

# Ethernet Media

## Cable Spools

### Shielded Twisted Pair (Foil & Braided Shield)



Shielded Ethernet Cable Spool

#### Description

Rockwell Automation's Cat5e shielded and unshielded cable is designed to supply a reliable network connection in harsh surroundings. The high speed data rate allows more data to be transferred within a shorter period of time. By optimizing balance of twisted pair conductors inside a robust thermoplastic elastomer (TPE) jacket, data is protected from noise, chemicals, and mechanical issues to M<sub>3</sub>L<sub>3</sub>C<sub>3</sub>E<sub>3</sub> environmental protection levels. Two and four pair polyurethane (PUR) robotic flex cable and enclosures are available for flex applications. High voltage, 600V Ethernet cable is available for use in cable tray with high voltage power cables. All ethernet media components are designed to perform above TIA 568-B.2 and ODVA ethernet standards. Rockwell Automation's Bulletin 1585 ethernet cables are optimized UTP and STP cables in many applications.

#### 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

#### Features

- Four- and eight-conductor styles
- Twisted pair shielded cable types, Cat 5e
- Twisted pairs maintain signal balance through cable to provide high noise immunity and return loss
- Designed to ODVA EtherNet/IP™ specifications and ISO IEC 24702
- Suitable for high noise environments M<sub>3</sub>L<sub>3</sub>C<sub>3</sub>E<sub>3</sub>
- Riser PVC cables used for general purpose environments
- PUR robotic cable used for flex applications, also Halogen-free
- 600V PVC cable designed to support high voltage applications
- 600V On-Machine rated cable for use in a cable tray shared with high voltage power cables

#### Cable and Color Code

Two-Pair	Four-Pair																								
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#### Product Selection

Jacket Material	Cable Type	No. of Conductors	Jacket Color	Wire Size, AWG	Nominal Outer Diameter	Operating Temperature [C (F)]	Cable Rating	Cat. No.*
Riser PVC	Foil and braided shield	8 (four pair)	Teal	26	5.84 mm (0.23 in.)	-40...+75 (-40...+167)	UL CMR; cUL CMG; TIA-568-B	1585-C8CB-S100
Robotic PUR		4 (two pair)			—	-40...+75 (-40...+167)	C(ETL)US TYPE CMX; TIA 568-B, Flex rated, Halogen-Free	1585-C4UB-S100
		8 (four pair)			6.2 ± 12 mm (0.244 in.)	-40...+75 ° (-40...+167 °)	C(ETL)US TYPE CMX; TIA 568-B, Flex rated, Halogen-Free	1585-C8UB-S100
600V PVC		8 (four pair)	Teal	22	8.13 ± 0.38 mm (0.32 in.)	-20...+80 ° (-4...+176 °)	(UL) CMX, CMR; c(UL) CMG; (UL) PLTC or AWM 2570 80 °C 600V; TIA-568-B	1585-C8HB-S100
			Red		8.13 ± 0.38 mm (0.32 in.)	-20...+80 ° (-4...+176 °)	(UL) CMX, CMR; c(UL) CMG; (UL) PLTC or AWM 2570 80 °C 600V; TIA-568-B	1585-C8EB-S100

\* Replace 100 (100 m) with 300 (300 m) or 600 (600 m) for additional standard cable lengths (example 1585-C4TB-S100 becomes 1585-C4TB-S600).



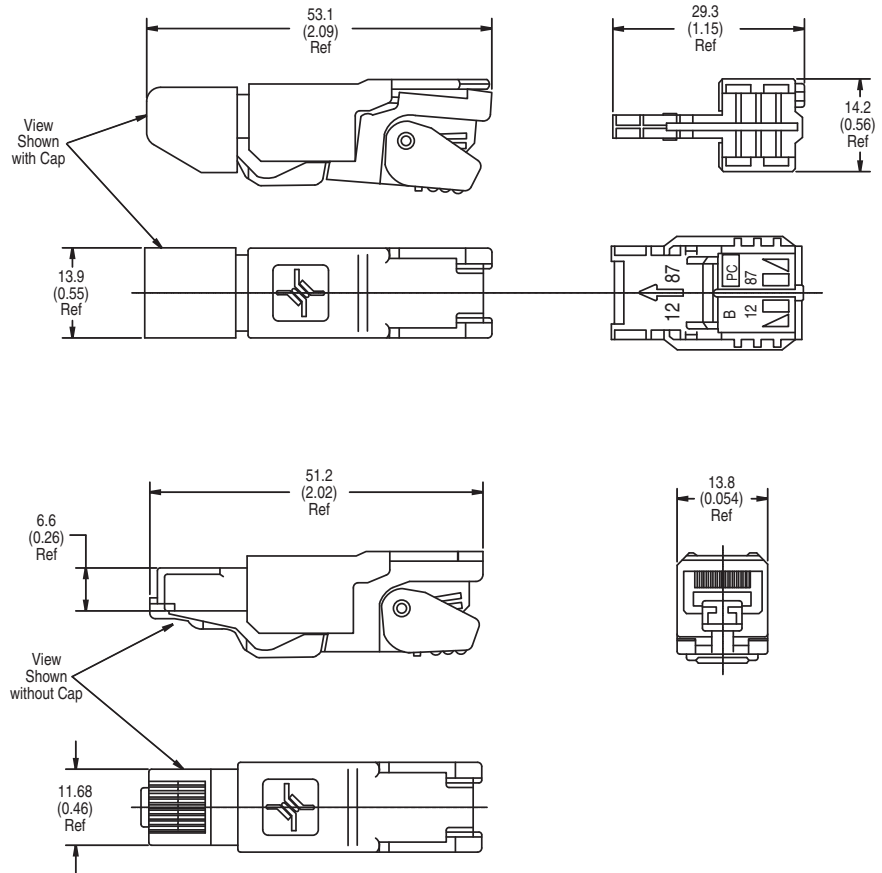
RJ45 Cordset—600V

## Specifications

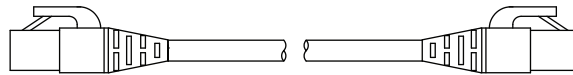
Certifications	UL and cUL Listed
Outside Diameter	0.32 ± 0.015 in. (8.13 ± 0.38 mm)
Operating Temperature	-20...+80 °C (-4...+176 °F)
Cable Rating	UL, cUL TYPE CMG; UL PLTC or UL AWM 2570 80C 600V, TIA 568B

## Approximate Dimensions

### RJ45 IDC Connector



### RJ45 Cordset & Patchcord



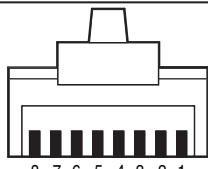
## Description

Rockwell Automation's Cat5e shielded and unshielded cable is designed to supply a reliable network connection in harsh surroundings. The high speed data rate allows more data to be transferred within a shorter period of time. By optimizing balance of twisted pair conductors inside a robust TPE jacket, data is protected from noise, chemicals, and mechanical issues to M<sub>3</sub>1<sub>3</sub>C<sub>3</sub>E<sub>3</sub> environmental protection levels. Two and four pair PUR robotic flex cable is available for flex applications, reaching 10 million cycles, as well as a riser PVC cable for standard applications. High voltage, 600V ethernet cable is available for use in a cable tray with high voltage power cables. All ethernet media components are designed to perform above TIA 568-B.2 and ODVA ethernet standards. Rockwell Automation's Bulletin 1585 ethernet cables are optimized UTP and STP cables in many applications.

## Features

- Foil and braided shield, PVC, eight conductor (four pair)
- 600V PVC cable designed to support high voltage applications
- On-Machine rated cable for use in a cable tray shared with high voltage power cables
- RJ45 insulation displacement connector available for field terminations

## Pinout

Color Code	Face View RJ45 Pinout	
	8-Pin	
		
A	8-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

## Product Selection

Jacket Material	Cable Type	No. of Conductors	Jacket Color	Wire Size, AWG	Nominal Outer Diameter	Operating Temperature [C (F)]	Cable Rating	Cat. No.*
600V PVC	Foil and braided shield	8 (four pair)	Teal	22	8.13 ± 0.38 mm (0.32 in.)	-20...+80 ° (-4...+176 °)	(UL) CMX, CMR; c(UL) CMG; (UL) PLTC or AWM 2570 80 °C 600V; TIA-568-B	1585-C8HB-S100
			Red					1585-C8EB-S100

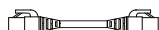
\* Replace 100 (100 m) with 300 (300 m) or 600 (600 m) for additional standard cable lengths (example 1585-C4TB-S100 becomes 1585-C4TB-S600).

### RJ45 Cordset



Shielding	Cable Type	Cat. No.*
Foil and braided shield	8 conductor, teal 600V PVC	1585J-M8HB-2
		1585J-M8EB-2

### RJ45 Patchcords

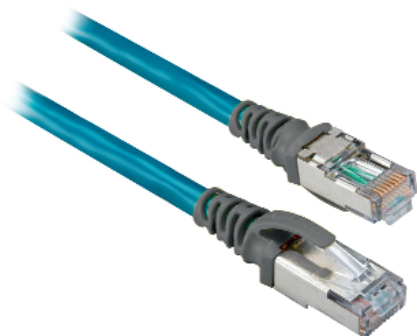


No. of Conductors	Jacket Material	Cable Type	Cable Rating	Cat. No.*
8	Teal 600V PVC	Foil and braided shield	(UL) CMX, CMR; c(UL) CMG; (UL) PLTC or AWM 2570 80 °C 600V; TIA-568-B	1585J-M8HBJM-2
	Red 600V PVC			1585J-M8EBJM-2

\* Replace -2 (2 m) with 5 (5 m) or 10 (10 m) for additional standard cable lengths.

### RJ45 IDC Connector

Insulation Diameter [mm (in.)]	Cable Diameter [mm (in.)]	Cat. No.
0.85...1.6 (0.033...0.063)	5...9 (0.197...0.354)	1585J-M8CC-SH



RJ45 Cordset

## Features

- Flex rated TPE, PVC, and Plenum cables for various applications
- Teal or red cable jacket
- Rugged strain relief and latch mechanism to maintain network integrity
- Suitable environments M<sub>1</sub>L<sub>1</sub>C<sub>2</sub>E<sub>2</sub>

## Product Selection

### Cordset

Shielding	Cable Type	Cat. No.*
Unshielded twisted pair	4 conductor, teal high-flex TPE	<b>1585J-M4TB-2</b>
	8 conductor, teal high-flex TPE	<b>1585J-M8TB-2</b>
	8 conductor, red high-flex TPE	1585J-M8VB-2
	8 conductor, teal riser PVC	<b>1585J-M8PB-2</b>
	8 conductor, red plenum PVC	1585J-M8MB-2
Foil and braided shield	8 conductor, teal riser PVC	<b>1585J-M8CB-2</b>
	4 conductor, teal high-flex PUR	<b>1585J-M4UB-2</b>
	8 conductor, teal high-flex PUR	<b>1585J-M8UB-2</b>
	8 conductor, teal 600V PVC	<b>1585J-M8HB-2</b>
	8 conductor, red 600V PVC	1585J-M8EB-2

### Patchcords

No. of Conductors	Jacket Material	Cable Type	Cable Rating	Cat. No.*
4	Teal high-flex TPE	Unshielded twisted pair	Weld splatter, sun light and oil resistant; UL CMG, CMX; cUL CMG; Standard TIA 568-B, flex rated	<b>1585J-M4TBJM-2</b>
8	Teal high-flex TPE			<b>1585J-M8TBJM-2</b>
	Red high-flex TPE			1585J-M8VBJM-2
	Teal Riser PVC		UL CMR; cUL CMG; Standard TIA 568-B	<b>1585J-M8PBJM-2</b>
	Red Plenum		UL CMP; cUL CMP; Standard TIA 568B	1585J-M8MBJM-2
4	Teal high-flex PUR	Foil and braided shield	C(ETL)US TYPE CMX; TIA 568-B, flex-rated, halogen-free	<b>1585J-M4UBJM-2</b>
8	Teal Riser, PVC		UL CMR; CUR CMG, TIA B	<b>1585J-M8CBJM-2</b>
	Teal high-flex PUR		C(ETL)US TYPE CMX; TIA 568-B, flex-rated, halogen-free	<b>1585J-M8UBJM-2</b>
	Teal 600V PVC		(UL) CMX, CMR; c(UL) CMG; (UL) PLTC or AWM 2570 80 °C 600V; TIA-568-B	<b>1585J-M8HBJM-2</b>
	Red 600V PVC			1585J-M8EBJM-2

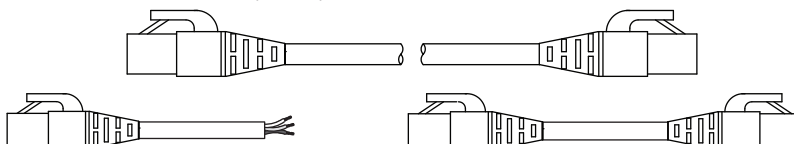
\* Replace -2 (2 m) with 5 (5 m) or 10 (10 m) for additional standard cable lengths.

## Specifications

Certifications	UL Listed
Connectors	RJ45 Male to RJ45 Male, Cat 6
Cable Type	Unshielded 4- and 8-conductor, 24 AWG, Industrial Cat5e 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

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



Example of Cordset

Example of Patchcord

## Pinout

Color Code	Face View RJ45 Pinout			
	8-Pin			
A	8-Pin		4-Pin	
	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	—

## Accessories

Description	Cat. No.
RJ45 insulation displacement connector (IDC)	1585J-M8CC-H
RJ45 crimp connector with boot *	1585J-M8CC-C

\* One item includes a quantity of 50.