

August 2007

**Connector Cables  
Global Plus Connectivity**

**High Performance Cost-Effective Quick-Disconnect Cable Products for Flexible Wiring Solutions**

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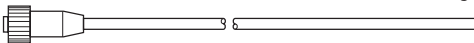

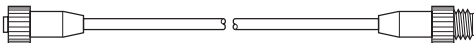
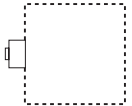
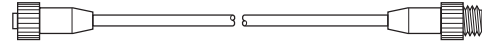
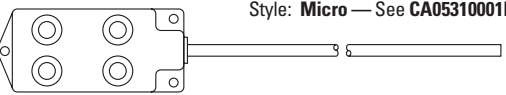
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Finish your sensor installation with high quality Cutler-Hammer® Connector Cables from Eaton’s electrical business. Our Global Plus line is designed to give you everything you want without paying extra for the features you don’t want. It includes a wide variety of single- and double-connector cables. Custom lengths are available upon request from the factory.

**Approvals**

- UL Recognized (Mini Style)
- CSA Certified (Mini and Nano Styles)
- C-UL Recognized (Micro and Nano Styles)

**What Type of Connector Cable Do You Need?**

Sensor	Connector Cable Type	Interfaces with ...
 The majority of the sensors in this Product Guide are available with connectors for quick-disconnect installation.	<b>Single-Connector Cable</b>  Style: <b>Micro</b> — See Page 3 <b>Mini</b> — See Page 5 <b>Nano</b> — See Page 6	<b>Junction Box or Control Panel</b> For hard-wiring into a typical junction box or control panel. 
	<b>Double-Connector Cable</b>  Style: <b>Micro</b> — See Page 6 <b>Mini</b> — See Page 6	<b>Connectorized Junction Box or Control Panel</b> For connecting to a junction box or control panel that has a receptacle connector interface. 
	<b>Double-Connector Cable</b>  Style: <b>Micro</b> — See Page 6	<b>Multi-Connector Block with Cable</b> Allows up to 8 sensors to be consolidated into one cable for wiring to your control system.  Style: <b>Micro</b> — See CA05310001E

Mini, Micro and Nano Cables in Various Lengths, Gauges and Jacket Materials

Single- and Double-Ended Connector Cables



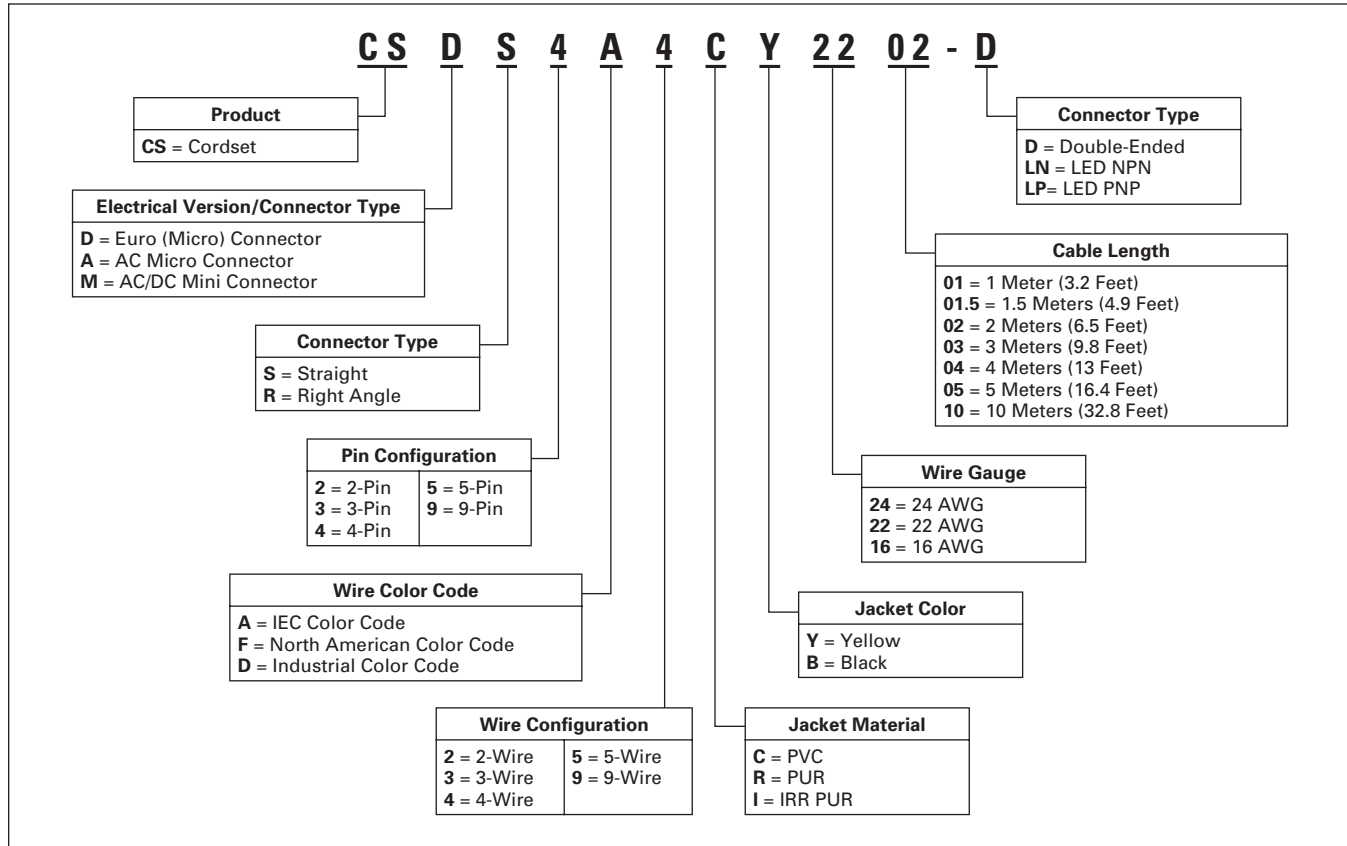
Field Wireable Connectors and Bulk Cable for Making Your Own Cables

Cables with Built-in LEDs

For Customer Service in the U.S. call **1-877-ETN CARE (386-2273)**, in Canada call **1-800-268-3578**.  
 For Application Assistance in the U.S. and Canada call **1-800-426-9184**.

### Catalog Number Selection

#### Connector Cables — Catalog Numbering System<sup>①</sup>

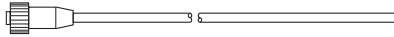


<sup>①</sup> This is a representative guide to the catalog numbering system. All possible combinations may not be available for ordering. Please verify the number with the following pages or call Application Support at (800) 426-9194 before ordering.

August 2007

**Model Selection — Micro Style, Single-Connector Cables**

	Voltage Style	Number of Pins	Gauge	Length	Catalog Number			Pin Configuration/Wire Colors (Face View Female Shown)
					PVC Jacket	PUR Jacket	IRR PUR Jacket	

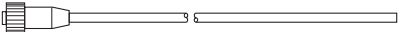










**Standard Cables**


	AC	3-pin 3-wire	18 AWG	6.0 feet (2m)	CSAS3F3CY1802	—	—		
				16.4 feet (5m)	CSAS3F3CY1805	—	—		
				32.8 feet (10m)	CSAS3F3CY1810	—	—		
			22 AWG	6.0 feet (2m)	CSAS3F3CY2202	CSAS3F3RY2202	—		—
				16.4 feet (5m)	CSAS3F3CY2205	CSAS3F3RY2205	—		—
				32.8 feet (10m)	CSAS3F3CY2210	CSAS3F3RY2210	—		—
		4-pin 4-wire	18 AWG	6.0 feet (2m)	CSAS4F4CY1802	—	—		
				16.4 feet (5m)	CSAS4F4CY1805	—	—		
				32.8 feet (10m)	CSAS4F4CY1810	—	—		
			22 AWG	6.0 feet (2m)	CSAS4F4CY2202	CSAS4F4RY2202	CSAS4F4IO2202		—
				16.4 feet (5m)	CSAS4F4CY2205	CSAS4F4RY2205	CSAS4F4IO2205		—
				32.8 feet (10m)	CSAS4F4CY2210	CSAS4F4RY2210	CSAS4F4IO2210		—
			22 AWG	6.0 feet (2m)	CSAS4A4CY2202	—	—		
				16.4 feet (5m)	CSAS4A4CY2205	—	—		
				32.8 feet (10m)	CSAS4A4CY2210	—	—		
	5-pin 5-wire	22 AWG	6.0 feet (2m)	CSAS5A5CY2202	—	—			
			16.4 feet (5m)	CSAS5A5CY2205	—	—			
			32.8 feet (10m)	CSAS5A5CY2210	—	—			
	DC	4-pin 3-wire	22 AWG	6.0 feet (2m)	CSDS4A3CY2202	CSDS4A3RY2202	—		
				16.4 feet (5m)	CSDS4A3CY2205	CSDS4A3RY2205	—		
				32.8 feet (10m)	CSDS4A3CY2210	CSDS4A3RY2210	—		
			22 AWG	6.0 feet (2m)	CSDS4A4CY2202	CSDS4A4RY2202	CSDS4A4IO2202		—
				16.4 feet (5m)	CSDS4A4CY2205	CSDS4A4RY2205	CSDS4A4IO2205		—
				32.8 feet (10m)	CSDS4A4CY2210	CSDS4A4RY2210	CSDS4A4IO2210		—
22 AWG		6.0 feet (2m)	CSDS4A4CY2220	—	—				
		16.4 feet (5m)	CSDS4A4CY2205	—	—				
		32.8 feet (10m)	CSDS4A4CY2210	—	—				
5-pin 5-wire		22 AWG	6.0 feet (2m)	CSDS5A5CY2202	—	—			
			16.4 feet (5m)	CSDS5A5CY2205	—	—			
			32.8 feet (10m)	CSDS5A5CY2210	—	—			

- Fast turn product with typical one business day lead-time to shipment.
- Stocked product, typical order quantities guaranteed in stock.

### Model Selection — Micro Style, Single-Connector Cables (Continued)

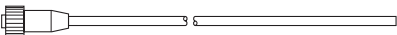








									
	Voltage Style	Number of Pins	Gauge	Length	Catalog Number			Pin Configuration/Wire Colors (Face View Female Shown)	
					PVC Jacket	PUR Jacket	IRR PUR Jacket		
Micro Style Right Angle Female  	AC	3-pin 3-wire	18 AWG	6.0 feet (2m)	<b>CSAR3F3CY1802</b>	—	—	 1-Green 2-Red/Black 3-Red/White	
				16.4 feet (5m)	<b>CSAR3F3CY1805</b>	—	—		
				32.8 feet (10m)	<b>CSAR3F3CY1810</b>	—	—		
			22 AWG	6.0 feet (2m)	<b>CSAR3F3CY2202</b>	<b>CSAR3F3RY2202</b>	—		—
				16.4 feet (5m)	<b>CSAR3F3CY2205</b>	<b>CSAR3F3RY2205</b>	—		—
				32.8 feet (10m)	<b>CSAR3F3CY2210</b>	<b>CSAR3F3RY2210</b>	—		—
		4-pin 4-wire	18 AWG	6.0 feet (2m)	<b>CSAR4F4CY1802</b>	—	—	 1-Red/Black 2-Red/White 3-Red 4-Green	
				16.4 feet (5m)	<b>CSAR4F4CY1805</b>	—	—		
				32.8 feet (10m)	<b>CSAR4F4CY1810</b>	—	—		
	22 AWG	6.0 feet (2m)	<b>CSAR4F4CY2202</b>	<b>CSAR4F4RY2202</b>	<b>CSAR4F4IO2202</b>	—			
		16.4 feet (5m)	<b>CSAR4F4CY2205</b>	<b>CSAR4F4RY2205</b>	<b>CSAR4F4IO2205</b>	—			
		32.8 feet (10m)	<b>CSAR4F4CY2210</b>	<b>CSAR4F4RY2210</b>	<b>CSAR4F4IO2210</b>	—			
	DC	4-pin 3-wire	22 AWG	6.0 feet (2m)	<b>CSDR4A3CY2202</b>	<b>CSDR4A3RY2202</b>	—	 1-Brown 2-No Wire 3-Blue 4-Black	
				16.4 feet (5m)	<b>CSDR4A3CY2205</b>	<b>CSDR4A3RY2205</b>	—		
				32.8 feet (10m)	<b>CSDR4A3CY2210</b>	<b>CSDR4A3RY2210</b>	—		
			22 AWG	6.0 feet (2m)	<b>CSDR4A4CY2202</b>	<b>CSDR4A4RY2202</b>	<b>CSDR4A4IO2202</b>		—
				16.4 feet (5m)	<b>CSDR4A4CY2205</b>	<b>CSDR4A4RY2205</b>	<b>CSDR4A4IO2205</b>		—
				32.8 feet (10m)	<b>CSDR4A4CY2210</b>	<b>CSDR4A4RY2210</b>	<b>CSDR4A4IO2210</b>		—
5-pin 5-wire		22 AWG	6.0 feet (2m)	<b>CSDR5A5CY2202</b>	—	—	 1-Brown 2-White 3-Blue 4-Black 5-Green/Yellow		
			16.4 feet (5m)	<b>CSDR5A5CY2205</b>	—	—			
			32.8 feet (10m)	<b>CSDR5A5CY2210</b>	—	—			
Micro Style Right Angle Female with 2 LED Indicators  		DC NPN	4-pin 3-wire	22 AWG	16.4 feet (5m)	<b>CSDR4A3CY2205-LN</b>	<b>CSDR4A3RY2205-LN</b>	—	 1-Brown 2-No Wire 3-Blue 4-Black
		DC PNP	4-pin 3-wire	22 AWG	16.4 feet (5m)	<b>CSDR4A3CY2205-LP</b>	<b>CSDR4A3RY2205-LP</b>	—	

 Fast turn product with typical one business day lead-time to shipment.

 Stocked product, typical order quantities guaranteed in stock.

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**Model Selection — Mini Style, Single-Connector Cables**

						
	Voltage Style	Number of Pins	Gauge	Length	Catalog Number	Pin Configuration/Wire Colors (Face View Female Shown)
<b>Standard Cables</b>    Current Rating @ 600V 2-pin: 13A 3-pin: 13A 4-pin: 10A 5-pin: 8A 9-pin: 7A	AC/DC	2-pin 2-wire	16 AWG	6 feet (2m)	<b>CSMS2D2CY1602</b>	 1-White 2-Black
				12 feet (4m)	<b>CSMS2D2CY1604</b>	
		3-pin 3-wire	16 AWG	6 feet (2m)	<b>CSMS3F3CY1602</b>	 1-Green 2-Black 3-White
				12 feet (4m)	<b>CSMS3F3CY1604</b>	
		4-pin 4-wire	16 AWG	6 feet (2m)	<b>CSMS4F4CY1602</b>	 1-Black 2-White 3-Red 4-Green
				12 feet (4m)	<b>CSMS4F4CY1604</b>	
	AC/DC	4-pin, 4-wire	16 AWG	6 feet (2m)	<b>CSMS4A4CY1602</b>	 1-Black 2-Blue 3-Brown 4-White
				13.12 feet (4m)	<b>CSMS4A4CY1604</b>	
				19.69 feet (6m)	<b>CSMS4A4CY1606</b>	
	AC/DC	5-pin 5-wire	16 AWG	6 feet (2m)	<b>CSMS5D5CY1602</b>	 1-White 2-Red 3-Green 4-Orange 5-Black
				12 feet (4m)	<b>CSMS5D5CY1604</b>	
	AC/DC	5-pin, 5-wire	16 AWG	6 feet (2m)	<b>CSMS5A5CY1602</b>	 1-Black 2-Blue 3-Orange 4-Brown 5-White
				13.12 feet (4m)	<b>CSMS5A5CY1604</b>	
				19.69 feet (6m)	<b>CSMS5A5CY1606</b>	
	AC/DC	9-pin 9-wire	16 AWG	6 feet (2m)	<b>CSMS9D9CY1602</b>	 1-Orange 2-Blue 3-Red/Black 4-Green/Black 5-White 6-Red 7-Green 8-White/Black 9-Black

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**Model Selection — Nano Style, Single-Connector Cables**

	Voltage Style	Number of Pins	Gauge	Length	Catalog Number		Pin Configuration/Wire Colors (Face View Female Shown)
					PVC Jacket	PUR Jacket	
<b>Nano Style Straight Female</b> 	—	3-pin 3-wire	24 AWG	6.0 feet (2m)	<b>CSNS3A3CY2402</b>	<b>CSNS3A3RY2402</b>	<p>1-Brown 3-Blue 4-Black</p>
				16.4 feet (5m)	<b>CSNS3A3CY2405</b>	<b>CSNS3A3RY2405</b>	
				32.8 feet (10m)	<b>CSNS3A3CY2410</b>	<b>CSNS3A3RY2410</b>	
<b>Nano Style Right Angle Female</b> 	—	3-pin 3-wire	24 AWG	6.0 feet (2m)	<b>CSNR3A3CY2402</b>	<b>CSNR3A3RY2402</b>	
				16.4 feet (5m)	<b>CSNR3A3CY2405</b>	<b>CSNR3A3RY2405</b>	
				32.8 feet (10m)	<b>CSNR3A3CY2410</b>	<b>CSNR3A3RY2410</b>	
<b>Nano Style Right Angle Female with 2 LED Indicators</b> 	DC NPN	3-pin 3-wire	24 AWG	16.4 feet (5m)	<b>CSNR3A3CY2405-LN</b>	<b>CSNR3A3RY2405-LN</b>	
	DC PNP	3-pin 3-wire	24 AWG	16.4 feet (5m)	<b>CSNR3A3CY2405-LP</b>	<b>CSNR3A3RY2405-LP</b>	

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 Stocked product, typical order quantities guaranteed in stock.






**Model Selection — Micro Style, Double-Ended Connector Cables**

	Voltage Style	Number of Pins	Gauge	Length	Catalog Number	Pin Configuration	
<b>Micro Style Straight Female/Male</b> 	DC	4-pin	22 AWG	3.0 feet (1m)	<b>CSDS4A4CY2201-D</b>	Face View Female: Face View Male:	
				5.0 feet (1.5m)	<b>CSDS4A4CY2201.5-D</b>		
				6.0 feet (2m)	<b>CSDS4A4CY2202-D</b>		
				10.0 feet (3m)	<b>CSDS4A4CY2203-D</b>		
				16.4 feet (5m)	<b>CSDS4A4CY2205-D</b>		
<b>Micro Style Straight Female/Right Angle Male</b> 	DC	5-pin	22 AWG	10.0 feet (3m)	<b>CSDS5A5CY2203-D</b>	Face View Female: Face View Male:	
				16.4 feet (5m)	<b>CSDS5A5CY2205-D</b>		
<b>Mini Style Straight Female/Male</b> 	AC/DC	3-pin	16 AWG	6.0 feet (2m)	<b>CSMS3F3CY1602-DP</b>	Face View Female: Face View Male:	
				13.1 feet (4m)	<b>CSMS3F3CY1604-DP</b>		
				23.0 feet (7m)	<b>CSMS3F3CY1607-DP</b>		

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**Model Selection — Micro and Mini Receptacles**

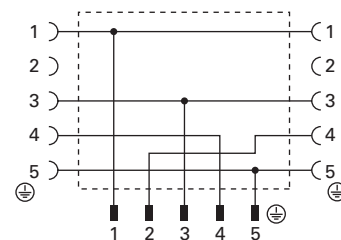
	Voltage Style	Number of Pins	Length/Gauge	Mounting Hole Size	Catalog Number	Pin Configuration
 <p>Micro Style Straight Male</p>	DC	4-pin 4-wire	1.0 feet (0.3m)/22 AWG	1/2" NPT	<b>CSDS4A4CMR22.3</b>	 <p>1-Brown 2-White 3-Blue 4-Black</p>
		5-pin 5-wire	1.6 feet (0.5m)/22 AWG	PG9	<b>CSDS5A5CMR.5</b>	 <p>1-Brown 2-White 3-Blue 4-Black 5-Green/Yellow</p>
 <p>Mini Style Straight Male</p>	AC/DC	4-pin 4-wire	1.6 feet (0.5m)/16 AWG	1/2" NPT	<b>CSMS4A4CMR16.5</b>	 <p>1-Brown 2-White 3-Blue 4-Black</p>

**Model Selection — Accessories**

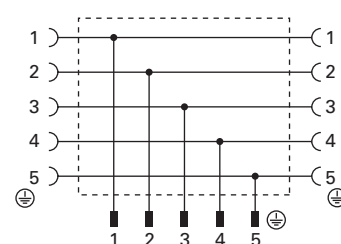
	Description	Catalog Number
 <p>Field Wireable, Plastic</p>	Micro Female Style, Straight, 4-position	<b>CSDS4</b>
	Micro Female Style, Right Angle, 4-position	<b>CSDR4</b>
	Micro Male Style, Straight, 4-position	<b>CSDSM4</b>
	Micro Male Style, Right Angle, 4-position	<b>CSDRM4</b>
	Nano Female Style, Straight, 3-position	<b>CSNS3</b>
	Nano Male Style, Straight, 3-position	<b>CSNSM3</b>
	Nano Male Style, Straight, 4-position	<b>CSNSM4</b>
	Nano Female Style, Straight, 4-position	<b>CSNS4</b>
	Nano Female Style, Right Angle, 4-position	<b>CSNR4</b>
	Nano Male Style, Right Angle, 4-position	<b>CSNRM4</b>
	Micro Female Style, Y-Splitter, 3-position	<b>CSDY3</b> ②
	Micro Female Style, Y-Splitter, 5-position	<b>CSDY5</b> ②
 <p>Closure Cap</p>	Seals off unused connector ports on Multi-Connector Blocks, Micro Female Type	<b>CBCAP</b>
	Seals off unused parts on Micro, Male Type	<b>CBMCAP</b>
 <p>Bulk Cable, Micro Style</p>	4-conductor, 22 AWG, yellow jacket (Blue, Brown, White, Black), compatible with micro style field wireable connectors shown above	<b>CS4ACY22XX</b> ①
 <p>Bulk Cable, Nano Style</p>	3-conductor, 24 AWG, yellow jacket (Brown, Blue, Black), compatible with field wireable connectors shown above	<b>CS3ACY24XX</b> ①

**Wiring Diagrams**

**CSDY3**




**CSDY5**



① Quantity ordered indicates length (i.e., quantity of 5 equals 5 feet).

② For wiring diagrams explaining the difference between 3- and 5-position models, see Wiring Diagrams on this page.

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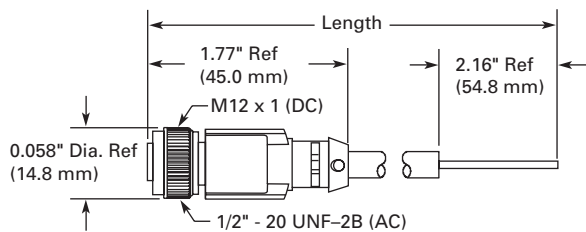
### Specifications

	Connector Cables		
	Micro Style	Mini Style	Nano Style
Jacket Material	PVC/PUR/Irradiated PUR ①	PVC	PVC/PUR ①
Contact Material	Gold-plated copper alloy	Gold-plated brass	Gold-plated copper alloy
Coupling Nut Material	Zinc die cast epoxy-coat	Zinc die cast epoxy-coat	Zinc die cast epoxy-coat
O-ring	Nitrile rubber	None	Nitrile rubber
Cable	PVC/PUR/Irradiated PUR, Insulation and jacket, stranded copper conductors		
Cable Strain Relief	35 pounds minimum		
Voltage Rating	320V (24V DC for LED plugs)	600V	100V DC
Current Rating	4A	See model selection chart	4A
Contact Resistance	5 mΩ maximum	5 mΩ maximum	5 mΩ maximum
Isolation Resistance	1000 MΩ minimum	1000 MΩ minimum	1000 MΩ minimum
Protection	IP67	NEMA 6P, IP68	IP67
Temperature Range	-25° to 90°C	-20° to 105°C	-20° to 90°C
Cable Diameter (3/C = 3 Conductor)	18 AWG PVC: 0.29 inch (7.4 mm) 22 AWG PVC: 3/C: 0.20 inch (5.11 mm) 4/C: 0.21 inch (5.31 mm) 5/C: 0.20 inch (5.08 mm) 22 AWG PUR: 3/C: 0.23 inch (5.8 mm) 4/C: 0.25 inch (6.4 mm) 22 AWG IRR PUR: 3/C: 0.17 inch (4.37 mm) 4/C: 0.18 inch (4.62 mm)	2/C: 0.37 inch (9.4 mm) 3/C: 0.41 inch (10.4 mm) 4/C: 0.42 inch (10.7 mm) 5/C: 0.50 inch (12.7 mm) 9/C: 0.64 inch (16.3 mm)	24 AWG PVC: 0.16 inch (4.12 mm) 24 AWG PUR: 0.17 inch (4.3 mm)
Bend Radius	Minimum recommended bend radius is 12X cable diameter		

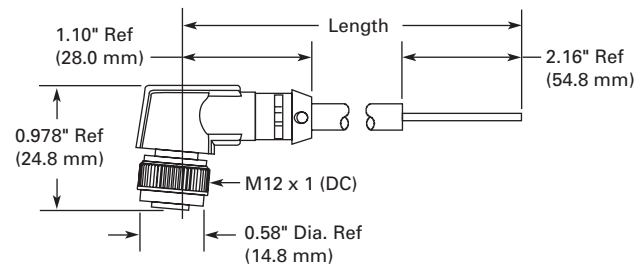
① Jacket material dependent upon model selection.

### Approximate Dimensions in Inches (mm)

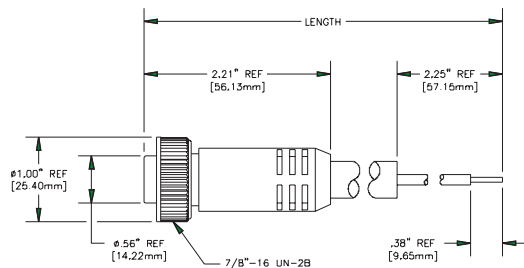
#### Micro Style Connector Cables, Straight Female



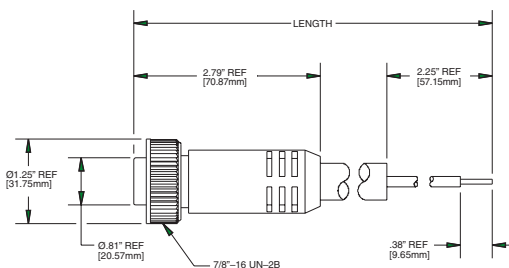
#### Micro Style Connector Cables, Right Angle Female



#### Mini Style Connector Cables, 2-, 3-, 4- and 5-pin Version

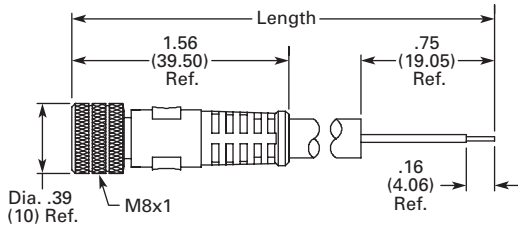


#### Mini Style Connector Cables, 9-pin Version

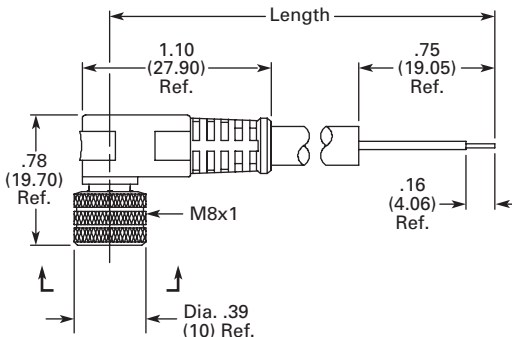


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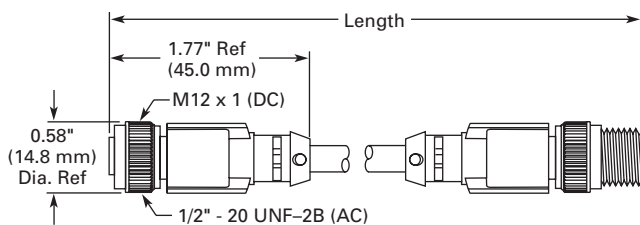
**Nano Style Connector Cables, Straight Female**



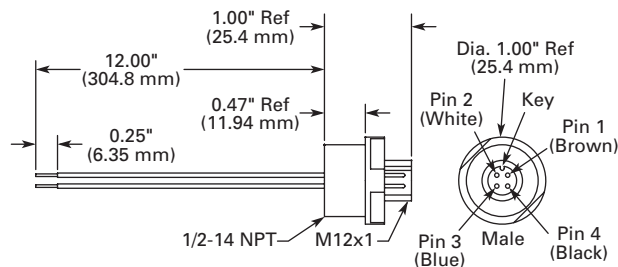
**Nano Style Connector Cables, Right Angle Female (Standard and LED)**



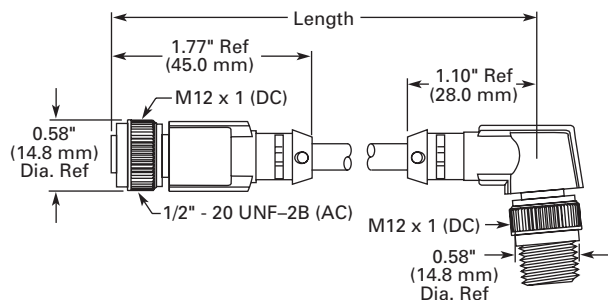
**Micro Style Double-Connector Cables, Straight Female/Male**



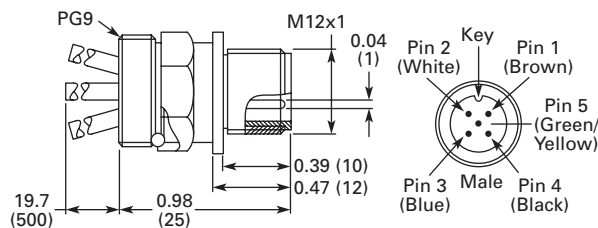
**Micro Style Receptacles, Straight Male (1/2" NPT Mounting)**



**Micro Style Double-Connector Cables, Straight Female/Right Angle Male**



**Micro Style Receptacles, Straight Male (PG9 Mounting)**



**Mini Style Receptacles, Straight Male**

