

Ethernet Media

Bulletin Numbers 1585, 1585A, 1585BP, 1585BT, 1585BX, 1585BZ, 1585D, 1585J

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Cable Spools

Unshielded Twisted Pair

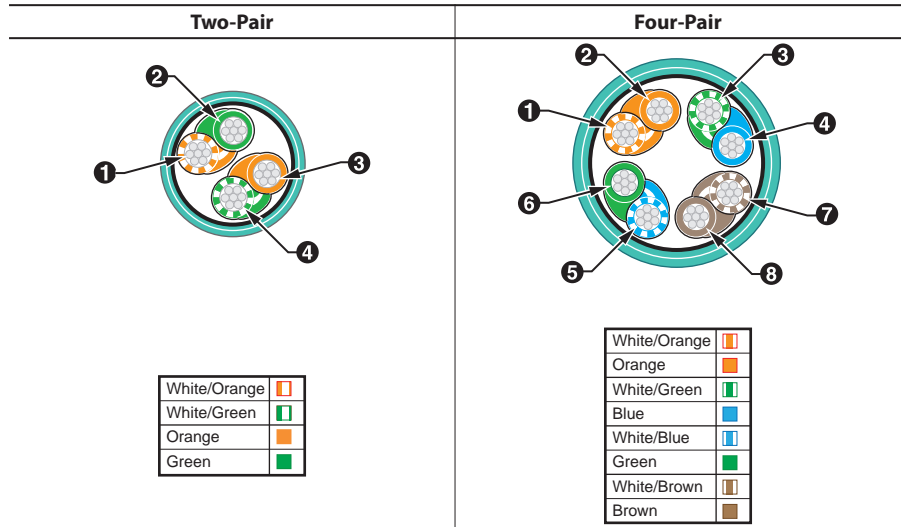


Unshielded Ethernet Cable Spool

Specifications

Certifications	UL Listed and CEC
Conductor Material	Tinned copper stranded
Bend Radius	10 million cycles at 20 x diameter (TPE cable)
Data Rate	Up to 1 Gb/s, Cat 5e
Voltage	300V

Cable and Color Code



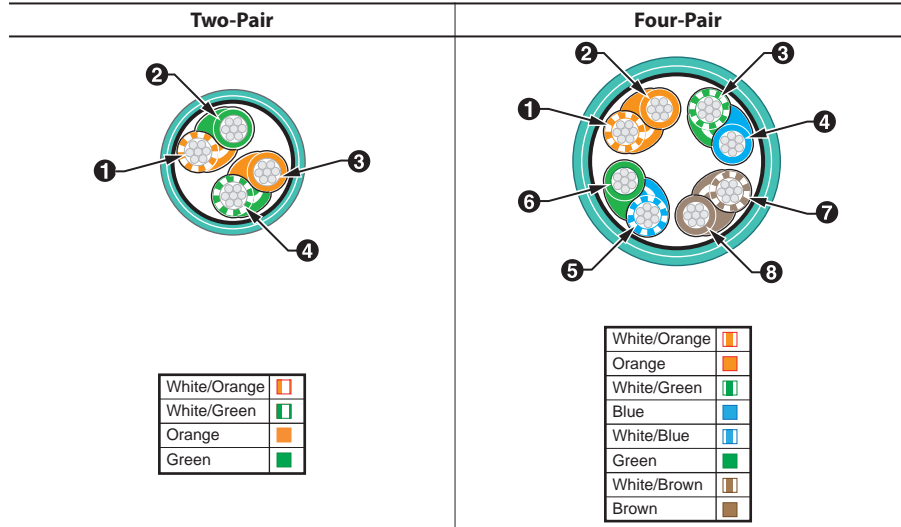


Shielded Ethernet Cable Spool

Specifications

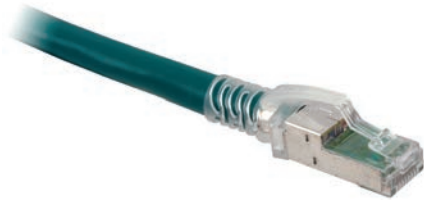
Certifications	UL Listed and CEC
Conductor Material	Tinned copper stranded
Insulation Material	High density polyethylene
Bend Radius	10 million cycles at 20 x diameter (TPE cable)
Data Rate	Up to 1 Gb/s, Cat 5e
Voltage	300V

Cable and Color Code



Cable Spools

600V Ethernet Cable



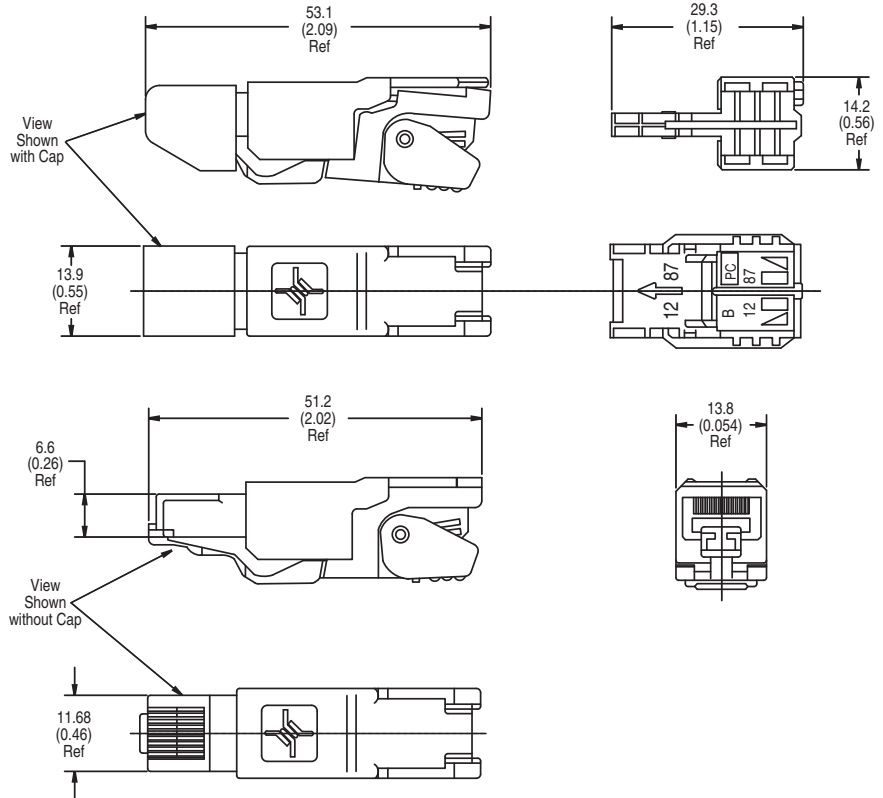
RJ45 Cordset—600V

Specifications

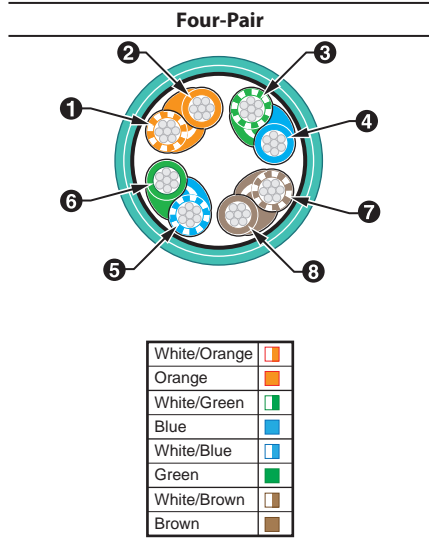
Certifications	UL and cUL Listed
Diameter [mm (in.)]	0.32 ± 0.015 in. (8.13 ± 0.38 mm)
Conductor Material	Thin copper stranded
Insulation Material	Perfluoroalkoxy copolymer and polyolefin
Cable Rating	UL, cUL TYPE CMG; UL PLTC or UL AWM 2570 80C 600V, TIA 568B

Approximate Dimensions [mm (in.)]

RJ45 IDC Connector



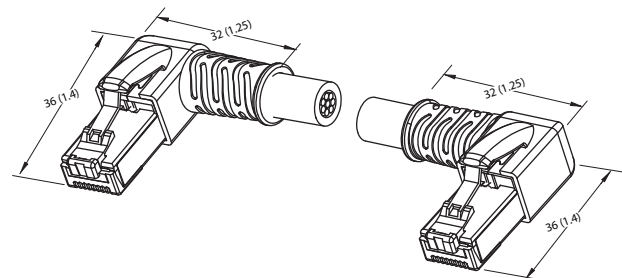
Cable and Color Code



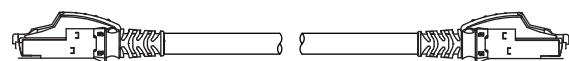
Pinout

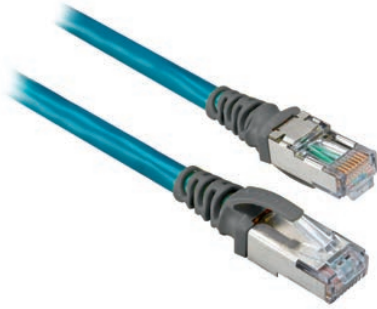
Face View RJ45 Pinout																
8-Pin																
Color Code																
	8 7 6 5 4 3 2 1															
A	8-Pin															
	<table border="1"> <tr> <td>1 White/Orange</td> <td>TxData +</td> </tr> <tr> <td>2 Orange</td> <td>TxData -</td> </tr> <tr> <td>3 White/Green</td> <td>Recv Data +</td> </tr> <tr> <td>4 Blue</td> <td>Unused</td> </tr> <tr> <td>5 White/Blue</td> <td>Unused</td> </tr> <tr> <td>6 Green</td> <td>Recv Data -</td> </tr> <tr> <td>7 White/Brown</td> <td>Unused</td> </tr> <tr> <td>8 Brown</td> <td>Unused</td> </tr> </table>	1 White/Orange	TxData +	2 Orange	TxData -	3 White/Green	Recv Data +	4 Blue	Unused	5 White/Blue	Unused	6 Green	Recv Data -	7 White/Brown	Unused	8 Brown
1 White/Orange	TxData +															
2 Orange	TxData -															
3 White/Green	Recv Data +															
4 Blue	Unused															
5 White/Blue	Unused															
6 Green	Recv Data -															
7 White/Brown	Unused															
8 Brown	Unused															

RJ45 90° Left and Right Angle Patchcord



RJ45 Cordset & Patchcord





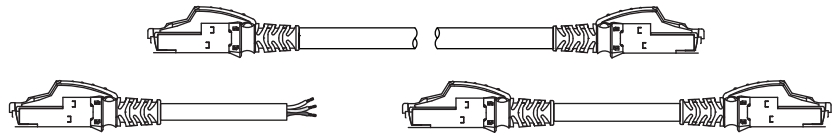
RJ45 Cordset

Specifications

Certifications	UL Listed
Connectors	RJ45 Male to RJ45 Male, Cat 5e
Cable Type	Unshielded 4- and 8-conductor, 24 AWG, Industrial Cat 5e Shielded 8-conductor 26 AWG Industrial Cat5e
Enclosure Type Rating	IP20
Nominal Outer Diameter	5.84 mm (0.23 in.)
Operating Temperature [C (F)]	-20...+60 ° (-4...+140 °)
Voltage	300V

Approximate Dimensions [mm (in.)]

Dimensions are in millimeters (inches). Illustrations are not drawn to scale.



Example of Cordset

Example of Patchcord

Pinout

		Face View RJ45 Pinout			
		8-Pin			
Color Code					
		8-Pin		4-Pin	
A	1 White/Orange	TxData +	1 White/Orange	TxData +	
	2 Orange	TxData -	2 Orange	TxData -	
	3 White/Green	Recv Data +	3 White/Green	Recv Data +	
	4 Blue	Unused	4 NA	—	
	5 White/Blue	Unused	5 NA	—	
	6 Green	Recv Data -	6 Green	Recv Data -	
	7 White/Brown	Unused	7 NA	—	
	8 Brown	Unused	8 NA	—	

Cordsets & Patchcords

RJ45 Gigabit



RJ45 Cordset, Cat 6

Features

- Flex rated TPE cables for various applications
- Teal cable jacket
- Rugged strain relief and latch mechanism to maintain network integrity
- Suitable environments M₁L₁C₂E₂

Specifications

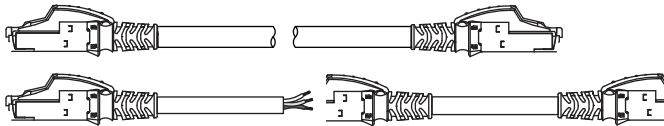
Certifications	UL Listed
Connectors	RJ45 Male to RJ45 Male, Cat 6
Cable Type	Shielded 8-conductor 24 AWG Industrial Cat 6
Enclosure Type Rating	IP20
Nominal Outer Diameter	5.84 mm (0.23 in.)
Operating Temperature [C (F)]	-20...+60° (-4...+140°)
Voltage	300V

Pinout

Face View RJ45 Gigabit Pinout			
Color Code	Side A Plug Pin	Side B Plug Pin	1000BASE-T
	T568B		
	1 White/Orange	1	BI_DA+ (Bi directional pair 1+)
	2 Orange	2	BI_DA- (Bi directional pair 1-)
	3 White/Green	3	BI_DB+ (Bi directional pair 2+)
	4 Blue	4	BI_DC+ (Bi directional pair 3+)
	5 White/Blue	5	BI_DC- (Bi directional pair 3-)
	6 Green	6	BI_DB- (Bi directional pair 2-)
	7 White/Brown	7	BI_DD+ (Bi directional pair 4+)
	8 Brown	8	BI_DD- (Bi directional pair 4-)

Approximate Dimensions [mm (in.)]

Dimensions are in millimeters (inches).
Illustrations are not drawn to scale.



Example of Cordset

Example of Patchcord



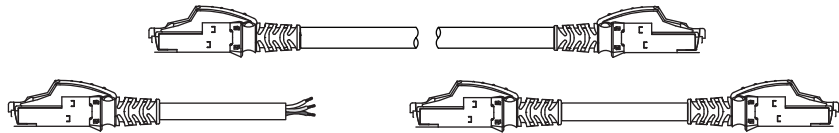
RJ45 Red Cordset

Specifications

Certifications	UL Listed
Connectors	RJ45 Male to RJ45 Male, Cat 5e
Cable Type	Unshielded 4- and 8-conductor, 24 AWG, Industrial Cat 5e Shielded 8-conductor 26 AWG Industrial Cat5e
Enclosure Type Rating	IP20
Nominal Outer Diameter	5.84 mm (0.23 in.)
Operating Temperature [C (F)]	-20...+60 ° (-4...+140 °)

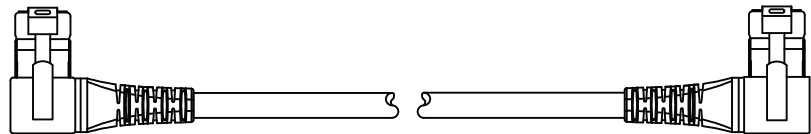
Approximate Dimensions [mm (in.)]

Dimensions are in millimeters (inches). Illustrations are not drawn to scale.



Example of Cordset

Example of Patchcord



Right Angle

Left Angle

Pinout

		Face View RJ45 Pinout			
		8-Pin			
Color Code		8-Pin		4-Pin	
A	1 White/Orange	TxData +	1 White/Orange	TxData +	
	2 Orange	TxData -	2 Orange	TxData -	
	3 White/Green	Recv Data +	3 White/Green	Recv Data +	
	4 Blue	Unused	4 NA	—	
	5 White/Blue	Unused	5 NA	—	
	6 Green	Recv Data -	6 Green	Recv Data -	
	7 White/Brown	Unused	7 NA	—	
	8 Brown	Unused	8 NA	—	

Cordsets & Patchcords

M12 Flex-rated



4-Pin M12 D-Code Cordset

General Specifications

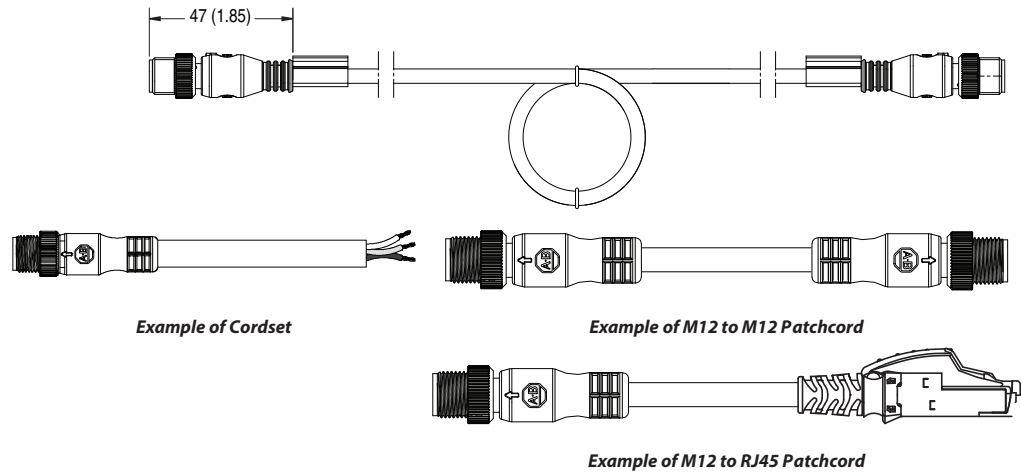
Mechanical	
Coupling Nut Material	Nickel-plated brass
Housing Material	Polyurethane (PUR)
Contact Material	Gold-plated brass
Cable Diameter [mm (in.)]	5.84 (0.23)
Bend Radius	10 x cable diameter
Environmental	
Enclosure Type Rating	IP67

Cable Specifications

Cable Style	Cable Type	Wire Size, AWG	Cable O.D.	Cable Rating
TPE, high flex, unshielded	4 conductor, unshielded twisted pair (UTP), teal	24	5.6 mm (0.22 in.)	Weld splatter, sunlight, and oil resistant; UL CM, CMX; cUL CM; TIA 568B
PUR, foil and braided shield, high flex, halogen free	4 conductor, shielded twisted pair (STP), teal	26	5.84 mm (0.23 in.)	C(ETL)US TYPE CMX; TIA 568B
PVC, 600V rated, foil shield	4 conductor, shielded twisted pair (STP), teal	22	8.13 mm (0.32 in.)	(UL) CMX, CMR; c(UL) CMG; (UL) PLTC or AWM 2570 80C 600V; TIA 568B

Approximate Dimensions [mm (in.)]

Dimensions are in millimeters (in.). Illustrations are not drawn to scale.



Pinout

Color Code	Face View Pinout		Face View RJ45 Pinout			
	4-Pin		8-Pin			
A	1 White-Orange 2 White-Green	3 Orange 4 Green	8-Pin		4-Pin	
			1 White/Orange 2 Orange 3 White/Green 4 Blue 5 White/Blue 6 Green 7 White/Brown 8 Brown	TxData + TxData - Recv Data + Unused Unused Recv Data - Unused Unused	1 White/Orange 2 Orange 3 White/Green 4 NA 5 NA 6 Green 7 NA 8 NA	TxData + TxData - Recv Data + — — Recv Data - — —



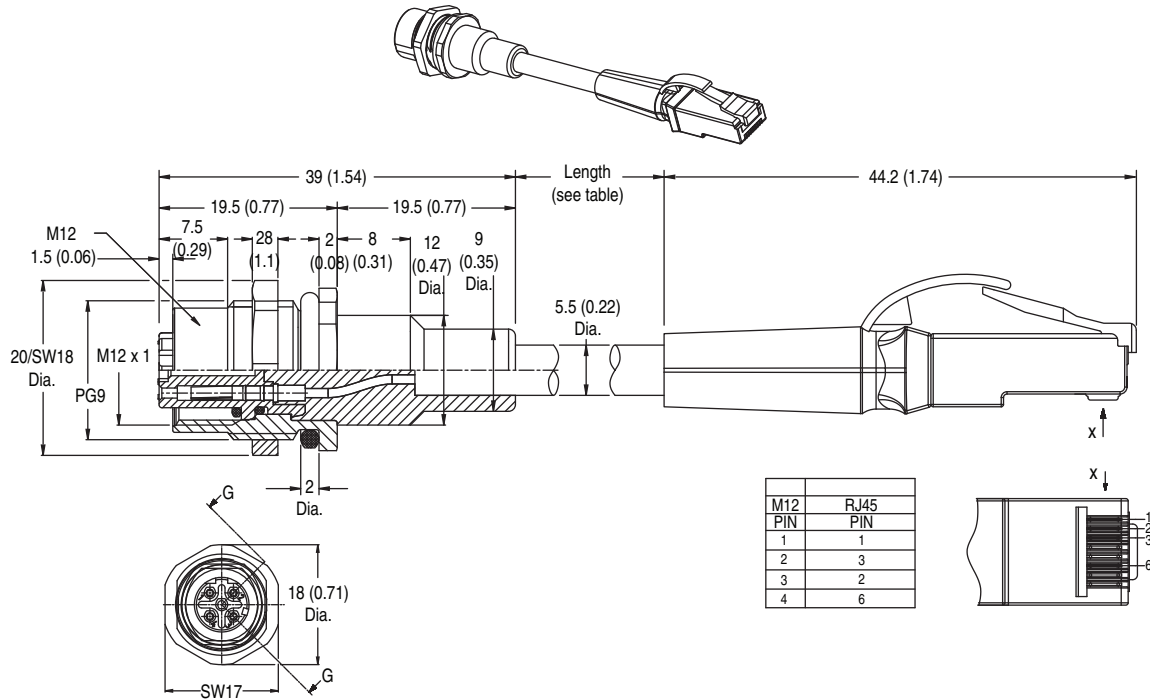
4-Pin M12 D-Code Receptacle to RJ45 Patchcord

Specifications

Mechanical	
Coupling Nut Material	Nickel-plated brass
Contact Material	Gold-plated brass
Cable Type	—
Cable Diameter [mm (in.)]	5.84 (0.23)
Mounting	Front-mount
Electrical	
Cable Rating	—
Voltage	300V
Environmental	
Enclosure Type Rating	IP67
Operating Temperature [C (F)]	-40...+75 ° (-40...+167 °)

Approximate Dimensions

Dimensions are in millimeters (inches). Illustrations are not drawn to scale.



Pinout

Face View Pinout (Female)	Face View RJ45 Pinout	
	4-Pin	
1 White/Orange 2 White/Green 3 Orange 4 Green	1 White/Orange 2 Orange 3 White/Green 4 Blue 5 White/Blue 6 Green 7 White/Brown 8 Brown	TxData + TxData - Recv Data + Unused Unused Recv Data - Unused Unused

Cordsets & Patchcords

M12 X-code Flex-rated Gigabit



8-Pin M12 X-code Cordset, Cat 6

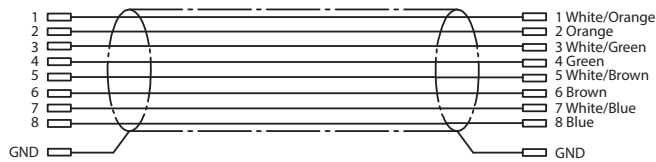
Features

- Over-molded housing suitable for IP67 applications and harsh industrial environments where extreme vibration, shock, chemicals, and temperature are found
- Flex-rated cable (cable must be tied down and not flexed within six inches of the connector)
- Designed to EtherNet/IP™ specifications and ISO IEC 11801, IEC 61918
- Twisted pairs maintain signal balance through cable to provide high noise immunity and low return loss
- Suitable for noise environments M₃I₃C₃E₃

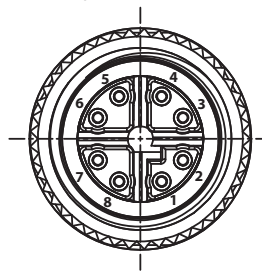
General Specifications

Mechanical	
Coupling Nut Material	Nickel-plated brass
Housing Material	Polyurethane (PUR)
Contact Material	Gold-plated brass
Cable Type	Shielded teal PUR, 4 twisted pairs, 26 AWG, Industrial Cat 6, sun light, and oil resistant
Cable Diameter [mm (in.)]	5.84 (0.23)
Bend Radius	—
Environmental	
Cable Rating	Shielded: Standard TIA 568-B, ISO/IEC 11801, flex rated, 26 AWG, halogen-free, Type CMX
Environmental	
Enclosure Type Rating	IP67
Operating Temperature [C (F)]	-40...+80° (-40...+176°)

Wiring Diagram

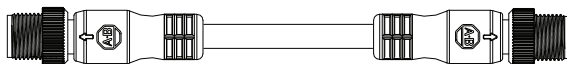
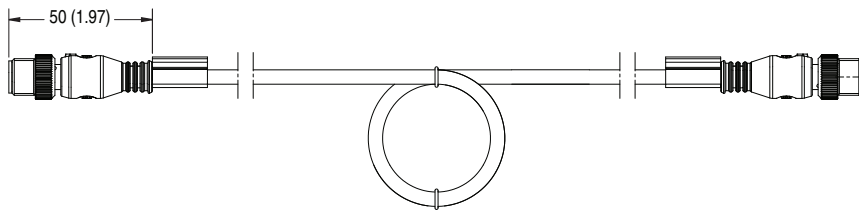


Connector pin assignment
plug M12 Cat 6
pin side view

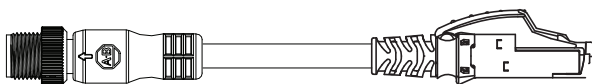


Approximate Dimensions [mm (in.)]

Dimensions are in millimeters (in.).
Illustrations are not drawn to scale.



Example of M12 to M12 Patchcord



Example of M12 to RJ45 Patchcord



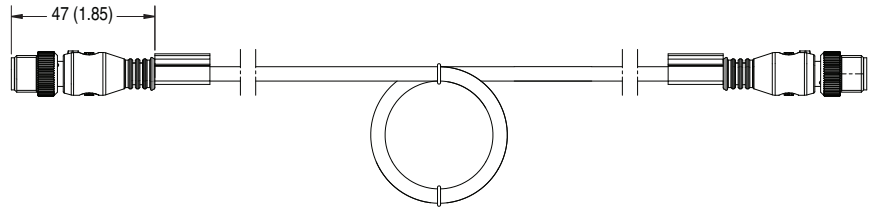
4-Pin M12 D-Code Cordset

General Specifications

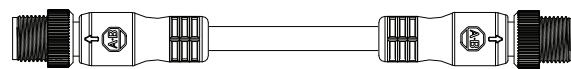
Mechanical	
Coupling Nut Material	Nickel-plated brass
Housing Material	Polyurethane (PUR)
Contact Material	Gold-plated brass
Cable Diameter [mm (in.)]	5.84 (0.23)
Bend Radius	10 x cable diameter
Environmental	
Enclosure Type Rating	IP67

Approximate Dimensions

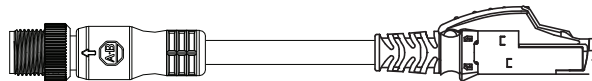
Dimensions are in millimeters (in.). Illustrations are not drawn to scale.



Example of Cordset



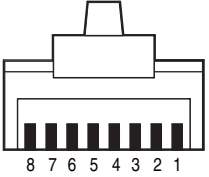


Example of M12 to M12 Patchcord



Example of M12 to RJ45 Patchcord

Pinout

Color Code	Face View Pinout		Face View RJ45 Pinout			
	4-Pin		8-Pin			
						
A	1 White-Orange 2 White-Green	3 Orange 4 Green	8-Pin		4-Pin	
			1 White/Orange 2 Orange 3 White/Green 4 Blue 5 White/Blue 6 Green 7 White/Brown 8 Brown	TxData + TxData - Recv Data + Unused Unused Recv Data - Unused Unused	1 White/Orange 2 Orange 3 White/Green 4 NA 5 NA 6 Green 7 NA 8 NA	TxData + TxData - Recv Data + — — Recv Data - — —

Patchcords & Field Attachables

Die-cast Zinc RJ45 Connector, Variant 1



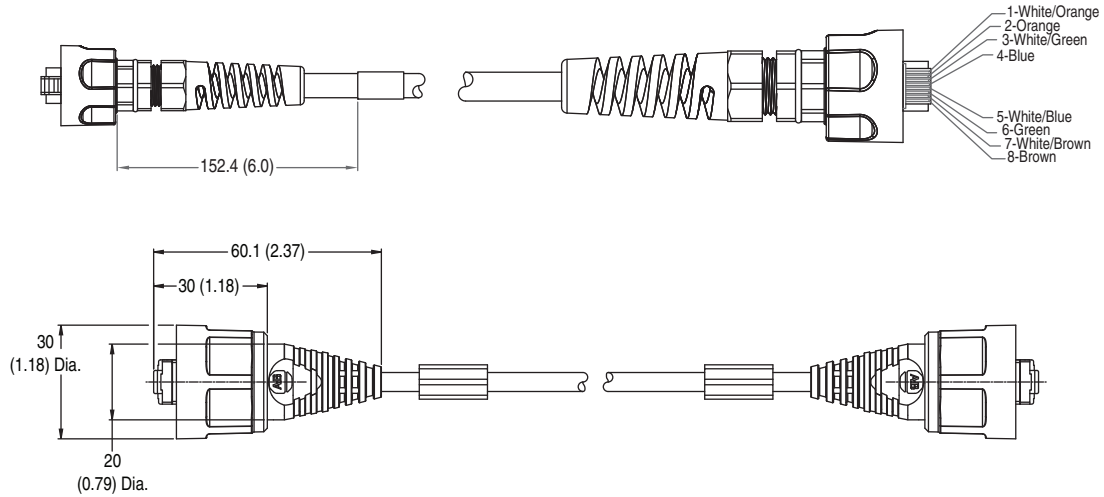
Variant 1 Connector

Specifications

Certifications	UL Listed and cUL
Mechanical	
Contact Material	Copper alloy
Housing Material	Die-cast zinc
Cable Diameter [mm (in.)]	4.0...8.0 (0.157...0.315)
Electrical	
Cable Rating	22...26 AWG, 0.40...0.64 mm (0.016...0.025 in.)
Assembly Rating	150V, 1.5 A
Mating Cycles	750
Voltage	300V
Environmental	
Enclosure Type Rating	IP67
Operating Temperature [C (F)]	-40...+70 ° (-40...+158 °)

Approximate Dimensions

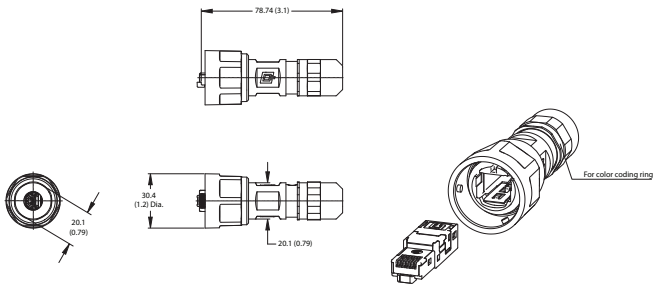
Dimensions are in millimeters (inches). Illustrations are not drawn to scale.



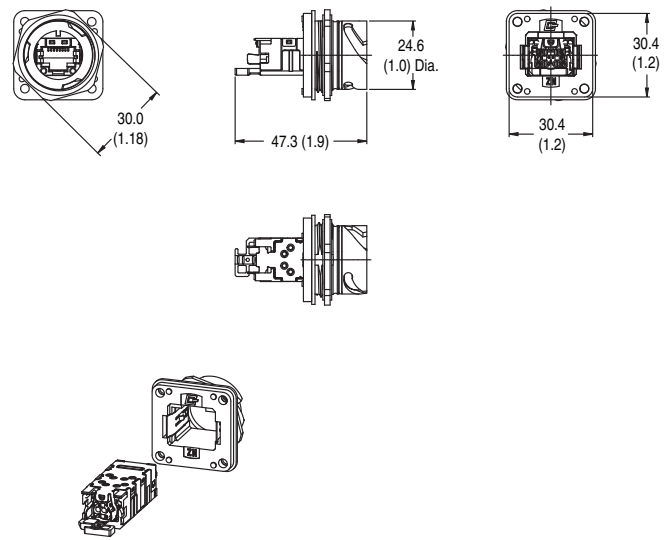
Patchcords & Field Attachables

Die-Cast Zinc RJ45 Connector, Variant 1

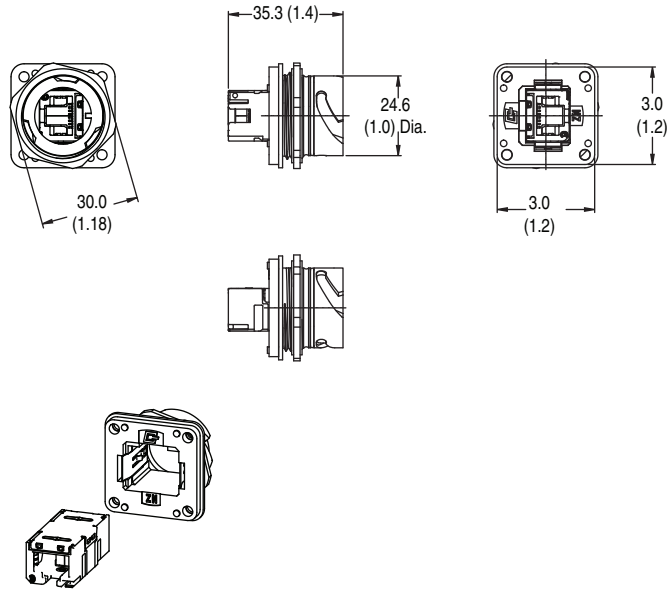
Male Housing



Female Receptacle



Female to Female Coupler



Patchcords & Field Attachables

Thermoplastic RJ45 Connector, Variant 1



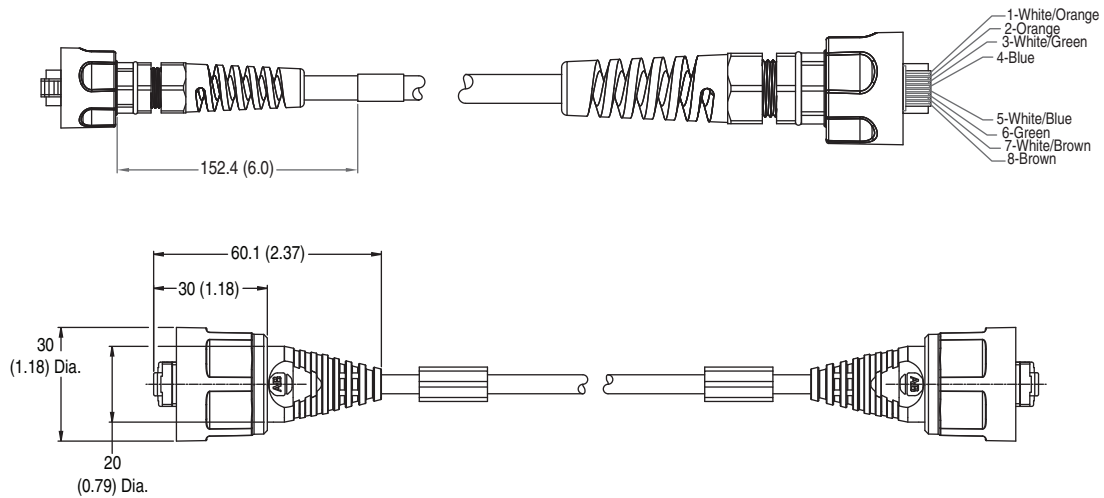
Variant 1 Connector

Specifications

Certifications	UL Listed and cUL
Mechanical	
Contact Material	Copper alloy
Housing Material	Polybutylene terephthalate (PBT)
Cable Diameter [mm (in.)]	4.0...8.0 (0.157...0.315)
Electrical	
Cable Rating	22...26 AWG, 0.40...0.64 mm (0.16...0.025 in.)
Assembly Rating	150V, 1.5 A
Voltage	300V
Mating Cycles	750
Environmental	
Enclosure Type Rating	IP66, IP67, NEMA 6
Operating Temperature [C (F)]	-25...+75 ° (-13...+167 °)

Approximate Dimensions

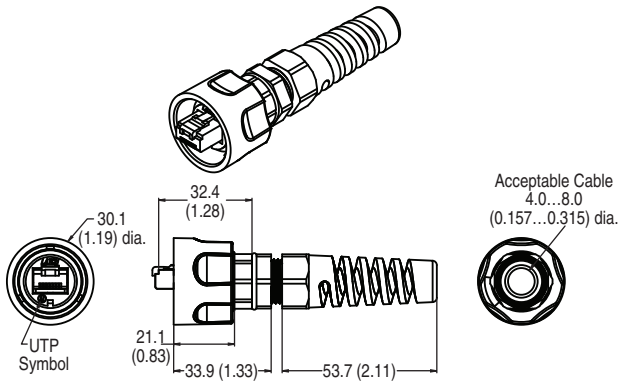
Dimensions are in millimeters (inches). Illustrations are not drawn to scale.



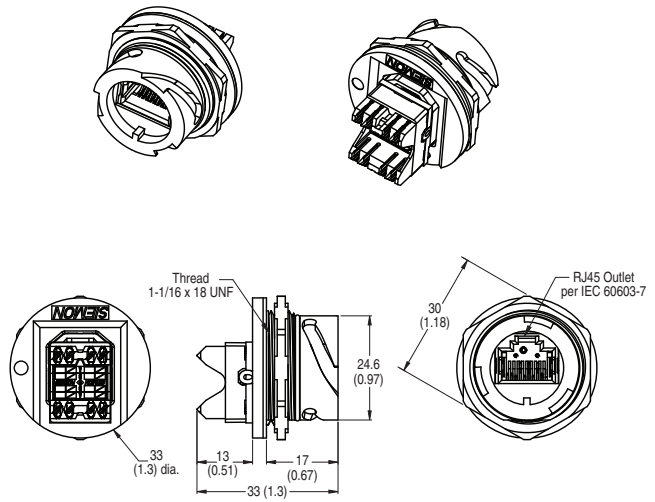
Patchcords & Field Attachables

Thermoplastic RJ45 Connector, Variant 1

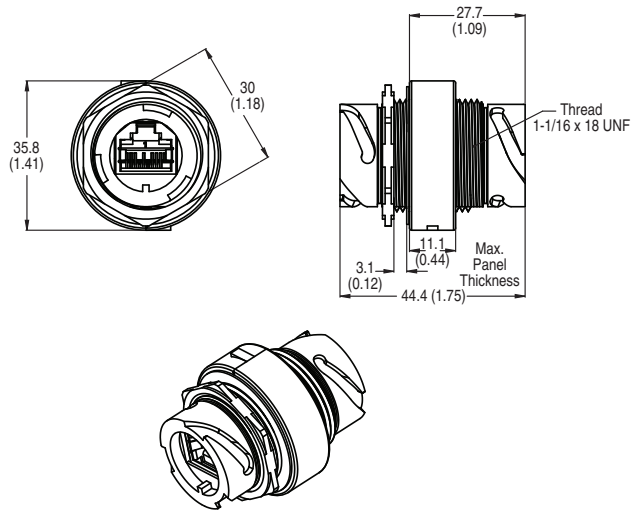
Male Housing



Female Receptacle



Female to Female Coupler



Field Attachables

RJ45 Connector



RJ45 Insulation Displacement Connector (IDC)



RJ45 Crimp

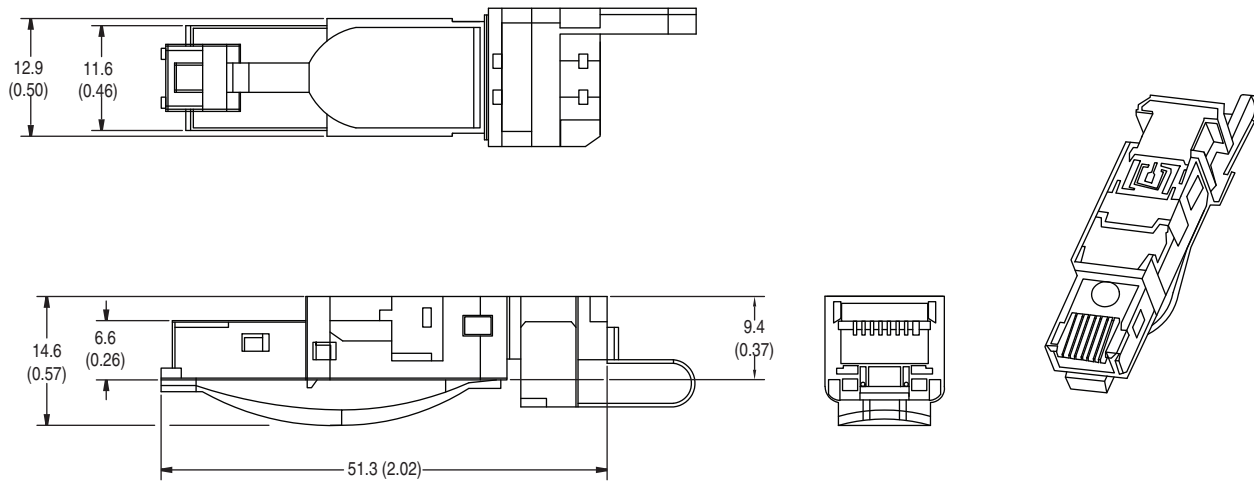
Specifications

Certifications	UL Listed
Connector Type	RJ45 male
Enclosure Type Rating	IP20
Operating Temperature [C (F)]	-20...+60 ° (-4...+140 °)

Approximate Dimensions

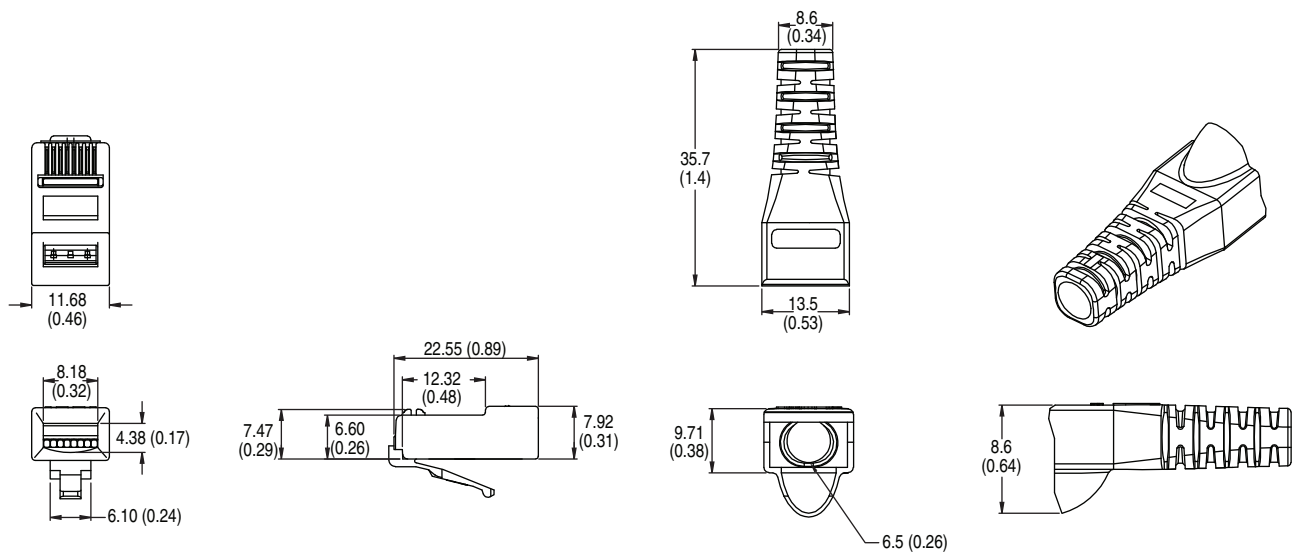
RJ45 Insulation Displacement Connector (IDC)

Dimensions are in millimeters (inches). Illustrations are not drawn to scale.

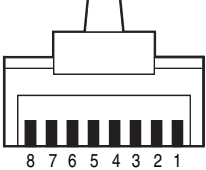


RJ45 Crimp Connector

Dimensions are in millimeters (inches). Illustrations are not drawn to scale.



Pinout

Face View RJ45 Pinout			
8-Pin			
			
8-Pin		4-Pin	
1 White/Orange 2 Orange 3 White/Green 4 Blue 5 White/Blue 6 Green 7 White/Brown 8 Brown	TxData + TxData - Recv Data + Unused Unused Recv Data - Unused Unused	1 White/Orange 2 Orange 3 White/Green 4 NA 5 NA 6 Green 7 NA 8 NA	TxData + TxData - Recv Data + Unused Unused Recv Data - Unused Unused

Field Attachables

M12 Insulation Displacement Connectors



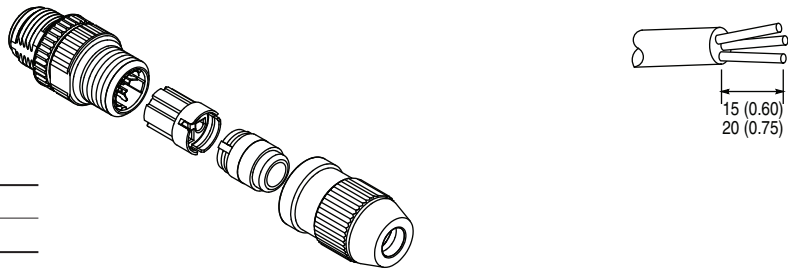
Field Attachable

Specifications

Mechanical	
Coupling Nut Material	Zinc die-cast
Connector Shell Material	Zinc die-cast or polyamide
Contact Material	Gold-plated brass
IDC Installations	10 times, max.
Conductor OD [mm (in.)]	Unshielded: 26...22 AWG: 1.0...1.6 (0.04...0.063); Shielded: 24...22 AWG: 1.2...1.6 (0.04...0.063)
Electrical	
Assembly Rating	32V, 4 A
Environmental	
Enclosure Type Rating	IP67
Operating Temperature [C (F)]	-25...+85 ° (-13...+185 °)
Installation Temperature [C (F)]	-5...+50 ° (23...185 °)

Approximate Dimensions

Dimensions are in millimeters (inches). Illustrations are not drawn to scale.



Pinout

Color Code	Face View M12 Pinout	
	4-Pin	
	A	<p>1 White-Orange 2 White-Green</p>

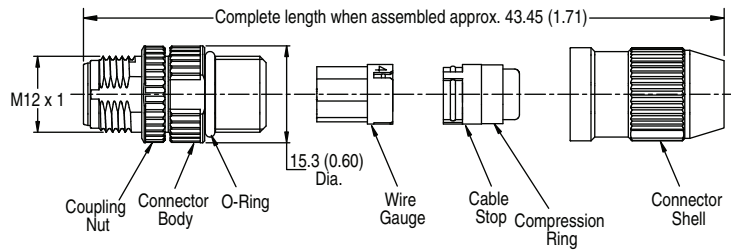


Figure A

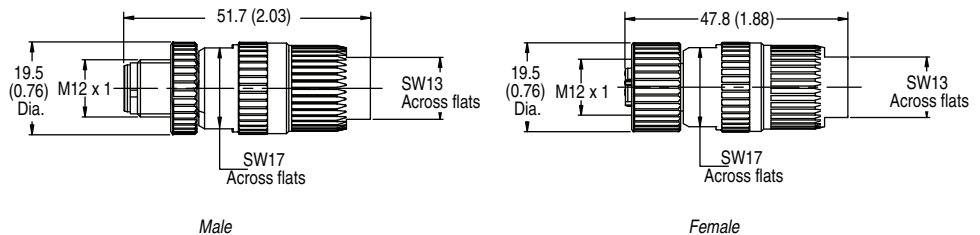


Figure B



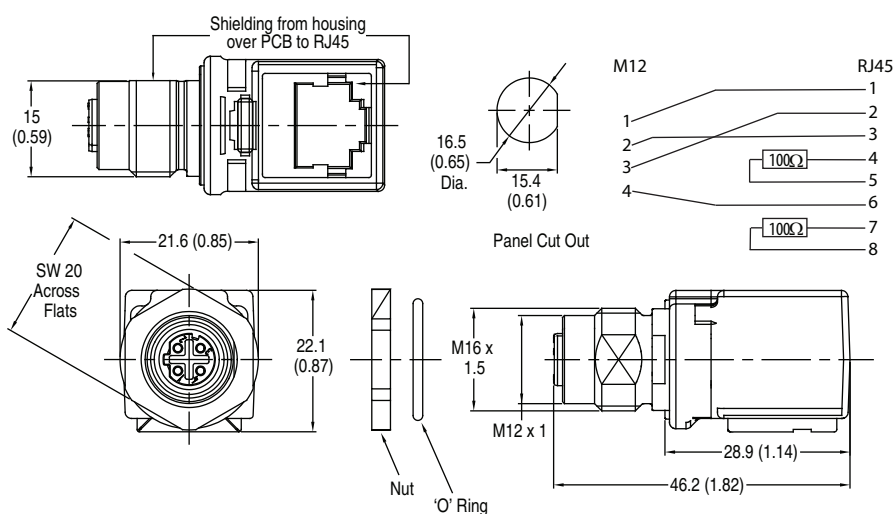
Field Attachable

Specifications

Certifications	UL Recognized for Canada and USA
Mechanical	
Receptacle Shell Material	Nickel-plated brass
Contact Material	Brass with nickel plating
Wire Insulation	Oil-resistant PVC, 22 AWG stranded copper, 300V, UL Recognized
Electrical	
Assembly Rating	32V, 4 A
Environmental	
Enclosure Type Rating	IP67, 1200 psi (8270 kPa) washdown
Operating Temperature [C (F)]	-20...+85 ° (-4...+185 °)

Approximate Dimensions

Dimensions are in millimeters (inches). Illustrations are not drawn to scale.



Rockwell Automation maintains current product environmental information on its website at
<http://www.rockwellautomation.com/rockwellautomation/about-us/sustainability-ethics/product-environmental-compliance.page>

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Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444
Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640
Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846