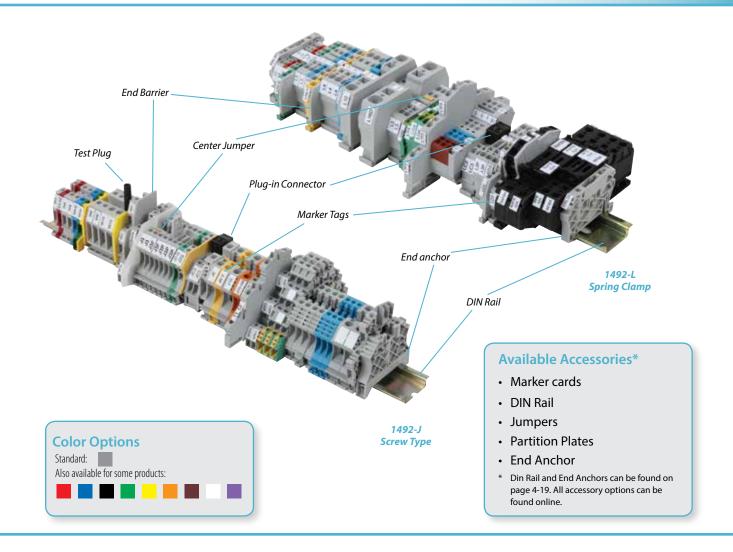




Spring Clamp Terminal Blocks 1492-L

- Help reduce wiring connection time by up to 30...50%
- Excellent reliability performance in high-vibration environments
- · Easy top-wire installation
- * product selection begins on page 4-11.







Terminal Blocks





Power Distribution Blocks 1492-PDE

- IP2X Finger-safe protection
- Power distribution through 510 A
- DIN Rail and panel mountable
- · Numerous connector configurations
- High fault SSCR up to 100 kA

Finger-safe power distribution terminal blocks are designed to prevent accidental contact with live connectors – without the use of additional barriers or shields. These panel mount devices have a compact footprint, and are available with either aluminum or copper terminals. Captive termination screws ensure that parts never get lost and the rugged thermoplastic housing will resist physical damage.

These single-pole devices are available with DIN or panel mount options and can easily be assembled together to create multi-pole solutions.



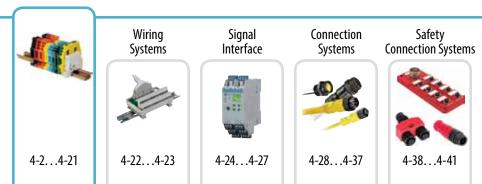


Network

Media

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Terminal Blocks







Product Selection

Power Distribution Blocks

			Line			Load					
Amps (Cu Wire) 75° C	(Cu Wire) No. of	Connector Diagram	Wire Range [kcmil / AWG (mm²)]	Openings per Pole	Connector Diagram	Wire Range [kcmil / AWG (mm²)]	Openings per Pole	Flexible Copper Wire *	Cat. No.		
115			#2#14	1		#2#14 (352.5) †	1	Yes	1492-PDME11111 ^ß		
115			(352.5)		00	#10#14 (62.5) [©]	4	Yes	1492-PDME1141 ⁶		
		2/0 #14		1	Yes	1492-PDE1112 ^B					
200			2/0 #14	(702.5)	1	163	1492-PDE1C112 ^{△, ß}				
200			(702.5)	(702.5)	(702.5)	1	<u> </u>	#2#14		V	1492-PDE1142 ^g
	1-pole				00	(352.5) †	4	Yes	1492-PDE1C142 ^{△, ß}		
540			250 #6			250#6		Yes	1492-PDE1225		
510			(12016)	2		(12016)	2	(line side)	1492-PDE1C255 △		
225			(1) 400#6 (18516)		6000	#2#14		Yes	1492-PDE1183		
335			(1) 2/0#14 (702.5)	1	0000	(352.5) †	8	(line side)	1492-PDE1C183 ^Δ		

- † Wire openings rated for #2-14 AWG are multiple wire rated: (2) #6 CU Str, (2) #8 CU Str, (2-4) #10 CU Str, (2 to 4) #12 CU Str, and (2 to 4) #14 CU Str.
- Ø Wire openings rated for #2/0 -14 AWG are multiple wire rated: (2) #4 CU Str, (2) #6 CU Str, (2) #8 CU Str, (2) #10 CU Str, (2) #12 CU Str.
- * Flexible copper wire connections approved for flexible wire, stranding Classes G, H, I, K and DLO wire without the need for additional crimp connectors.
- $\Delta \ \ \text{The \textbf{C} in the catalog number designates copper terminals.} The catalog numbers without the \textbf{C}, have aluminum connectors.}$
- ß UL 1953 Listed E 313475 Guide QPQS.

Standards Compliance and Certifications

Standards Compliance	UL 1059, UL 1953, CSA C22.2 No. 158, EN/IEC 60947-1, -7-1		
Certifications	CE Marked, CSA Certified (File No. 72582, Class 6228-01) , UL Component Recognized (File No. E40735, Guide No. XCFR2), UL Listed (File No. E313475, Guide No. QPQS), RoHS		
Flammability Ratings	94V-0		



Wiring Systems





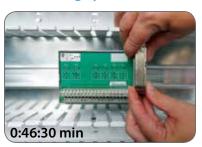
Wiring Systems 1492

- Interface modules (IFM) connect through pre-wired cables to digital and analog I/O
- Simplified design reduces bill of materials one IFM module and cable replaces multiple terminal blocks, wires and terminations
- Design flexibility feed-through, LED indication, fusing, and interposing relay IFMs are available to meet application variables

Value Add of Wiring Systems

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.

1492 Wiring Systems



Replace multiple terminal blocks, wires and terminations with single IFM and cable.

Conventional Wiring



Wiring Systems

Cables:

- Pre-wired
- · IFM Ready
- · I/O Ready



Interface Modules (IFM):

Digital

- Straight Feed-through
- · LED indicating
- Fused
- Relay

Analog

- · Straight Feed-through
- Fused
- Specialty



Terminal Blocks



4-2...4-21



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Signal Interface



Connection Systems



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Network Media



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4-22





Wiring systems replace the point-to-point wiring between a PLC I/O module and individual terminal blocks – providing quicker, more accurate connections between control and factory devices.

ControlLogix® Controllers 1756



MicroLogix[™] 1200 Controllers (40 Embedded I/O) 1762



Flex[™] I/O (with Flex D-Shell Base Modules) 1794



CompactLogix™ Controllers 1769



MicroLogix[™] 1500 Controllers 1764



CompactLogix[™] L1/L2 (Embedded I/O) 5370





Signal Interface





Signal Conditioners 931 S/H/U

- Isolation of analog measurement and control signals with 2 way isolation or 3 way isolation
- Conversion of specialty signals to commonly used type signals
- Amplification, linearization, and transmission of low level sensor signals
- Transmission of analog signals over long distances
- Provides local display using a splitter or remote status indications and alarms via relay contact closures based on the analog signals

Signal Conditioners are designed for use with I/O systems to provide reduced installation and maintenance costs in process applications. A wide range of products are available for use wherever temperature, pressure, speed, weight, level, and flow are measured and controlled as part of a continuous or batch production process.

A variety of product types are offered to meet your application needs, including:

931U Universal

Programmable – allowing the devices to be used on a wide variety of analog signals, available in 12.5 mm and 45 mm wide sizes



931H High-Density

Cost-effective analog signal conditioning in a high-density (6 mm wide) housing



931S Standard

Solutions for a wide variety of analog signals, available in compact sizes ranging from 12.5 mm to 22.5 mm wide



Signal Interface



Wiring Systems



4-22...4-23 4-24...4-27



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Connection

Systems

Safety Connection Systems



Network Media



4-24





Product SelectionSignal Conditioners

Description	Width (mm)	Input Ratings	Output Ratings	Power	Cat. No.
Current/Voltage					
Passive isolator, 1 channel	6.0	0(4)20 mA	0(4)20 mA	ILP ⁴	931H-A1A1N-IP
Active converter, 3 way	6.1	020 mA, 420 mA, 010V DC	020 mA, 420 mA, 010V DC	AUX	931H-C2C2D-DC
Active converter, 3 way	17.5	0(4)20 mA	0(4)20 mA	AUX	931S-A1A1N-DC
Passive isolator, 2 channel	17.5	0(4)20 mA	0(4)20 mA	ILP ⁴	931S-A1A1N-IP2
Active isolator	12.5	420 mA	420 mA	AUX	931S-A2A2N-DC
Passive isolator, splitter	17.5	420 mA	(2x) 420 mA	OLP ⁵	931S-A2A5N-OP
Passive converter	17.5	020 mA, 420 mA, 05V DC, 010V DC	420 mA	OLP ⁵	931S-C1A2D-OP
Active converter, 3 way	12.5	±0.1 mA±100 mA ³ , ±20 mV±200V DC ³	0±20 mA, 0+10V DC	AUX ¹	931S-C4C5D-BC
Temperature – RTD/Thermoco	uple				
Active converter, PT100/RTD	6.0	PT100, 2 or 3 conds (0200 °C)	420 mA	OLP ⁵	931H-P2A2N-0P
Active converter, 3 way, RTD	17.5	Pt100, Ni100 2, 3 or 4 conds; Pot.: 0100 kΩ; Res.: 04.5 kΩ	020 mA, 420 mA, 010V DC	AUX	931S-P1C2D-DC
Thermocouple, Type J	6.1	Type J (0700 °C)	020 mA, 420mA, 05V DC, 010V DC	AUX	931H-T1C1D-DC
Thermocouple, Type K	6.1	Type K, (01000 °C)	020 mA, 420 mA, 05V DC, 010V DC	AUX	931H-T2C1D-DC
Universal thermocouple, 3 way	17.5	Type K, J, T, E, N, R, S, B (-200+1820 °C)	020 mA, 420 mA, 010V DC	AUX	931S-T9C2D-DC
Line Monitoring					
Passive converter, monitoring	22.5	01 A or 05 A or 010 A (AC)	420 mA	OLP ⁵	931S-A3A2D-OP
Active converter, monitoring	22.5	01 A or 05 A or 010 A (AC)	020 mA, 420 mA, 010V DC	AUX	931S-A3C2D-DC
Application Specific			,,		
Bridge converter, 3 way	17.5	-500 mV+500 mV (Excitation = +10V DC, +5V DC or 4.810.2V DC adjustable)	020 mA, 420 mA, 200 mA, 204 mA, 05V DC, 010V DC, 50V DC, 100V DC	AUX	931S-B1C6D-DC
Frequency converter, 3 way	12.5	2 or 3 wire PNP/NPN, NAMUR initiator, push-pull step	020 mA, 420 mA, 010V DC	AUX	931S-F1C2D-DC
Active isolator, 3 way, Hart	6.1	420 mA (HART)	020 mA, 420 mA, 010V DC (HART)	AUX	931H-A2C2D-DCHar
Universal					
Active converter, universal	12.5	Current/Voltage: -1020 mA; -510V DC/-1020 mA; -510V / -10020 mV; TC: B, C, E, J, K, L, N, R, S, T, W3, W5 (-200+2300 °C); RTD: Pt100/200, Ni100, Cu100 2/3/4 cond. (-200+850 °C)	420 mA	OLP ⁵	931U-C9A2C-0P ⁶
Active converter, 3 way, universal	45.0	Current/Voltage: -2050 mA; -200500 mV, -2050V DC; TC: B, E, J, K, L, N, R, S, T; RTD: PT100, PT1000, Ni1000, Ni1000, Cu10, Cu25, Cu50, Cu100 2/3/4 cond; Pot: $100 \Omega100 k\Omega$; Res.: $10 \Omega5 k\Omega$ Freq.: $2 Hz100 kHz$	020 mA, -1010 V DC (programmable); 2 relays	AUX ²	931U-C9C7C-BC ⁶
Programming cable	NA	NA	NA	NA	931U-CABLE
Accessories					
Endbarrier	1.5	NA	NA	NA	931H-EB1

^{*}All non-marked AUX are 24V DC



¹ 22...230V AC/DC

³ These ranges are scalable

Powered ⁶ Software Program

² 18...264V AC/DC ⁴ Input Loop Powered

⁵ Output Loop Powered ⁶ Software Programmable

Signal Interface





Intrinsic Safety Modules 937 Z/T/C

- For analog and digital signals in hazardous locations
- · Simple maintenance with integrated diagnostics and quick change of modules during ongoing operation
- · Comprehensive standards compliance, including up to SIL3 compliance for easy and reliable planning and documentation
- · Horizontal or vertical mounting with no reduction in operational ratings
- Power Rail for drastically reduced wiring, collective error messaging, efficient troubleshooting and installation

Bulletin 937 Intrinsic Safety Modules connect intrinsically safe rated equipment – such as transmitters, solenoids, proximity sensors and encapsulated assemblies – with control systems.

Product Range Overview

- · From simple switch amplifiers to highly functional signal converters
- Modules available with galvanic isolation
- Low heat dissipation thanks to low power consumption
- Broad supply voltage range including AC, DC and universal power supply (AC/DC)

Compact Size

• 12.5 mm housing allowed for 2 channel densities

Removable Terminals

- · Rapid connection
- Up to 2.5mm/14 AWG wiring
 - Keyed terminals eliminate misconnection

Easy Configuration

- · DIP switches or Pushbuttons with LCD display
 - · FDT Interface between devices and control system



Signal

Power Rail System

- Allows simple snap-in of modules
- Power supply and monitorina of lead breakages/short circuit on gold-plates rails
- Reduces wiring
- Vertical and horizontal mounting
- Simplifies future expansions

Power Feed Module

- Link power supply to the Power Rail
- Group fusing
- Redundancy options
- Alarming for lead breakage, short circuit, and power failure
- Reduces I/O overhead
- Front switch for mode of operation

Interface





Wiring



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Safety



Network

4-26





Product Selection

Isolated/Converter Barriers

Module Type	Signal Type	Device Power	Channels	Signal Splitter	Width	Cat. No.
	Digital input,		1-channel	Yes		937TH-DISTS-DC1
	Transistor output	244.06	2-channel	No	12.5 mm	937TH-DISAT-DC2
		24V DC	1-channel	Yes	12.5 11111	937TH-DISRS-DC1
Switch			2-channel	No		937TH-DISAR-DC2
amplifier	Digital input,	1150 AC	1-channel	Yes		937TS-DISRS-KD1
	Relay output	115V AC	2-channel	No	20	937TS-DISAR-KD2
		2201/46	1-channel	Yes	20 mm	937TS-DISRS-KF1
		230V AC	2-channel	No		937TS-DISAR-KF2
Solenoid driver	Digital output	Input loop powered	1-channel	No	12.5 mm	937TH-DOSND-IP1
	Analog input		1-channel	No	12.5 mm	937TH-AITXP-DC1
SMART transmitter supply			1-channel	Yes	12.5 mm	937TH-AITXS-DC1
			2-channel	No	20 mm	937TS-AITXP-DC2
Temperature repeater	Analog input			No	12.5 mm	937TH-AIRRP-DC1
SMART current driver	Analog output	24/06		No	12.5 mm	937TH-AOSCD-DC1
Universal temp converter	Analog input	24V DC			20 mm	937CS-AITMP-DC1*
ransmitter supply converter	Analog input		4 1 1			937CU-AITXF-DC1
HART loop converter	Analog input		1-channel			937CU-AIHLP-DC1
Strain gauge converter	Analog input			_	40 mm	937CU-AISTR-DC1
F	Digital input					937CU-DIFRQ-DC1
Frequency converter	Digital input	20-90V DC/48-253 V AC				937CU-DIFRQ-BC1

 $^{{}^*\}quad \text{Configured via Field Device Tool (FDT) software such as Rockwell Software FactoryTalk AssetCentre or PACTware.}\\$

Zener Barriers

Signal Type	Max Resistance	Other Functionality	Channels	Width	Cat. No.
	646 Ohm		2-channel		937ZH-DPAN-2
	327 Ohm		1-channel		937ZH-DPBN-1
Positive polarity DC	36 + 0.9V 0hm	Diode return	2-channel	12.5 mm	937ZH-DPCD-2
	327 Ohm		2-channel		937ZH-DPBN-2
	250 Ohm	Diode return, high power	2-channel		937ZH-DPDP-2

Accessories

Power rail feed module	Power feed module for power rail system	Width: 20 mm	937A-PSFD
Power rail 0.8 meter	Power rail with cover and 2 end caps	Length: 0.8 M	937A-PR08
Power rail 2 meter	Power rail with cover and 2 end caps	Length: 2 M	937A-PR20
Power rail end caps	Power rail end caps	_	937A-PREC
USB interface cable	USB interface cable USB interface programming cable		937A-USBA
Cold junction compensation connector	Cold junction compensation for 937CS-AITMP-DC1 (thermocouples)	-	937A-TCJC

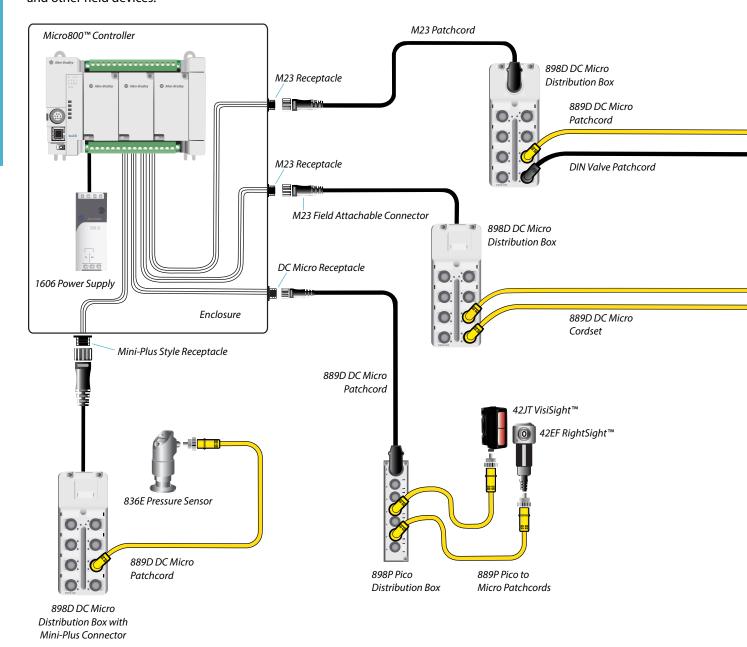


Connection Systems



Non-network Connectivity Solutions

Allen-Bradley® passive connectivity components make up a complete plug & play solution that simplifies and consolidates wiring, while providing secure connections for proximity sensors, limit switches, photoelectric sensors, and other field devices.

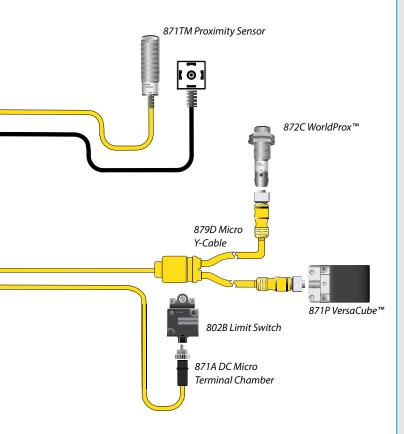




Connection







Application

Non-network Connectivity is ideal for compact machines, cost-sensitive applications or those where minimal diagnostics are required.

A complete connectivity solution, including:

- Cordsets (connector at one end, leads on the other)
- Patchcords (connectors at each end)
- Field-attachable connectors
- · Panel-mount receptacles
- Distribution boxes
 - Splitters and tees
- V- and Y-cables
- Raw cable spools

Connectivity Styles

- DC micro (M12)
- Pico
- AC micro (1/2 in.)
- Mini Plus
- Mini (7/8 in.)
- EAC micro
- M23
- DIN Valve

Various cable jacket materials and flex ratings for a wide range of applications and environments:

- PVC General purpose applications
- TPE Bending and flexing applications, temperature extremes
- PUR Bending and flexing applications, chemical environments, water submersion
- ToughWeld™ (CPE) Welding applications, chemical environments
- ToughLink™ (TPE) UV and water resistant, chemical environments
- High Flex TPE and PUR rated to 5 million,
 9 million, and 10 million flex cycles



We offer many standard and custom connectivity products not shown in this catalog. Our free ProposalWorks

software is the easiest way to select or configure a solution from our wide range of connectivity products.

Go to www.rockwellautomation.com/support/selection.page



Connection Systems





DC Micro Cordsets & Patchcords 889D

- 4-, 5-, and 8-pin connectors
- Straight or right angle versions
- 22 or 24 AWG cable
- Oil-resistant yellow or black PVC jacket

Product Selection

Cordsets

Female (Sensor End)	Cable Wire Color				Cat. No. ¹	
Connector Style			Assembly Rating	Length [m (ft)]		
4-pin straight	raight 1 Brown	3 Blue			889D-F4AC-2	
4-pin right angle	2 White	4 Black	22 AWG 250V, 4 A		889D-R4AC-2	
5-pin straight	1 Brown 2 White	3 Blue 4 Black 5 Grey		2 (6.56)	889D-F5AC-2	
8-pin straight	1 White 2 Brown 3 Green 4 Yellow	5 Grey 6 Pink 7 Blue 8 Red	24 AWG, 30V AC/36V DC, 1.5 A	-	889D-F8AB-2 ²	

Patchcords

Female (Sensor End)	Male (I/O End)	Cab			
Connector Style	Connector Style	Assembly Rating	Length [m (ft)]	Cat. No. ¹	
4-pin straight	4-pin straight		2/650	889D-F4ACDM-2	
	4-pin right angle			889D-F4ACDE-2	
4	4-pin straight	22 AWG		889D-R4ACDM-2	
4-pin right angle	4-pin right angle	250V, 4 A	2 (6.56)	889D-R4ACDE-2	
5-pin straight	5-pin straight			889D-F5ACDM-2	
8-pin straight	8-pin straight			889D-F8ABDM-2	

 $^{^{\}scriptscriptstyle 1}$ Replace the 2 after the dash with 1, 5, or 10 for additional lengths in meters.

Connection Systems





4-28...4-37





 $^{^{2}\}quad \mbox{The 8-pin cordset}$ is for Safety devices.





AC Micro Cordsets & Patchcords 889R

- 3-, 4-, 5- and 6-pin connectors
- Straight or right angle female connector
- Standard 18 or 22 AWG braided cable
- Oil-resistant yellow PVC jacket



Product Selection

Cordsets

Female Connector Style	Wire (Color	Wire Rating	Length [m (ft)]	Cat. No. ¹
3-pin straight	1 Green (GND) 2 Red/Black Tr.	3 Red/White Tr.	Braided 22 AWG 250V, 4 A		889R-F3ECA-2
3-pin straight	1 Green (GND) 2 Red/Black Tr.	3 Red/White Tr.			889R-F3AEA-2
4-pin straight	1 Red/Black Tr. 2 Red/White Tr.	3 Red 4 Green (GND)		2 (6.5)	889R-F4AEA-2
3-pin right angle	1 Green (GND) 2 Red/Black Tr.	3 Red/White Tr.	18 AWG 250V		889R-R3AEA-2
4-pin right angle	1 Red/Black Tr. 2 Red/White Tr.	3 Red 4 Green (GND)	4 A		889R-R4AEA-2
5-pin straight	1 Red/White Tr. 2 Red 3 Green	4 Red/Yellow Tr. 5 Red/Black Tr.			889R-F5AEA-2
6-pin straight	1 Red/White Tr. 2 Red 3 Green	4 Red/Yellow Tr. 5 Red/Black Tr. 6 Red/Blue Tr.	Braided 22 AWG 250V 4 A		889R-F6ECA-2

Patchcords

		Cab		
Female (Sensor End) Connector Style	Male (I/O End) Connector Style	Assembly Rating	Length [m (ft)]	Cat. No.
3-pin straight	3-pin straight	18 AWG, 250V, 4 A	2 (6.5)	889R-F3AERM-2

Replace the 2 after the dash with 1, 5, or 10 for additional lengths in meters.



Connection Systems





Mini Cordsets 889N

- 3-, 4-, and 5-pin connectors
- Straight or right angle versions
- Heavy duty STOOW 16 AWG cable
- Oil-resistant yellow PVC jacket

Product Selection

Cordsets

			Cat. No. ¹		
Female Connector Style	Wire Rating	Length [m (ft)]	IEC	US	
3-pin straight	16 AWG, 600V, 13 A	1.8 (6)	-	889N-F3AFC-6F	
4-pin straight	16 AWG, 600V, 10 A	1.8 (6)	889N-F4AF-6F	889N-F4AFC-6F	
5-pin straight	16 AWG, 600V, 8 A	1.8 (6)	889N-F5AF-6F	889N-F5AFC-6F	
3-pin right angle	16 AWG, 600V, 13 A	1.8 (6)	-	889N-R3AFC-6F	
4-pin right angle	16 AWG, 600V, 10 A	1.8 (6)	889N-R4AF-6F	889N-R4AFC-6F	
5-pin right angle	16 AWG, 600V, 8 A	1.8 (6)	889N-R5AF-6F	889N-R5AFC-6F	

¹ Replace the 6F after the dash with 12F or 20F for additional lengths in feet.

Color Code

	3-pin	4-pin	5-pin
US	1 Green 2 Black 3 White	1 Black 2 White 3 Red 4 Green	1 White 2 Red 3 Green 4 Orange 5 Black
IEC	_	1 Black 2 Blue 3 Brown 4 White	1 Black 2 Blue 3 Orange 4 Brown 5 White



Need Help?

The Rockwell Automation Support Center is your 24/7 support for the answers you need now.

www.rockwellautomation.com/ support/overview.page

Connection Systems



Wiring Systems

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Signal Interface



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Safety Connection Systems



Network Media



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4-32





Pico Cordsets & Patchcords 889P

- 3- or 4-pin connectors
- Straight or right angle female
- Standard 24 AWG cable
- Oil-resistant yellow PVC jacket



Product Selection

Cordsets

Female (Sensor End)					
Connector Style	Wire Color	Wire Rating	Length [m (ft)]	Cat. No. 1	
3-pin straight	1 Brown	24 AWG	2 (6.5)	889P-F3AB-2	
3-pin right angle	3 Blue 4 Black		2 (6.5)	889P-R3AB-2	
4-pin straight	1 Brown 2 White 3 Blue 4 Black	60V AC/75V DC 4 A	2 (6.5)	889P-F4AB-2	

¹ Replace the 2 after the dash with 5 or 10 for additional lengths in meters.

Patchcords

Female (Sensor End)	Male Connector (I/O End)	Cab	le	
Connector Style	Connector Style	Wire Rating	Length [m (ft)]	Cat. No. ²
3-pin straight	3-pin straight	24 AWG 60V AC/75V DC 4 A	1 (3.3)	889P-F3ABPM-1

² Replace the 1 after the dash with 2, 5, or 10 for additional lengths in meters.



Connection Systems





DC Micro & Pico Distribution Boxes 898D & 898P

- 4-pin DC micro or 3-pin pico connectors
- Top mount inputs
- 4- or 8-port parallel wired
- PNP wired LED versions
- Single input per port
- · Prewired master cable
- Rugged grey Pocan® body

Product Selection

Style	No. of Connections	Illuminated	Operating Voltage/ Supply Current	Cable Length [m (ft)]	Cat. No.	
				5 (16.4)	898D-P54PT-B5	
	4	_		1030V DC	10 (32.8)	898D-P54PT-B10
DC Micro			2 A max./port 10 A max. total	5 (16.4)	898D-P58PT-B5	
	PNP LED		10 (32.8)	898D-P58PT-B10		
Pico 8		1030V DC 2 A max./port 6 A max. total		898P-P34PT-B5		
			5 (16.4)	898P-P38PT-B5		

Sales Offices and Distributors

Our network of sales offices and distributors offers exceptional knowledge and service to help you design, implement and support your automation investment.

www.rockwellautomation.com/ sales-partners/overview.page



Connection Systems



Systems

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Wiring



Signal



4-28...4-37



Safety

Network Media 4-42...4-49

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Terminal Chambers & IDC Connectors 871A, 889D, 889P

- 4-pin micro or 3-pin pico connector
- Male and female versions
- Screw terminal
- Supports cable O.D. 4...8 mm



Product Selection

Terminal Chamber

Description	Туре	Connector Style	Jacket Cable Diameter [mm (in.)]	Wire Rating	Cat. No.
		4-pin straight	4.06.0 (0.160.24)	250V, 4 A	871A-TS4-D
24.11			6.08.0 (0.240.32)		871A-TS4-D1
DC Micro	Female		4.06.0 (0.160.24)		871A-TS4-DM
			6.08.0 (0.240.32)		871A-TS4-DM1

IDC Connector

Description	Туре	Connector Style	Jacket Cable Diameter [mm (in.)]	Wire Rating	Cat. No.
DC Micro	Female	4-pin straight	4.05.1 (0.160.20)	32V, 4 A	889D-F4DC-H
De Micro	Male				889D-M4DC-H
Pico	Female	3-pin straight	4.05.1 (0.160.20)	32V, 3 A	889P-F3DC-H
Tico	Male	5 pin straight	1.0111511 (0.101110.20)	324,374	889P-M3DC-H



Connection Systems





DC Micro & AC Micro Receptacles 888D & 888R

- Male and female versions
- 1/2 inch NPT threads
- 22 AWG conductors
- Rugged anodized aluminum body

Product Selection

DC Micro Style

Type	Wire Color	Wire Rating	Length [m (ft)]	Panel Mount Thread Size	Cat. No.
4-pin female	1 Brown 2 White	22 AWG	0.3 (1)	1/2 in14 NPT	888D-F4AC1-0M3
4-pin male	3 Blue				888D-M4AC1-0M3
5-pin female					888D-F5AC1-0M3
5-pin female					888D-M5AC1-0M3

AC Micro Style

Connector Style	Wire Color	Wire Rating	Length [m (ft)]	Panel Mount Thread Size	Cat. No.
3-pin female	1 Green (GND) 2 Red/Black Tr.	22 AWG 250V	0.3 (1)	1/2 in14 NPT	888R-F3AC1-1F
3-pin male	3 Red/White Tr.	4 A			888R-M3AC1-1F
4-pin female	1 Red/Black Tr. 2 Red/White Tr.	22 AWG			888R-F4AC1-1F
4-pin male	3 Red 4 Green (GND)	300V 3 A			888R-M4AC1-1F

Connection Systems



Wiring Systems



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Signal

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Safety Connection Systems Network Media 4-42...4-49

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Mini & Pico Receptacles 888N & 888P

- · Male and female versions
- Heavy-duty 16 AWG conductors (mini)
- 24 AWG conductors (pico)
- Black epoxy-coated aluminum body (mini)
- Rugged nickel-plated brass body (pico)



Product Selection

Mini Style (US Color Code)

Connector Style	Wire Color	Wire Rating	Length [m (ft)]	Panel Mount Thread Size	Cat. No.		
3-pin female	1 Green				888N-F3AF1-1F		
3-pin male	2 Black 3 White	600V 13 A 16 AWG 600V 10 A 16 AWG 600V 8 A			888N-M3AF1-1F		
4-pin female	1 Black 2 White				888N-F4AF1-1F		
4-pin male	3 Red 4 Green		10 A		0.3 (1)	1/2 in14 NPT	888N-M4AF1-1F
5-pin female	1 White 2 Red					888N-F5AF1-1F	
5-pin male	3 Green 4 Orange 5 Black				888N-M5AF1-1F		

Pico Style

Connector Style	Wire Color	Wire Rating	Length [m (ft)]	Panel Mount Thread Size	Cat. No.
3-pin female	1 Brown	24 AWG 60V AC/75V DC 4 A	0.3 (1)	M8 x 0.5	888P-F3AB4-0M3
3-pin male	3 Blue 4 Black				888P-M3AB4-0M3
4-pin female	1 Brown 2 White				888P-F4AB4-0M3
4-pin male	3 Blue				888P-M4AB4-0M3

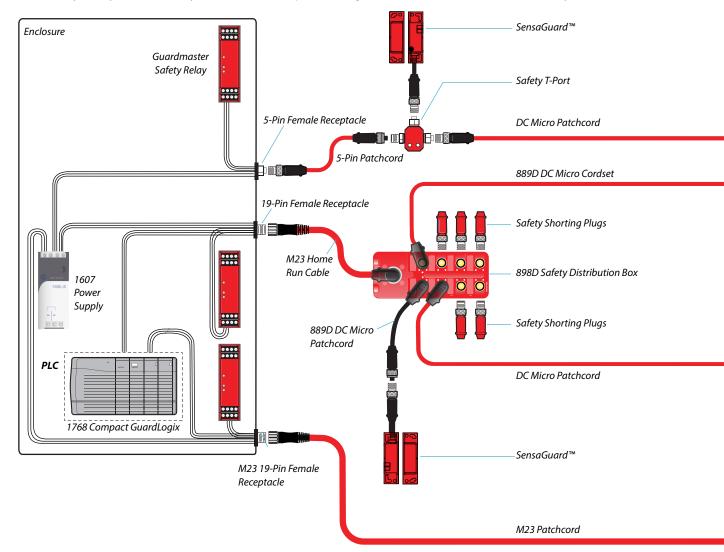


Safety Connection Systems



Safety Connectivity

Allen-Bradley safety connection systems offer a complete wiring solution dedicated to machine safety.



On-Machine™ Solutions Reduce costs, accelerate startup and boost reliability. www.rockwellautomation.com/ products-technologies/ on-machine-solutions/overview.page

Application

Safety Connectivity is suited for compact machines with a limited number of safety components using safety relays for monitoring.

Safety Connection Systems

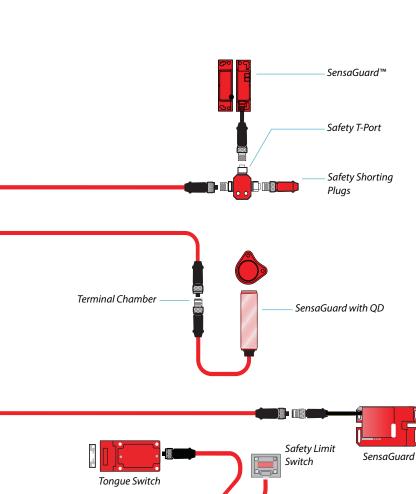




Guard Locking

Switch





Allen-Bradley Guardmaster safety connection systems are complete quick-disconnect wiring solutions dedicated to machine safety.

Components

- Safety-wired T-ports
- Safety-wired distribution boxes
- Safety-wired shorting plugs
- Patchcords
- Receptacles

Connector Options

- DC Micro (M12)
- M23

Flexible and reliable connections for safety

- Interlock switches
- SensaGuard
- Safety limit switches
- E-Stops
- Cable pull switches
- Safety relays
- Guard locking switches Safety mats

Not Suitable For

Pressure-sensitive safety edges

Notes

- Designed to simplify the installation of safety devices
- Reduced installation costs, simplified expansion and troubleshooting, increased modularity
- Single- or dual-channel options with or without enunciation
- Enunciation systems allow direct feedback on individual systems in the system and provide an auxiliary contact as input for tower lights, audible alarms, PLC input cards, etc.
- Shorting plugs must be installed in all unused distribution box ports for the system to operate



SensaGuard

8-Pin Patchcord

Distribution Box

8-Pin Patchcord

Safety Connection Systems





Safety Distribution Boxes 898D & 898R

- · Prewired for compatibility with safety dual-channel and three-channel switches
- For use in Cat 2, 3, or 4 systems per EN 954-1 and up to SIL3 per EN 13849-1
- Enunciation models identify open contacts via LEDs on box and discrete wire in home-run connection

Product Selection – Safety Wired Distribution Box

Dual-Channel

Safety Switch Configuration	Enunciation	Connection Type	No. of Ports	Home Run Connection	Cat. No.
2 N.C	M-	A wis DC suisse	4	DC micro pigtail, 200 mm	898D-44LT-DM4
Z N.C.	2 N.C. No 4-pin DC micro 4	(7.87 in.)	898D-48LT-DM4		
1116.01110.6 5	& 1 N.O. for Enunciation Yes 4-pin DC micro 8	Cable, 5 m (16.4 ft)	898D-P48JT-A5		
I N.C. & I N.U. for Enunciation		4-pin DC micro	8	Cable, 10 m (32.8 ft)	898D-P48JT-A10
246044065	Yes		8	Cable, 5 m (16.4 ft)	898R-P68MT-A5
2 N.C. & 1 N.O. for Enunciation		6-pin AC micro		Cable, 10 m (32.8 ft)	898R-P68MT-A10
2 0550 1	Yes	0 . 56 .	4	1122 42 :	898D-P84RT-M19
2 OSSD 1		8-pin DC micro	8	M23, 19-pin	898D-P88RT-M19

SensaGuard compatible.



Product Selection Tools

Available online or for download, our tools help you access info while in the office or on the go.

www.rockwellautomation.com/support/ selection.page

Safety **Connection Systems**



Wiring Systems

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Safety Wired T-Port & Shorting Plug 898D & 898R

Safety Wired T-Port

- T-Port/splitter designed for use with dual-channel safety devices with four-pin DC micro connector
- For use in Cat 2 or 3 systems per EN 954-1
- SensaGuard™ units may be wired in series maintaining a Cat 4/SIL3 rating

Safety Wired Shorting Plug

- Shorting plug designed for use with safety-wired distribution boxes
- Ratcheting coupling nut on four-pin models for vibration resistance



Product Selection – Safety Wired T-Port

DC Micro Style (Dual-Channel, No Enunciation)

Configuration	Female QD (2 Ports)	Male QD (1 Port)	Cat. No.	
2 N.C.		A min DC mileur	898D-43LY-D4	
1 N.O. & 1 N.C.	4-pin DC micro		4-pin DC micro	898D-43KY-D4
For use with SensaGuard switches only		8-pin DC micro	898D-438Y-D8	

Product Selection – Safety Wired Shorting Plug

DC & AC Micro Style

Safety Switch Configuration	Male QD	Coupling Nut Material	Cat. No.
2 N.C.	A min DC minus	France sasked ring	898D-41LU-DM
1 N.O. & 1 N.C.	- 4-pin DC micro	Epoxy-coated zinc	898D-41KU-DM
2 N.C. & 1 N.O.	6-pin DC micro		898R-61MU-RM
For use with SensaGuard compatible T-Ports only	4-pin DC micro	Nidal alated byses	898D-418U-DM
2 OSSD		Nickel-plated brass	898D-81RU-DM
2 OSSD with 24V DC connected to Aux. input			898D-81RU-DM2

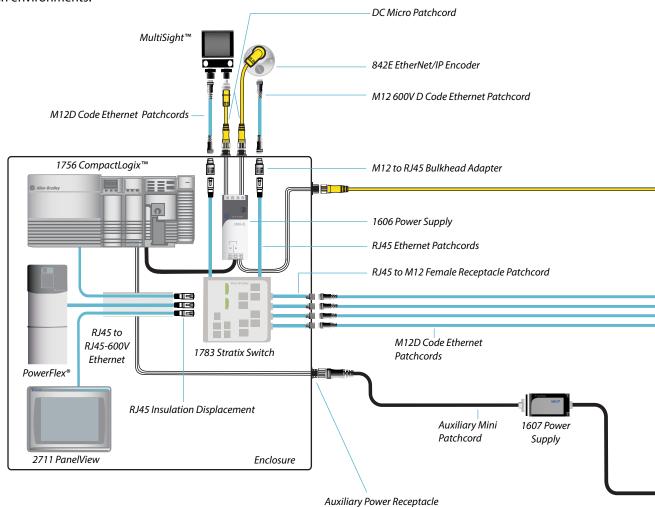


Network Media



Industrial Ethernet Connectivity

We offer a complete portfolio of industrial-grade Ethernet physical media specifically designed for use in harsh environments.





Sales Offices and Distributors

Our network of sales offices and distributors offers exceptional knowledge and service to help you design, implement and support your automation investment.

www.rockwellautomation.com/ sales-partners/overview.page

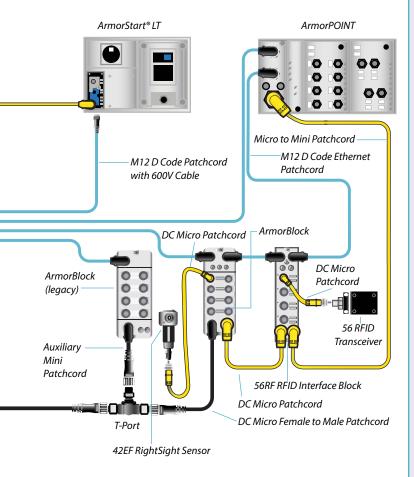
Application

Ethernet Network Connectivity is ideal for highly distributed machines that require extensive diagnostics at the PLC.

Network Media







Allen-Bradley Ethernet media components combine specially-designed cable with rugged connector construction to preserve network integrity and performance.

Components

- Cordsets and patchcords
- · Receptacles/outlets
- Bulkhead adapters
- Raw cable spools
- · Field-attachable connectors

Connector Options

• RJ45 (IP20) • M12 D-Coded (IP67) • Variant 1 (IP67)

Two- or four-pair shielded and unshielded cable options in multiple cable jackets:

- Two-pair for 10/100 BaseT and On-Machine applications
- Four-pair for backbone and uplink ports or any areas requiring data rates greater then 100 BaseT Interlock switches
- PVC Cable General purpose applications
- PUR Cable High flex, Halogen-free
- TPE Cable High flex applications
- Plenum Cable Air handling applications
- 600V PVC Use in cable trays with up to 600V rated cables

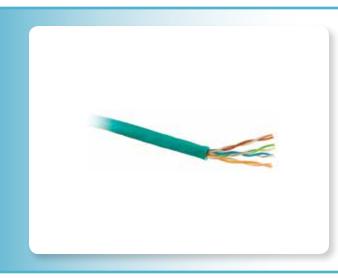
Notes

- Allen-Bradley Ethernet media is designed to ODVA EtherNet/IP™ standards for enhanced performance in industrial applications
- The 600V rated cable has a 600V AWM rating as well as PLTC (Power Limited Tray Cable) – NEC Type PLTC Listed, which is approved for cable tray use in Class 1, Division 2, hazardous areas and nonhazardous areas, cable trays, raceways, conduit and supported by messenger wires
- Transition from inside the cabinet to on-machine can be accomplished with an RJ45-to-M12 bulkhead adapter or an RJ45-to-M12 female panel mount patchcord. Both solutions provide a sealed solution mounted on to the cabinet and enables as easy transition from IP20 to IP67
- High flex cables rated to 10 million flexing cables



Network Media





Ethernet Media Cable Spools 1585

- Four- and eight-conductor styles
- 24 AWG conductors, Cat 5e
- Twisted pairs maintain signal balance through cable to provide high noise immunity without need for shield
- Designed to ODVA EtherNet/IP[™] specifications and ISO IEC 24702, IEC 61918
- Suitable in noise environments M3I3C3E3
- Robotic cables are flex rated, rated to 10 million cycles

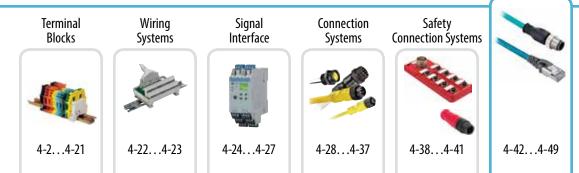
Product Selection

Cable Spools

Cable Type	No. of Conductors	Nominal Outer Diameter	Jacket Color	Color Code	Cable Rating	Cat. No. ¹
Unshielded riser PVC	8 (four pair)	5.84 mm (0.23 in.)	Teal	White/Orange, Orange, White/ Green, Blue, White/Blue, Green, White/Brown, Brown	UL CMR; cUL CMG; Standard TIA 568-B	1585-C8PB-S100
Unshielded robotic	4 (two pair)	5.6 mm (0.22 in.)	Teal	White/Orange, White/Green, Orange, Green	Weld splatter, sunlight, and oil resistant; UL CM, CMX; cUL CM; Standard TIA 568-B, high flex rated	1585-C4TB-S100
TPE	8 (four pair)	5.84 mm (0.23 in.)	Teal	White/Orange, Orange, White/ Green, Blue, White/Blue, Green, White/Brown, Brown	Weld splatter, sunlight and oil resistant; UL CM, CMX; cUL CM; Standard TIA 568-B, high flex rated	1585-C8TB-S100
Foil and braided shield robotic PUR 8 (four pair)		6.2 ± 12 mm (0.244 in.)	Teal	-	C(ETL)US TYPE CMX; TIA 568-B, Flex rated, Halogen- Free	1585-C8UB-S100
Foil and braided shield robotic PUR	4 (two pair)	_	Teal	-	C(ETL)US TYPE CMX; TIA 568-B, Flex rated, Halogen- Free	1585-C4UB-S100
Foil and braided shield 600V PVC	8 (four pair)	8.13 ±0.38 mm (0.32 in.)	Teal	-	(UL) CMX, CMR; c(UL) CMG; (UL) PLTC or AWM 257080 °C 600V; TIA-568- B	1585-C8HB-S100

¹ Replace **S100** with **S300** (300 m) or **S600** (600 m) for additional cable lengths.

Network Media







Ethernet M12 D Code Cordsets & Patchcords 1585D

- Industrial-grade overmolded IP67 cable
- Flex-rated to 10 million cycles
- Single-ended cordsets can be custom terminated with one of several field-attachable connectors
- Designed to ODVA EtherNet/IP specifications and ISO IEC 24702, IEC 61918
- Twisted pairs provide high noise immunity
- Suitable for noise environments M3I3C3E3
- Cat 5e



Product Selection

M12 D Code Cordsets

Cable Style	First End Connector	Second End Connector	Cat. No. ¹
TPE, high flex, unshielded			1585D-M4TB-2
PUR, foil and braided shield, high flex, halogen free	Male M12 D-code, straight	Flying leads	1585D-M4UB-2
PVC, 600V rated, foil shield			1585D-M4HB-2

M12 D Code Patchcords

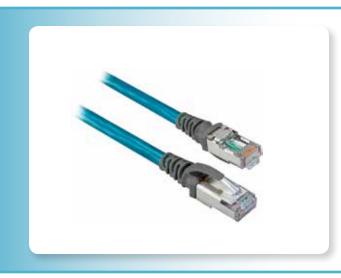
Cable Style	First End Connector	Second End Connector	Cat. No. ¹
	Male M12 D-code, straight	Male M12 D-code, straight	1585D-M4TBDM-2
TDF high flow weakingland	Male M12 D-code, right angle	Male M12 D-code, right angle	1585D-E4TBDE-2
TPE, high flex, unshielded	Male M12 D-code, straight	Male M12 D-code, right angle	1585D-M4TBDE-2
	Male M12 D-code, straight	Female M12 D-code, straight	1585D-M4TBDF-2
	Male M12 D-code, straight	Male M12 D-code, straight	1585D-M4UBDM-2
DUD feil and homidad abiald bink flow balance from	Male M12 D-code, right angle	Male M12 D-code, right angle	1585D-E4UBDE-2
PUR, foil and braided shield, high flex, halogen free	Male M12 D-code, straight	Male M12 D-code, right angle	1585D-M4UBDE-2
	Male M12 D-code, straight	Female M12 D-code, straight	1585D-M4UBDF-2
	Male M12 D-code, straight	Male M12 D-code, straight	1585D-M4HBDM-2
DVC (00V 4 6:1-1:1-1	Male M12 D-code, right angle	Male M12 D-code, right angle	1585D-E4HBDE-2
PVC, 600V rated, foil shield	Male M12 D-code, straight	Male M12 D-code, right angle	1585D-M4HBDE-2
	Male M12 D-code, straight	Female M12 D-code, straight	1585D-M4HBDF-2
TPE, high flex, unshielded			1585D-M4TBJM-2
PUR, foil and braided shield, high flex, halogen free	Male M12 D-code, straight	RJ45, straight	1585D-M4UBJM-2
PVC, 600V rated, foil shield			1585D-M4HBJM-2

Replace 2 (2 m) with 1 (1 m), 5 (5 m), or 10 (10 m) for additional standard cable lengths. Other standard and build-to-order lengths are available. Contact your local Rockwell Automation sales office or Allen-Bradley distributor for details.



Network Media





Ethernet RJ45 Cordsets & Patchcords 1585J

- PVC riser and flex-rated TPE and PUR cables for various applications
- · Teal cable jacket
- Rugged strain relief and hitch mechanism to maintain network integrity
- Suitable environments M³I³C³E³
- Unshielded, #24 AWG
- Flex rated to 10 million cycles
- Cat 5e

Product Selection

RJ45 Cordsets

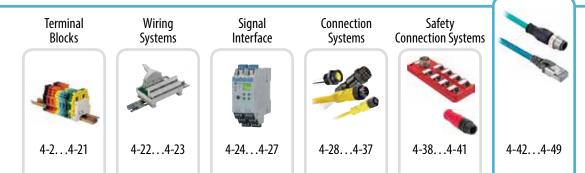
No. of Conductors	Jacket Material	Shielding	Cat. No. ¹
4	Teal high-flex TPE		1585J-M4TB-2
8	Teal high-flex TPE	Unshielded twisted pair	1585J-M8TB-2
8	Teal riser PVC		1585J-M8PB-2
8	Teal riser PVC		1585J-M8CB-2
4	Teal high-flex PUR	Foil and braided shield	1585J-M4UB-2
8	Teal high-flex PUR		1585J-M8UB-2
8	Teal 600V PVC	Foil shield	1585J-M8HB-2

RJ45 Patchcords

No. of Conductors	Jacket Material	Cable Type	Cable Rating	Cat. No. ¹
4	Teal high-flex, TPE		Weld splatter, sun light and oil resistant; UL CMG, CMX; cUL CMG;	1585J-M4TBJM-2
0	Teal high-flex, TPE	Unshielded twisted pair	Standard TIA 568-B, flex rated	1585J-M8TBJM-2
8	Teal riser, PVC		UL CMR; cUL CMG; Standard TIA 568-B	1585J-M8PBJM-2
4	Teal high-flex, PUR		C(ETL)US TYPE CMX; TIA 568-B, flex-rated, halogen-free	1585J-M4UBJM-2
	Teal riser, PVC	Braid over foil shield	UL CMR; CUR CMG, TIA B	1585J-M8CBJM-2
8	o Teal high-flex, PUR		C(ETL)US TYPE CMX; TIA 568-B, flex-rated, halogen-free	1585J-M8UBJM-2
ŭ	Teal 600V, PVC		Foil shield (UL) CMX, CMR; c(UL) CMG; (UL) PLTC or AWM 2570 80 °C 600V; TIA-568-B	

¹ Replace 2 (2 m) with 1 (1 m), 5 (5 m), or 10 (10 m) for additional standard cable lengths. Other standard and build-to-order lengths are available. Contact your local Rockwell Automation sales office or Allen-Bradley distributor for details.

Network Media







Ethernet Accessories 1585D, 1585A, & 1585J

- Field-installable accessories for easy cabling modification
- For use with raw cable or single-ended cordsets
- M12 and RJ45 styles
- M12 to RJ45 adapter for bulkhead installation



Product Selection

M12 Insulation Displacement Connector

No. of Pins	Connector Material	Cable Diameter [mm (in.)]	Wire Size	Assembly Rating	Connector Style	Cat. No.
	Polyamide small body 4.05.1 (0.160.20)		#2622 AWG		Straight male	1585D-M4DC-H
4	7inc die-cast large	55 72		32V, 4 A	Straight female	1585D-F4DC-SH
	Zinc die-cast large 5.57.2 #24 body shielded (0.220.28)	#2422 AWG		Straight male	1585D-M4DC-SH	

Field Attachable RJ45 Connectors

Description	Material	Insulation Material	Contact Material	Channel Bandwidth	Cat. No.
RJ45 insulation displacement connector (IDC)	Diecast zinc	Plastic	Gold-plated copper alloy	Cat 6	1585J-M8CC-H

4-pin, M12 Receptacle & M12 to RJ45 Adapter

Description	Mounting	Assembly Rating	Cat. No.
Female M12 receptacle to RJ45 female adapter right angle	PG 9 panel mount threads	32V, 4 A	1585A-DD4JD







Gigabit Ethernet Connectivity 1585D/1585J

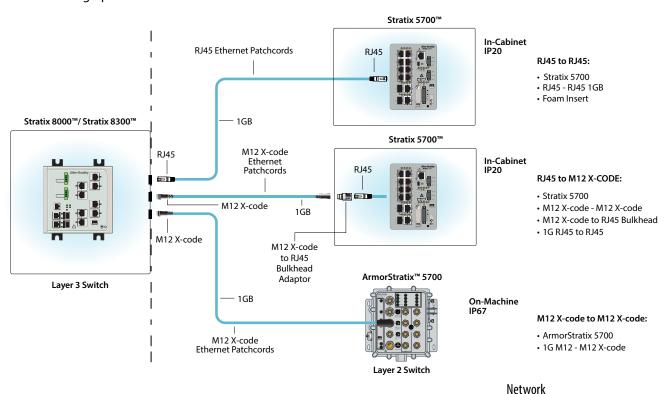
- · Ethernet speeds of 1 Gigabit per second
- 360 degree shield for optimal signal performance without system noise interference
- Cat 6, UL Listed. Conforms to ISO IEC 11801, ANSI/TIA-1005, TIA-568-C.2.
- Flex-rated TPE cables for various applications.
- M12 feature X-code key alignment and are IP67 and M,I,C,E, rated

Media

 RJ45 features ideal 1p20 industrial applications and M₁I₂C₂E₂

Innovative Connectivity for Demanding High-speed Data Transfer in Industrial Applications

Our Ethernet media connects with Allen-Bradley Stratix™ Ethernet switches, programmable controllers, PanelView™ graphic terminals and drives.



Terminal Wiring Connection Safety Signal **Blocks** Interface **Connection Systems** Systems Systems 4-28...4-37 4-2...4-21 4-22...4-23 4-24...4-27 4-38...4-41 4-42...4-49





Product Selection

RJ45 Gigabit Cordset

Shielding	Connector Style	Cable Type	Cable Length	Cat. No.*
Foil and braided shield	Straight male	8-conductor, teal high-flex TPE	2 m (6.56 ft)	1585J-M8TG-2
Foil and braided shield	Right angle male	8-conductor, teal high-flex TPE	2 m (6.56 ft)	1585J-E8TG-2

RJ45 Gigabit Patchcords

Shielding	Connector Style	Cable Type	Cable Length	Cat. No.*
Foil and braided shield	RJ45 straight male	8-conductor (4 pair), teal high-flex TPE	2 m (6.56 ft)	1585J-M8TGJM-2
Foil and braided shield	RJ45 straight male to right angle male	8-conductor (4 pair), teal high-flex TPE	2 m (6.56 ft)	1585J-M8TGJE-2
Foil and braided shield	RJ45 right angle male to right angle male	8-conductor (4 pair), teal high-flex TPE	2 m (6.56 ft)	1585J-E8TGJE-2

 $^{^{*}}$ Replace -2 (6.56 ft) with 5 (16.4 ft) or 10 m (32.8 ft) for additional standard cable lengths.

M12 X-code to M12 X-code Patchcords

Shielding	Connector Style	Cable Type	Cable Length	Cat. No.*
Foil and braided shield	Straight male	Shielded teal PUR, 4 twisted pairs, 26 AWG, Industrial Cat 6, UL Listed, sun light and oil resistant	1 m (3.28 ft)	1585D-M8UGDM-1

M12 X-code to RJ45 Patchcord

Shielding	Connector Style	Cable Type	Cable Length	Cat. No.**
Foil and braided shield	Straight male	Shielded teal PUR, 4 twisted pairs, 26 AWG, Industrial Cat 6, UL Listed, sun light and oil resistant	1 m (3.28 ft)	1585D-M8UGJM-1

^{**} Replace -1 (desired length in meters i.e., 1585D-M8UGDM-1 for a 1 m (3.28 ft) cable) with 2 m (6.56 ft), 3 m (9.84 ft), 4 m (13.1 ft), 5 m (16.4 ft), 10 m (32.8 ft), 15 m (49.5 ft), 20 m (65.6 ft), 30 m (98.42 ft), or 40 m (131.23 ft) for additional standard cable lengths.

Accessories

Description	Cat. No.
Female M12 X-code receptacle to RJ45 female adaptor right angle	1585A-DD8JD



Additional Connectivity Products





DeviceNet Media

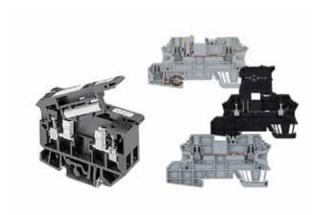
Used as the backbone for your DeviceNet network, our media includes multiple trunk and drop cable solutions to best suit your topology.

- Choose from traditional round media or time-saving KwikLink™ flat media
- Options for IP20 and IP67 applications
- Available in bulk spools or pre-molded cordsets or patchcords
- DeviceNet media tools help simplify your network installation and diagnostics

NEMA and Process Terminal Blocks 1492, 1492JP

The 1492 family of NEMA terminal blocks offer easy wiring with standard size screwdrivers, easy visual verification of proper wire position and easy marking.

1492-JP process terminal blocks are designed specifically for process marshalling applications to save 45% panel space and improve the performance of signal routing and distribution.





Product Catalog iPad App

Configure and select from thousands of industrial automation products to help meet your application requirements.

Now available in the iTunes App Store, the Rockwell Automation Product Catalog iPad app allows you the convenience to browse or search our comprehensive product offering from your iPad.









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