Technical Data

Original Instructions

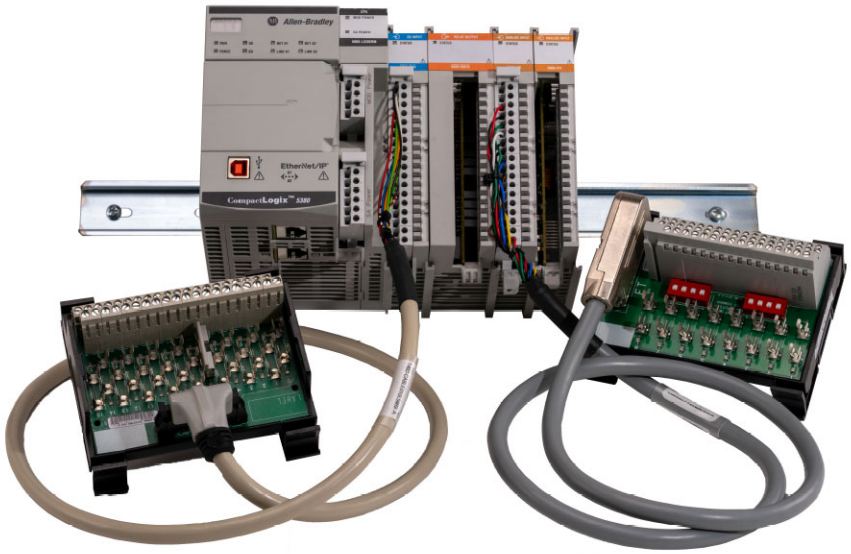
5069 CompactLogix Wiring Systems

Bulletin 1492

Introduction

Connecting to Allen-Bradley® PLC I/O is fast, convenient, and reliable with the Allen-Bradley Bulletin 1492 wiring system. Unlike conventional terminal blocks, the Bulletin 1492 wiring system connects to both digital and analog PLC I/O modules through pre-wired and pre-tested cables. 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.

Wiring Systems I/O System Compatibility



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.
- **Reduced Wiring Errors—**wiring system cables are pre-tested to achieve 100% accurate connections and eliminate the need for point-to-point checking of wiring.
- **Faster Troubleshooting and Easier Maintenance—**Diagnostic capabilities such as fuses, blown fuse indication, and field-side ON-State LEDs allow maintenance personnel to quickly locate faults, reduce downtime, and improve overall productivity.
- **Increased Volume and Productivity —**wiring system can be up to 30 times faster to install than traditional point-to-point wiring, enabling OEMs and panel builders to build panels faster and produce more machines.
- **Reduced Wire Preparation and Routing—**Wiring systems eliminate the time and costs that are associated with stripping and cutting wires. Routing wires is much easier with one wire versus 20...40 with traditional wiring methods.
- **Labeling and Marking—**Pre-printed, PLC I/O-specific adhesive label strips for quick marking of IFM module terminals save labor that is compared with point-to-point wiring that requires labor-intensive wire markers.
- **Simplified Design—**Design engineers can simplify their panel drawings by calling out an IFM and pre-wired cable instead of having to detail every wire and terminal block aiding the installer and the end user.
- **Increased DIN Rail Density—**DIN rail space can be reduced by more than 50%. Narrow IFMs are also available for additional space savings.
- **Quality-Looking Panels—**The pre-wired cables and IFM wiring system modules organize the wiring in your panel and provide a consistent look.
- **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.
- **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.

Ordering Digital and Analog Wiring Systems

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

1. 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).
2. Determine your field-side wiring requirements. Are extra terminals needed?
3. 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.

Wiring Diagrams

To find wiring diagrams for any part, see Knowledgebase Technote Links to Wiring Diagrams for 5069 Input and Output Modules using 1492 Wiring Systems Products.
https://rockwellautomation.custhelp.com/app/answers/answer_view/a_id/1131992

1. Determine the catalog number for the 5069 CompactLogix® I/O platform you are using (for example: 5069-IA16).

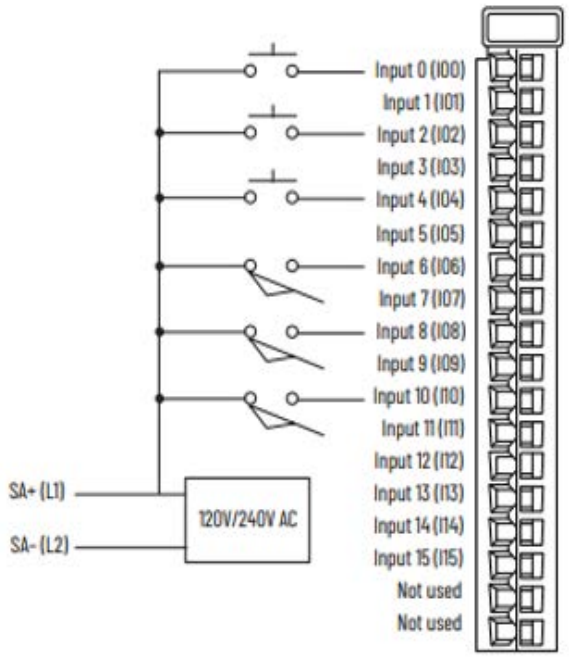
Notes:

5069 CompactLogix Wiring Systems

AC Digital

5069-IA16

Digital 16-point 120V /240V AC Input Module



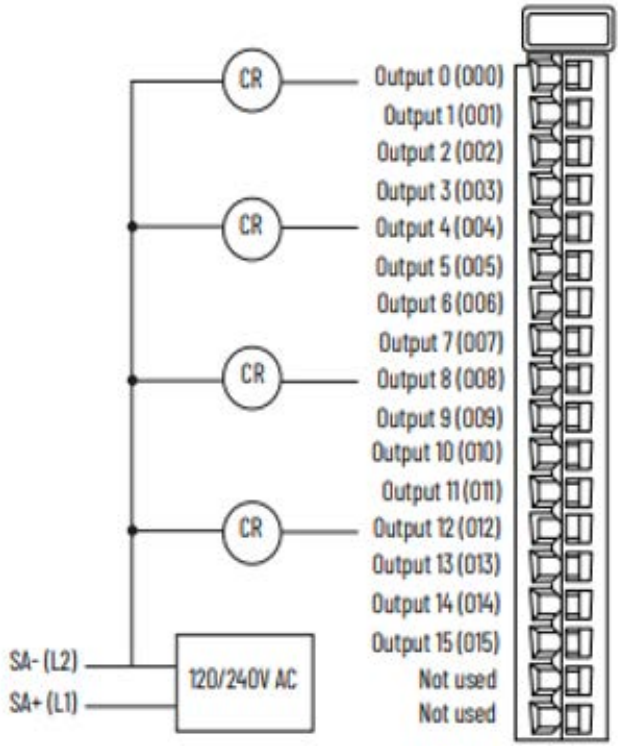
Wiring System Type	Description	Terminals per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required[1]		Cable Cat. No.[2]
					Screw	Push-in	
I/O Ready Cable	—	—	—	—	—	—	1492-CABLE***Z5069
Feed Through	Extra Terminals	2	F	1492-IFM20F-2	—	—	1492-CABLE***A5069
		2	R	1492-RIFM20F-2	RTB20N	RTB20P	1492-CABLE***A5069
	Sensor	3	F	1492-IFM20F-3	—	—	1492-CABLE***A5069
Feed Through - Reduced Height	Extra Terminals	2	F	1492-IFM20FH-2	—	—	1492-CABLE***A5069
		2	R	1492-RIFM20FH-2	RTB20N	RTB20P	1492-CABLE***A5069
LED Indicating	Extra Terminals	2	F	1492-IFM20D120A-2	—	—	1492-CABLE***B5069
		2	F	1492-IFM20D240A-2	—	—	1492-CABLE***B5069
Fusible	Extra Terminals	2	F	1492-IFM20F-F-2	—	—	1492-CABLE***A5069
		2	R	1492-RIFM20F-F-2	RTB20N	RTB20P	1492-CABLE***A5069
	Extra Terminals, Blown Fuse Indication	2	F	1492-IFM20F-F120A-2	—	—	1492-CABLE***A5069
		2	R	1492-RIFM20F-F120A-2	RTB20N	RTB20P	1492-CABLE***A5069

(1) If a removable terminal block (RTB) version is selected, the terminal plugs must be ordered separately (two plugs per catalog number). Plugs are available in screw style and push-in style terminal types. To order add 1492- in front of a code listed above. Example: 1492-RTB20P.

(2) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5 m cable = 025, 5.0 m cable = 050. Custom lengths are available.

5069-OA16

Digital 16-point 120/240V AC Output Module



Wiring System Type	Description	Terminals per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required[1]		Cable Cat. No.[2]
					Screw	Push-in	
I/O Ready Cable	–	–	–	–	–	–	1492-CABLE***Z5069
Feed Through	Extra Terminals	2	F	1492-IFM20F-2	–	–	1492-CABLE***A5069
		2	R	1492-RIFM20F-2	RTB20N	RTB20P	1492-CABLE***A5069
Feed Through - Reduced Height	Extra Terminals	2	F	1492-IFM20FH-2	–	–	1492-CABLE***A5069
		2	R	1492-RIFM20FH-2	RTB20N	RTB20P	1492-CABLE***A5069
LED Indicating	Extra Terminals	2	F	1492-IFM20D120-2	–	–	1492-CABLE***A5069
		2	F	1492-IFM20D240-2	–	–	1492-CABLE***A5069
Fusible	Extra Terminals	2	F	1492-IFM20F-F-2	–	–	1492-CABLE***A5069
		2	F	1492-RIFM20F-F-2	RTB20N	RTB20P	1492-CABLE***A5069
	Extra Terminals, Blown Fuse Indication	2	F	1492-IFM20F-F120-2	–	–	1492-CABLE***A5069
		2	R	1492-RIFM20F-F120-2	RTB20N	RTB20P	1492-CABLE***A5069
		2	F	1492-IFM20F-F240-2	–	–	1492-CABLE***A5069
Relay with LED Indication	Master - 8 Relays	1	F	1492-XIM20120-8R	–	–	1492-CABLE***J5069
	Master - 16 Relays	1	F	1492-XIM20120-16R	–	–	1492-CABLE***J5069
	Master - 16 Relays w/Fusing	1	F	1492-XIM20120-16RF	–	–	1492-CABLE***J5069
	Expander - 8 Relays	1	F	1492-XIM120-8R	–	–	1492-CABLE***J5069
	Expander	2	F	1492-XIMF-2	–	–	1492-CABLE***J5069

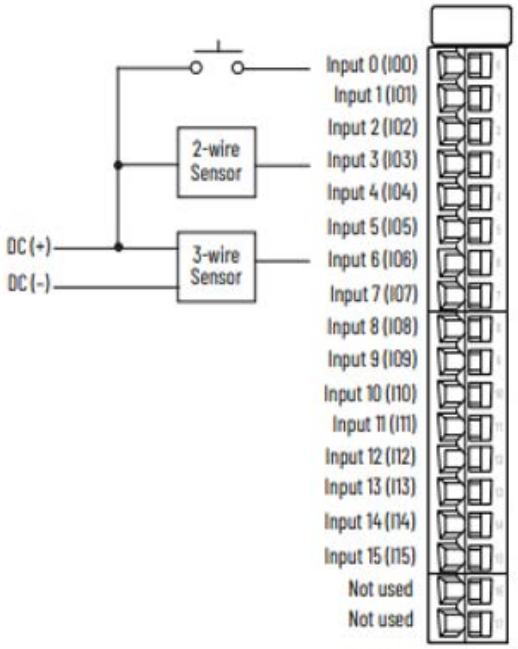
(1) If a removable terminal block (RTB) version is selected, the terminal plugs must be ordered separately (two plugs per catalog number). Plugs are available in screw style and push-in style terminal types. To order add 1492- in front of a code listed above. Example: 1492-RTB20P.

(2) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5 m cable = 025, 5.0 m cable = 050. Custom lengths are available.

DC Digital

5069-IB16, 5069-IB16K, 5069-IB16F

Digital 16-point Sinking Input Modules



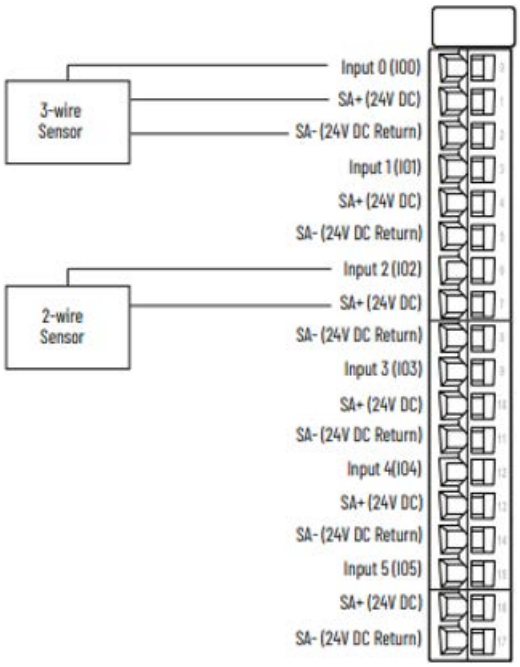
Wiring System Type	Description	Terminals per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required[1]		Cable Cat. No.[2]
					Screw	Push-in	
I/O Ready Cable	–	–	–	–	–	–	1492-CABLE***Z5069
Feed Through	Extra Terminals	2	F	1492-IFM20F-2	–	–	1492-CABLE***B5069
		2	R	1492-RIFM20F-2	RTB20N	RTB20P	1492-CABLE***B5069
Feed Through - Reduced Height	Extra Terminals	2	F	1492-IFM20FH-2	–	–	1492-CABLE***B5069
		2	R	1492-RIFM20FH-2	RTB20N	RTB20P	1492-CABLE***B5069
LED Indicating	Extra Terminals	2	F	1492-IFM20D24A-2	–	–	1492-CABLE***B5069
	Sensor	2	F	1492-IFM20D24-3	–	–	1492-CABLE***A5069
Fusible	Extra Terminals	2	F	1492-IFM20F-F-2	–	–	1492-CABLE***B5069
		2	R	1492-RIFM20F-F-2	RTB20N	RTB20P	1492-CABLE***B5069
	Extra Terminals, Blown Fuse Indication	2	F	1492-IFM20F-F24A-2	–	–	1492-CABLE***A5069
		2	R	1492-RIFM20F-F24A-2	RTB20N	RTB20P	1492-CABLE***A5069

(1) If a removable terminal block (RTB) version is selected, the terminal plugs must be ordered separately (two plugs per catalog number). Plugs are available in screw style and push-in style terminal types. To order add 1492- in front of a code listed above. Example: 1492-RTB20P.

(2) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5 m cable = 025, 5.0 m cable = 050. Custom lengths are available.

5069-IB6F-3W

Digital 3-wire Sinking Input Module



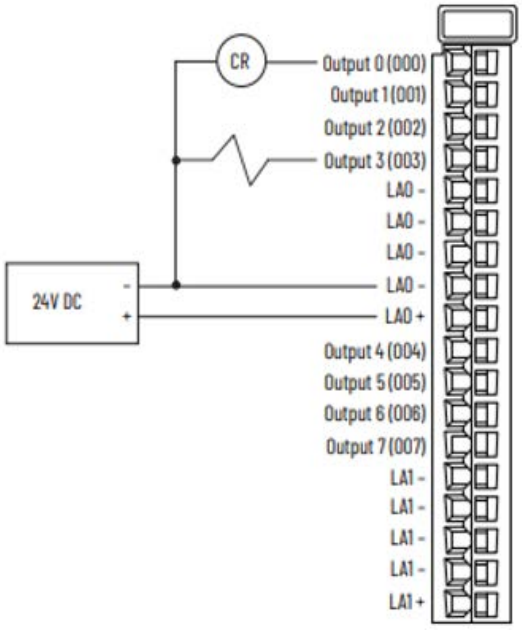
Wiring System Type	Description	Terminals per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required(1)		Cable Cat. No.(2)
					Screw	Push-in	
I/O Ready Cable	–	–	–	–	–	–	492-CABLE***Z5069
Feed Through	Standard	1	F	1492-IFM20F	–	–	1492-CABLE***C5069
		1	R	1492-RIFM20F	RTB20N	RTB20P	1492-CABLE***C5069
	Narrow	1	F	1492-IFM20FN	–	–	1492-CABLE***C5069
		1	R	1492-RIFM20FN	RTB20N	RTB20P	1492-CABLE***C5069
	Extra Terminals	2	F	1492-IFM20F-2	–	–	1492-CABLE***C5069
		2	R	1492-RIFM20F-2	RTB20N	RTB20P	1492-CABLE***C5069
Feed Through - Reduced Height	Standard	1	F	1492-IFM20FH	–	–	1492-CABLE***C5069
		1	R	1492-RIFM20FH	RTB20N	RTB20P	1492-CABLE***C5069
	Narrow	1	F	1492-IFM20FNH	–	–	1492-CABLE***C5069
		1	R	1492-RIFM20FNH	RTB20N	RTB20P	1492-CABLE***C5069
	Extra Terminals	2	F	1492-IFM20FH-2	–	–	1492-CABLE***C5069
		2	R	1492-RIFM20FH-2	RTB20N	RTB20P	1492-CABLE***C5069

(1) If a removable terminal block (RTB) version is selected, the terminal plugs must be ordered separately (two plugs per catalog number). Plugs are available in screw style and push-in style terminal types. To order add 1492- in front of a code listed above. Example: 1492-RTB20P.

(2) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5 m cable = 025, 5.0 m cable = 050. Custom lengths are available.

5069-OB8

Digital 8-point 24V DC Module



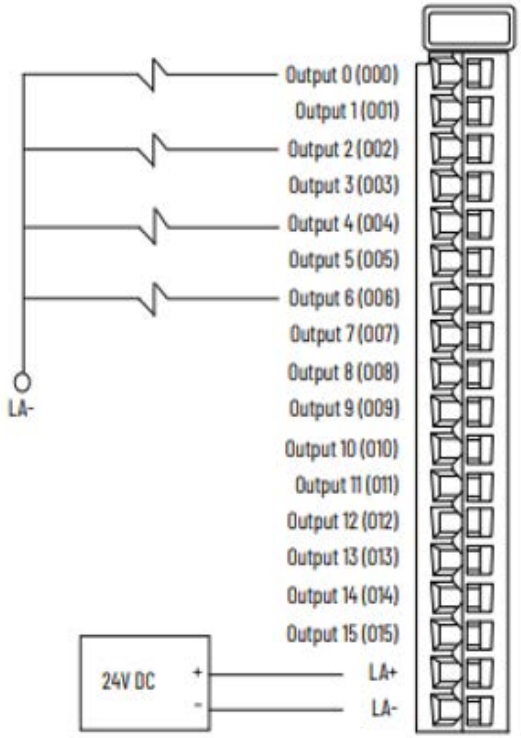
Wiring System Type	Description	Terminals per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required[1]		Cable Cat. No.[2]
					Screw	Push-in	
I/O Ready Cable	—	—	—	—	—	—	1492-CABLE***Z5069
Feed Through	Standard	1	F	1492-IFM20F	—	—	1492-CABLE***D5069
		1	R	1492-RIFM20F	RTB20N	RTB20P	1492-CABLE***D5069
	Narrow	1	F	1492-IFM20FN	—	—	1492-CABLE***D5069
		1	R	1492-RIFM20FN	RTB20N	RTB20P	1492-CABLE***D5069
Feed Through - Reduced Height	Standard	1	F	1492-IFM20FH	—	—	1492-CABLE***D5069
		1	R	1492-RIFM20FH	RTB20N	RTB20P	1492-CABLE***D5069
	Narrow	1	F	1492-IFM20FNH	—	—	1492-CABLE***D5069
		1	R	1492-RIFM20FNH	RTB20N	RTB20P	1492-CABLE***D5069
LED Indicating	Extra Terminals	4	F	1492-IFM20DS24-4	—	—	1492-CABLE***K5069
Fusible	Isolated, Extra Terminals, Blown Fuse Indication	2	F	1492-IFM20F-FS24-2	—	—	1492-CABLE***K5069

(1) If a removable terminal block (RTB) version is selected, the terminal plugs must be ordered separately (two plugs per catalog number). Plugs are available in screw style and push -in style terminal types. To order add 1492- in front of a code listed above. Example: 1492-RTB20P.

(2) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5 m cable = 025, 5.0 m cable = 050. Custom lengths are available.

5069-OB16, 5069-IB16K, 5069-OB16F

Digital 16-point Sourcing Output Modules



Wiring System Type	Description	Terminals per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required[1]		Cable Cat. No.[2]
					Screw	Push-in	
I/O Ready Cable	—	—	—	—	—	—	1492-CABLE***Z5069
Feed Through	Extra Terminals	2	F	1492-IFM20F-2	—	—	1492-CABLE***E5069
		2	R	1492-RIFM20F-2	RTB20N	RTB20P	1492-CABLE***E5069
	Sensor	3	F	1492-IFM20F-3	—	—	1492-CABLE***E5069
Feed Through - Reduced Height	Extra Terminals	2	F	1492-IFM20FH-2	—	—	1492-CABLE***E5069
		2	R	1492-RIFM20FH-2	RTB20N	RTB20P	1492-CABLE***E5069
LED Indicating	Standard	1	F	1492-IFM20D24	—	—	1492-CABLE***E5069
	Narrow	1	F	1492-IFM20D24N	—	—	1492-CABLE***E5069
	Extra Terminals	2	F	1492-IFM20D24-2	—	—	1492-CABLE***E5069
Fusible	Extra Terminals	2	F	1492-IFM20F-F-2	—	—	1492-CABLE***E5069
		2	R	1492-RIFM20F-F-2	RTB20N	RTB20P	1492-CABLE***E5069
	Extra Terminals, Blown Fuse Indication	2	F	1492-IFM20F-F24-2	—	—	1492-CABLE***E5069
		2	R	1492-RIFM20F-F24-2	RTB20N	RTB20P	1492-CABLE***E5069

Relay with LED Indication	High Density Master - 16 Relays Mechanical	1	F	1492-XIMTR2024-16R	—	—	1492-CABLE***H5069
		1	R	1492-RXIMTR2024-16R	RTB20N	RTB20P	1492-CABLE***H5069
	High Density Master - 16 Relays Solid State	1	F	1492-XIMTS2024-16R	—	—	1492-CABLE***H5069
		1	R	1492-RXIMTS2024-16R	RTB20N	RTB20P	1492-CABLE***H5069
	Master - 8 Relays	1	F	1492-XIM2024-8R	—	—	1492-CABLE***H5069
	Master - 16 Relays	1	F	1492-XIM2024-16R	—	—	1492-CABLE***H5069
	Master - 16 Relays w/ Fusing	1	F	1492-XIM2024-16RF	—	—	1492-CABLE***H5069
	Expander - 8 Relays	1	F	1492-XIM24-8R	—	—	1492-CABLE***H5069
	Expander - 8 Relays	1	R	1492-RXIM24-8R	RTB12N	RTB12P	1492-CABLE***H5069
	Expander	2	F	1492-XIMF-2	—	—	1492-CABLE***H5069

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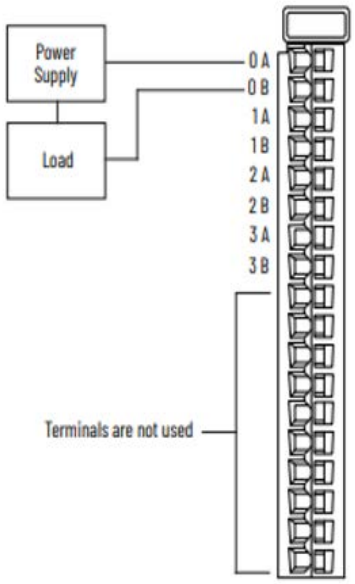
Relay Outputs

5069-OW4I

Digital 4-point Isolated Relay Output Module



Wiring System Type	Description	Terminals Per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required[1]		Cable Cat. No.[2].
					Screw	Push-In	
I/O Ready Cable	–	–	–	–	–	–	1492-CABLE***Z5069
Feed Through	Standard	1	F	1492-IFM20F	–	–	1492-CABLE***C5069
		1	R	1492-RIFM20F	RTB20N	RTB20P	1492-CABLE***C5069
	Narrow	1	F	1492-IFM20FN	–	–	1492-CABLE***C5069
		1	R	1492-RIFM20FN	RTB20N	RTB20P	1492-CABLE***C5069
	Extra Terminals	2	F	1492-IFM20F-2	–	–	1492-CABLE***C5069
		2	R	1492-RIFM20F-2	RTB20N	RTB20P	1492-CABLE***C5069
Feed Through - Reduced Height	Standard	1	F	1492-IFM20FH	–	–	1492-CABLE***C5069
		1	R	1492-RIFM20FH	RTB20N	RTB20P	1492-CABLE***C5069
	Narrow	1	F	1492-IFM20FNH	–	–	1492-CABLE***C5069
		1	R	1492-RIFM20FNH	RTB20N	RTB20P	1492-CABLE***C5069
	Extra Terminals	2	F	1492-IFM20FH-2	–	–	1492-CABLE***C5069
		2	R	1492-RIFM20FH-2	RTB20N	RTB20P	1492-CABLE***C5069
LED Indicating	Isolated, Extra Terminals	4	F	1492-IFM20DS24-4	–	–	1492-CABLE***M5069
		4	F	1492-IFM20DS120-4	–	–	1492-CABLE***M5069
Fusible	Isolated, Extra Terminals, Blown Fuse Indication	2	F	1492-IFM20F-FS-2	–	–	1492-CABLE***M5069
		2	F	1492-IFM20F-FS24-2	–	–	1492-CABLE***M5069
		2	F	1492-IFM20F-FS120-2	–	–	1492-CABLE***M5069
		4	F	1492-IFM20F-FS120-4	–	–	1492-CABLE***M5069

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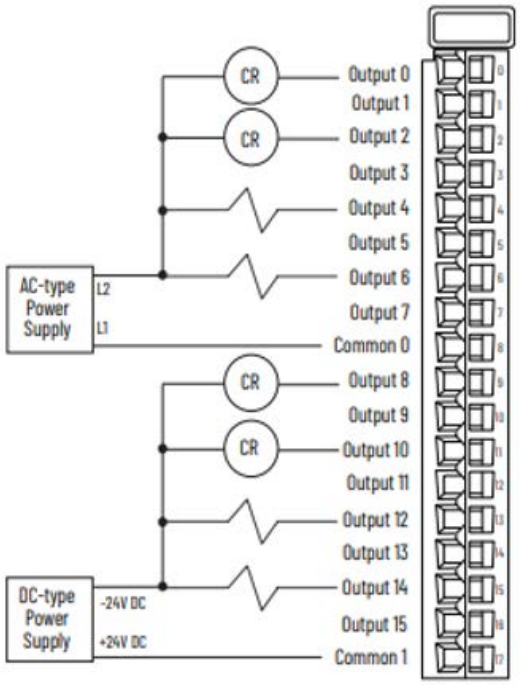
5069-OW16

Digital 16-point Relay Output Module

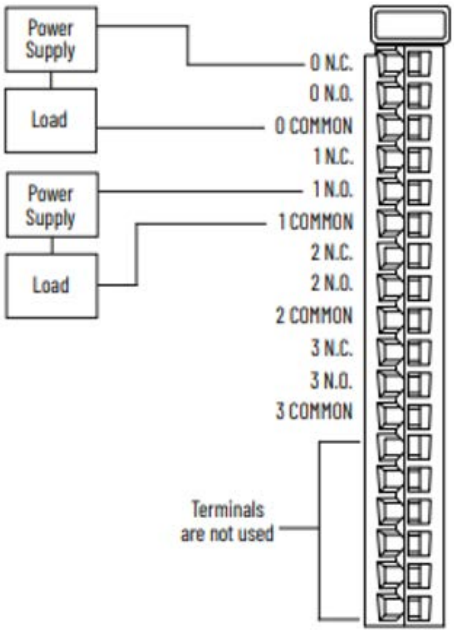


Wiring System Type	Description	Terminals Per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required(1)		Cable Cat. No.(2) (3)
					Screw	Push-In	
I/O Ready Cable	—	—	—	—	—	—	1492-CABLE***Z5069
Feed Through	Extra Terminals	2	F	1492-IFM20F-2	—	—	1492-CABLE***D5069
		2	R	1492-RIFM20F-2	RTB20N	RTB20P	1492-CABLE***D5069
Feed Through - Reduced Height	Extra Terminals	2	F	1492-IFM20FH-2	—	—	1492-CABLE***D5069
		2	R	1492-RIFM20FH-2	RTB20N	RTB20P	1492-CABLE***D5069
LED Indicating	Extra Terminals	2	F	1492-IFM20D24-2	—	—	1492-CABLE***D5069
		2	F	1492-IFM20D120-2	—	—	1492-CABLE***D5069
		2	F	1492-IFM20D240-2	—	—	1492-CABLE***D5069
Fusible	Extra Terminals	2	F	1492-IFM20F-F-2	—	—	1492-CABLE***D5069
		2	R	1492-RIFM20F-F-2	RTB20N	RTB20P	1492-CABLE***D5069
	Extra Terminals, Blown Fuse Indication	2	F	1492-IFM20F-F24-2	—	—	1492-CABLE***D5069
		2	R	1492-RIFM20F-F24-2	RTB20N	RTB20P	1492-CABLE***D5069
		2	F	1492-IFM20F-F120-2	—	—	1492-CABLE***D5069
		2	R	1492-RIFM20F-F120-2	RTB20N	RTB20P	1492-CABLE***D5069
		2	F	1492-IFM20F-F240-2	—	—	1492-CABLE***D5069

(1) If a removable terminal block (RTB) version is selected, the terminal plugs must be ordered separately (two plugs per catalog number). Plugs are available in screw style and push-in style terminal types. To order add 1492- in front of a code listed above. Example: 1492-RTB20P.
(2) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5m cable = 025, 5.0 m cable = 050. Custom lengths are available.
(3) The 1492 cables use 22 AWG wire and they are acceptable for use with the 5069-OW16.

5069-OX4I

Digital 4-point Isolated Normally-open/Normally-closed Output Module



Wiring System Type	Description	Terminals Per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required[1]		Cable Cat. No.[2]
					Screw	Push-In	
I/O Ready Cable	–	–	–	–	–	–	1492-CABLE***Z5069
Feed Through	Standard	1	F	1492-IFM20F	–	–	1492-CABLE***C5069
		1	R	1492-RIFM20F	RTB20N	RTB20P	1492-CABLE***C5069
	Narrow	1	F	1492-IFM20FN	–	–	1492-CABLE***C5069
		1	R	1492-RIFM20FN	RTB20N	RTB20P	1492-CABLE***C5069
	Extra Terminals	2	F	1492-IFM20F-2	–	–	1492-CABLE***C5069
		2	R	1492-RIFM20F-2	RTB20N	RTB20P	1492-CABLE***C5069
Feed Through - Reduced Height	Standard	1	F	1492-IFM20FH	–	–	1492-CABLE***C5069
		1	R	1492-RIFM20FH	RTB20N	RTB20P	1492-CABLE***C5069
	Narrow	1	F	1492-IFM20FNH	–	–	1492-CABLE***C5069
		1	R	1492-RIFM20FNH	RTB20N	RTB20P	1492-CABLE***C5069
	Extra Terminals	2	F	1492-IFM20FH-2	–	–	1492-CABLE***C5069
		2	R	1492-RIFM20FH-2	RTB20N	RTB20P	1492-CABLE***C5069

(1) If a removable terminal block (RTB) version is selected, the terminal plugs must be ordered separately (two plugs per catalog number). Plugs are available in screw style and push-in style terminal types. To order add 1492- in front of a code listed above. Example: 1492-RTB20P.
(2) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5m cable = 025, 5.0 m cable = 050. Custom lengths are available.

Safety

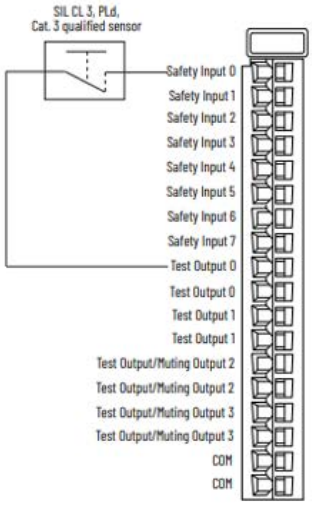
5069-IB8S, 5069-IB8SK

Safety Sinking Input Modules

Single Channel with Sensor Wiring - 5069-IB8S and 5069-IB8SK

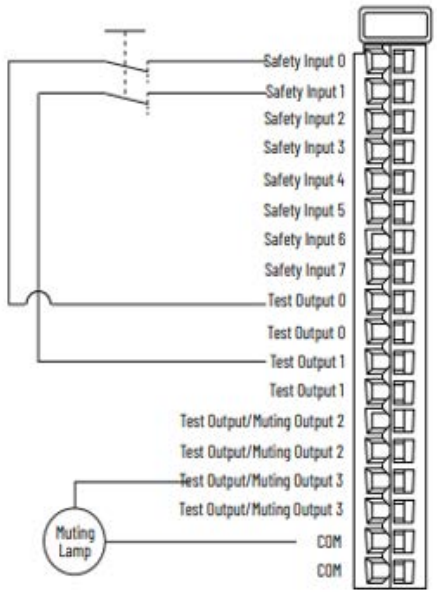
When the module is wired as shown, and the requirements listed are met in the project of the safety controller, it is suitable for applications that are rated up to, and including, Category 3 as defined in ISO 13849-1.
To achieve that suitability rating, you must meet the following requirements:
- Fault Exclusion is an External Wiring fault.
- Use a SIL CL 3, PLd, Cat. 3 qualified sensor.
- One of the following configuration combinations:
  Input Point Mode = Safety Pulse Test
  Test Output Mode = Pulse Test
  Input Point Mode = Safety
  Test Output Mode = Power Supply

IMPORTANT:
- We recommend that you connect even-numbered input points to even-numbered test output points and odd-numbered input points to odd-numbered test output points. This wiring practice can maximize diagnostic independence and separation.
- The SA power to adjacent SA power electrical isolation that the 5069-FPD field potential distributor provides has a rating of 240V AC (continuous) reinforced insulation type.



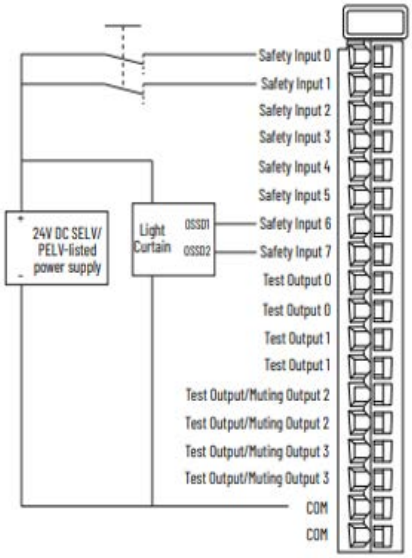
Single Channel with Switches and Muting Lamp Wiring - 5069-IB8S and 5069-IB8SK

- When the module is wired as shown, and the requirements listed are met in the project of the safety controller, it is suitable for applications that are rated up to, and including, **Category 4** as defined in ISO 13849-1. To achieve that suitability rating, you may have to perform diagnostic testing and monitoring of the safety function.
  One diagnostic test method is to configure the safety input channel for Safety Pulse Test to test the circuit for short circuits to 24V DC.
- Safety input pairs must be associated with different Test Output sources.
- When the power supply and muting lamp are configured for a test output, you much connect the return wire on the device to a COM point on the module.



Single Channel with Switches and Light Curtain Wiring - 5069-IB8S and 5069-IB8SK

- When the module is wired as shown, it is suitable for applications that are rated up to, and including, **Category 3** as defined in ISO 13849-1.
- The switches are suitable for applications that are rated up to, and including, SIL CL 3, PLe, Cat. 3.
- The light curtain is suitable for applications that are rated up to, and including, SIL CL 3, PLe, Cat. 4.



Wiring System Type	Description	Terminals Per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required[1]		Cable Cat. No.[2]
					Screw	Push-In	
I/O Ready Cable	–	–	–	–	–	–	1492-CABLE***Z5069
Feed-Through	Extra Terminals	2	F	1492-IFM20F-2	–	–	1492-CABLE***G5069
		2	R	1492-RIFM20F-2	RTB20N	RTB20P	1492-CABLE***G5069
Feed Through - Reduced Height	Extra Terminals	2	F	1492-IFM20FH-2	–	–	1492-CABLE***G5069
		2	R	1492-RIFM20FH-2	RTB20N	RTB20P	1492-CABLE***G5069

(1) If a removable terminal block (RTB) version is selected, the terminal plugs must be ordered separately (two plugs per catalog number). Plugs are available in screw style and push-in style terminal types. To order add 1492- in front of a code listed above. Example: 1492-RTB20P.
(2) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5m cable = 025, 5.0 m cable = 050. Custom lengths are available.

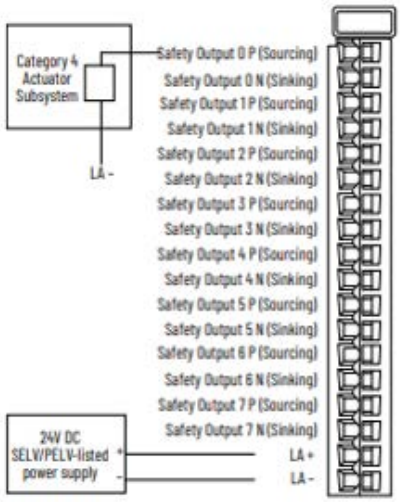
5069-OBV8S, 5069-OBV8SK

Safety Output Modules

Sourcing Mode: Single Channel with Actuator Subsystem Wiring - 5069-OBV8S, 5069-OBV8SK

When the module is wired as shown, and the requirements listed are met in the project of the safety controller, it is suitable for applications that are rated up to, and including, **Category 4** as defined in ISO 13849-1.
To achieve that suitability rating, you may have to perform diagnostic testing and monitoring of the safety function. One diagnostic test method is to configure the safety output channel for Safety Pulse Test to test the circuit for short circuits to 24V DC.

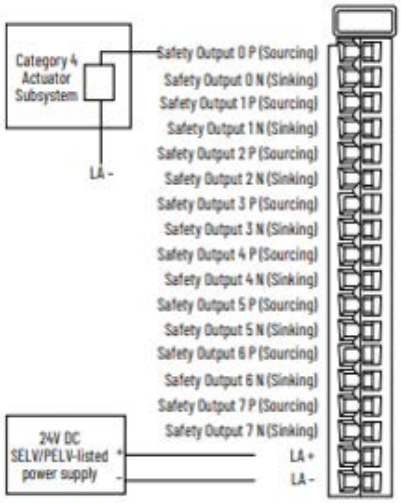
- All power source cables must be installed separately, for example, with a separate cable duct or shielded cable. Power source cables are connections to the MOD+, SA+, or LA+ terminals.
- Otherwise, a Short Circuit condition between SA+ and P can be detected and the output is turned off but the actuator that is connected to it remains on.
- You must connect two ground terminals. Otherwise, the maximum residual current at signal 0 cannot be maintained if only one ground line is connected and it is interrupted.
- A qualified actuator must be installed, for example, in accordance with IEC 60947.



Sourcing Mode: Single Channel with Actuator Subsystem Wiring - 5069-OBV8S, 5069-OBV8SK

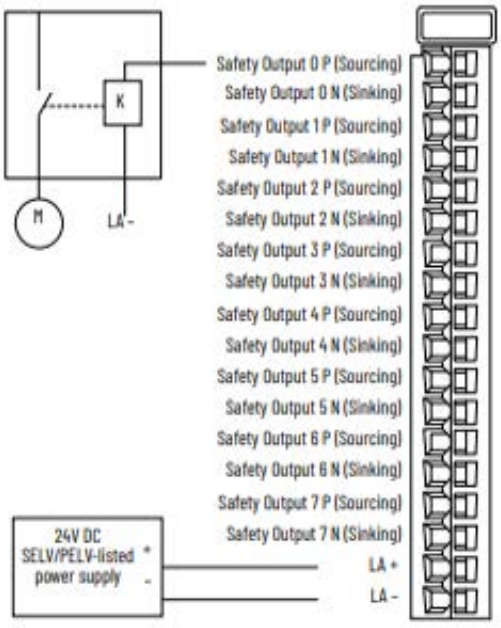
When the module is wired as shown, and the requirements listed are met in the project of the safety controller, it is suitable for applications that are rated up to, and including, **Category 4** as defined in ISO 13849-1.
To achieve that suitability rating, you may have to perform diagnostic testing and monitoring of the safety function. One diagnostic test method is to configure the safety output channel for Safety Pulse Test to test the circuit for short circuits to 24V DC.

- All power source cables must be installed separately, for example, with a separate cable duct or shielded cable. Power source cables are connections to the MOD+, SA+, or LA+ terminals.
- Otherwise, a Short Circuit condition between SA+ and P can be detected and the output is turned off but the actuator that is connected to it remains on.
- You must connect two ground terminals. Otherwise, the maximum residual current at signal 0 cannot be maintained if only one ground line is connected and it is interrupted.
- A qualified actuator must be installed, for example, in accordance with IEC 60947.



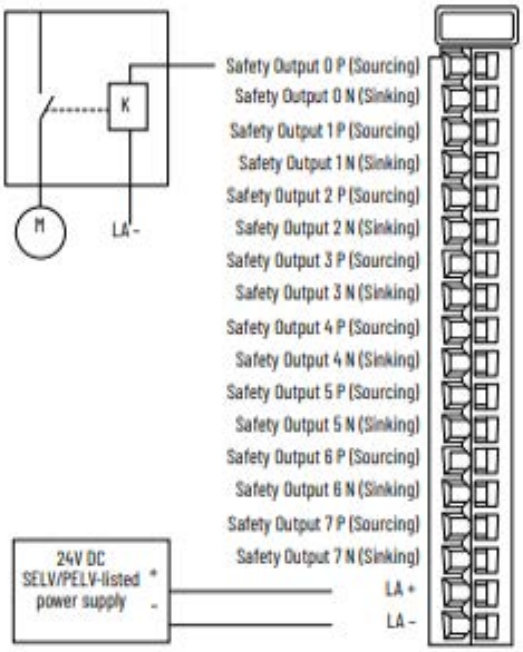
Sourcing Mode: Single Channel with Actuator Wiring - 5069-OBV8S, 5069-OBV8SK

When the module is wired as shown, it is suitable for applications that are rated up to, and including, **Category 2** as defined in ISO 13849-1.
To achieve that suitability rating, you may have to perform diagnostic testing and monitoring of the safety function. One diagnostic test method is to configure the safety output channel for Safety Pulse Test to test the circuit for short circuits to 24V DC.



Sourcing Mode: Single Channel with Actuator Wiring - 5069-OBV8S, 5069-OBV8SK

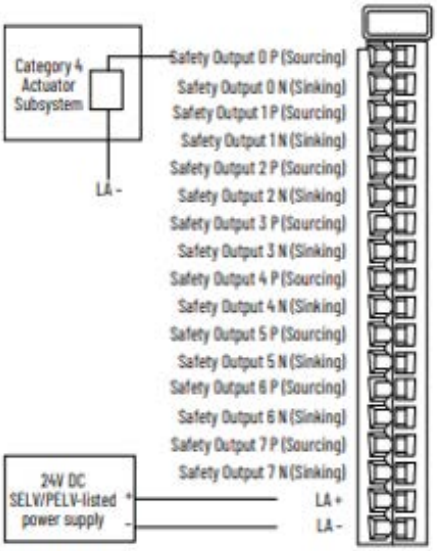
When the module is wired as shown, it is suitable for applications that are rated up to, and including, **Category 2** as defined in ISO 13849-1.
To achieve that suitability rating, you may have to perform diagnostic testing and monitoring of the safety function. One diagnostic test method is to configure the safety output channel for Safety Pulse Test to test the circuit for short circuits to 24V DC.



Sourcing Mode: Single Channel with Actuator Subsystem Wiring - 5069-OBV8S, 5069-OBV8SK

When the module is wired as shown, and the requirements listed are met in the project of the safety controller, it is suitable for applications that are rated up to, and including, **Category 4** as defined in ISO 13849-1.
To achieve that suitability rating, you may have to perform diagnostic testing and monitoring of the safety function. One diagnostic test method is to configure the safety output channel for Safety Pulse Test to test the circuit for short circuits to 24V DC.

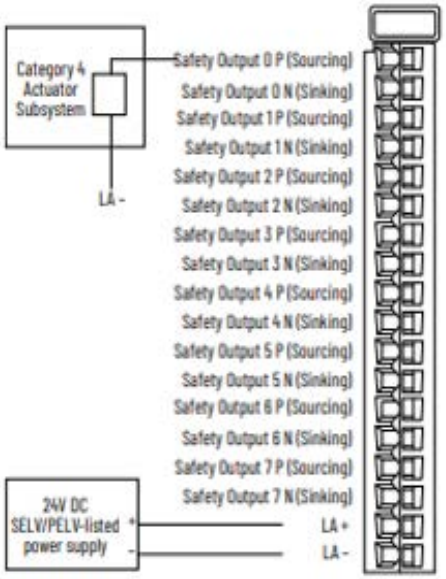
- All power source cables must be installed separately, for example, with a separate cable duct or shielded cable. Power source cables are connections to the MOD+, SA+, or LA+ terminals.
- Otherwise, a Short Circuit condition between SA+ and P can be detected and the output is turned off but the actuator that is connected to it remains on.
- You must connect two ground terminals. Otherwise, the maximum residual current at signal 0 cannot be maintained if only one ground line is connected and it is interrupted.
- A qualified actuator must be installed, for example, in accordance with IEC 60947.



Sourcing Mode: Single Channel with Actuator Subsystem Wiring - 5069-OBV8S, 5069-OBV8SK

When the module is wired as shown, and the requirements listed are met in the projec the safety controller, it is suitable for applications that are rated up to, and including, **Category 4** as defined in ISO 13849-1.
To achieve that suitability rating, you may have to perform diagnostic testing and monitoring of the safety function. One diagnostic test method is to configure the safe output channel for Safety Pulse Test to test the circuit for short circuits to 24V DC.

- All power source cables must be installed separately, for example, with a separate duct or shielded cable. Power source cables are connections to the MOD+, SA+, or L terminals.
- Otherwise, a Short Circuit condition between SA+ and P can be detected and the out turned off but the actuator that is connected to it remains on.
- You must connect two ground terminals. Otherwise, the maximum residual current signal 0 cannot be maintained if only one ground line is connected and it is interru
- A qualified actuator must be installed, for example, in accordance with IEC 60947.



Wiring System Type	Description	Terminals Per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required[1]		Cable Cat. No.[2]
					Screw	Push-In	
I/O Ready Cable	—	—	—	—	—	—	1492-CABLE***Z5069
Feed-Through	Extra Terminals	2	F	1492-IFM20F-2	—	—	1492-CABLE***E5069
		2	R	1492-RIFM20F-2	RTB20N	RTB20P	1492-CABLE***E5069
Feed Through - Reduced Height	Extra Terminals	2	F	1492-IFM20FH-2	—	—	1492-CABLE***E5069
		2	R	1492-RIFM20FH-2	RTB20N	RTB20P	1492-CABLE***E5069

(1) If a removable terminal block (RTB) version is selected, the terminal plugs must be ordered separately (two plugs per catalog number). Plugs are available in screw style and push-in style terminal types. To order add 1492- in front of a code listed above. Example: 1492-RTB20P.

(2) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5m cable = 025, 5.0 m cable = 050. Custom lengths are available.

Pre-wired Digital Cables for Digital I/O Modules

Catalog Number Explanation

The following digital 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. Refer to the instructions in Ordering Digital and Analog Wiring Systems on page 3.

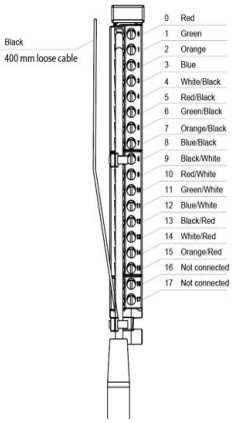
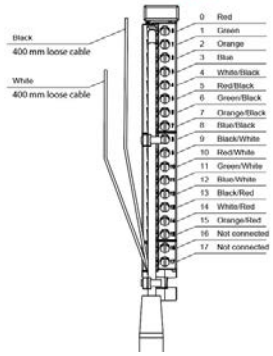
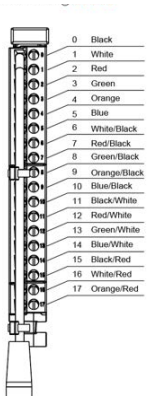
1492 - CABLE 010 A 5069

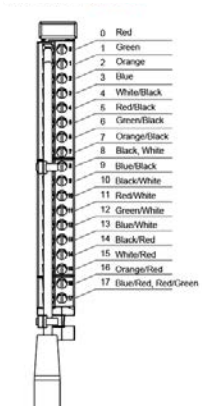
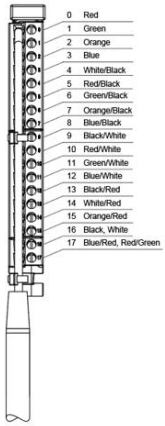
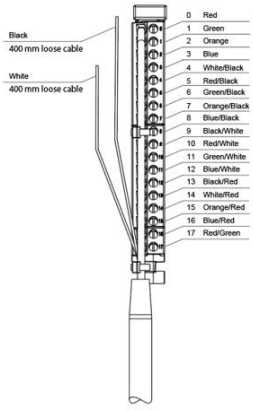
Standard or Build-to-Order Length Cable		
Code	**Description**	
005	0.5 m (1.64 ft)	Standard Length
010	1.0 m (3.28 ft)	
025	2.5 m (8.20 ft)	
050	5.0 m (16.40 ft)	
001... 020	0.1...2.0 m (0.328...6.56 ft) 0.1 m (0.328 ft) increments	Build-to-Order Length
020... 100	2.0...10.0 m (6.56...32.8 ft) 0.5 m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

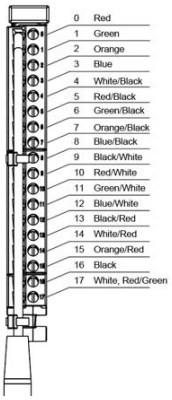
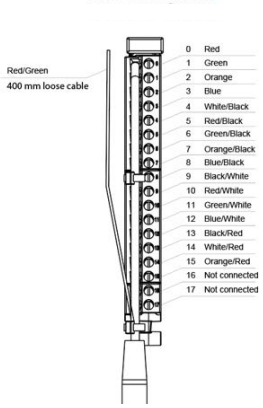
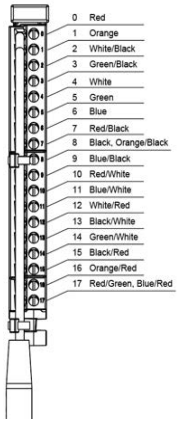
Cable Type	
Code	**Description**
A5069, B5069, C5069, D5069, E5069, G5069, H5069, J5069, K5069, M5069	Pre-wired cables for Bulletin 5069 digital I/O modules
Z5069	I/O ready cable for Bulletin 5069 digital I/O modules
P	IFM ready cable for Bulletin 5069 digital I/O modules

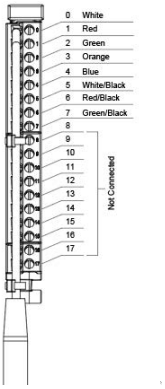
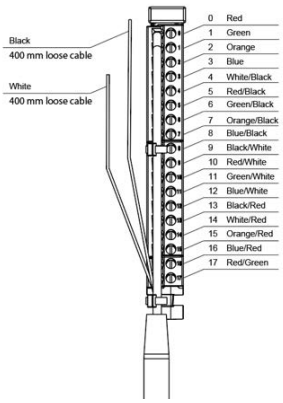
Specifications and Pinouts

Pre-Wired Cables

Catalog Number	No. of Conductors	Conductor Size	Nominal Outer Diameter	I/O Module Connector	Pinout Diagram
Pre-wired Cables					
1492-CABLE***A5069	17	22 AWG	9.0 mm (0.36 in.)	5069-RTB-SCREW	
1492-CABLE***B5069	18	22 AWG	9.0 mm (0.36 in.)	5069-RTB-SCREW	
1492-CABLE***C5069	18	22 AWG	9.0 mm (0.36 in.)	5069-RTB-SCREW	

Catalog Number	No. of Conductors	Conductor Size	Nominal Outer Diameter	I/O Module Connector	Pinout Diagram
1492-CABLE***D5069	20	22 AWG	9.0 mm (0.36 in.)	5069-RTB-SCREW	
1492-CABLE***E5069	20	22 AWG	9.0 mm (0.36 in.)	5069-RTB-SCREW	
1492-CABLE***G5069	20	22 AWG	9.0 mm (0.36 in.)	5069-RTB-SCREW	

Catalog Number[1]	No. of Conductors	Conductor Size	Nominal Outer Diameter	I/O Module Connector	Pinout Diagram
1492-CABLE***H5069	19	22 AWG	9.0 mm (0.36 in.)	5069-RTB-SCREW	
1492-CABLE***J5069	17	22 AWG	9.0 mm (0.36 in.)	5069-RTB-SCREW	
1492-CABLE***K5069	20	22 AWG	9.0 mm (0.36 in.)	5069-RTB-SCREW	

Catalog Number(1)	No. of Conductors	Conductor Size	Nominal Outer Diameter	I/O Module Connector	Pinout Diagram
1492-CABLE***M5069	8.0	22 AWG	9.0 mm (0.36 in.)	5069-RTB-SCREW	
I/O Ready Cable 1492-CABLE***Z5069	20	22 AWG	9.0 mm (0.36 in.)	5069-RTB-SCREW	

(1) Cables are available in 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-CABLE025A5069** is a 2.5 m cable. Also refer to Standard or Build-to-Order Length Cable on page 21.

Wire Colors for I/O Module-Ready Cables (Continued) and IFM Point Reference Number for I/O Ready Pre-wired Cables

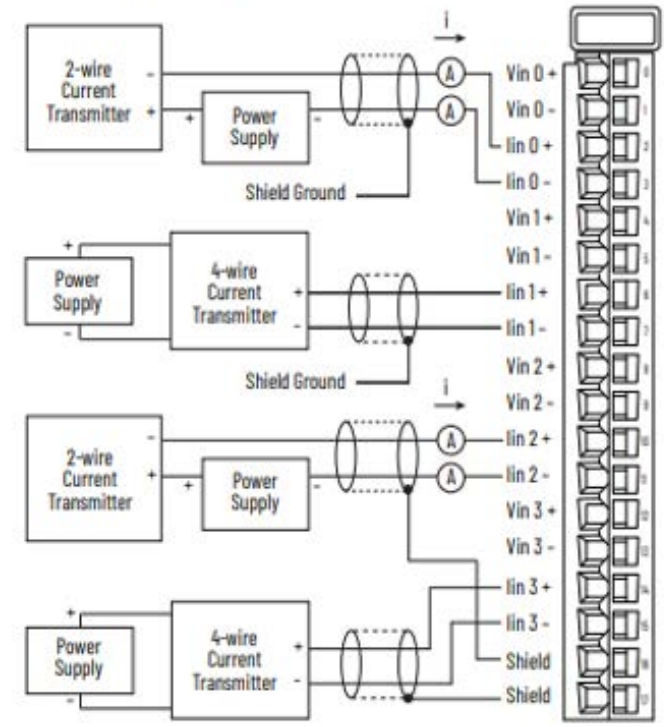
IFM Pin Reference Number	Wire Color Base/Stripe/ Stripe	IFM Pin Reference Number	Wire Color Base/Stripe/ Stripe	IFM Pin Reference Number	Wire Color Base/Stripe/ Stripe	IFM Pin Reference Number	Wire Color Base/Stripe/Stripe
1	Black	11	Blue/Black	21	Orange/Green	31	Green/Black/Orange
2	White	12	Black/White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

Analog

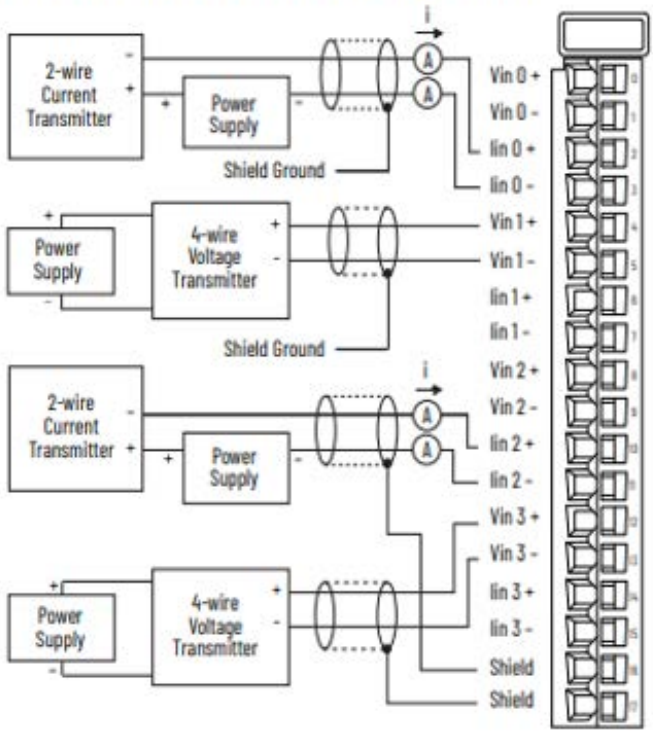
5069-IF4IH

4-Channel Isolated Current/Voltage Input Module

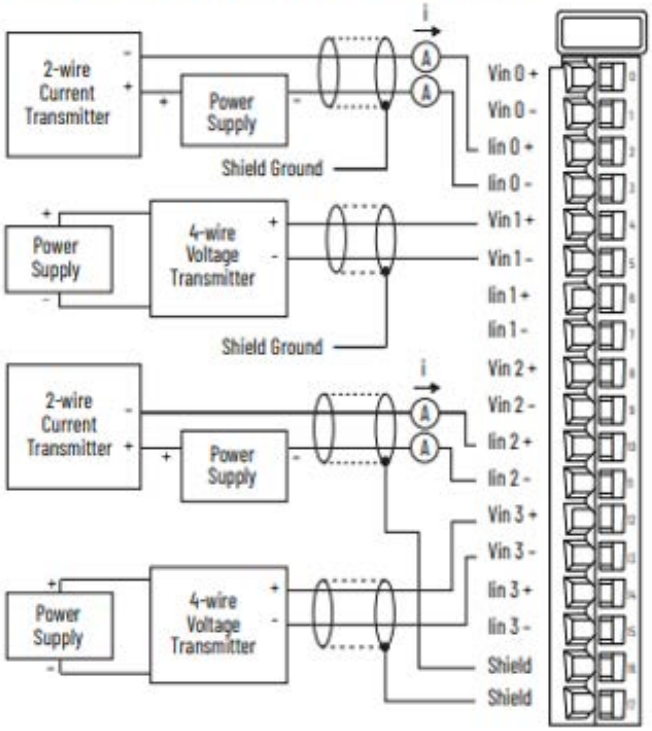
Current Devices Input Wiring - 5069-IF4IH



Combination of Current and Voltage Devices Input Wiring - 5069-IF4IH



Combination of Current and Voltage Devices Input Wiring - 5069-IF4IH



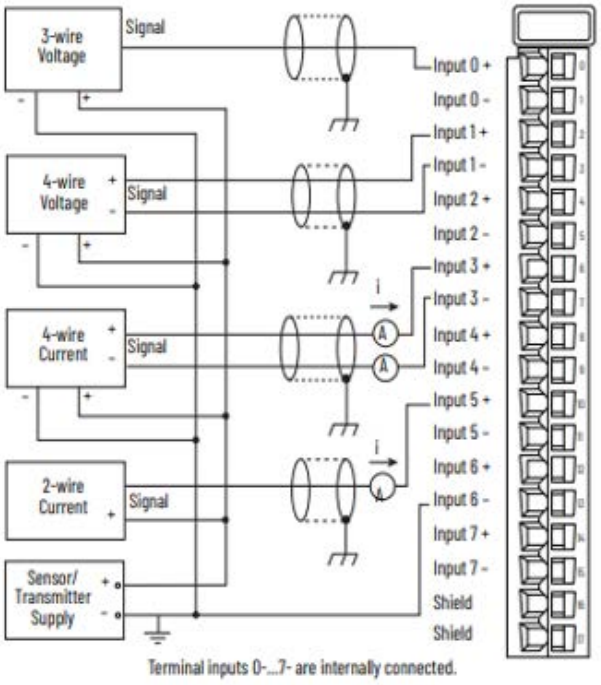
Wiring System Type	Description	Terminals Per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required[1]		Cable Cat. No.[2]
					Screw	Push-In	
Current	Feed-Through, 8 Channel Differential 16-Channel Single-Ended	3	F	1492-AIFM8-3	—	—	1492-ACABLE***A5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***A5069
Voltage		3	F	1492-AIFM8-3	—	—	1492-ACABLE***A5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***A5069
Combination of Current and Voltage		3	F	1492-AIFM8-3	—	—	1492-ACABLE***A5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***A5069

(1) If a removable terminal block (RTB) version is selected, the terminal plugs must be ordered separately (two plugs per catalog number). Plugs are available in screw style and push-in style terminal types. To order add 1492- in front of a code listed above. Example: 1492-RTB20P.

(2) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5 m cable = 025, 5.0 m cable = 050. Custom lengths are available.

5069-IF8

8-Channel Current/ Voltage Input Module



Wiring System Type	Description	Terminals Per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required[1]		Cable Cat. No.[2]
					Screw	Push-In	
Current	Feed-Through, 8 Channel Differential 16-Channel Single-Ended	3	F	1492-AIFM8-3	_	_	1492-ACABLE***A5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***A5069
	Fusible, 8 Channel, Blown Fuse Indication	5	F	1492-AIFM8-F-5	_	_	1492-ACABLE***A5069
Voltage	Feed-Through, 8 Channel Differential 16-Channel Single-Ended	3	F	1492-AIFM8-3	_	_	1492-ACABLE***A5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***A5069
	Fusible, 8 Channel, Blown Fuse Indication	5	F	1492-AIFM8-F-5	_	_	1492-ACABLE***A5069
Combination of Current and Voltage	Feed-Through, 8 Channel Differential 16-Channel Single-Ended	3	F	1492-AIFM8-3	_	_	1492-ACABLE***A5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***A5069
	Fusible, 8 Channel, Blown Fuse Indication	5	F	1492-AIFM8-F-5	_	_	1492-ACABLE***A5069

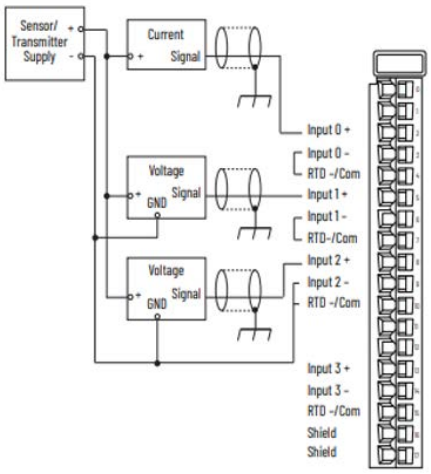
(1) If a removable terminal block (RTB) version is selected, the terminal plugs must be ordered separately (two plugs per catalog number). Plugs are available in screw style and push-in style terminal types. To order add 1492- in front of a code listed above. Example: 1492-RTB20P.

(2) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5 m cable = 025, 5.0 m cable = 050. Custom lengths are available.

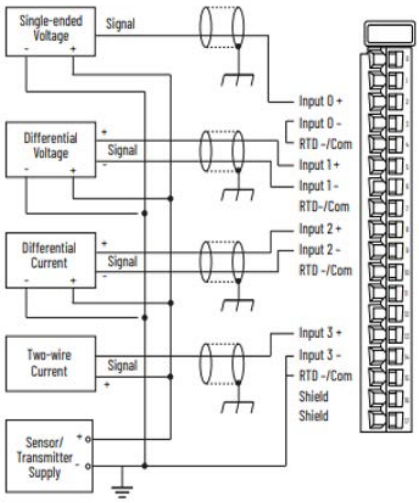
5069-IY4, 5069-IY4K

4-Channel Current/ Voltage/RTD/Thermocouple Input Modules

Current and Voltage Devices with Single-ended Transmitter Inputs Wiring - 5069-IY4, 5069-IY4K

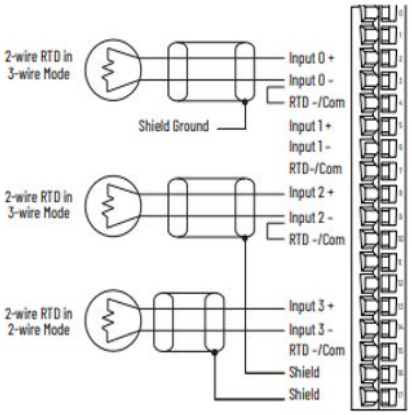


Current and Voltage Devices with Mixed Transmitter Inputs Wiring - 5069-IY4, 5069-IY4K

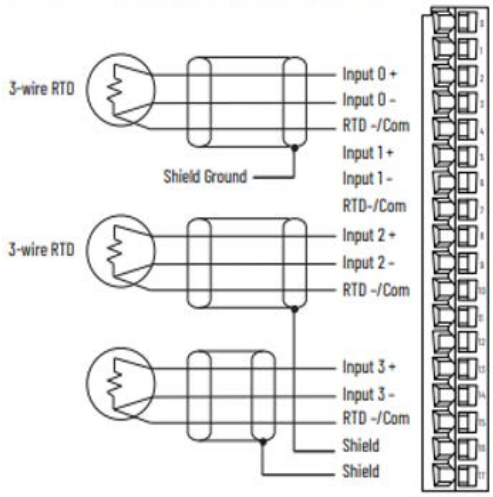


RTD Devices with Two Wires Input Wiring - 5069-IY4, 5069-IY4K

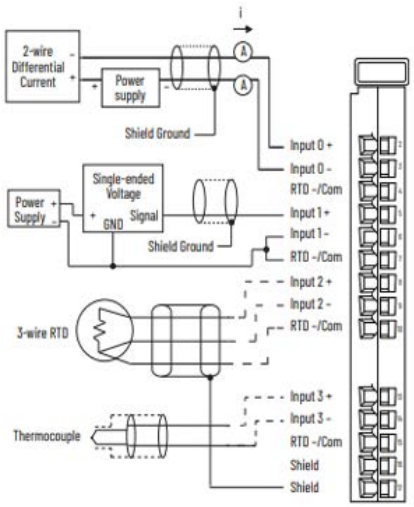
IMPORTANT: When you use a 2-wire RTD in 3-wire mode, you must jumper terminals Input x- and RTD x together.



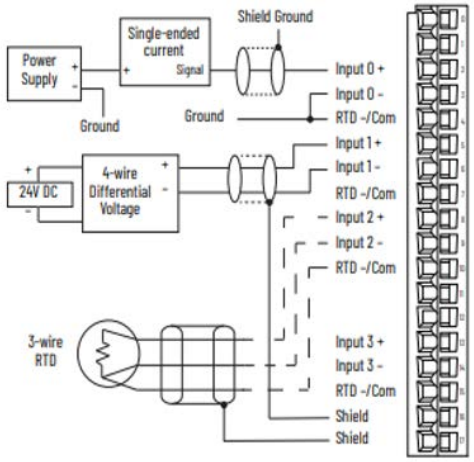
RTD Devices with Three Wires Input Wiring - 5069-IY4, 5069-IY4K



Current, Voltage, RTD, and Thermocouple Devices Input Wiring - 5069-IY4, 5069-IY4K

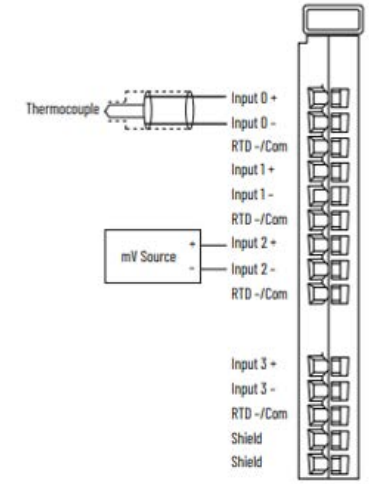


Current, Voltage, and RTD Devices Input Wiring - 5069-IY4, 5069-IY4K



Thermocouple Device Input Wiring - 5069-IY4, 5069-IY4K

IMPORTANT: When you connect at least one Thermocouple to the module, you must use a 5069-RTB14CJC RTB.



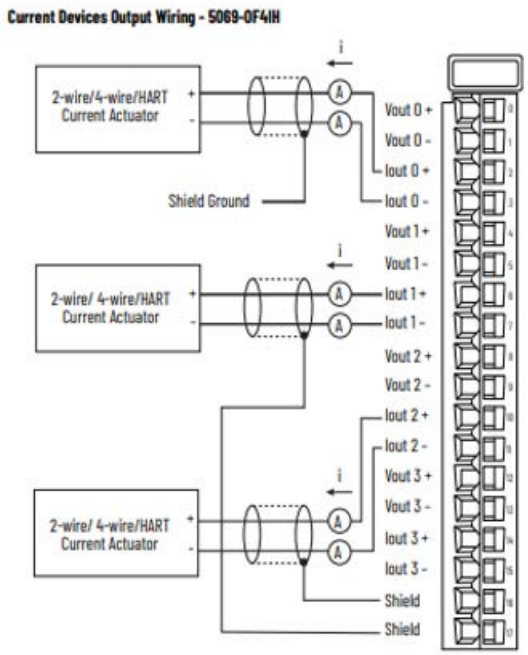
Wiring System Type	Description	Terminals Per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required[1]		Cable Cat. No.[2]
					Screw	Push-In	
Current and Voltage Devices with Single-ended Transmitter Inputs	Feed-Through, 6 Channel Isolated	3…4	F	1492-AIFM6S-3	—	—	1492-ACABLE***C5069
		3…4	R	1492-RAIFM6S-3	RTB12N	RTB12P	1492-ACABLE***C5069
Current and Voltage Devices with Mixed Transmitter Inputs		3…4	F	1492-AIFM6S-3	—	—	1492-ACABLE***C5069
		3…4	R	1492-RAIFM6S-3	RTB12N	RTB12P	1492-ACABLE***C5069
RTD Devices with Two Wires		3…4	F	1492-AIFM6S-3	—	—	1492-ACABLE***C5069
		3…4	R	1492-RAIFM6S-3	RTB12N	RTB12P	1492-ACABLE***C5069
RTD Devices with Three Wires		3…4	F	1492-AIFM6S-3	—	—	1492-ACABLE***C5069
		3…4	R	1492-RAIFM6S-3	RTB12N	RTB12P	1492-ACABLE***C5069
Thermocouple	Thermocouple, 6 Channel	3	F	1492-AIFM6TC-3	—	—	1492-ACABLE***B5069
Current, Voltage, RTD, and Thermocouple	Thermocouple, 6 Channel	3	F	1492-AIFM6TC-3	—	—	1492-ACABLE***B5069
Current and Voltage Devices with Single-ended Transmitter Inputs	Feed-Through, 8 Channel Differential 16-Channel Single-Ended	3	F	1492-AIFM8-3	—	—	1492-ACABLE***D5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***D5069
Current and Voltage Devices with Mixed Transmitter Inputs		3	F	1492-AIFM8-3	—	—	1492-ACABLE***D5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***D5069
RTD Devices with Two Wires		3	F	1492-AIFM8-3	—	—	1492-ACABLE***D5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***D5069
RTD Devices with Three Wires		3	F	1492-AIFM8-3	—	—	1492-ACABLE***D5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***D5069
Current, Voltage, RTD		3	F	1492-AIFM8-3	—	—	1492-ACABLE***D5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***D5069
Current and Voltage Devices with Single-ended Transmitter Inputs	Fusible, 8 Channel, Blown Fuse Indication	5	F	1492-AIFM8-F-5	—	—	1492-ACABLE***D5069
Current and Voltage Devices with Mixed Transmitter Inputs		5	F	1492-AIFM8-F-5	—	—	1492-ACABLE***D5069
RTD Devices with Two Wires		5	F	1492-AIFM8-F-5	—	—	1492-ACABLE***D5069
RTD Devices with Three Wires		5	F	1492-AIFM8-F-5	—	—	1492-ACABLE***D5069
Current, Voltage, and RTD		5	F	1492-AIFM8-F-5	—	—	1492-ACABLE***D5069

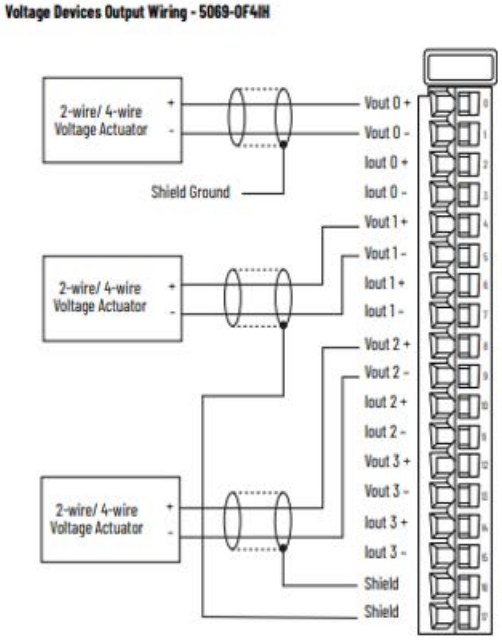
(1) If a removable terminal block (RTB) version is selected, the terminal plugs must be ordered separately (two plugs per catalog number). Plugs are available in screw style and push-in style terminal types. To order add 1492- in front of a code listed above. Example: 1492-RTB20P

(2) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5 m cable = 025, 5.0 m cable = 050. Custom lengths are available.

5069-OF4IH

4-Channel Isolated Current/Voltage/Hart Output Module





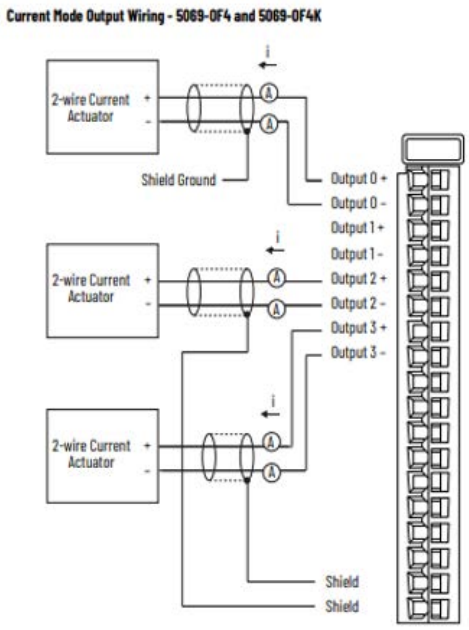
Wiring System Type	Description	Terminals Per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required[1]		Cable Cat. No.[2]
					Screw	Push-In	
Current	Feed-Through, 8 Channel Differential 16-Channel Single-Ended	3	F	1492-AIFM8-3	-	-	1492-ACABLE***A5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***A5069
Voltage		3	F	1492-AIFM8-3	-	-	1492-ACABLE***A5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***A5069

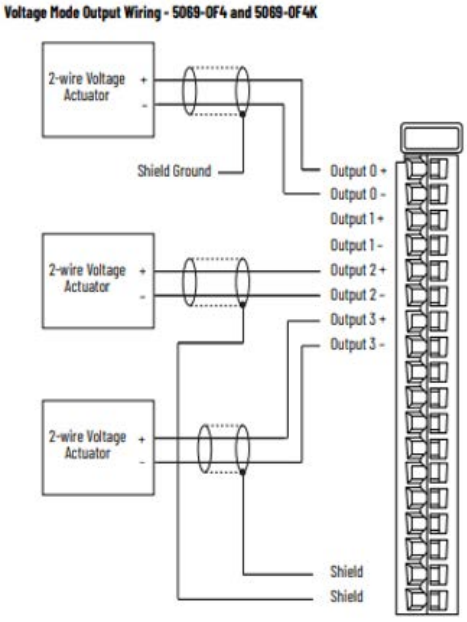
(1) If a removable terminal block (RTB) version is selected, the terminal plugs must be ordered separately (two plugs per catalog number). Plugs are available in screw style and push-in style terminal types. To order add 1492- in front of a code listed above. Example: 1492-RTB20P.

(2) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5 m cable = 025, 5.0 m cable = 050. Custom lengths are available.

5069-OF4, 5069-OF4K

4-Channel Analog Current/Voltage Output Modules





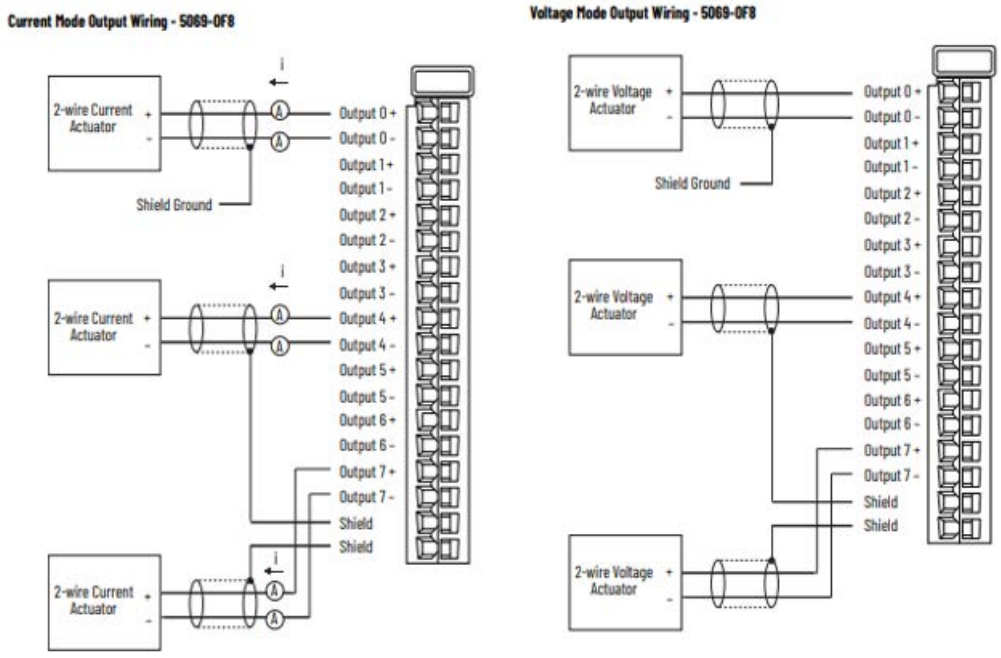
Wiring System Type	Description	Terminals Per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required[1]		Cable Cat. No.[2]
					Screw	Push-In	
Current	Feed-Through, 4 Channel Input, Output or 2 Input / 2 Output	3	F	1492-AIFM4-3	—	—	1492-ACABLE***F5069
		3	R	1492-RAIFM4-3	RTB8N	RTB8P	1492-ACABLE***F5069
Voltage		3	F	1492-AIFM4-3	—	—	1492-ACABLE***F5069
		3	R	1492-RAIFM4-3	RTB8N	RTB8P	1492-ACABLE***F5069
Current	Fusible, 4 Channel, Blown Fuse Indication	5	F	1492-AIFM4I-F-5	—	—	1492-ACABLE***F5069
Voltage		5	F	1492-AIFM4I-F-5	—	—	1492-ACABLE***F5069
Current	Feed-Through, 8 Channel Differential 16-Channel Single-Ended	3	F	1492-AIFM8-3	—	—	1492-ACABLE***A5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***A5069
Voltage		3	F	1492-AIFM8-3	—	—	1492-ACABLE***A5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***A5069

(1) If a removable terminal block (RTB) version is selected, the terminal plugs must be ordered separately (two plugs per catalog number). Plugs are available in screw style and push-in style terminal types. To order add 1492- in front of a code listed above. Example: 1492-RTB20P.

(2) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5 m cable = 025, 5.0 m cable = 050. Custom lengths are available.

5069-OF8

8-Channel Analog Current/Voltage Output Module



Wiring System Type	Description	Terminals Per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required[1]		Cable Cat. No.[2]
					Screw	Push-In	
Current	Feed-Through, 8 Channel Differential 16-Channel Single-Ended	3	F	1492-AIFM8-3	—	—	1492-ACABLE***A5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***A5069
Voltage		3	F	1492-AIFM8-3	—	—	1492-ACABLE***A5069
		3	R	1492-RAIFM8-3	RTB16N	RTB16P	1492-ACABLE***A5069

(1) If a removable terminal block (RTB) version is selected, the terminal plugs must be ordered separately (two plugs per catalog number). Plugs are available in screw style and push-in style terminal types. To order add 1492- in front of a code listed above. Example: 1492-RTB20P

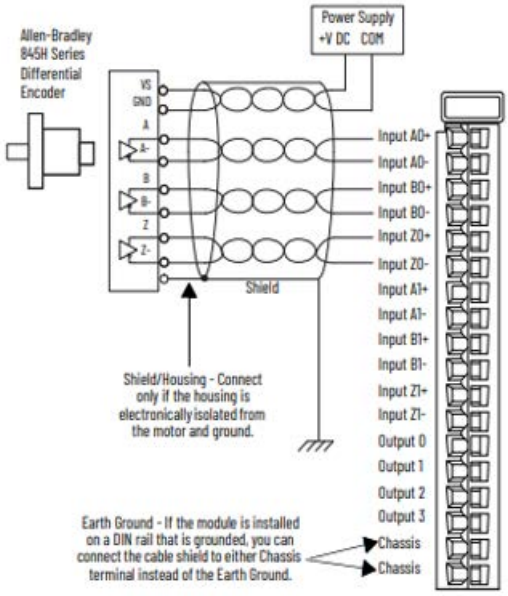
(2) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5 m cable = 025, 5.0 m cable = 050. Custom lengths are available.

Specialty

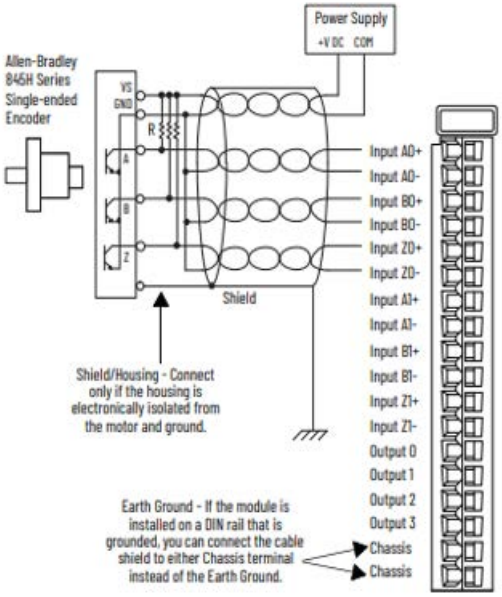
5069-HSC2XOB4

High-speed Counter Module

Differential Encoder Wiring



Single-Ended Encoder Wiring



Wiring System Type	Description	Terminals Per Channel	Fixed (F) or Removable (R) Terminals	Wiring System Module Cat. No.	RTB Required		Cable Cat. No.(1)
					Screw	Push-In	
Differential Encoder	Feed-Through, High Speed Counter/Encoder	2	F	1492-AIFMCE4	—	—	1492-ACABLE***H5069
Single-ended Encoder		2	F	1492-AIFMCE4	—	—	1492-ACABLE***H5069
Differential Encoder	Fusible, High Speed Counter/Encoder	2	F	1492-AIFMCE4-F	—	—	1492-ACABLE***H5069
Single-ended Encoder		2	F	1492-AIFMCE4-F	—	—	1492-ACABLE***H5069

(1) To order a pre-wired Cable, add the appropriate length code to the end of the Cable Cat. No. shown in the chart above. 0.5 m cable = 005, 1.0 m cable = 010, 2.5 m cable = 025, 5.0 m cable = 050. Custom lengths are available.

Pre-wired Analog Cables for Analog I/O Modules

Catalog Number Explanation

This catalog number breakdown is for explanation purposes only. It is not a product configurator. All combinations of fields are not valid product catalog numbers. Refer to the instructions in Ordering Digital and Analog Wiring Systems on page 3. Then, use this breakdown for verification and explanation only.

1492 - ACABLE 050 A5069

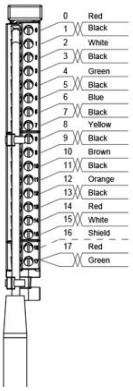
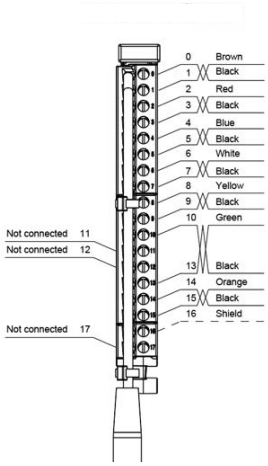
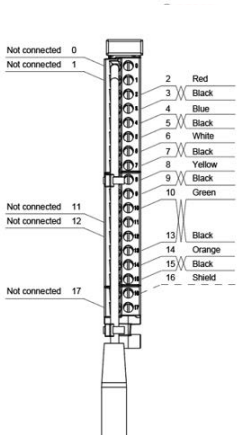
Bulletin No.

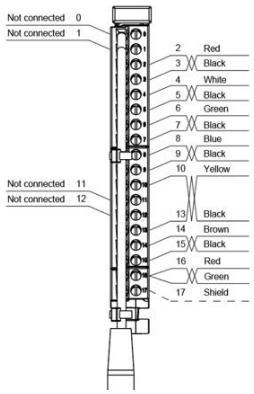
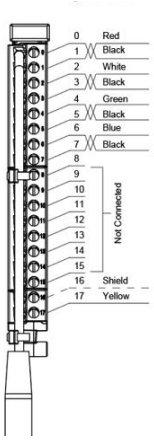
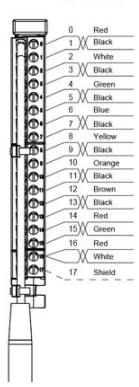
Analog Interface Cables

A-Cable Type	
Code	**Description**
A5069, B5069, C5069, D5069, F5069, H5069	Pre-wired cables for Bulletin 5069 analog I/O modules

Standard or Build-to-Order Length Cable		
Code	**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...98.4 ft) 1.0 m (3.28 ft) increments	

Analog Cable Specifications

Catalog Number[1]	No. of Conductors[2]	Nominal Outer Diameter	I/O Module Connector	I/O Module Connector (Removable Terminal Block)	Pinout Diagram
1492-ACABLE***A5069	9 Twisted Pairs	22 AWG	8.43 mm (0.33 in.)	5069-RTB-SCREW	
1492-ACABLE***B5069	9 Twisted Pairs	22 AWG	8.43 mm (0.33 in.)	5069-RTB-SCREW	
1492-ACABLE***C5069	9 Twisted Pairs	22 AWG	8.43 mm (0.33 in.)	5069-RTB-SCREW	

Catalog Number[1]	No. of Conductors[2]	Nominal Outer Diameter	I/O Module Connector	I/O Module Connector (Removable Terminal Block)	Pinout Diagram
1492-ACABLE***D5069	9 Twisted Pairs	22 AWG	8.43 mm (0.33 in.)	5069-RTB-SCREW	
1492-ACABLE***F5069	5 Twisted Pairs	22 AWG	7.44 mm (0.29 in.)	5069-RTB-SCREW	
1492-ACABLE***H5069	9 Twisted Pairs	22 AWG	8.43 mm (0.33 in.)	5069-RTB-SCREW	

(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 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-ACABLE005A5069 is 0.5 m cable. Also refer to Standard or Build-to-Order Length Cable on page 35.

(2) All pre-wired analog cables have an overall shield. On 1492-ACABLEQC and 1492-ACABLEQD, 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. Not every connection is always used.

Notes:

Digital Interface Modules (IFMs)

IMPORTANT The following IFM catalog number breakdown is for explanation purposes only. It is not a product configurator. All combinations of fields are not valid product catalog numbers.

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

b

Digital Cable Connector Size

Code	Description
20	20 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	240 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)

Digital Interface Modules (XIMs) Relay

IMPORTANT The following IFM catalog number breakdown is for explanation purposes only. It is not a product configurator. All combinations of fields are not valid product catalog numbers.

1492	-	XIM	20	24	16RF
		a	b	c	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
RXITR	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
Blank	Expander module

c

Module Type (all types do not configure a catalog number)

Code	Description
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

d

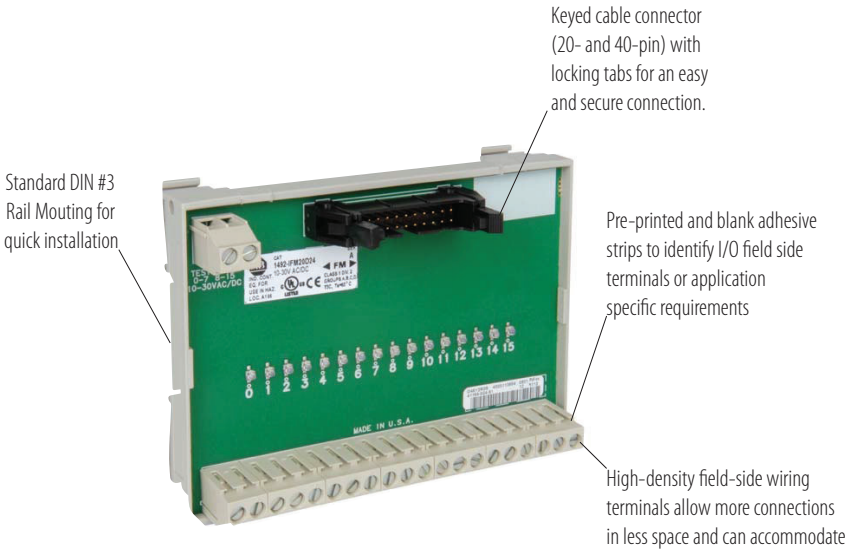
Number of Fields Side Wiring Terminals

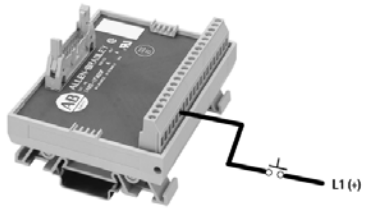
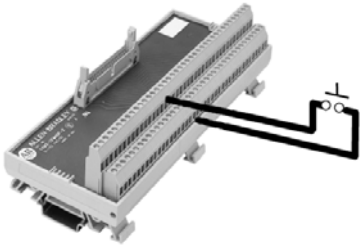
Blank	One per I/O connection (Standard Terminals)
2	Two per I/O connection (Extra Terminals)
3	Three per I/O connection (Sensor Terminals)
4	Four per I/O connection (Special Terminal)

Digital IFM Selection

Digital IFM Options and Features

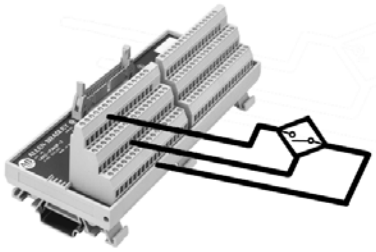
Digital IFMs, similar to groups of terminal blocks, are available with either 20-pin (typically 8 to 16 PLC I/O points) or 40-pin (typically 16 to 32 PLC I/O points) cable connectors. The number of field-side wiring terminals varies with the type of module — from one to three terminals per I/O point. Status indicators, fuse clips, and relays 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.



Digital IFM Options and Features	
Standard Terminal 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. • 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 <u>not</u> 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 [1] 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.

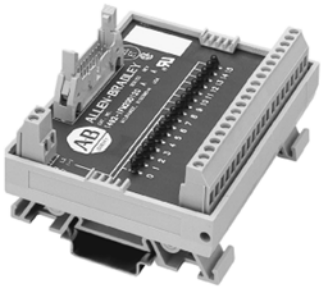
Digital IFM Options and Features

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 Module



- 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.

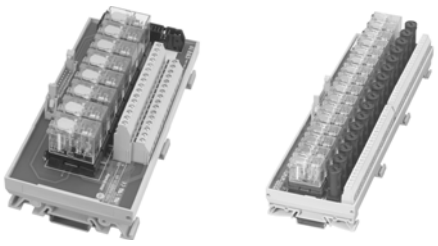
Fusible Module

- 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 onboard 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 help 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.

(1) Except catalog numbers 1492-IFM20D24A-2 and -IFM20D120A-2, which are in groups of 20.

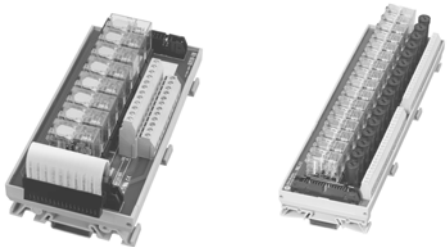
Relay and Relay Expander IFM Options and Features

Relay Master



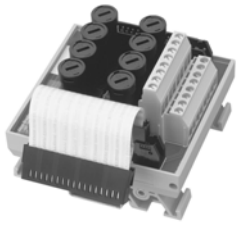
- Field-replaceable relays with 120V or 24V rated coils.
- The field-side Form C contacts are rated 240V 10 A (de-rated to 12 A per adjacent pair on the XIM).
- The Form C relay output provides isolated output channels and a different voltage level from one output channel to the next.
- Coil-side LED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

Relay Expanders



- Eight field-replaceable relays with 120V or 24V rated coils.
- 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.
- Coil-side LED indicating the PLC output module status, and transient suppression on each coil.
- A relay expander can have 5 x 20 mm fuse holders so customers can fuse the output contacts.
- Expander cable is provided for connection to the mating module.

Fusible Expanders



- Eight 5 x 20 mm finger-safe fuse holders.
- Blown fuse indicators.
- 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.

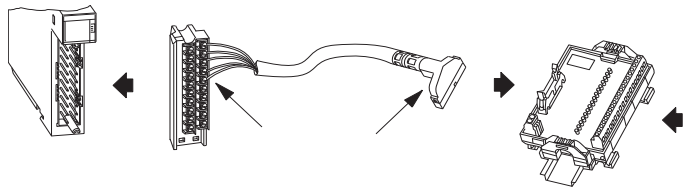
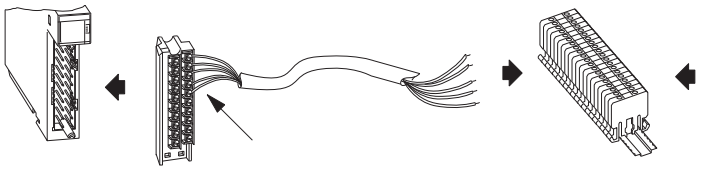
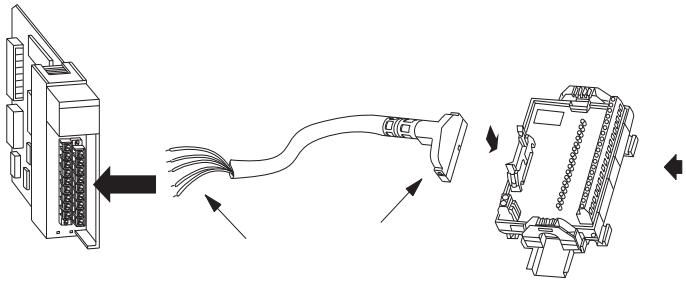
Feed-Through Expander

- Eight channels with extra terminals for landing two wires per field-side device.
- An expander cable is provided for connection to the mating module.

Slim Line Relays

- 50% reduction in width vs. existing relay modules using 700-HLT or 700-HLS Terminal Block Relays.
- Available in 16 point or 32pt modules.
- Eliminates the need for extender relay modules.
- Electromechanical or Solid-state relays.
- Status indicator lights.
- Removable terminal blocks (optional) for field wiring.

Digital IFM Cable Options

Digital Pre-Wired Cables  Pre-Wired Cable and Interface Module	• Minimize control wiring in a panel by replacing the point-to-point wiring between Allen-Bradley programmable controller I/O modules and individual terminal blocks • Features 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 • Uses 22 AWG wire and are 100% tested for continuity to make a perfect connection every time • Four standard lengths of 0.5, 1.0, 2.5, and 5.0 m to fit a variety of applications • Custom cable lengths are available
I/O Module Ready Digital Cables  Digital I/O Module-Ready Cable and Standard Terminal Block	• I/O removable terminal block or wiring arm pre-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 • 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 • Standard lengths of 1.0, 2.5, and 5.0 m to a variety of applications • Custom cable lengths are available
IFM Ready Cables  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 • Use 22 AWG wire and have individual color-coded conductors for quick wire-to-terminal coordination • Standard lengths of 1.0, 2.5, and 5.0 m fit a variety of applications • Custom cable lengths are available

Digital IFMs

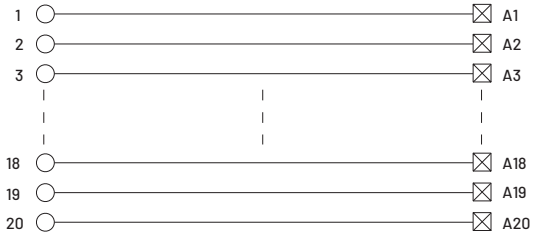
1492-IFM20F

1492-RIFM20F

1492-IFM20FH

1492-RIFM20FH

Feed-Through Standard 264V AC/DC maximum



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-IFM20F	0...264V AC/DC	2 A	12 A	4.33 x 3.27 x 2.78	NA	600 K	0...60° C	5...95%	0.62 lb. (281.2 g)	W4600630001 W4600634001
1492-RIFM20F				4.72 x 3.27 x 2.78						
1492-IFM20FH	0...132V AC/DC			4.72 x 2.78 x 2.78						
1492- RIFM20FH				5.11 x 2.78 x 2.78						

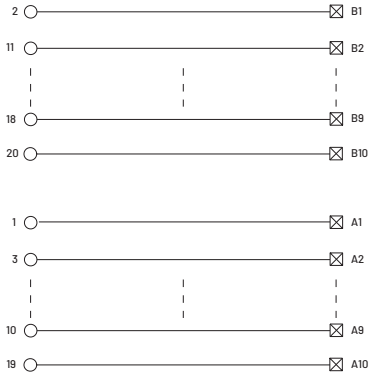
1492-IFM20FN

1492-RIFM20FN

1492-IFM20FNH

1492-RIFM20FNH

Feed-Through Narrow Standard 132V AC/DC maximum



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current(Nominal)	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20FN	0...132V AC/DC	2 A	12 A	2.36 x 3.27 x 2.78	NA	600 K	0...60° C	5...95%	0.62 lb. (281.2 g)	W4600630701 W4600633001 W4600634401
1492-RIFM20FN				2.75 x 3.27 x 2.78						
1492-IFM20FNH				2.36 x 3.27 x 2.78						
1492- RIFM20FNH				2.75 x 3.27 x 2.78						

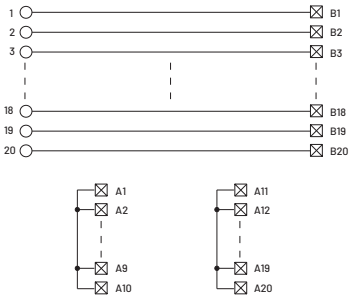
1492-IFM20F-2

1492-RIFM20F-2

1492-IFM20FH-2

1492-RIFM20FH-2

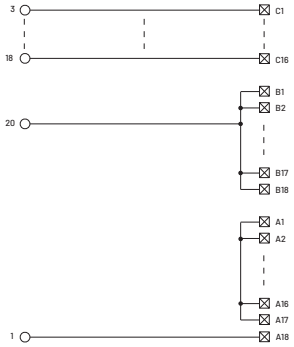
Feed-Through Extra Terminals (2 per I/O) 264V AC/DC maximum



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current(Nominal)	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20F-2	0...264V AC/DC	2 A	12 A	4.33 x 3.27 x 2.78	NA	600 K	0...60° C	5...95%	0.67 lb (305 g)	W4600630201 W4600633101 W4600634201
1492-RIFM20F-2				4.72 x 3.27 x 2.78						
1492-IFM20FH-2	0...132V AC/DC			4.72 x 2.78 x 2.78						
1492- RIFM20FH-2				5.11 x 2.78 x 2.78						

1492-IFM20F-3

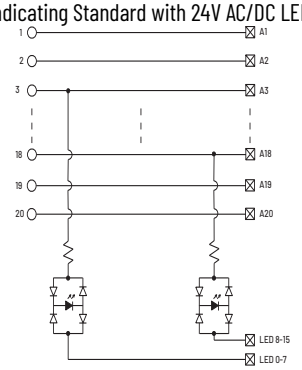
Feed-Through 3-Wire Sensor Type Input Devices 132V AC/DC maximum



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20F-3	0...264V AC/DC	2 A	12 A	4.33 x 3.27 x 2.78	NA	600 K	0...60° C	5...95%	0.77 lb (349.3 g)	W4600632001 W4600634001

1492-IFM20D24

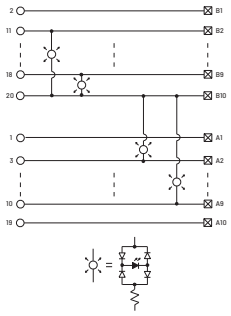
LED Indicating Standard with 24V AC/DC LEDs



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20D24	10...30V AC/DC	2 A	12 A	4.33 x 3.27 x 2.78	20 mA	600 K	0...60° C	5...95%	0.62 lb (278 g)	W4600630001

1492-IFM20D24N

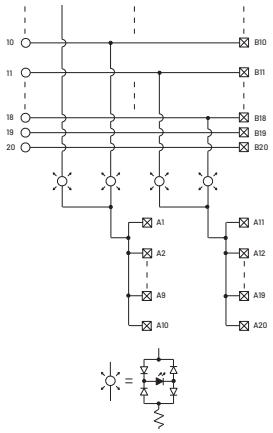
LED Indicating Narrow Standard with 24V AC/DC LEDs



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20D24N	10...30V AC/DC	2 A	12 A	2.36 x 3.27 x 2.78	2.0 mA	600 K	0...60° C	5...95%	0.77 lb (349.3 g)	W4600630701 W4600634401 W4600633001

1492-IFM20D24-2

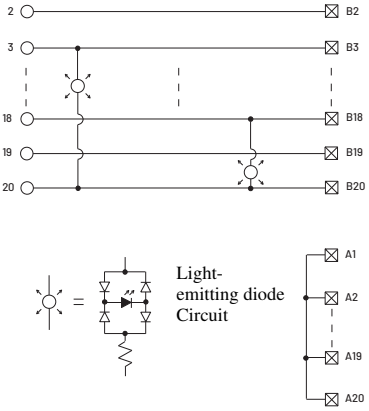
LED Indicating 24V AC/DC LEDs & Extra Terminals for Outputs



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20D24-2	10...30V AC/DC	2 A	12 A	4.33 x 3.27 x 2.78	2.0 mA	600 K	0...60° C	5...95%	0.67 lb (305 g)	W4600630201 W4600634201 W4600633101

1492-IFM20D24A-2

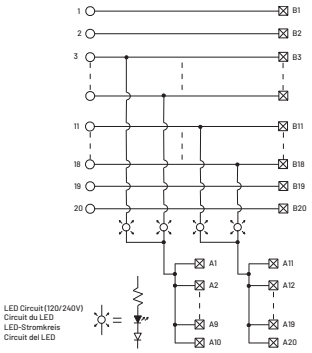
LED Indicating 24V AC/DC LEDs & Extra Terminals for Inputs



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20D24A-2	10...30V AC/DC	2 A	12 A	4.33 x 3.27 x 2.78	2.0 mA	600 K	0...60° C	5...95%	0.67 lb (305 g)	W4600632101

1492-IFM20D120-2

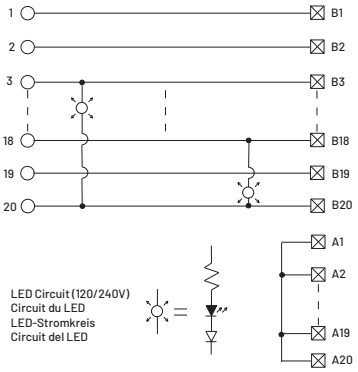
LED Indicating 120V AC LEDs & Extra Terminals for Outputs



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20D120-2	85...132V AC	2 A	12 A	4.33 x 3.27 x 2.78	2.5 mA	600 K	0...60° C	5...95%	0.67 lb (305 g)	W4600630201 W4600634201 W4600633101

1492-IFM20D120A-2

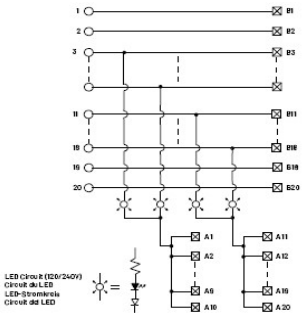
LED Indicating 120V AC LEDs & Extra Terminals for Inputs



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20D120A-2	85...132V AC	2 A	12 A	4.33 x 3.27 x 2.78	2.5 mA	600 K	0...60° C	5...95%	0.67 lb (305 g)	W4600632101

1492-IFM20D240-2

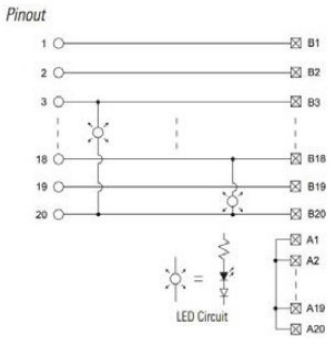
LED Indicating 240V AC LEDs & Extra Terminals for Outputs



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20D240-2	168...264V AC	2 A	12 A	4.33 x 3.27 x 2.78	2.5 mA	600 K	0...60° C	5...95%	0.67 lb (305 g)	W4600630201 W4600634201 W4600633101

1492-IFM20D240A-2

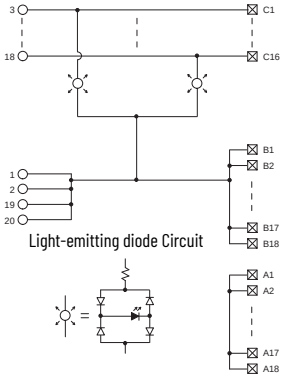
LED Indicating Standard with 240 AC/DC LEDs.



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20D240A-2	168...264V AC	2 A	12 A	4.33 x 3.27 x 2.78	2.5 mA	600 K	0...60° C	5...95%	0.67 lb (305 g)	W4600630201 W4600634201 W4600633101

1492-IFM20D24-3

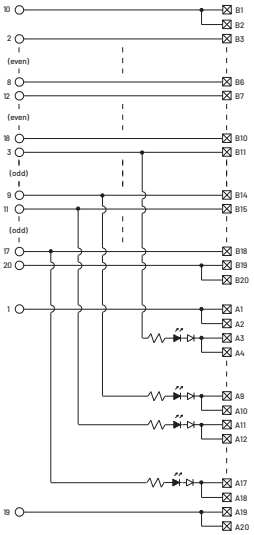
LED Indicating 3-Wire Sensor with 24V AC/DC LEDs



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20D24-3	10...30V AC/DC	2 A	12 A	4.33 x 3.27 x 2.78	2.0 mA	600 K	0...60° C	5...95%	0.77 lb (371 g)	W4600630301 W4600634301

1492-IFM20DS24-4

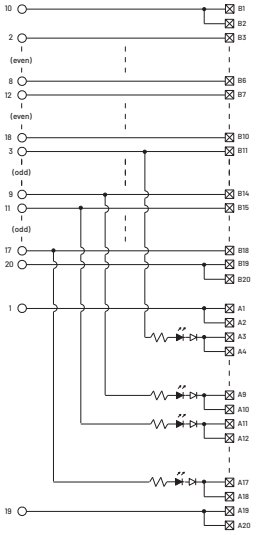
LED Indicating 8 Individually Isolated with 24/48V AC/DC LEDs & 4 Terminals/ Output



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20DS24-4	10...60V AC/DC	2 A	12 A	4.33 x 3.27 x 2.78	<2.0 mA	600 K	0...60° C	5...95%	0.65 lb (299 g)	W4600631901

1492-IFM20DS120-4

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

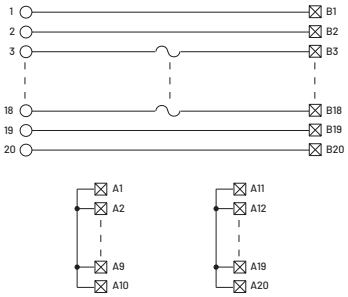


Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20DS120-4	85...132V AC/DC	2 A	12 A	4.33 x 3.27 x 2.78	<2.6 mA	600 K	0...60° C	5...95%	0.65 lb (299 g)	W4600631901

1492-IFM20F-F-2

1492-RIFM20F-F-2

Fusible Extra Terminals for Outputs

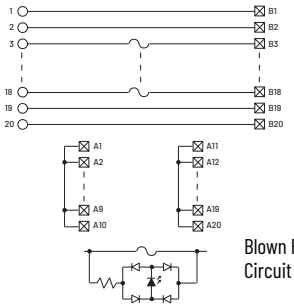


Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20F-F-2	0..132V AC/DC	2 A	12 A	4.33 x 3.27 x 2.78	NA	600 K	0...60° C	5...95%	0.76 lb (344 g)	W4600630201 W4600633101 W4600634201
1492-RIFM20F-F-2				4.72 x 3.27 x 2.78						

1492-IFM20F-F24-2

1492-RIFM20F-F24-2

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



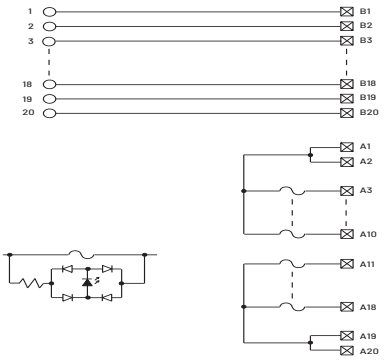
Blown Fuse Indicator Circuit

Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20F-F24-2	10..30V AC/DC	2 A	12 A	4.33 x 3.27 x 2.78	2.0 mA	600 K	0...60° C	5...95%	0.76 lb. (344 g)	W4600630201 W4600633101 W4600634201
1492-RIFM20F-F24-2				4.72 x 3.27 x 2.78						

1492-IFM20F-F24A-2

1492-RIFM20F-F24A-2

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

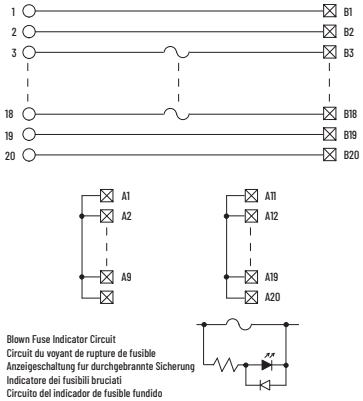


Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Cat. No.
1492-IFM20F-F24A-2	10..30V AC/DC	2 A	12 A	4.33 x 3.27 x 2.78	2.4 mA	600 K	0...60° C	5...95%	0.72 lb (327 g)	W4600629901 W4600632201
1492-RIFM20F-F24A-2				4.72 x 3.27 x 2.78						

1492-IFM20F-F120-2

1492-RIFM20F-F120-2

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

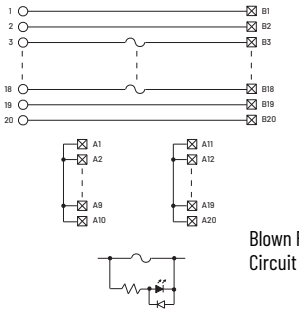


Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current (Nominal)
1492-IFM20F-F120-2 1492-RIFM20F-F120-2	85...132V AC	2 A	12 A	4.33 x 3.27 x 2.78	2.5 mA

1492-IFM20F-F120A-2

1492-RIFM20F-F120A-2

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

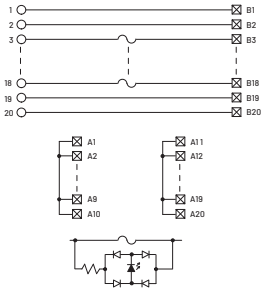


Blown Fuse Indicator Circuit

Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-IFM20F-F120A-2	85...132V AC/DC	2 A	12 A	4.33 x 3.27 x 2.78	1.2 mA	600 K	0...60° C	5...95%	0.72 lb (327g)	W4600632201
1492-RIFM20F-F120A-2				4.72 x 3.27 x 2.78						W4600629901

1492-IFM20F-F240-2

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

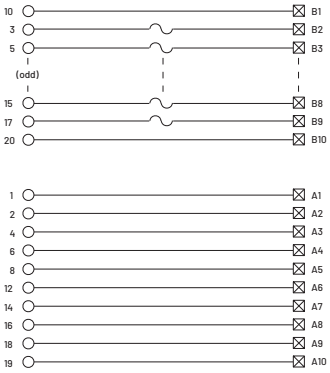


Blown Fuse Indicator Circuit

Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current (Nominal)	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-IFM20F-F240-2	168...264V AC/DC	0.5 A	4 A	4.72 x 3.27 x 2.78	<1.5 mA	600 K	0...60° C	5...95%	0.772 lb (327 g)	W4600630201 W4600633101 W4600634201

1492-IFM20F-FS-2

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

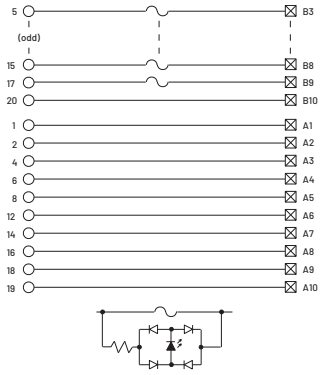


Blown Fuse Indicator Circuit

Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-IFM20F-FS-2	0...132V AC/DC	2 A	12 A	2.36 x 3.27 x 2.78	NA	600 K	0...60° C	5...95%	0.51 lb (231 g)	W4600631401

1492-IFM20F-FS24-2

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

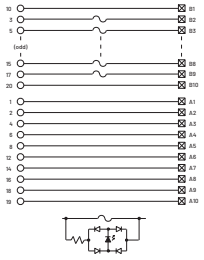


Blown Fuse Indicator Circuit

Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-IFM20F-FS24-2	10...30 AC/DC	2 A	12 A	2.36 x 3.27 x 2.78	2 mA	600 K	0...60° C	5...95%	0.51 lb (231 g)	W4600631401

1492-IFM20F-FS120-2

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

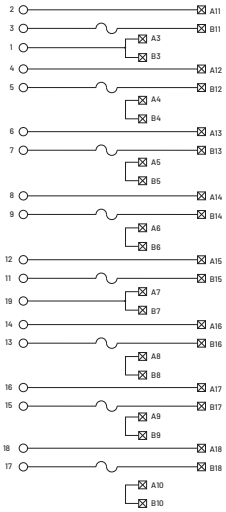


Blown Fuse Indicator Circuit

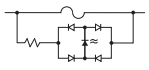
Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-IFM20F-FS120-2	85...132V AC/DC	2 A	12 A	2.36 x 3.27 x 2.78	2.5 mA	600 K	0...60° C	5...95%	0.51 lb (231 g)	W4600631401

1492-IFM20F-FS120-4

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



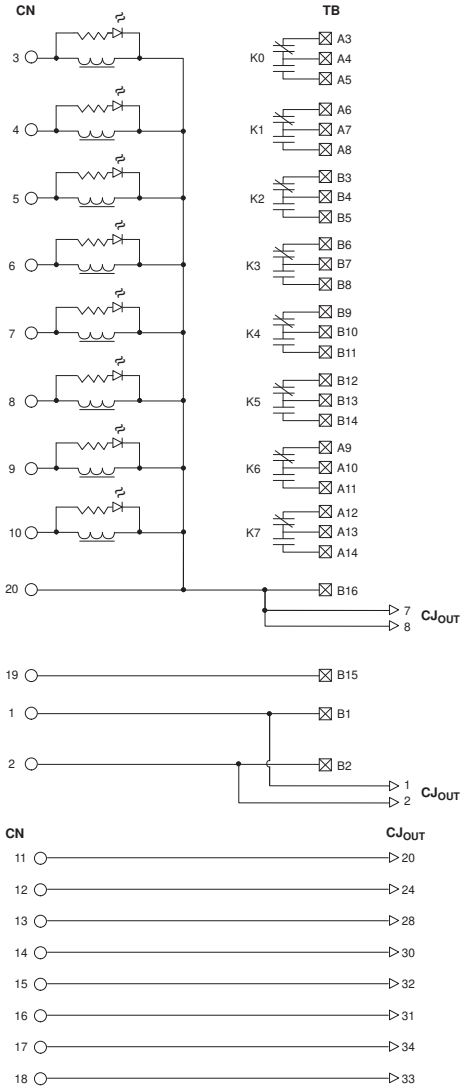
Blown Fuse Indicator Circuit



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current (Nominal)	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-IFM20F-FS120-4	85...132V AC/DC	2 A	12 A	7.09 x 3.27 x 2.78	1.5 mA	600 K	0...60° C	5...95%	1.18 lb (535 g)	W4600632301

1492-XIM2024-8R

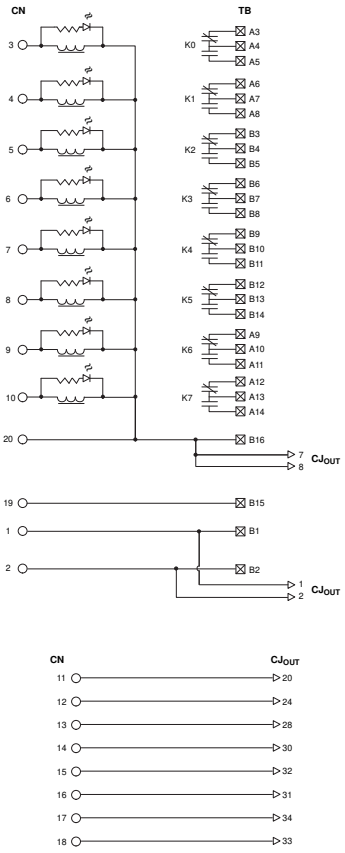
Relay Master (LED Indicating) 20-Pin Master With Eight (8) 24V DC Relays



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-XIM2024-8R	20...26V DC	2 A	12 A	6.3 x 3.27 x 2.78	2.5 mA	600 K	0...60 °C	5...95%	1.18 lb (535 g)	W4600632601

1492-XIM20120-8R

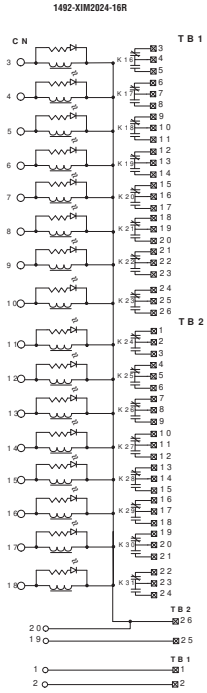
Relays Masters (LED Indicating) 20-Pin Master with Eight (8) 120V AC Relays



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current (Nominal)	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-XIM20120-8R	96...132V AC	2 A	12 A	6.3 x 3.27 x 2.78	2	600 K	0...60° C	5...95%	1.18 lb (535 g)	W4600632601

1492-XIM2024-16R

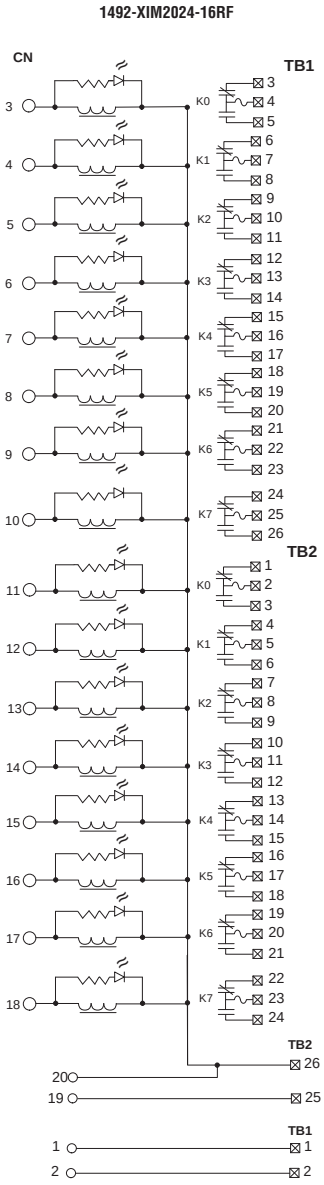
Relays Master (LED Indicating) 20-Pin Master with Sixteen (16) 24V DC Relays



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current (Nominal)	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-XIM2024-16R	20...26V DC	10/12 A	96 A	10.65 x 3.27 x 2.78	2 mA	600 K	0...60 °C	5...95%	1.18 lb (535 g)	W4600633301

1492-XIM2024-16RF

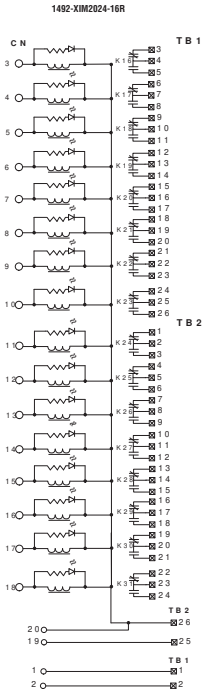
Relay Master (LED Indicating) 20-Pin Master with Sixteen (16) 24V DC Relays with Fusing



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current (Nominal)	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-XIM2024-16RF	96...132V AC	10/12 A	96A	10.65 x 3.27 x 2.78	2 mA	600 K	0...60 °C	5...95%	2.05 lb (930 g)	W4600633301

1492-XIM20120-16R

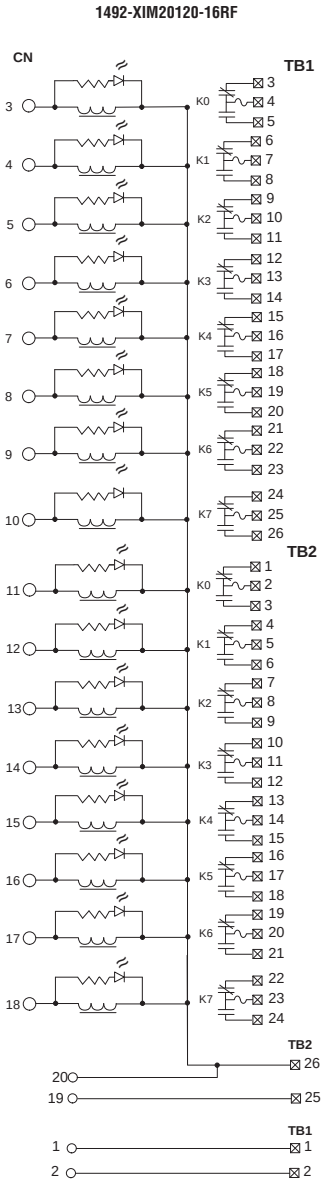
Relay Master (LED Indicating) 20-Pin Master with Sixteen (16) 120V AC Relays



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current (Nominal)	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-XIM20120-16R	96...132V AC	10/12 A	96 A	10.65 x 3.27 x 2.78	2 mA	600 K	0...60° C	5...95%	2.02 lb (916 g)	W4600633301

1492-XIM20120-16RF

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



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current (Nominal)	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-XIM20120-16RF	96...132V AC	10/12 A	96 A	10.65 x 3.27 x2.78	2 mA	600 K	0...60° C	5...95%	2.02 lb (916 g)	W4600633301

1492-XIM24-8R

1492-RXIM24-8R

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

Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current (Nominal)	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-XIM24-8R	20...26V DC	10/12 A	48 A	6.30 x 3.27 x 2.78	2 mA	600 K	0...60° C	5...95%	1.18 lb (535 g)	W4600632701
1492-RXIM24-8R				6.39 x 3.27 x 2.78						

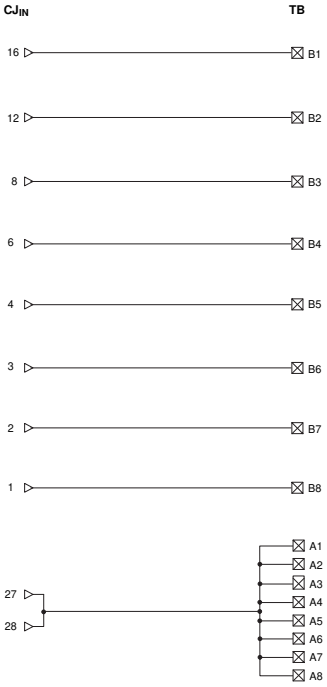
1492-XIM120-8R

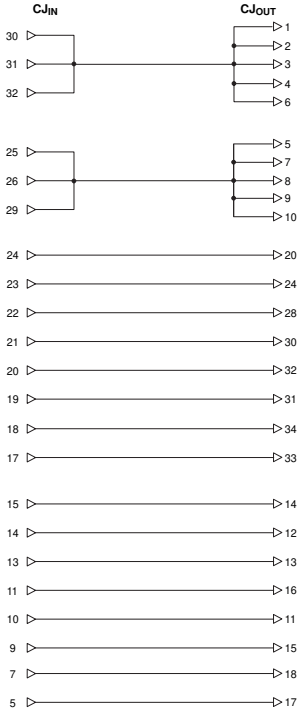
Relay Expander (LED Indicating) with Eight (8) 120V AC Relays

Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current (Nominal)	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-XIM120-8R	96...132V AC/DC	10/12 A	48 A	6.30 x 3.27 x 2.78	2 mA	600 K	0...60° C	5...95%	1.18 lb (535 g)	W4600632701

1492-XIMF-2

Expander with Eight (8) Feed-Through Channels



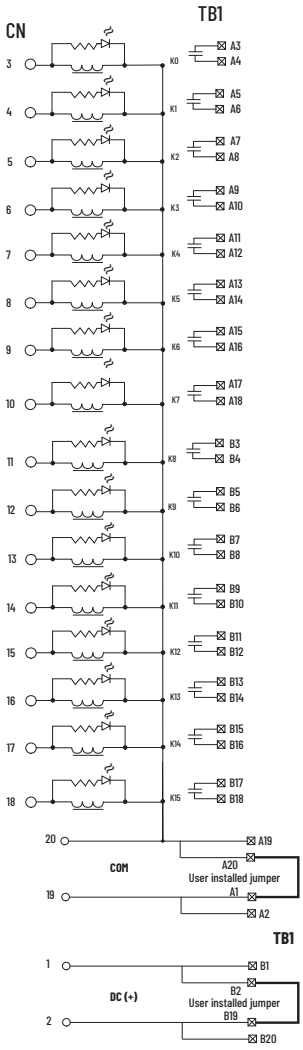


Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current (Nominal)	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-XIMF-2	0...132V AC/DC	2/NA A	4 A	3.15 x 3.27 x 2.19	—	600 K	0...60° C	5...95%	0.58 lb (263 g)	W4600632801

1492-XIMTR2024-16R

1492-RXIMTR2024-16R

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

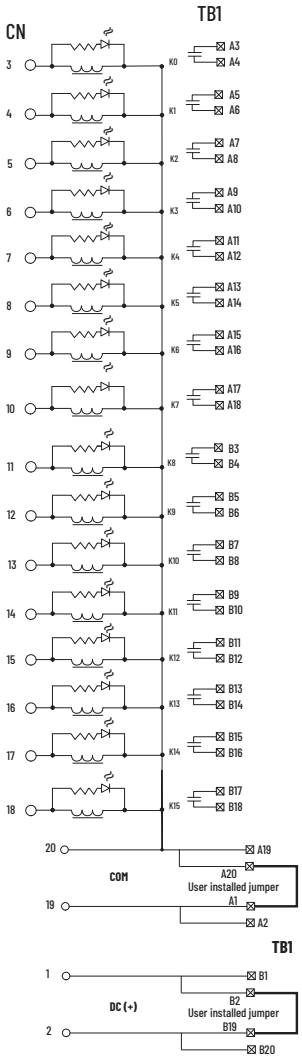


Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current (Nominal)	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-XIMTR2024-16R 1492-RXIMTR2024-16	20...26V AC/DC	4 A	12 A	4.72 x 3.27 x 2.78	2 mA	600 K	0...60° C	5...95%	1.55 lb (703g)	W4600635201

1492-XIMTS2024-16R

1492-RXIMTS2024-16R

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



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current (Nominal)	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-XIMTS2024-16R 1492-RXIMTS2024-16R	20...26V AC/DC	0.75 A	12 A	4.72 x 3.27 x 2.78	2 mA	600 K	0...60° C	5...95%	1.55 lb (703g)	W4600635201

Analog Interface Modules (AIFMs)

IMPORTANT The following analog IFM catalog number breakdown is for explanation purposes only. It is not a product configurator. All combinations of fields are not valid product catalog numbers.

1492	-	AIFM	16F	5
		a	b	c

a

Modules

Code	Description
AIFM	Analog Interface Module with Fixed Terminal Block
RAIFM	Analog Interface Module with Removable Terminal Block

b

Module Type (all types do not configure a catalog number)

Code	Description
4	3 Channel
C	Combination
CE	Counter Encoder
6	6 Channel
8	8 Channel
F	Fused
S	Isolated

c

Number of Field Side Wiring Terminals

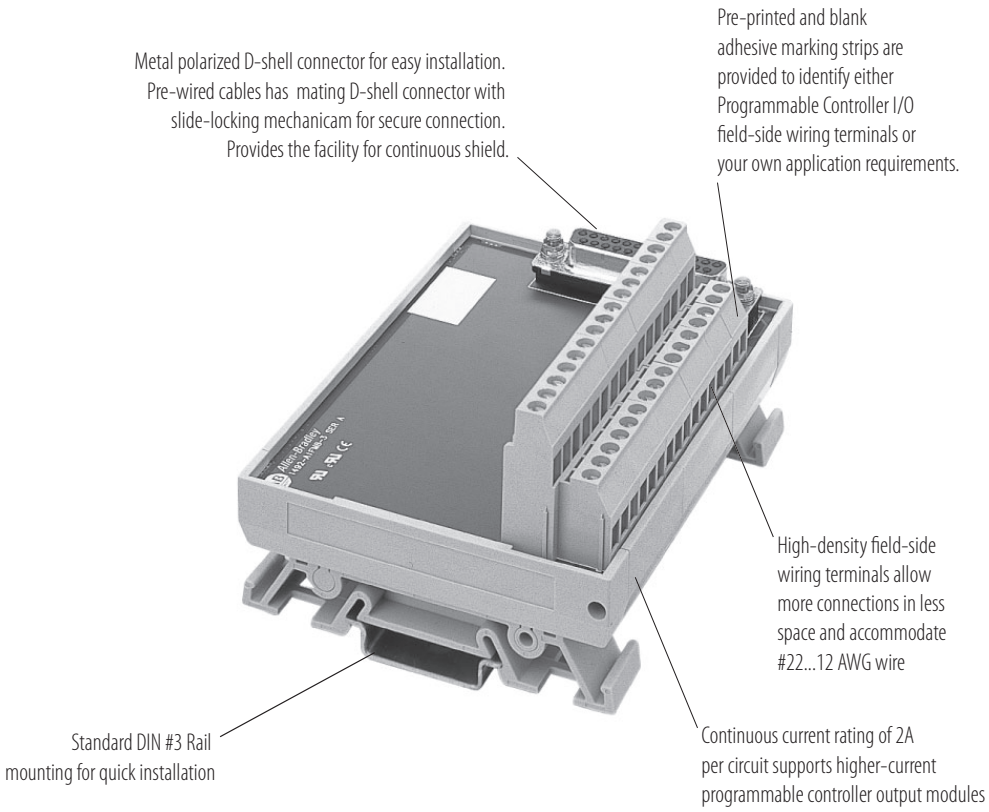
Code	Description
3	Three per I/O channel
5	Five per I/O channel

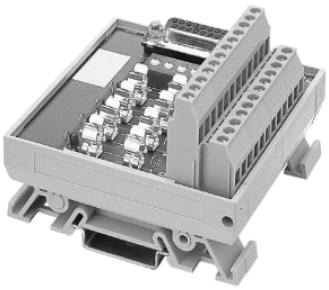
Analog AIFM Selection

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 AIFMs have the following features:



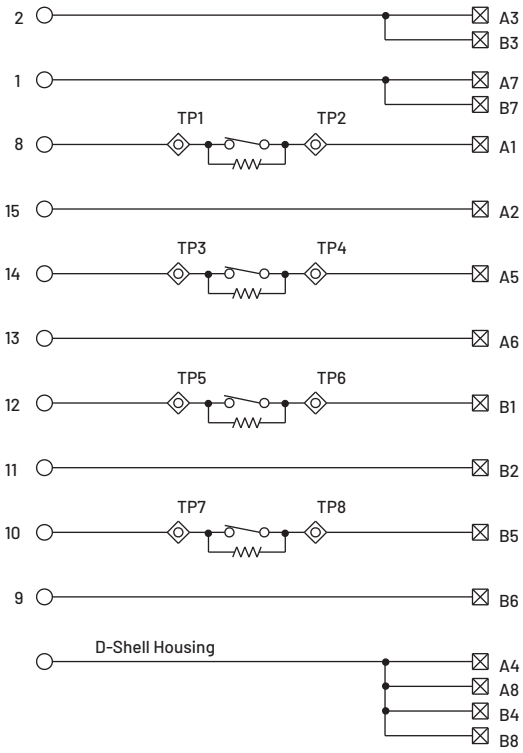
Feed-Through Modules	
	– Feed-through AIFMs have three terminals per analog I/O channel to wire the analog I/O device connections and shield. The shield terminals are internally bussed together and also tied to the D-shell housing to connect with the Bulletin 1492 cable shield and back to the PLC module. Some feed-through AIFMs also have special features: - The catalog number 1492-AIFM6TC-3 AIFM 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 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.
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 onboard 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 on page 87) 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. – 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. Inputs are jumpered via DIP switch on a per-channel basis. – The catalog numbers 1492-AIFM4I-F-5 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.
Analog Specialty Modules	
	– Specialty modules include thermocouple, RTD and other specialized functions. – The catalog number 1492-AIFM6TC-3 Thermocouple IFM module provides onboard 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 acquire temperature data at the AIFM for the thermocouple to adjust the input value.

Analog IFMs

1492-AIFM4-3

1492-RAIFM4-3

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

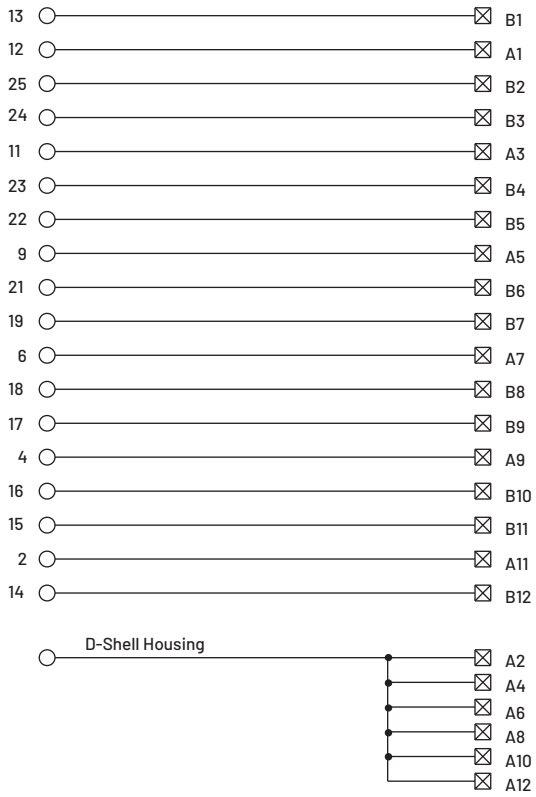


Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-AIFM4-3	0...10V DC	2 A	12 A	2.36 x 3.27 X 2.74	2 mA	600 K	0...60° C	5...95%	5 lb (2268 g)	W4600631501
1492-RAIFM4-3				2.75 x 3.27 X 2.74						

1492-AIFM6S-3

1492-RAIFM6S-3

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

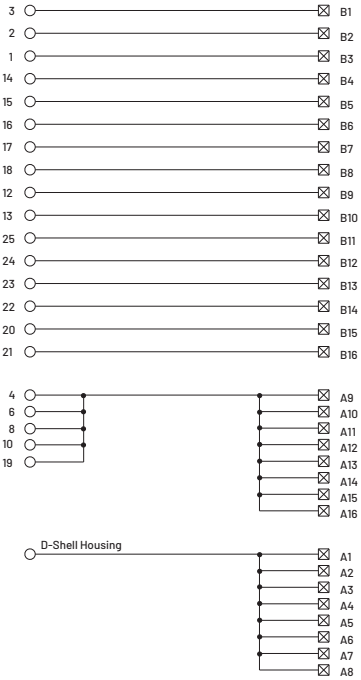


Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-AIFM6S-3	0...132V AC/DC	2 A	12 A	3.15 x 3.27 x 2.74	NA	600 K	0...60° C	5...95%	0.55 lb (249 g)	W4600631201
1492-RAIFM6S-3				3.54 x 3.27 x 2.74						

1492-AIFM8-3

1492-RAIFM8-3

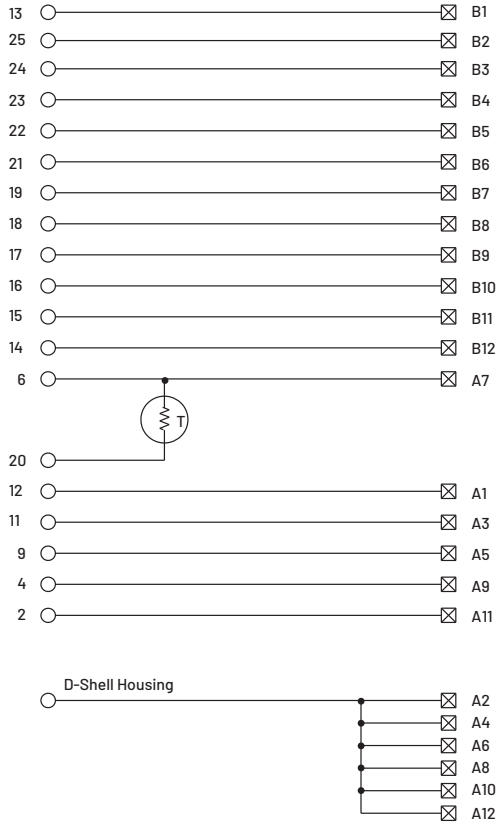
Feed-Through 8-Channel Differential 16-Channel Single-Ended with 3 Terminals/ Channel



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-AIFM8-3	0...132V AC/DC	2 A	12 A	4.33 x 3.27 x 2.74	NA	600 K	0...60° C	5...95%	0.64 lb (290 g)	W4600631001 W4600634501
1492-RAIFM8-3				4.72 x 3.27 x 2.74						

1492-AIFM6TC-3

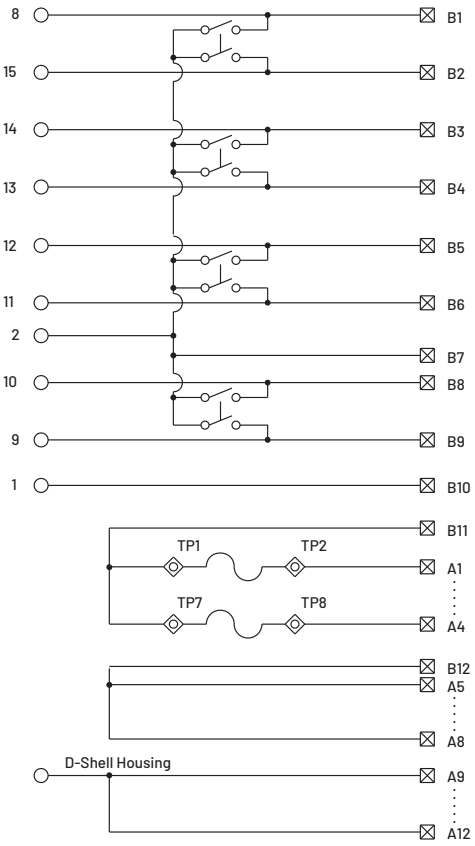
Thermocouple 6-Channel with 3 Terminals/Channel



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-AIFM6TC-3	0...132V AC/DC	2 A	12 A	3.15 x 3.27 x 2.74	NA	600 K	0...60° C	5...95%	0.55 lb (249 g)	W4600631201

1492-AIFM4I-F-5

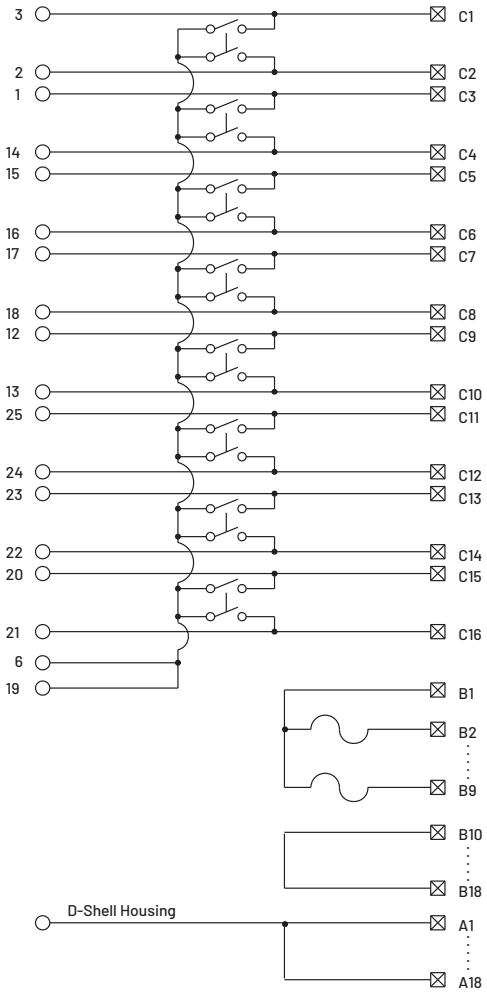
Fusible 4-Channel Input with 24V DC Blown Fuse Indicators, Test Points, 5 Terminals/Input



Cat. No.	Voltage Range	Max. Current (Per	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-AIFM4I-F-5	10...30V	2 A	12 A	3.15 x x3.27 x 2.74	2 mA	600 K	0...60° C	5...95%	0.85lb (385 g)	W4600631301

1492-AIFM8-F-5

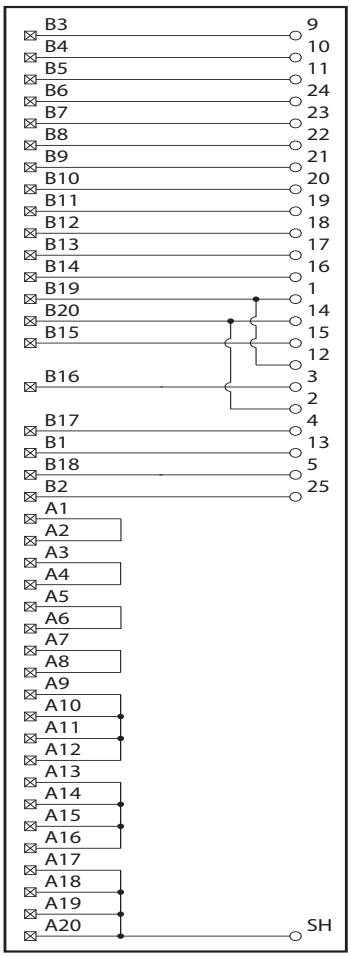
Fusible 8-Channel Input with 24V DC Blown Fuse Indicators, 5 Terminals/Channel



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-AIFM8-F-5	10...30V DC	2 A	12 A	4.72 x 3.27 x 2.74	2 mA	600 K	0...60° C	5...95%	0.85 lb (385 g)	W4600630601 W4600635101

1492-AIFMCE4

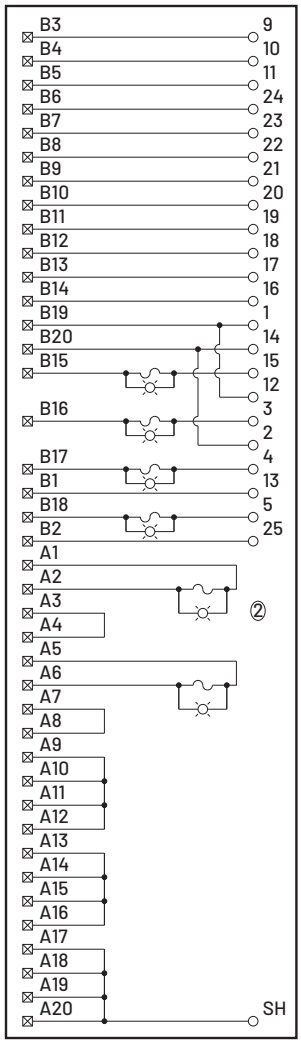
High-Speed Counter/Encoder Analog IFM, 2-channel counter input/4 outputs



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
1492-AIFMCE4	5...30V DC	2 A	8 A	5.12 x 3.27 x 2.74	–	600 K	0°...60° C (32...140° F)	5...95%	0.57 lb (258 g)	W4600633901

1492-AIFMCE4-F

Fusable High-Speed Counter/Encoder Analog IFM,
2-channel fused counter input/4 fused outputs, Analog Interface Module



Cat. No.	Voltage Range	Max. Current (Per Circuit)	Max. Current (Per Module)	Dimensions (W x H x D) (in.)	Indicator Circuit Current (Nominal)	Max. Recurring Peak Voltage	Operating Temperature	Operating Humidity	Approx Shipping Weight	Replacement Label Card Cat. No.
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	600 K	0°...60° C (32...140° F)	5...95%	0.63 lb (286 g)	W4600633901 W4600635801

Marking Systems

Pre-Printed and Blank Adhesive Label Cards

All Bulletin 1492 IFMs, XIFMs, and AIFMs ship with an adhesive label card. To see an example, refer to Example Label Cards on page 84. 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.

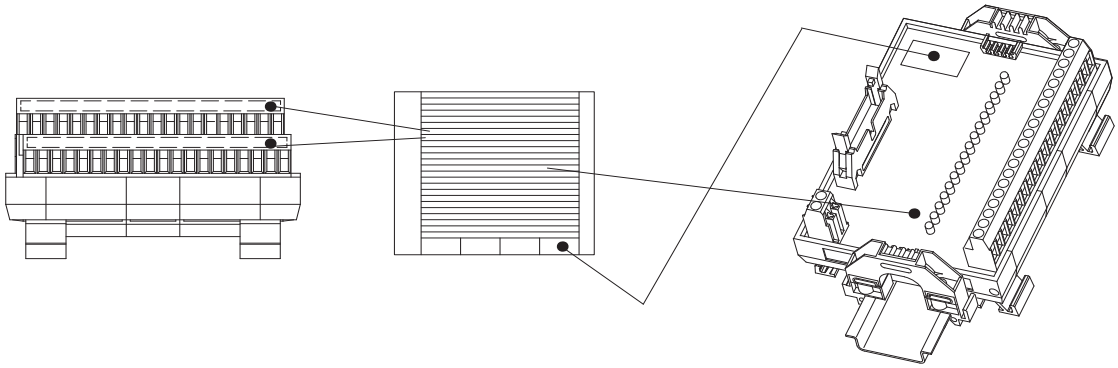
The label cards list all of the compatible I/O modules and their respective wiring descriptions. Depending on the I/O module that is used, the label strip(s) are simply peeled from the label card and applied to the field-side terminals on the Interface Module.

Labels for Bulletin 5069 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. 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(ses) 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. If additional labels are needed, please reference specification for replacement card catalog numbers.

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

Label Application to IFM



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 0	IN 1	IN 2	IN 3	IN 4	IN 5	IN 6	IN 7	IN 8	IN 9	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	L2	L2
			IN 00	IN 01	IN 02	IN 03	IN 04	IN 05	IN 06	IN 07	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	IN 16	IN 17	L2	L2
1746-IB16, IC16, IH16, IN16 (DC), ITB16			IN 0	IN 1	IN 2	IN 3	IN 4	IN 5	IN 6	IN 7	IN 8	IN 9	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	COM	COM
			IN 00	IN 01	IN 02	IN 03	IN 04	IN 05	IN 06	IN 07	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	IN 16	IN 17	COM	COM
1746-IG16	+V	+V	IN 0	IN 1	IN 2	IN 3	IN 4	IN 5	IN 6	IN 7	IN 8	IN 9	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	COM	COM
	+V	+V	IN 00	IN 01	IN 02	IN 03	IN 04	IN 05	IN 06	IN 07	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	IN 16	IN 17	COM	COM
1746-IV16, ITV16			IN 0	IN 1	IN 2	IN 3	IN 4	IN 5	IN 6	IN 7	IN 8	IN 9	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	+V	+V
			IN 00	IN 01	IN 02	IN 03	IN 04	IN 05	IN 06	IN 07	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	IN 16	IN 17	+V	+V
1746-OA16, OW16 (AC) 1769-OA16, OW16 (AC)	L1 1	L1 1	OUT 0	OUT 1	OUT 2	OUT 3	OUT 4	OUT 5	OUT 6	OUT 7	OUT 8	OUT 9	OUT 10	OUT 11	OUT 12	OUT 13	OUT 14	OUT 15	L1 2	L1 2
	L1 1	L1 1	OUT 00	OUT 01	OUT 02	OUT 03	OUT 04	OUT 05	OUT 06	OUT 07	OUT 10	OUT 11	OUT 12	OUT 13	OUT 14	OUT 15	OUT 16	OUT 17	L1 2	L1 2
1746-OB16, OB16E, OBP16, OG16, OV16, OVP16 1769-OB16, OV16	+V	+V	OUT 0	OUT 1	OUT 2	OUT 3	OUT 4	OUT 5	OUT 6	OUT 7	OUT 8	OUT 9	OUT 10	OUT 11	OUT 12	OUT 13	OUT 14	OUT 15	COM	COM
	+V	+V	OUT 00	OUT 01	OUT 02	OUT 03	OUT 04	OUT 05	OUT 06	OUT 07	OUT 10	OUT 11	OUT 12	OUT 13	OUT 14	OUT 15	OUT 16	OUT 17	COM	COM
1746-OW16 (DC) 1769-OW16 (DC)	+V1	+V1	OUT 0	OUT 1	OUT 2	OUT 3	OUT 4	OUT 5	OUT 6	OUT 7	OUT 8	OUT 9	OUT 10	OUT 11	OUT 12	OUT 13	OUT 14	OUT 15	+V2	+V2
	+V1	+V1	OUT 00	OUT 01	OUT 02	OUT 03	OUT 04	OUT 05	OUT 06	OUT 07	OUT 10	OUT 11	OUT 12	OUT 13	OUT 14	OUT 15	OUT 16	OUT 17	+V2	+V2
1746-OX8 (AC) 1769-OW8I (AC)		L1 0	OUT 0	L1 1	OUT 1	L1 2	OUT 2	L1 3	OUT 3		OUT 4	L1 4	OUT 5	L1 5	OUT 6	L1 6	OUT 7	L1 7		
1746-OX8 (DC) 1769-OW8I (DC)		+V0	OUT 0	+V1	OUT 1	+V2	OUT 2	+V3	OUT 3		OUT 4	+V4	OUT 5	+V5	OUT 6	+V6	OUT 7	+V7		
1756-IA8D, TC-IDX081		L1 0	IN 0	IN 1	IN 2	IN 3	L2 0	L2 0	L2 0	L2 0	L2 1	L2 1	L2 1	L2 1	IN 4	IN 5	IN 6	IN 7	L1 1	L2 1
1756-IA16, IN16, TC-IDA161	L2 0	L2 0	IN 0	IN 1	IN 2	IN 3	IN 4	IN 5	IN 6	IN 7	IN 8	IN 9	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	L2 1	L2 1
1756-IB16, IC16, TC-IDD161, IDE161	GND 0	GND 0	IN 0	IN 1	IN 2	IN 3	IN 4	IN 5	IN 6	IN 7	IN 8	IN 9	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	GND 1	GND 1
1756-OA8, ON8, TC-ODC081	L1 0	OUT 0	OUT 1	OUT 2	OUT 3		L1 0	L1 0	L1 0	L1 0	L1 1	L1 1	L1 1	L1 1	OUT 4	OUT 5	OUT 6	OUT 7		L1 1

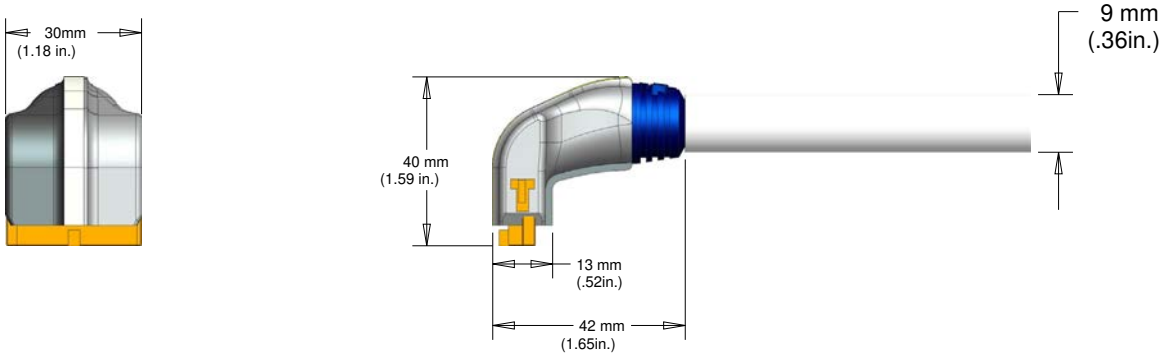
Part 2 of Adhesive Label Card for Catalog Numbers 1492-IFM20F, -IFM20D24, and -IFM20D120

1756-OA8D, OA8E, TC-ODX081		L2 0	OUT 0	OUT 1	OUT 2	OUT 3	L1 0	L1 0	L1 0	L1 0	L1 1	L1 1	L1 1	L1 1	OUT 4	OUT 5	OUT 6	OUT 7	L2 1	L1 1
1756-OA16, TC-ODA161	L1 0	L2 0	OUT 0	OUT 1	OUT 2	OUT 3	OUT 4	OUT 5	OUT 6	OUT 7	OUT 8	OUT 9	OUT 10	OUT 11	OUT 12	OUT 13	OUT 14	OUT 15	L1 1	L2 1
1756-OB8, OC8, TC-ODD081, TC-ODE081	+DC 0	OUT 0	OUT 1	OUT 2	OUT 3	RTN 0	+DC 0	+DC 0	+DC 0	RTN 0	+DC 1	+DC 1	+DC 1	+DC 1	OUT 4	OUT 5	OUT 6	OUT 7	RTN 1	RTN 1
1756-OB16E, TC-ODD161	+DC 0	RTN 0	OUT 0	OUT 1	OUT 2	OUT 3	OUT 4	OUT 5	OUT 6	OUT 7	OUT 8	OUT 9	OUT 10	OUT 11	OUT 12	OUT 13	OUT 14	OUT 15	+DC 1	RTN 1
1769-IA8I			IN 0	L2 0	IN 1	L2 1	IN 2	L2 2	IN 3	L2 3	IN 4	L2 4	IN 5	L2 5	IN 6	L2 6	IN 7	L2 7		
1769-IA16	L2	L2	IN 0	IN 1	IN 2	IN 3	IN 4	IN 5	IN 6	IN 7	IN 8	IN 9	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	L2	L2
1769-IM12			IN 0	IN 1	IN 2	IN 3	IN 4	IN 5	IN 6	IN 7	IN 8	IN 9	IN 10	IN 11					L2	L2
1769-IQ16 SINK	COM 1	COM 1	IN 0	IN 1	IN 2	IN 3	IN 4	IN 5	IN 6	IN 7	IN 8	IN 9	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	COM 2	COM 2
1769-IQ16 SOURCE	+VDC 1	+VDC 1	IN 0	IN 1	IN 2	IN 3	IN 4	IN 5	IN 6	IN 7	IN 8	IN 9	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	+VDC 2	+VDC 2
1769-OA8 (AC), OW8	L1 1		OUT 0		OUT 1		OUT 2		OUT 3	L1 1	OUT 4		OUT 5		OUT 6		OUT 7		L1 2	L1 2
1769-OW8 (DC)	+VDC 1		OUT 0		OUT 1		OUT 2		OUT 3	+VDC 1	OUT 4		OUT 5		OUT 6		OUT 7		+VDC 2	+VDC 2
1771-IAD (AC), IND (AC)	L1		IN 00	IN 01	IN 02	IN 03	IN 04	IN 05	IN 06	IN 07	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	IN 16	IN 17		L2
1771-IMD (AC)			IN 00	IN 01	IN 02	IN 03	IN 04	IN 05	IN 06	IN 07	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	IN 16	IN 17		L2
1771-IAD (DC), IND (DC)	+V		IN 00	IN 01	IN 02	IN 03	IN 04	IN 05	IN 06	IN 07	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	IN 16	IN 17		COM
1771-IMD (DC)			IN 00	IN 01	IN 02	IN 03	IN 04	IN 05	IN 06	IN 07	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	IN 16	IN 17		COM
1771-IBD, ICD			IN 00	IN 01	IN 02	IN 03	IN 04	IN 05	IN 06	IN 07	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	IN 16	IN 17		COM
1771-IGD	+V	+V	IN 00	IN 01	IN 02	IN 03	IN 04	IN 05	IN 06	IN 07	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	IN 16	IN 17	+V	COM
1771-OAD, OND, OMD	L1	L1	OUT 00	OUT 01	OUT 02	OUT 03	OUT 04	OUT 05	OUT 06	OUT 07	OUT 10	OUT 11	OUT 12	OUT 13	OUT 14	OUT 15	OUT 16	OUT 17	L1	L2
1771-OBD, OGD	+V	+V	OUT 00	OUT 01	OUT 02	OUT 03	OUT 04	OUT 05	OUT 06	OUT 07	OUT 10	OUT 11	OUT 12	OUT 13	OUT 14	OUT 15	OUT 16	OUT 17	+V	COM
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		

Dimensions

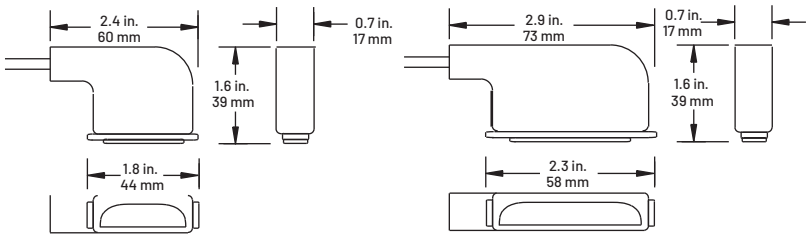
Approximate dimensions are shown in either millimeters and (inches) or inches and (millimeters). Dimensions are not to be used for manufacturing purposes.

Digital IFM Mating Connector



20-Point Cable Dimensions

Analog D-Shell Connector



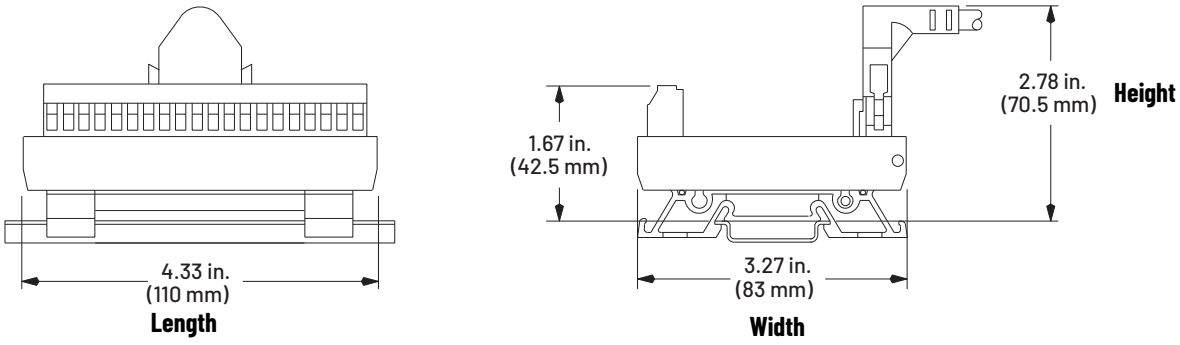
15-Pin D-Shell Dimensions

25-Pin D-Shell Dimensions

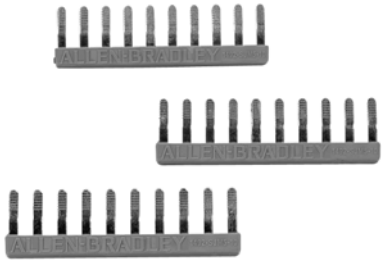
Wiring System Module Dimensions

The following is an example to show the length (L) and width (W) and height (H) dimension layout for a Wiring System Module.

Wiring System Example Dimension Layout



Accessories

Accessories and Features	
Fuse Holders	
	• For use with digital IFMs or analog AIFMs • 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 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-IFMFHI) are available in packages of 20 • Catalog Number 1492-IFMFHI fuse holders are not compatible with fusible expandable relay XIMs
Isolation Plugs	
	• 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 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
Insulated Side Jumpers	
	• 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
Removable Terminal Blocks (RTBs)	
	• Select groups of standard, fused and relay digital Bulletin 1492 wiring system modules (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 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 (1492-RTB20N)or push-in style (1492-RTB16P) terminals and must be ordered separately • All features available on fixed terminal block products, such as labels, are provided for removable terminal block wiring system modules

Replacement Relays

Relay Master or Expander Module Catalog Number	Replacement Relay Catalog Number
1492-XIM2024-8R	700-HK36Z24
1492-XIM2024-16R	700-HK36Z24
1492-XIM20120-8R	700-HK36A1
1492-XIM20120-16R	700-HK36A1
1492-XIM20120-16RF	700-HK36A1
1492-XIM24-8R	700-HK36Z24
1492-XIM120-8R	700-HK36A1
1492-XIM2024TR-16R	700-TBR24 (pkg. qty. 20)
1492-XIM2024TS-16R	700-TBS24 (pkg. qty. 20)
Flexible Relay Module Expansion Cable	W2210106101

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 at 60° C (104° F) UL File E10314, Guide No. NRAG
	cULus: Ordinary Locations; Module with relays, UL File E113724, Guide No. NRAQ
Agency Certification Modules	Factory Mutual (FM): Hazardous Locations; Class I Di v 2 (all except modules with relays); Groups A, B, C, and D. Temperature Rating: T3C at 60° C (104° F). FM file J.I.3000590
CE Certifications	Compliant for all applicable directives
Maximum Peak Transient Voltage	600V(1)
Terminal Block Wire Range (Rated Cross Section)	Fixed Screw Style: 12…22 AWG (4.0…0.2 mm^2) Removable Screw Style: 12…22 AWG (2.5…0.5 mm^2) Removable Push-in Style: 12…26 AWG (2.5…0.2 mm^2)
Wire Strip Length	Fixed Screw Style: 0.32 in. (8.0 mm) Removable Screw Style: 0.28 in. (7.0 mm) Removable Push-in Style: 0.39 in. (10.0 mm)
Fixed Screw Style Terminal Block Max No. of Wires per Terminal (Maximum number of the same gauge of wire stranded copper conductors allowed per wire funnel)	Max AWG 22, 20, 18: 3 wires Max AWG 16: 2 wires Max AWG 14, 12: 1 wire
Recommended Terminal Block Screw Torque	Fixed Screw Style: 3.5…4.5 lb•in (0.38…0.50 N•m) Removable Screw Style: 3.5…4.5 lb•in (0.38…0.50 N•m) Removable Push-in Style: NA
Operating Temperature Range	0…60 °C (32…140 °F)
Operating Humidity	5…95% non-condensing
Operating Vibration	2.5 G at 10…2000 Hz
Non operating Vibration	5.0 G at 10…2000 Hz
Operating Shock	15 G
Non operating Shock	50 G
Storage Temperature Cables	-20…+80 °C (-68…176 °F)
Storage Temperature Modules	-40…+85 °C (-104…-185 °F)
Pollution Degree	2 (2)

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

Maximum Wires Per Terminal

Max. AWG	22	20	18	16	14	12
Max. No. of Wires per Terminal (1)	3	3	3	2	1	1

(1) Maximum number of the same gauge of wire stranded copper conductors allowed per wire funnel.

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation. You can view or download publications at rok.auto/literature.

Resource	Description
EtherNet/IP™ Network Devices User Manual, publication ENET-UM006	Describes how to configure and use EtherNet/IP devices to communicate on the EtherNet/IP network.
Ethernet Reference Manual publication ENET-RM002	Describes basic Ethernet concepts, infrastructure components, and infrastructure features.
System Security Design Guidelines Reference Manual publication SECURE-RM001	Provides guidance on how to conduct security assessments, implement Rockwell Automation products in a secure system, harden the control system, manage user access, and dispose of equipment.
UL Standards Listing for Industrial Control Products, publication CMPNTS-SR002	Assists original equipment manufacturers (OEMs) with construction of panels, to help ensure that they conform to the requirements of Underwriters Laboratories.
American Standards, Configurations, and Ratings: Introduction to Motor Circuit Design, publication IC-AT001	Provides an overview of American motor circuit design based on methods that are outlined in the NEC.
Industrial Components Preventive Maintenance, Enclosures, and Contact Ratings Specifications, publication IC-TD002	Provides a quick reference tool for Allen-Bradley industrial automation controls and assemblies.
Safety Guidelines for the Application, Installation, and Maintenance of Solid-state Control, publication SGI-1.1	Designed to harmonize with NEMA Standards Publication No. ICS 1.1-1987 and provides general guidelines for the application, installation, and maintenance of solid-state control in the form of individual devices or packaged assemblies incorporating solid-state components.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
ProposalWorks™ configuration software, rok.auto/systemtools	Helps configure complete, valid catalog numbers and build complete quotes based on detailed product information.
Rockwell Automation Global SCCR tool, rok.auto/sccr	Provides coordinated high-fault branch circuit solutions for motor starters, soft starters, and component drives.
Product Certifications website, rok.auto/certifications	Provides declarations of conformity, certificates, and other certification details.

Rockwell Automation Support

Use these resources to access support information.

Technical Support Center	Find help with how-to videos, FAQs, chat, user forums, Knowledgebase, and product notification updates.	rok.auto/support
Local Technical Support Phone Numbers	Locate the telephone number for your country.	rok.auto/phonesupport
Technical Documentation Center	Quickly access and download technical specifications, installation instructions, and user manuals.	rok.auto/techdocs
Literature Library	Find installation instructions, manuals, brochures, and technical data publications.	rok.auto/literature
Product Compatibility and Download Center (PCDC)	Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.	rok.auto/pcdc

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Rockwell Automation maintains current product environmental compliance information on its website at rok.auto/pec.

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