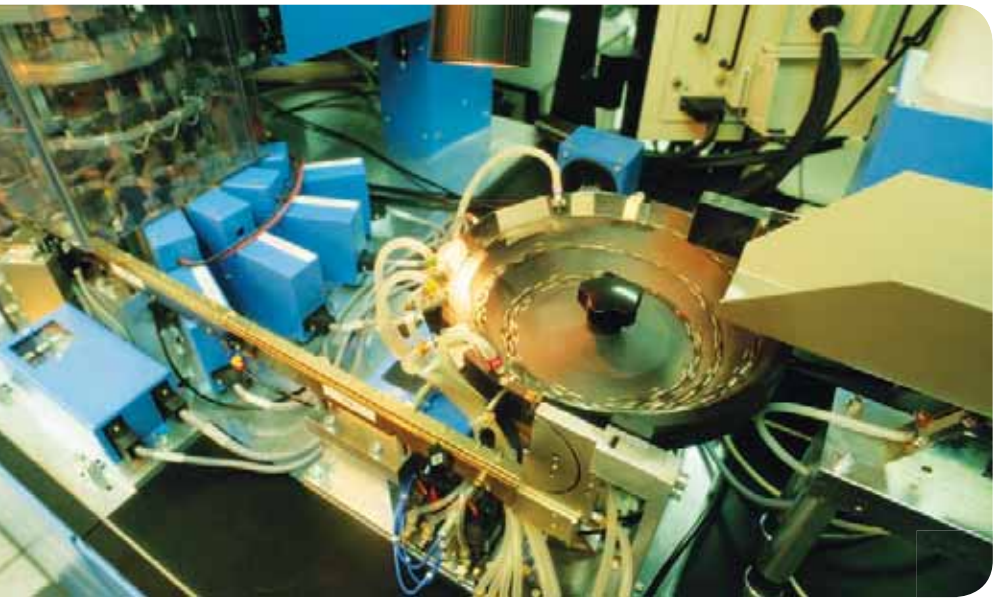
Bulletin 1492 In-Panel I/O Wiring System Modules and Cables for Allen-Bradley Programmable Controllers

Reduced Wiring Time, Accurate Connections



LISTEN.
THINK.
SOLVE.®

Allen-Bradley • Rockwell Software

Rockwell Automation

Simplify Your Wiring and Reduce Errors

Let's face it: in business, time is money. The last thing you can afford is costly downtime due to incorrect field wiring and troubleshooting your field operations. Quick and easy field wiring solutions not only help reduce your wiring time and maintenance costs, but they allow for more accurate connections.

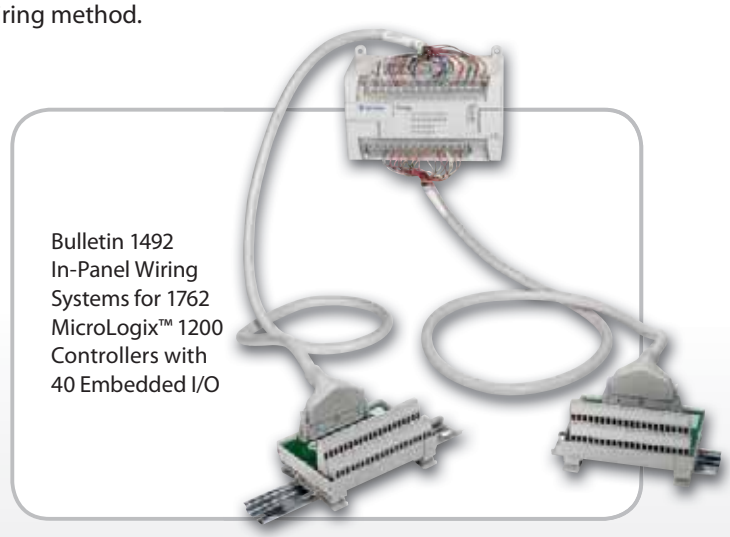
Let us help you meet your project deadlines with our versatile line of Allen-Bradley I/O field wiring interface modules and cables that can help reduce in-panel programmable controller wiring to discrete (on/off) or analog field devices by up to 75%. This means quicker, more accurate connections between control and factory devices when compared to traditional wiring methods.

Have you struggled with assembling rails of terminal blocks or cutting stripping, labeling and terminating your 20 to 40 control wires per I/O module? With an Allen-Bradley Bulletin 1492 wiring systems solution you simply mount the interface module (IFM) onto a Standard DIN #3 rail. Then, attach the 1492 cable with its pre-wired programmable controller removable terminal block to the programmable controller I/O module and plug the connector into the IFM. In addition, a select group of modules have field Removable Terminal blocks (RTBs) to further simplify initial installation and replacement. It's a snap!

Are wiring errors your concern? We can help you by providing point-to-point connections which reduce the likelihood of mistakes. Not only will you finish installation more quickly, but you're most likely to be up and running the first time you start up your application.

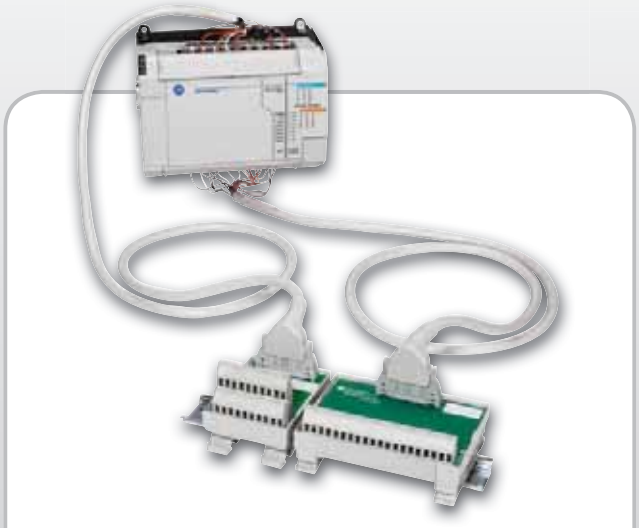
Troubleshooting an assembled wiring system is easy should an I/O problem arise. Simply pinpoint the problem by looking for glowing LEDs or blown-fuse indicators on selected IFMs.

You'll see troubleshooting in a whole new light. What have you got to lose? Except maybe more time with another wiring method.

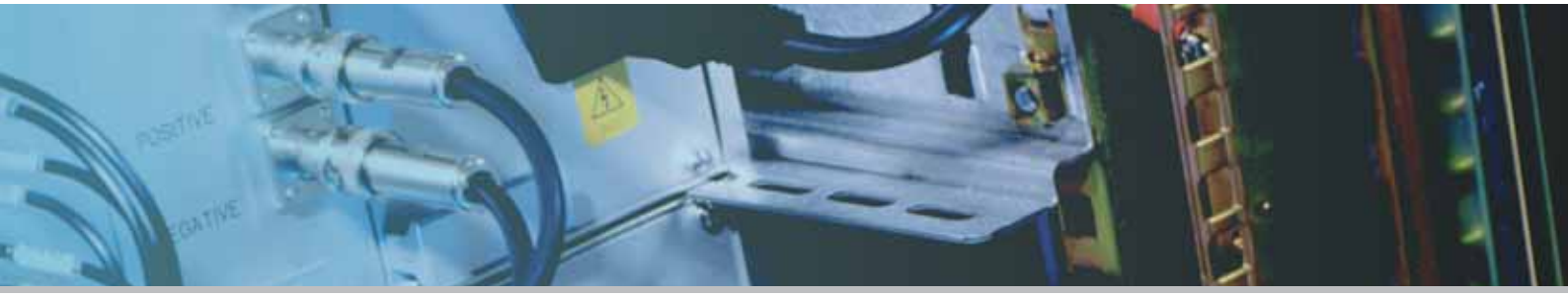


Bulletin 1492 In-Panel Wiring Systems for 1762 MicroLogix™ 1200 Controllers with 40 Embedded I/O

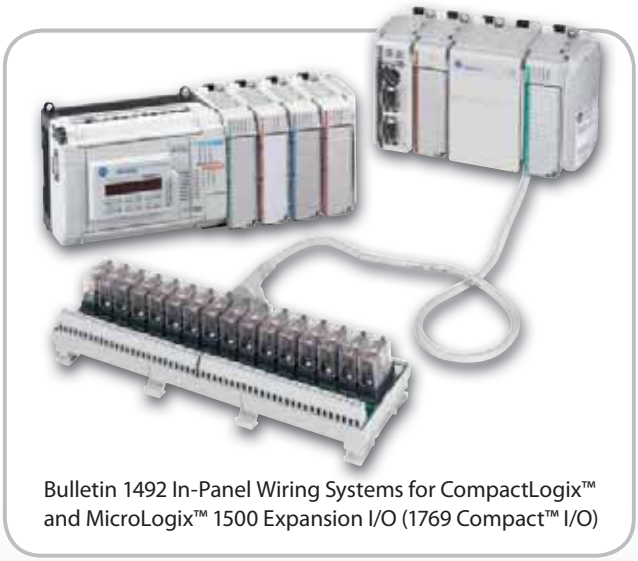
Bulletin 1492 In-Panel Wiring Systems for Flex™ I/O using Flex d-shell base modules



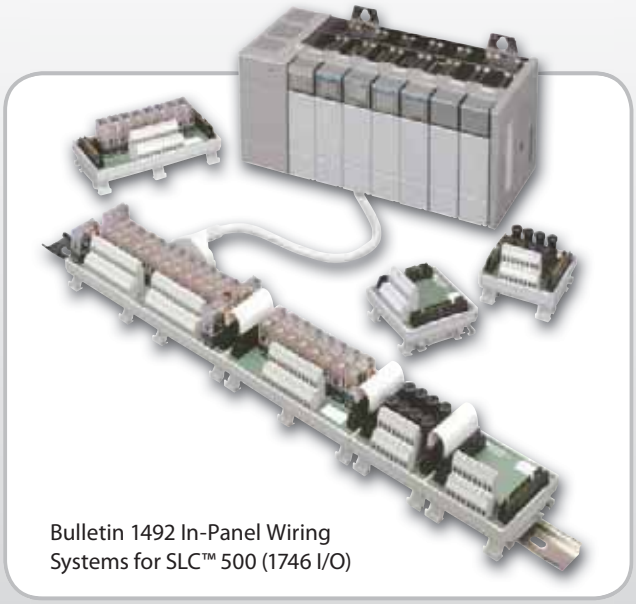
Bulletin 1492 In-Panel Wiring Systems for 1764 MicroLogix™ 1500 Base I/O Units



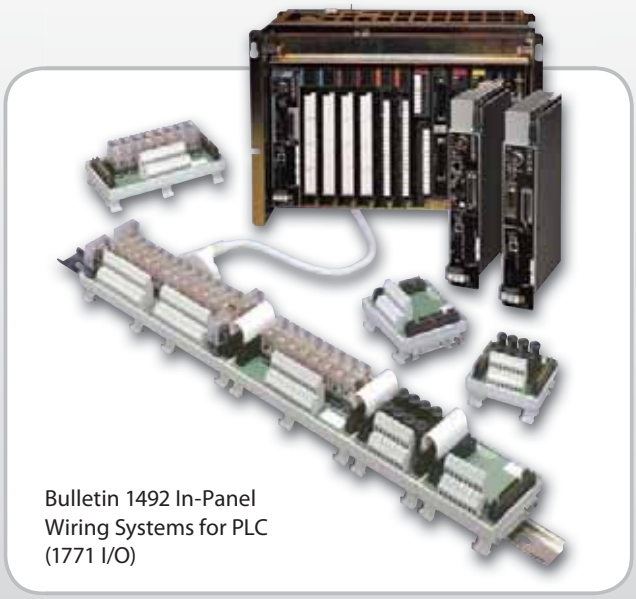
Bulletin 1492 In-Panel Wiring Systems for ControlLogix® (1756 I/O)



Bulletin 1492 In-Panel Wiring Systems for CompactLogix™ and MicroLogix™ 1500 Expansion I/O (1769 Compact™ I/O)



Bulletin 1492 In-Panel Wiring Systems for SLC™ 500 (1746 I/O)



Bulletin 1492 In-Panel Wiring Systems for PLC (1771 I/O)

NOTE: In addition to the above Allen-Bradley PLCs, a select group of Bulletin 1492 wiring system modules interface to PowerFlex® 700S and 700H drive control I/O.

Reduce Control I/O Wiring Time and Errors

See for yourself some snapshots showing the benefits of faster point to point I/O wiring installation using a Bulletin 1492 wiring system compared with the traditional terminal block method.

Traditional I/O Wiring Assembly Process

0:23

The assembler begins the arduous task of measuring, and cutting each control wire.

0:36

Continuing to measure and cut each control wire.

0:45

Continuing to measure and cut each control wire.

1:08

The assembler using the traditional method has measured and cut about 10 of the 18 wires needed for the same job. And there are numerous steps remaining.

14:58

Still not done with wiring PLC module.

18:04

Assembler has begun the tagging process.

24:37

Finally half of the process is complete and PLC Module is wired and snapped into place.

34:34

Assembler begins tagging each wire before connecting it to the terminal blocks.

37:00

Wiring each terminal block one at a time.

46:30

Traditional wiring process is now complete.

Bulletin 1492 I/O Wiring System Assembly Process

0:23

The assembler removes the Bulletin 1492 Interface Module (IFM) from its box and applies the supplied preprinted labels to mark the terminals.

0:36

Simply snaps the 1492 module to the DIN rail.

0:45

Assembler removes pre-wired 1492 cable from the box and connects the PLC end of the cable to the PLC.

1:04

Then routes the cable through the wire duct and snaps the other end of cable to the 1492 IFM Module.

1:08

Now the process is complete.

Time is Money!

You can achieve up to 75% savings on your control wiring time and reduce wiring errors when using a Bulletin 1492 Wiring System compared with wiring to traditional terminal blocks. To see a video comparing the two wiring methods go to www.ab.com/industrialcontrols/products/terminal_blocks_and_wiring/wiring/digital_interface.html and click on 1492 PLC Wiring System Timesaver Video under "Related Links."

BULLETIN 1492 WIRING SYSTEMS

	1492	1492	1492	1492	1492
					
Type	• 1492 Digital Feedthrough Interface Module	• 1492 Digital LED Interface Module	• 1492 Digital Fused Interface Module	• 1492 Digital Relay Output and Expansion Module	• 1492 Analog Interface Module Feedthrough
Description	• 8/16/32 Point Input and Output Feedthrough Interface Modules	• 8/16/32 Point Input and Output LED Interface Modules	• 8/16/32 Point Input and Output Fused Interface Modules	• 8/16/32 Point Output Relay and Expansion Interface Modules	• 4/8/16 Channel Input and Output Feedthrough Interface Modules
Features	• 20 or 40 Pin Latch Header • Supports 8/16/32 point AC and DC inputs and output digital modules (Sink & Source) • Supports 1756, 1769, 1746, 1794 and 1771 Modular I/O • Also supports all MicroLogix 1764 base I/O, 1762-L40XX base I/O, 700H and 700S PowerFlex Control I/O	• LED's support field wire indication • 20 or 40 Pin Latch Header • Supports 16/32 point AC and DC inputs and output digital modules (Sink & Source) • Supports 1756, 1769, 1746, 1794 and 1771 I/O Platform	• Fuse holders support circuit protection (optional fuse blown indication) • 20 or 40 Pin Latch Header • Supports 16/32 point AC and DC inputs and output digital modules (Sink & Source) • Supports 1756, 1769, 1746, 1794 and 1771 I/O Platform	• Masters Modules – Relay and relay with fused output common • Relays rated at 12 Amps per pair • Expansion Modules – relays, fused and feedthrough • 20 or 40 Pin Latch Header • Supports 16/32 point AC and DC digital output modules • Supports 1756, 1769, 1746, 1794 and 1771 I/O Platform	• 15 or 25 Pin D-Shell to I/O with shield • Supports inputs and output analog modules • Supports 1756, 1769, 1746, 1794 and 1771 I/O Platforms, 700H and 700S PowerFlex Control I/O
Field Side Terminal Types	• Standard • Extra Terminal • Sensor • Fixed and Removable (Removable as screw or push-in style)	• Standard • Extra Terminal • Sensor • Fixed and Removable (Removable as screw or push-in style)	• Standard • Extra Terminal • Fixed and Removable (Removable as screw or push-in style)	• Standard • Fixed and Removable (Removable as screw or push-in style)	• Extra Terminal • Fixed and Removable (Removable as screw or push-in style)
Rated Voltage	• 0…265V AC/DC	• 10…30V AC/DC • 85…132V AC	• 10…30V AC/DC • 85…132V AC	• 20…28V DC • 85…132V AC	• 10…30V DC • 100…132V AC
Maximum Current	• 12 A per module • 2 A per Circuit	• 12 A per module • 2 A per Circuit	• 12 A per module • 2 A per Circuit	• 10 A per Relay Output	• 12 A per module • 2 A per Circuit
Degree of Protection	• IP20	• IP20	• IP20	• IP20	• IP20
I/O Connection Pin Count	• 20 and 40 Latch Header	• 20 and 40 Latch Header	• 20 and 40 Latch Header	• 20 and 40	• D-Shell 15 and 25
Connector/Body Dimensions	• 210 mm (max) to 60 mm (min) x 83 mm x 50…75 mm	• 210 mm (max) to 110 mm (min) x 83 mm x 50…75 mm	• 210 mm (max) to 110 mm (min) x 83 mm x 50…75 mm	• 280 mm (max) to 160 mm (min) x 83 mm x 65 mm	• 114.5 mm x 83 mm x 50…65 mm
Cable O.D.	—	—	—	—	—
Field Terminal Wire Range (Rated Cross Reference)	• #22…#12 AWG • (0.2…4 mm^2)	• #22…#12 AWG • (0.2…4 mm^2)	• #22…#12 AWG • (0.2…4 mm^2)	• #22…#12 AWG • (0.2…4 mm^2)	• #22…#12 AWG • (0.2…4 mm^2)
Indicator Circuit Current (Nominal)	—	• 2.0…2.6 mA	• 1.2…2.5 mA	—	—
Certifications	• cULus: Hazardous Locations Class I DIV 2, CE, Factory Mutual	• cULus: Hazardous Locations Class I DIV 2, CE, Factory Mutual	• cULus: Hazardous Locations Class I DIV 2, CE, Factory Mutual	• cULus: Standard Locations, CE	• cULus: Hazardous Locations Class I DIV 2, CE, Factory Mutual

1492	1492	1492	1492	1492	1492
					
• 1492 Analog Interface Module Fuse	• 1492 Analog Interface Module (Thermocouple)	• 1492 CABLE & 1492-CAB	• 1492-ACABLE & 1492-ACAB	• IFM Ready	• I/O Ready
• 4/8/16 Channel Input Fused Interface Modules	• 6 Channel Thermocouple Input Module for 1756	• 1492 to PLC Pre-Wired Digital I/O Cables	• 1492 to PLC Pre-Wired Digital I/O Cables	• 1492 IFM Ready Cables for Digital I/O	• 1492 I/O Ready Cables for Digital I/O
• 15 or 25 Pin D-Shell to I/O with shied • Supports inputs analog modules • Supports 1756, 1769, 1746, 1794 and 1771 I/O Platforms, 700H and 700S PowerFlex Control I/O	• 25 Pin D-Shell to I/O with shied • Supports thermocouple input analog module • Supports 1756 I/O Platform	• 20 or 40 pin • Standard length cables – 0.5, 1.0, 2.5, 5.0 mm • 20 or 40 pin build to order length cables • Supports 1756, 1769, 1746, 1794, and 1771 I/O Platforms • #22 AWG Wire	• 15 and 25 pin • Standard length cables with shield – 0.5, 1.0, 2.5, 5.0 mm • 15 and 25 pin build to order length cables with shield • Supports 1756, 1769, 1746, 1794 and 1771 I/O Platforms • #22 AWG Wire	• 20 or 40 pin IFM • Standard Length cables with flying leads – 1.0,2.5,5.0 mm • 20 or 40 pin build to order length cables with flying leads • Supports 1756, 1769, 1746, 1794, 1771 and other or non-Allen-Bradley I/O Platforms • #18 and #22 AWG Wire	• I/O ready 20 or 40 connection standard length cables with flying leads 1.0, 2.5, 5.0 mm • I/O Ready 20 or 40 connection build to order length cables • Supports 1756, 1769, 1746, 1794 and 1771 I/O Platforms • #18 and #22 AWG Wire
• Extra Terminal	• Extra Terminal	—	—	—	—
• 10…30V DC • 10…132V AC	• 10…30V DC	• 300V 80°C	• 300V 80°C	• 300V 80°C	• 300V 80°C
• 12 A per module • 2 A per Circuit	• 12 A per module • 2 A per Circuit	• 2 A per connector	• 2 A per connector	• 2 A per connector	• 2 A per connector
• IP20	• IP20	—	—	—	—
• D-Shell 15 and 25	• D-Shell 25	—	—	—	—
• 114.5 mm x 83 mm x 43 mm (out) & 38 mm (in)	• 114.5 mm x 83 mm x 65 mm	—	—	—	—
—	—	• 9.0 mm (0.36″) 20 Pin • 11.7 mm (0.46″) 40 Pin	• 6.78 mm (0.267″) • 7.44 mm (0.293″) • 8.43 mm (0.332″) • 10.2 mm (0.40″) • 11.5 mm (0.45″)	• 9.0 mm (0.36″) • 11.4 mm (0.45″) • 14.1 mm (0.56″)	• 9.0 mm (0.36″)
• #22…#12 AWG • (0.2…4 mm^2)	• #22…#12 AWG • (0.2…4 mm^2)	—	—	—	—
—	—	—	—	—	—
• cULus: Hazardous Locations Class I DIV 2, CE, Factory Mutual	• cULus: Hazardous Locations Class I DIV 2, CE, Factory Mutual	• cULus: Hazardous Locations Class I DIV 2	• cULus: Hazardous Locations Class I DIV 2	• cULus: Hazardous Locations Class I DIV 2	• cULus: Hazardous Locations Class I DIV 2

Selection Overview

Please refer to the Bulletin 1492 Wiring Systems Technical Data and the Allen-Bradley Industrial Controls catalog for detailed in formation and catalog number explanations.

Types of Controllers:

Programmable Automation Controllers:
CompactLogix, ControlLogix and FlexLogix™

- Merge PC-based and PLC architecture
- Provide multidiscipline automation (i.e., process, discrete, motion, drive and batch) within a single hardware and software platform
- Provide scalability and application portability within an open, modular architecture number) and the column (I/O module). The "Letter Code" represents the suffix of the pre-wired cable.

Programmable Logic Controllers are:
MicroLogix, PLC-5®, SLC500
Implement specific functions such as:

- I/O control
- logic
- timing
- communication
- report generation
- data file manipulation
- arithmetic
- counting

Modules:
IFM – Interface Module
RTB – Removable Terminal Block
RIFM – RTB Style IFM
XIM – Relay Master/Expander
RXIM – RTB Style XIM
AIFM – Analog IFM
RAIFM – RTB Style Analog IFM

Product Selection Tools

Great tools for you to use for easier product selection.

1. Bulletin 1492 Wiring Systems Technical Data Publication# 1492-TD008D-EN-P
2. On-line catalog at **www.ab.com**
3. Product Selection Toolbox at: **http://www.rockwellautomation.com/en/e-tools/**
4. Industrial Controls Catalog

www.rockwellautomation.com

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