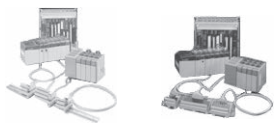


Programmable Controller Wiring Systems

Overview

 Analog Wiring Systems  Digital Wiring Systems with Field-Removable 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. NRAQ 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); Groups A, B, C, and D. Temperature Rating: T3C @ 60 °C. FM file J.I.3000590 - CE Certifications Compliant for all applicable directives	Table of Contents Catalog Number Explanation 12-129 Selection Tables 12-141 Digital IFM Specifications 12-160 Standards Compliance and Certifications, Continued - UL 508 - UL 1604 - CSA C22.2 No. 14 - CSA C22.2 No. 213 - EN/IEC 61131-2
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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

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

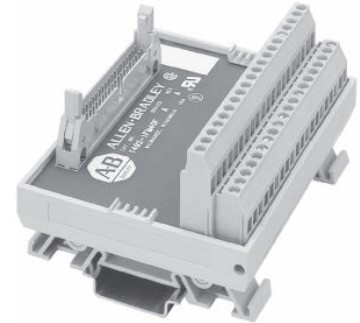
To develop a cost-effective system, the hardware components must meet the needs of the design engineer. Rockwell Automation provides the broadest range of digital and analog systems in the industry. Allen-Bradley wiring systems deliver a lower life cycle cost.

Digital Interface Modules (IFMs) General Information

Digital IFMs are available with either a 20- or 40-pin cable connector. This is determined by the number of connections required for the I/O module.

Important: The following catalog number breakdown is for explanatory purposes only. It is not a product configurator. Not all combinations of fields are valid catalog numbers. Use this breakdown for verification and explanation only.

The cables used for Relay Master/Expander XIMs are the same as those used for Digital I/O Modules with the exception of the Cat. No. 1746-OA16 output module, which uses the 1492-CABLE*CR cable.



40-pin Connection Interface Module

1492 – IFM 20 F120 – 2
 a *b* *c* *d*

a

Modules	
Code	Description
IFM	Digital Interface Modules with Fixed Terminal Block
RIFM	Digital Interface Modules with Removable Terminal Block
TIFM	Digital Interface Module for SIL2 (Safety Integrity Level 2)

b

Digital Cable Connector Size	
Code	Description
20	20 pins
40	40 pins

c

Module Type (all types do not configure a catalog number)	
Code	Description
A	Input Module
F	Feedthrough
F24	Fused 24 Volt
F120	Fused 120 Volt
FS	Fused Isolated
D	LEDs
N	Narrow
24	24 Volt
120	120 Volt
240	240 Volt

d

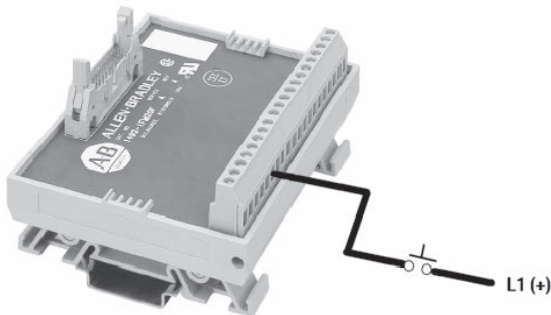
Number of Field Side Wiring Terminals	
Code	Description
Blank	One per I/O connection (Standard Terminals)
2	Two per I/O connection (Extra Terminals)
3	Three per I/O connection (Sensor Terminals)
4	Four per I/O connection (Special Terminal)

The number of terminals varies with the type of IFM — from one to four terminals per I/O point.

Standard terminal IFMs 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 terminals are ideal for applications where the I/O device commons are terminated in the field or remotely from the I/O panel.

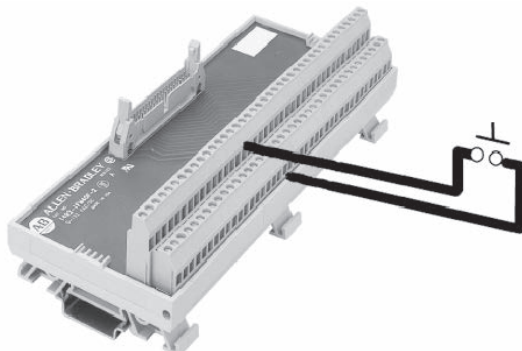
Isolated IFMs have terminals isolated into 8 or 16 groups, which allows each group of I/O devices to reference a different power source. The extra terminal IFMs are beneficial in applications where the I/O devices are terminated within the same panel as the I/O modules — eliminating the need for many additional terminal blocks.

Sensor IFMs provide three field-side terminals per input point. The middle and lower rows of the terminals are commoned together in groups of 18, and serve as power busses for 3-wire sensor types of devices — eliminating additional terminals, blocks, and jumpering systems.

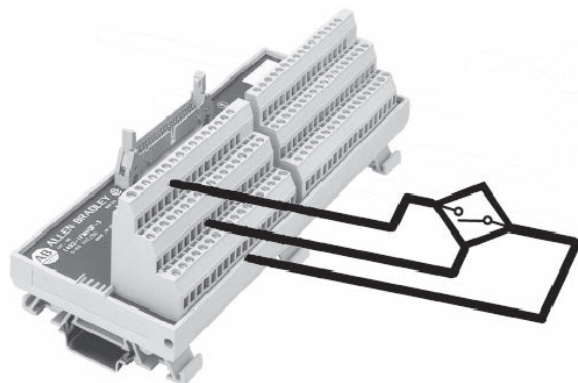


Standard Terminal Interface Module

Extra terminal IFMs provide **two or four field-side** terminals per input or output point. Non-isolated IFMs have two terminals per input or output point. Isolated IFMs have two or four terminals per input or output.



Extra Terminal Interface Module

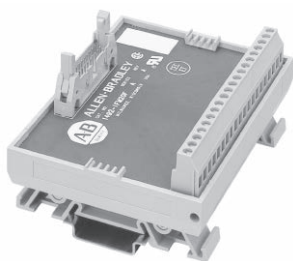


Three-Level Sensor Terminal Interface Module

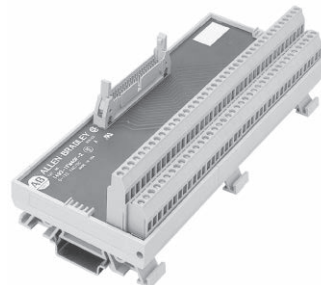
Digital Interface Modules (IFMs)

Feed-Through

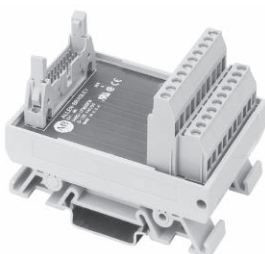
Feed-through IFMs provided the same capability as normal terminal blocks, but in a more condensed package.



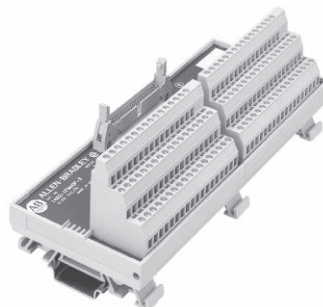
Feed-through Standard
For 20-point: Cat. No. 1492-IFM20F
For 40-point: Cat. No. 1492-IFM40F



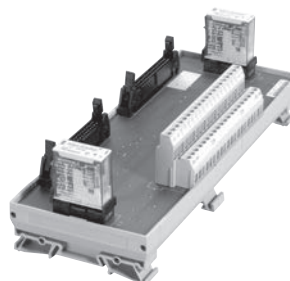
Feed-through Extra Terminal Products
For 20-point: Cat. No. 1492-IFM20F-2
For 40-point: Cat. No. 1492-IFM40F-2



Feed-Through Narrow
Cat. No. 1492-IFM20FN



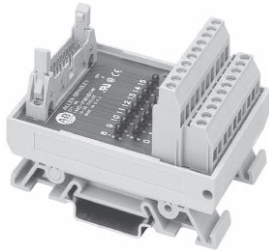
Feed-through Sensor Terminal Products
For 20-point: Cat. No. 1492-IFM20F-3
For 40-point: Cat. No. 1492-IFM40F-3



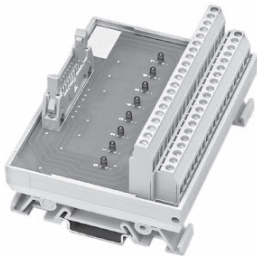
Safety Integrity Level (SIL 2)
Cat. No. 1492-TIFM40F-F24-2

Digital Interface Modules (IFMs) LED-Indicating

Voltage-indicating LEDs are available on 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 in the field device/wiring. LED IFMs are available in both Isolated (Cat. No. 1492-IFM20DS24-4) and non-Isolated (Cat. No. 1492-IFM20D120) versions for 24V, 120V, and 240V applications.



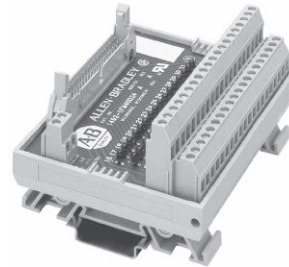
LED Indicating Standard
 For 20-point:
 Cat. No. 1492-IFM20D24,
 1492-IFM20D120, 1492-IFM20D120N
 For 40-point: Cat. No. 1492-IFM40D24



20-pin cable connector
ON-state LED Narrow module for 24V:
 Cat. No. 1492-IFM20D24N

20-point LED module for 120V:
 Cat. No. 1492-IFM20D120,

20-pin cable connector
LED Isolated module for 24V:
 Cat. No. 1492-IFM20DS24-4

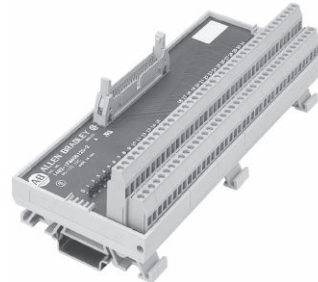


LED Indicating Extra Terminals

**For 20-point: Cat. No. 1492-IFM20D24-2, 1492-IFM20D24A-2,
 1492-IFM20D120-2, 1492-IFM20D120A-2,
 1492-IFM20D240-2, 1492-IFM20D240A-2**

**For 40-point: Cat. No. 1492-IFM40D24-2, 1492-IFM40D24A-2,
 1492-IFM40D120-2, 1492-IFM40D120A-2**

LED Indicating Sensor Terminal Products
 For 20-point: Cat. No. 1492-IFM20D24-3
 For 40-point: Cat. No. 1492-IFM40D24-3



LED Indicating 4 Terminals

For 20-point: Cat. No. 1492-IFM20DS24-4, 1492-IFM20DS120-4

**For 40-point: Cat. No. 1492-IFM40DS24-4, 1492-IFM40DS24A-4,
 1492-IFM40DS120-4, 1492-IFM40DS120A-4, 1492-IFM40DS240-4**



40-pin cable connector
ON-state LED module for 24V:
 Cat. No. 1492-IFM40D24

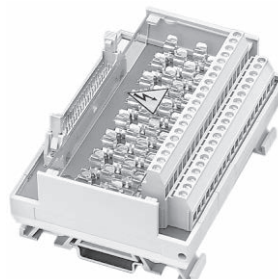
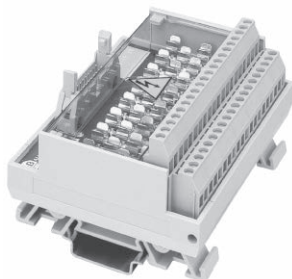
40-pin cable connector
LED module for 120V with extra terminals:
 Cat. No. 1492-IFM40D120-2

40-pin cable connector
LED Isolated Input module for 24V:
 Cat. No. 1492-IFM40DS24A-4

Digital Interface Modules (IFMs)

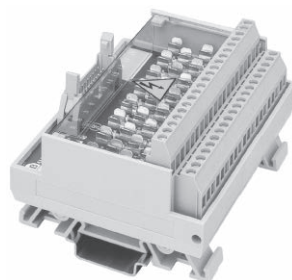
Fusible

Fusible modules provide a convenient method of adding overcurrent protections into your programmable controller wiring. These modules have 5 x 20 fuse holders on-board and are available with and without blown fuse indication. The 24V, 120V, and 240V blown fuse indicators reduce the troubleshooting time to locate and replace a blown fuse on the IFM. Fusible modules have an easy-to-remove, transparent plexiglass cover that prevents objects from contacting fuse circuitry under normal operation. Removal of fuses from the standard fuse holder is aided by fuse pullers (fuses not provided). The fusible modules also have two or four terminals per I/O point to create a power bus for input and output load connections. Fusible modules are available in both isolated (Cat. No. 1492-IFM20F-FS24-2) and nonisolated (Cat. No. 1492-IFM20F-F24-2) versions. There are a select number of fusible IFMs available for input modules provided. The fusible modules also have two or four terminals per I/O point to create a power bus for input and output load connections. Fusible modules are available in both isolated (Cat. No. 1492-IFM20F-FS24-2) and nonisolated (Cat. No. 1492-IFM20F-F24-2) versions. There are a select number of fusible IFMs available for input modules.

**Fused Extra Terminals**

For 20-point: Cat. No. 1492-IFM20FS-F120-4,
1492-IFM20FS-F120A-4, 1492-IFM20FS-F240-4

For 40-point: Cat. No. 1492-IFM40FS-F24-4, 1492-IFM40FS-F24A-4,
1492-IFM40FS-F120-4, 1492-IFM40FS-F120A-4,
1492-IFM40FS-F240-4, 1492-IFM40F-FS240A-4

**Fused Extra Terminals**

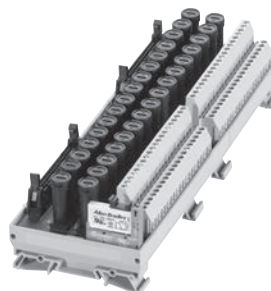
For 20-point: Cat. No. 1492-IFM20F-F-2, 1492-IFM20F-F24-2,
1492-IFM20F-F24A-2, 1492-IFM20F-F120-2, 1492-IFM20F-F120A-2,
1492-IFM20F-F240-2, 1492-IFM20FS-F-2, 1492-IFM20FS-F24-2,
1492-IFM20FS-F24A-2

For 40-point: Cat. No. 1492-IFM40F-F-2, 1492-IFM40F-F24-2,
1492-IFM40F-F120-2, 1492-IFM40FS-F-2, 1492-IFM40FS-F24-2,
1492-IFM40FS-F120-2, 1492-IFM40FS-F24-4, 1492-IFM40FS-F24A-4,
1492-IFM40FS-F120-4, 1492-IFM40FS-F120A-4, 1492-IFM40FS-F240-4



40-pin cable connector Isolated Fusible module
(no fuse blown indication): Cat. No. 1492-IFM40F-FS-2

40-pin cable connector Isolated Fusible module with 24V blown fuse
indication: Cat. No. 1492-IFM40F-FS24A-2



Safety Integrity Level (SIL2)
Cat. No. 1492-TIFM40F-F24A-2

Digital IFM Modules with Field-Removable Terminal Blocks (RTBs)

Select groups of standard, fused and relay digital 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 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-RTB20N) or push-in style (e.g., 1492-RTB16P) terminals and must be ordered separately (two pieces per cat. no.). 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 1492 wiring system modules.

Analog AIFM Modules with Field-Removable Terminal Blocks (RTBs)

Select groups of analog 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 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 (1492-RTBxxN) or push-in style (1492-RTBxxP) terminals and must be ordered separately (Two pieces per cat. no.). 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 1492 wiring system modules.

Catalog Number Explanation

RTB Plugs

Important: The following cat. no. breakdown is for explanatory purposes only. It is not a product configurator. Not all combinations of fields are valid cat. nos. Use this breakdown for verification and explanation only.

$$1492 - \frac{RTB}{a} \quad \frac{20}{b} - \frac{N}{c}$$

a
Removable Terminal Block Plug

b
Number of Poles/Terminal
Code
8
12
14
16
17
20

c
Connector Style
Code
Description
N
Screw Style
P
Push-in Style

Selecting a Wiring System

Use of Selection Tables

- Locate I/O module required. The top row indicates the I/O module for the I/O platform.
- Locate the interface module required. The second and third column indicates the interface module catalog number.
- Determine if an interface module exists for the I/O module; indicated by "Letter Code" in row (interface catalog number) and the column (I/O module).
- Locate cable. This is the letter indicated by "Letter Code" in the row (interface catalog number) and the column (I/O module). The "Letter Code" represents the suffix of the pre-wired cable.
- Determine cable catalog number. Add 1492-CABLE_ _ _ "Letter Code", example 1492-CABLE_ _ _ A.
- Determine length of cable required, standard lengths are 0.5, 1.0, 2.5, and 5.0 m; which represents 005, 010, 025 and 050 for _ _ _ in the cable catalog number. Example 1492-CABLE010A = a 1.0 m cable with "Letter Code" A.

Programmable Controller Wiring Systems

Bulletin 1756 ControlLogix Modules

Digital IFMs and Cables for Bulletin 1756 ControlLogix 8-point and 16-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															
						1756-IA8D	1756-IA16	1756-IB16	1756-IC16	1756-IN16	1756-IV16	1756-OA8	1756-OA8D	1756-OA8E	1756-OA16	1756-OB8	1756-OB16E	1756-OC8	1756-QN8	1756-OV16E	
						Digital Cable Cat. No. Suffix +															
Feed-Through																					
24... 240	1	Standard	1492-IFM20F	1492-RIFM20F	1492-RTB10❖	U	X	X	X	X	X	U	U	U	X	U	X	U	U	X	
	2	Extr. Term.	1492-IFM20F-2	1492-RIFM20F-2	1492-RTB20❖	U	X	X	X	X	X	U	U	U	X	U	X	U	U	X	
24... 120	1	Narrow	1492-IFM20FN	1492-RIFM20FN	1492-RTB20❖	U	X	X	X	X	X	U	U	U	X	U	X	U	U	X	
	3	Sensor	1492-IFM20F-3	—	—		X	X	X	X	X										
LED Indicating																					
24	1	Standard	1492-IFM20D24	—	—			X		X	X						X			X	
	1	Narrow	1492-IFM20D24N	—	—			X		X	X						X				
	2	Extr. Term. (input)	1492-IFM20D24A-2	—	—			X		X	X										
	2	Extr. Term. (output)	1492-IFM20D24-2	—	—												X			X	
	3	Sensor	1492-IFM20D24-3	—	—			X		X	X										
	4	Isolated w/Extr.Term.	1492-IFM20DS24-4	—	—				X		X	X					W		W	W	
120	1	Narrow	1492-IFM20D120N	—	—	U	X								X						
	2	Extr. Term. (input)	1492-IFM20D120A-2	—	—	U	X														
	2	Extr. Term. (output)	1492-IFM20D120-2	—	—										X						
	4	Isolated w/Extr.Term.	1492-IFM20DS120-4	—	—							W	V	V							
Fusible																					
24	2	Blown fuse LED	1492-IFM20F-F24-2	1492-RIFM20F-F24-2	1492-RTB20❖												X			X	
	2	Blown fuse LED (input)	1492-IFM20F-F24A-2	1492-RIFM20F-F24A-2				X		X											
24... 120	2	Extra Terminals	1492-IFM20F-F-2	1492-RIFM20F-F-2										X		X			X		
120	2	Blown fuse LED	1492-IFM20F-F120-2	1492-RIFM20F-F120-2										X							
	2	Blown fuse LED (input)	1492-IFM20F-F120A-2	1492-RIFM20F-F120A-2		X															
Fusible, Isolated																					
24	2	Blown fuse LED	1492-IFM20F-FS24-2	—	—											W		W	W		
24... 120	2	Extra Terminals	1492-IFM20F-FS-2	—	—							W	V	V		W		W	W		
120	2	Blown fuse LED	1492-IFM20F-FS120-2	—	—							W	V	V							
	4	Blown fuse LED	1492-IFM20F-FS120-4	—	—							W	V	V							
	4	Blown fuse LED (input)	1492-IFM20F-FS120A-4	—	—	U															
240	4	Blown fuse LED	1492-IFM20F-FS240-4	—	—							W									

See footnotes on the following page.



Digital IFMs and Cables for Bulletin 1769 CompactLogix 8-Point and 16-Point I/O Modules

Voltage [V]	Term. per I/O	Description	Fixed Terminal Block	Removable Terminal Block	RTB Plugs ❖	Bulletin 1769 CompactLogix I/O Module															
						1769-IA8I	1769-IA16	1769-IQ16	1769-IQ16F	1769-IM12	1769-OA8	1769-OA16	1769-OB8	1769-OB16	1769-OV16	1769-OW8	1769-OW8I	1769-OW16			
			Cat. No.	Cat. No.	Cat. No.	Digital Cable Cat. No. Suffix +															
Feed-Through																					
120	1	Narrow	1492-IFM20FN	1492-RIFM20FN	1492-RTB10❖	F69	A69	B69	B69		C69	M69	L69	E69	E69	C69			M69		
120	3	Sensor	1492-IFM20F-3	—	—	—	A69	B69	B69												
240	1	Standard	1492-IFM20F	1492-RIFM20F	1492-RTB20❖	F69	A69	B69	B69	G69	C69	M69	L69	E69	E69	C69	D69		M69		
240	2	Extr. Term.	1492-IFM20F-2	1492-RIFM20F-2	1492-RTB20❖	—	A69	B69	B69	G69	C69	M69	L69	E69	E69	C69	—		M69		
LED Indicating																					
24	1	Standard	1492-IFM20D24	—	—			B69	B69						E69	E69			M69		
	1	Narrow	1492-IFM20D24N	—	—			B69	B69						E69				H69		
	2	Extr. Term. (output)	1492-IFM20D24-2	—	—										E69	E69			M69		
	2	Extr. Term. (input)	1492-IFM20D24A-2	—	—			B69	B69												
	3	Sensor	1492-IFM20D24-3	—	—			B69	B69												
	4	Isolated	1492-IFM20DS24-4	—	—												C69	D69			
120	1	Standard	1492-IFM20D120§	—	—		A69					M69							M69		
	1	Narrow	1492-IFM20D120N	—	—		A69					H69							H69		
	2	Extr. Term. (output)	1492-IFM20D120-2	—	—							M69							M69		
	2	Extr. Term. (input)	1492-IFM20D120A-2	—	—		A69														
	4	Isolated	1492-IFM20DS120-4	—	—						C69						C69	D69			
240	2	Extr. Term. (output)	1492-IFM20D240-2	—	—							M69							M69		
	2	Extr. Term. (input)	1492-IFM20D240A-2	—	—					G69											
Fusible																					
24	2	Extr. Term., blown fuse LED	1492-IFM20F-F24-2	1492-RIFM20F-F24-2	1492-RTB20❖										E69	E69			M69		
	2	Extr. Term. (input), blown fuse LED	1492-IFM20F-F24A-2	1492-RIFM20F-F24A-2	1492-RTB20❖			B69 *	B69 *							E69					
24...120	2	Extr. Term. (output)	1492-IFM20F-F-2	1492-RIFM20F-F-2	1492-RTB20❖							M69		E69	E69			M69			
120	2	Extr. Term., blown fuse LED	1492-IFM20F-F120-2	1492-RIFM20F-F120-2	1492-RTB20❖							M69							M69		
	2	Extr. Term. (input), blown fuse LED	1492-IFM20F-F120A-2	1492-RIFM20F-F120A-2	1492-RTB20❖		A69														
Fusible, Isolated																					
24	2	Extr. Term., blown fuse LED	1492-IFM20F-FS24-2	—	—												C69	D69			
24...120	2	Extr. Term. (output)	1492-IFM20F-FS-2	—	—						C69						C69	D69			
120	2	Extr. Term. (output), blown fuse LED	1492-IFM20F-FS120-2	—	—						C69						C69	D69			
	4	Extr. Term. (output), blown fuse LED	1492-IFM20F-FS120-4	—	—						C69						C69	D69			
240	4	Extr. Term. (output), blown fuse LED	1492-IFM20F-FS240-4	—	—													D69			

See footnotes on the following page.

Programmable Controller Wiring Systems

Bulletin 1794 Flex I/O Modules

Digital IFMs and Cables for Bulletin 1794 Flex I/O 8-Point and 16-Point Modules

Voltage [V]	Term. per I/O	Description	Fixed Terminal Block	Removable Terminal Block	RTB Plugs ❖	Bulletin 1794 Flex Digital I/O Module ☒											
						1794-IB16	1794-IB8	1794-IB10XOB6	1794-IV16	1794-OB16	1794-OB16P	1794-OB8	1794-OB8EP	1794-OV16	1794-OV16P	1794-OW8	
			Cat. No.	Cat. No.	Cat. No.	Digital Cable Cat. No. Suffix +											
Feed-Through																	
24... 120	1	Standard	1492-IFM20F	1492-RIFM20F	1492-RTB20☒	A94	A94	A94	A94	A94	A94	A94	A94	A94	A94	A94	A94
	1	Narrow	1492-IFM20FN	1492-RIFM20FN	1492-RTB10☒	A94	A94	A94	A94	A94	A94	A94	A94	A94	A94	A94	A94
	2	Extr. Term.	1492-IFM20F-2	1492-RIFM20F-2	1492-RTB20☒	A94	A94	A94	A94	A94	A94	A94	A94	A94	A94	A94	A94
	3	Sensor	1492-IFM20F-3	—	—	A94	A94		A94								
LED Indicating																	
24	1	Standard	1492-IFM20D24	—	—					A94	A94	A94	A94	A94	A94		
	1	Narrow	1492-IFM20D24N	—	—	A94	A94			A94	A94	A94	A94				
	2	Extr. Term. (output)	1492-IFM20D24-2	—	—					A94	A94	A94	A94		A94		
	2	Extr. Term. (input)	1492-IFM20D24A-2	—	—	A94	A94		A94								
	4	Isolated w/ Extr. Term.	1492-IFM20DS24-4	—	—												A94
120	4	Isolated w/ Extr. Term.	1492-IFM20DS120-4	—	—												A94
Fusible																	
24	2	Blown Fuse LED	1492-IFM20F-F24-2	1492-RIFM20F-F24-2	1492-RTB20☒					A94	A94	A94	A94	A94	A94		
	2	Blown Fuse LED (input)	1492-IFM20F-F24A-2	1492-RIFM20F-F24A-2	1492-RTB20☒	A94	A94										
24... 120	2	Blown Fuse LED	1492-IFM20F-F-2	1492-RIFM20F-F-2	1492-RTB20☒					A94	A94	A94	A94	A94	A94		
Fusible, Isolated																	
24	2	Blown Fuse LED	1492-IFM20F-FS24-2	—	—												A94
24... 120	2	Extr. Term. (output)	1492-IFM20F-FS-2	—	—												A94
120	2	Blown Fuse LED	1492-IFM20F-FS120-2	—	—												A94

Digital IFMs and Cables for Bulletin 1794 Flex I/O 16-Point and 32-Point Modules

Voltage [V]	Term. per I/O	Description	Fixed Terminal Block	Removable Terminal Block	RTB Plugs ❖	Bulletin 1794 Flex Digital I/O Module➤			
						1794-IB16D	1794-IB16XOB16P	1794-IB32	1794-OB32P
			Cat. No.	Cat. No.		Cat. No.	Digital Cable Cat. No. Suffix➤		
Feed-Through									
24...120	1	Standard	1492-IFM40F	1492-RIFM40F	1492-RTB20⚡	B94	B94	B94	B94
	2	Extr. Term.	1492-IFM40F-2	1492-RIFM40F-2	1492-RTB20⚡	B94	B94	B94	B94
LED Indicating									
24	1	Standard	1492-IFM40D24	1492-RIFM40D24	1492-RTB20⚡			B94	B94
	2	Extr. Term. (output)	1492-IFM40D24-2	—	—				B94
	2	Extr. Term. (input)	1492-IFM40D24A-2	1492-RIFM40D24A-2	1492-RTB20⚡			B94	
Fusible									
24	2	Extr. Term. Blown Fuse LED	1492-IFM40F-F24-2	1492-RIFM40F-F24-2	1492-RTB20⚡				B94
24...120	2	Extr. Term. (output)	1492-IFM40F-F-2	—	—				B94

+ 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**.

⌘ Uses D-Shell Base 1794-TB37DS

➤ Uses D-Shell Base 1794-TB62DS



Programmable Controller Wiring Systems

Specifications

Digital IFM Specifications

Digital IFM Cat. No.	Voltage Range	Dimensions (W x H x D) [in.]*	Indicator Circuit Current (Nominal) [mA]	Label Card Cat. No.*
1492-IFM20F, -RIFM20F	0...264V AC/DC	4.33 x 3.27 x 2.78†	—	46006-190-01, 46006-233-01
1492-IFM20FN, -RIFM20FN	0...132V AC/DC	2.36 x 3.27 x 2.78†	—	46006-197-01, -237-01, -220-01
1492-IFM20F-2, -RIFM20F-2	0...264V AC/DC	4.33 x 3.27 x 2.78†	—	46006-192-01, -235-01, -221-01
1492-IFM20F-3	0...132V AC/DC	4.33 x 3.27 x 2.78	—	46006-210-01
1492-IFM20D24	10...30V AC/DC	4.33 x 3.27 x 2.78	2	46006-190-01, 46006-233-01
1492-IFM20D24N	10...30V AC/DC	2.36 x 3.27 x 2.78	2	46006-197-01, -237-01, -220-01
1492-IFM20D24-2	10...30V AC/DC	4.33 x 3.27 x 2.78	2	46006-192-01, -235-01, -221-01
1492-IFM20D24A-2	10...30V AC/DC	4.33 x 3.27 x 2.78	2	46006-211-01
1492-IFM20DS24-4	10...60V AC/DC	4.33 x 3.27 x 2.78	1.6	46006-209-01
1492-IFM20D24-3	10...30V AC/DC	4.33 x 3.27 x 2.78	2	46006-193-01, 46006-236-01
1492-IFM20D120	85...132V AC/DC	4.33 x 3.27 x 2.78	2.5	46006-190-01, 46006-233-01
1492-IFM20D120N	85...132V AC	2.36 x 3.27 x 2.78	2.5	46006-197-01, -237-01, -220-01
1492-IFM20D120-2	85...132V AC	4.33 x 3.27 x 2.78	2.5	46006-192-01, -235-01
1492-IFM20D120A-2	85...132V AC	4.33 x 3.27 x 2.78	2.5	46006-211-01
1492-IFM20DS120-4	85...132V AC	4.33 x 3.27 x 2.78	2.6	46006-209-01
1492-IFM20D240-2	204...264V AC	4.33 x 3.27 x 2.78	2.5	46006-192-01, -235-01
1492-IFM20D240A-2	204...264V AC	4.33 x 3.27 x 2.78	2.5	46006-211-01
1492-IFM20F-F-2, -RIFM20F-F-2	0...132V AC/DC	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	4.33 x 3.27 x 2.78†	2	46006-192-01, -235-01, -221-01
1492-IFM20F-F24A-2, -RIFM20F-F24A-2	10...30V AC/DC	4.33 x 3.27 x 2.78†	2.4	46006-212-01, -189-01
1492-IFM20F-F120-2, -RIFM20F-F120-2	85...132V AC	4.33 x 3.27 x 2.78†	2.5	46006-192-01, -235-01, -221-01
1492-IFM20F-F120A-2, -RIFM20F-F120A-2	85...132V AC/DC	4.33 x 3.27 x 2.78†	1.2	46006-212-01, -189-01
1492-IFM20F-F240-2	204...264V AC	4.72 x 3.27 x 2.78	1.2	46006-192-01, -235-01
1492-IFM20F-FS-2	0...132V AC/DC	2.36 x 3.27 x 2.78	—	46006-204-01
1492-IFM20F-FS24-2	10...30V AC/DC	2.36 x 3.27 x 2.78	2	46006-204-01
1492-IFM20F-FS24A-4	10...30V AC/DC	3.15 x 3.27 x 2.78	2.4	46006-215-01
1492-IFM20F-FS120-2	85...132V AC/DC	2.36 x 3.27 x 2.78	2.5	46006-204-01
1492-IFM20F-FS120-4	85...132V AC/DC	4.33 x 3.27 x 2.78	1.2	46006-214-01
1492-IFM20F-FS120A-4	85...132V AC/DC	3.15 x 3.27 x 2.78	2.2	46006-215-01
1492-IFM20F-FS240-4	204...264V AC	4.33 x 3.27 x 2.78	1.2	46006-214-01
1492-IFM40F, -RIFM40F	0...132V AC/DC	4.33 x 3.27 x 2.78†	—	46006-191-01, -234-01, -252-01
1492-IFM40F-2	0...132V AC/DC	8.27 x 3.27 x 2.78	—	46006-224-01, -225-01, -239-01, -240-01, -253-01
1492-RIFM40F-2	0...132V AC/DC	9.05 x 3.27 x 2.78	—	46006-224-01, -225-01, -239-01, -240-01, -253-01
1492-IFM40F-3	0...60V AC/DC	8.27 x 3.27 x 2.78	—	46006-193-01, 46006-236-01
1492-IFM40D24, -RIFM40D24	10...30V AC/DC	4.33 x 3.27 x 2.78†	2	46006-191-01, -234-01, -252-01
1492-IFM40D24-2	10...30V AC/DC	8.27 x 3.27 x 2.78	2	46006-194-01, -195-01, -253-01
1492-IFM40D24A-2	10...30V AC/DC	8.27 x 3.27 x 2.78	2	46006-224-01, -225-01, -239-01, -240-01, -253-01
1492-RIFM40D24A-2	10...30V AC/DC	9.05 x 3.27 x 2.78	2	46006-224-01, -225-01, -239-01, -240-01, -253-01
1492-IFM40DS24-4	10...60V AC/DC	6.69 x 3.27 x 2.78	4.1	46006-208-01
1492-IFM40DS24A-4	10...30V AC/DC	6.69 x 3.27 x 2.78	4.1	46006-208-01
1492-IFM40D24-3	10...30V AC/DC	8.27 x 3.27 x 2.78	2	46006-193-01, 46006-236-01
1492-IFM40D120-2	85...132V AC	8.27 x 3.27 x 2.78	2.5	46006-194-01, -195-01, -253-01
1492-IFM40D120A-2	85...132V AC	8.27 x 3.27 x 2.78	2.5	46006-194-01, -195-01, 253-01
1492-IFM40DS120-4	85...132V AC	6.69 x 3.27 x 2.78	2.6	46006-208-01
1492-IFM40DS120A-4	85...132V AC	6.69 x 3.27 x 2.78	2.6	46006-208-01
1492-IFM40DS240A-4	204...264V AC	6.69 x 3.27 x 2.78	2.6	46006-208-01
1492-IFM40F-F-2	0...132V AC/DC	8.27 x 3.27 x 2.78	—	46006-194-01, -195-01, -253-01
1492-IFM40F-F24-2	10...30V AC/DC	8.27 x 3.27 x 2.78	2	46006-224-01, -225-01, -239-01, -240-01, 253-01
1492-RIFM40F-F24-2	10...30V AC/DC	8.66 x 3.27 x 2.78	2	46006-224-01, -225-01, -239-01, -240-01, 253-01
1492-IFM40F-F24D-2	10...30V AC/DC	4.72 x 3.27 x 2.78	<0.05	46006-201-01
1492-IFM40F-F24AD-4	10...30V AC/DC	7.09 x 3.27 x 2.78	<0.05	46006-206-01
1492-IFM40F-F120-2	85...132V AC	8.27 x 3.27 x 2.78	2.5	46006-194-001, -195-01, -253-01
1492-IFM40F-FS-2	0...132V AC/DC	4.72 x 3.27 x 2.78	—	46006-201-01
1492-IFM40F-FS-4	0...264V AC/DC	7.09 x 3.27 x 2.78	—	46006-207-01
1492-IFM40F-FS24-2	10...30V AC/DC	4.72 x 3.27 x 2.78	2	46006-201-01
1492-IFM40F-FS24-4	10...30V AC/DC	7.09 x 3.27 x 2.78	2.4	46006-207-01
1492-IFM40F-FS120-2, -RIFM40F-FS120-2	85...132V AC/DC	4.72 x 3.27 x 2.78†	2.5	46006-201-01
1492-IFM40F-FS120-4	85...132V AC/DC	7.09 x 3.27 x 2.78	1.4	46006-206-01
1492-RIFM40F-FS120-4	85...132V AC/DC	7.87 x 3.27 x 2.78	1.4	46006-226-01
1492-IFM40F-FS240-4	204...264V AC/DC	7.09 x 3.27 x 2.78	2.4	46006-207-01
1492-IFM40F-FS24A-4	10...30V AC/DC	7.09 x 3.27 x 2.78	3.1	46006-226-01
1492-IFM40F-FS120A-4	85...132V AC/DC	7.09 x 3.27 x 2.78	1.4	46006-226-01
1492-RIFM40F-FS120A-4	85...132V AC/DC	7.87 x 3.27 x 2.78	1.4	46006-226-01
1492-IFM40F-FSA-4	85...132V AC/DC	7.09 x 3.27 x 2.78	—	46006-226-01
1492-IFM40F-FS240A-4	85...264V AC/DC	7.09 x 3.27 x 2.78	1.4	46006-226-01
1492-TIFM40F-F24-2	24V DC	8.66 x 3.27 x 2.74	—	46006-230-01
1492-TIFM40F-F24A-2	24V DC	9.5 x 3.27 x 2.74	3	46006-230-01

* To convert to millimeters, multiply inches by 25.4

* 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.

www.ab.com/catalogs Preferred availability cat. nos. are bold.

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Allen-Bradley