



Analog Wiring Systems

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Digital Wiring Systems with Field-Removable Terminal Blocks

Digital Wiring Systems with Fixed Terminal Blocks

Bulletin 1492 Programmable Controller Wiring Systems

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

Standards Compliance and Certifications

 Agency Certifications for Modules and Cables cULus: Hazardous Locations: Class I Div 2 (all except modules with relays); Groups A, B, D, and D.

Temperature Code: T3C @ 60 °C. UL File No. E10314, Guide No. NRAG

cULus: Ordinary Locations; Module with relays; UL File No. E11372 Guide No. NRAQ

Agency Certification Modules
 Factory Mutual (FM): Hazardous Locations; Class I Div 2 (all except modules with relays): Gouprs A, B, C, and D. Temperature Rating: T3C @ 60 °C. FM file J.I.3000590

• CE Certifications Compliant for all applicable directives

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Standards Compliance and Certifications, Continued

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

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

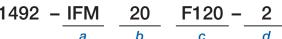
^{*} Information for this product is available on the Industrial Controls Catalog website: www.ab.com/catalogs

Digital Interface Modules (IFMs) **General Information**

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

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

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





40-pin Connection Interface Module

1492	– IFM	20	F120 -	2
	а	b	С	d

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

a

b

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

Module Type (all types do not configure a

	catalog number)
Code	Description
Α	Input Module
F	Feedthrough
F24	Fused 24 Volt
F120	Fused 120 Volt
FS	Fused Isolated
D	LEDs
N	Narrow
24	24 Volt
120	120 Volt
240	240 Volt
	·

Number of Field Side Wiring Terminal										
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)									

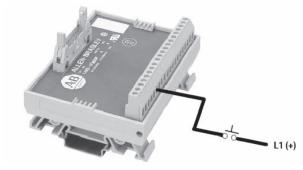
d

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

Standard terminal IFMs provide one field-side wiring terminal per programmable controller input or output point, as well as enough terminals for the I/O module power connections. The standard terminals are ideal for applications where the I/O device commons are terminated in the field or remotely from the I/O panel.

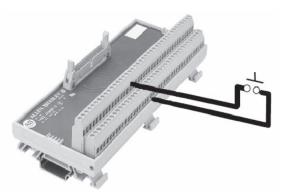
Isolated IFMs have terminals isolated into 8 or 16 groups, which allows each group of I/O devices to reference a different power source. The extra terminal IFMs are beneficial in applications where the I/O devices are terminated within the same panel as the I/O modules — eliminating the need for many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

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

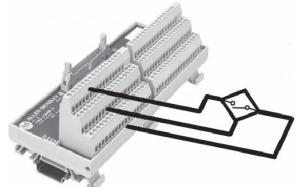


Standard Terminal Interface Module

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



Extra Terminal Interface Module



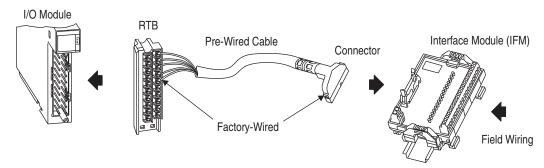
Three-Level Sensor Terminal Interface Module



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

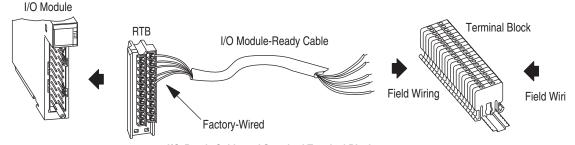
Digital Cables Pre-Wired

Bulletin 1492 pre-wired cables are designed to minimize control wiring in a panel. Pre-wired cables, when used with an IFM, replace the point-to-point wiring between Allen-Bradley programmable controller I/O modules and individual terminal blocks. The pre-wired cables have a removable terminal block or wiring arm at the PLC end of the cable and a cable connector on the other end to connect to the IFM. All of the pre-wired cables use a #22 AWG wire and are 100% tested for continuity to make a perfect connection every time. The digital pre-wired cables are offered in four standard lengths of 0.5, 1.0, 2.5, and 5.0 m to fit a variety of applications. Other length cables are also available as build to order products. Pre-wired cables are available for many of the 1746 SLC I/O, 1756 ControlLogix I/O, 1794 Flex I/O, 1769 Compact I/O, MicroLogix 1500 base I/O, MicroLogix 1200 (1762-L40xx) embedded I/O, and 1771 PLC-5 I/O.



Digital Cables I/O-Ready

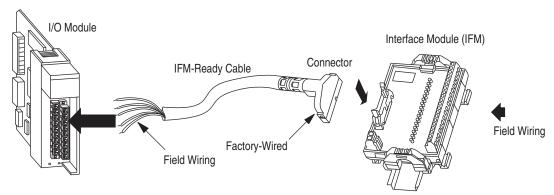
I/O-ready cables have an I/O removable terminal block or wiring arm factory-wired to one end to of the cable and free connectors on the other end for wiring into standard terminal blocks or other type of connectors. I/O-ready cables have individual color-coded conductors for quick wire-to-terminal coordination. The I/O-ready cables use #18 AWG conductors for higher current applications or longer cable runs. The I/O-ready cables are offered in standard lengths of 1.0, 2.5, and 5.0 m to fit a variety of applications. Other cable lengths are also available as build-to-order products. Pre-wired cables are available for the Bulletin 1746 SLC I/O, Bulletin 1756 ControlLogix I/O, Bulletin 1769 Compact I/O, 1794 Flex I/O, MicroLogix 1500 base I/O, MicroLogix 1200 (1762-L40xx) embedded I/O, and Bulletin1771 PLC-5 I/O.



I/O-Ready Cable and Standard Terminal Blocks

Digital Cables IFM-Ready

IFM-ready cables have a cable connector that attached to the IFM factory wired to one end and free connectors ready to wire to I/O modules or other components on the other end. IFM-ready cables use #22 AWG wire and have individual color-coded conductors for quick wire-to-terminal coordination. The digital IFM-ready cables are offered in standard lengths of 1.0, 2.5, and 5.0 m to fit a variety of applications. Other cable lengths are also available as build-to-order products.



IFM-Ready Cable and Interface Module



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

Important: Use the following tables as a product configurator for pre-wired, IFM-ready, and I/O module-ready cables for Bulletins 1746, 1756, and 1771 digital I/O module cables. All combinations of these fields make valid product cat. nos. Refer to selection tables for IFM/XIM compatibility, additional cables, and ordering.

a

Digital Interface Cable

b

Stand	ard or Build to Order L	engths
Code	Description	
005	0.5 m (1.64 ft)	
010	1.0 m (3.28 ft)	Standard
025	2.5 m (8.20 ft)	Stariuaru
050	5.0 m (16.40 ft)	
001020	0.12.0 m (0.3286.56 ft) 0.1 m (0.328 ft increments)	
020100	2.010.0 m (6.5632.8 ft) 0.5 m (1.64 ft) increments	Build-to- Order
100300	10.030.0 m (32.898.42 ft) 1.0 m (3.28 ft) increments	

Cable Type - Bulletins 1746, 1756, and 1771 digital I/O module cables. Code Description For use with Bulletin 1746 I/O Modules A, B, C, D, E, G, N, S Pre-wired cables for 8-point isolated and 16-point Bulletin 1746 I/O modules* CR Pre-wired cable for Cat. No. 1764-OA16 (XIM only) H Pre-wired cable for 32-point digital Bulletin 1746 I/O modules* N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector RTBB Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25B terminal block (blue) RTBO Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25C terminal block (orange) RTBR Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25R terminal block (red) TBCH Digital I/O module-ready cable with 36-pin Cat. No. 1746-RT25R terminal block (red) TBCH Digital I/O module-ready cable with 36-pin Cat. No. 1746-TBCH removable terminal block For use with Bulletin 1756 I/O Modules U, V, W, X Pre-wired cable for 8- and 16-point digital Bulletin 1756 I/O modules‡ Y, Z Pre-wired cable for 16-point isolated and 32-point digital Bulletin 1756 I/O modules‡ P Digital IFM-ready cable with 40 conductors Q Digital IFM-ready cable with 40 conductors N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules*		C
For use with Bulletin 1746 I/O Modules A, B, C, D, E, G, N, S Pre-wired cables for 8-point isolated and 16-point Bulletin 1746 I/O modules* CR Pre-wired cable for Cat. No. 1764-OA16 (XIM only) H Pre-wired cable for 32-point digital Bulletin 1746 I/O modules* N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector RTBB Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25B terminal block (blue) BTBO Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25C terminal block (orange) RTBR Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25R terminal block (red) TBCH Digital I/O module-ready cable with 36-pin Cat. No. 1746-TBCH removable terminal block For use with Bulletin 1756 I/O Modules U, V, W, X Pre-wired cable for 8- and 16-point digital Bulletin 1756 I/O modules‡ Y, Z Pre-wired cable for 16-point isolated and 32-point digital Bulletin 1756 I/O modules‡ P Digital IFM-ready cable with 20 conductors Q Digital IFM-ready cable with 40 conductors Digital IFM-ready cable with 40 conductors Digital IFM-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules*		Cable Type - Bulletins 1746, 1756, and 1771 digital I/O module cables.
A, B, C, D, E, G, N, S CR Pre-wired cables for 8-point isolated and 16-point Bulletin 1746 I/O modules* CR Pre-wired cable for Cat. No. 1764-OA16 (XIM only) H Pre-wired cable for 32-point digital Bulletin 1746 I/O modules* N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector RTBB Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25B terminal block (blue) RTBO Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25C terminal block (orange) RTBR Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25R terminal block (red) TBCH Digital I/O module-ready cable with 36-pin Cat. No. 1746-TBCH removable terminal block For use with Bulletin 1756 I/O Modules U, V, W, X Pre-wired cable for 8- and 16-point digital Bulletin 1756 I/O modules‡ Y, Z Pre-wired cable for 16-point isolated and 32-point digital Bulletin 1756 I/O modules‡ P Digital IFM-ready cable with 20 conductors Q Digital IFM-ready cable with 40 conductors N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules\$	Code	Description
E, G, N, S Pre-wired cables for 8-point isolated and 16-point Bulletin 1746 I/O modules* CR Pre-wired cable for Cat. No. 1764-OA16 (XIM only) H Pre-wired cable for 32-point digital Bulletin 1746 I/O modules* N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector RTBB Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25B terminal block (blue) RTBO Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25C terminal block (orange) RTBR Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25R terminal block (red) TBCH Digital I/O module-ready cable with 36-pin Cat. No. 1746-TBCH removable terminal block For use with Bulletin 1756 I/O Modules U, V, W, X Pre-wired cable for 8- and 16-point digital Bulletin 1756 I/O modules‡ Y, Z Pre-wired cable for 16-point isolated and 32-point digital Bulletin 1756 I/O modules‡ P Digital IFM-ready cable with 20 conductors Q Digital IFM-ready cable with 40 conductors N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules*		For use with Bulletin 1746 I/O Modules
H Pre-wired cable for 32-point digital Bulletin 1746 I/O modules* N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector RTBB Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25B terminal block (blue) RTBO Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25C terminal block (orange) RTBR Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25R terminal block (red) TBCH Digital I/O module-ready cable with 36-pin Cat. No. 1746-TBCH removable terminal block For use with Bulletin 1756 I/O Modules U, V, W, X Pre-wired cable for 8- and 16-point digital Bulletin 1756 I/O modules‡ Y, Z Pre-wired cable for 16-point isolated and 32-point digital Bulletin 1756 I/O modules‡ P Digital IFM-ready cable with 20 conductors Q Digital IFM-ready cable with 40 conductors N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules\$		Pre-wired cables for 8-point isolated and 16-point Bulletin 1746 I/O modules∗
N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector RTBB Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25B terminal block (blue) RTBO Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25C terminal block (orange) RTBR Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25R terminal block (red) TBCH Digital I/O module-ready cable with 36-pin Cat. No. 1746-TBCH removable terminal block For use with Bulletin 1756 I/O Modules U, V, W, X Pre-wired cable for 8- and 16-point digital Bulletin 1756 I/O modules‡ Y, Z Pre-wired cable for 16-point isolated and 32-point digital Bulletin 1756 I/O modules‡ P Digital IFM-ready cable with 20 conductors Q Digital IFM-ready cable with 40 conductors N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules\$	CR	Pre-wired cable for Cat. No. 1764-OA16 (XIM only)
RTBB Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25B terminal block (blue) RTBO Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25C terminal block (orange) RTBR Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25R terminal block (red) TBCH Digital I/O module-ready cable with 36-pin Cat. No. 1746-TBCH removable terminal block For use with Bulletin 1756 I/O Modules U, V, W, X Pre-wired cable for 8- and 16-point digital Bulletin 1756 I/O modules‡ Y, Z Pre-wired cable for 16-point isolated and 32-point digital Bulletin 1756 I/O modules‡ P Digital IFM-ready cable with 20 conductors Q Digital IFM-ready cable with 40 conductors N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules\$	Н	Pre-wired cable for 32-point digital Bulletin 1746 I/O modules∗
RTBO Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25C terminal block (orange) RTBR Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25R terminal block (red) TBCH Digital I/O module-ready cable with 36-pin Cat. No. 1746-TBCH removable terminal block For use with Bulletin 1756 I/O Modules U, V, W, X Pre-wired cable for 8- and 16-point digital Bulletin 1756 I/O modules‡ Y, Z Pre-wired cable for 16-point isolated and 32-point digital Bulletin 1756 I/O modules‡ P Digital IFM-ready cable with 20 conductors Q Digital IFM-ready cable with 40 conductors N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules*	N3	Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector
(orange) RTBR Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25R terminal block (red) TBCH Digital I/O module-ready cable with 36-pin Cat. No. 1746-TBCH removable terminal block For use with Bulletin 1756 I/O Modules U, V, W, X Pre-wired cable for 8- and 16-point digital Bulletin 1756 I/O modules‡ Y, Z Pre-wired cable for 16-point isolated and 32-point digital Bulletin 1756 I/O modules‡ P Digital IFM-ready cable with 20 conductors Q Digital IFM-ready cable with 40 conductors N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules Pre-wired cable for digital Bulletin 1771 I/O modules Pre-wired cable for digital Bulletin 1771 I/O modules	RTBB	Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25B terminal block (blue)
TBCH Digital I/O module-ready cable with 36-pin Cat. No. 1746-TBCH removable terminal block For use with Bulletin 1756 I/O Modules U, V, W, X Pre-wired cable for 8- and 16-point digital Bulletin 1756 I/O modules‡ Y, Z Pre-wired cable for 16-point isolated and 32-point digital Bulletin 1756 I/O modules‡ P Digital IFM-ready cable with 20 conductors Q Digital IFM-ready cable with 40 conductors N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules\$	RTBO	
For use with Bulletin 1756 I/O Modules U, V, W, X Pre-wired cable for 8- and 16-point digital Bulletin 1756 I/O modules‡ Y, Z Pre-wired cable for 16-point isolated and 32-point digital Bulletin 1756 I/O modules‡ P Digital IFM-ready cable with 20 conductors Q Digital IFM-ready cable with 40 conductors N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules Pre-wired cable for digital Bulletin 1771 I/O modules Pre-wired cable for digital Bulletin 1771 I/O modules	RTBR	Digital I/O module-ready cable with 16-point Cat. No. 1746-RT25R terminal block (red)
U, V, W, X Pre-wired cable for 8- and 16-point digital Bulletin 1756 I/O modules‡ Y, Z Pre-wired cable for 16-point isolated and 32-point digital Bulletin 1756 I/O modules‡ P Digital IFM-ready cable with 20 conductors Q Digital IFM-ready cable with 40 conductors N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules*	TBCH	, ,
Y, Z Pre-wired cable for 16-point isolated and 32-point digital Bulletin 1756 I/O modules‡ P Digital IFM-ready cable with 20 conductors Q Digital IFM-ready cable with 40 conductors N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules ■ Pre-wired cable for digital Bulletin 1771 I/O modules		For use with Bulletin 1756 I/O Modules
P Digital IFM-ready cable with 20 conductors Q Digital IFM-ready cable with 40 conductors N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules	U, V, W, X	Pre-wired cable for 8- and 16-point digital Bulletin 1756 I/O modules‡
Q Digital IFM-ready cable with 40 conductors N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules	Y, Z	Pre-wired cable for 16-point isolated and 32-point digital Bulletin 1756 I/O modules‡
N3 Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules	Р	Digital IFM-ready cable with 20 conductors
For use with Bulletin 1771 I/O Modules F, T Pre-wired cable for digital Bulletin 1771 I/O modules®	Q	Digital IFM-ready cable with 40 conductors
F, T Pre-wired cable for digital Bulletin 1771 I/O modules®	N3	Digital I/O module-ready cable with 40-point Cat. No. 1746-N3 cable connector
,		For use with Bulletin 1771 I/O Modules
	F, T	Pre-wired cable for digital Bulletin 1771 I/O modules®
FF Pre-wired cable with fused wiring arm for 16-point digital Bulletin 1771 output modules®	FF	
J, K, L, M, R Pre-wired cables for 16-point isolated and 32-point digital Bulletin 1771 I/O modules®	J, K, L, M, R	Pre-wired cables for 16-point isolated and 32-point digital Bulletin 1771 I/O modules®
WA Digital I/O module-ready cable with Cat. No. 1771-WA 8-point wiring arm	WA	Digital I/O module-ready cable with Cat. No. 1771-WA 8-point wiring arm
WD Digital I/O module-ready cable with Cat. No. 1771-WD 6-point wiring arm	WD	Digital I/O module-ready cable with Cat. No. 1771-WD 6-point wiring arm
WH Digital I/O module-ready cable with Cat. No. 1771-WH 16-point wiring arm	WH	Digital I/O module-ready cable with Cat. No. 1771-WH 16-point wiring arm
WHF Digital I/O module-ready cable with Cat. No. 1771-WHF 16-point fused wiring arm	WHF	Digital I/O module-ready cable with Cat. No. 1771-WHF 16-point fused wiring arm
WN Digital I/O module-ready cable with Cat. No. 1771-WN 32-point wiring arm	WN	Digital I/O module-ready cable with Cat. No. 1771-WN 32-point wiring arm

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

Programmable Controller Wiring Systems

Bulletin 1756 ControlLogix Modules

Digital IFMs and Cables for Bulletin 1756 ControlLogix 16-point Isolated and 32-point I/O Modules

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						_		_				Т		\top		Ť						<u></u>
			Fixed Removable Terminal Block PTB Plugs 421 00 00 00 00 00 00 00		B16I	1756-IB16I	1756-IA32	1756-IB32	1756-IV32	1/56-IH16I	1756 OA18		1/26-OB8EI	1756-0B16D	1756-0B16I	1756-OB16IS	1756-OB32	1756-OV32E	1756-OH8I	1756-0W16I		
	Term.		Fixed	Fixed Removable 992 992		756-	1756	1756	1756	/56-	-00/	00 1	1.26-	7.56-0	756-(299	-95,	756-(756-	756-0		
Voltage	per		Terminal Block	Terminal Block	RTB Plugs *	_	-	_		\perp	\perp									1,		- +
[V]	I/O	Description	Cat. No.	Cat. No.	Cat. No.						Digi	tal (Cab	le (Cat.	No	. Su	ffix +	•			
	1	Standard	1492-IFM40F	1492-RIFM40F	through 1492-RTB20														ΥY			
24		Extra				<u> </u>		•		\dashv		1		+			-	<u>'</u>			1	+
120	2	Terminals	1492-IFM40F-2	1492-RIFM40F-2	1492-RTB20 ⊙		Υ		Z	Z	Z					Υ			Z	Z		
	3	Sensor	1492-IFM40F-3	_	_					Z	Z											
	4	LED Indicating								7	7								7	7		
	2	Standard Extr.Term.	1492-IFM40D24 1492-IFM40D24-2	1492-RIFM40D24 —	1492-RTB200					Ζ	Z	+	+	+	+	\dashv			Z	Z Z	\dashv	+
		Extr.Term.		1400 DIEMAODOAA O	1 100 DTD000					_	_		+	+						_		
24	2	(input)	1492-IFM40D24A-2	1492-RIFM40D24A-2	1492-RTB20 ⊙					Z	Z											
	3	Sensor	1492-IFM40D24-3	_	_					Z	Z											
	4	Isolated	1492-IFM40DS24-4	_	_									+	ΥY	/13	Υ	Υ			-	YY
	4	Isolated (input)	1492-IFM40DS24A-4	_	_		Υ	Υ														
	2	Extr.Term. (input)	1492-IFM40D120A-2	_	_				z													
120	4	Isolated	1492-IFM40DS120-4	_	_								1	7							T	ΥY
	4	Isolated (input)	1492-IFM40DS120A-4	_	_	Υ																
240	4	Isolated (input)	1492-IFM40DS240A-4	_	_							,	ſ									
				Fus	sible									_								_
	2	Blown fuse LED	1492-IFM40F-F24-2	1492-RIFM40F-F24-2	1492-RTB20 ⊙														Z	Z		
24	2	Blown fuse LED	1492-IFM40F-F24D-2	_	_											Υ						
24	4	Blown fuse LED Extra	1492-IFM40F-F24AD-4	_	_		Υ					4									4	
120	2	Terminals	1492-IFM40F-F-2	_	_														Z	Z		
				Fusible -	Isolated																	
	2	Extr. Term.	1492-IFM40F-FS24-2	_	_									`	Υ	*	Y12	Y12				YY
24	4	Blown fuse LED	1492-IFM40F-FS24-4	_	_									`	Y	*	Y12	Y12				YY
	4	Blown fuse LED (input)	1492-IFM40F-FS24A-4	_	_		‡	Υ														
	2	Extr. Term.	1492-IFM40F-FS-2	_	_								\	/ \	Y	Υ	Y12	Y12			Υ	ΥY
24 120	4	Extr. Term.	1492-IFM40F-FS-4	_	_									<u> </u>	Y	Υ	Υ12	Υ12				ΥY
	4	Blown fuse LED (input)	1492-IFM40F-FSA-4	_	_	Υ	Υ	Υ				Y										
	2	Blown fuse LED	1492-IFM40F-FS120-2	1492-RIFM40F-FS120-2	1492-RTB20 ⊙							1		′							Υ	YY
120	4	Blown fuse LED	1492-IFM40F-FS120-4	1492-RIFM40F-FS120-4	1492-RTB17 ⊙							1	`	′							4	YY
	4	Blown fuse LED (input)	1492-IFM40F-FS120A-4	1492-RIFM40F-FS120A-4	1492-RTB17 ⊙	Υ						Y										
240	4	Blown fuse LED	1492-IFM40F-FS240-4	_	_								`	′								YY
	4	Blown fuse LED	1492-IFM40F-FS240A-4	_								,	ſ									
	Safety Integrity Level (SIL) 14																					
24	2	Blown fuse LED (input)	1492-TIFM40F-F24A-2	_	_														Z	Z		
	2	Blown fuse LED	1492-TIFM40F-24-2	_	_											Υ						

See footnotes on the following page.



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

									Bul	letir	17	'56 (Con	trolL	ogi	x I/	0 N	1od	ule		
Voltage	Term.		Fixed Terminal Block	Removable Terminal Block	RTB Plugs❖	1756-IA16I	1756-IB16D	1756-IB16I	1756-IA32	1756-IB32	1756-IV32	1756-IH16I	1756-0A16I	1756-0B8EI	1756-OB16D	1756-OB16I	1756-OB16IS	1756-OB32	1756-OV32E	1756-OH8I	1756-0W16I 1756-0X8I
[V]	VO	Description	Cat. No.	Cat. No.	Cat. No.					Dig	jital	l Cal	ble	Cat.	No	. Sı	ıffix	+			
Relay Master (LED Indicating)§.																					
	1	8 relays	1492-XIM4024-8R	_	_													Z			
24	1	16 relays	1492-XIM4024-16R	1492-RXIM4024-16R	1492-RTB14 ⊙													Z			
	1	16 relays with fusing	1492-XIM4024-16RF	_	_													Z			
High Density Relay Master (LED Indicating)§♣																					
24	1	32 relays - mechanical	1492-XIMTR4024-32R	▲ 1492-RXIMTR4024-32R	1492-RTB20 ⊙													z	Z		
24	1	32 relays - solid-state	1492-XIMTS4024-32R	▲ 1492-RXIMTS4024-32R	1492-R1B200 =													Z			
	•			Relay Expander (LED I	ndicating)§*																
24 1 Expander with 8 relays 1492-XIM24-8R 1492-RXIM24-8R 1492-RXIM24-8R 1492-RXIM24-8R																		*			
				Fusible Expar	nder																
24	2	8 Ch Blown fuse LED	1492-XIMF-F24-2	_	_													>			
24	1	16 Ch Blown Fuse LED	1492-XIM24-16RF	-	_													X			
				Feed-Through Ex	pander																
120 2 8 Ch 1492-XIMF-2 — —																		>			

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

0.5M Cable = 1492-CABLE005_

1.0M Cable = 1492-CABLE010_

2.5M Cable = 1492-CABLE025

5.0M Cable = 1492-CABLE050_

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

- Order plugs separately (two plugs per catalog number). Plugs are available in screw style and push in style terminal types. To order, replace the on the catalog number with the code for the desired terminal style. The code for screw style is N and the code for push in style is P.
- Requires four RTB Plugs.
- . The LED indicates the PLC output status.
- Can have up to 2 or 3 expander modules depending upon master used (total 32 outputs or less). An extender cable is provided.
- # One 1492-XIM24-16RF is to be used with one 1492-XIM4024-16R or 1492-XIM4024-16RF master (32 pt. only).
- § The voltage rating is relay control/coil voltage. For relay contact ratings, refer to page 9-42.
- The 1492-IFM40F-FS24-2 and 1492-IFM40F-FS24-4 module and 1492-CABLE*Y cable can be used with the 1756-OB16D module. However, due to the 1492-IFM40F-FS24-2 and 1492-IFM40F-Fs24-4 module's blown fuse leakage current ratings, the "no load" diagnostic function of the 1756-OB16D will not indicate a blown or removed fuse as a no load condition. If you require this diagnostic to function for a blown or removed fuse, you must use a 1492-IFM40F-F24D-2.
- ‡ The 1492-IFM40F-FS24A-4 module and 1492-CABLE*Y cable can be used with the 1756-IB16D module. However, due to the 1492-IFM40F-FS24A-4 module's blown fuse leakage current rating, the "wire off" diagnostic function of the 1756-IB16D will not indicate a blown or removed fuse as a wire off condition. If you require this diagnostic to function for a blown or removed fuse, you must use a 1492-IFM40F-F24AD-4.
- 12 Do not use this module in output sinking mode with fused IFM modules as the IFM module fuses will not properly protect the circuit.
- 13 IFMs LED provides PLC output ON/OFF indication. Due to the magnitude of current through the LED, the 1756-0B16D PLC module "No Load" diagnostic function will not work. If this function is required, use the Cat. No. 1492-IFM40F-2.
- ¹⁴ This 1492 module is for use in SIL2 safety systems only. It does not satisfy the requirements for general I/O fault tolerance. To use this module in a SIL2 application, specially developed application software for the ControlLogix processor must be used. To obtain the latest revision of this application software contact Technical Support at 1-440-646-3434.



Analog AIFMs and Cables for Bulletin 1756 ControlLogix Isolated, RTD, Thermocouple and Specialty Modules

						Bulletin 1756 Analog I/O Module*													_				
	Term.		Fixed Terminal Block	Removable Terminal Block	RTB Plugs	1756-IF6I (Current)	1756-IF6I (Voltage)	1756-IF6CIS	1756-OF6CI	1756-OF6VI	1756-IR6I	1756-IT6I	1756-IT6I2	1756-IF8H (Voltage with HART)	1756-IF8H (Current with HART)	1756-IF16H (Single-ended with HART)	1756-IF16H (Differential with HART)	1756-OF8H (Voltage with HART)	1756-OF8H (Current with HART)	1756-HSC (1224V DC)	1756-HSC (5V DC)	1756-PIM	
voitage [V]	[V] I/O Description Cat. No. Cat. No. Cat. No.																						
	Feed-through																						
	34	6-ch isolated	1492-AIFM6S-3	1492-RAIFM6S-3	1492-RTB12 0	Х	Υ	Z	Υ	Υ	Ζ												
24	3	8-ch differential, 16-ch single-ended	1492-AIFM8-3	1492-RAIFM8-3	1492-RTB16 ⊙									UC	UD			WA	WB				
				Т	hermocouple																	_	
24	3	6-ch	1492-AIFM6TC-3	_	_							Υ	ΥT										
				High-Sp	eed Counter/En	cod	er																
24	1	2-ch, counter input 4 outputs	1492-AIFMCE4	_	_															XA	ХВ		
				Fusible High	-Speed Counter	/En	coc	ler															
24	1	2-ch, fused counter input, fused outputs	1492-AIFMCE4-F	_	_															XA	ХВ		
				F	usible Analog																		
	5	8-ch w/ blown fuse LED	1492-AIFM8-F-5	_	_									UC	UD								
24	3	16-ch w/ blown fuse LED	1492-AIFM16-F-3	_	_											UB	*						
	1	8 input/ 2 output ch	1492-AIFMPI	_	_																	М	

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

0.5M Cable = 1492-ACABLE005_

1.0M Cable = 1492-ACABLE010_

2.5M Cable = 1492-ACABLE025_

5.0M Cable = 1492-ACABLE050_

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

❖ Order plugs separately (two plugs per catalog number). Plugs are available in screw style and push in style terminal types. To order, replace the ❖ in the catalog number with the code for the desired terminal style. The code for screw style is **N** and the code for push in style is **P**.

- * Some analog I/O modules can be operated in up to four modes (current/voltage, single-ended/differential) based on connections. In all cases, each channel is factory-configured for the same mode. However, you can field configure any channel for another mode. You may need to alter the terminal block wiring to match the application. Refer to the PLC I/O Module Installation Manual.
- Requires two Cat. No. 1492-AIFM16-F-3, one cable, Cat. No. 14952-AC005005UF, is required.
- § This 1492 module is for use in SIL2 safety systems only. It does not satisfy the requirements for general I/O fault tolerance. To use this module in a SIL2 application, specially developed application software for the ControlLogix processor must be used. To obtain the latest revision of this application software contact Technical Support at 1-440-646-3434.



Programmable Controller Wiring Systems

Specifications

General Wiring System Specifications

					Catalog Number 1492			
Agency Certifications: Modules and Cables				cULus Listed: Hazardous Locations: Class I Div 2 (all except modules with relays); Groups A, B, D, and D. Temperature Code: T3C @ 60 °C. Standard UL File No. E10314, Guide No. NRAG/NRAG7				
				cULus Standard Locations; Module with relays; UL File No. E11372, Guide No. NRAQ/NRAQ7				
Agency Certification Modules				Factory Mutual (FM): Hazardous Locations; Class I Div 2 (all except modules with relays): Groups A, B, C, and D. Temperature Rating: T3C @ 60 °C. FM File J.I.3000590				
CE Certifications				Compliant for all applicable directives				
Maximum Peak Transient Voltage				600V ‡				
Maximum Current (per circuit)				2 A (except relays) §				
Maximum Current (per module)				12 A (except relays) ≻§				
Terminal Block Wire Range (Rated Cross Section) ∗				Fixed Screw Style: #12#22 AWG (4.00.2 mm²) Removable Screw Style: #12 to #22 AWG 2.50.5 mm²) Removable Push-in Style: #12 to #26 AWG (2.50.2mm²)				
Wire Strip Length				Fixed Screw Style:.32 in. (8.0 mm) Removable Screw Style:.28 in. (7.0 mm) Removable Push-in Style:.39 in. (10.0 mm)				
Recommended Terminal Block Screw Tightening Torque				Fixed Screw Style: 3.54.5 lb-in. (0.380.50 Nm) Removable Screw Style: 3.54.5 lb-in. (0.380.50 Nm) Removable Push-in Style: NA (See Push-in RTB Plug Specifications)				
Operating Temperature Range				0+60 °C				
Storage Temperature Cables				-20+80 °C				
Storage Temperature Modules				-40+85 °C				
Operating Humidity				595% non-condensing				
Pollution Degree				2*				
						_		
Max. AWG	#22	#20	#18	8	#16	#14	#12	
Max. No. of Wires per Terminal ★	3	3	3		2	1	1	

Cat. Nos. 1492-IFM40F-F24AD-4 and 1492-IFM40F-F24D-2 are rated at 8 A.

^{*} Maximum number of the same gauge stranded copper conductors allowed per wire funnel.

^{*} Pollution Degree 2 is an environment where normally only non-conductive pollution occurs, except for occasional temporary conductivity caused by condensation shall be expected.

[‡] For transients >600V, use UL Recognized suppression device rated at 2.5 kV withstand.

[§] For relay contact ratings, refer to page 9-42.