

10.1

Sensor Connectivity


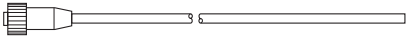

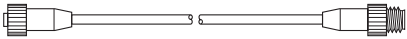
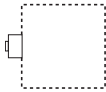
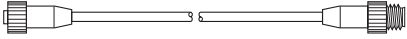

Global Plus Connector Cables

Product Selection Guide

What Type of Connector Cable Do You Need?

The majority of the sensors in this Product Guide are available with connectors for quick-disconnect installation.

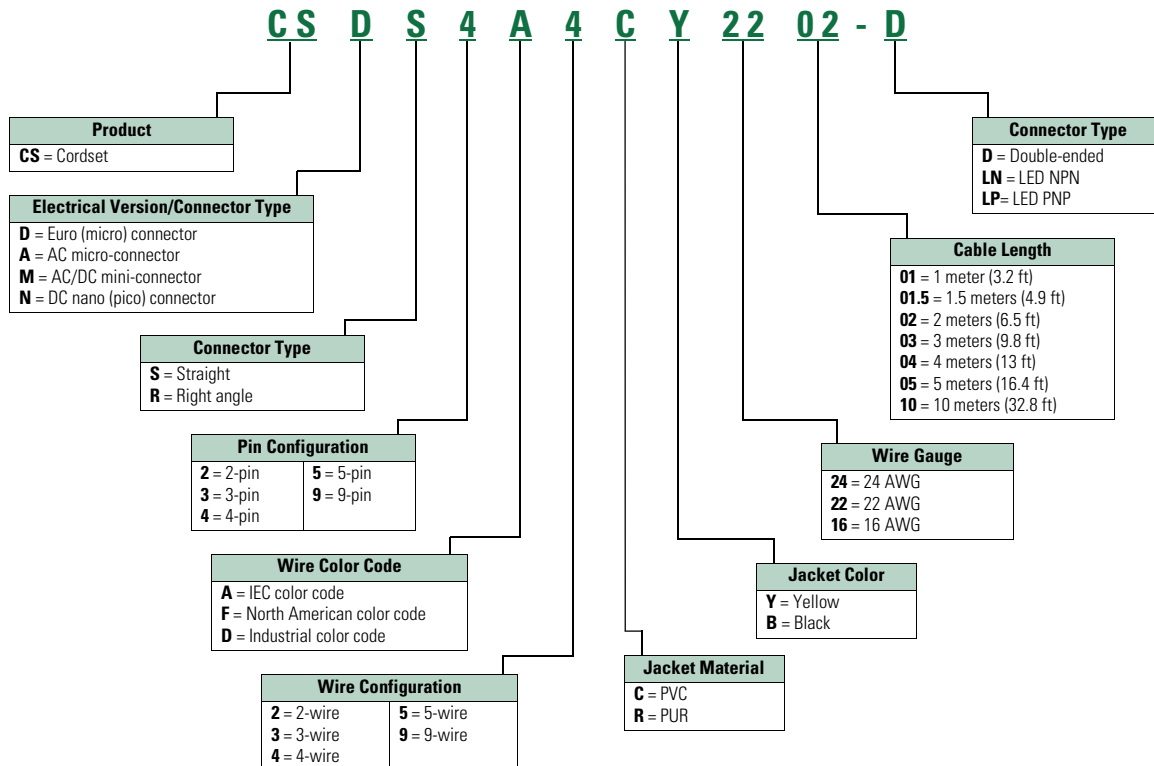
Global Plus Connector Cable Selection

Sensor	Connector Cable Type	Style	Interfaces with ...	Style
	Single-Connector Cable 	Micro (see Page V8-T10-5) Mini (see Page V8-T10-6) Nano (see Page V8-T10-7)	Junction Box or Control Panel For hard-wiring into a typical junction box or control panel.	
	Double-Connector Cable 	Micro (see Page V8-T10-8) Mini (see Page V8-T10-8)	Connectorized Junction Box or Control Panel For connecting to a junction box or control panel that has a receptacle connector interface.	
	Double-Connector Cable 	Micro (see Page V8-T10-8)	Multi-Connector Block with Cable Allows up to eight sensors to be consolidated into one cable for wiring to your control system	

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Catalog Number Selection

Global Plus Connector Cables ①



Note

① 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.

Product Selection

Single Connector Cables

Micro-Style Straight Female



Micro-Style Straight Female

Voltage Style	Number of Pins	Gauge	Length	Pin Configuration/Wire Colors (Face View Female Shown)	PVC Jacket Catalog Number	PUR Jacket Catalog Number		
Standard Cables								
AC	3-pin, 3-wire	18 AWG	6.0 ft (2m)		CSAS3F3CY1802	—		
			16.4 ft (5m)		CSAS3F3CY1805	—		
			32.8 ft (10m)		CSAS3F3CY1810	—		
		22 AWG	6.0 ft (2m)	16.4 ft (5m)	CSAS3F3CY2202	CSAS3F3RY2202		
				32.8 ft (10m)	CSAS3F3CY2205	CSAS3F3RY2205		
				32.8 ft (10m)	CSAS3F3CY2210	CSAS3F3RY2210		
			4-pin, 4-wire	18 AWG	6.0 ft (2m)		CSAS4F4CY1802	—
					16.4 ft (5m)		CSAS4F4CY1805	—
					32.8 ft (10m)		CSAS4F4CY1810	—
	22 AWG	6.0 ft (2m)	16.4 ft (5m)	CSAS4F4CY2202	CSAS4F4RY2202			
			32.8 ft (10m)	CSAS4F4CY2205	CSAS4F4RY2205			
			32.8 ft (10m)	CSAS4F4CY2210	CSAS4F4RY2210			
		22 AWG	6.0 ft (2m)	16.4 ft (5m)		CSAS4A4CY2202	—	
				32.8 ft (10m)		CSAS4A4CY2205	—	
				32.8 ft (10m)		CSAS4A4CY2210	—	
5-pin, 5-wire	22 AWG	6.0 ft (2m)		CSAS5A5CY2202	—			
		16.4 ft (5m)		CSAS5A5CY2205	—			
		32.8 ft (10m)		CSAS5A5CY2210	—			
DC	4-pin, 3-wire	22 AWG	6.0 ft (2m)		CSDS4A3CY2202	CSDS4A3RY2202		
			16.4 ft (5m)		CSDS4A3CY2205	CSDS4A3RY2205		
			32.8 ft (10m)		CSDS4A3CY2210	CSDS4A3RY2210		
		4-pin, 4-wire	22 AWG	6.0 ft (2m)		CSDS4A4CY2202	CSDS4A4RY2202	
				16.4 ft (5m)		CSDS4A4CY2205	CSDS4A4RY2205	
				32.8 ft (10m)		CSDS4A4CY2210	CSDS4A4RY2210	
	65.6 ft (20m)	—	CSDS4A4CY2220	—				
		5-pin, 5-wire	22 AWG	6.0 ft (2m)		CSDS5A5CY2202	—	
				16.4 ft (5m)		CSDS5A5CY2205	—	
	32.8 ft (10m)			CSDS5A5CY2210		—		
	8-pin, 8-wire	24 AWG	16.4 ft (5m)		CSDS8A8CB2405	—		
			32.8 ft (10m)		CSDS8A8CB2410	—		

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Sensor Connectivity

Global Plus Connector Cables

Micro-Style Right Angle Female



Micro-Style Right Angle Female

Voltage Style	Number of Pins	Gauge	Length	Pin Configuration/Wire Colors (Face View Female Shown)	PVC Jacket Catalog Number	PUR Jacket Catalog Number		
Standard Cables								
AC	3-pin, 3-wire	18 AWG	6.0 ft (2m)		CSAR3F3CY1802 CSAR3F3CY1805 CSAR3F3CY1810	—		
			16.4 ft (5m)					
			32.8 ft (10m)					
		22 AWG	6.0 ft (2m)				CSAR3F3CY2202 CSAR3F3CY2205 CSAR3F3CY2210	CSAR3F3RY2202 CSAR3F3RY2205 CSAR3F3RY2210
			16.4 ft (5m)					
			32.8 ft (10m)					
	4-pin, 4-wire	18 AWG	6.0 ft (2m)		CSAR4F4CY1802 CSAR4F4CY1805 CSAR4F4CY1810	—		
			16.4 ft (5m)					
			32.8 ft (10m)					
		22 AWG	6.0 ft (2m)				CSAR4F4CY2202 CSAR4F4CY2205 CSAR4F4CY2210	CSAR4F4RY2202 CSAR4F4RY2205 CSAR4F4RY2210
			16.4 ft (5m)					
			32.8 ft (10m)					
DC	4-pin, 3-wire	22 AWG	6.0 ft (2m)		CSDR4A3CY2202 CSDR4A3CY2205 CSDR4A3CY2210	CSDR4A3RY2202 CSDR4A3RY2205 CSDR4A3RY2210		
			16.4 ft (5m)					
			32.8 ft (10m)					
	4-pin, 4-wire	22 AWG	6.0 ft (2m)		CSDR4A4CY2202 CSDR4A4CY2205 CSDR4A4CY2210	CSDR4A4RY2202 CSDR4A4RY2205 CSDR4A4RY2210		
			16.4 ft (5m)					
			32.8 ft (10m)					
	5-pin, 5-wire	22 AWG	6.0 ft (2m)		CSDR5A5CY2202 CSDR5A5CY2205 CSDR5A5CY2210	—		
			16.4 ft (5m)					
			32.8 ft (10m)					

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Mini-Style Straight Female



Mini-Style Straight Female

Current Rating at 600V	Voltage Style	Number of Pins	Gauge	Length	Pin Configuration/Wire Colors (Face View Female Shown)	Catalog Number
Standard Cables						
13A	AC/DC	2-pin, 2-wire	16 AWG	6 ft (2m)		CSMS2D2CY1602
				12 ft (4m)		CSMS2D2CY1604
13A		3-pin, 3-wire	16 AWG	6 ft (2m)		CSMS3F3CY1602
				12 ft (4m)		CSMS3F3CY1604
10A		4-pin, 4-wire	16 AWG	6 ft (2m)		CSMS4F4CY1602
				12 ft (4m)		CSMS4F4CY1604

Mini-Style Straight Female



Mini-Style Straight Female, continued

Current Rating at 600V	Voltage Style	Number of Pins	Gauge	Length	Pin Configuration/Wire Colors (Face View Female Shown)	Catalog Number
Standard Cables						
10A	AC/DC	4-pin, 4-wire	16 AWG	6 ft (2m)		CSMS4A4CY1602
				13.12 ft (4m)		CSMS4A4CY1604
				19.69 ft (6m)		CSMS4A4CY1606
8A		5-pin, 5-wire	16 AWG	6 ft (2m)		CSMS5D5CY1602
				12 ft (4m)		CSMS5D5CY1604
8A		5-pin, 5-wire	16 AWG	6 ft (2m)		CSMS5A5CY1602
				13.12 ft (4m)		CSMS5A5CY1604
				19.69 ft (6m)		CSMS5A5CY1606
7A		9-pin, 9-wire	16 AWG	6 ft (2m)		CSMS9D9CY1602

Nano-Style Straight Female



Nano-Style Straight Female

Voltage Style	Number of Pins	Gauge	Length	Pin Configuration/Wire Colors (Face View Female Shown)	PVC Jacket Catalog Number	PUR Jacket Catalog Number
Standard Cables						
—	3-pin, 3-wire	24 AWG	6.0 ft (2m)		CSNS3A3CY2402	CSNS3A3RY2402
			16.4 ft (5m)		CSNS3A3CY2405	CSNS3A3RY2405
			32.8 ft (10m)		CSNS3A3CY2410	CSNS3A3RY2410
DC	4-pin, 4-wire	24 AWG	6.5 ft (2m)		CSNS4A4CY2402	—
			16.4 ft (5m)		CSNS4A4CY2405	—
			32.8 ft (10m)		CSNS4A4CY2410	—

Nano-Style Right Angle Female



Nano-Style Right Angle Female

Voltage Style	Number of Pins	Gauge	Length	Pin Configuration/Wire Colors (Face View Female Shown)	PVC Jacket Catalog Number	PUR Jacket Catalog Number
Standard Cables						
—	3-pin, 3-wire	24 AWG	6.0 ft (2m)		CSNR3A3CY2402	CSNR3A3RY2402
			16.4 ft (5m)		CSNR3A3CY2405	CSNR3A3RY2405
			32.8 ft (10m)		CSNR3A3CY2410	CSNR3A3RY2410

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Sensor Connectivity

Global Plus Connector Cables

Double Connector Cables

Micro-Style Straight Female/Male



Micro-Style Straight Female/Male

Voltage Style	Number of Pins	Gauge	Length	Pin Configuration/Wire Colors (Face View Female Shown)	Catalog Number
DC	4-pin	22 AWG	3.0 ft (1m)		CSDS4A4CY2201-D
			5.0 ft (1.5m)		CSDS4A4CY2201.5-D
			6.0 ft (2m)		CSDS4A4CY2202-D
			10.0 ft (3m)		CSDS4A4CY2203-D
			16.4 ft (5m)		CSDS4A4CY2205-D
DC	5-pin	22 AWG	3.0 ft (1m)		CSDS5A5CY2201-D
			10.0 ft (3m)		CSDS5A5CY2203-D
			16.4 ft (5m)		CSDS5A5CY2205-D

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Micro-Style Straight Female/Right Angle Male



Micro-Style Straight Female/Right Angle Male

Voltage Style	Number of Pins	Gauge	Length	Pin Configuration/Wire Colors (Face View Female Shown)	Catalog Number
DC	4-pin	22 AWG	3.0 ft (1m)		CSDR4A4CY2201-D
			5.0 ft (1.5m)		CSDR4A4CY2201.5-D
			6.0 ft (2m)		CSDR4A4CY2202-D
			10.0 ft (3m)		CSDR4A4CY2203-D
			16.4 ft (5m)		CSDR4A4CY2205-D

Receptacles—Micro and Mini

Micro-Style Straight Male



Micro and Mini

Voltage Style	Number of Pins	Gauge	Length	Mounting Hole Size	Pin Configuration	Catalog Number
Standard Cables—Micro						
DC	4-pin, 4-wire	22 AWG	1.0 ft (0.3m)	1/2 in NPT	1-Brown 2-White 3-Blue 4-Black	CSDS4A4CMR22.3
	5-pin, 5-wire	22 AWG	1.6 ft (0.5m)	PG9	1-Brown 2-White 3-Blue 4-Black 5-Gray	CSDS5A5CMR.5

Mini-Style Straight Male



Standard Cables—Mini

AC/DC	4-pin, 4-wire	22 AWG	1.6 ft (0.5m)	1/2 in NPT	1-Brown 2-White 3-Blue 4-Black	CSMS4A4CMR16.5
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Accessories

Global Plus Accessories

Field Wireable, Plastic



Description	Catalog Number
Micro female style, straight, four-position	CSDS4
Micro female style, right angle, four-position	CSDR4
Micro male style, straight, four-position	CSDSM4
Micro male style, right angle, four-position	CSDRM4
Nano female style, straight, three-position	CSNS3
Nano male style, straight, three-position	CSNSM3
Nano male style, straight, four-position	CSNSM4
Nano female style, straight, four-position	CSNS4
Nano female style, right angle, four-position	CSNR4
Micro female style, y-splitter, three-position	CSDY3 ①
Micro female style, y-splitter, five-position	CSDY5 ①

Closure Cap



Description	Catalog Number
Seals off unused connector ports on multi-connector blocks, micro female type	CBCAP
Seals off unused parts on micro, male type	CBMCAP

Bulk Cable, Micro-Style



Description	Catalog Number
Four-conductor, 22 AWG, yellow jacket (blue, brown, white, black), compatible with micro-style field wireable connectors shown above	CS4ACY22XX ②

Bulk Cable, Nano Style



Description	Catalog Number
Three-conductor, 24 AWG, yellow jacket (brown, blue, black), compatible with field wireable connectors shown above	CS3ACY24XX ①

Notes

- ① For wiring diagrams explaining the difference between three- and five-position models, see Wiring Diagrams on **Page V8-T10-10**.
- ② Quantity ordered indicates length (for example, quantity of 5 equals 5 ft).

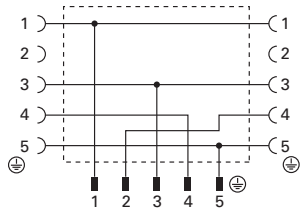
Technical Data and Specifications

Global Plus Connector Cables

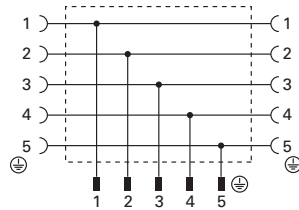
Description	Micro-Style Specification	Mini-Style Specification	Nano-Style Specification
Jacket material	PVC/PUR/Irradiated PUR ①	PVC	PVC/PUR ①
Contact material	Gold-plated copper alloy	Gold-plated brass	Gold-plated copper alloy
Coupling nut material	Nickel-plated die-cast zinc	Nickel-plated die-cast zinc	Nickel-plated die-cast zinc
O-ring	Nitrile rubber	None	Nitrile rubber
Cable	PVC/PUR/Irradiated PUR, insulation and jacket, stranded copper conductors	PVC/PUR/Irradiated PUR, insulation and jacket, stranded copper conductors	PVC/PUR/Irradiated PUR, insulation and jacket, stranded copper conductors
Cable strain relief	35 lbs minimum	35 lbs minimum	35 lbs minimum
Voltage rating	320V (24 Vdc for LED plugs) (30 Vdc for 8-pin, versions)	600V	100 Vdc
Current rating	4A	See model selection chart	4A
Contact resistance	5M ohms maximum	5M ohms maximum	5M ohms maximum
Isolation resistance	1000M ohms minimum	1000M ohms minimum	1000M ohms minimum
Protection	IP67	NEMA 6P, IP68	IP67
Temperature range	-13° to 176°F (-25° to 80°C)	-4° to 221°F (-20° to 105°C)	-4° to 221°F (-20° to 105°C)
Cable diameter	See Dimensions on Page V8-T10-11.	See Dimensions on Page V8-T10-11.	See Dimensions on Page V8-T10-11.
Bend radius	Minimum recommended bend radius is 12X cable diameter	Minimum recommended bend radius is 12X cable diameter	Minimum recommended bend radius is 12X cable diameter

Wiring Diagrams

CSDY3



CSDY5



Note

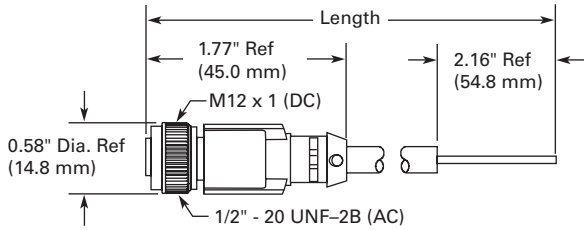
① Jacket material dependent upon model selection.

Dimensions

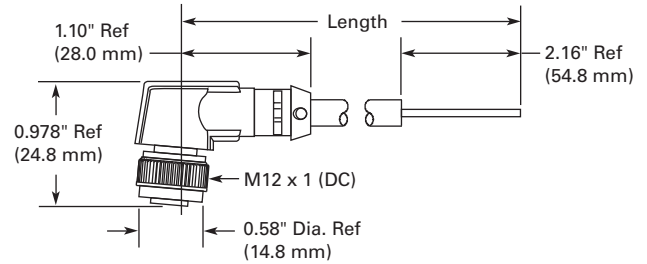
Approximate Dimensions in Inches (mm)

Single Connector Cable Dimensions

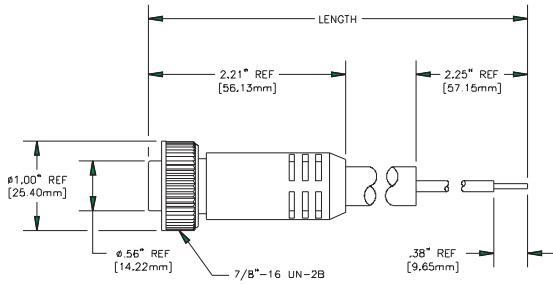
Micro-Style Single Connector Cables, Straight Female



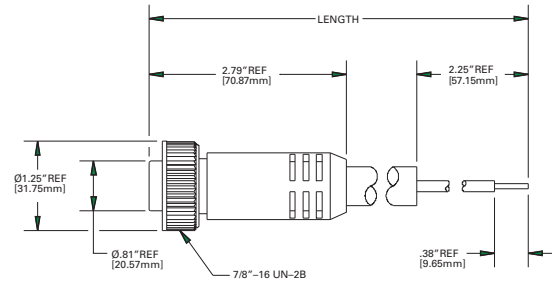
Micro-Style Single Connector Cables, Right Angle Female



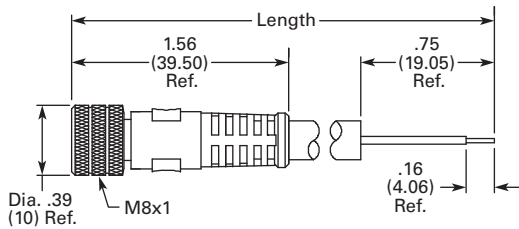
Mini-Style Single Connector Cables, 2-, 3-, 4- and 5-pin, Versions



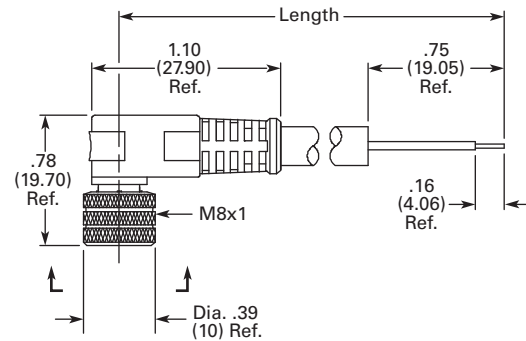
Mini-Style Single Connector Cables, 9-pin, Version



Nano-Style Single Connector Cables, Straight Female



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



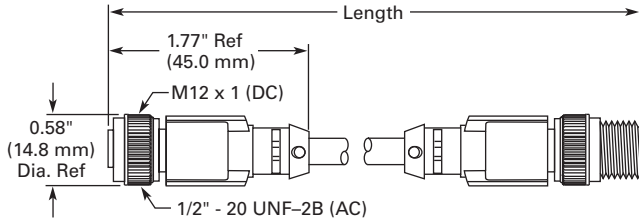
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Global Plus Connector Cables

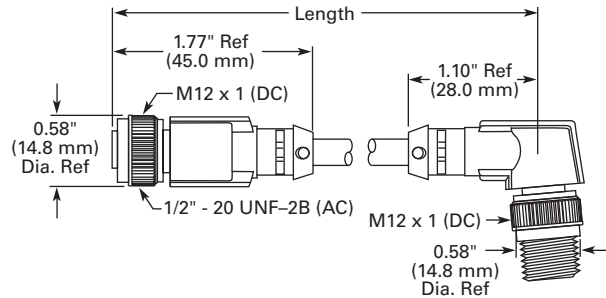
Approximate Dimensions in Inches (mm)

Double Connector Cable Dimensions

Micro-Style Double Connector Cables, Straight Female/Male



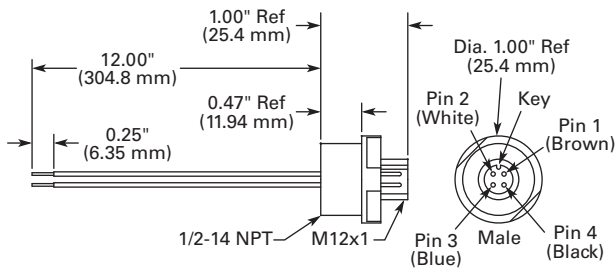
Micro-Style Double Connector Cables, Straight Female/Right Angle Male



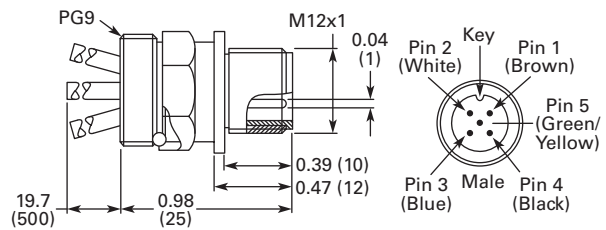
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Receptacle Dimensions

Micro-Style Receptacles, Straight Male (1/2 in NPT Mounting)



Micro-Style Receptacles, Straight Male (PG9 Mounting)



Mini-Style Receptacles, Straight Male

