Analog Wiring Systems

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Digital Wiring Systems with Field-Removable Terminal Blocks

Digital Wiring Systems with Fixed Terminal Blocks

Bulletin 1492 Programmable Controller Wiring Systems

- Increases machine building productivity
- Simplifies design and engineering time
- Reduces wiring time and wiring errors
- Benefits from quality-looking panels

Standards Compliance and Certifications

- Agency Certifications for Modules and Cables
  cULus: Hazardous Locations: Class I Div 2 (all except modules 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. E11372 Guide No. NRAQ
- Agency Certification Modules
  Factory Mutual (FM): Hazardous Locations; Class I Div 2 (all except modules with relays): Gouprs A, B, C, and D. Temperature Rating: T3C @ 60 °C. FM file J.I.3000590
- CE Certifications
  Compliant for all applicable directives

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Standards Compliance and Certifications, Continued

- UL 508
- UL 1604
- CSA C22.2 No. 14
- CSA C22.2 No. 213
- EN/IEC 61131-2

Bulletin	1746	1756	1762	1764	1769	1794	1771	Bulletin 700H and 700S
Description	SLC 500	ControlLogix	MircoLogix 1200	MicroLogix 1500	CompactLogix	Flex	PLC-5	PowerFlex Drive
Product Selection	Web *	**12-142**	**12-153**	**12-153**	**12-148**	**12-154**	Web *	**12-157**

* Information for this product is available on the Industrial Controls Catalog website: www.ab.com/catalogs

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Benefits

Reduced Wiring Time

Wiring is completed in a fraction of the time when wiring systems are used, as compared with the traditional method of wiring each point to the 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 amperage 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 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 IFMs, 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-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 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 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, I/O-specific adhesive label strips for quick marking of IFM 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 not only the installer, but also the end customer 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%. All IFMs have terminals for connecting the I/O field wiring. In addition, extra terminal, sensor, fusible, and relay IFMs contain common terminals that are used as power busses for sensor 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., Cat. No. 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 IFMs 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 Interface Modules (XIMs)
Relay

1492 – XIM (a) 20 (b) 24 (c) – 16RF (d)

a

Modules	
Code	Description
XIM	Relay Interface Module with Fixed Terminal Block
RXIM	Relay Interface Module with Removable Terminal Block
XIMTR	Mechanical High Density Relay Interface Module with Fixed Terminal Block
RXIMTR	Mechanical High Density Relay Interface Module with Removable Terminal Block
XIMTS	Solid-State High Density Relay Interface Module with Fixed Terminal Block
RXIMTS	Solid-State High Density Relay Interface Module with Removable Terminal Block

b

No. Cable Connector Pins	
Code	Description
20	20 pins
40	40 pins
Blank	Expander module

c

Module Type (all types do not configure a catalog number)	
Code	Description
F	24V relay coil
F-F24	5 x 20 mm fuse holders with 24V blown fuse indication
F-F120	5 x 20 mm fuse holders with 120V blown fuse indication D
24	24V relay coil
120	120V relay coil

d

No. Cable Connector Pins	
Code	Description
2	2 terminals per point
8R	8 relays
16R	16 relays
16RF	16 fused relays
32R	32 relays

d

Number of Field Side Wiring Terminals	
Code	Description
Blank	One per I/O connection (Standard Terminals)
2	Two per I/O connection (Extra Terminals)
3	Three per I/O connection (Sensor Terminals)
4	Four per I/O connection (Special Terminal)

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. There are 16 relays with fusing.

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

Relay Master

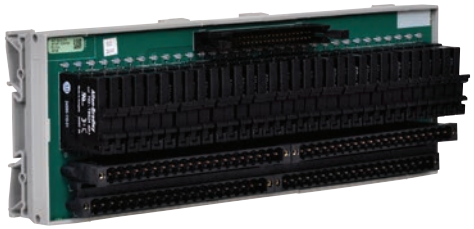
Relay Master with Fusing

Relay Masters
For 20-point: Cat. No. 1492-XIM2024-8R, 1492-XIM2024-16R, 1492-XIM20120-8R, 1492-XIM20120-16R

For 40-point: Cat. No. 1492-XIM4024-16R

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 output module status, and transient suppression on each coil. In addition, some relay masters have 5x20 fuse holders so customers can fuse the output contacts.

High Density Relay Master



Available in 16 pt or 32 pt modules, the high density relay modules eliminate the need for extender relay modules. Available in easily replaceable plug-in style electromechanical or solid-state relays.

LED indicator lights are provided for each output circuit with removable terminal blocks (RTB's) available as an option for connecting the field devices.

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Digital Relay Expander (8 Outputs)

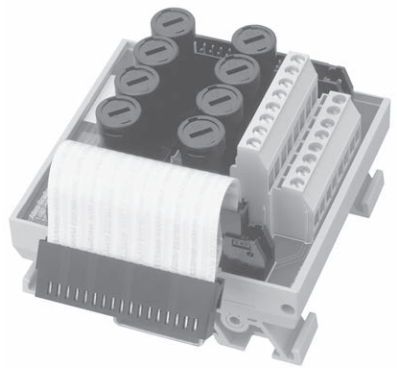
Relay Expander
Cat. No. 1492-XIM24-8R,1492-XIM24-16RF,1492-XIM120-8R

Digital Relay Expander (16 Outputs) with Fusing

Relay Masters with Fusing
For 20-point: Cat. No. 1492-XIM2024-16RF, 1492-XIM20120-16RF
For 40-point: Cat. No. 1492-XIM4024-16R

Relay expander 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 output module status, and transient suppression on each coil. In addition, a relay expander can have 5x20 fuse holders so customers can fuse the output contacts. An expander cable is provided for connection to the mating module.

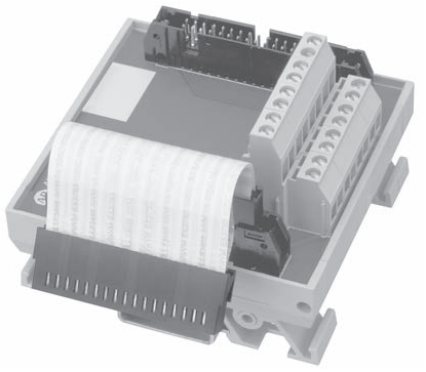
Fusible Expanders



Fused Expander Products
Cat. No. 1492-XIMF24-2, 1492-XIMF-120-2

The fusible expander modules feature eight 5 x 20 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 its mating module.

Feed-Through Expanders

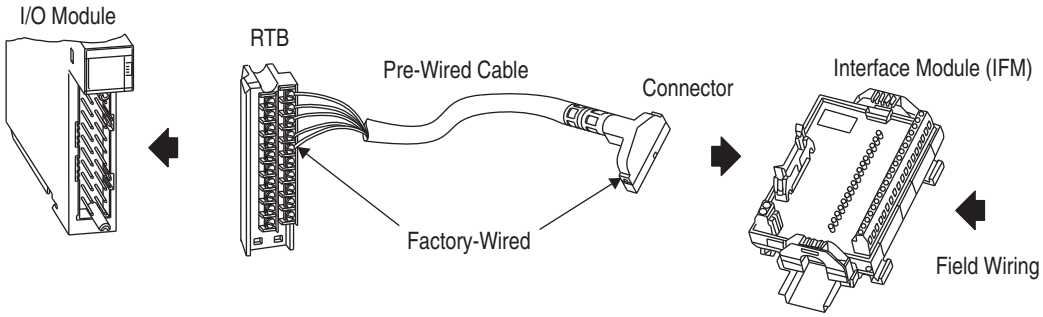


Feedthrough Expander Products
Cat. No. 1492-XIMF-2

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 its mating module.

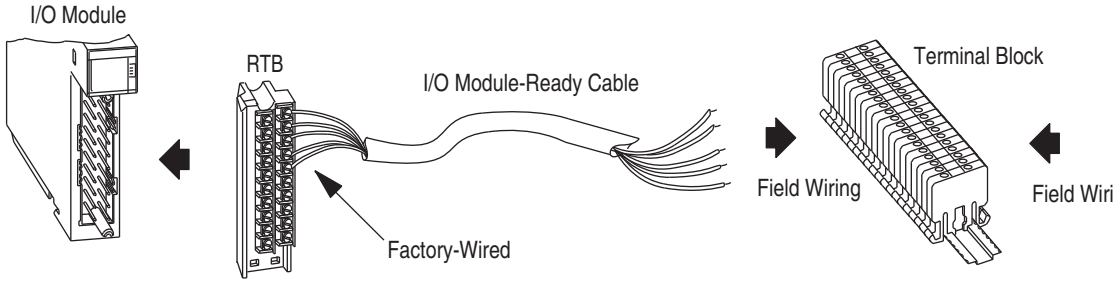
Digital Cables
Pre-Wired

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 PLC end of the cable and a cable connector on the other end to connect to the IFM. All of the pre-wired cables use a #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 length cables are also available as build to order products. Pre-wired cables are available for many of the 1746 SLC I/O, 1756 ControlLogix I/O, 1794 Flex I/O, 1769 Compact I/O, MicroLogix 1500 base I/O, MicroLogix 1200 (1762-L40xx) embedded I/O, and 1771 PLC-5 I/O.



Digital Cables
I/O-Ready

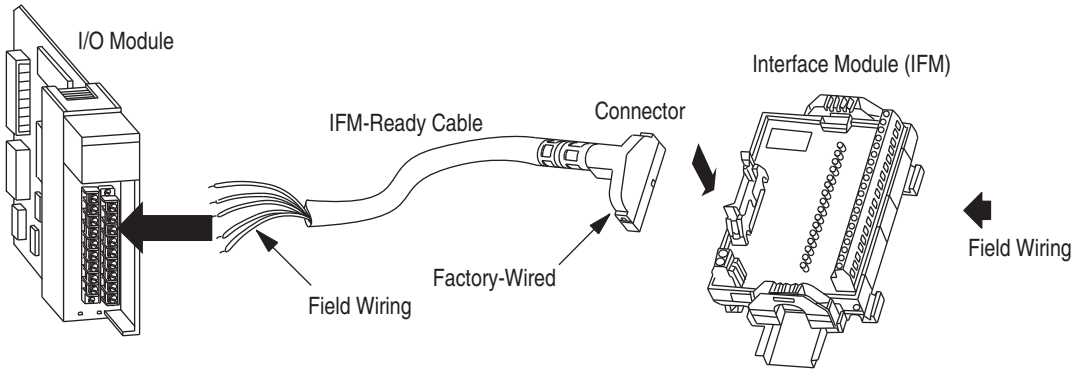
I/O-ready cables have an I/O removable terminal block or wiring arm factory-wired to one end to of the cable and free connectors on the other end for wiring into standard terminal blocks or other type of connectors. I/O-ready cables have individual color-coded conductors for quick wire-to-terminal coordination. The 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. Pre-wired cables are available for the Bulletin 1746 SLC I/O, Bulletin 1756 ControlLogix I/O, Bulletin 1769 Compact I/O, 1794 Flex I/O, MicroLogix 1500 base I/O, MicroLogix 1200 (1762-L40xx) embedded I/O, and Bulletin1771 PLC-5 I/O.



I/O-Ready Cable and Standard Terminal Blocks

Digital Cables
IFM-Ready

IFM-ready cables have a cable connector that attached to the IFM factory 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-Ready Cable and Interface Module

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Catalog Number Explanation
Digital Cables for Bulletin 1762, 1764, 1769 and 1794

Important: Use the following tables as a product confiurator for pre-wired, and I/O module-ready cables for **Bulletins 1746, 1762, 1764, 1769, and 1794 -** 40 I/O controller digital I/O cables. All combination of these fields make valid product catalog numbers. Refer to selection tables for IFM compatibility, additional cables, and ordering.

1492 – CAB 010 – A62
a b c

a

Digital Interface Cable

b

Standard or Build-to-Order Length Cables		
Code	Length	Description
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...98.42 ft) 1.0 m (3.28 ft increments)	

c

Code	Description
For use with Bulletin 1762 MicroLogix 1200 Modules	
A62, B62	Pre-wired cables for Bulletin 1762 I/O controllers
X62	I/O-ready cable for 1762-L40AWA, and -L40BWA
T62	I/O-ready cable for 1762-L40AWA, -L40BXB, and -L40BWA outputs
For use with Bulletin 1764 MicroLogix 1500 Modules	
A64, B64, C64, F64	Pre-wired cables for Bulletin 1764 I/O base units
W64	I/O-ready cable for 1762-24AWA, and -24BWA base unit inputs
T64	I/O-ready cable for 1762-24AWA, -24BWA base units outputs
U64	I/O-ready cable for 1764-28BXB base unit outputs
For use with Bulletin 1746, and 1769 Digital Modules	
A69, B69, C69, D69, E69, F69, G69, H69, J69, K69, L69, M69	Pre-wired cables for 8-, 16-, and 32-channel Bulletin 1769 digital I/O modules
RTN18	I/O-ready cable with Cat. No. 1746-RTBN18 terminal block
RTN10	I/O-ready cable with Cat. No. 1746-RTBN10 terminal block
RTN32I	I/O-ready for 32-channel 1769-IQ32
RTN320	I/O-ready for 32-channel 1769-OB32
For Use with Bulletin 1794 Flex I/O, Cat. Nos. 1794- TB37DS, and 1794-TB62DS base units	
A94	Pre-wired cables for Bulletin 1794 Flex digital I/O using the Bulletin 1794-TB37DS base
B94	Pre-wired cables for Bulletin 1794 Flex digital I/O using the Bulletin 1794-TB62DS base
G94	Digital I/O-ready cable with Cat. No. 1746-RTBN10 terminal block
H94	Digital I/O ready cable for digital I/O using the Bulletin 1794 TB62DS base

Catalog Number Explanation
Digital Cables for Bulletin 1746, 1756, 1771

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 cat. nos. Refer to selection tables for IFM/XIM compatibility, additional cables, and ordering.

1492 – CABLE 010 A

a *b* *c*

a

Digital Interface Cable

b

Standard or Build to Order Lengths		
Code	**Description**	
005	0.5 m (1.64 ft)	Standard
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
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…98.42 ft) 1.0 m (3.28 ft) increments	

c

Cable Type - Bulletins 1746, 1756, and 1771 digital I/O module cables.	
Code	**Description**
For use with Bulletin 1746 I/O Modules	
A, B, C, D, E, G, N, S	Pre-wired cables for 8-point isolated and 16-point Bulletin 1746 I/O modules∗
CR	Pre-wired cable for Cat. No. 1764-OA16 (XIM only)
H	Pre-wired cable for 32-point digital Bulletin 1746 I/O modules∗
N3	Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector
RTBB	Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25B terminal block (blue)
RTBO	Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25C terminal block (orange)
RTBR	Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25R terminal block (red)
TBCH	Digital I/O module-ready cable with 36-pin Cat. No. 1746-TBCH removable terminal block
For use with Bulletin 1756 I/O Modules	
U, V, W, X	Pre-wired cable for 8- and 16-point digital Bulletin 1756 I/O modules‡
Y, Z	Pre-wired cable for 16-point isolated and 32-point digital Bulletin 1756 I/O modules‡
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 Cat. No. 1746-N3 cable connector
For use with Bulletin 1771 I/O Modules	
F, T	Pre-wired cable for digital Bulletin 1771 I/O modules❄
FF	Pre-wired cable with fused wiring arm for 16-point digital Bulletin 1771 output modules❄
J, K, L, M, R	Pre-wired cables for 16-point isolated and 32-point digital Bulletin 1771 I/O modules❄
WA	Digital I/O module-ready cable with Cat. No. 1771-WA 8-point wiring arm
WD	Digital I/O module-ready cable with Cat. No. 1771-WD 6-point wiring arm
WH	Digital I/O module-ready cable with Cat. No. 1771-WH 16-point wiring arm
WHF	Digital I/O module-ready cable with Cat. No. 1771-WHF 16-point fused wiring arm
WN	Digital I/O module-ready cable with Cat. No. 1771-WN 32-point wiring arm

∗ To make sure the Bulletin 1746 SLC 500 digital I/O module is compatible with IFM/XIM, refer to www.ab.com/catalogs.
❄ To make sure the Bulletin 1771 PLC digital I/O module is compatible with IFM/XIM, refer towww.ab.com/catalogs.
‡ To make sure the Bulletin 1756 ControlLogix digital I/O module is compatible with IFM/XIM, refer to page 12-142.

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Relay XIMs and Cables for Bulletin 1756 ControlLogix 16-point Isolated and 32-point I/O Modules

Voltage [V]	Term. per I/O	Description	Fixed Terminal Block Cat. No.		Removable Terminal Block Cat. No.	RTB Plugs❖ Cat. No.	Bulletin 1756 ControlLogix I/O Module — Digital Cable Cat. No. Suffix✦																		
							1756-IA16I	1756-IB16D	1756-IB16I	1756-IA32	1756-IB32	1756-IV32	1756-IH16I	1756-IM16I	1756-OA16I	1756-OB8EI	1756-OB16D	1756-OB16I	1756-OB16IS	1756-OB32	1756-OV32E	1756-OH8I	1756-OW16I	1756-OX8I
Relay Master (LED Indicating)§♣																									
24	1	8 relays	1492-XIM4024-8R		—	—														Z					
	1	16 relays	**1492-XIM4024-16R**		1492-RXIM4024-16R	1492-RTB14✪														Z					
	1	16 relays with fusing	**1492-XIM4024-16RF**		—	—														Z					
High Density Relay Master (LED Indicating)§♣																									
24	1	32 relays - mechanical	1492-XIMTR4024-32R	♠	1492-RXIMTR4024-32R	1492-RTB20✪														Z	Z				
	1	32 relays - solid-state	1492-XIMTS4024-32R	♠	1492-RXIMTS4024-32R															Z					
Relay Expander (LED Indicating)§♣																									
24	1	Expander with 8 relays	**1492-XIM24-8R**		1492-RXIM24-8R	1492-RTB12✪														➢					
Fusible Expander																									
24	2	8 Ch Blown fuse LED	1492-XIMF-F24-2		—	—														➢					
	1	16 Ch Blown Fuse LED	**1492-XIM24-16RF**		—	—														⌘					
Feed-Through Expander																									
120	2	8 Ch	**1492-XIMF-2**		—	—														➢					

✦ To order a Pre-wired Cable, add the appropriate **letter** from the selection table above to the end of the **Cat. No.** below.

0.5M Cable = 1492-CABLE005_
1.0M Cable = 1492-CABLE010_
2.5M Cable = 1492-CABLE025_
5.0M Cable = 1492-CABLE050_

Custom Length Cable = 1492-CABLEXXX_. See Catalog Number Explanation on page 12-137 for available Custom Length Codes to replace XXX in Cat. No.

❖ 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**.

♠ Requires four RTB Plugs.

♣ The LED indicates the PLC output status.

➢ Can have up to 2 or 3 expander modules depending upon master used (total 32 outputs or less). An extender cable is provided.

⌘ One 1492-XIM24-16RF is to be used with one 1492-XIM4024-16R or 1492-XIM4024-16RF master (32 pt. only).

§ The voltage rating is relay control/coil voltage. For relay contact ratings, refer to page 9-42.

❄ The 1492-IFM40F-FS24-2 and 1492-IFM40F-FS24-4 module and 1492-CABLE*Y 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 ratings, 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.

‡ The 1492-IFM40F-FS24A-4 module and 1492-CABLE*Y 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.

12 Do not use this module in output sinking mode with fused IFM modules as the IFM module fuses will not properly protect the circuit.

13 IFMs LED provides PLC output ON/OFF indication. Due to the magnitude of current through the LED, the 1756-0B16D PLC module “No Load” diagnostic function will not work. If this function is required, use the Cat. No. 1492-IFM40F-2.

14 This 1492 module is for use in SIL2 safety systems only. It does not satisfy the requirements for general I/O fault tolerance. To use this module in a SIL2 application, specially developed application software for the ControlLogix processor must be used. To obtain the latest revision of this application software contact Technical Support at 1-440-646-3434.

Relay XIMs and Cables for Bulletin 1769 CompactLogix 32-point I/O Expansion Modules

Voltage [V]	Term. per I/O	Description	Fixed Terminal Block	Removable Terminal Block	RTB Plugs ❖	Bulletin 1769 CompactLogix I/O Module				
						1769-IQ32	1769-IQ32T	1769-OB32	1769-OB32T	1769-OV32T
			Cat. No.	Cat. No.	Cat. No.	Digital Cable Cat. No. Suffix✦				
Relay Master (LED Indicating)§♣										
24	1	8 Relays	1492-XIM4024-8R	—	—			K69	H	
	1	16 Relays	**1492-XIM4024-16R**	1492-RXIM4024-16R	1492-RTB14✪			K69	H	
	1	16 Relays w/ fusing	**1492-XIM4024-16RF**	—	—			K69	H	
High Density Relay Master (LED Indicating) §♣										
24	1	32 relays - mechanical	1492-XIMTR4024-32R	♠ 1492-RXIMTR4024-32R	1492-RTB20✪			K69	H	
24	1	32 relays - solid-state	1492-XIMTS4024-32R	♠ 1492-RXIMTS4024-32R				K69	H	
Relay Expander (LED Indicating)§♣										
24	1	8-ch Expander	**1492-XIM24-8R**	1492-RXIM24-8R	1492-RTB12✪			❄	❄	
Fusible Expander										
24	2	8-ch Expander	1492-XIMF-F24-2	—	—			❄	❄	
	1	16-ch Expander	**1492-XIM24-16RF**	—	—			‡	‡	
Feed-Through Expander										
120	2	8-ch	**1492-XIMF-2**	—	—			❄	❄	

✦ To order a Pre-wired Cable, add the **Suffix No.** from the table above to the end of the **Cat. No.** below.

0.5M Cable = 1492-CAB005_
1.0M Cable = 1492-CAB010_
2.5M Cable = 1492-CAB025_
5.0M Cable = 1492-CAB050_

Custom Length Cable = 1492-CABXXX_. See Catalog Number Explanation on page 12-136 for available Custom Length Codes to replace XXX in Cat. No.

❖ 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**.

♠ Requires four RTB plugs

❄ Can have up to 2 or 3 expander modules depending upon master used (total 32 outputs or less). An extender cable is provided.

‡ The 1492-XIM24-16RF is to be used with one 1492-XIM4024-16R or 1492-XIM4024-16RF master (32 pts. max.).

♣ The LED indicates the PLC output status.

§ The voltage rating is relay control/coil voltage. For relay contact ratings, refer to page 9-42.

Analog IFM Specifications

Analog IFM Cat. No.	Voltage Range	Max. Current (Per Circuit) [A]	Max. Current (Per Module) [A]	Dimensions (W x H x D) [in.]	Indicator Circuit Current (Nominal) [mA]	Label Card Cat. No.❄
1492-AIFM4-3, -RAIFM4-3	0…10V DC	2	12	2.36 x 3.27 x 2.74‡	—	46006-205-01
1492-AIFM4C-F-5	10…30V DC	2	12	3.15 x 3.27 x 2.74	2	46006-203-01
1492-AIFM4I-F-5	10…30V DC	2	12	3.15 x 3.27 x 2.74	2	46006-203-01
1492-AIFM6S-3, -RAIFM6S-3	0…132V AC/DC	2	12	3.15 x 3.27 x 2.74‡	—	46006-202-01
1492-AIFM6TC-3	0…132V AC/DC	2	12	3.15 x 3.27 x 2.74	—	46006-202-01
1492-AIFMCE4	5…32V AC/DC	2	8	5.12 x 3.27 x 2.74	—	46006-232-01
1492-AIFMCE4-F	5…32V AC/DC	2	8	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	12	4.33 x 3.27 x 2.74‡	—	46006-200-01, 46006-238-01
1492-AIFM8-F-5	10…30V DC	2	12	4.72 x 3.27 x 2.74	2	46006-196-01, -254-01
1492-AIFM16-F-3	10…30V DC	2	12	4.72 x 3.27 x 2.74	2	46006-213-01
1492-AIFM16-F-5	10…30V DC	2	12	8.27 x 3.27 x 2.74	2	46006-198-01
1492-AIFMQS	10…30V DC	3	12	4.72 x 3.27 x 2.74	2	46006-199-01
1492-AIFMPI	0…30V DC	2	12	4.72 x 3.27 x 2.74	2	46006-243-01
1492-TAIFM16-F-3	24V DC	2	12	9.88 x 3.27 x 2.74	2	46006-231-01

❄ Ships with each module. For spare part, precede the part number with the letter "W."
‡ Add 0.39 in. to the width dimension for Bulletin 1492-Rxxx modules.

Relay Master/Expandable Interface Module Specifications

Relay Master/Expandable XIM Cat. No.	Voltage Range	Max. Current (Per Circuit/Per Relay Pair) [A]	Max. Current (Per Module) [A]	Dimensions (W xH x D) [in.]	Indicator Circuit Current (Nominal) [mA]	Label Card Cat. No.❄
1492-XIM4024-16R, -RXIM4024-16R	20…26V DC	10/12	96	9.06 x 3.27 x 2.78	2	46006-222-01
1492-XIM4024-8R	20…26V DC	10/12	48	6.30 x 3.27 x 2.78	2	46006-216-01
1492-XIM2024-8R	20…26V AC	10/12	48	6.30 x 3.27 x 2.78	2	46006-216-01
1492-XIM20120-8R	96…132V AC	10/12	48	6.30 x 3.27 x 2.78	2	46006-216-01
1492-XIM24-8R, RXIM24-8R	20…26V AC	10/12	48	6.30 x 3.27 x 2.78	2	46006-217-01
1492-XIM120-8R	96…132V AC	10/12	48	6.30 x 3.27 x 2.78	2	46006-217-01
1492-XIM2024-16R	20…26V DC	10/12	96	10.65 x 3.27 x 2.78	2	46006-223-01
1492-XIM2024-16RF	20…26V DC	10/12	96	10.65 x 3.27 x 2.78	2	46006-223-01
1492-XIM20120-16R	96…132V AC	10/12	96	10.65 x 3.27 x 2.78	2	46006-223-01
1492-XIM20120-16RF	96…132V DC	10/12	96	10.65 x 3.27 x 2.78	2	46006-223-01
1492-XIM4024-16RF	20…26V AC	10/12	96	11.5 x 3.27 x 2.78	2	46006-223-01
1492-XIMF-2	0…132V AC/DC	2/NA	4	3.15 x 3.27 x 2.19	—	46006-218-01
1492-XIMF-F24-2	10…30V DC	2/NA	4	3.15 x 3.27 x 2.19	2	46006-218-01
1492-XIMF-F120-2	85…132V AC	2/NA	4	3.15 x 3.27 x 2.19	2	46006-218-01
1492-XIM24-16RF	20…26V AC	10/12	96	11.5 x 3.27 x 2.78	2	46006-219-01
1492-XIMTR2024-16R, -RXIMTR2024-16R	24 V DC	4	64	4.72 x 3.27 x 2.74	2	46006-257-01
1492-XIMTR4024-32R, -RXIMTR4024-32R	24 V DC	4	128	9.45 x 3.27 x 2.74	2	46006-257-01
1492-XIMTS2024-16R, -RXIMTS2024-16R	24 V DC	.75	12	4.72 x 3.27 x 2.74	2	46006-257-01
1492-XIMTS4024-32R, -RXIMTS4024-32R	24 V DC	.75	24	9.45 x 3.27 x 2.74	2	46006-257-01

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