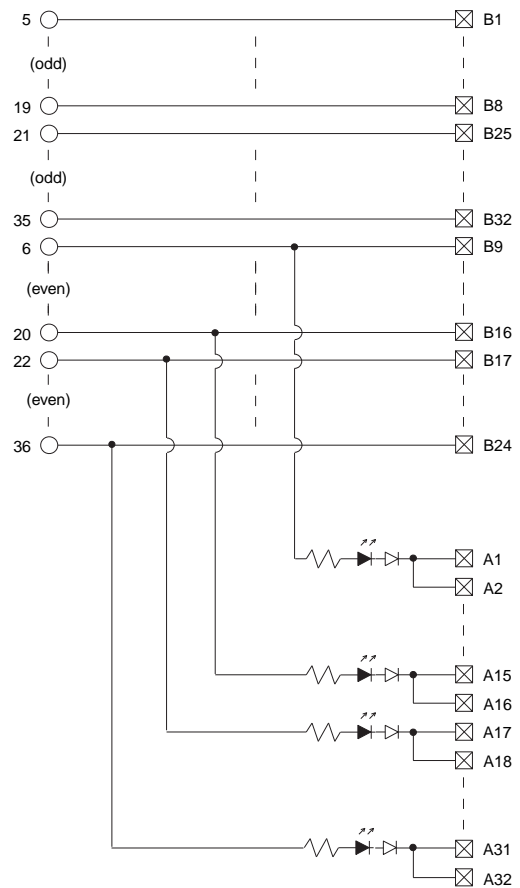


1492-IFM40DS120-4

LED Indicating 16 Individually Isolated with 120V AC and 4 Terminals/Output

*Application Notes*

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., an MOV wired across an AC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — There are 16 individually isolated channels. LED returns are individually isolated.
4. **Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
5. **Dimensions** — Refer to page 187.

Pinout

1492-IFM40DS120A-4

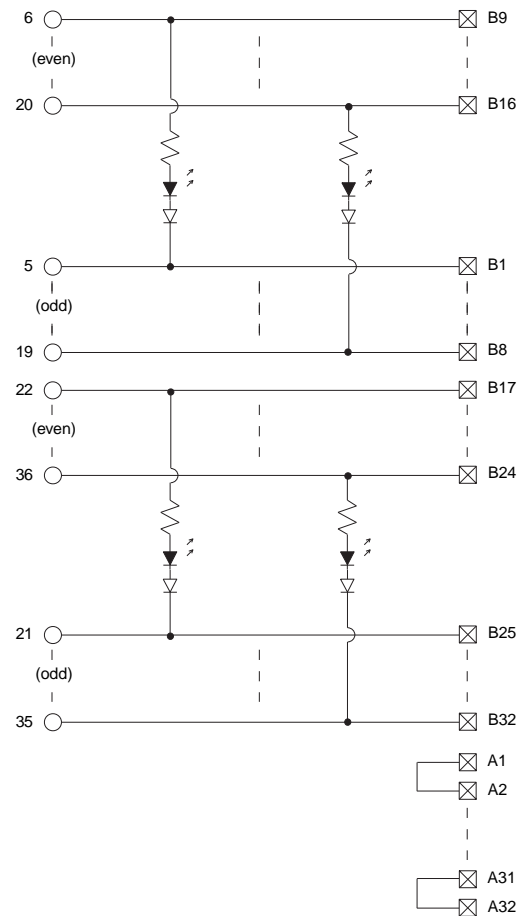
LED Indicating 16 Individually Isolated with 120V AC LEDs and 4 Terminals/Input



Application Notes

- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., an MOV wired across an AC load).
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Isolation** — There are 16 individually isolated channels. LED returns are individually isolated.
- Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
- Dimensions** — Refer to page 187.

Pinout

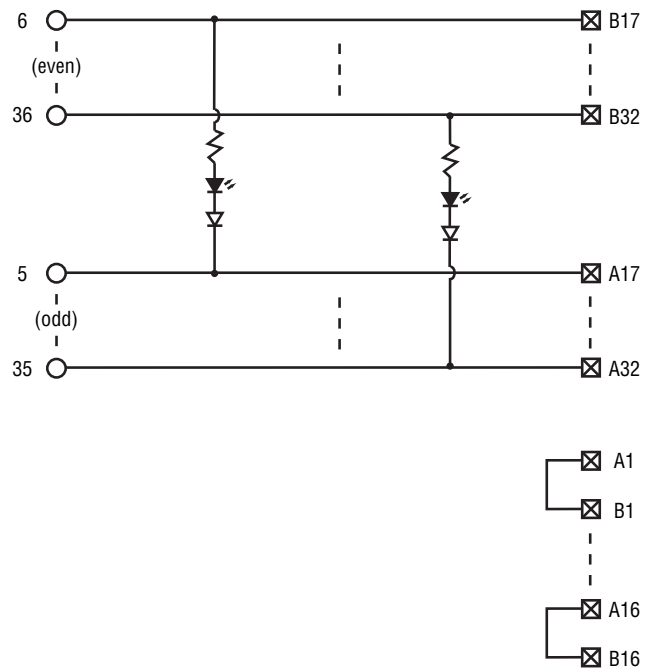


1492-IFM40DS240A-4

LED Indicating 16 Individually Isolated with 240V AC LEDs and 4 Terminals/Input

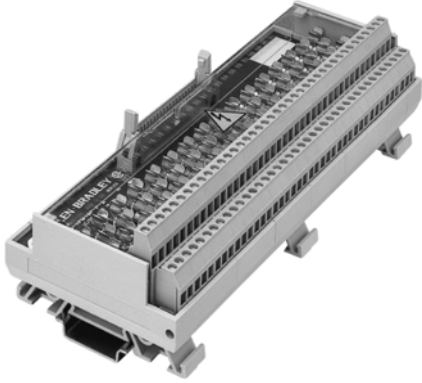
*Application Notes*

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., an MOV wired across an AC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Isolation** — There are 16 individually isolated channels. LED returns are individually isolated.
4. **Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
5. **Dimensions** — Refer to page 187.

Pinout

1492-IFM40F-F-2

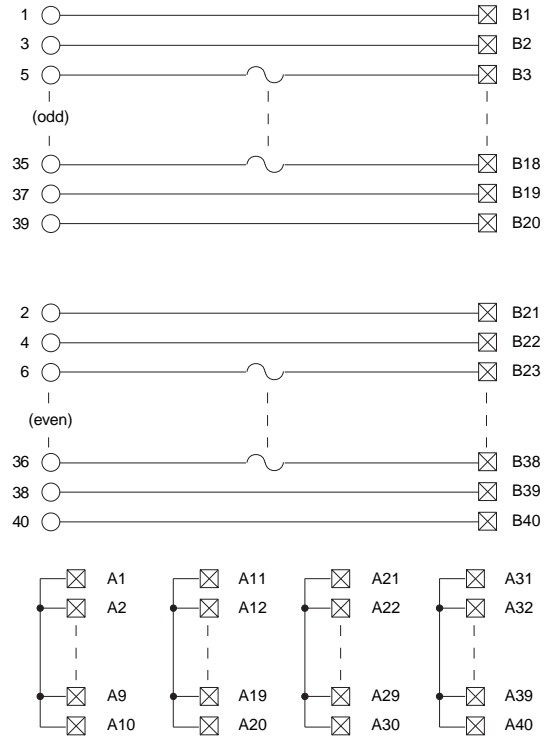
Fusible 120V AC/DC with Extra Terminals for Outputs



Application Notes

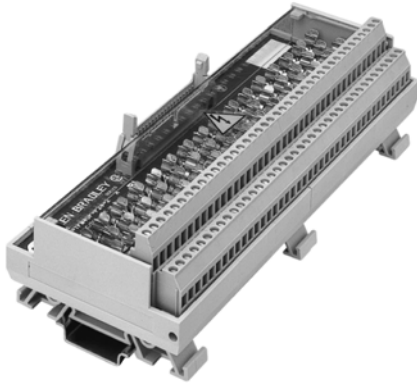
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Isolation** — The power bus and fuse clips are isolated into four groups of 10 terminals (eight fuse clips). This allows each group of output devices to reference a different power source.
5. **Dimensions** — Refer to page 187.

Pinout

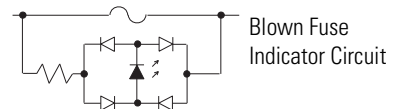
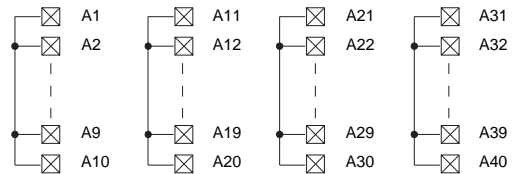
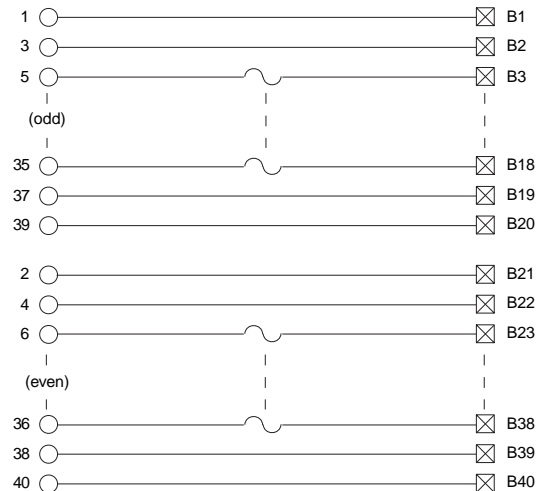


1492-IFM40F-F24-2**1492-RIFM40F-F24-2**

Fusible Extra Terminals with 24V AC/DC Blown Fuse LED Indicators for Outputs

*Application Notes*

- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
- Isolation** — The power bus, fuse clips, and blown fuse indicators are isolated into four groups of 10 terminals (eight fuse clips and blown fuse indicators). This allows each group of output devices to reference a different power source.
- Dimensions** — Refer to page 187.

Pinout

Blown Fuse Indicator Circuit

1492-IFM40F-F24D-2

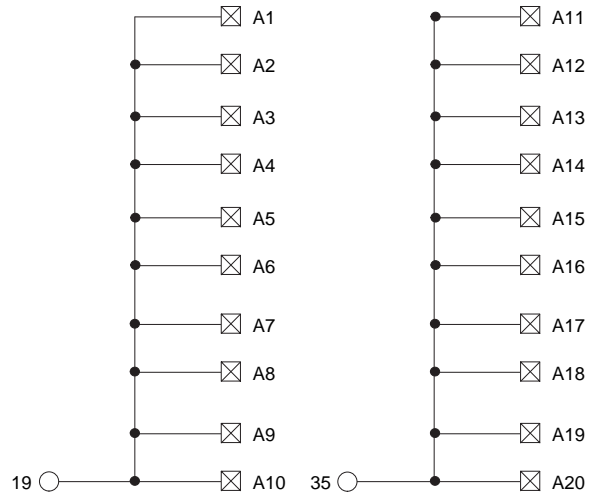
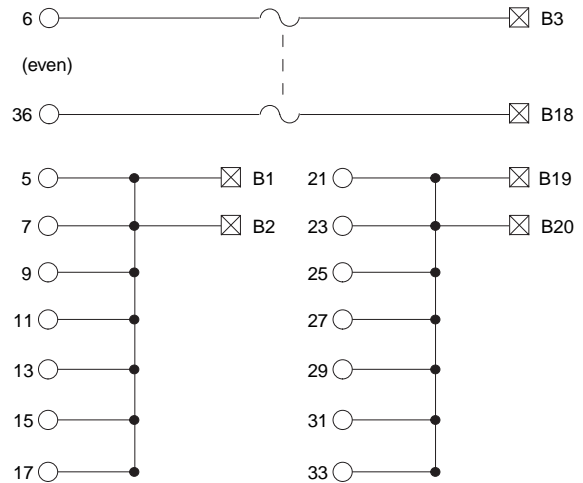
16 Individually fused with 24V DC blown fuse low leakage (0.05 mA) LED circuit, 4 isolated groups, 2 terminals/output



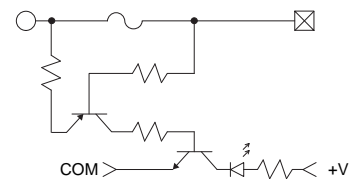
Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Isolation** — Each point is individually fused. The fuse clips and blown fuse indicators are isolated into 4 groups of terminals. This allows use with 4 separate power supplies.
5. **Dimensions** — Refer to page 187.

Pinout



Blown Fuse Indicator Circuit



1492-IFM40F-F24AD-4

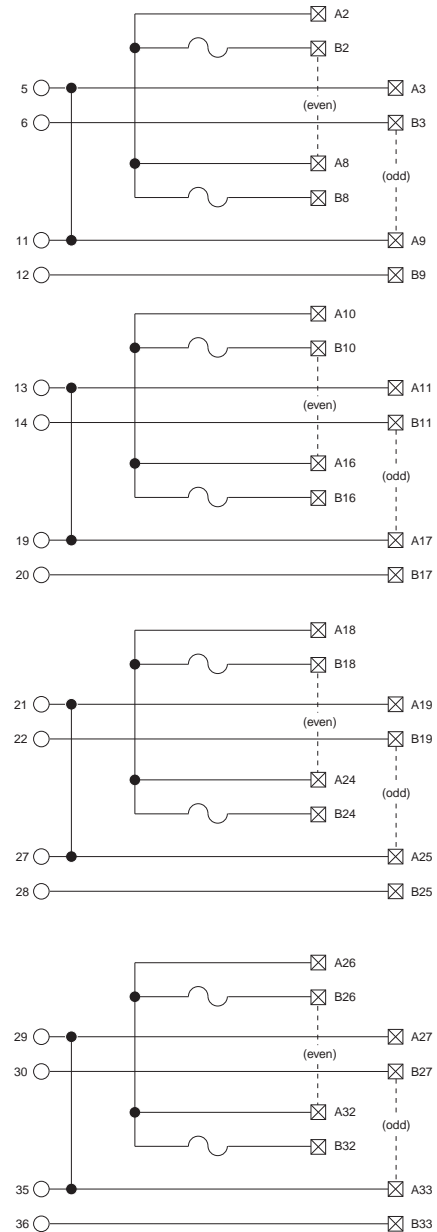
Individually Fused w/24V DC blown fuse low leakage (0.05 mA) LED circuit, 4 isolated groups, 4 terminals/input



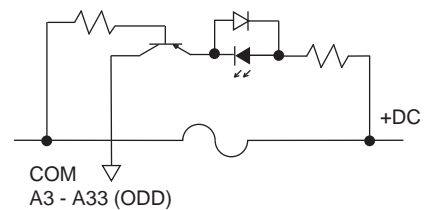
Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
5. **Isolation** — Each point is individually fused. The fuse clips and blown fuse indicators are isolated into 4 groups. This allows use of 4 separate power supplies.
6. **Dimensions** — Refer to page 187.

Pinout

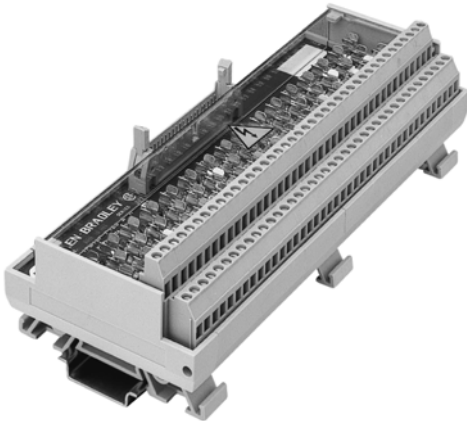


Blown Fuse Indicator Circuit



1492-IFM40F-F120-2

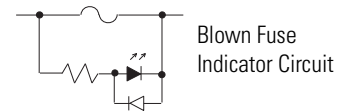
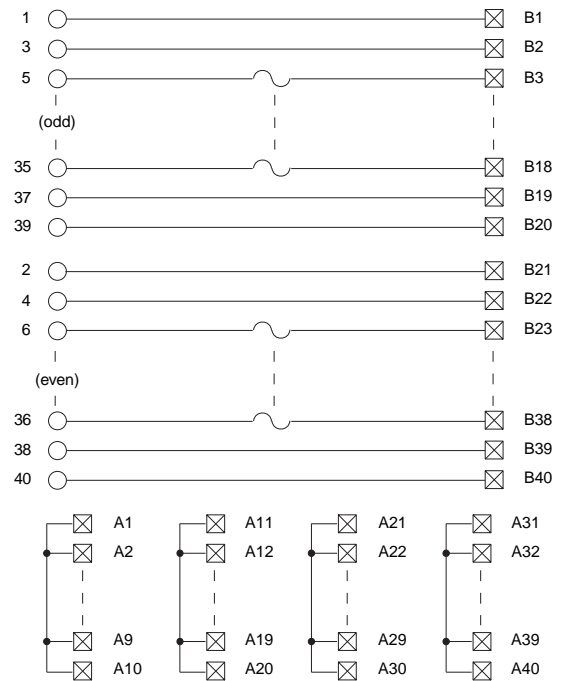
Fusible Extra Terminals with 120V AC/DC Blown Fuse LED Indicators for Outputs



Application Notes

- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., an MOV wired across an AC load).
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
- Isolation** — The power bus, fuse clips, and blown fuse indicators are isolated into four groups of 10 terminals (eight fuse clips and blown fuse indicators). This allows each group of output devices to reference a different power source.
- Dimensions** — Refer to page 187.

Pinout

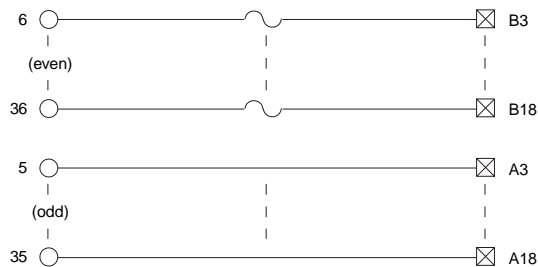


1492-IFM40F-FS-2

Fusible 16 Individually Isolated with Extra Terminals for 120V AC/DC Outputs

*Application Notes*

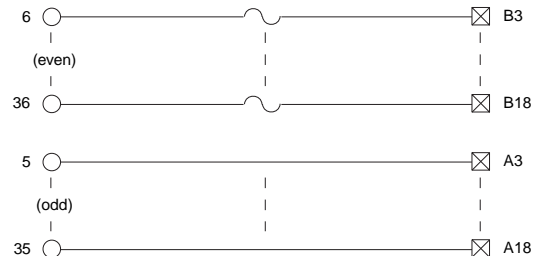
- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
- Isolation** — The fuse clips are isolated into 16 groups of terminals. This allows each output device to reference a different power source.
- Dimensions** — Refer to page 187.

Pinout**1492-IFM40F-FS24-2**

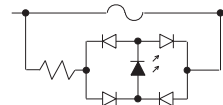
Fusible 16 Individually Isolated with Extra Terminals and 24V AC/DC Blown Fuse LED Indicators for Outputs

*Application Notes*

- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load).
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
- Isolation** — The fuse clips and blown fuse LED indicators are isolated into 16 groups of terminals. This allows each output device to reference a different power source.
- Dimensions** — Refer to page 187.

Pinout

Blown Fuse Indicator Circuit



1492-IFM40F-FS24-4

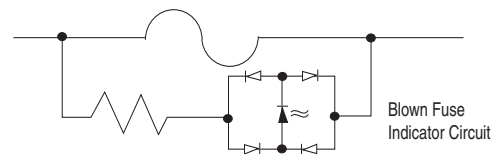
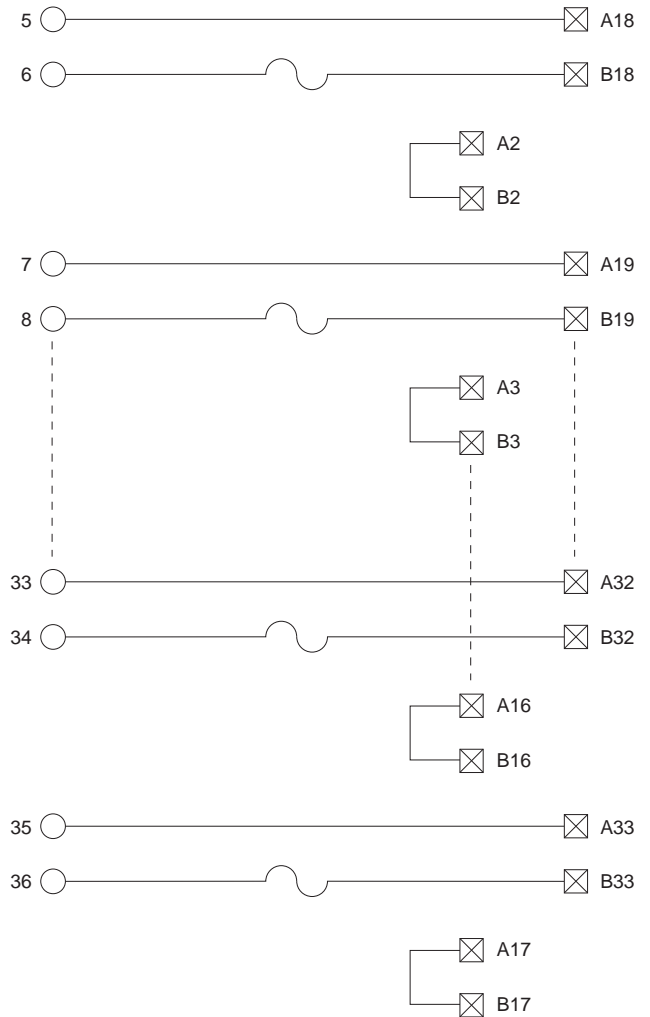
Fusible Individually Isolated with 24V AC/DC Blown Fuse Indicators and 4 Terminals/Output



Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load or an MOV for AC loads).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — 20 fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
5. **Isolation** — The fuse clips and blown fuse indicators are isolated into 16 groups of terminals. This allows each output device to reference a different power source.
6. **Dimensions** — Refer to page 187.

Pinout

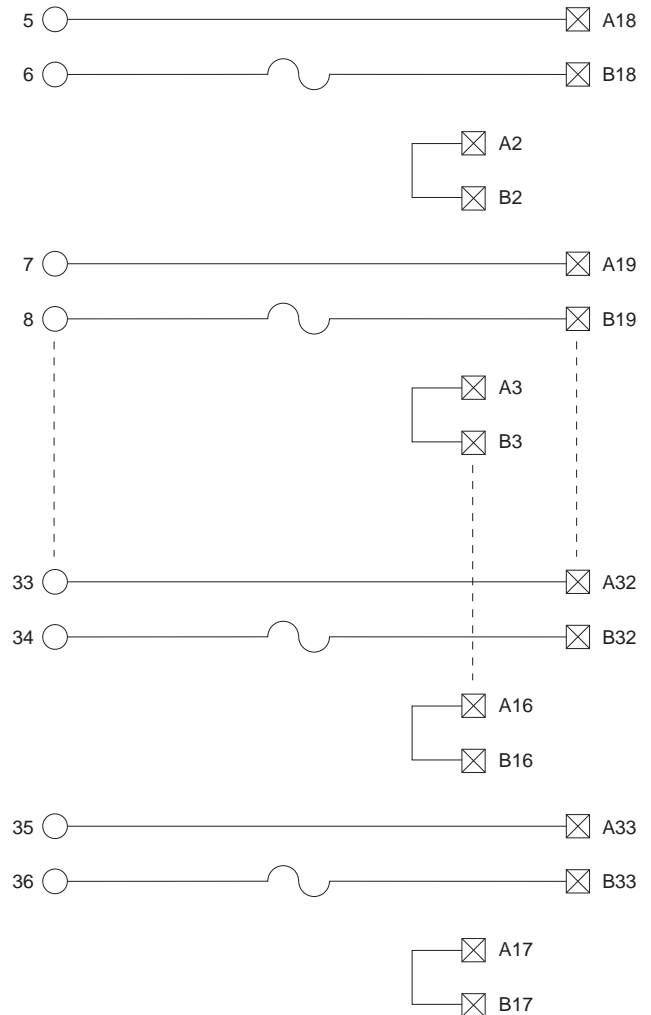


1492-IFM40F-FS-4

Fusible 16 Individually Isolated 240V AC/DC with 4 Terminals/Output

**Application Notes**

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load or an MOV for AC loads).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — 20 fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
5. **Isolation** — The fuse clips are isolated into 16 groups of terminals. This allows each output device to reference a different power source.
6. **Dimensions** — Refer to page 187.

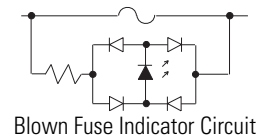
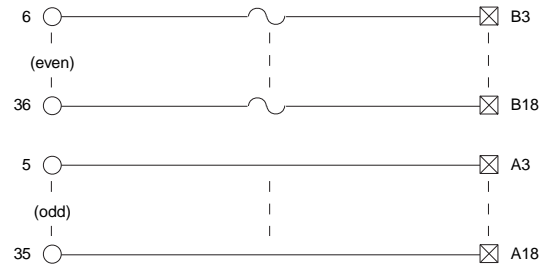
Pinout

1492-IFM40F-FS120-2**1492-RIFM40F-FS120-2**

Fusible 16 Individually Isolated with Extra Terminals and 120V AC/DC Blown Fuse LED Indicators for Outputs

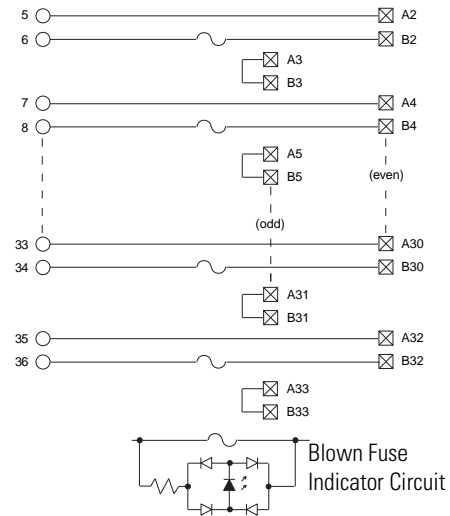
*Application Notes*

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load or an MOV across an AC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Isolation** — The fuse clips and blown fuse indicators are isolated into 16 groups of terminals. This allows each output device to reference a different power source.
5. **Dimensions** — Refer to page 187.

Pinout

1492-IFM40F-FS120-4**1492-IFM40F-FS120-4**

Fusible 16 Individually Isolated with 120V AC/DC Blown Fuse LED Indicators & 4 Terminals/Output

*Pinout**Application Notes*

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load or an MOV across an AC load).
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
5. **Isolation** — The fuse clips and blown fuse indicators are isolated into 16 groups of terminals. This allows each output device to reference a different power source.
6. **Dimensions** — Refer to page 187.

1492-IFM40F-FS240-4

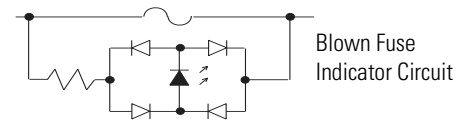
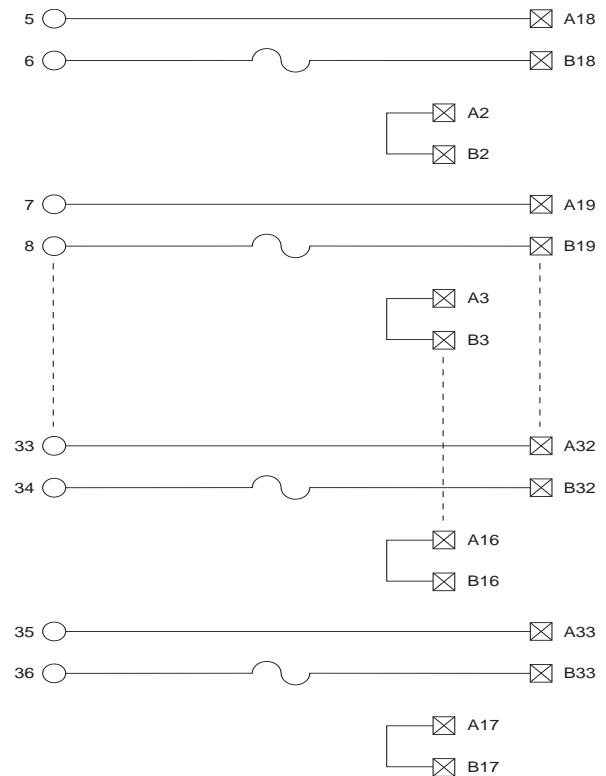
Fusible 16 Individually Isolated with 240V AC/DC Blown Fuse LED Indicators & 4 Terminals/Output



Application Notes

- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM. When this IFM is used with a hard contact (relay) output circuit that switches an inductive load, surge suppression must be used (e.g., a 1N4004 diode reverse-wired across a DC load or an MOV across an AC load).
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
- Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
- Isolation** — The fuse clips and blown fuse indicators are isolated into 16 groups of terminals. This allows each output device to reference a different power source.
- Dimensions** — Refer to page 187.

Pinout

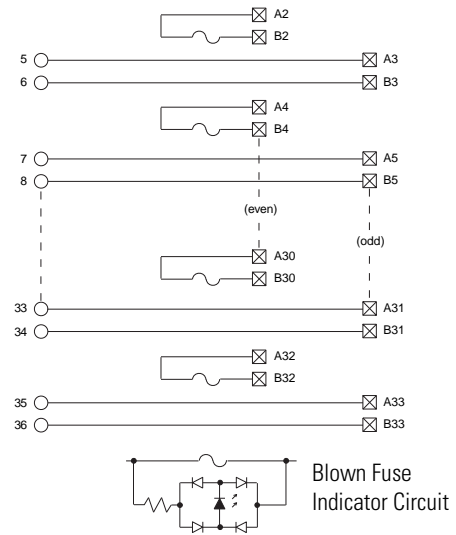


1492-IFM40F-FS24A-4

*Fusible 16 Individually Isolated 24V AC/DC with 4
Terminals/Input*

*Application Notes*

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
5. **Isolation** — The fuse clips and blown fuse indicators are isolated into 16 groups of terminals. This allows each input device to reference a different power source.
6. **Dimensions** — Refer to page 187.

Pinout

1492-IFM40F-FSA-4

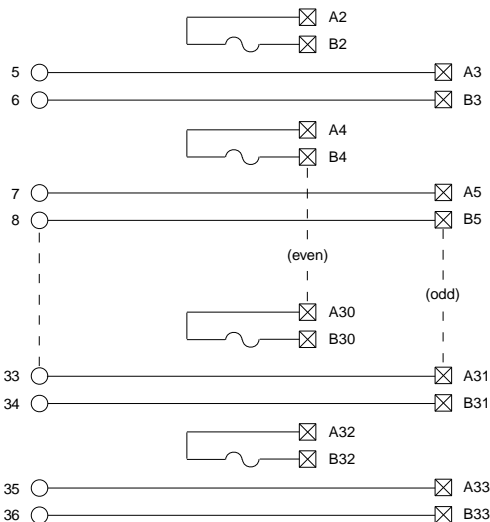
*Fusible 16 Individually Isolated 120V AC/DC
4 Terminals/Input*



Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
5. **Isolation** — The fuse clips are isolated into 16 groups of terminals. This allows each input device to reference a different power source.
6. **Dimensions** — Refer to page 187.

Pinout



**1492-IFM40F-FS120A-4
1492-RIFM40F-FS120A-4**

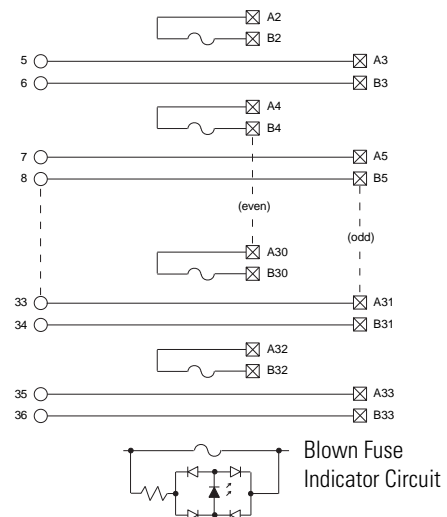
*Fusible 16 Individually Isolated with 120V AC/DC Blown
Fuse LED Indicators & 4 Terminals/Input*



Application Notes

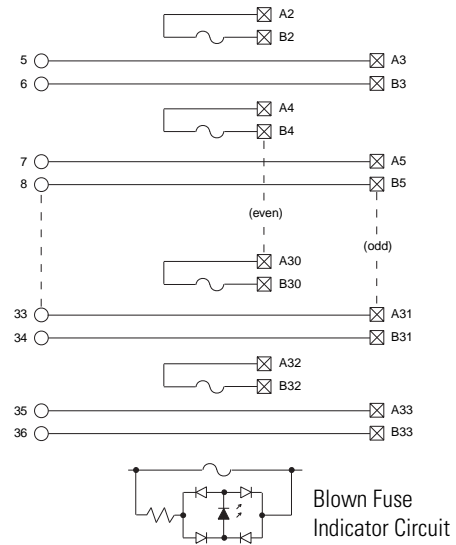
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
4. **Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
5. **Isolation** — The fuse clips and blown fuse indicators are isolated into 16 groups of terminals. This allows each input device to reference a different power source.
6. **Dimensions** — Refer to page 187.

Pinout



1492-IFM40F-FS240A-4

Fusible 16 Individually Isolated with 240V AC/DC Blown Fuse LED Indicators and 4 Terminals/Input

*Pinout**Application Notes*

- 1. Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the IFM.
- 2. Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- 3. Fusing** — Fuse holders are included with the IFM. Fuses (5 x 20 mm) are not included.
- 4. Extra Terminals** — Two field-side terminals are internally connected on the IFM for each channel, and are available for power source common connections.
- 5. Isolation** — The fuse clips and blown fuse indicators are isolated into 16 groups of terminals. This allows each input device to reference a different power source.

Dimensions — Refer to page 187.

1492-XIM2024-8R

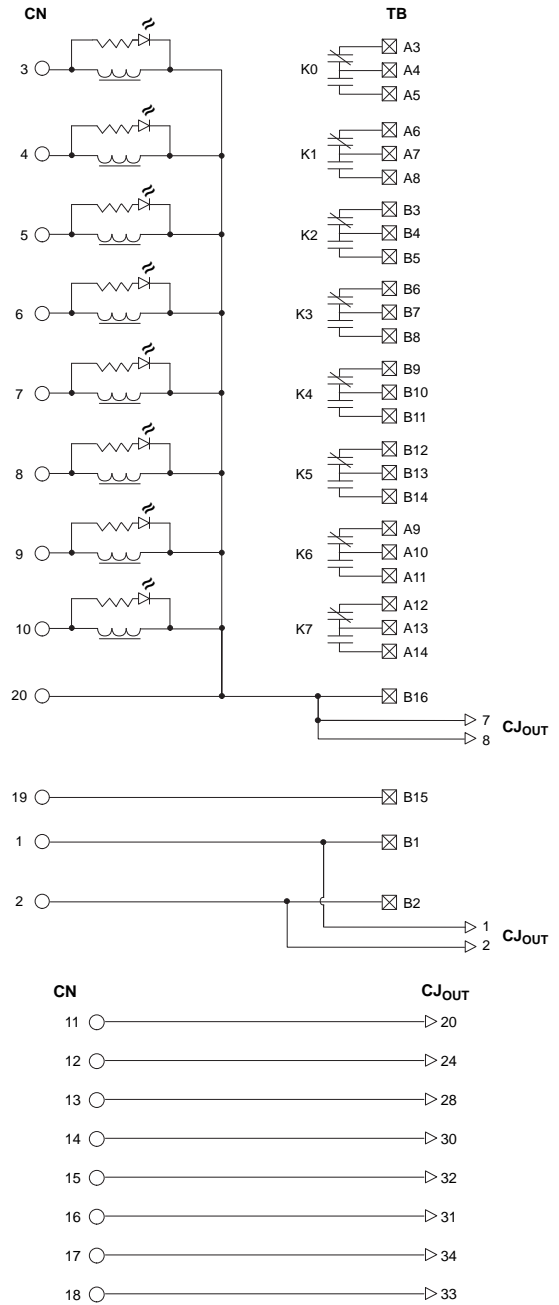
Pinout

Relay Master (LED Indicating) 20-Pin Master with Eight (8) 24V DC Relays



Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the XIM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Dimensions** — Refer to page 187.
4. **Maximum Relay Switching** — Refer to page 192.
5. LEDs provide PLC output ON/OFF indication.
6. With expansion module and cable (included with expansion module) can expand to 16 relays.



1492-XIM20120-8R

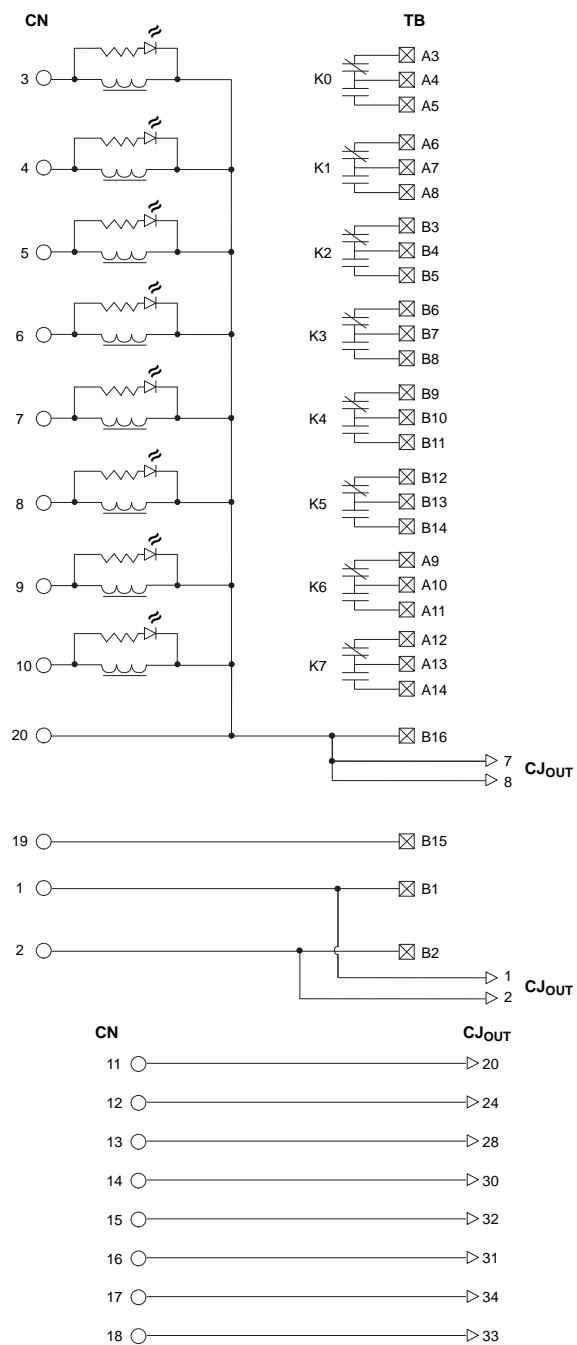
Relays Masters (LED Indicating) 20-Pin Master with Eight (8) 120V AC Relays



Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the XIM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Dimensions** — Refer to page 187.
4. **Maximum Relay Switching** — Refer to page 192.
5. LEDs provide PLC output ON/OFF indication.
6. With expansion module and cable (included with expansion module) can expand to 16 relays.

Pinout



1492-XIM2024-16R

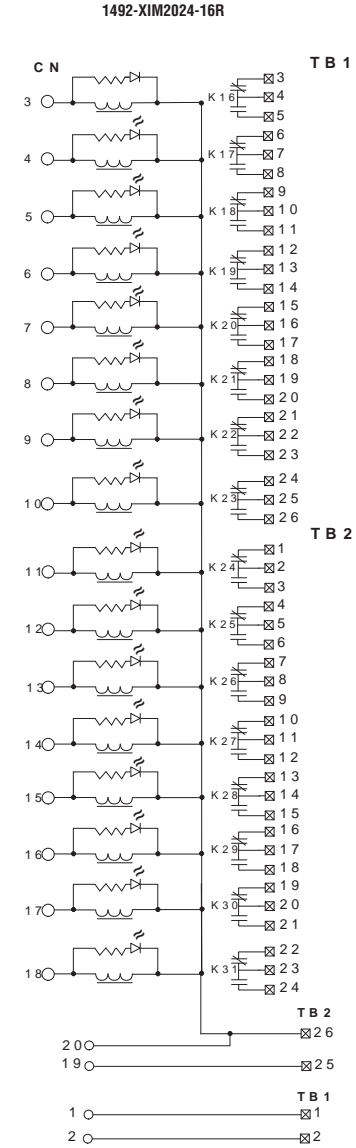
Pinout

Relays Master (LED Indicating) 20-Pin Master with Sixteen (16) 24V DC Relays



Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the XIM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Dimensions** — Refer to page 187.
4. **Maximum Relay Switching** — Refer to page 192.
5. LEDs provide PLC output ON/OFF indication.
6. No expansion capability.

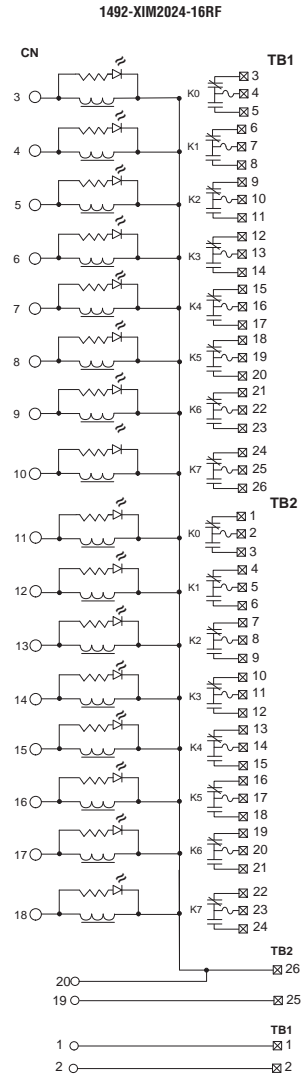


1492-XIM2024-16RF*Pinout*

Relay Master (LED Indicating) 20-Pin Master with Sixteen (16) 24V DC Relays with Fusing

*Application Notes*

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the XIM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Dimensions** — Refer to 187.
4. **Maximum Relay Switching** — Refer to page 192.
5. LEDs provide PLC output ON/OFF indication.
6. No expansion capability.



1492-XIM20120-16R

Pinout

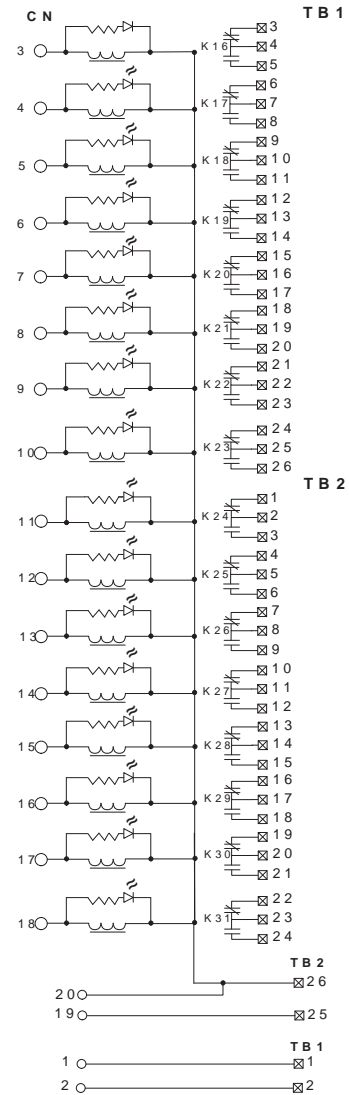
Relay Master (LED Indicating) 20-Pin Master with Sixteen (16) 120V AC Relays



Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the XIM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Dimensions** — Refer to page 187.
4. **Maximum Relay Switching** — Refer to page 192.
5. LEDs provide PLC output ON/OFF indication.
6. No expansion capability.

1492-XIM2024-16R

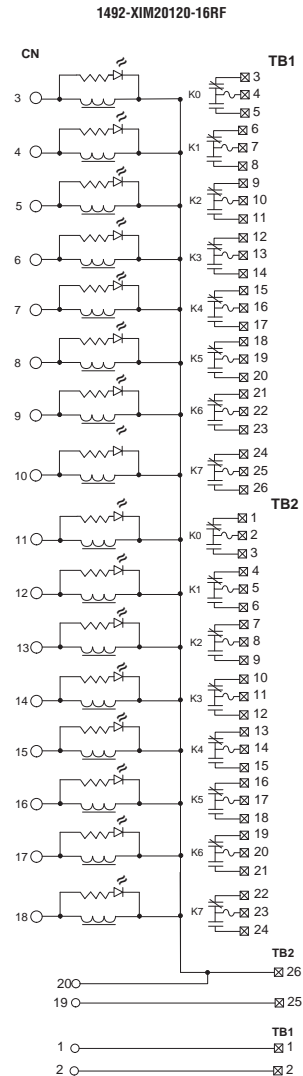


1492-XIM20120-16RF*Pinout*

Relay Master (LED Indicating) 20-Pin Master with Sixteen (16) 120V AC Relays with Fusing

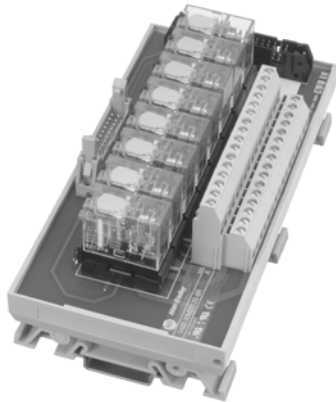
*Application Notes*

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the XIM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Dimensions** — Refer to page 187.
4. **Maximum Relay Switching** — Refer to page 192.
5. LEDs provide PLC output ON/OFF indication.
6. No expansion capability.



1492-XIM4024-8R

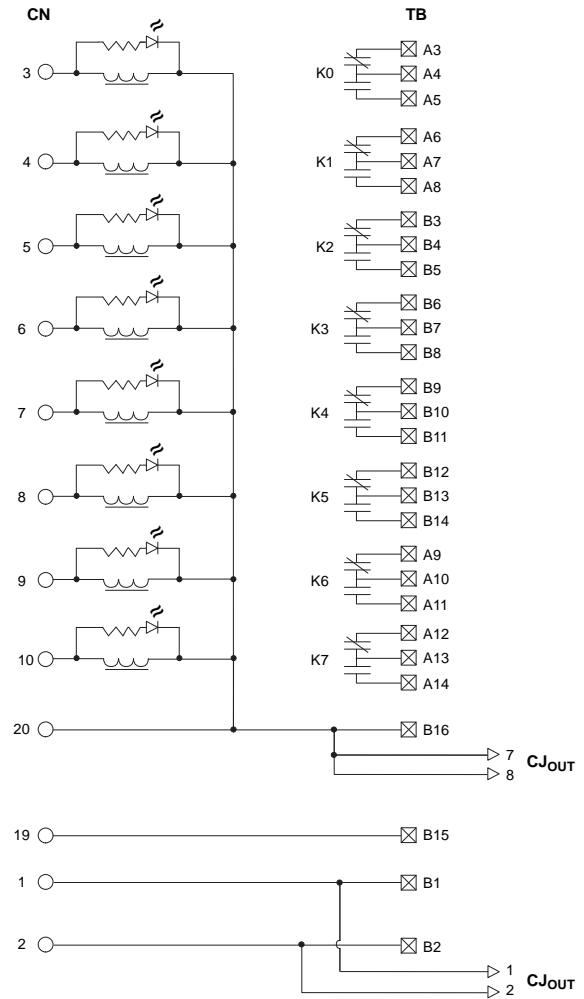
Relay Master (LED Indicating) 40-Pin Master with Eight (8) 24V DC Relays



Application Notes

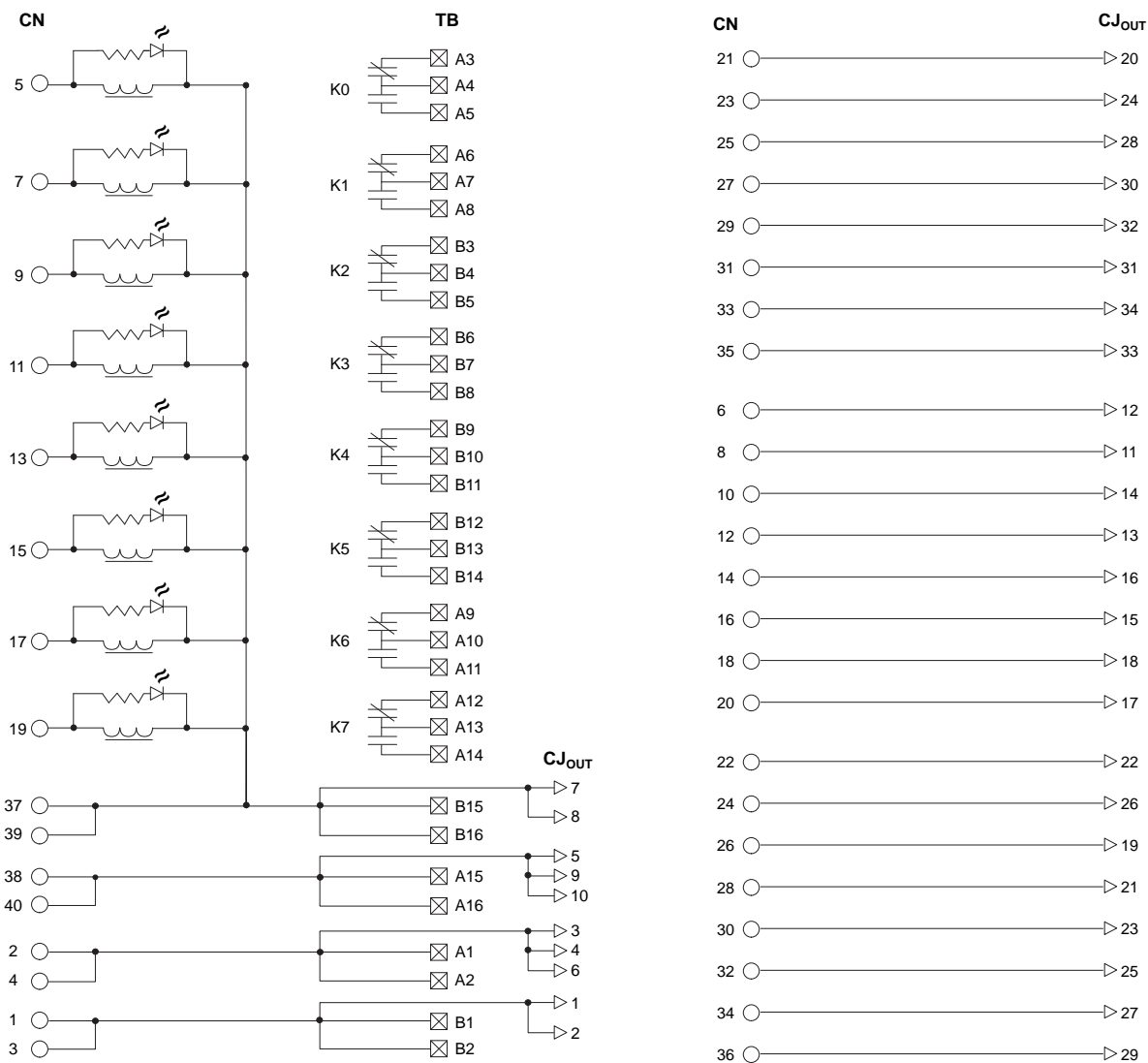
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the XIM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Dimensions** — Refer to page 187.
4. **Maximum Relay Switching** — Refer to page 192.
5. LEDs provide PLC output ON/OFF indication.
6. With expansion module(s) and cable (included with expansion module) can expand to 32 relays.

Pinout



1492-XIM4024-8R, Continued

Pinout, Continued



1492-XIM4024-16R 1492-RXIM4024-16R

Relay Master (LED Indicating) 40-Pin Master with Sixteen (16) 24V DC Relays



Application Notes

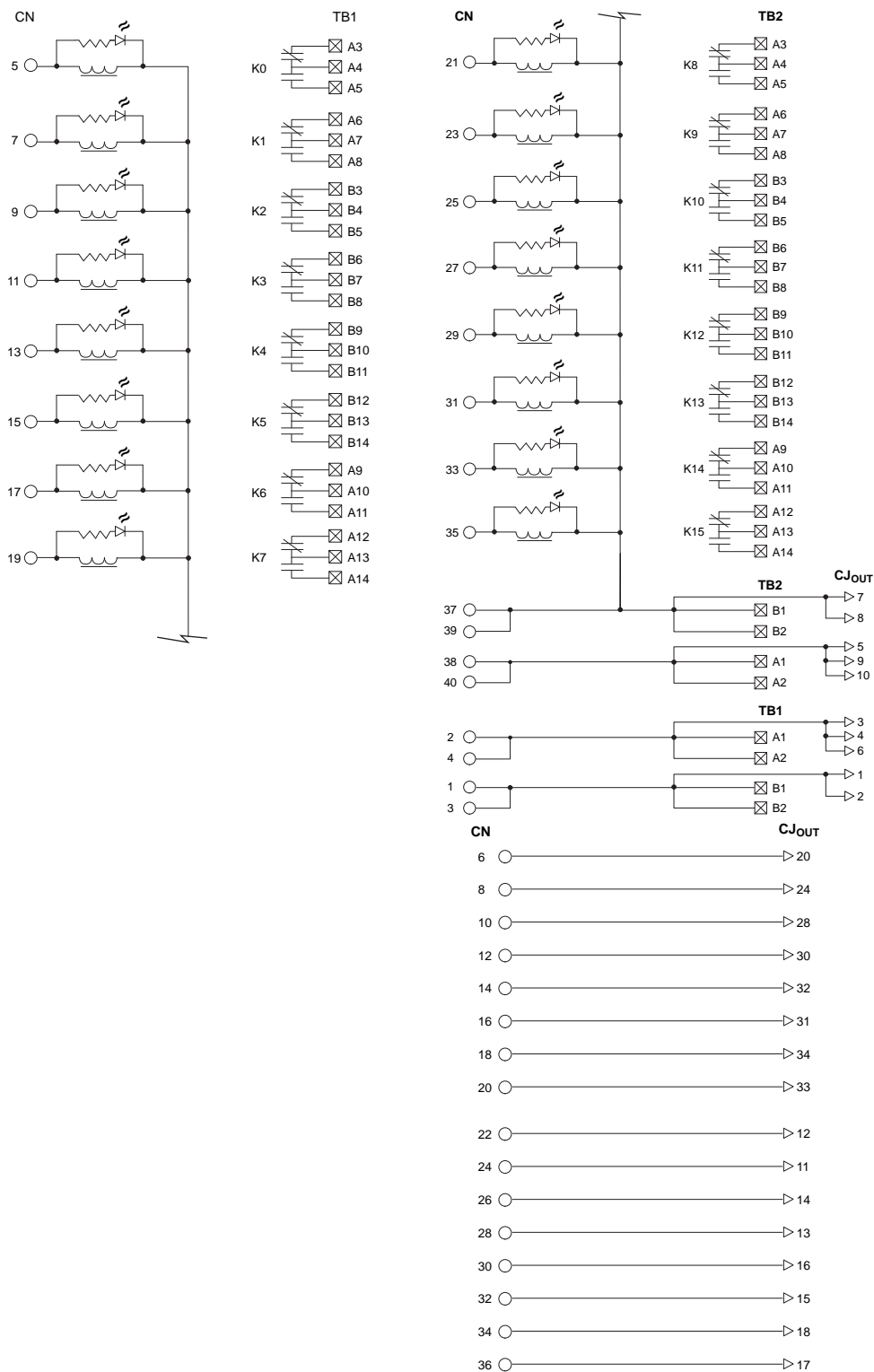
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the XIM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Dimensions** — Refer to page 187.
4. **Maximum Relay Switching** — Refer to page 192.
5. LEDs provide PLC output ON/OFF indication.
6. With expansion module(s) and cable(s) (included with expansion module) can expand to 32 relays.

Pinout

Refer to page 125.

1492-XIM4024-16R 1492-RXIM4024-16R, Continued

Pinout, Continued



1492-XIM4024-16RF

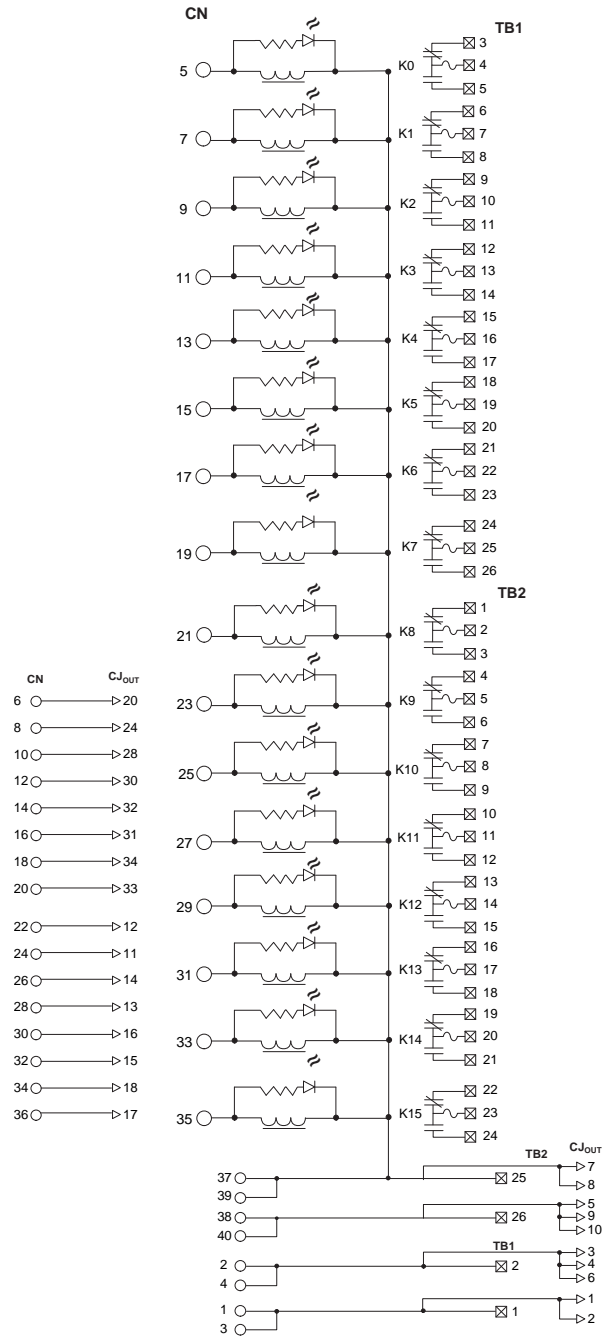
Relay Master (LED Indicating) 40-Pin Master with Sixteen (16) 24V DC Relays with Fusing



Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the XIM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Dimensions** — Refer to page 187.
4. **Maximum Relay Switching** — Refer to page 192.
5. LEDs provide PLC output ON/OFF indication.
6. With expansion module(s) and cable(s) (included with expansion module) can expand to 32 relays.

Pinout



1492-XIM24-8R**1492-RXIM24-8R**

Relay Expander (LED Indicating) with Eight (8) 24V DC Relays

*Application Notes*

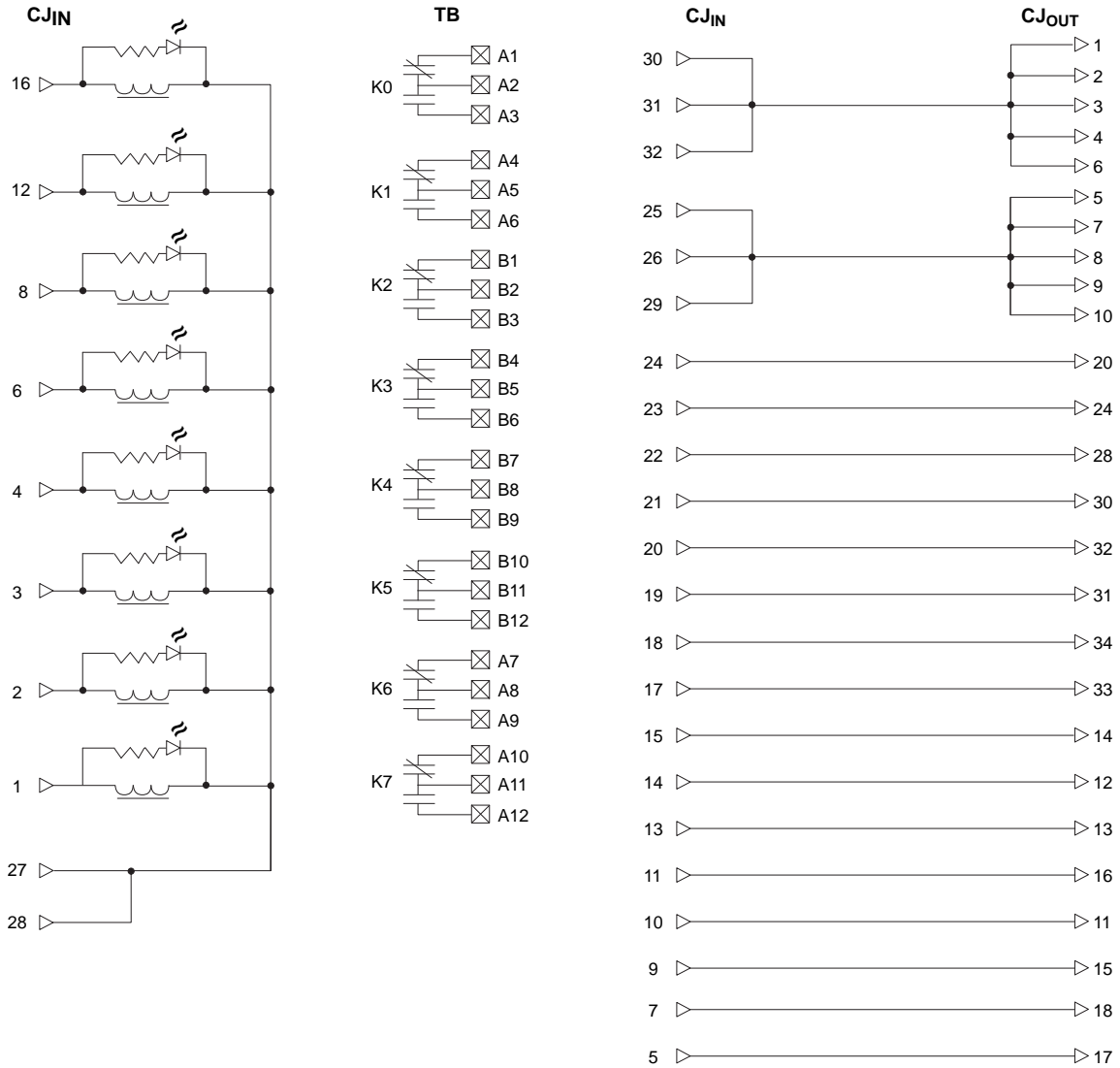
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the XIM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. This relay expander must be used with a 24V DC relay master.
4. **Dimensions** — Refer to page 187.
5. **Maximum Relay Switching** — Refer to page 192.
6. LEDs provide PLC output ON/OFF indication.

Pinout

Refer to page 128.

1492-XIM24-8R, Continued
1492-RXIM24-8R, Continued

Pinout, Continued



1492-XIM120-8R

Relay Expander (LED Indicating) with Eight (8) 120V AC Relays



Application Notes

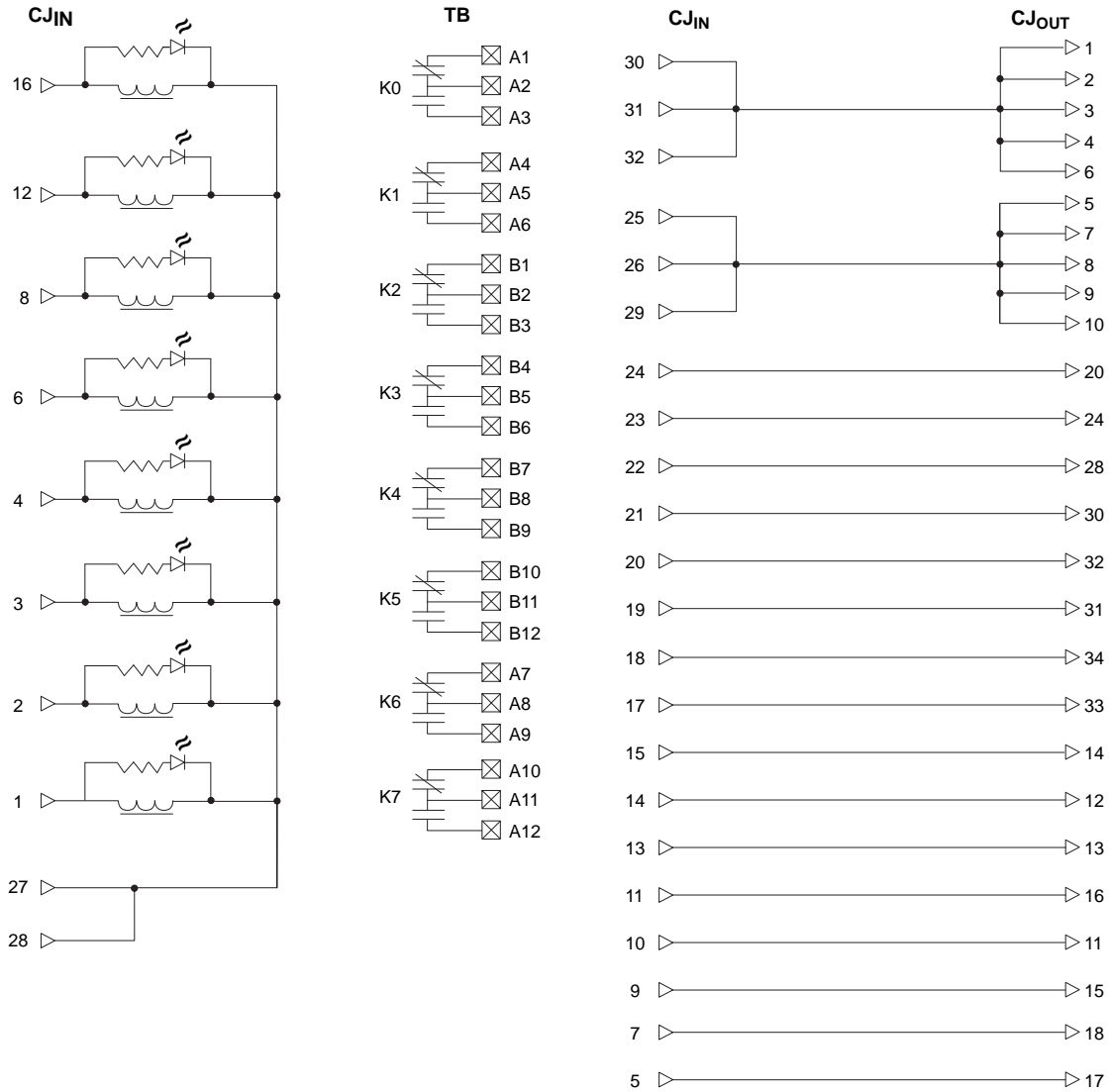
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the XIM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. This relay expander must be used with a 120V AC relay master.
4. **Dimensions** — Refer to page 187.
5. **Maximum Relay Switching** — Refer to page 192.
6. LEDs provide PLC output ON/OFF indication.

Pinout

Refer to page 130.

1492-XIM120-8R, Continued

Pinout, Continued



1492-XIM24-16RF

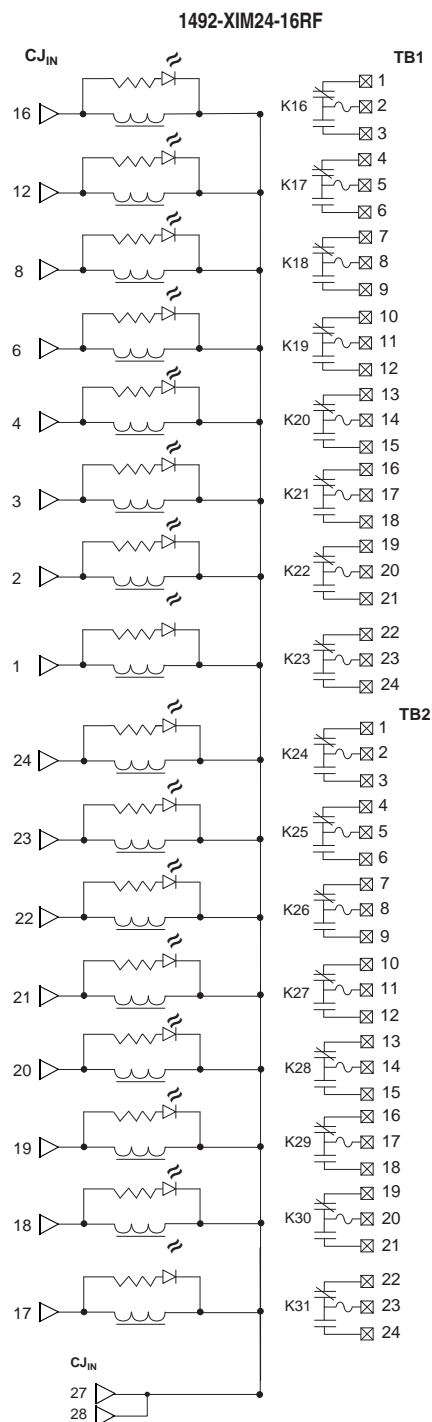
Pinout

Expander with Sixteen (16) 24V DC Relays with Fusing



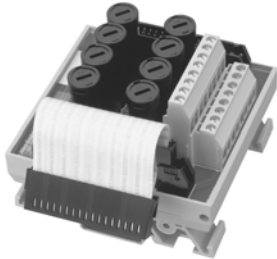
Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the XIM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. This relay expander must be used with a 24 VDC relay master.
4. **Dimensions** — Refer to page 187.
5. **Maximum Relay Switching** — Refer to page 192.
6. LEDs provide PLC output ON/OFF indication.



1492-XIMF-F24-2

Fusible 8-Channel Expander with 24V DC Blown Fuse Indicators



Application Notes

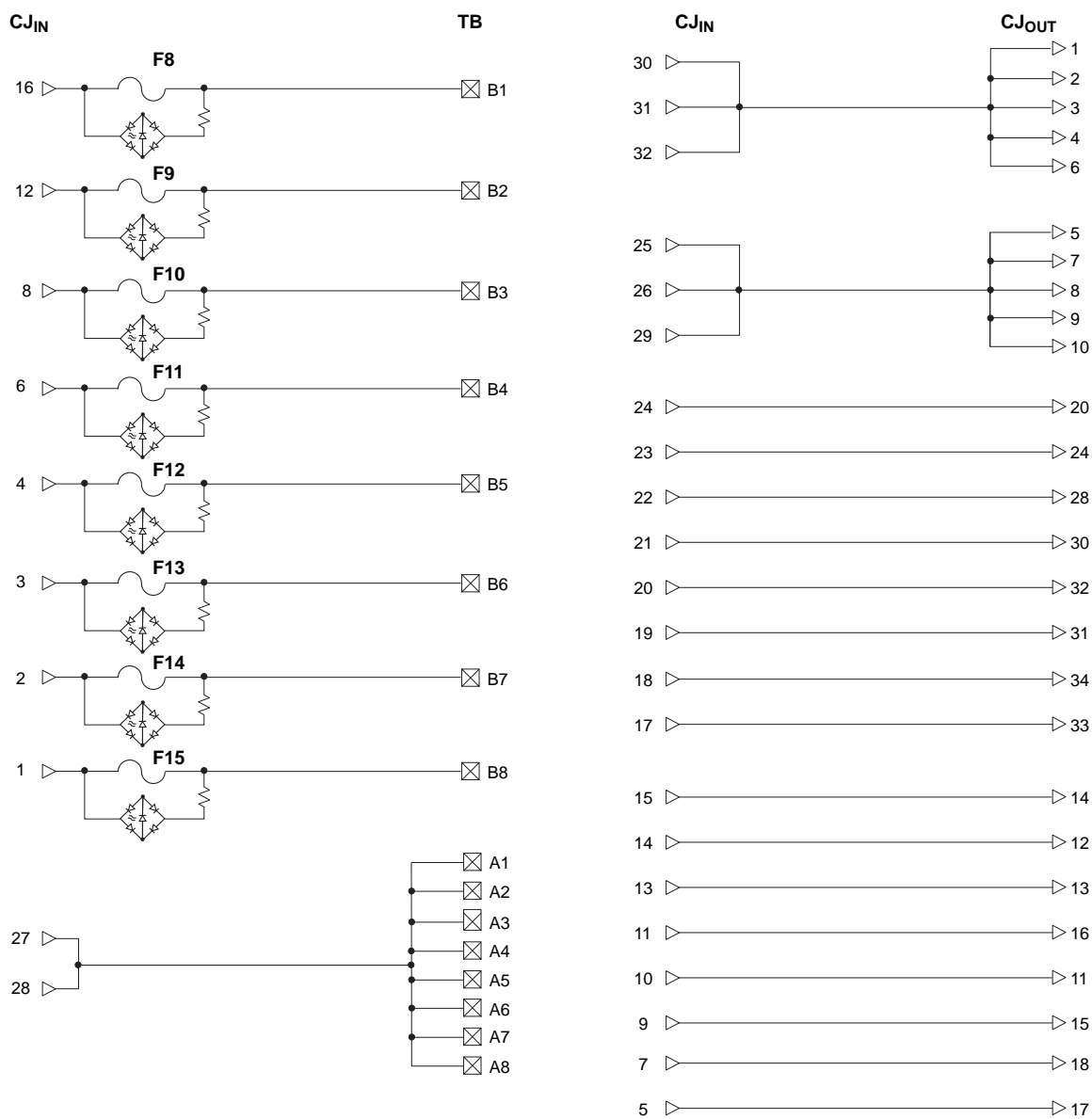
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the XIM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Extra Terminals** — Eight field-side terminals are jumpered together on the XIM. For some I/O modules, the terminals are also internally connected to module common through the pre-wired cable. Refer to the XIM and CABLE pinouts.
4. **Dimensions** — Refer to page 187.
5. LEDs provide blown fuse indication.

Pinout

Refer to page 133.

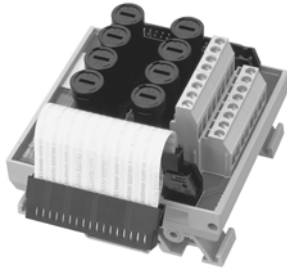
1492-XIMF-F24-2, Continued

Pinout, Continued



1492-XIMF-F120-2

Fusible 8-Channel Expander with 120V AC Blown Fuse Indicators



Application Notes

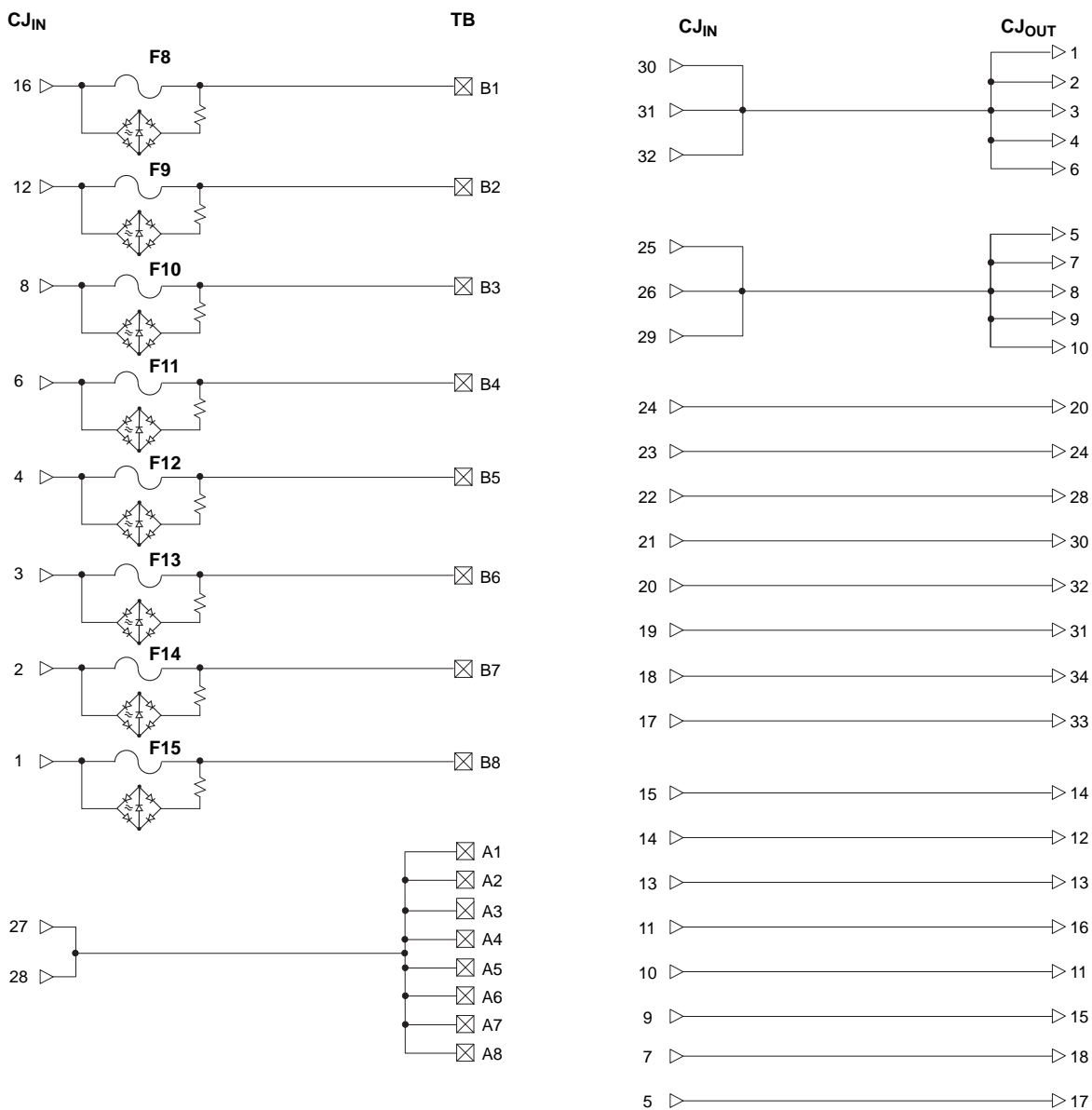
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the XIM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Extra Terminals** — Eight field-side terminals are jumpered together on the XIM. For some I/O modules, the terminals are also internally connected to module common through the pre-wired cable. Refer to the XIM and CABLE pinouts.
4. **Dimensions** — Refer to page 187.
5. LEDs provide blown fuse indication.

Pinout

Refer to page 135.

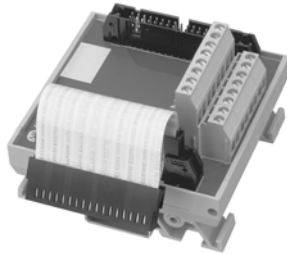
1492-XIMF-F120-2, Continued

Pinout, Continued



1492-XIMF-2

Expander with Eight (8) Feed-Through Channels



Application Notes

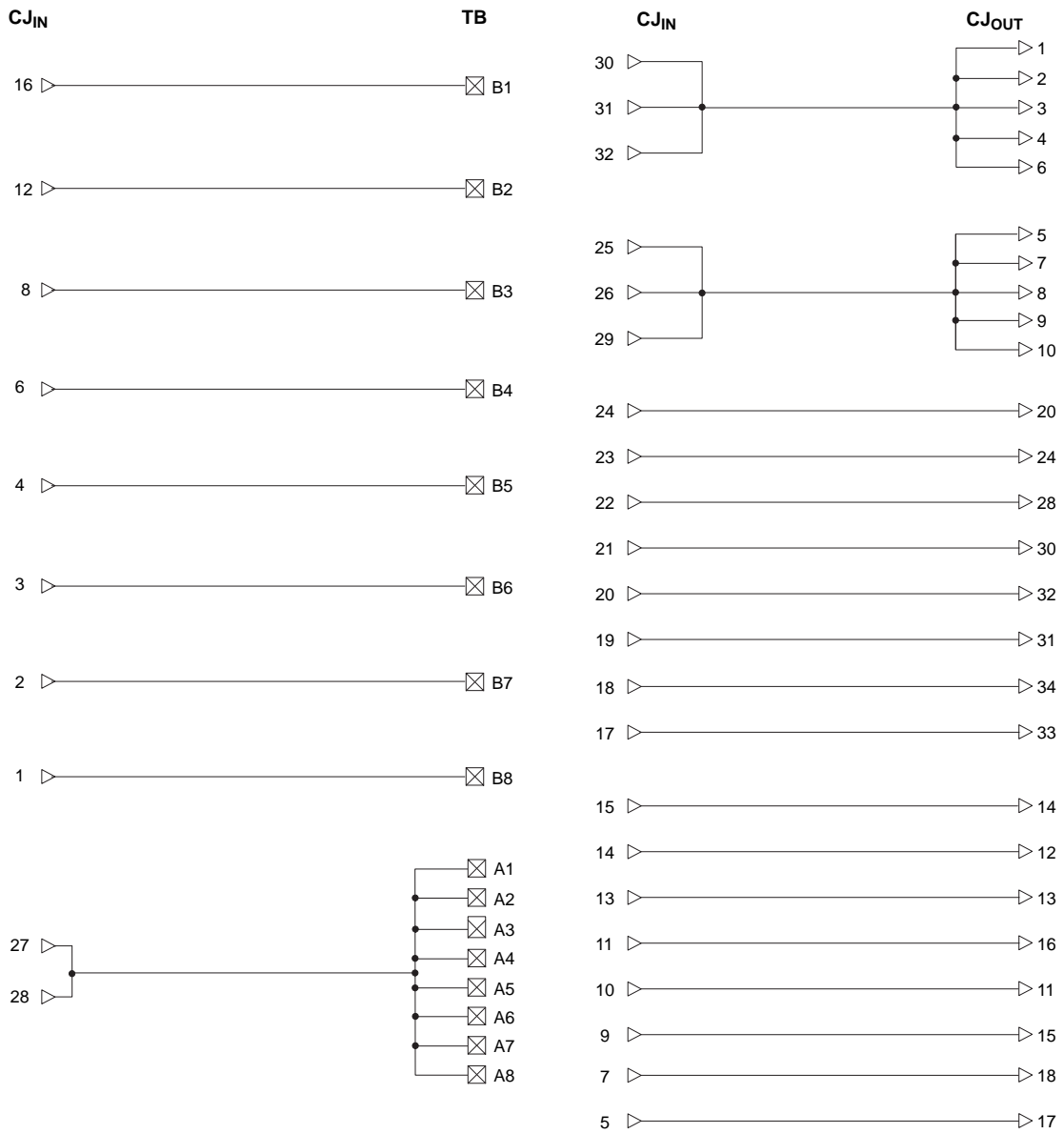
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the XIM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Extra Terminals** — Eight field-side terminals are jumpered together on the XIM. For some I/O modules, the terminals are also internally connected to module common through the pre-wired cable. Refer to the XIM and CABLE pinouts.
4. **Dimensions** — Refer to page 187.

Pinout

Refer to page 137.

1492-XIMF-2, Continued

Pinout, Continued

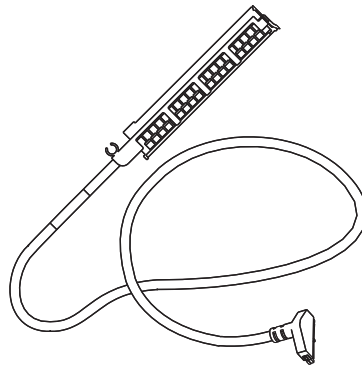


Digital Cable Specifications

Bulletin 1492 pre-wired cables are designed to minimize control wiring in a panel. Digital pre-wired cables, when used with an IFM or XIM, replace the point-to-point wiring between Allen-Bradley programmable controller I/O modules and individual terminal blocks. The digital ready-to-wire cables provide one end of the cable pre-terminated, for either an IFM (IFM-ready cable) or a programmable controller I/O module (I/O module-ready cable).

Pre-Wired Cables

Specifications



The pre-wired cables have a Bulletin 1746 Removable Terminal Block, 1756 Removable Terminal Block, 1769 Removable Terminal Block, or 1771 Wiring Arm on one end and a cable connector on the other to connect to the IFM or XIM. The broad offering of digital pre-wired cables supports over 100 different 16- and 32-point Bulletin 1746, 1756, 1769, 1794, and 1771 digital I/O modules.

Digital Cable Specifications, Continued

Pre-Wired Cables, Continued

Digital Pre-Wired Cable Specifications

| Catalog Number | Standard Cable Lengths | Insulation Rating | No. of Conductors | Conductor Size | Nominal Outer Diameter | I/O Module Connector |
|----------------|------------------------|-------------------|-------------------|----------------|------------------------|--|
| 1492-CABLE●A | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1746-RT25R Red Removable Terminal Block |
| 1492-CABLE●B | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1746-RT25B Blue Removable Terminal Block |
| 1492-CABLE●C | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1746-RT25R Red Removable Terminal Block |
| 1492-CABLE●CR | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1746-RT25R Red Removable Terminal Block |
| 1492-CABLE●D | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1746-RT25C Orange Removable Terminal Block |
| 1492-CABLE●E | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1746-RT25B Blue Removable Terminal Block |
| 1492-CABLE●F | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1771-WH (16-Point/21 Terminal) Wiring Arm |
| 1492-CABLE●FF | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1771-WHF (16-Point/21 Terminal) Fused Wiring Arm |
| 1492-CABLE●G | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1746-RT25R Red Removable Terminal Block |
| 1492-CABLE●H | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | 1746-N3 40-Pin Cable Connector |
| 1492-CABLE●J | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | 1771-WN (32-Point/40 Terminal) Wiring Arm |
| 1492-CABLE●K | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | 1771-WN (32-Point/40 Terminal) Wiring Arm |
| 1492-CABLE●L | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | 1771-WN (32-Point/40 Terminal) Wiring Arm |
| 1492-CABLE●M | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | 1771-WN (32-Point/40 Terminal) Wiring Arm |
| 1492-CABLE●N | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1746-RT25C Orange Removable Terminal Block |
| 1492-CABLE●R | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | 1771-WN (32-Point/40 Terminal) Wiring Arm |
| 1492-CAB●R71 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | 1771-WN (32-Point/40 Terminal) Wiring Arm |
| 1492-CABLE●S | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1746-RT25C Orange Removable Terminal Block |
| 1492-CABLE●T | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 11.7 mm (0.46 in.) | 1771-WA (8-Point/10 Terminal) Wiring Arm |
| 1492-CABLE●U | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1756-TBNH Removable Terminal Block |
| 1492-CABLE●V | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1756-TBNH Removable Terminal Block |
| 1492-CABLE●W | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1756-TBNH Removable Terminal Block |
| 1492-CABLE●X | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1756-TBNH Removable Terminal Block |
| 1492-CABLE●Y | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | 1756-TBCH Removable Terminal Block |
| 1492-CABLE●Z | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | 1756-TBCH Removable Terminal Block |
| 1492-CAB●A62 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | 1762-L40xxx Input Terminal |
| 1492-CAB●B62 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | 1762-L40xxx Output Terminal |
| 1492-CAB●A64 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1764-24AWA, -24BWA Input Terminal |
| 1492-CAB●B64 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1764-28BxB Input Terminal |
| 1492-CAB●C64 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1764-24AWA, -24BWA Output Terminal |
| 1492-CAB●F64 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1764-28BxB Output Terminal |
| 1492-CAB●A69 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1769-RTBN18 Removable Terminal Block |
| 1492-CAB●B69 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1769-RTBN18 Removable Terminal Block |
| 1492-CAB●C69 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1769-RTBN10 Removable Terminal Block |
| 1492-CAB●D69 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1769-RTBN18 Removable Terminal Block |
| 1492-CAB●E69 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1769-RTBN18 Removable Terminal Block |
| 1492-CAB●F69 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1769-RTBN18 Removable Terminal Block |
| 1492-CAB●G69 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1769-RTBN18 Removable Terminal Block |
| 1492-CAB●H69 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1769-RTBN18 Removable Terminal Block |

Digital Pre-Wired Cable Specifications (Continued)

| Catalog Number | Standard Cable Lengths | Insulation Rating | No. of Conductors | Conductor Size | Nominal Outer Diameter | I/O Module Connector |
|----------------|------------------------|-------------------|-------------------|----------------|------------------------|--|
| 1492-CAB●J69 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.1 mm (0.46 in.) | (2) 1769-RTBN18 Removable Terminal Block |
| 1492-CAB●K69 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.1 mm (0.46 in.) | (2) 1769-RTBN18 Removable Terminal Block |
| 1492-CAB●L69 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1769-RTBN18 Removable Terminal Block |
| 1492-CAB●M69 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1769-RTBN18 Removable Terminal Block |
| 1492-CAB●A7H | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 20C-DA1-A and 20C-D01 Terminals |
| 1492-CAB●A7S | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 20C-DB1-A and 20C-D01 Terminals |
| 1492-CAB●B7H | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | TB2 |
| 1492-CAB●A94 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 37-Pin male D-shell ② |
| 1492-CAB●B94 | 0.5, 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | 62-Pin male D-shell ③ |

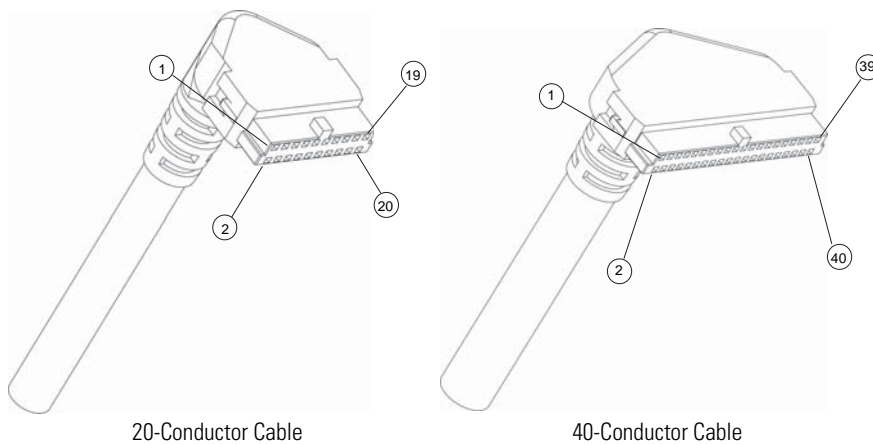
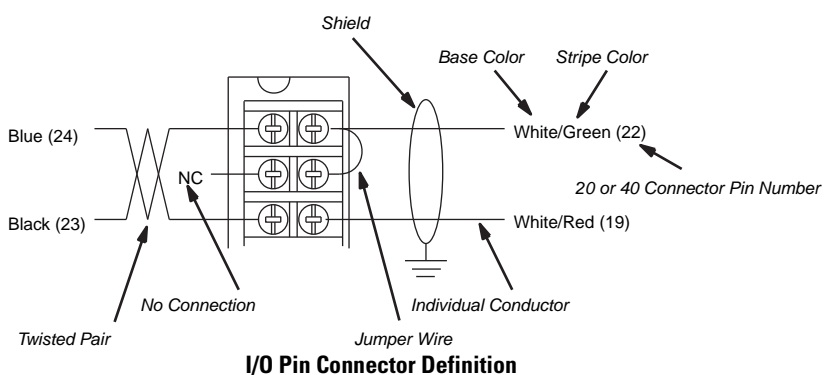
- ① Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CABLE005A** is for a 0.5 m cable for the 1746-IA16 I/O Module. Also refer to Build-to-Order Length Cables on page 65.
- ② Mates with 1794 Flex D-shell style base: 1794-TB37DS
- ③ Mates with 1794 Flex D-shell style base: 1794-TB62DS

Digital Cable Specifications, Continued

Pinouts

Digital Pre-Wired Cables

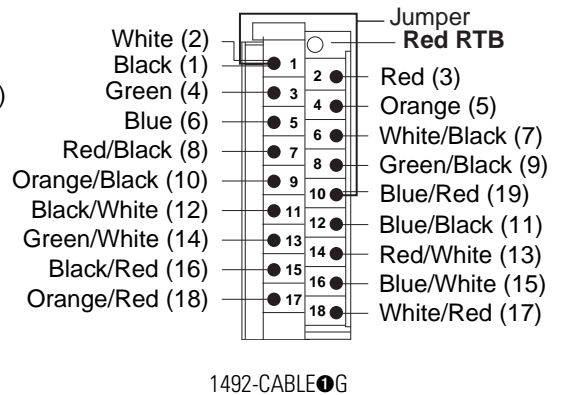
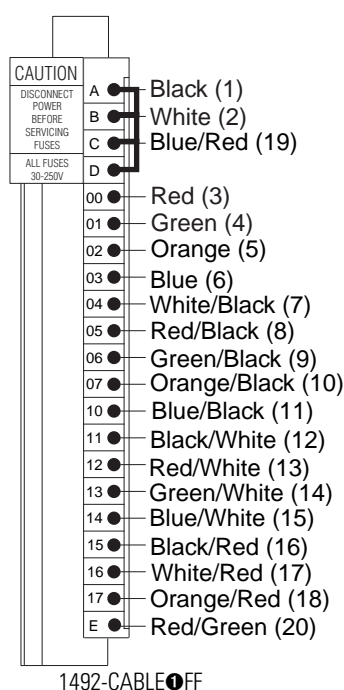
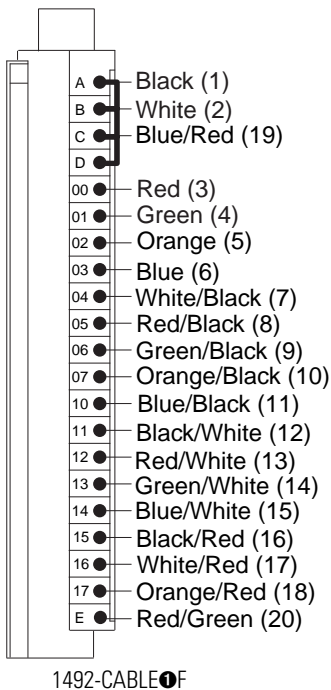
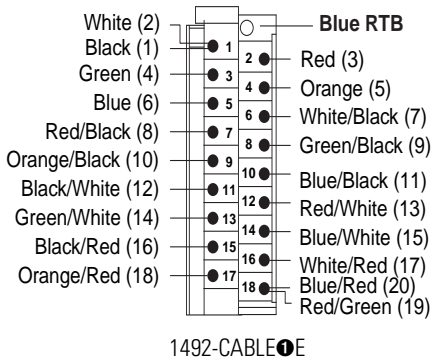
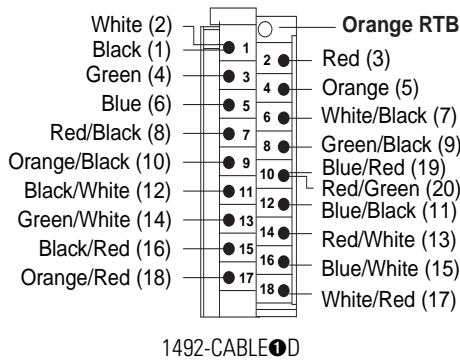
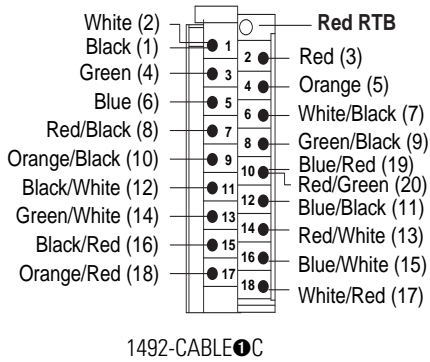
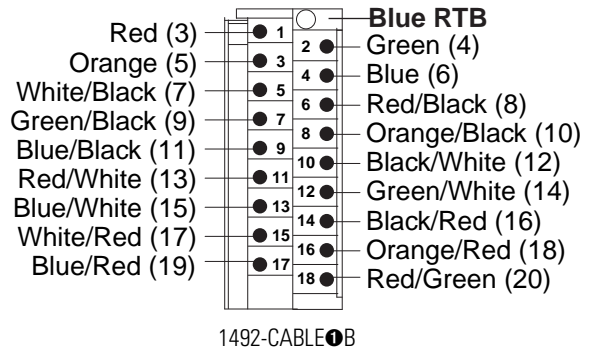
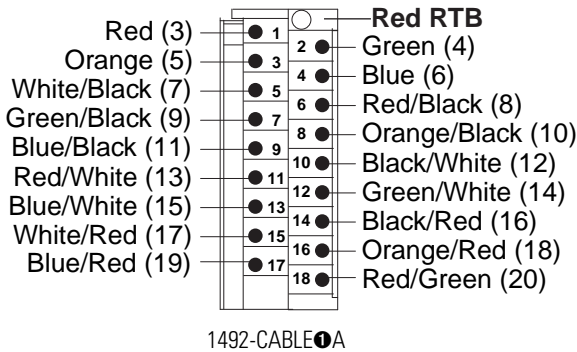
The following diagrams illustrate how the individual conductors in the digital pre-wired cables are terminated at both ends. The description listed first is the wire color of the conductor connected to the PLC or PowerFlex drive removable terminal block (Bulletin 1746, 1756, 1762, 1764, 1769, 700S and 700H I/O) wiring arm (1771 I/O) or D-shell connector (Cat. No. 1794-TB37DS or 1794-62DS). The number that follows in parentheses is the corresponding pin number of the IFM/XIM mating connector.



IFM Mating Connector Definition

Digital Cable Specifications, Continued

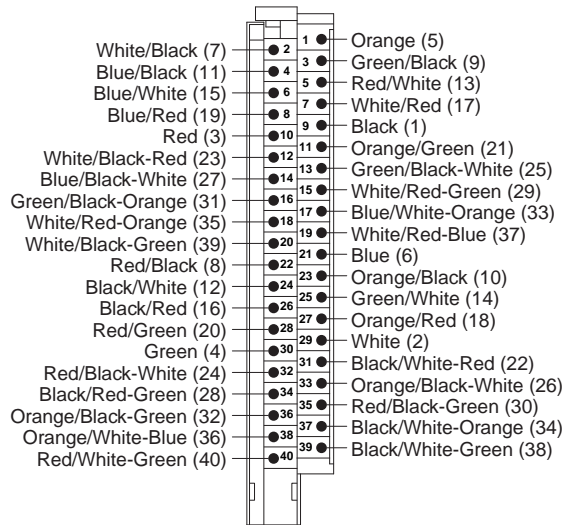
Pinouts, Continued



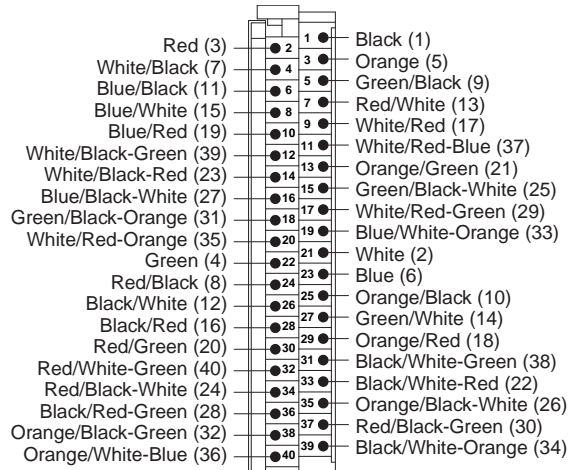
1 Refer to footnote on page 149.

Digital Cable Specifications, Continued

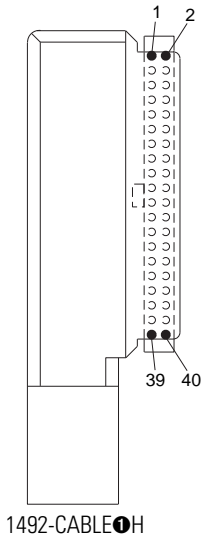
Pinouts, Continued



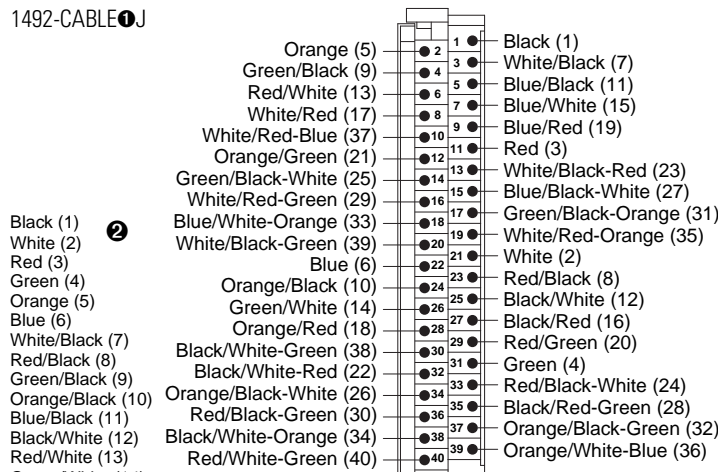
1492-CABLE J



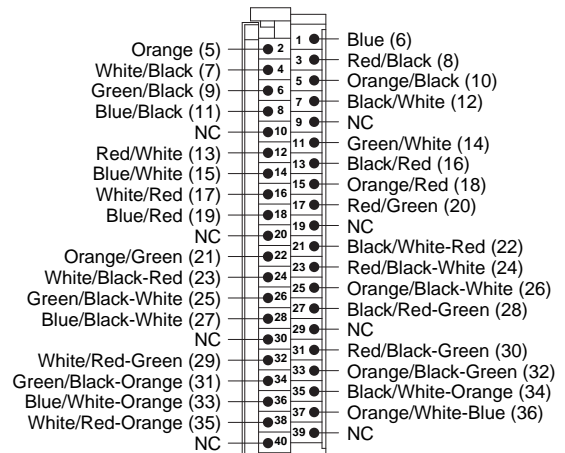
1492-CABLE K



1492-CABLE H



1492-CABLE L



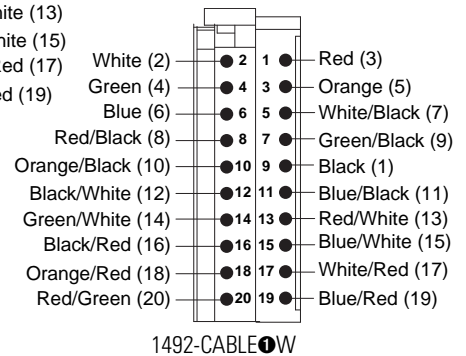
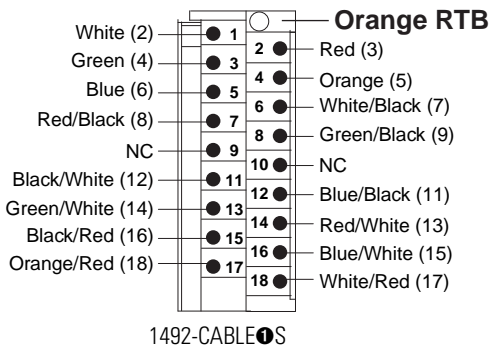
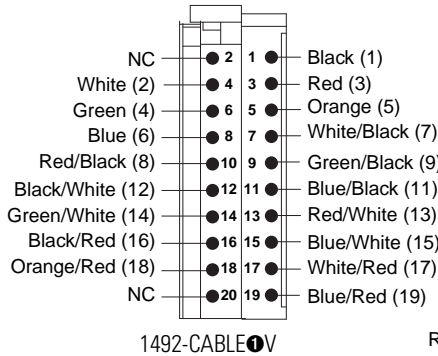
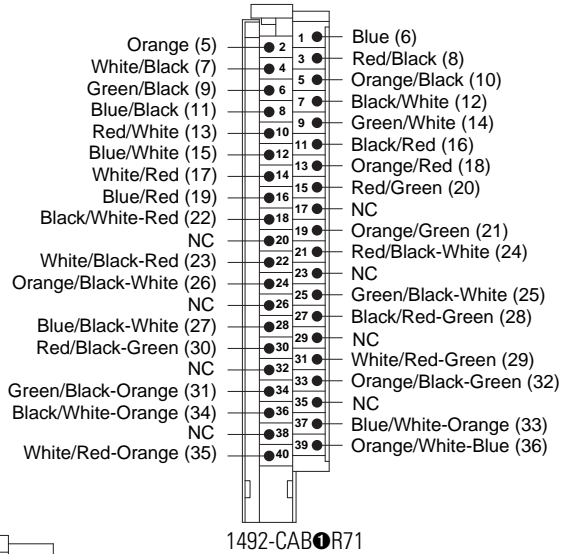
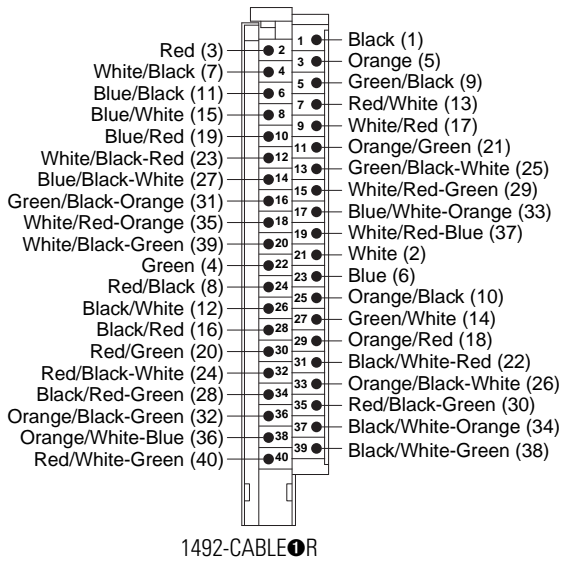
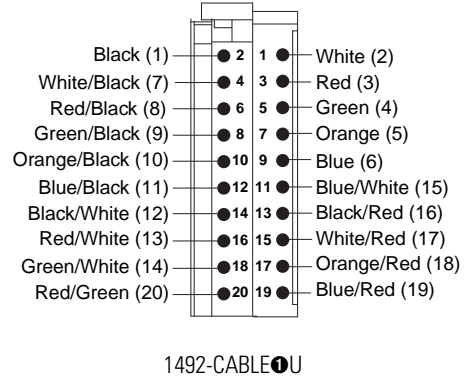
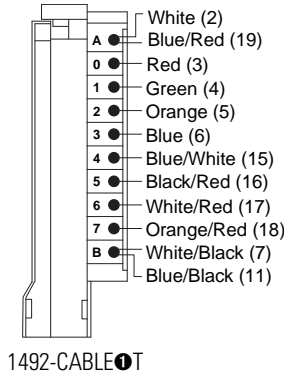
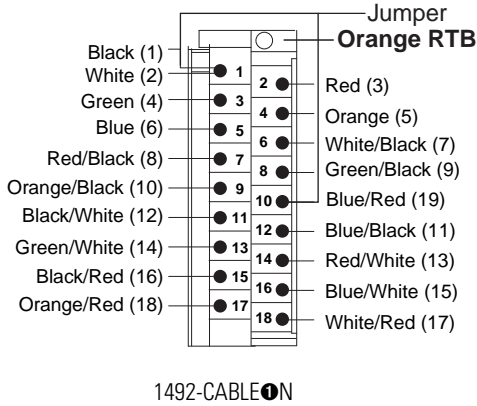
1492-CABLE M

1 Refer to footnote on page 149.

2 Connector Pin reference. For the IFM end reference, refer to the table on page 151 and match the wire color to the IFM Pin reference number.

Digital Cable Specifications, Continued

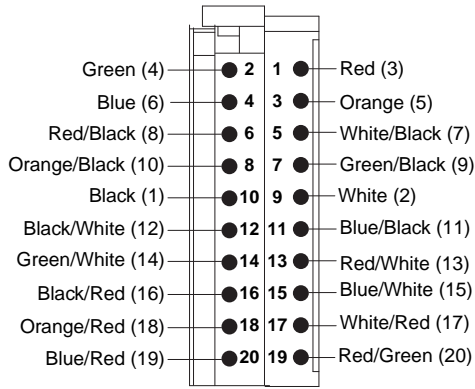
Pinouts, Continued



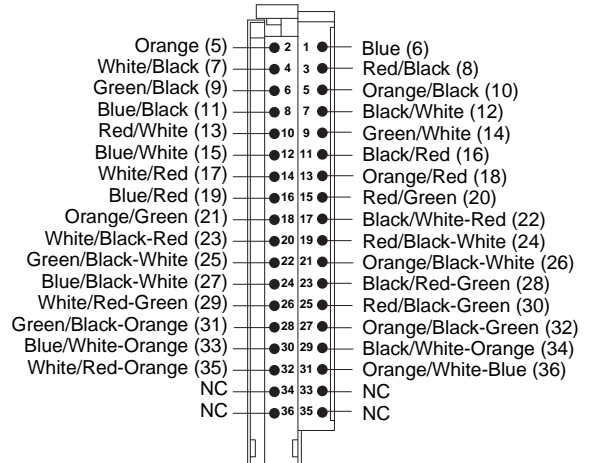
1 Refer to footnote on page 149.

Digital Cable Specifications, Continued

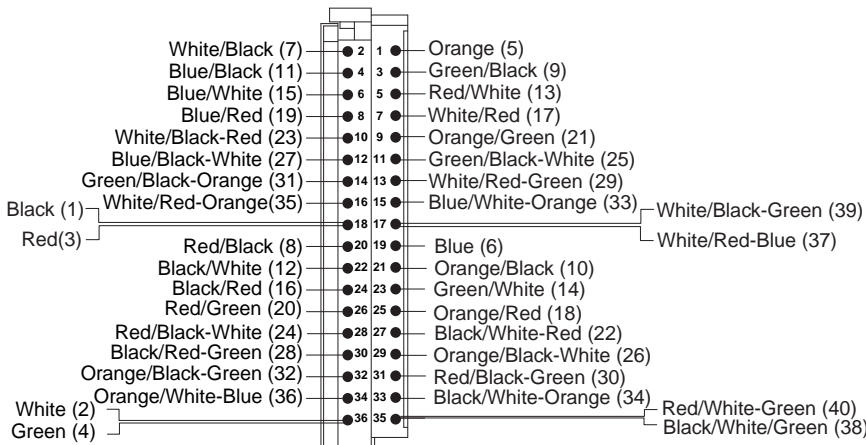
Pinouts, Continued



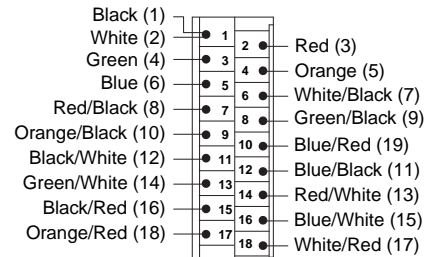
1492-CABLE 1X



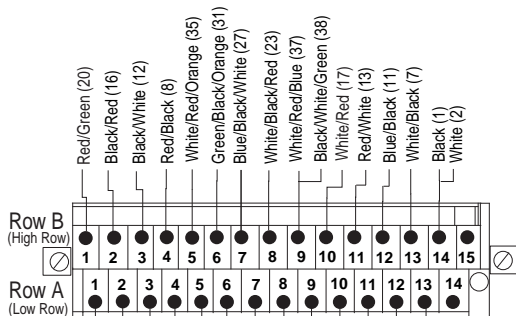
1492-CABLE 1Y



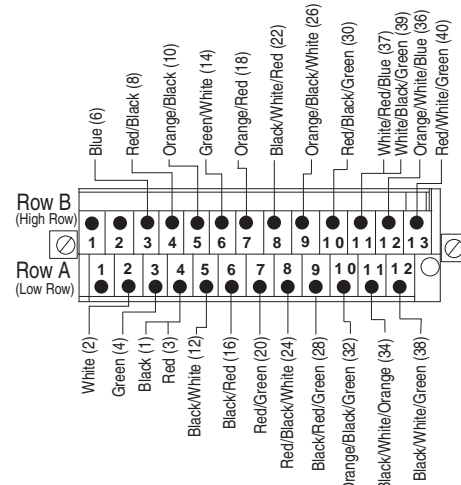
1492-CABLE 1Z



1492-CABLE 1CR (Red RTB)



1492-CAB 1A62

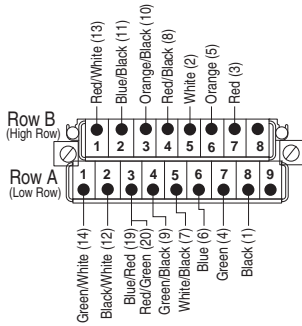


1492-CAB 1B62

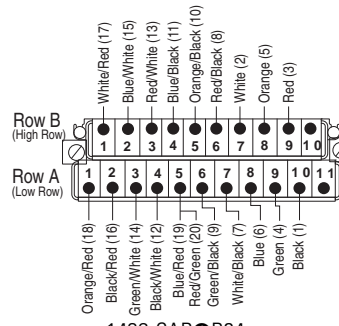
1 Refer to footnote on page 149.

Digital Cable Specifications, Continued

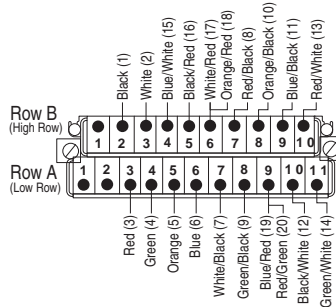
Pinouts, Continued



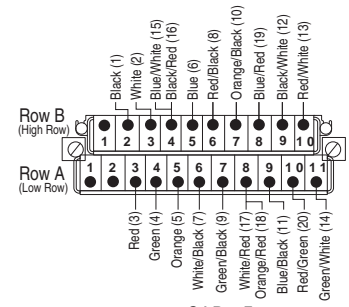
1492-CAB0A64



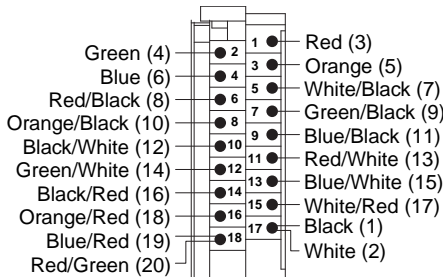
1492-CAB0B64



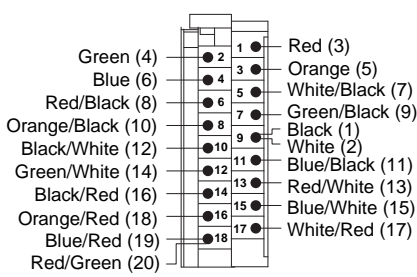
1492-CAB0C64



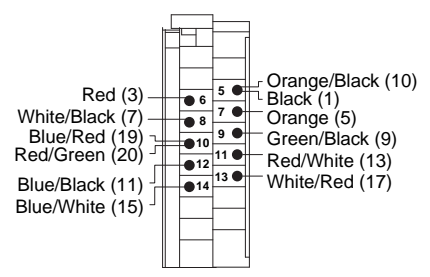
1492-CAB0F64



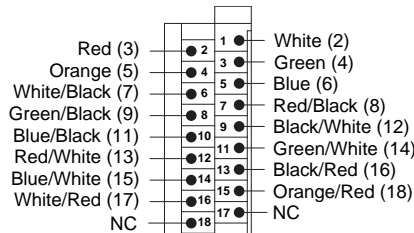
1492-CAB0A69



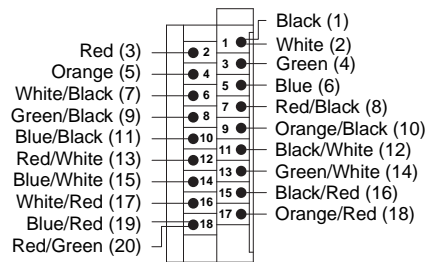
1492-CAB0B69



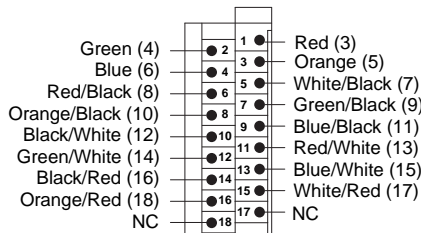
1492-CAB0C69



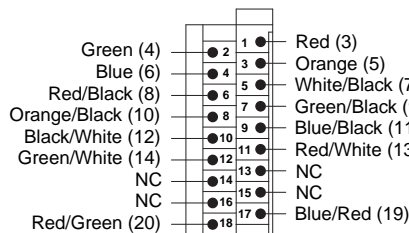
1492-CAB0D69



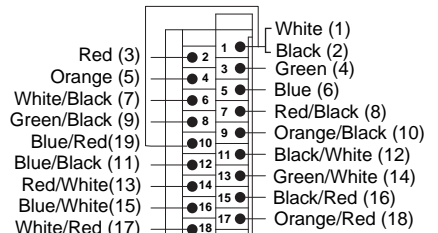
1492-CAB0E69



1492-CAB0F69



1492-CAB0G69

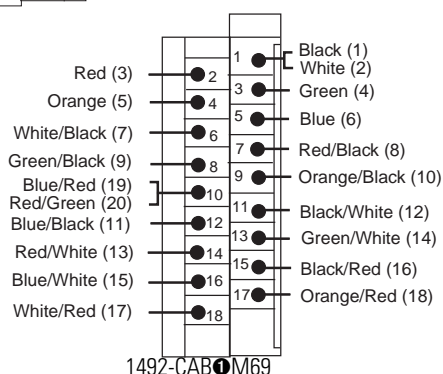
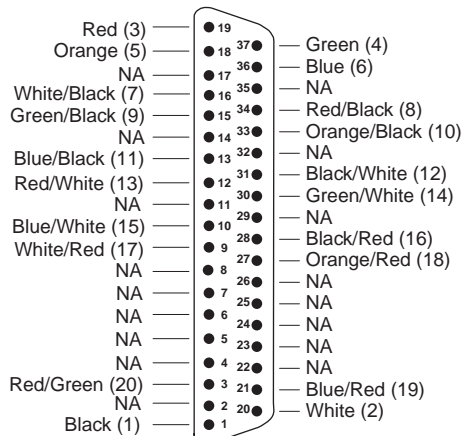
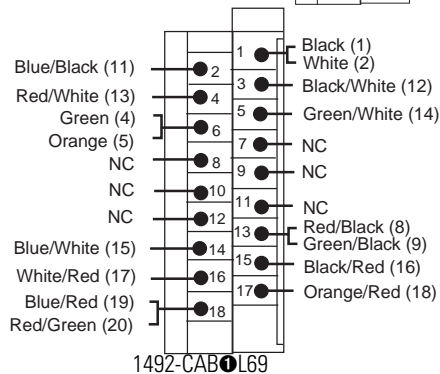


1492-CAB0H69

① Refer to footnote on page 149.

Digital Cable Specifications, Continued

Pinouts, Continued

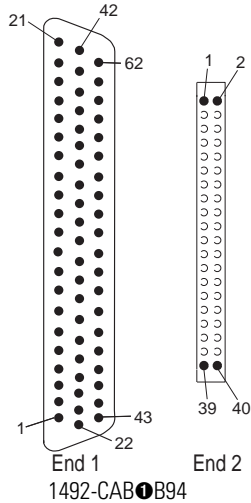


1 Refer to footnote on page 149.

2 1492-CAB1K69 and 1492-CAB1J69 are made up of two (2) individual 18-pin terminal blocks connected to a single cable assembly.

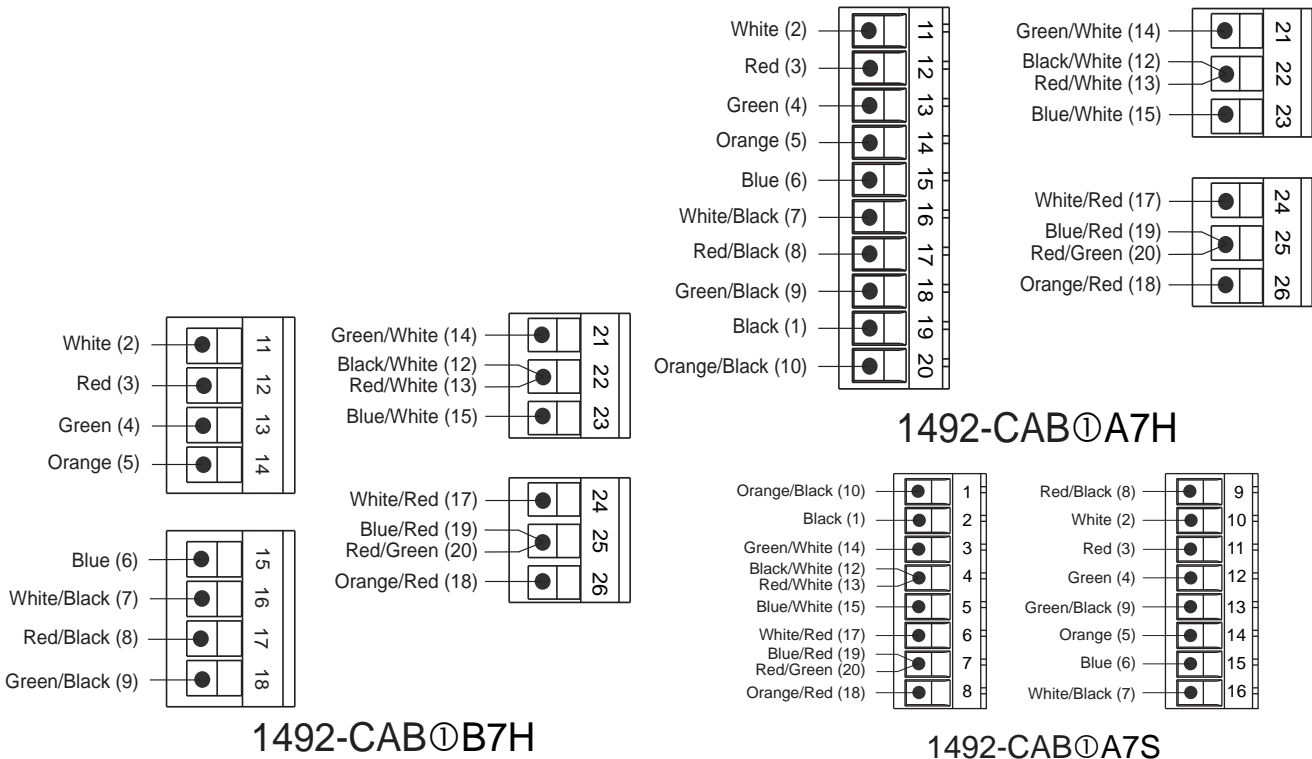
Digital Cable Specifications, Continued

Pinouts, Continued



Cable Wiring Table Conductor for 1492-CABⓈB94

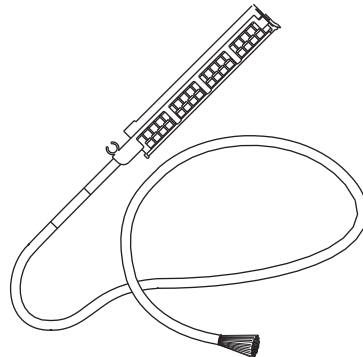
| Connector 62 Pin D-Shell Reference, End 1 | Conductor Color Code | Connectors 40-Pin Reference, End 2 | Connector 62 Pin D-Shell Reference, End 1 | Conductor Color Code | Connectors 40-Pin Reference, End 2 |
|---|----------------------|------------------------------------|---|----------------------|------------------------------------|
| 15 | Black | 1 | 39 | Orange/Green | 21 |
| 23 | White | 2 | 28 | Black/White/Red | 22 |
| 16 | Red | 3 | 40 | White/Black/Red | 23 |
| 24 | Green | 4 | 29 | Red/Black/White | 24 |
| 17 | Orange | 5 | 41 | Green/Black/White | 25 |
| 4 | Blue | 6 | 45 | Orange/Black/White | 26 |
| 18 | White/Black | 7 | 42 | Blue/Black/White | 27 |
| 5 | Red/Black | 8 | 46 | Black/Red/Green | 28 |
| 19 | Green/Black | 9 | 59 | White/Red/Green | 29 |
| 6 | Orange/Black | 10 | 47 | Red/Black/Green | 30 |
| 20 | Blue/Black | 11 | 60 | Green/Black/Orange | 31 |
| 7 | Black/White | 12 | 48 | Orange/Black/Green | 32 |
| 21 | Red/White | 13 | 61 | Blue/White/Orange | 33 |
| 8 | Green/White | 14 | 49 | Black/White/Orange | 34 |
| 36 | Blue/White | 15 | 62 | White/Red/Orange | 35 |
| 25 | Black/Red | 16 | 50 | Orange/White/Blue | 36 |
| 37 | White/Red | 17 | 57 | White/Red/Blue | 37 |
| 26 | Orange/Red | 18 | 1 | Black/White/Green | 38 |
| 38 | Blue/Red | 19 | 58 | White/Black/Green | 39 |
| 27 | Red/Green | 20 | 2 | Red/White/Green | 40 |



Ⓢ Refer to footnote on page 149.

Digital Cable Specifications, Continued

I/O Module-Ready Cables



The I/O module-ready cables have a pre-wired wiring arm or removable terminal block on one end to connect the programmable controller I/O module and 12...40 individually colored #18 or #22 AWG conductors on the other. These cables provide the convenience of a pre-wired I/O module connector, while still allowing the flexibility to wire to standard terminal blocks.

Pre-wired I/O module connectors include:

- Catalog Number 1746-N3 40-point plug-in connector (Catalog Number CABLE①N3)
 - Bulletin 1746 16-point removable terminal blocks in Red, Blue, and Orange (Catalog Number CABLE①RTBR, ①RTBB, ①RTBO)
 - Catalog Number 1756-TBCH 36-point removable terminal block (Catalog Number CABLE①TBCH)
 - Catalog Number 1756-TBNH 20-point removable terminal block (Catalog Number CABLE①TBNH)
 - Catalog Number 1769-RTBN10 8-point removable terminal block (Catalog Number CABLE①RTN10)
 - Catalog Number 1769-RTBN18 20-point removable terminal block (Catalog Number CABLE①RTN18)
 - Catalog Number 1769-RTBN32I and 1769-RTBN32O for 32-point 1769 I/O modules
 - Catalog Number 1771-WH 16-point wiring arm (Catalog Number CABLE①WH)
 - Catalog Number 1771-WN 32-point wiring arm (Catalog Number CABLE①WN)
 - Catalog Number 1771-WHF 16-point fused wiring arm (with fuses) (Catalog Number CABLE①WHF)
 - Catalog Number 1771-WD 6-point wiring arm (Catalog Number CABLE①WD)
 - Catalog Number 1771-WA 8-point wiring arm (Catalog Number CABLE①WA)
- ① Cables are available in lengths of 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CABLE025WH** is for a 2.5 m cable with a pre-wired 1771-WH Wiring Arm on one end. Also refer to Build-to-Order Length Cables on page 65.

Digital Cable Specifications, Continued

I/O Module-Ready Cables, Continued

I/O Module-Ready Cable Specifications

| Catalog Number | Cable Lengths | Insulation Rating | Number of Conductors | Conductor Size | Nominal Outer Diameter | I/O Module Connector |
|------------------|-----------------|-------------------|----------------------|----------------|------------------------|---|
| 1492-CABLE01N3 | 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.2 mm (0.44 in.) | 1746-N3 (40-Point) Plug-in Connector |
| 1492-CABLE01RTBB | 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #18 AWG | 11.4 mm (0.45 in.) | 1746-RT25B Blue Removable Terminal Block |
| 1492-CABLE01RTBO | 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #18 AWG | 11.4 mm (0.45 in.) | 1746-RT25C Orange Removable Terminal Block |
| 1492-CABLE01RTBR | 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #18 AWG | 11.4 mm (0.45 in.) | 1746-RT25R Red Removable Terminal Block |
| 1492-CABLE01TBCH | 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #18 AWG | 14.1 mm (0.55 in.) | 1756-TBCH (36-Point) Removable Terminal Block |
| 1492-CABLE01TBNH | 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #18 AWG | 11.4 mm (0.45 in.) | 1756-TBNH (20-Point) Removable Terminal Block |
| 1492-CAB01T62 | 1.0, 2.5, 5.0 m | 300V 80°C | 25 | #18 AWG | 13.2 mm (0.52 in.) | 1762-L40xxx Output Connector |
| 1492-CAB01X62 | 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | 1762-L40xxx Input Connector |
| 1492-CAB01T64 | 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #18 AWG | 11.4 mm (0.45 in.) | 1764-24AWA, -24BWA Output Terminal |
| 1492-CAB01U64 | 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #18 AWG | 11.4 mm (0.45 in.) | 1764-28BXB Output Terminal |
| 1492-CAB01W64 | 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1764-24AWA, -BWA Input Terminal |
| 1492-CAB01X64 | 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 1764-28BXBH Input Terminal |
| 1492-CAB01RTN10 | 1.0, 2.5, 5.0 m | 300V 80°C | 12 | #18 AWG | 9.0 mm (0.36 in.) | 1769-RTBN10 Removable Terminal Block |
| 1492-CAB01RTN18 | 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #18 AWG | 11.4 mm (0.45 in.) | 1769-RTBN18 (20-Point) Removable Terminal Block |
| 1492-CAB01RTN32I | 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | (2) 1769-RTBN18 (20-Point) Removable Terminal Block |
| 1492-CAB01RTN32O | 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | (2) 1769-RTBN18 (20-Point) Removable Terminal Block |
| 1492-CAB01G94 | 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 37-pin male D-shell② |
| 1492-CAB01H94 | 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | 62-pin male D-shell③ |
| 1492-CABLE01WA | 1.0, 2.5, 5.0 m | 300V 80°C | 12 | #18 AWG | 9.0 mm (0.36 in.) | 1771-WA (8-Point/10 Terminal) Wiring Arm |
| 1492-CABLE01WD | 1.0, 2.5, 5.0 m | 300V 80°C | 12 | #18 AWG | 9.0 mm (0.36 in.) | 1771-WD (6-Point/12 Terminal) Wiring Arm |
| 1492-CABLE01WH | 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #18 AWG | 11.4 mm (0.45 in.) | 1771-WH (16-Point/21 Terminal) Wiring Arm |
| 1492-CABLE01WHF | 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #18 AWG | 11.4 mm (0.45 in.) | 1771-WHF (16-Point/21 Terminal) Fused Wiring Arm |
| 1492-CABLE01WN | 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #18 AWG | 14.1 mm (0.55 in.) | 1771-WN (32-Point/40 Terminal) Wiring Arm |

① Cables are available in lengths of 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CABLE025WH** is for a 2.5 m cable with a pre-wired 1771-WH Wiring Arm on one end. Also refer to Build-to-Order Length Cables on page 65.

② Mates with Bul. 1794 Flex D-shell style base: Cat. No. 1794-TB37DS.

③ Mates with Bul. 1794 Flex D-shell style base: Cat. No. 1794-TB62DS.

Digital Cable Specifications, Continued

I/O Module-Ready Cables, Continued

Wire Colors for I/O Module-Ready Cables and IFM Pin Reference Number for I/O Ready Pre-Wired Cables

| IFM Pin Reference Number | Wire Color Base/Stripe/Stripe | IFM Pin Reference Number | Wire Color Base/Stripe/Stripe |
|--------------------------|-------------------------------|--------------------------|-------------------------------|
| 1 | Black | 21 | Orange/Green |
| 2 | White | 22 | Black/White/Red |
| 3 | Red | 23 | White/Black/Red |
| 4 | Green | 24 | Red/Black/White |
| 5 | Orange | 25 | Green/Black/White |
| 6 | Blue | 26 | Orange/Black/White |
| 7 | White/Black | 27 | Blue/Black/White |
| 8 | Red/Black | 28 | Black/Red/Green |
| 9 | Green/Black | 29 | White/Red/Green |
| 10 | Orange/Black | 30 | Red/Black/Green |
| 11 | Blue/Black | 31 | Green/Black/Orange |
| 12 | Black/White | 32 | Orange/Black/Green |
| 13 | Red/White | 33 | Blue/White/Orange |
| 14 | Green/White | 34 | Black/White/Orange |
| 15 | Blue/White | 35 | White/Red/Orange |
| 16 | Black/Red | 36 | Orange/White/Blue |
| 17 | White/Red | 37 | White/Red/Blue |
| 18 | Orange/Red | 38 | Black/White/Green |
| 19 | Blue/Red | 39 | White/Black/Green |
| 20 | Red/Green | 40 | Red/White/Green |

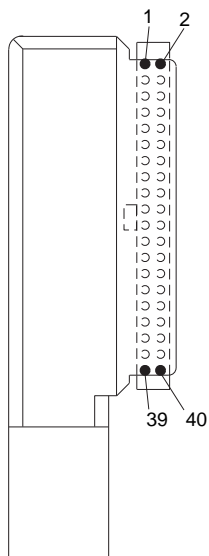
- ① Cables are available in lengths of 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CABLE025WH** is for a 2.5 m cable with a pre-wired 1771-WH Wiring Arm on one end. Also refer to Build-to-Order Length Cables on page 65.

Digital Cable Specifications, Continued

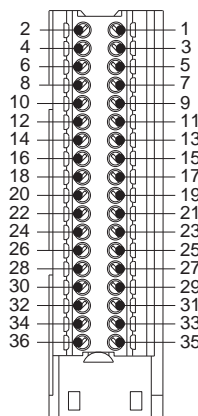
I/O Module-Ready Cables, Continued

Below is the wire color table for I/O module-ready cables. Each conductor is given a reference number in the table on page 151. The reference number is used in the illustrations that follow to indicate the corresponding screw terminal.

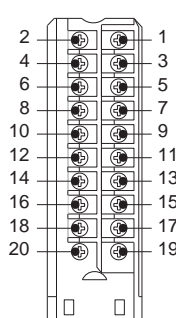
1492-CABLE0N3



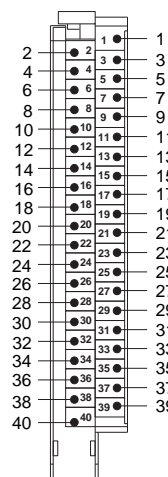
1492-CABLE0TBCH



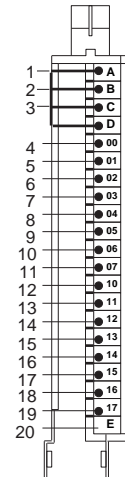
1492-CABLE0TBNH



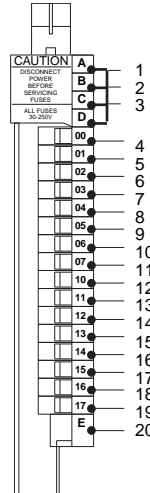
1492-CABLE0WN



1492-CABLE0WH



1492-CABLE0WF



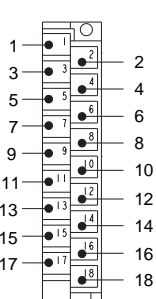
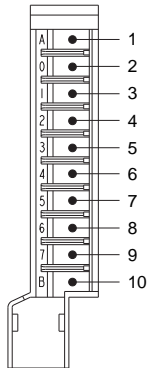
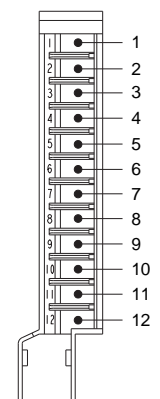
1492-CABLE0RTBR

1492-CABLE0RTBB

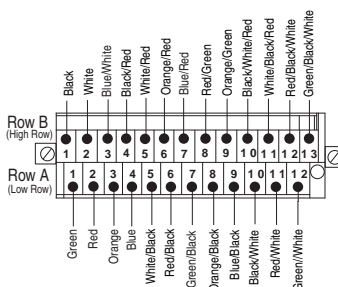
1492-CABLE0RTBO

1492-CABLE0WD

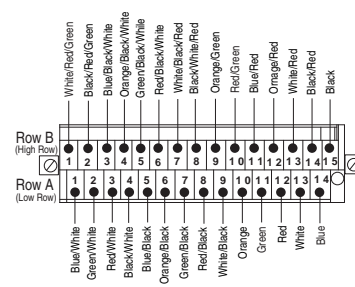
1492-CABLE0WA



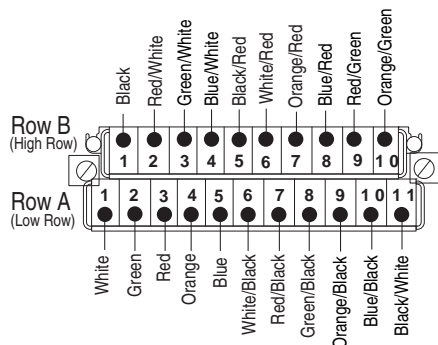
1492-CAB0T62



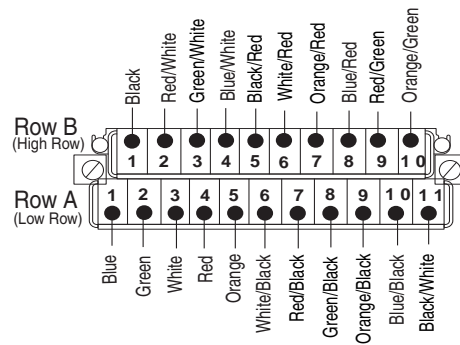
1492-CAB0X62



1492-CAB0T64

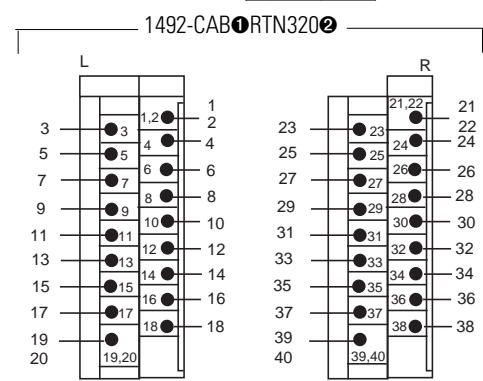
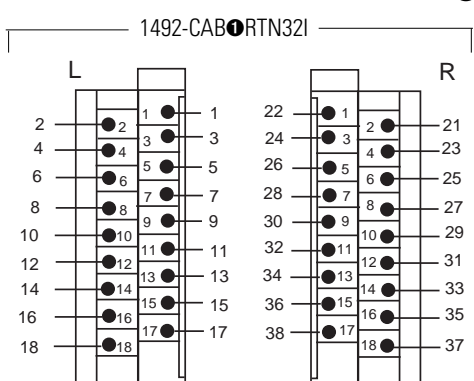
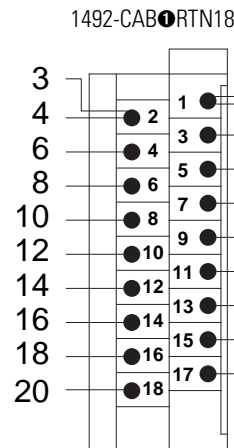
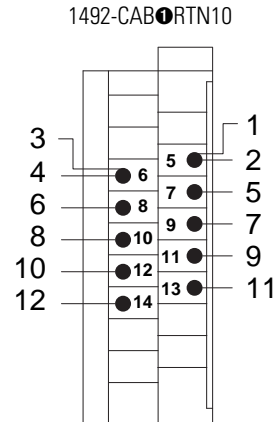
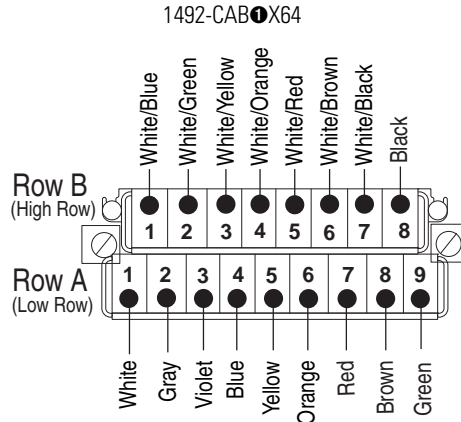
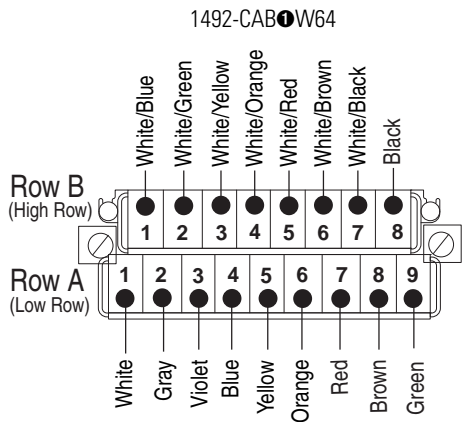


1492-CAB0U64



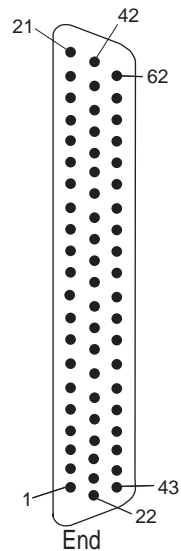
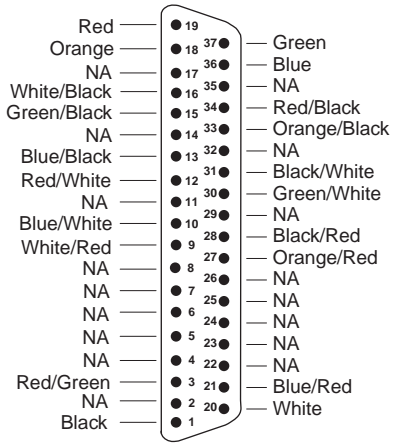
- 1 Cables are available in lengths of 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CABLE025WH** is for a 2.5 m cable with a pre-wired 1771-WH Wiring Arm on one end. Also refer to Build-to-Order Length Cables on page 65.
- 2 The 1492-CABRTN32F and -RTN320 are made up of two (2) individual 18-pin terminal blocks (L = Left, R=Right) connected to a single cable assembly.

Digital Cable Specifications, Continued



Cable Wiring Table Conductor for 1492-CAB0H94

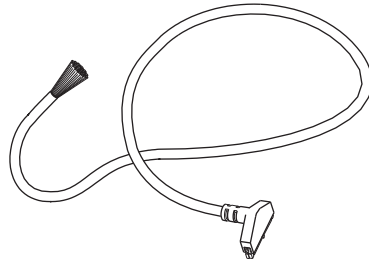
| 62-Pin D-shell End | Conductor Color Code | 62-Pin D-Shell End | Conductor Color Code |
|--------------------|----------------------|--------------------|----------------------|
| 15 | Black | 39 | Orange/Green |
| 23 | White | 28 | Black/White/Red |
| 16 | Red | 40 | White/Black/Red |
| 24 | Green | 29 | Red/Black/White |
| 17 | Orange | 41 | Green/Black/White |
| 4 | Blue | 45 | Orange/Black/White |
| 18 | White/Black | 42 | Blue/Black/White |
| 5 | Red/Black | 46 | Black/Red/Green |
| 19 | Green/Black | 59 | White/Red/Green |
| 6 | Orange/Black | 47 | Red/Black/Green |
| 20 | Blue/Black | 60 | Green/Black/Orange |
| 7 | Black/White | 48 | Orange/Black/Green |
| 21 | Red/White | 61 | Blue/White/Orange |
| 8 | Green/White | 49 | Black/White/Orange |
| 36 | Blue/White | 62 | White/Red/Orange |
| 25 | Black/Red | 50 | Orange/White/Blue |
| 37 | White/Red | 57 | White/Red/Blue |
| 26 | Orange/Red | 1 | Black/White/Green |
| 38 | Blue/Red | 58 | White/Black/Green |
| 27 | Red/Green | 2 | Red/White/Green |



- 1 Cables are available in lengths of 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the catalog number (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CABLE025WH** is for a 2.5 m cable with a pre-wired 1771-WH Wiring Arm on one end. Also refer to Build-to-Order Length Cables on page 65.
- 2 The 1492-CAB0RTN32I and -RTN320 are made up of two (2) individual 18-pin terminal blocks (L = Left, R=Right) connected to a single cable assembly.
- 3 Cable 1492-CAB0G94 and -CAB0H94 do not follow the cable wire color code chart on page 151.

Digital Cable Specifications, Continued

IFM-Ready Cable Specifications



IFM-ready cables have a cable connector on one end to attach to the IFM and either 20 or 40 individually colored conductors on the other end (Catalog Numbers CABLE $\text{\textcircled{P}}$ and CABLE $\text{\textcircled{Q}}$, respectively). These cables allow the IFM to be used in specialty applications that require a custom connection.

IFM-Ready Cable Specifications

| Catalog Number | Cable Lengths | Insulation Rating | Number of Conductors | Conductor Size | Nominal Outer Diameter | Current/Conductor | Compatible IFM Catalog Numbers |
|-------------------------------------|-----------------|-------------------|----------------------|----------------|------------------------|-------------------|----------------------------------|
| 1492-CABLE $\text{\textcircled{P}}$ | 1.0, 2.5, 5.0 m | 300V 80°C | 20 | #22 AWG | 9.0 mm (0.36 in.) | 2 A | 1492-IFM20____ 1492-XIM20____ |
| 1492-CABLE $\text{\textcircled{Q}}$ | 1.0, 2.5, 5.0 m | 300V 80°C | 40 | #22 AWG | 11.7 mm (0.46 in.) | 2 A | 1492-IFM40____ 1492-XIM40____ |

Each colored conductor is connected to one pin of the molded cable connector as listed in the tables below.

1492-CABLE $\text{\textcircled{P}}$

| Connector Pin Number | Wire Color Base/Stripe/Stripe | Connector Pin Number | Wire Color Base/Stripe/Stripe |
|----------------------|-------------------------------|----------------------|-------------------------------|
| 1 | Black | 11 | Blue/Black |
| 2 | White | 12 | Black/White |
| 3 | Red | 13 | Red/White |
| 4 | Green | 14 | Green/White |
| 5 | Orange | 15 | Blue/White |
| 6 | Blue | 16 | Black/Red |
| 7 | White/Black | 17 | White/Red |
| 8 | Red/Black | 18 | Orange/Red |
| 9 | Green/Black | 19 | Blue/Red |
| 10 | Orange/Black | 20 | Red/Green |

- Cables are available in lengths of 1.0 m, 2.5 m, and 5.0 m. To order, insert the desired cable length into the catalog number (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CABLE025P** is for a 2.5 m, 20 conductor IFM-ready cable. Also refer to Build-to-Order Length Cables on page 65.

Digital Cable Specifications, Continued

IFM-Ready Cable Specifications, Continued

1492-CABLE00

| Connector Pin Number | Wire Color Base/Stripe/Stripe | Connector Pin Number | Wire Color Base/Stripe/Stripe |
|----------------------|-------------------------------|----------------------|-------------------------------|
| 1 | Black | 21 | Orange/Green |
| 2 | White | 22 | Black/White/Red |
| 3 | Red | 23 | White/Black/Red |
| 4 | Green | 24 | Red/Black/White |
| 5 | Orange | 25 | Green/Black/White |
| 6 | Blue | 26 | Orange/Black/White |
| 7 | White/Black | 27 | Blue/Black/White |
| 8 | Red/Black | 28 | Black/Red/Green |
| 9 | Green/Black | 29 | White/Red/Green |
| 10 | Orange/Black | 30 | Red/Black/Green |
| 11 | Blue/Black | 31 | Green/Black/Orange |
| 12 | Black/White | 32 | Orange/Black/Green |
| 13 | Red/White | 33 | Blue/White/Orange |
| 14 | Green/White | 34 | Black/White/Orange |
| 15 | Blue/White | 35 | White/Red/Orange |
| 16 | Black/Red | 36 | Orange/White/Blue |
| 17 | White/Red | 37 | White/Red/Blue |
| 18 | Orange/Red | 38 | Black/White/Green |
| 19 | Blue/Red | 39 | White/Black/Green |
| 20 | Red/Green | 40 | Red/White/Green |

- Cables are available in lengths of 1.0 m, 2.5 m, and 5.0 m. To order, insert the desired cable length into the catalog number (010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-CABLE025P** is for a 2.5 m, 20 conductor IFM-ready cable. Also refer to Build-to-Order Length Cables on page 65.

Analog IFM Specifications (1492-AIFM-xx and 1492-RAIFM-xx))








| AIFM Catalog Number | Page No. for Application Notes, and Pinout | Page No. for Specifications | AIFM Catalog Number | Page No. for Application Notes, and Pinout | Page No. for Specifications | AIFM Catalog Number | Page No. for Application Notes, and Pinout | Page No. for Specifications |
|---------------------------|--|-----------------------------|---------------------|--|-----------------------------|---------------------|--|-----------------------------|
| 1492-AIFM8-3, -RAIFM8-3 | 158 | 188 | 1492-AIFM4C-F-5 | 160 | 188 | 1492-AIFM16-F-5 | 164 | 188 |
| 1492-AIFM4-3, -RAIFM4-3 | 157 | 188 | 1492-AIFM4I-F-5 | 161 | 188 | 1492-AIFMPI | 166 | 188 |
| 1492-AIFM6S-3, -RAIFM6S-3 | 158 | 188 | 1492-AIFM8-F-5 | 162 | 188 | 1492-AIFMQS | 165 | 188 |
| 1492-AIFM6TC-3 | 159 | 188 | 1492-AIFM16-F-3 | 163 | 188 | — | — | — |

For all AIFM dimensions, refer to page 187.

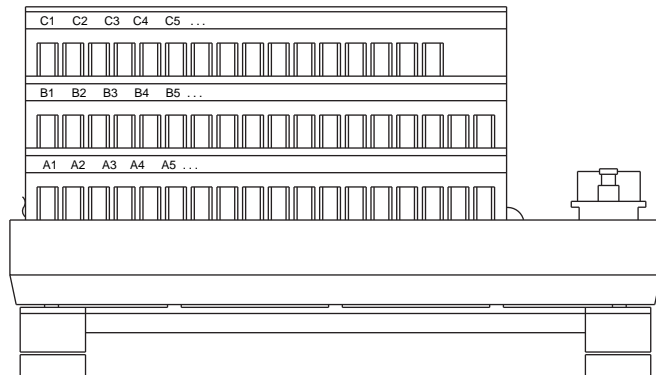
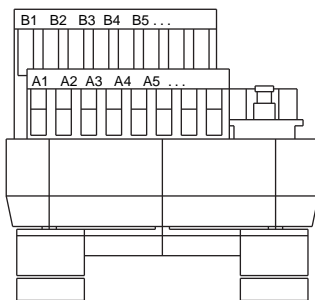
For general Adhesive Label Card information, refer to page 181.

For Field-Side Wiring Diagrams, refer to the Wiring System web page at <http://www.ab.com/raise>. Refer to page 186 for specific platform web site information. Refer to the online documentation for new product information.

Symbols and Terminal Identification Conventions Used Throughout the Pinout Section

-  1492-AIFM Field-Side Terminal ❶
- — — 1492 Pre-Wired Cable
-  I/O Module Connection
-  Fuse and Blown Fuse Indicator
-  One-Pole DIP Switch
-  Two-Pole DIP Switch
-  1492-AIFM and Cable Connection (D-Shell Pin)
-  Test Point

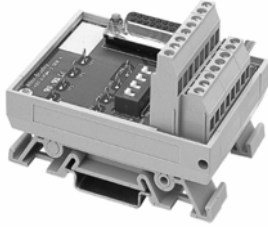
❶ Field-Side Terminal Identification Convention:



1492-AIFM4-3

1492-RAIFM4-3

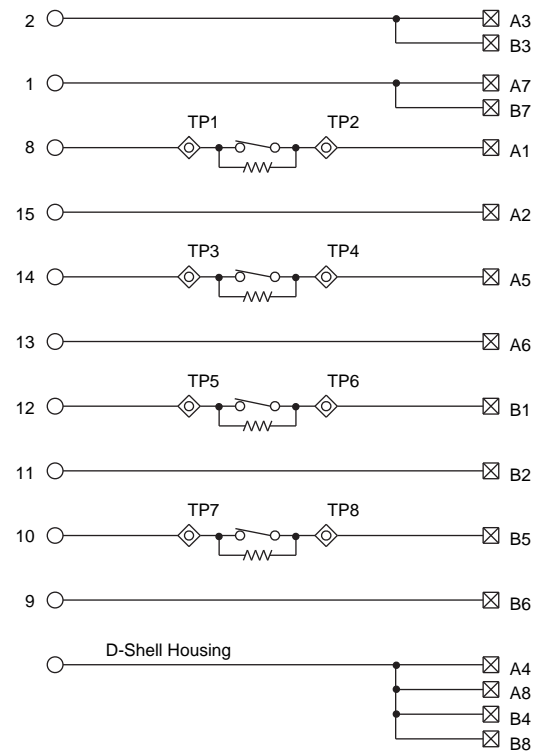
Feed-Through 4-channel Input, Output or 2-in/2-out
Combination with 3 Terminals/Channel



Application Notes

- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the AIFM.
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- DIP Switches** — Selectable resistors are available to current limit the Catalog Numbers 1771-OFE2 and -OFE3 output circuits. By opening the switch (off or down position), 250 Ω series impedance is inserted into the output circuit. Default switch position is on/closed/no series impedance. Do not exceed maximum loop impedance of output module (1200 Ω for -OFE2; 450 Ω for -OFE3).
- Test Points** — With optional 250 Ω series impedance in output circuit (refer to DIP Switches), test points can be used to measure loop voltage/current. Refer to the Pinout for test point circuit location.
- Shield Terminals** — Four field-side terminals are jumpered together on the AIFM and internally connected to the D-shell housing.
- Dimensions** — Refer to page 188.

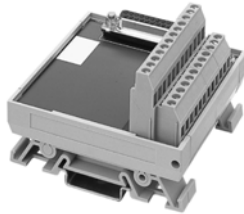
Pinout



1492-AIFM6S-3

1492-RAIFM6S-3

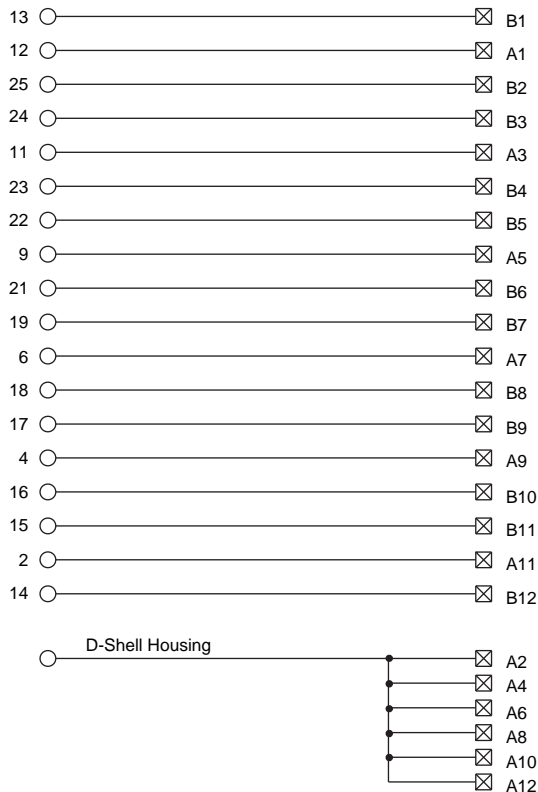
Feed-Through 6-Channel Isolated with 3...4 Terminals/Channel



Application Notes

- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the AIFM.
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Shield Terminals** — Six field-side terminals are jumpered together on the AIFM and internally connected to the D-shell housing.
- Dimensions** — Refer to page 187.

Pinout



1492-AIFM8-3

1492-RAIFM8-3

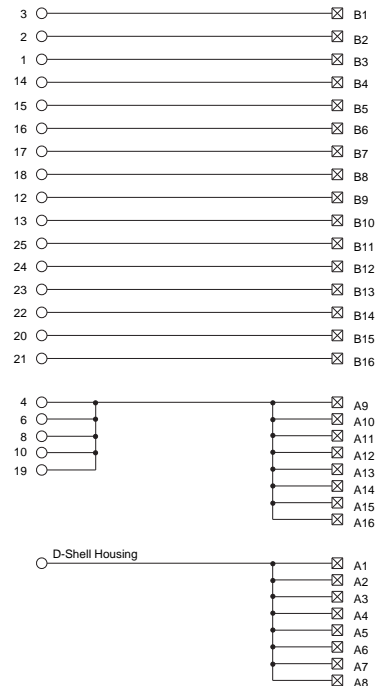
Feed-Through 8-Channel Differential 16-Channel Single-Ended with 3 Terminals/Channel



Application Notes

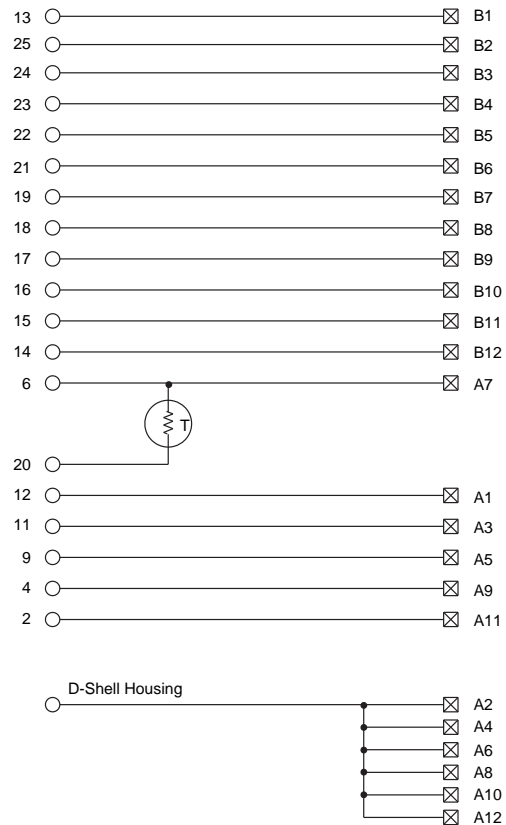
- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the AIFM.
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Extra Terminals** — Eight field-side terminals are jumpered together on the AIFM. For some I/O modules, the terminals are also internally connected to module common through the pre-wired cable. Refer to the AIFM and ACABLE pinouts.
- Shield Terminals** — Eight field-side terminals are jumpered together on the AIFM and internally connected to the D-shell housing.
- Dimensions** — Refer to page 187.

Pinout



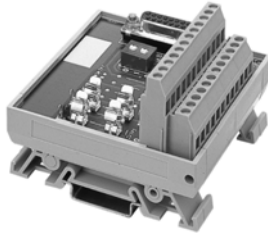
1492-AIFM6TC-3*Thermocouple 6-Channel with 3 Terminals/Channel**Application Notes*

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the AIFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Shield Terminals** — Six field-side terminals are jumpered together on the AIFM and internally connected to the D-shell housing.
4. **Cold Junction Compensation** — This AIFM contains on-board cold junction compensation (CTC) through a thermistor (T) and isothermal bar mounted to the field-side terminals. Do **not** install the cold junction sensor (provided with the Catalog Number 1756-IT6I or 1756-IT6I2 thermocouple input module) on the removable terminal block of the pre-wired cable. This module is **NOT** compatible with other PLC systems (e.g. bulletin numbers 1746, 1771, etc.) that do not have external CJC capability.
5. **Dimensions** — Refer to page 187.

Pinout

1492-AIFM4C-F-5

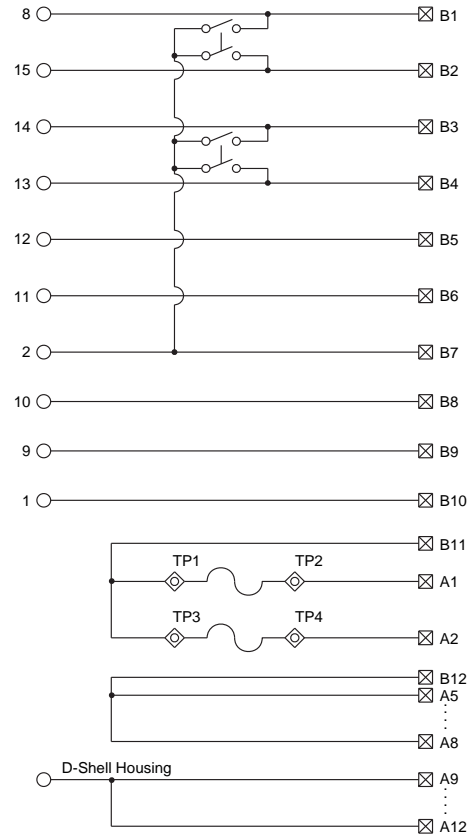
Fusible 2-channel Input, 2-Channel Output with 24V DC Blown Fuse Indicators, Test Points, 5 Terminals/Input, 3 Terminals/Output



Application Notes

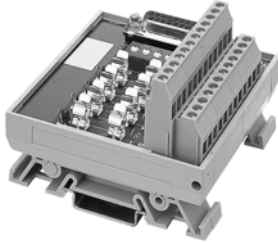
- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the AIFM.
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Fusing** — Fuse holders are included with the AIFM. Fuses (5 x 20 mm) are not included. Do not exceed 2 A per input, 12 A per AIFM.
- Isolation** — The fuse clips and blown fuse indicators are internally connected to one power source field-side terminal. All inputs must reference the same power source.
- DIP Switches** — For ease of wiring, unused inputs can be jumpered to module common by closing the DIP switches (ON position) for analog modules that have this capability. Default switch position is OPEN/OFF/NOT jumpered together.
- Test Points** — When using a two-wire transmitter, test points (TP1-TP2) can be used to measure input loop current. Refer to the Pinout for test point circuit location.
- Extra Terminals** — Four field-side terminals are internally jumpered on the AIFM. They can be used for power source common connections.
- Shield Terminals** — Four field-side terminals are jumpered together on AIFM and internally connected to the D-shell housing.
- Dimensions** — Refer to page 187.

Pinout

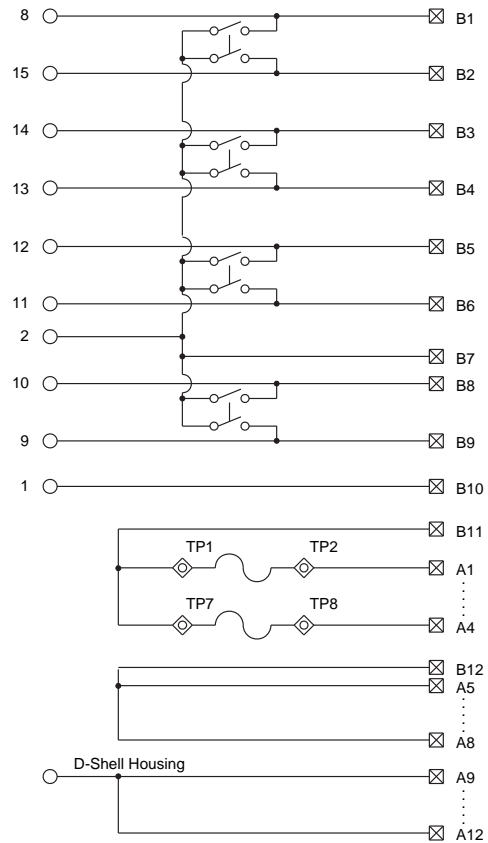


1492-AIFM4I-F-5

Fusible 4-Channel Input with 24V DC Blown Fuse Indicators, Test Points, 5 Terminals/Input

*Application Notes*

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the AIFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the AIFM. Fuses (5 x 20 mm) are not included. Do not exceed 2 A per input, 12 A per AIFM.
4. **Isolation** — The fuse clips and blown fuse indicators are internally connected to one power source field-side terminal. All inputs must reference the same power source.
5. **DIP Switches** — For ease of wiring, unused inputs can be jumpered to module common by closing the DIP switches (ON position) for analog modules that have this capability. Default switch position is OPEN/OFF/NOT jumpered together.
6. **Test Points** — When using a two-wire transmitter, test points (TP1-TP2) can be used to measure input loop current. Refer to the Pinout for test point circuit location.
7. **Extra Terminals** — Four field-side terminals are internally jumpered on the AIFM. They can be used for power source common connections.
8. **Shield Terminals** — Four field-side terminals are jumpered together on the AIFM and internally connected to the D-shell housing.
9. **Dimensions** — Refer to page 187.

Pinout

1492-AIFM8-F-5

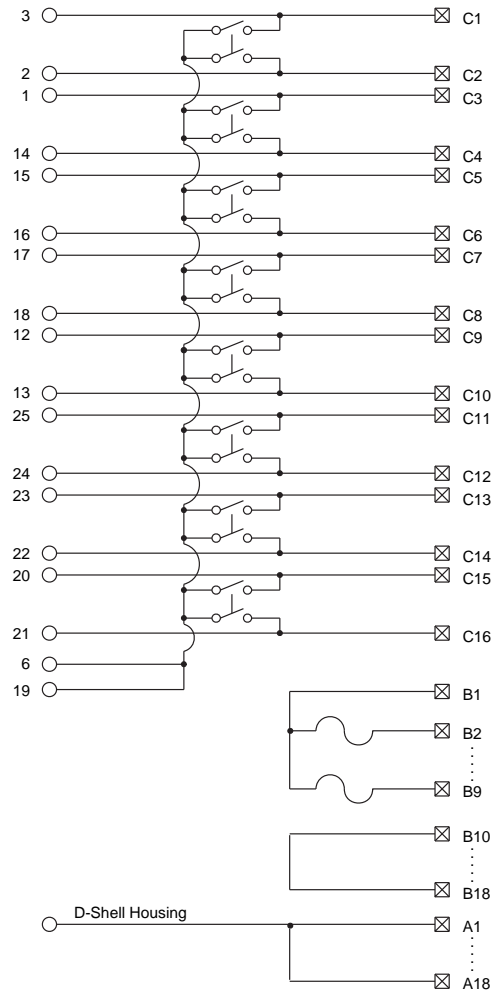
Fusible 8-Channel Input with 24V DC Blown Fuse Indicators, 5 Terminals/Channel



Application Notes

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the AIFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the AIFM. Fuses (5 x 20 mm) are not included. Do not exceed 2 A per input, 12 A per AIFM.
4. **Isolation** — The fuse clips and blown fuse indicators are internally connected to one power source field-side terminal. All inputs must reference the same power source.
5. **DIP Switches** — For ease of wiring, unused inputs can be jumpered to module common by closing the DIP switches (ON position) for analog modules that have this capability. Default switch position is OPEN/OFF/NOT jumpered together.
6. **Extra Terminals** — Nine field-side terminals are internally jumpered on the AIFM. They can be used for power source common connections.
7. **Shield Terminals** — Eighteen field-side terminals are jumpered together on the AIFM and internally connected to the D-shell housing.
8. **Dimensions** — Refer to page 187.

Pinout

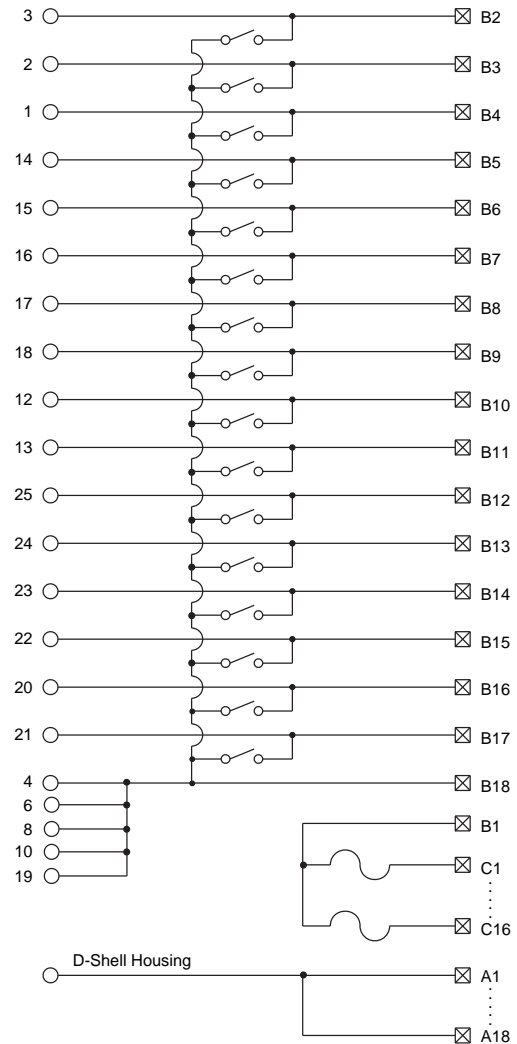


1492-AIFM16-F-3

Fusible 16-Channel Inputs with 24V DC Blown Fuse Indicators, 3 Terminals/Channel

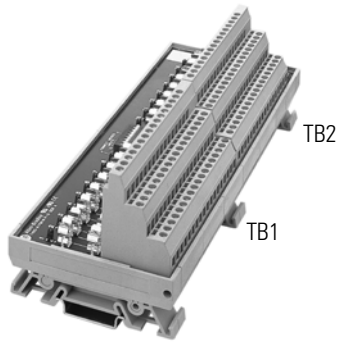
*Application Notes*

1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the AIFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Fuse holders are included with the AIFM. Fuses (5 x 20 mm) are not included. Do not exceed 2 A per input, 12 A per AIFM.
4. **Isolation** — The fuse clips and blown fuse indicators are internally connected to one power source field-side terminal. All inputs must reference the same power source.
5. **DIP Switches** — For ease of wiring, unused inputs can be jumpered to module common by closing the DIP switches (ON position) for analog modules that have this capability. Default switch position is OPEN/OFF/NOT jumpered together.
6. **Shield Terminals** — Eighteen field-side terminals are jumpered together on the AIFM and internally connected to the D-shell housing.
7. **Dimensions** — Refer to page 187.

Pinout

1492-AIFM16-F-5

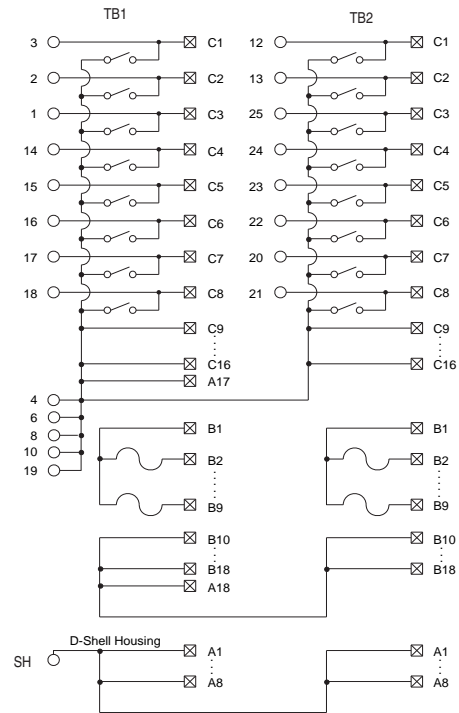
Fusible 16-Channel Input with 24V DC Blown Fuse Indicators, 5 Terminals/Channel



Application Notes

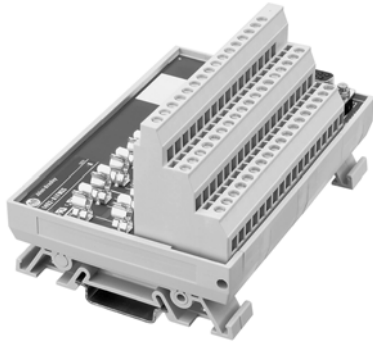
- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the AIFM.
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Fusing** — Fuse holders are included with the AIFM. Fuses (5 x 20 mm) are not included. Do not exceed 2 A per input, 12 A per AIFM.
- Isolation** — The fuse clips and blown fuse indicators are internally connected to two separate power source field-side terminals. All inputs within a group (TB1 or TB2) must reference the same power source.
- DIP Switches** — For ease of wiring, unused inputs can be jumpered to module common by closing the DIP switches (ON position) for analog modules that have this capability. Default switch position is OPEN/OFF/NOT jumpered together.
- Extra Terminals** — Sixteen field-side terminals (C9...C16 on TB1 and TB2) are internally jumpered on the AIFM and connected to module common. Eighteen field-side terminals (B10...B18 on TB1 and TB2) are internally jumpered on the AIFM and can be used for power source common connections. There are two field-side terminals (A17 and A18 on TB1) that can be externally jumpered to connect the two groups of field-side terminals.
- Shield Terminals** — Sixteen field-side terminals are jumpered together on the AIFM and internally connected to the D-shell housing.
- Dimensions** — Refer to page 187.

Pinout

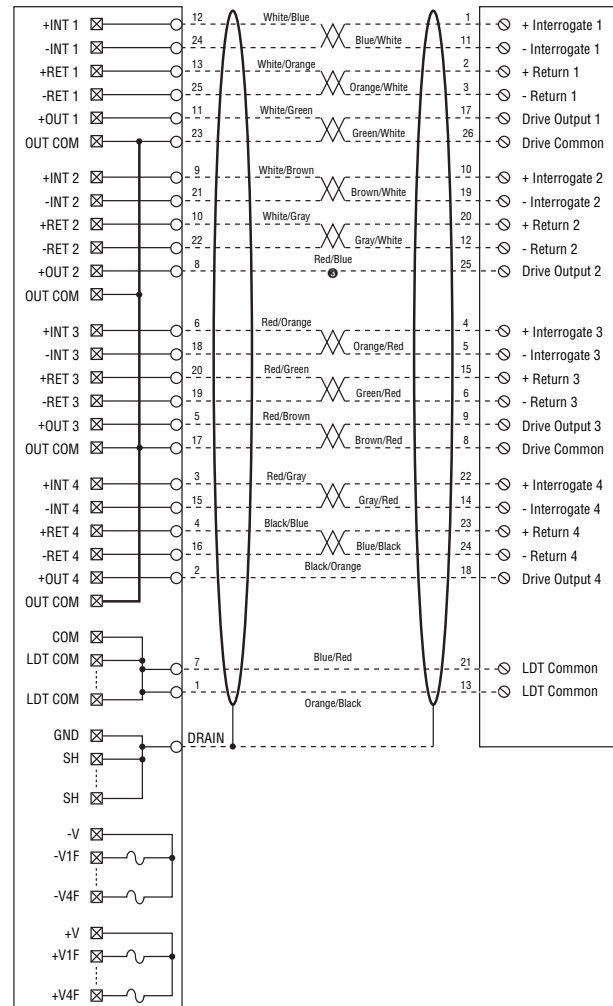


1492-AIFMQS

Fusible 4-Input/4 Output Channel with 8 Fuses & 24V DC Blown Fuse Indicators

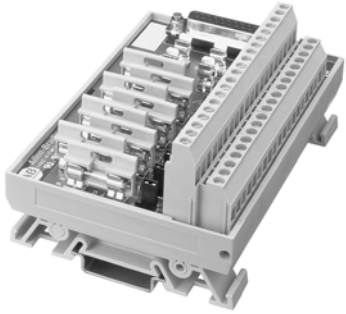
*Application Notes*

- Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the AIFM.
- Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
- Fusing** — Fuse holders are included with the AIFM. Fuses (5 x 20 mm) are not included. Do not exceed 3 A per input, 12 A per AIFM.
- Isolation** — The fuse clips and blown fuse indicators are internally connected to two separate power source field-side terminals. All inputs within a group must reference the same power source.
- Extra Terminals** — Four field-side terminals (on TB1) are internally jumpered on the AIFM and connected to module common. Four field-side terminals (on TB1) are internally jumpered on the AIFM and can be used for power source common connections.
- Shield Terminals** — Eight field-side terminals are jumpered together on the AIFM and internally connected to the D-shell housing.
- Dimensions** — Refer to page 187.

Pinout

1492-AIFMPI

Fusible 8-Input/2 Output Channels



Application Notes

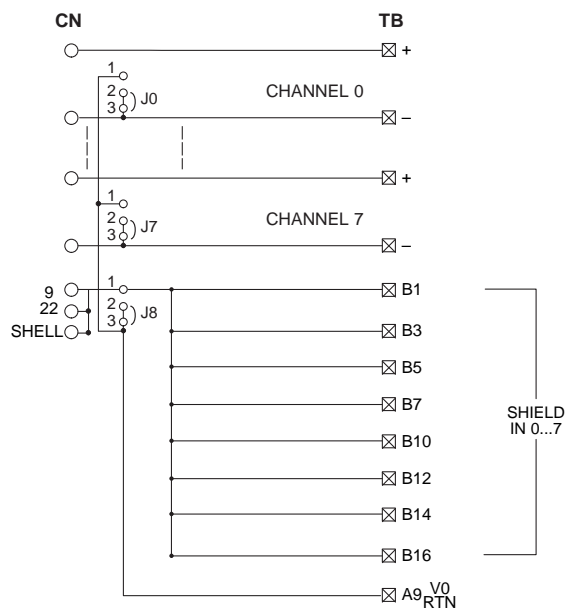
1. **Compatibility** — To ensure proper operation with the I/O module, do **not** exceed the voltage and current ratings of the AIFM.
2. **Wiring** — Refer to the Label Section on page 181. For Field-Side Wiring Diagrams, refer to the Wiring System web site information on page 186.
3. **Fusing** — Two fuse holders for the outputs are included with the AIFM. Eight fuses (0.25 A, 5 x 20 mm) are included with the fused supply inputs. Do not exceed 2 A per output.
4. **Isolation** — The fuse clips and blown fuse indicators are internally connected to one power source field-side terminal. All inputs must reference the same power source.
5. **Jumpers** — J0...J7 provide the option of connecting the negative inputs to the return. J8 commons the shield to the return. Default switch position is OPEN/OFF/NOT jumpered together.
6. **Shield Terminals** — Eight field-side terminals are jumpered together on the AIFM and internally connected to the D-shell housing.
7. The 1492-AIFMPI is designed exclusively for the 1757-PIM module.
8. **Dimensions** — Refer to page 187.

Pinout

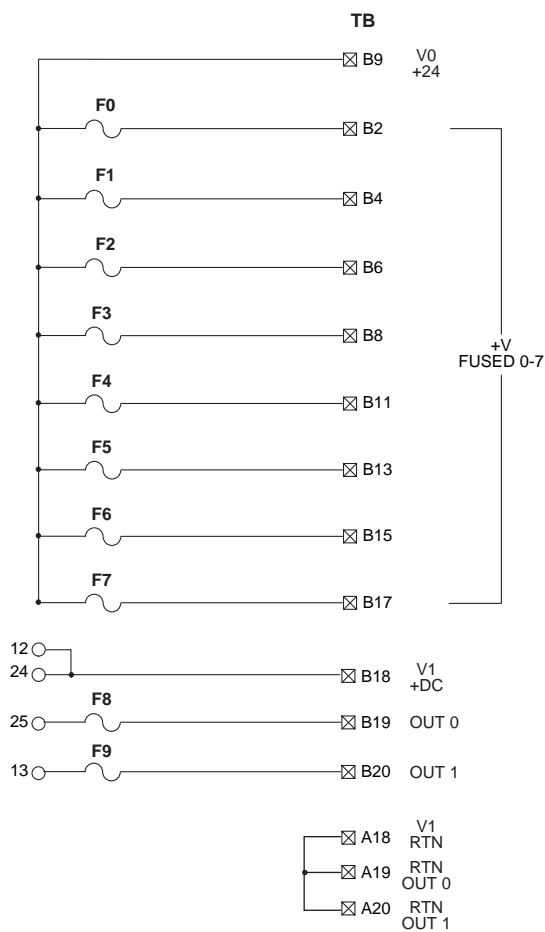
Refer to page 167.

1492-AIFMPI, Continued

Pinout, Continued



| CHANNEL | ○ | ☒ | |
|---------|----|-------|-------|
| 0 | 4 | A1 | +0 IN |
| | 14 | A2 | -0 IN |
| 1 | 3 | A3 | +1 IN |
| | 15 | A4 | -1 IN |
| 2 | 2 | A5 | +2 IN |
| | 16 | A6 | -2 IN |
| 3 | 1 | A7 | +3 IN |
| | 17 | A8 | -3 IN |
| 4 | 8 | A10+4 | IN |
| | 18 | A11-4 | IN |
| 5 | 7 | A12+5 | IN |
| | 19 | A13-5 | IN |
| 6 | 6 | A14+6 | IN |
| | 20 | A15-6 | IN |
| 7 | 5 | A16+7 | IN |
| | 21 | A17-7 | IN |

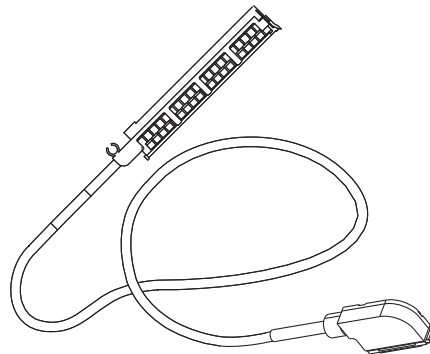


Analog Cable Specifications

Bulletin 1492 pre-wired cables are designed to minimize control wiring in a panel. Analog pre-wired cables, when used with an AIFM, replace the point-to-point wiring between Allen-Bradley programmable controller I/O modules and individual terminal blocks. The analog ready-to-wire cables provide one end of the cable pre-terminated for an AIFM (AIFM-ready cable).

Pre-Wired Cables

Specifications



The pre-wired cables have a Bulletin 1746 Removable Terminal Block, Bulletin 1756 Removable Terminal Block, Bulletin 1769 Removable Terminal Block, Bulletin 1771 Wiring Arm, or Bul. 1794 (Flex) 37-pin D-Shell (mates with Cat. No. 1794-TB37DS) on one end and a D-shell on the other to connect to the AIFM. All analog cables have an overall shield and most have #22 AWG twisted pairs for additional noise immunity. In addition, most analog cables have prepared ring lugs on the drain wire for convenient grounding of the cable shield to the programmable controller chassis. The broad offering of analog pre-wired cables supports over 40 different Bulletin 1746, 1756, 1769, 1771, 700S, 700H, and 1794 analog, RTD, and thermocouple (1756 only) I/O modules.

Analog Pre-Wired Cable Specifications

| Catalog Number and Length ❶ | Standard Cable Lengths | I/O Module Connector | AIFM Connector | No. of Conductors ❷❸ | Insulation Rating | Conductor Size | Nominal Outer Diameter |
|-----------------------------|------------------------|---|----------------|----------------------|-------------------|----------------|------------------------|
| 1492-ACAB❶Z7H | 0.5, 1.0, 2.5, 5.0 m | 20C-DA1-A or 20C-DA1-B I/O Board | 25-pin D-shell | 9 Twisted Pairs | 300V 80°C | 22 AWG | 6.78 mm (0.267") |
| 1492-ACAB❶Z7S | 0.5, 1.0, 2.5, 5.0 m | Terminal TB1 (Pins 1...12) | 25-pin D-shell | 9 Twisted Pairs | 300V 80°C | 22 AWG | 6.78 mm (0.267") |
| 1492-ACAB❶X7S | 0.5, 1.0, 2.5, 5.0 m | Terminal TB1 (Pins 13...25) | 25-pin D-shell | 9 Twisted Pairs | 300V 80°C | 22 AWG | 6.78 mm (0.267") |
| 1492-ACAB❶Z94 | 0.5, 1.0, 2.5, 5.0 m | 37-Pin D-Shell Connector to Mate with Cat. No. 1794-TB37DS Base | 25-pin D-shell | 20 Conductors | 300V 80°C | 22 AWG | 8.43 mm (0.332") |

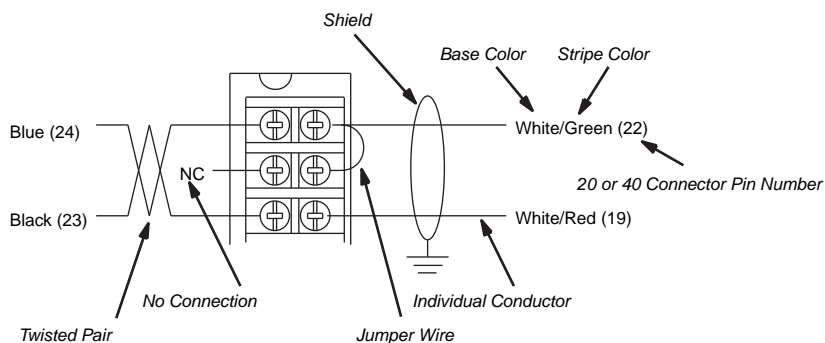
- ❶ Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m and 5.0 m. To order, insert the desired cable length code into the catalog number (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: **Catalog Number 1492-ACABLE005A** is for a 0.5 m cable for the 1746-NI4 I/O Module. Also refer to Build-to-Order Length Cables on page 65.
- ❷ All pre-wired analog cables have an overall shield. On 1492-ACABLE❶C and 1492-ACABLE❶D, the drain wire is connected to the shield terminal on the I/O module connector. All other 1492-ACABLEs have a ring lug on the 7.87" (200 mm) exposed drain wire at the I/O module end of the cable.
- ❸ Not every connection is always used.

Analog Cable Specifications, Continued

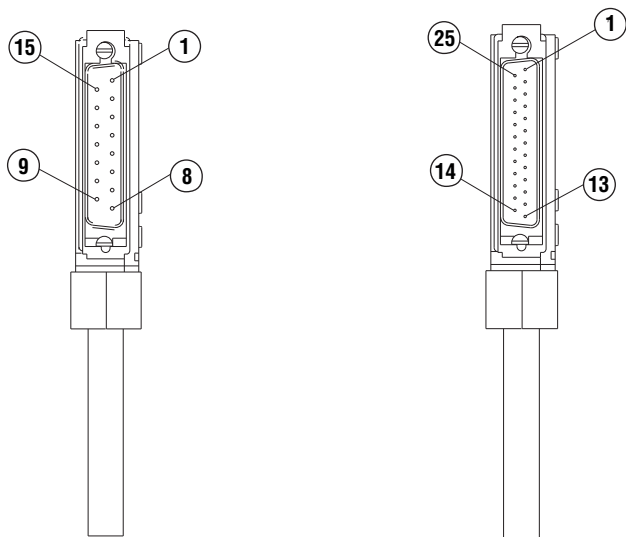
Pinouts

Analog Pre-Wired Cables

The following diagrams indicate how the analog pre-wired cables are connected on both ends. The description listed first is the wire color of the conductor connected to the screw terminal on the respective Wiring Arm or Removable Terminal Block. The number that follows in parentheses is the corresponding pin number in the D-shell connector on the other end.



Output Pin Connector Definition



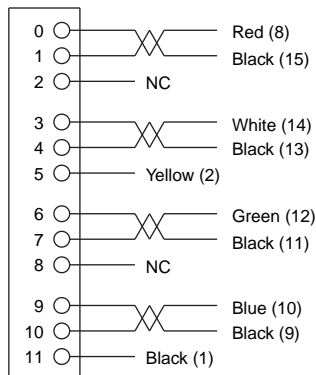
15-Pin D-Shell Connector

25-Pin D-Shell Connector

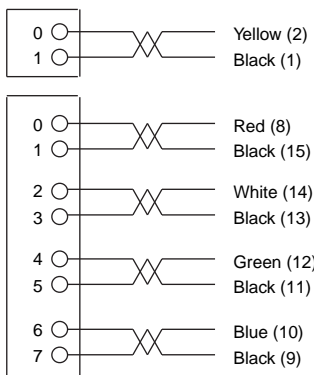
AIFM Mating Connector Definition

Analog Cable Specifications, Continued

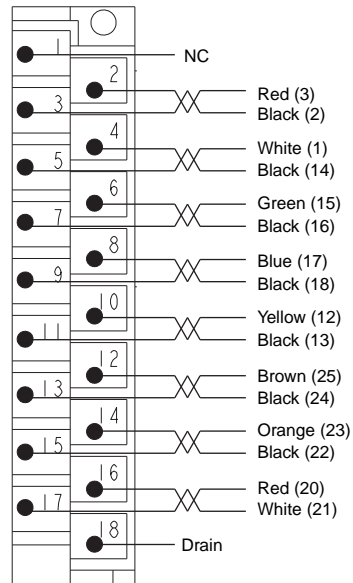
Pinouts, Continued



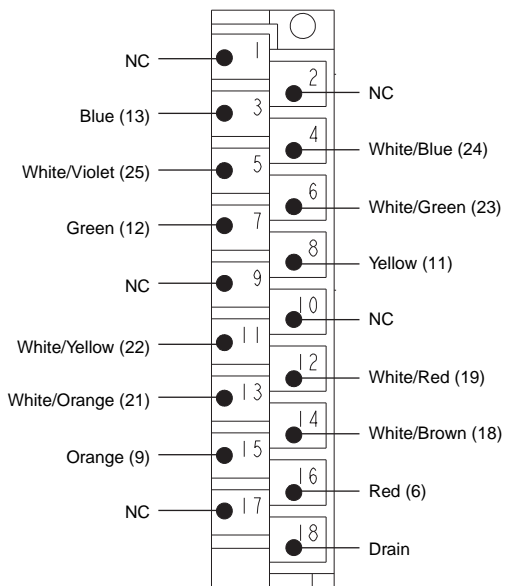
1492-ACABLE___A



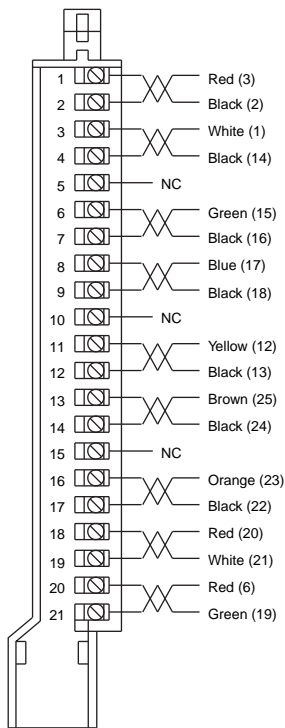
1492-ACABLE___B



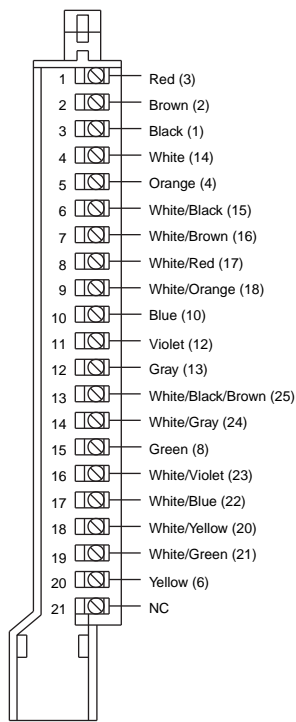
1492-ACABLE___C



1492-ACABLE___D



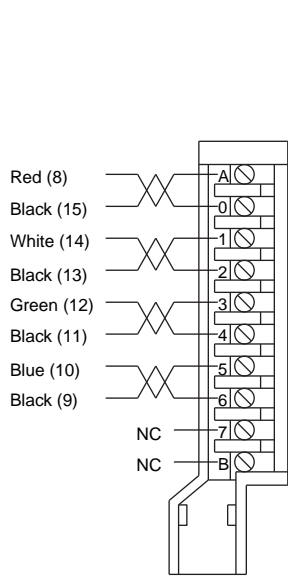
1492-ACABLE___E



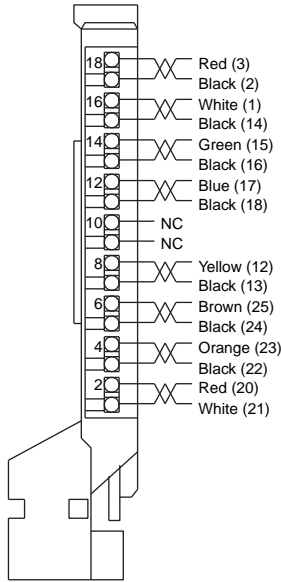
1492-ACABLE___F

Analog Cable Specifications, Continued

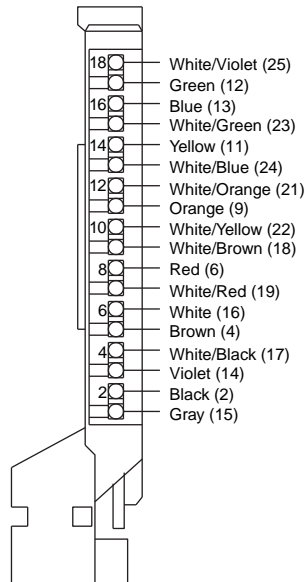
Pinouts, Continued



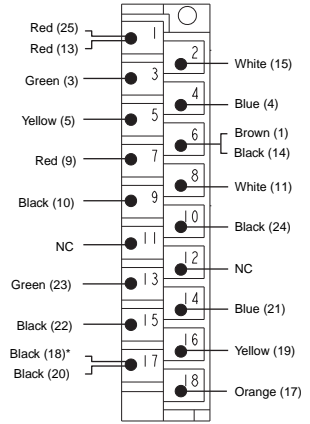
1492-ACABLE___G



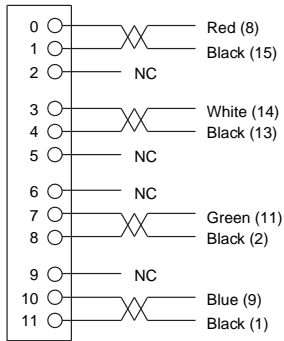
1492-ACABLE___H



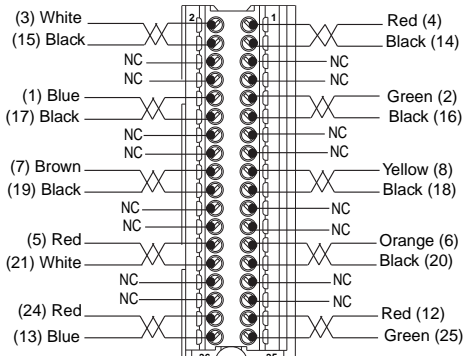
1492-ACABLE___J



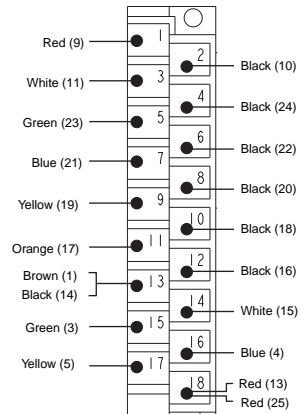
1492-ACABLE___K*



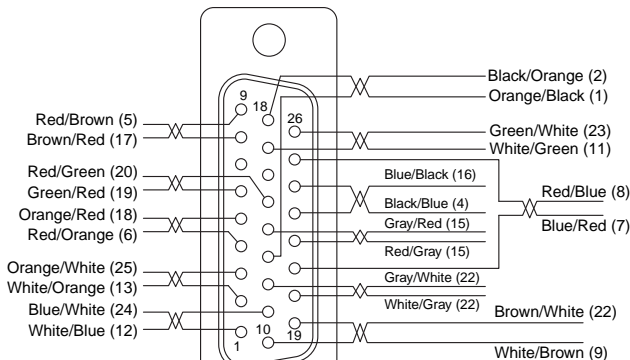
1492-ACABLE___L



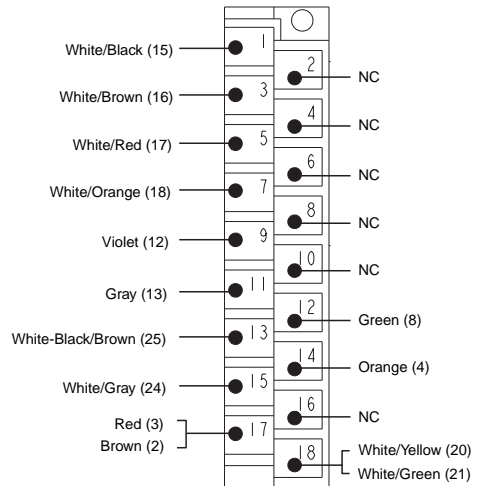
1492-ACABLE___M



1492-ACABLE___P*



1492-ACABLE___Q

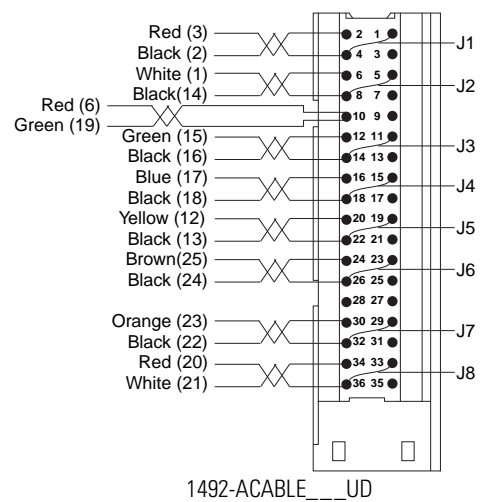
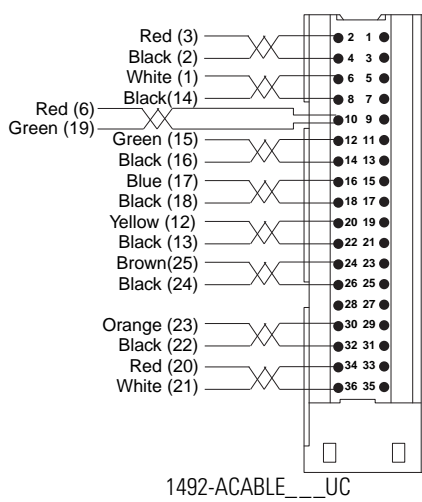
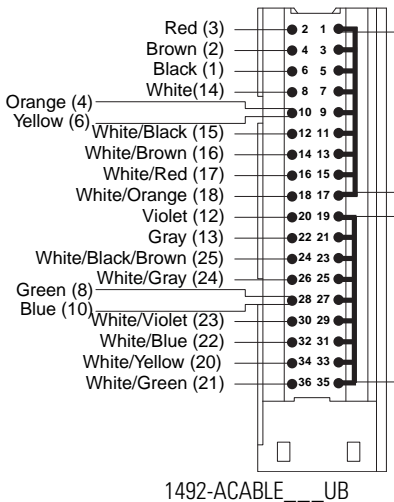
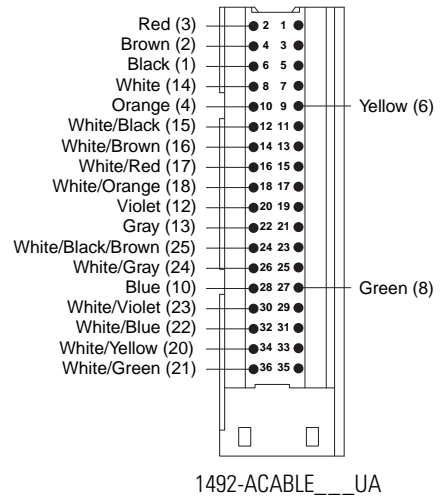
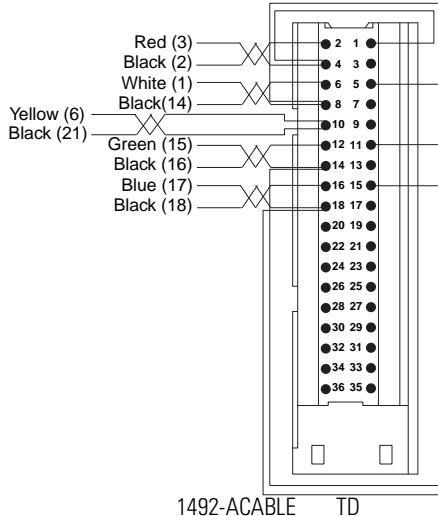
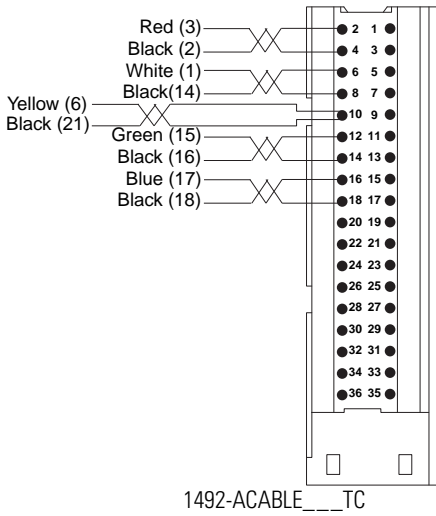
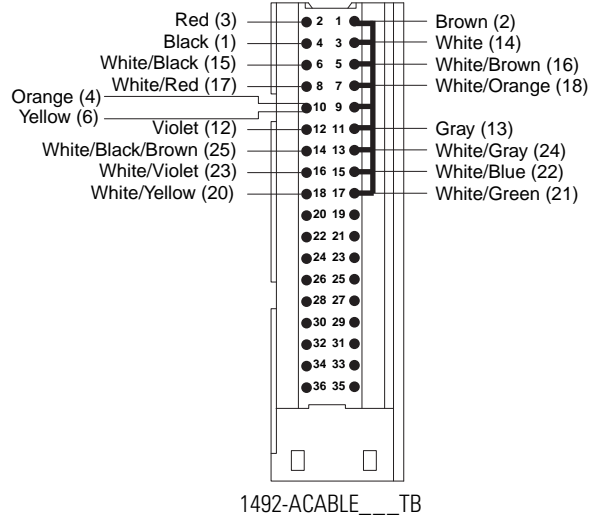
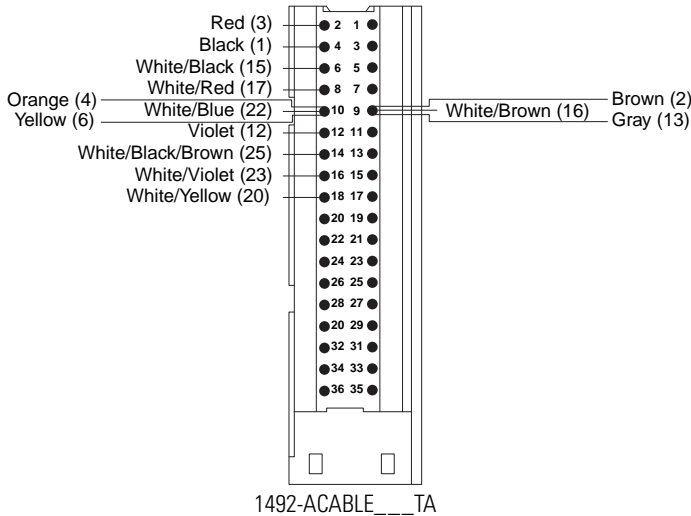


1492-ACABLE___R

* Cable uses twisted pair conductors.

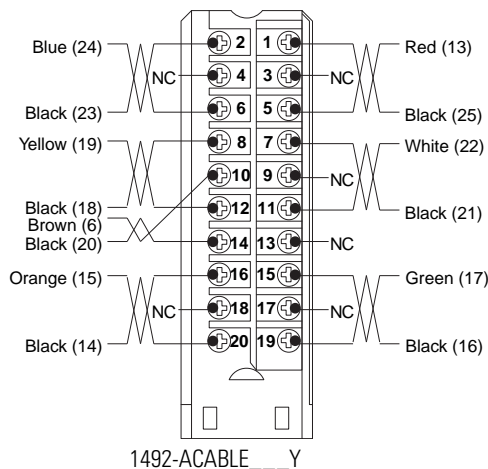
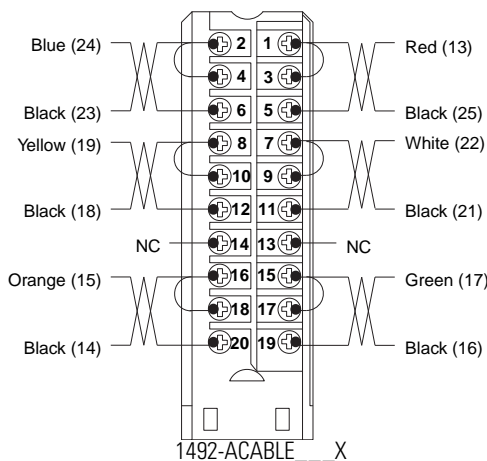
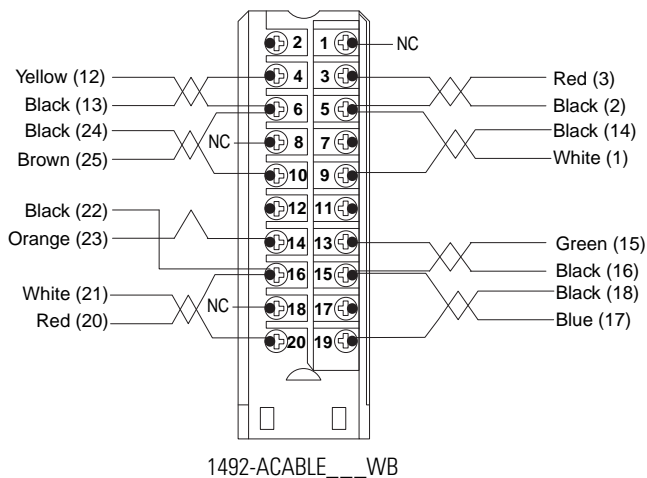
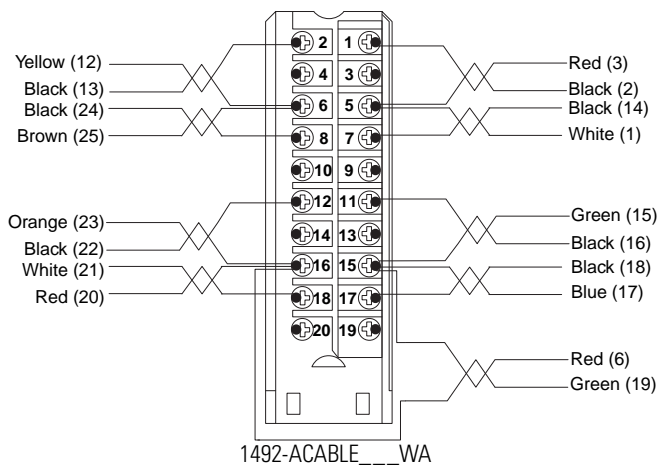
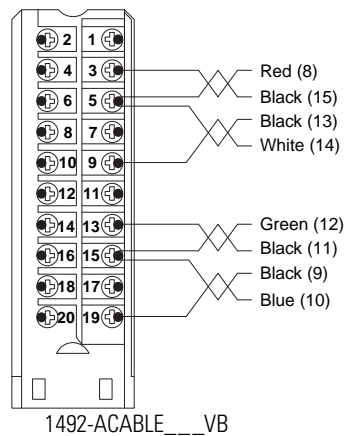
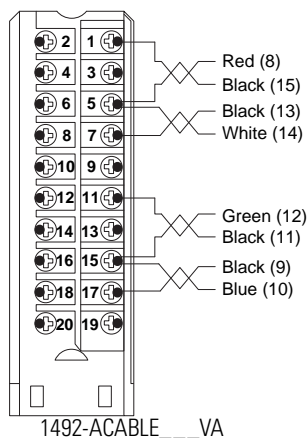
Analog Cable Specifications, Continued

Pinouts, Continued



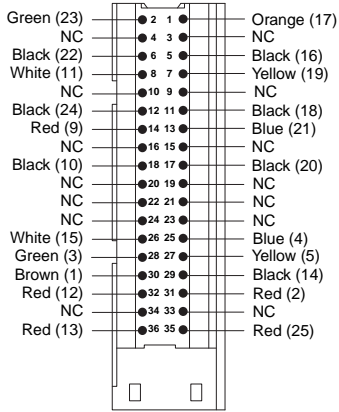
Analog Cable Specifications, Continued

Pinouts, Continued

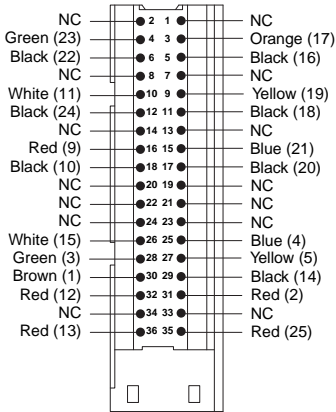


Analog Cable Specifications, Continued

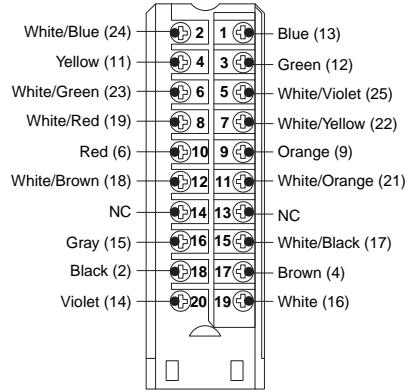
Pinouts, Continued



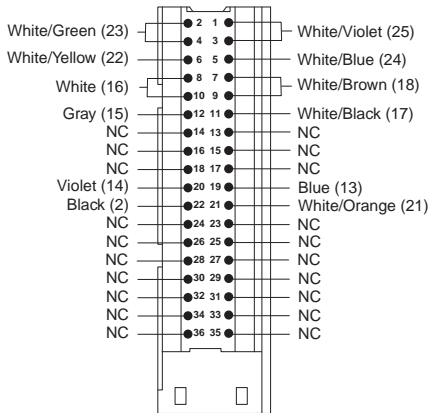
1492-ACABLE__XA*



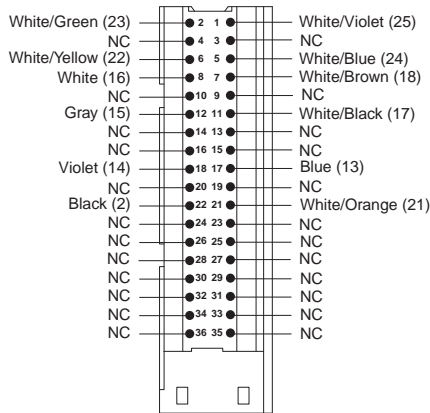
1492-ACABLE__XB*



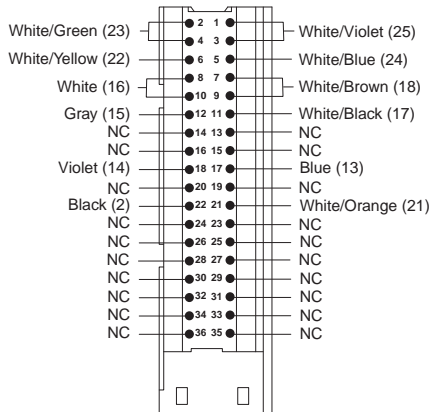
1492-ACABLE__Z



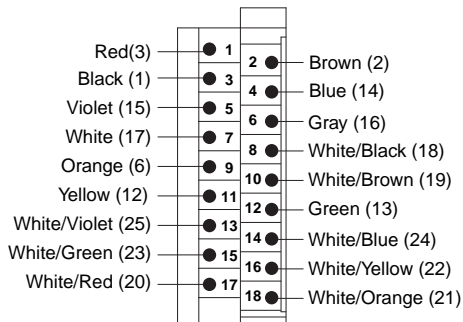
1492-ACABLE__ZA



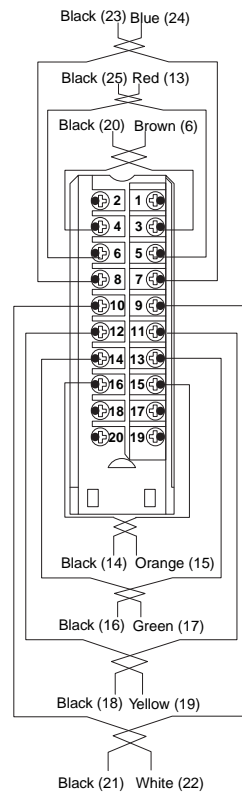
1492-ACABLE__ZB



1492-ACABLE__ZC



1492-ACAB__A46
(Green RTB)

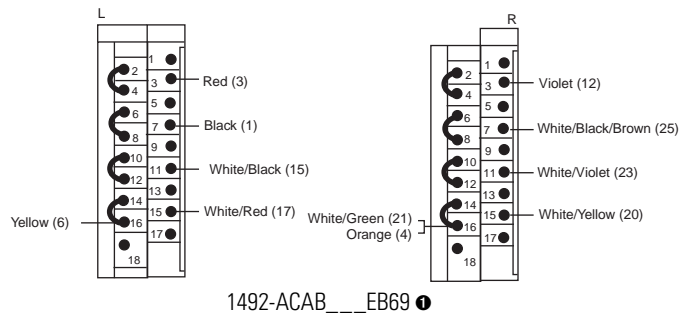
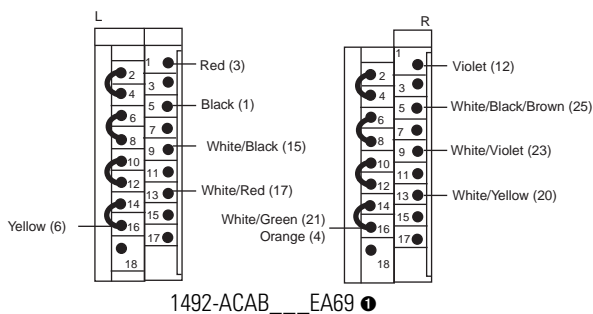
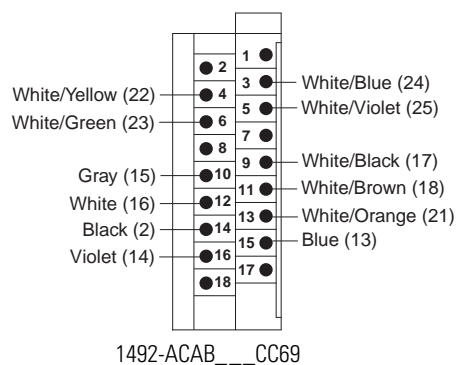
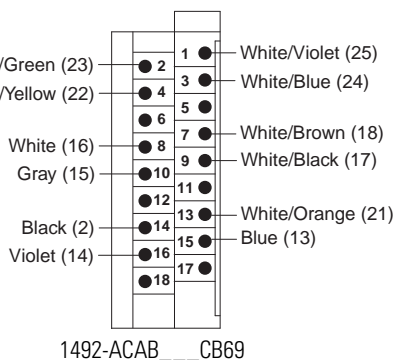
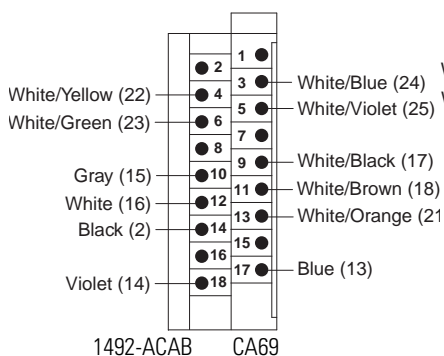
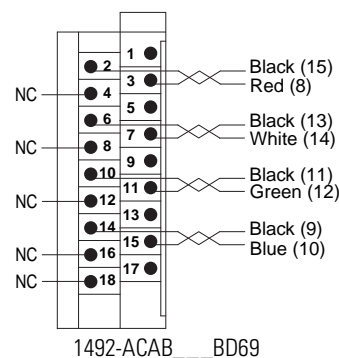
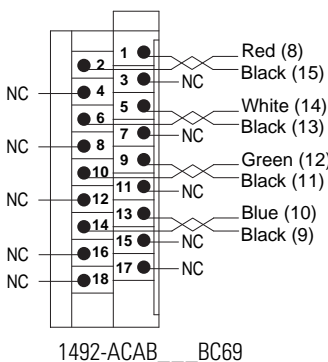
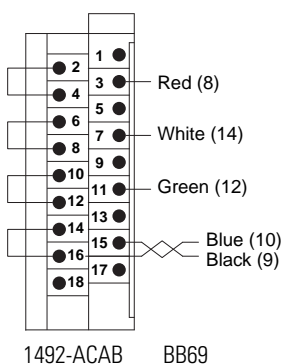
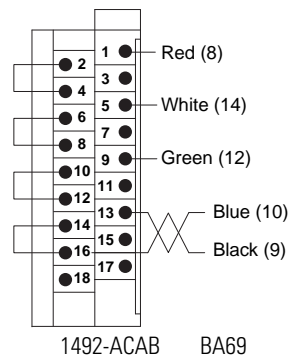
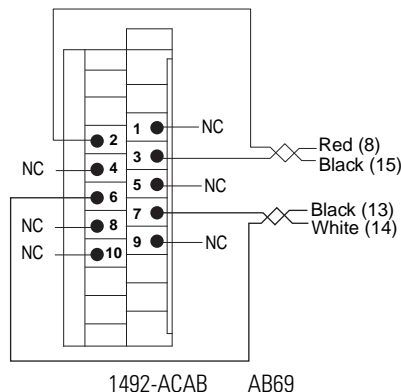
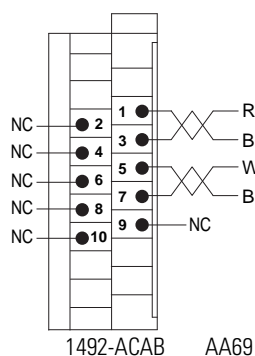


1492-ACABLE__YT

* Cable uses twisted pair conductors.

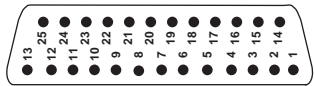
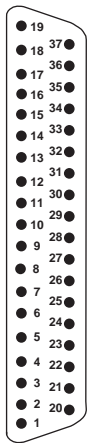
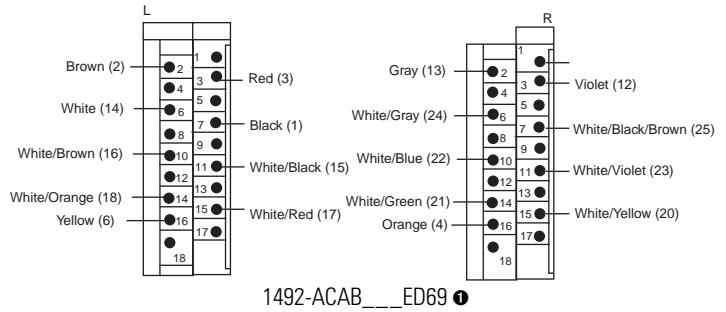
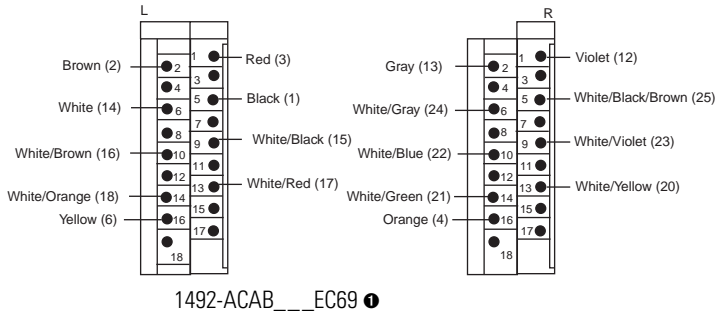
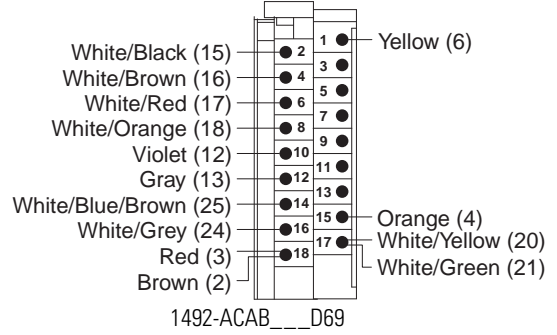
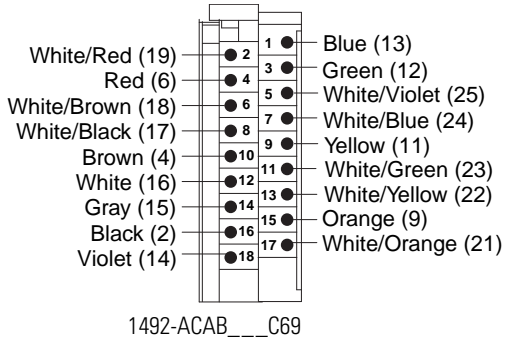
Analog Cable Specifications, Continued

Pinouts, Continued



Analog Cable Specifications, Continued

Pinouts, Continued



End 2
(AIFM)

End 1
(Flex Base)

1492-ACAB___Z94

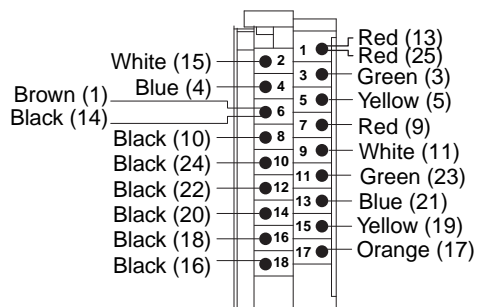
Cable Wiring Table Conductor for 1492-ACAB___Z94

| Connector 37-Pin D-Shell, End 1 | Conductor Color Code | Connectors 25-Pin D-Shell, End 2 | Connector 37-Pin D-Shell, End 1 | Conductor Color Code | Connectors 25-Pin D-Shell, End 2 |
|---------------------------------|----------------------|----------------------------------|---------------------------------|----------------------|----------------------------------|
| 1 | Black | — | 31 | White/Brown | 13 |
| 2 | Brown | — | 12 | White/Red | 25 |
| 19 | Red | 3 | 30 | White/Orange | 24 |
| 37 | Orange | 2 | 10 | White/Yellow | 23 |
| 18 | Yellow | 1 | 28 | White/Green | 22 |
| 36 | Green | 14 | 9 | White/Blue | 20 |
| 16 | Blue | 15 | 27 | White/Violet | 21 |
| 34 | Violet | 16 | 3 | White/Grey | 6 |
| 15 | Grey | 17 | 21 | White/Black/Brown | 19 |
| 33 | White | 18 | 5 | Shield | Case |
| 13 | White/Black | 12 | — | — | — |

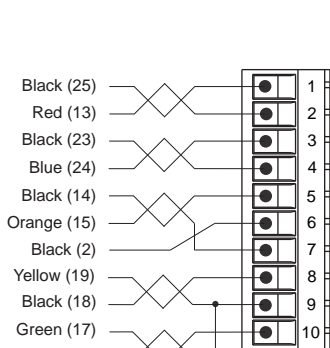
1 Cable is made up of two (Left & Right pair) individual terminal blocks.

Analog Cable Specifications, Continued

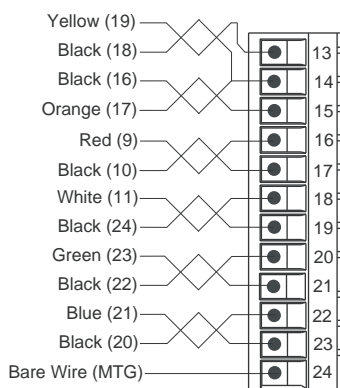
Pinouts, Continued



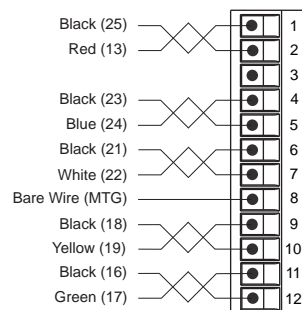
1492-ACAB__HA69*



1492-ACAB⓪Z7H



1492-ACAB⓪X7S



1492-ACAB⓪Z7S

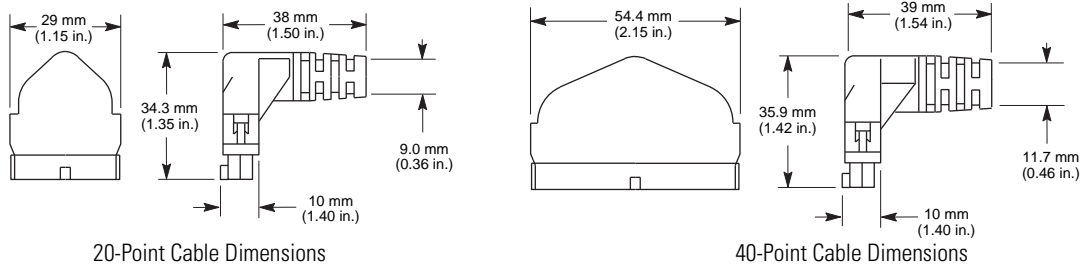
① Cable is made up of two (Left & Right pair) individual terminal blocks.

* Cable uses twisted pair conductors.

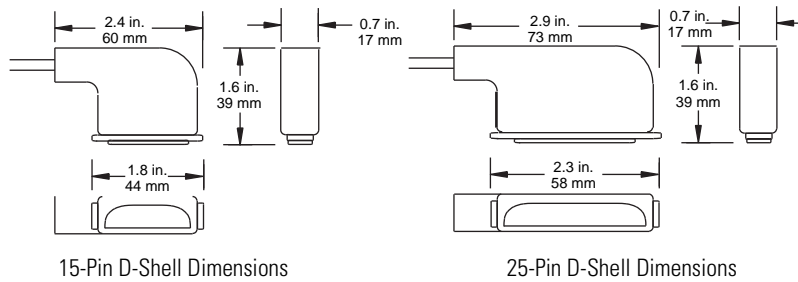
Dimensions

Approximate dimensions are shown in millimeters unless otherwise indicated (to convert to inches, multiply by 0.0394). Dimensions are not to be used for manufacturing purposes.

Digital IFM Mating Connector

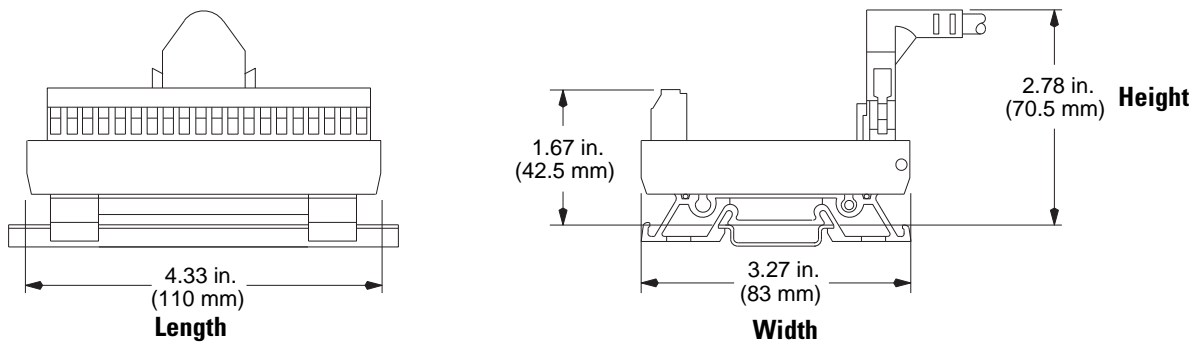


Analog D-Shell Connector



Wiring System Module Dimensions

The following is an example to show the length (L) and width (W) and Height (H) dimension layout for a Wiring System Module. Refer to the Quick Reference table on Page 187 for a complete list of module dimensions.



Marking Systems

Pre-Printed and Blank Adhesive Label Cards

All Bulletin 1492 IFMs, XIFMs, and AIFMs come with an adhesive label card. To see an example, refer to pages 182 and 183. The label card provides the field-side connection descriptions for the programmable controller I/O module. The label strips basically copy the wiring descriptions from the I/O module in the chassis down to the Interface Module terminals on the DIN Rail.

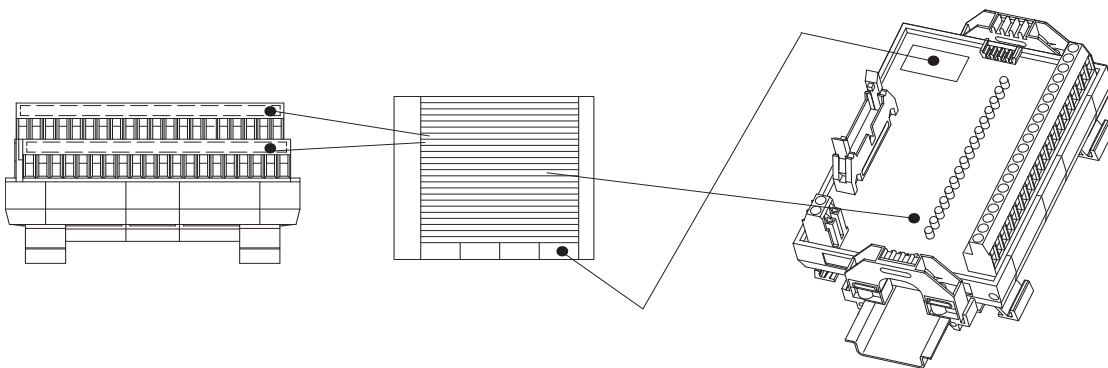
The label cards list all of the compatible I/O modules and their respective wiring descriptions. Depending on the I/O module that is used, the label strip(s) are simply peeled from the label card and applied to the field-side terminals on the Interface Module.

Labels are provided in the octal and decimal numbering systems for Bulletin 1746 I/O modules. Labels for Bulletin 1771 I/O modules are supplied in the octal numbering system, like the I/O modules themselves. Labels for Bulletin 1756 and 1769 I/O modules are supplied in the decimal numbering system, like the I/O modules. Interface Modules with LEDs or fuse clips come with the LEDs or fuse clips/blown fuse indicators numbered in decimal. LED and fuse labels are also provided in octal for use with Bulletin 1771 I/O modules. The LED or fuse conversion label(s) are placed directly on the circuit board of the Interface Module. For extra terminal modules, pre-printed labels are provided to identify the power bus(es) or commoned terminals (middle and/or lower rows of terminals) on the Interface Module. For each I/O module, corresponding labels with L1, L2, COM, or +V are provided. The labels indicate isolated power busses or grouped commons with a different letter or number. For example, L1-A, L1-B, L1-C or COM1, COM2, COM3, etc.

In addition, if generic numbering of the field-side terminals is desired, numeric labels are provided. Examples: 1...20, 1...40, and evens and odds. For write-on identification, the label cards contain blank label strips (for field-side terminals) and rectangular boxes (for the large group marking area on each IFM, XIFM, or AIFM).

Examples of available label cards are on page 182. This information is helpful for determining field-side wiring layouts prior to installation. Label cards can be ordered as spare parts should a replacement be required. Refer to page 187 for a listing of label cards that apply to your IFM.

An example of how the labels are applied is shown below:



Marking Systems, Continued (Example Label Cards)

Part 1 of Adhesive Label Card for Catalog Numbers 1492-IFM20F, -IFM20D24, and -IFM20D120

| I/O CAT. NO. | MODULE LABEL | | | | | | | | | | | | | | | | | | | | | |
|---|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---|---|--|--|
| 1746-IA16, IM16, IN16 (AC) | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | L2 | L2 | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | | | | |
| | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | L2 | L2 | | | | |
| | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | | | | | |
| 1746-IB16, IC16, IH16, IN16 (DC), ITB16 | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | COM | COM | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | | | | |
| | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | COM | COM | | | | | |
| | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | | | | | |
| 1746-IG16 | +V | +V | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | COM | COM | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | | | | |
| | +V | +V | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | COM | COM | | | | | |
| | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | | | | | |
| 1746-IV16, ITV16 | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | +V | +V | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | | | | |
| | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | +V | +V | | | | | |
| | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | | | | | |
| 1746-OA16, OW16 (AC) 1769-OA16, OW16 (AC) | L1 | L1 | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | L1 | L1 | | | | | |
| | 1 | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 2 | 2 | | | | | |
| | L1 | L1 | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | L1 | L1 | | | | | |
| | 1 | 1 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 17 | 2 | | | | | |
| 1746-OB16, OB16E, OBP16, OG16, OV16, OVP16 1769-OB16, OV16 | +V | +V | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | COM | COM | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | | | | |
| | +V | +V | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | COM | COM | | | | | |
| | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | | | | | |
| 1746-OW16 (DC) 1769-OW16 (DC) | +V1 | +V1 | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | +V2 | +V2 | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | | | | |
| | +V1 | +V1 | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | +V2 | +V2 | | | | | |
| | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | | | | | |
| 1746-OX8 (AC) 1769-OW8I (AC) | L1 | OUT | L1 | OUT | L1 | OUT | L1 | OUT | OUT | L1 | OUT | L1 | OUT | L1 | OUT | L1 | | | | | | |
| | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | | | | | | |
| | L1 | OUT | L1 | OUT | L1 | OUT | L1 | OUT | OUT | L1 | OUT | L1 | OUT | L1 | OUT | L1 | | | | | | |
| | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | | | | | | |
| 1746-OX8 (DC) 1769-OW8I (DC) | +V0 | OUT | +V1 | OUT | +V2 | OUT | +V3 | OUT | OUT | +V4 | OUT | +V5 | OUT | +V6 | OUT | +V7 | | | | | | |
| | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | | | | | | |
| | +V0 | OUT | +V1 | OUT | +V2 | OUT | +V3 | OUT | OUT | +V4 | OUT | +V5 | OUT | +V6 | OUT | +V7 | | | | | | |
| | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | | | | | | |
| 1756-IA8D, TC-IDX08I | L1 | IN | IN | IN | IN | L2 | L2 | L2 | L2 | L2 | L2 | L2 | IN | IN | IN | IN | L1 | L2 | | | | |
| | 0 | 0 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 4 | 5 | 6 | 7 | 1 | 1 | | | |
| | L1 | IN | IN | IN | IN | L2 | L2 | L2 | L2 | L2 | L2 | L2 | IN | IN | IN | IN | L1 | L2 | | | | |
| | 0 | 0 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 4 | 5 | 6 | 7 | 1 | 1 | | | |
| 1756-IA16, IN16, TC-IDA16I | L2 | L2 | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | L2 | L2 | | | | | |
| | 0 | 0 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 1 | 1 | | |
| | L2 | L2 | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | L2 | L2 | | | | | |
| | 0 | 0 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 1 | 1 | | |
| 1756-IB16, IC16, TC-IDD16I, IDE16I | GND | GND | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | GND | GND | | | | | |
| | 0 | 0 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 1 | 1 | | |
| | GND | GND | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | GND | GND | | | | | |
| | 0 | 0 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 1 | 1 | | |
| 1756-OA8, ON8, TC-ODC08I | L1 | OUT | OUT | OUT | OUT | L1 | L1 | L1 | L1 | L1 | L1 | L1 | L1 | OUT | OUT | OUT | OUT | L1 | | | | |
| | 0 | 0 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 4 | 5 | 6 | 7 | 1 | | | | |
| | L1 | OUT | OUT | OUT | OUT | L1 | L1 | L1 | L1 | L1 | L1 | L1 | L1 | OUT | OUT | OUT | OUT | L1 | | | | |
| | 0 | 0 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 4 | 5 | 6 | 7 | 1 | | | | |

Marking Systems, Continued (Example Label Cards)

Part 2 of Adhesive Label Card for Catalog Numbers 1492-IFM20F, -IFM20D24, and -IFM20D120

| | | | | | | | | | | | | | | | | | | | | |
|---|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| 1756-OA8D, OA8E, TC-ODX081 | L2 | OUT | OUT | OUT | OUT | L1 | L1 | L1 | L1 | L1 | L1 | L1 | L1 | OUT | OUT | OUT | OUT | L2 | L1 | |
| | 0 | 0 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 4 | 5 | 6 | 7 | 1 | 1 | |
| 1756-OA16, TC-ODA161 | L1 | L2 | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | L1 | L2 |
| | 0 | 0 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 1 | 1 |
| 1756-OB8, OC8, TC-ODD081, TC-ODE081 | +DC | OUT | OUT | OUT | OUT | RTN | +DC | +DC | +DC | RTN | +DC | +DC | +DC | +DC | OUT | OUT | OUT | OUT | RTN | RTN |
| | 0 | 0 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 4 | 5 | 6 | 7 | 1 | 1 |
| 1756-OB16E, TC-ODD161 | +DC | RTN | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | +DC | RTN |
| | 0 | 0 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 1 | 1 |
| 1769-IA81 | | | IN | L2 | IN | L2 | IN | L2 | IN | L2 | IN | L2 | IN | L2 | IN | L2 | IN | L2 | | |
| | | | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | | | |
| 1769-IA16 | L2 | L2 | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | L2 | L2 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | | |
| 1769-IM12 | | | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | | | | | L2 | L2 |
| | | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | | | | | |
| 1769-IQ16 SINK | COM | COM | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | COM | COM |
| | 1 | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 2 | 2 |
| 1769-IQ16 SOURCE | +VDC | +VDC | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | +VDC | +VDC |
| | 1 | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 2 | 2 |
| 1769-OA8 (AC), OW8 | L1 | | OUT | | OUT | | OUT | | OUT | L1 | | OUT | | OUT | | OUT | | L1 | L1 | |
| | 1 | | 0 | | 1 | | 2 | | 3 | 1 | | 4 | | 5 | | 6 | | 2 | 2 | |
| 1769-OW8 (DC) | +VDC | | OUT | | OUT | | OUT | | OUT | +VDC | | OUT | | OUT | | OUT | | +VDC | +VDC | |
| | 1 | | 0 | | 1 | | 2 | | 3 | 1 | | 4 | | 5 | | 6 | | 2 | 2 | |
| 1771-IAD (AC), IND (AC) | L1 | | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | L2 | |
| | | | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | |
| 1771-IMD (AC) | | | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | L2 | |
| | | | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | |
| 1771-IAD (DC), IND (DC) | +V | | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | COM | |
| | | | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | |
| 1771-IMD (DC) | | | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | COM | |
| | | | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | |
| 1771-IBD, ICD | | | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | COM | |
| | | | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | |
| 1771-IGD | +V | +V | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | IN | +V | COM |
| | | | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | |
| 1771-OAD, OND, OMD | L1 | L1 | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | L1 | L2 |
| | | | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | |
| 1771-OBd, OGD | +V | +V | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | OUT | +V | COM |
| | | | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | |
| NUMERIC | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| LED LABEL | | | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | |
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | | |

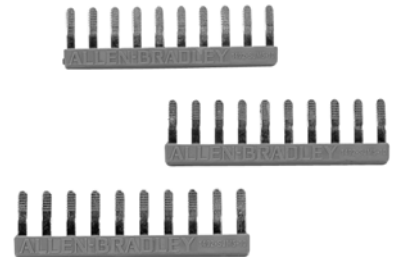
Accessories



Catalog Number 1492-IFMFH1
Fuse Holder



Catalog Number 1492-ISOSW-1
Isolation Switch Fuse Plug



Catalog Number 1492-SJM5-10
Insulated Side Jumper

Replacement Fuse Holders

IFM

The 1492-IFMFH1 fuse holders accommodate either a 5 x 20 mm fuse or the Catalog Number 1492-ISOSW-1 isolation switch plug and reside in the IFM or AIFM under normal operation. All of the fusible Bulletin 1492 IFMs and AIFMs come standard with fuse holders (for the number of fuse holders included, refer to the specifications for each IFM or AIFM).

Replacement fuse holders (Catalog Number 1492-IFMFH1) are available in packages of 20. Catalog Number 1492-IFMFH1 fuse holders are not compatible with fusible expandable XIMs.

Accessories, Continued

Replacement Fuse Holders, Continued

AIFM

The Catalog Number 1492-IFMFH1 fuse holders accommodate a 5 x 20 mm fuse or the Catalog Number 1492-ISOSW-1 isolation switch fuse plug and reside in the AIFM under normal operation. All of the fusible Catalog Number 1492 AIFMs come standard with the fuse holders — 10 fuse holders with the Catalog Number 1492-AIFM4C-F-5, -AIFM4I-F-5, and -AIFM8-F-5 modules; 20 fuse holders with the Catalog Number 1492-AIFM16-F-3, and -AIFM16-F-5 modules. Replacement fuse holders are available in packages of 20.

Replacement Relays

The relays in the Relay Master and Relay Expander modules are replaceable. The following replacement relays must be used:

Replacement Relays

| XIM Catalog Number | Replacement Part Catalog Number |
|---------------------------------------|---------------------------------|
| 1492-XIM4024-16R, -16RF | 700-HK36Z24 |
| 1492-XIM4024-8R | 700-HK36Z24 |
| 1492-XIM2024-8R, -16R | 700-HK36Z24 |
| 1492-XIM20120-8R, -16R, -16RF | 700-HK36A1 |
| 1492-XIM24-8R, -16RF | 700-HK36Z24 |
| 1492-XIM120-8R | 700-HK36A1 |
| Flexible Relay Module Expansion Cable | W22101-061-01 |

Isolation Switch Plugs

The Catalog Number 1492-ISOSW-1 is an isolation switch or “dummy fuse” in a 5 x 20 mm fuse form factor. The isolation switch plugs will fit into the Catalog Number 1492-IFMFH1 fuse holders. If fusing is not desired on a fusible IFM or AIFM, the Catalog Number 1492-ISOSW-1 isolating switch can be used to provide feed-through functionality under normal operation and isolation switch functionality once power has been removed from the circuit. The isolation switch can then be opened for maintenance and troubleshooting. Metering equipment can also be inserted into a two-wire transmitter circuit to measure input loop current. The Catalog Number 1492-ISOSW-1 isolation switch plugs are available in packages of four.

Accessories, Continued

Insulated Side Jumpers

The Catalog Number 1492-SJM5-10 is a 10-pole “comb-style” insulated side jumper. A side cutter can be used to cut the 10-pole jumper into smaller pole assemblies. The jumper fits the field-side terminal spacings on all of the Bulletin 1492 IFMs and AIFMs. Use of this jumper is a convenient means of connecting unused inputs together on the feed-through. The Catalog Number 1492-SJM5-10 insulated side jumpers are available in packages of 10.

Web Site Information

Wiring diagrams are provided on-line if you require additional information to wire your field device to the terminals of the IFM, XIM or AIFM wiring system modules.

Visit the following web site for I/O wiring diagrams of the Interface Modules and cables:

1. <http://www.ab.com/raise>
2. Type in the catalog number of the IFM/XIM or AIFM you are interested in. Click on “Submit.”
3. Click on the Modify key (lower left).
4. Click on the areas that indicate NO SELECTION and enter your information (e.g, I/O Platform, I/O Module, etc.).
5. To obtain the wiring diagram, be sure to select the Pre-Wired Cable Connector selection.
6. Configure the 1492 cable for your application by filling in the NO SELECTION areas.
7. Click on the Accept key for the 1492 cable.
8. Click on the Accept key for the 1492 wiring system module (E.g, 1492-IFM20F).
9. The configuration results page is displayed. In the selected components table column “Supplementary Documents,” click on the “Wiring Diagram for the I/O Module to IFM.”

Quick Reference

Digital IFM Specifications

| Digital IFM Catalog Number | Voltage Range | Max. Current (Per Circuit) | Max. Current (Per Module) | Dimensions (W x H x D) (in.) [Ⓢ] | Indicator Circuit Current (Nominal) | Label Card Replacement Part Catalog Number [Ⓢ] |
|---------------------------------------|------------------|----------------------------|---------------------------|---|-------------------------------------|--|
| 1492-IFM20F, -RIFM20F | 0...264V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 [Ⓢ] | — | 46006-190-01, 46006-233-01 |
| 1492-IFM20FN, -RIFM20FN | 0...132V AC/DC | 2 A | 12 A | 2.36 x 3.27 x 2.78 [Ⓢ] | — | 46006-197-01, -237-01, -220-01 |
| 1492-IFM20F-2, -RIFM20F-2 | 0...264V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 [Ⓢ] | — | 46006-192-01, -235-01, -221-01 |
| 1492-IFM20F-3 | 0...132V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 | — | 46006-210-01 |
| 1492-IFM20D24 | 10...30V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 | 2 mA | 46006-190-01, 46006-233-01 |
| 1492-IFM20D24N | 10...30V AC/DC | 2 A | 12 A | 2.36 x 3.27 x 2.78 | 2 mA | 46006-197-01, -237-01, -220-01 |
| 1492-IFM20D24-2 | 10...30V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 | 2 mA | 46006-192-01, -235-01, -221-01 |
| 1492-IFM20D24A-2 | 10...30V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 | 2 mA | 46006-211-01 |
| 1492-IFM20DS24-4 | 10...60V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 | 1.6 mA | 46006-209-01 |
| 1492-IFM20D24-3 | 10...30V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 | 2 mA | 46006-193-01, 46006-236-01 |
| 1492-IFM20D120 | 85...132V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 | 2.5 mA | 46006-190-01, 46006-233-01 |
| 1492-IFM20D120N | 85...132V AC | 2 A | 12 A | 2.36 x 3.27 x 2.78 | 2.5 mA | 46006-197-01, -237-01, -220-01 |
| 1492-IFM20D120-2 | 85...132V AC | 2 A | 12 A | 4.33 x 3.27 x 2.78 | 2.5 mA | 46006-192-01, -235-01 |
| 1492-IFM20D120A-2 | 85...132V AC | 2 A | 12 A | 4.33 x 3.27 x 2.78 | 2.5 mA | 46006-211-01 |
| 1492-IFM20DS120-4 | 85...132V AC | 2 A | 12 A | 4.33 x 3.27 x 2.78 | 2.6 mA | 46006-209-01 |
| 1492-IFM20D240-2 | 204...264V AC | 2 A | 12 A | 4.33 x 3.27 x 2.78 | 2.5 mA | 46006-192-01, -235-01 |
| 1492-IFM20D240A-2 | 204...264V AC | 2 A | 12 A | 4.33 x 3.27 x 2.78 | 2.5 mA | 46006-211-01 |
| 1492-IFM20F-F-2, -RIFM20F-F-2 | 0...132V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 [Ⓢ] | — | 46006-192-01, -235-01, -221-01 |
| 1492-IFM20F-F24-2, -RIFM20F-F24-2 | 10...30V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 [Ⓢ] | 2 mA | 46006-192-01, -235-01, -221-01 |
| 1492-IFM20F-F24A-2, -RIFM20F-F24A-2 | 10...30V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 [Ⓢ] | 2.4 mA | 46006-212-01, -189-01 |
| 1492-IFM20F-F120-2, -RIFM20F-F120-2 | 85...132V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 [Ⓢ] | 2.5 mA | 46006-192-01, -235-01, -221-01 |
| 1492-IFM20F-F120A-2, -RIFM20F-F120A-2 | 85...132V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 [Ⓢ] | 1.2 mA | 46006-212-01, -189-01 |
| 1492-IFM20F-F240-2 | 204...264V AC/DC | 2 A | 12 A | 4.72 x 3.27 x 2.78 | 1.2 mA | 46006-192-01, -235-01 |
| 1492-IFM20F-FS-2 | 0...132V AC/DC | 2 A | 12 A | 2.36 x 3.27 x 2.78 | — | 46006-204-01 |
| 1492-IFM20F-FS24-2 | 10...30V AC/DC | 2 A | 12 A | 2.36 x 3.27 x 2.78 | 2 mA | 46006-204-01 |
| 1492-IFM20F-FS24A-4 | 10...30V AC/DC | 2 A | 12 A | 3.15 x 3.27 x 2.78 | 2.4 mA | 46006-215-01 |
| 1492-IFM20F-FS120-2 | 85...132V AC/DC | 2 A | 12 A | 2.36 x 3.27 x 2.78 | 2.5 mA | 46006-204-01 |
| 1492-IFM20F-FS120-4 | 85...132V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 | 1.2 mA | 46006-214-01 |
| 1492-IFM20F-FS120A-4 | 85...132V AC/DC | 2 A | 12 A | 3.15 x 3.27 x 2.78 | 2.2 mA | 46006-215-01 |
| 1492-IFM20F-FS240-4 | 204...264V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 | 1.2 mA | 46006-214-01 |
| 1492-IFM40F, -RIFM40F | 0...132V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 [Ⓢ] | — | 46006-191-01, -234-01, 252-01 |
| 1492-IFM40F-2 | 0...132V AC/DC | 2 A | 12 A | 8.27 x 3.27 x 2.78 | — | 46006-224-01, -225-01, -239-01, -240-01, -194-01, -195-01, -253-01 |
| 1492-RIFM40F-2 | 0...132V AC/DC | 2A | 12A | 8.27 x 3.27 x 2.78 | — | 46006-224-01, -225-01, -239-01, -240-01, -194-01, -195-01, -253-01 |
| 1492-IFM40F-3 | 0...60V AC/DC | 2 A | 12 A | 8.27 x 3.27 x 2.78 | — | 46006-193-01, 46006-236-01 |
| 1492-IFM40D24, -RIFM40D24 | 10...30V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.78 [Ⓢ] | 2 mA | 46006-191-01, -234-01, -252-01 |
| 1492-IFM40D24-2 | 10...30V AC/DC | 2 A | 12 A | 8.27 x 3.27 x 2.78 | 2 mA | 46006-194-01, -195-01, -253-01 |
| 1492-IFM40D24A-2 | 10...30V AC/DC | 2 A | 12 A | 8.27 x 3.27 x 2.78 | 2 mA | 46006-224-01, -225-01, -239-01, -240-01, -194-01, -195-01, -253-01 |
| 1492-RIFM40D24A-2 | 10...30V AC/DC | 2A | 12A | 8.27 x 3.27 x 2.78 | 2 mA | 46006-224-01, -225-01, -239-01, -240-01, -194-01, -195-01, -253-01 |
| 1492-IFM40DS24-4 | 10...60V AC/DC | 2 A | 12 A | 6.69 x 3.27 x 2.78 | 4.1 mA | 46006-208-01 |
| 1492-IFM40DS24A-4 | 10...30V AC/DC | 2 A | 12 A | 6.69 x 3.27 x 2.78 | 4.1 mA | 46006-208-01 |
| 1492-IFM40D24-3 | 10...30V AC/DC | 2 A | 12 A | 8.27 x 3.27 x 2.78 | 2 mA | 46006-193-01, 46006-236-01 |

Digital IFM Specifications (Continued)

| Digital IFM Catalog Number | Voltage Range | Max. Current (Per Circuit) | Max. Current (Per Module) | Dimensions (W x H x D) (in.) [Ⓐ] | Indicator Circuit Current (Nominal) | Label Card Replacement Part Catalog Number [Ⓑ] |
|---------------------------------------|------------------|----------------------------|---------------------------|---|-------------------------------------|---|
| 1492-IFM40D120-2 | 85...132V AC | 2 A | 12 A | 8.27 x 3.27 x 2.78 | 2.5 mA | 46006-194-01, -195-01, -253-01 |
| 1492-IFM40D120A-2 | 85...132V AC | 2 A | 12 A | 8.27 x 3.27 x 2.78 | 2.5 mA | 46006-194-01, -195-01, -253-01 |
| 1492-IFM40DS120-4 | 85...132V AC | 2 A | 12 A | 6.69 x 3.27 x 2.78 | 2.6 mA | 46006-208-01 |
| 1492-IFM40DS120A-4 | 85...132V AC | 2 A | 12 A | 6.69 x 3.27 x 2.78 | 2.6 mA | 46006-208-01 |
| 1492-IFM40DS240A-4 | 204...264V AC | 2 A | 12 A | 6.69 x 3.27 x 2.78 | 2.6 mA | 46006-208-01 |
| 1492-IFM40F-F-2 | 0...132V AC/DC | 2 A | 12 A | 8.27 x 3.27 x 2.78 | — | 46006-194-01, -195-01, -253-01 |
| 1492-IFM40F-F24-2 | 10...30V AC/DC | 2 A | 12 A | 8.27 x 3.27 x 2.78 | 2 mA | 46006-224-01, -225-01, -239-01, -240-01, -194-01, -195-01 |
| 1492-RIFM40F-F24-2 | 10...30V AC/DC | 2 A | 12A | 8.27 x 3.27 x 2.78 | 2 mA | 46006-224-01, -225-01, -239-01, -240-01, -194-01, -195-01 |
| 1492-IFM40F-F24D-2 | 10...30V DC | 2 A | 8 A | 4.72 x 3.27 x 2.78 | <0.05 mA | 46006-201-01 |
| 1492-IFM40F-F24AD-4 | 10...30V DC | 2 A | 8 A | 7.09 x 3.27 x 2.78 | <0.05 mA | 46006-206-01 |
| 1492-IFM40F-F120-2 | 85...132V AC/DC | 2 A | 12 A | 8.27 x 3.27 x 2.78 | 2.5 mA | 46006-194-01, -195-01, -253-01 |
| 1492-IFM40F-FS-2 | 0...132V AC/DC | 2 A | 12 A | 4.72 x 3.27 x 2.78 | — | 46006-201-01 |
| 1492-IFM40F-FS24-2 | 10...30V AC/DC | 2 A | 12 A | 4.72 x 3.27 x 2.78 | 2 mA | 46006-201-01 |
| 1492-IFM40F-FS24-4 | 10...30V AC/DC | 2 A | 12 A | 7.09 x 3.27 x 2.78 | 2.4 mA | 46006-207-01 |
| 1492-IFM40F-FS120-2, -RIFM40F-FS120-2 | 85...132V AC/DC | 2 A | 12 A | 4.72 x 3.27 x 2.78 | 2.5 mA [Ⓒ] | 46006-201-01 |
| 1492-IFM40F-FS120-4 | 85...132V AC/DC | 2 A | 12 A | 7.09 x 3.27 x 2.78 | 1.4 mA | 46006-206-01 |
| 1492-RIFM40F-FS120-4 | 85...30V AC/DC | 2A | 12A | 7.09 x 3.27 x 2.78 | 1.4 mA | 46006-226-01 |
| 1492-IFM40F-FS240-4 | 204...264V AC/DC | 2 A | 12 A | 7.09 x 3.27 x 2.78 | 2.4 mA | 46006-207-01 |
| 1492-IFM40F-FS24A-4 | 10...30V AC/DC | 2 A | 12 A | 7.09 x 3.27 x 2.78 | 3.1 mA | 46006-226-01 |
| 1492-IFM40F-FS120A-4 | 85...132V AC/DC | 2 A | 12 A | 7.09 x 3.27 x 2.78 | 1.4 mA | 46006-226-01 |
| 1492-RIFM40F-FS120A-4 | 85...30V AC/DC | 2A | 12A | 7.09 x 3.27 x 2.78 | 1.4 mA | 46006-226-01 |
| 1492-IFM40F-FS-4 | 0...264V AC/DC | 2 A | 12 A | 7.09 x 3.27 x 2.78 | — | 46006-207-01 |
| 1492-IFM40F-FSA-4 | 0...132V AC/DC | 2 A | 12 A | 7.09 x 3.27 x 2.78 | — | 46006-226-01 |
| 1492-IFM40F-FS240A-4 | 159...265V AC/DC | 2 A | 12 A | 7.09 x 3.27 x 2.78 | 1.4 mA | 46006-226-01 |

[Ⓐ] Dimensions are in inches. To convert to millimeters, multiply inches by 25.4.

[Ⓑ] Ships with each module. For spare part, precede part number with the letter "W."

[Ⓒ] Add 0.39 in. to the width dimension for Bul. 1492Rxxx module.

Analog IFM Specifications

| Analog IFM Catalog Number | Voltage Range | Max. Current (Per Circuit) | Max. Current (Per Module) | Dimensions (W x H x D) (in.) [Ⓐ] | Indicator Circuit Current (Nominal) | Label Card Replacement Part Catalog Number [Ⓑ] |
|---------------------------|----------------|----------------------------|---------------------------|---|-------------------------------------|---|
| 1492-AIFM4-3, -RAIFM4-3 | 0...10V DC | 2 A | 12 A | 2.36 x 3.27 x 2.74 | — | 46006-205-01 |
| 1492-AIFM4C-F-5 | 10...30V DC | 2 A | 12 A | 3.15 x 3.27 x 2.74 | 2 mA | 46006-203-01 |
| 1492-AIFM4I-F-5 | 10...30V DC | 2 A | 12 A | 3.15 x 3.27 x 2.74 | 2 mA | 46006-203-01 |
| 1492-AIFM6S-3, -RAIFM6S-3 | 0...132V AC/DC | 2 A | 12 A | 3.15 x 3.27 x 2.74 | — | 46006-202-01 |
| 1492-AIFM6TC-3 | 0...132V AC/DC | 2 A | 12 A | 3.15 x 3.27 x 2.74 | — | 46006-202-01 |
| 1492-AIFMCE4 | 5...30V DC | 2 A | 8 A | 5.12 x 3.27 x 2.74 | — | 46006-232-01 |
| 1492-AIFMCE4-F | 5...30V DC | 2 A | 8 A | 5.12 x 3.27 x 2.74 | 1 mA @ 5V DC 6 mA @ 24V DC | 46006-232-01 |
| 1492-AIFM8-3, -RAIFM8-3 | 0...132V AC/DC | 2 A | 12 A | 4.33 x 3.27 x 2.74 | — | 46006-200-01, 46006-238-01 |
| 1492-AIFM8-F-5 | 10...30V DC | 2 A | 12 A | 4.72 x 3.27 x 2.74 | 2 mA | 46006-196-01, -254-01 |
| 1492-AIFM16-F-3 | 10...30V DC | 2 A | 12 A | 4.72 x 3.27 x 2.74 | 2 mA | 46006-213-01 |
| 1492-AIFM16-F-5 | 10...30V DC | 2 A | 12 A | 8.27 x 3.27 x 2.74 | 2 mA | 46006-198-01 |
| 1492-AIFMQS | 10...30V DC | 3 A | 12 A | 4.72 x 3.27 x 2.74 | — | 46006-199-01 |
| 1492-AIFMPI | 0...30V DC | 2 A | 12 A | 4.72 x 3.27 x 2.74 | 2 mA | 46006-243-01 |

- ① Dimensions are in inches. To convert to millimeters, multiply inches by 25.4.
- ② Ships with each module. For spare part, precede part number with the letter "W."

Quick Reference, Continued

Relay Master/Expandable Interface Module Specifications ①

| Relay Master/Expandable XIM Catalog Number | Relay Coil Voltage Range | Max. Current (Per Circuit/Per Relay Pair) | Max. Current (Per Module) | Dimensions (W x H x D) (in.) ① | Indicator Circuit Current (Nominal) | Label Card Replacement Part Catalog Number ② |
|--|--------------------------|---|---------------------------|--------------------------------|-------------------------------------|--|
| 1492-XIM4024-16R, -RXIM4024-16R | 20...26V DC | 10/12 A | 96 A | 9.06 x 3.27 x 2.78 | 2 mA | 46006-222-01 |
| 1492-XIM4024-8R | 20...26V DC | 10/12 A | 48 A | 6.30 x 3.27 x 2.78 | 2 mA | 46006-216-01 |
| 1492-XIM2024-8R | 20...26V DC | 10/12 A | 48 A | 6.30 x 3.27 x 2.78 | 2 mA | 46006-216-01 |
| 1492-XIM20120-8R | 96...132V AC | 10/12 A | 48 A | 6.30 x 3.27 x 2.78 | 2 mA | 46006-216-01 |
| 1492-XIM24-8R, -RXIM24-8R | 20...26V DC | 10/12 A | 48 A | 6.30 x 3.27 x 2.78 | 2 mA | 46006-217-01 |
| 1492-XIM120-8R | 96...132V AC | 10/12 A | 48 A | 6.30 x 3.27 x 2.78 | 2 mA | 46006-217-01 |
| 1492-XIM2024-16R | 20...26V DC | 10/12 A | 96 A | 10.65 x 3.27 x 2.78 | 2 mA | 46006-223-01 |
| 1492-XIM2024-16RF | 20...26V DC | 10/12 A | 96 A | 10.65 x 3.27 x 2.78 | 2 mA | 46006-223-01 |
| 1492-XIM20120-16R | 96...132V AC | 10/12 A | 96 A | 10.65 x 3.27 x 2.78 | 2 mA | 46006-223-01 |
| 1492-XIM20120-16RF | 96...132V AC | 10/12 A | 96 A | 10.65 x 3.27 x 2.78 | 2 mA | 46006-223-01 |
| 1492-XIM4024-16RF | 20...26V DC | 10/12 A | 96 A | 11.05 x 3.27 x 2.78 | 2 mA | 46006-223-01 |
| 1492-XIMF-2 | 0...132V AC/DC | 2/NA A | 4 A | 3.15 x 3.27 x 2.19 | — | 46006-218-01 |
| 1492-XIMF-F24-2 | 10...30V DC | 2/NA A | 4 A | 3.15 x 3.27 x 2.28 | 2 mA | 46006-218-01 |
| 1492-XIMF-F120-2 | 85...132V AC | 2/NA A | 4 A | 3.15 x 3.27 x 2.28 | 2 mA | 46006-218-01 |
| 1492-XIM24-16RF | 20...26V DC | 10/12 A | 96 A | 11.05 x 3.27 x 2.78 | 2 mA | 46006-219-01 |

① Dimensions are in inches. To convert to millimeters, multiply inches by 25.4.

② Ships with each module. For spare part, precede part number with the letter "W."

1764-24AWA and -24BWA Base Unit Output Current Ratings when using 1492-IFM20x Modules

| IFM Cat. Number | Voltage Range | 1764-24AWA & 24BWA Max. Current/Output using IFM | Max. Current per IFM Module | IFM Module Indicator Circuit Current | Operating Ambient Temperature |
|-----------------|---------------|--|-----------------------------|--------------------------------------|-------------------------------|
| 1492-IFM20F | 0...264V AC | (Out 0-Out 3) 2 Amps | 12 Amps | NA | 0°C to 60°C |
| | 10...125V DC | (Out 4-Out 11) 1 Amps | | | |
| 1492-IFM20FN | 0...132V AC | (Out 0-Out 3) 2 Amps | 12 Amps | NA | 0°C to 60°C |
| | 10...125V DC | (Out 4-Out 11) 1 Amps | | | |
| 1492-IFM20F-2 | 0...264V AC | (Out 0-Out 3) 2 Amps | 12 Amps | NA | 0°C to 60°C |
| | 10...125V DC | (Out 4-Out 11) 1 Amps | | | |

Note: For inputs use standard 2 A/circuit ratings

1764-28BxB Base Unit Output Current Ratings when using 1492-IFM20x Modules

| IFM Cat. Number | Voltage Range | 1764-28BxB Max. Current/Output using IFM | Max. Current per IFM Module | IFM Module Indicator Circuit Current | Operating Ambient Temperature |
|-----------------|---------------|--|-----------------------------|--------------------------------------|-------------------------------|
| 1492-IFM20F | 0...264V AC | (Out 0-Out 1) 2 AMP | 12 Amps | NA | 0°C to 60°C |
| | 10...125V DC | (Out 8-Out 11) 1 AMP | | | |
| | 24V DC | (Out 2-Out 7) 0.5 AMP | | | |
| 1492-IFM20FN | 0...132V AC | (Out 0-Out 1) 2 AMP | 12 Amps | NA | 0°C to 60°C |
| | 10...125V DC | (Out 8-Out 11) 1 AMP | | | |
| | 24V DC | (Out 2-Out 7) 0.5 AMP | | | |
| 1492-IFM20F-2 | 0...264V AC | (Out 0-Out 1) 2 AMP | 12 Amps | NA | 0°C to 60°C |
| | 10...125V DC | (Out 8-Out 11) 1 AMP | | | |
| | 24V DC | (Out 2-Out 7) 0.5 AMP | | | |

Note: For inputs use standard 2 A/circuit ratings

1762-L40AWA and -L40BWA Base Unit Output Current Ratings when using 1492-IFM40x Module

| IFM Cat. Number | Voltage Range | 1762-L40AWA & -L40BWA max. Current/Output using IFM | Max. Current per IFM Module | IFM Module Indicator Circuit Current | Operating Ambient Temperature |
|-----------------|---------------|---|-----------------------------|--------------------------------------|-------------------------------|
| 1492-IFM40F | 0...132V AC | (Out 0-Out 3) 2 Amps | 12 Amps | NA | 0°C to 60°C |
| | 10...125V DC | (Out 4-Out 15) 1 Amps | | | |
| 1492-IFM40F-2 | 0...264V AC | (Out 0-Out 3) 2 Amps | 12 Amps | NA | 0°C to 60°C |
| | 10...125V DC | (Out 4-Out 15) 1 Amps | | | |

Note: For inputs use standard 2 A/circuit ratings.

1762-L40BxB Output Current Ratings when using 1492-IFM40x Modules

| IFM Cat. Number | Voltage Range | 1762-L40BxB Max. Current/Output using IFM | Max. Current per IFM Module | IFM Module Indicator Circuit Current | Operating Ambient Temperature |
|-----------------|---------------|---|-----------------------------|--------------------------------------|-------------------------------|
| 1492-IFM40F | 0...132V AC | (Out 0,1,10,11) 2 AMP | 12 Amps | NA | 0°C to 60°C |
| | 10...125VDC | (Out 12-Out 15) 1 AMP | | | |
| | 24V DC | (Out 2-Out 9) 0.5 AMP | | | |
| 1492-IFM40F-2 | 0...264V AC | (Out 0,1,10,11) 2 AMP | 12 Amps | NA | 0°C to 60°C |
| | 10...125V DC | (Out 12-Out 15) 1 AMP | | | |
| | 24V DC | (Out 2-Out 9) 0.5 AMP | | | |

Note: For inputs use standard 2 A/circuit ratings.

General Wiring System Specifications

| Parameter | Specifications |
|---|--|
| Agency Certifications: Modules and Cables | cULus: Hazardous Locations; Class I Div 2 (all modules, except those with relays); Groups A, B, C, and D. Temperature Code T3C @ 60°C. UL File E10314, Guide No. NRAQ |
| Agency Certification Modules | cULus: Ordinary Locations; Module with relays, UL File E113724, Guide No. NRAQ |
| Agency Certification Modules | Factory Mutual (FM): Hazardous Locations; Class I Div 2 (all except modules with relays); Groups A, B, C, and D. Temperature Rating: T3C @ 60°C. FM file J.I.3000590 |
| CE Certifications | Compliant for all applicable directives |
| Maximum Peak Transient Voltage | 600V ❶ |
| Terminal Block Wire Range (Rated Cross Section) | Fixed Screw Style: #12...#22 AWG (4.0...0.2 mm ²) Removable Screw Style: #12 to #22 AWG 2.5...0.5 mm ² Removable Push-in Style: #12 to #26 AWG (2.5...0.2 mm ²) |
| Wire Strip Length | Fixed Screw Style: .32 in. (8.0 mm) Removable Screw Style: .28 in. (7.0 mm) Removable Push-in Style: .39 in. (10.0 mm) |
| Recommended Terminal Block Screw Torque | Fixed Screw Style: 3.5...4.5 lb-in. (0.38...0.50 Nm) Removable Screw Style: 3.5...4.5 lb-in. (0.38...0.50 Nm) Removable Push-in Style: NA (See Figure 1) |
| Operating Temperature Range | 0...+60°C |
| Operating Humidity | 5% to 95% non-condensing |
| Storage Temperature Cables | -20...+80°C |
| Storage Temperature Modules | -40...+85°C |
| Pollution Degree | 2 ❷ |

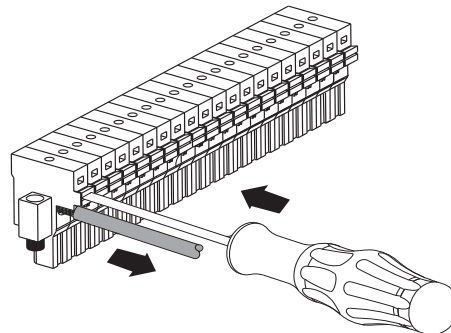
- ❶ For transients > 600V use a UL Recognized suppression device rated at 2.5 kV withstand.
- ❷ Pollution Degree 2 is an environment where normally only non-conduction pollution occurs, except for occasional temporary conductivity caused by condensation shall be expected.

Fixed Screw Style Terminal Block

| Max. AWG | #22 | #20 | #18 | #16 | #14 | #12 |
|----------------------------------|-----|-----|-----|-----|-----|-----|
| Max. No. of Wires per Terminal ❶ | 3 | 3 | 3 | 2 | 1 | 1 |

- ❶ Maximum number of the same gauge of wire stranded copper conductors allowed per wire funnel

Figure 1 — Push-in RTB Plug Specifications



Single wire per pole (except by using a ferrule)

For Insertion

- Solid wire: actuator not required
- Stranded wire: actuator required

For Removal

- Solid or stranded wire: actuator required

Clamp Range:

| | |
|----------------------------|-----------------------------|
| AWG conductor: 26...12 AWG | |
| Solid Wire | 0.2 ... 2.5 mm ² |
| Stranded Wire | 0.2 ... 2.5 mm ² |
| Ferrule | 0.2 ... 2.5 mm ² |
| Ferrule w/ plastic collar | 0.2 ... 1.5 mm ² |

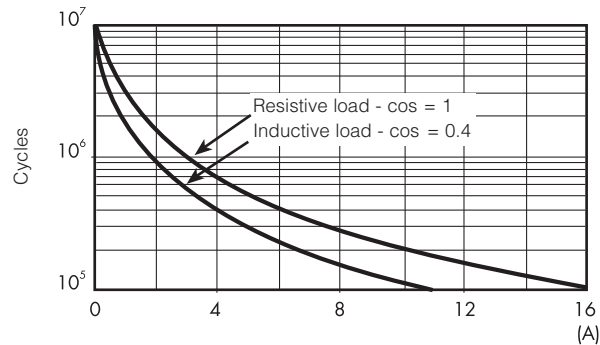
Maximum Switching Capacity

Relay Contact Rating

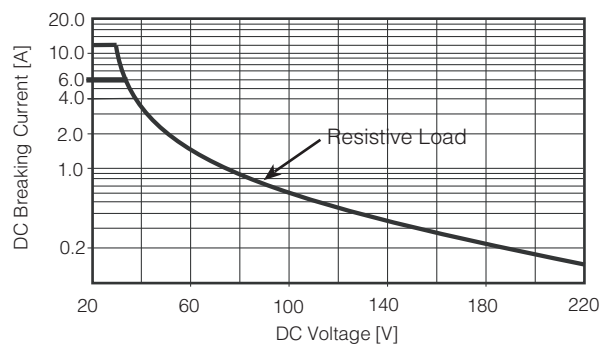
| Electrical Ratings: Cat. No. 700-HK36 ② | | | |
|--|------------------------------------|---|---|
| Rated Thermal Current (I_{th}) | | 1-pole, 1 CO, SPDT - 16 A ① | |
| Rated Thermal Current (UI) | | 250V IEC, 300V UL/CSA ① | |
| Electrical Ratings of Contacts | Inductive VAC | 120VAC | AC-15, 6.2 A B300 Pilot duty, 3 A 1/3 Hp (0.24 kW) 1-phase |
| | | 240VAC | AC-15, 3.1 A B300 Pilot duty, 1.5A 3/4 Hp (0.55 kW) 1-phase |
| | | 230VAC | 0.55 kW 1-phase |
| | Inductive VDC | 24VDC | DC-13, 5.0 A |
| | | 125VDC | DC-13, 0.2 A R300 Pilot Duty, 0.22 A |
| | | 250VDC | DC-13, 0.1 A R300 Pilot duty, 0.11 A |
| | Resistive | 23VAC | AC-1, 16 A ① |
| | | 277VAC | 16A General use ① |
| | Make, Break, and Continuous | 30VDC | DC-1, 12 A 10 A, Resistive |
| | | Minimum Permissible Contact Rating | |
| | | 300 mW (5V/60 mA or 60V/5 mA) for silver contacts | |

- ① Maximum module current:
 - 10 Amp per relay output
 - 12 Amps per 2 adjacent relay outputs
- ② Replacement relays:
 - 24V DC control (coil) voltage (Cat. No. 700-HK36Z24)
 - 120V AC control (coil) voltage (Cat. No. 700-HK36A1)

Bul. 700-HK36 SPDT
Electrical Life (AC Loads) vs. Contact Life



Bul. 700-HK36 Maximum DC1 Breaking Capacity
Electrical Life (DC Loads) vs. Contact Life



- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of $\geq 100 \times 10^3$ can be expected.
- In case of inductive loads (DC13), the connection of a diode in parallel with the load will permit a similar electrical life as for a DC1 load.
Note: The release time for the load will be increased.

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