



Allen-Bradley

by ROCKWELL AUTOMATION

NHP

Allen Bradley 1492 Pre-Wired Cables and Interface Modules

Simplified, easy to install
cabling solutions



SELECTION GUIDE

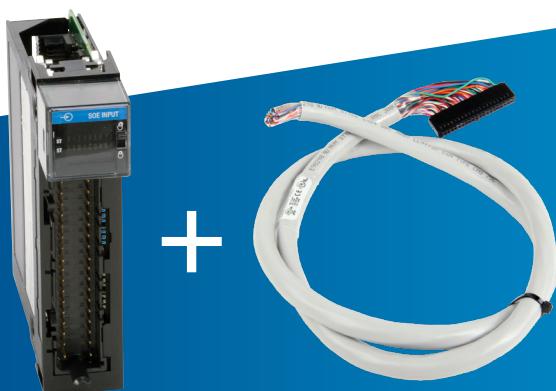
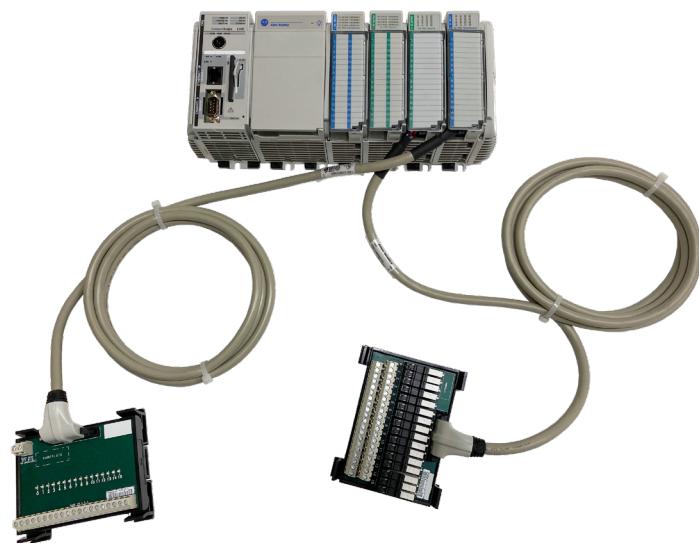
Simplify your wiring and reduce errors

Allen-Bradley's Bulletin 1492 pre-wired cables and versatile line of interface modules (IFM) are designed to simplify your system applications.

The Bulletin 1492 I/O wiring and conversion system:

- Increases machine building productivity
- Simplifies design
- Reduces wiring time and errors
- Benefits from quality-looking panels
- Supports conversions SLC™ 500 to CompactLogix® 5380 and 5069 Compact I/O
- Supports conversions from 1771 PLC-5® systems to 1756 ControlLogix® I/O

The quick and easy to connect field wiring range reduces wiring errors and maintenance costs, with the additional benefit of a compact design that can reduce in-panel PLC wiring by up to 75%. Quick and easy field wiring solutions not only help reduce your wiring time and maintenance costs, but they allow for more accurate connections. The difference could be 5 boards a week as opposed to 5 boards in 5 weeks. Using an IFM and pre-wired cable will also future proof your system – should you need to modernise your PLC system or replace the I/O module, connecting your field devices is as simple as replacing a cable.



I/O Modules can be paired with pre-wired cables for easy connection to the I/O with flying leads out for connection to standard terminal blocks.

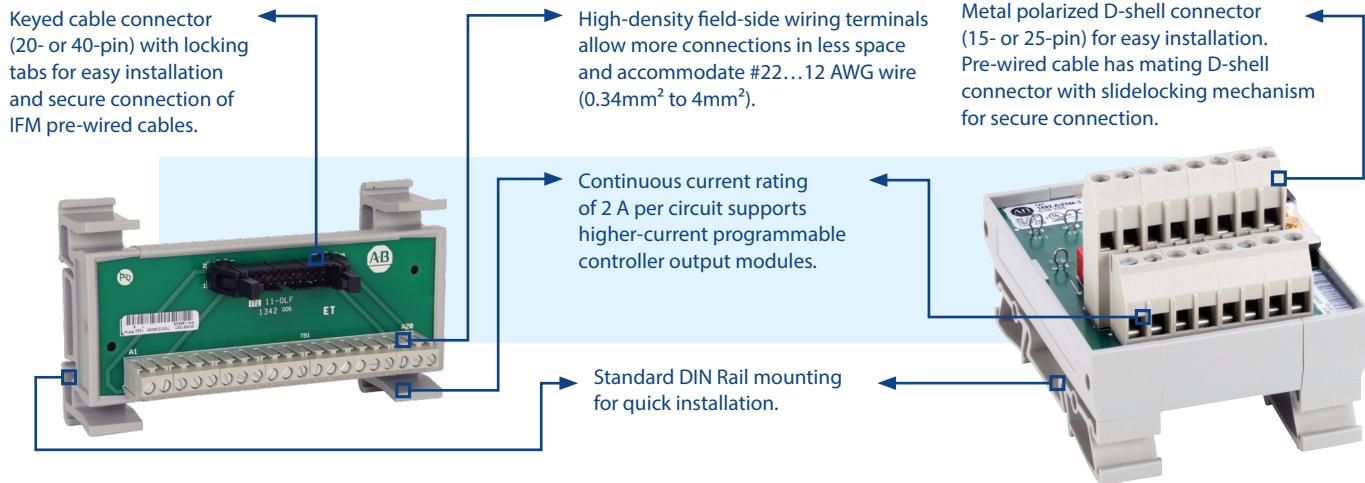


For an even quicker installation, an I/O module can be paired with an IFM module and a corresponding cable with connectors on both ends for easy connection.

IFM modules are available for both digital and analogue I/O modules.

IFM modules

Digital and Analogue IFMs have the following features:



Digital IFM

Type	Description
Feedthrough 1492-IFMxxF	Standard terminal IFM modules provide one field-side wiring terminal per programmable controller input or output point, as well as enough terminals for the I/O module power connections. The standard terminal modules are ideal for applications in which the I/O device commons are terminated in the field or remotely from the I/O module panel.
LED 1492-IFMxxD24	Voltage-indicating LEDs are available on the standard 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.
High Density Digital Relay 1492-XIMTRxx24x	The high density relay modules provide 6A of switching capacity (8A per pair), making them perfect for installations that require higher switching capacity than PLC output modules can provide. Available in 16 pt or 32 pt modules, the high density relay modules eliminate the need for extender relay modules. They offer your choice of easily replaceable plug-in style Electromechanical or solid-state relays. LED indicator lights are provided for each output circuit.

Digital IFMs, similar to groups of terminal blocks, are available with either 20-pin or 40-pin cable connectors. The number of field-side wiring terminals varies with the type of module — from one to three terminals per I/O point. LEDs and fuse clips are available on-board the IFMs to customise your wiring system to your application and provide assistance with troubleshooting your control panel.

Analogue IFM (AIFM)

Type	Description
Feedthrough 1492-AIFMxx	Feed-through AIFMs have three terminals per analogue I/O channel to wire the analogue 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.
Fusible 1492-AIFMxxF	Fusible AIFMs are available for analogue input modules. These AIFMs enable you to fuse the input device power source on the field-side. The field-side power source is distributed through individual on-board 5 x 20 mm fuse clips. The fused AIFMs have 24V DC blown fuse indicators to reduce the troubleshooting time needed to locate and replace a blown fuse.

How to use the selection guide

Useful links

[Bul. 1492 I/O Wiring Systems](#)

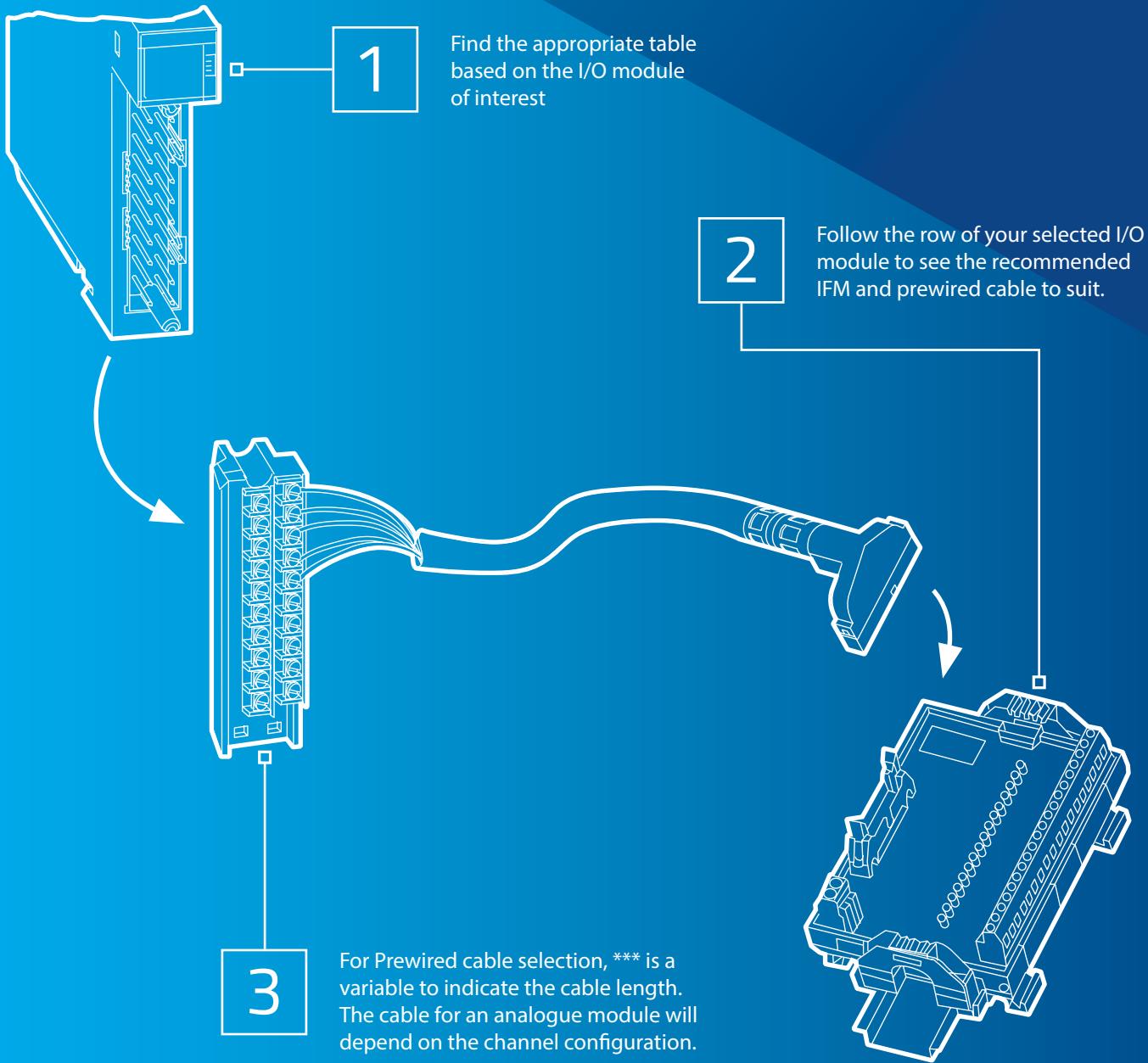
[Technical data](#)

[Bul. 1492 High Density Relay Module](#)

Conversion kits

[PLC 5 to ControlLogix](#)

[SLC to CompactLogix](#)



010 = 1 meter

025 = 2.5 meter

050 = 5 meter

Additional lengths are available on request

CompactLogix 1769- I/O module Selection Guide

Digital Modules

Item ID	Description	IFM module	Prewired cable
1769 - Digital Input Modules			
1769-IQ32T	COMPACTLOGIX 32DI 20.4-26.4V DC MODULE TERMINATED	1492-IFM40D24 or 1492-IFM40F	1492-CABLE***H 1492-CAB***J69
1769-IQ32	COMPACTLOGIX 32DI 10-30V DC MODULE		
1769-IQ16	COMPACTLOGIX 16DI 10-30V DC MODULE	1492-IFM20D24 or 1492-IFM20F	1492-CAB***B69
1769-IQ16F	COMPACTLOGIX 16DI 10-30V DC MODULE FAST		
1769- Digital Output Modules			
1769-OB32T	COMPACTLOGIX 32DO 20.4-26.4V DC MODULE TERMINATED	1492-IFM40D24 or 1492-IFM40F	1492-CABLE***H 1492-CAB***K69
1769-OB32	COMPACTLOGIX 32DO 20.4-26.4V DC MODULE		
1769-OB16	COMPACTLOGIX 16DO 20.4-26.4V DC MODULE		1492-CAB***E69
1769-OV16	COMPACTLOGIX 16DO 24V DC SINKING MODULE		
1769-OW16	COMPACTLOGIX 16DO 5-265V AC/5-125V DC RELAY MODULE		
1769-OA16	COMPACTLOGIX 16DO 85-265V AC MODULE	1492-IFM20F	1492-CAB***M69
1769-OW8I	COMPACTLOGIX 8DO 5-265V AC 5-125V DC RELAY MODULE ISOLATED		1492-CAB***D69
1769-OW8	COMPACTLOGIX 8DO 5-265V AC/5-125V DC RELAY MODULE		
1769-OA8	COMPACTLOGIX 8DO 85-265V AC MODULE		1492-CAB***C69

Analogue Modules

Item ID	Description	IFM module	Prewired cable	Channel configuration
1769- Analogue Input Module				
1769-IF8	COMPACTLOGIX 8AI CURRENT/VOLTAGE MODULE	1492-AIFM8-3	1492--ACAB***EA69	Single-Ended Voltage
			1492-ACAB***EB69	Single-Ended Current
			1492-ACAB***EC69	Differential Voltage
			1492-ACAB***ED69	Differential Current
1769-IF16C	COMPACTLOGIX 16AI CURRENT MODULE		1492-ACAB***EE69	Current
1769-IF4	COMPACTLOGIX 4AI CURRENT/VOLTAGE MODULE	1492-AIFM4-3	1492-ACAB***BA69	Single-Ended Voltage
			1492-ACAB***BB69	Single-Ended Current
			1492-ACAB***BC69	Differential Voltage
			1492-ACAB***BD69	Differential Current
1769-IT6	COMPACTLOGIX 6AI THERMOCOUPLE/MV MODULE	1492-AIFM6TC-3	1492-ACAB***E69	Input/Output
1769-IF4I	COMPACTLOGIX 4AI CURRENT/VOLTAGE ISOLATED MODULE	1492-AIFM4I-F-5	1492-ACAB***BE69	Current
			1492-ACAB***BF69	Voltage
1769-IF4XOF2	COMPACTLOGIX 4AI/2AO CURRENT/VOLTAGE MODULE	1492-AIFM6S-3	1492-ACAB***CA69	Current In / Current Out
			1492-ACAB***CB69	Voltage In / Voltage Out
			1492-ACAB***CC69	Current In / Voltage Out

1769- Analogue Output Module

1769-OF8C	COMPACTLOGIX 8AO CURRENT MODULE	1492-AIFM8-3	1492-ACAB***D69	Analogue current mode
1769-OF8V	COMPACTLOGIX 8AO VOLTAGE MODULE		1492-ACAB***D69	Analogue voltage mode
1769-OF4	COMPACTLOGIX 4AO CURRENT/VOLTAGE MODULE	1492-AIFM4-3	1492-ACAB***AC69	Current
			1492-ACAB***AD69	Voltage
1769-OF2	COMPACTLOGIX 2AO CURRENT/VOLTAGE MODULE		1492-ACAB***AB69	Current
			1492-ACAB***AA69	Voltage

If the required I/O module is not shown in the above table please refer to [Bul 1492 technical document](#) for the full range of I/O modules supported.

*** cable length - 010 (1m), 025 (2.5m), 050 (5m). Example: 1492-CABLE010H is a 1 meter cable

ControlLogix 1756- I/O module Selection Guide

Digital Modules

Item ID	Description	IFM module	Prewired cable	Channel configuration
Input Modules				
1756-IB32	CONTROLLOGIX 32DI 10-31V DC MODULE	1492-IFM40F	1492-CABLE***Z	
1756-IB16I	CONTROLLOGIX 16DI 10-30V DC ISOLATED MODULE		1492-CABLE***Y	
1756-IN16	CONTROLLOGIX 16DI 10-30V AC MODULE	1492-IFM20D24 or 1492-IFM20F		
1756-IB16	CONTROLLOGIX 16DI 10-31V DC MODULE	1492-IFM20F	1492-CABLE***X	
1756-IC16	CONTROLLOGIX 16DI 30-60V DC MODULE	1492-IFM20F		
1756-IA16	CONTROLLOGIX 16DI 79-132V AC MODULE			
Output Modules				
1756-OB32	CONTROLLOGIX 32DO 10-31V DC MODULE	1492-XIMTR402432R	1492-CABLE***Z	Relay Output
1756-OB16I	CONTROLLOGIX 16DO 10-30V DC ISOLATED	1492-IFM40F	1492-CABLE***Y	
1756-OW16I	CONTROLLOGIX 16DO ISOLATED RELAY MODULE			
1756-OB16E	CONTROLLOGIX 16DO 10-31V DC ELECTRONICALLY FUSED MODULE			
1756-OV16E	CONTROLLOGIX 16DO 10-30V DC ELECTRONICALLY FUSED MODULE	1492-IFM20F	1492-CABLE***X	
1756-OA16	CONTROLLOGIX 16DO 74-265V AC MODULE			

Analogue Modules

Item ID	Description	IFM Module	Prewired cable	Channel Configuration
Input Modules				
1756-IF16	CONTROLLOGIX 16AI CURRENT/VOLTAGE MODULE	1492-AIFM8-3	1492-ACABLE***UA 1492-ACABLE***UB 1492-ACABLE***UC 1492-ACABLE***UD 1492-ACABLE***TA 1492-ACABLE***TB 1492-ACABLE***TC 1492-ACABLE***TD 1492-ACABLE***UC 1492-ACABLE***UD	Single-Ended Voltage Single-Ended Current Differential Voltage Differential Current Single-Ended Voltage Single-Ended Current Differential Voltage Differential Current Voltage Current
1756-IF8	CONTROLLOGIX 8AI CURRENT/VOLTAGE MODULE			
1756-IF8H	CONTROLLOGIX 8AI CURRENT/VOLTAGE HART MODULE			
1756-IRT8I	CONTROLLOGIX 8AI RTD/THERMOCOUPLE ISOLATED MODULE	1492-AIFM8TC-3	1492-ACABLE***YC 1492-ACABLE***YF	Thermocouple RTD
1756-IF8I	CONTROLLOGIX 8AI CURRENT/VOLTAGE ISOLATED MODULE	1492-AIFM8S-3	1492-ACABLE***YB 1492-ACABLE***YA	Single-Ended Voltage Single-Ended Current

Output Modules

1756-OF8	CONTROLLOGIX 8AO CURRENT/VOLTAGE MODULE	1492-AIFM8-3	1492-ACABLE***WA 1492-ACABLE***WB	Voltage Current
1756-OF8H	CONTROLLOGIX 8AO CURRENT/VOLTAGE HART MODULE			
1756-OF8I	CONTROLLOGIX 8AO CURRENT/VOLTAGE ISOLATED MODULE	1492-AIFM8S-3	1492-ACABLE***YB 1492-ACABLE***YA	Voltage Current

If the required I/O module is not shown in the above table please refer to [Bul 1492 technical document](#) for the full range of I/O modules supported.

*** cable length - 010 (1m), 025 (2.5m), 050 (5m). Example: 1492-CABLE010H is a 1 meter cable

Allen-Bradley's 1492 range is time-saving and cost-effective

Traditional wiring method using terminal

Below is an example of a standard wiring process for I/O modules. This process is time-consuming, costly, and comes with a risk of wiring errors.



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



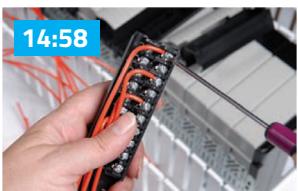
Continuing to measure and cut each control wire.



Continuing to measure and cut each control wire.



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.



Still not done with wiring PLC module.



Assembler has begun the tagging process.



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



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



Wiring each terminal block one at a time.



Traditional wiring process is now complete.

Wiring method using Allen-Bradley pre-wired cables and IFM modules

Using the pre-wired cables and IFM's, the amount of time it takes to complete all the required connections is cut to just over 1 minute.



0:23

The assembler removes the Bulletin 1492-IFM from its box and applies the supplied pre-printed 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.

For further information please contact your local NHP Account Representative.



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