









D-Size 1 3/8" Powerfast Tee Selection Matrix

				13 	14 	15 	16 
				Integral D-Size Connector Drop	Integral A-Size Connector Drop	Dual Integral A-Size Power Connector Drop	Integral M16 Connector Drop
Pins	Drop AWG	Trunk Current Rating	Drop Current Rating				
3	10	31 Amps	31 Amps	GSDM/2GKDM 30			
	14	31 Amps	15 Amps		GSDM/GKDM/RKM 34	GSDM/2RKM 34	GSDM/GKDM/BKM 34
4	10	28 Amps	28 Amps	GSDM/2GKDM 40			
	14	28 Amps	15 Amps		GSDM/GKDM/RKM 44	GSDM/2RKM 44	GSDM/GKDM/BKM 44

				17 	18 	19 	20 
				Cable Drop	Cable Drop With D-Size Power Connector	Cable Drop With A-Size Power Connector	Cable Drop With M16 Power Connector
Pins	Drop AWG	Trunk Current Rating	Drop Current Rating	TC-ER STOOW	TC-ER STOOW	TC-ER STOOW	TC-ER STOOW
3	10	31 Amps	31 Amps	GSDM/GKDM/T30-*	GSDM/2GKDM 30-*		
	12	31 Amps	26 Amps	GSDM/GKDM/T32-*	GSDM/2GKDM 32-*		
	14	31 Amps	23 Amps	GSDM/GKDM/T34-*	GSDM/2GKDM 34-*	GSDM/GKDM/RKM 34-.*†	
4	10	28 Amps	28 Amps	GSDM/GKDM/T40-*	GSDM/2GKDM 40-*		
	12	28 Amps	22 Amps	GSDM/GKDM/T42-*	GSDM/2GKDM 42-*		
	14	28 Amps	19 Amps	GSDM/GKDM/T44-*	GSDM/2GKDM 44-*	GSDM/GKDM/RKM 44-.*†	

Pins	Drop AWG	Trunk Current Rating	Drop Current Rating	TC-ER	TC-ER	TC-ER	TC-ER
3	10	31 Amps	31 Amps	GSDM/GKDM/T30-*/S4000	GSDM/2GKDM 30-*/S4000		
	12	31 Amps	26 Amps	GSDM/GKDM/T32-*/S4000	GSDM/2GKDM 32-*/S4000		
	14	31 Amps	23 Amps	GSDM/GKDM/T34-*/S4000	GSDM/2GKDM 34-*/S4000	GSDM/GKDM/RKM 34-*/S4000†	GSDM/GKDM/BKM 34-*/S4000†
4	10	28 Amps	28 Amps	GSDM/GKDM/T40-*/S4000	GSDM/2GKDM 40-*/S4000		
	12	28 Amps	22 Amps	GSDM/GKDM/T42-*/S4000	GSDM/2GKDM 42-*/S4000		
	14	28 Amps	19 Amps	GSDM/GKDM/T44-*/S4000	GSDM/2GKDM 44-*/S4000	GSDM/GKDM/RKM 44-*/S4000†	GSDM/GKDM/BKM 44-*/S4000†

See page 19-20 for dimensional drawings.

\* Length in meters.




† Drop current rating of 15 amps.





Note: Standard coupling nut material is nickel plated brass. Consult Part Number Key (page 11) for anodized aluminum and 316 stainless steel options.

We reserve the right to make technical alterations without prior notice.

D-Size 1 3/8" powerfast

## D-Size 1 3/8" Powerfast h-Style Tee Selection Matrix

				21	22	23
						
				Integral D-Size Connector Drop	Integral A-Size Connector Drop	Integral M16 Connector Drop
Pins	Drop AWG	Trunk Current Rating	Drop Current Rating			
3	10	31 Amps	31 Amps	SH-GSDM/2GKDM 30		
	14	31 Amps	15 Amps		SH-GSDM/GKDM/RKM 34-*	SH-GSDM/GKDM/BKM 34
4	10	28 Amps	28 Amps	SH-GSDM/2GKDM 40		
	14	28 Amps	15 Amps		SH-GSDM/GKDM/RKM 44-*	SH-GSDM/GKDM/BKM 44

				24	25	26	27
							
				Cable Drop	Cable Drop With D-Size Power Connector	Cable Drop With A-Size Power Connector	Cable Drop With M16 Power Connector
Pins	Drop AWG	Trunk Current Rating	Drop Current Rating	TC-ER STOOW	TC-ER STOOW	TC-ER STOOW	TC-ER STOOW
3	10	31 Amps	31 Amps	SH-GSDM/GKDM/T30-*	SH-GSDM/2GKDM 30-*		
	12	31 Amps	26 Amps	SH-GSDM/GKDM/T32-*	SH-GSDM/2GKDM 32-*		
	14	31 Amps	23 Amps	SH-GSDM/GKDM/T34-*	SH-GSDM/2GKDM 34-*	SH-GSDM/GKDM/RKM 34-*	†
4	10	28 Amps	28 Amps	SH-GSDM/GKDM/T40-*	SH-GSDM/2GKDM 40-*		
	12	28 Amps	22 Amps	SH-GSDM/GKDM/T42-*	SH-GSDM/2GKDM 42-*		
	14	28 Amps	19 Amps	SH-GSDM/GKDM/T44-*	SH-GSDM/2GKDM 44-*	SH-GSDM/GKDM/RKM 44-*	†

We reserve the right to make technical alterations without prior notice.

Pins	Drop AWG	Trunk Current Rating	Drop Current Rating	TC-ER	TC-ER	TC-ER	TC-ER
3	10	31 Amps	31 Amps	SH-GSDM/GKDM/T30-*/S4000	SH-GSDM/2GKDM 30-*/S4000		
	12	31 Amps	26 Amps	SH-GSDM/GKDM/T32-*/S4000	SH-GSDM/2GKDM 32-*/S4000		
	14	31 Amps	23 Amps	SH-GSDM/GKDM/T34-*/S4000	SH-GSDM/2GKDM 34-*/S4000	SH-GSDM/GKDM/RKM 34-*/S4000†	SH-GSDM/GKDM/BKM 34-*/S4000†
4	10	28 Amps	28 Amps	SH-GSDM/GKDM/T40-*/S4000	SH-GSDM/2GKDM 40-*/S4000		
	12	28 Amps	22 Amps	SH-GSDM/GKDM/T42-*/S4000	SH-GSDM/2GKDM 42-*/S4000		
	14	28 Amps	19 Amps	SH-GSDM/GKDM/T44-*/S4000	SH-GSDM/2GKDM 44-*/S4000	SH-GSDM/GKDM/RKM 44-*/S4000†	SH-GSDM/GKDM/BKM 44-*/S4000†

See page 21-22 for dimensional drawings.

\* Length in meters.

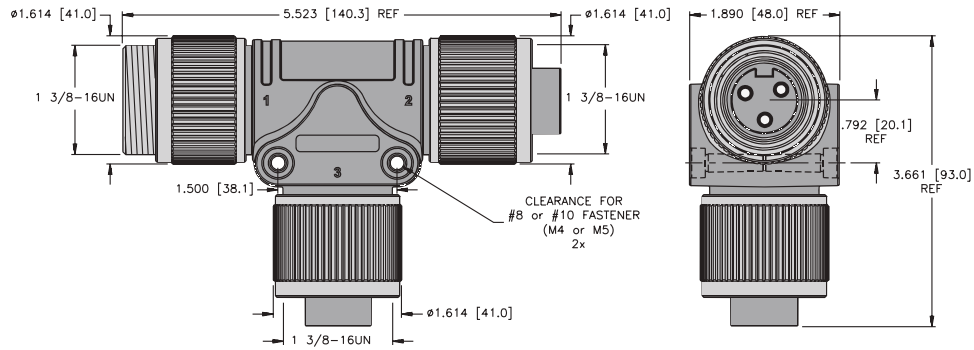
† Drop current rating of 15 amps.

Note: Standard coupling nut material is nickel plated brass. Consult Part Number Key (page 11) for anodized aluminum and 316 stainless steel options.

**2 and 3-Wire Receptacles, Front Mount, 1/4-18 NPT Threads**

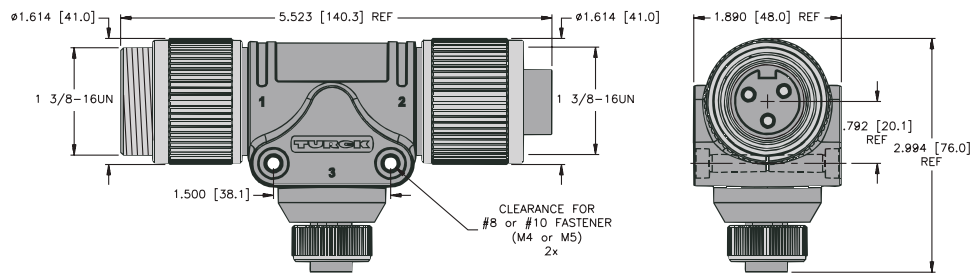
13

**Integral D-Size Power Connector Drop  
GSDM/2GKDM..**



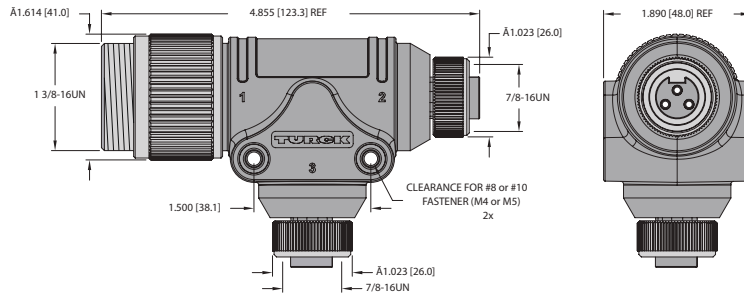
14

**Integral A-Size Power Connector Drop  
GSDM/GKDM/RKM..**



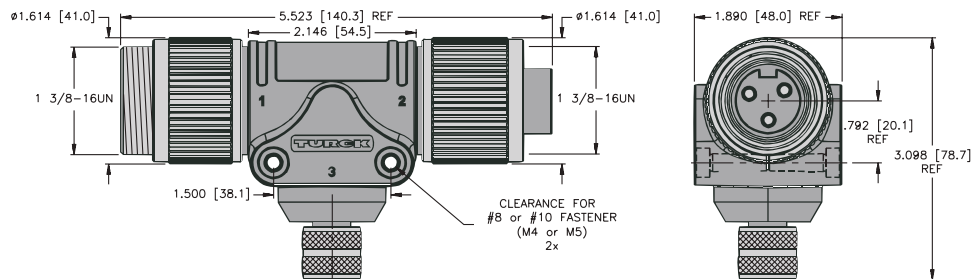
15

**Dual Integral A-Size Power Connector Drop  
GSDM/2RKM..**



16

**Integral M16 Power Connector Drop  
GSDM/GKDM/BKM..**



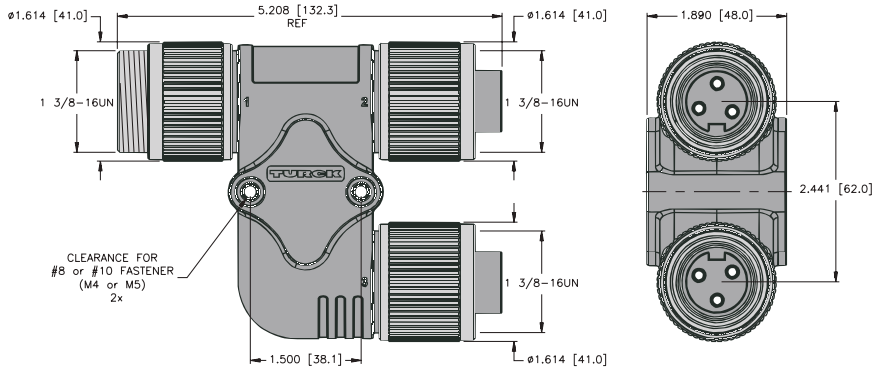
D-Size 1 3/8" powerfast



**D-Size 1 3/8" Powerfast h-Style Tee Dimensions**

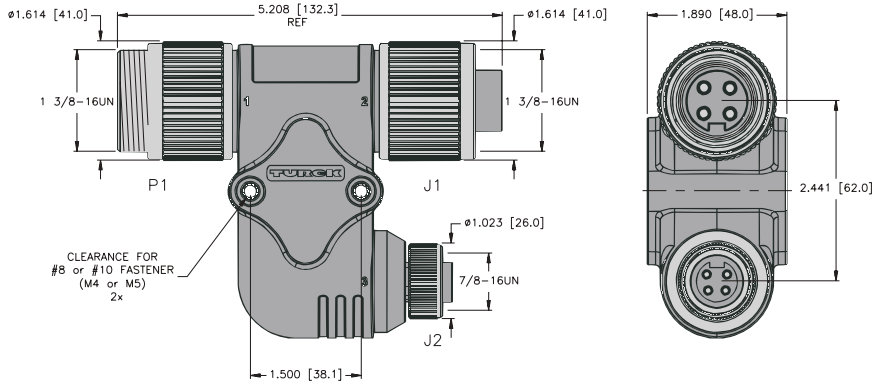
21

**Integral D-Size Power Connector Drop  
SH-GSDM/2GKDM..**



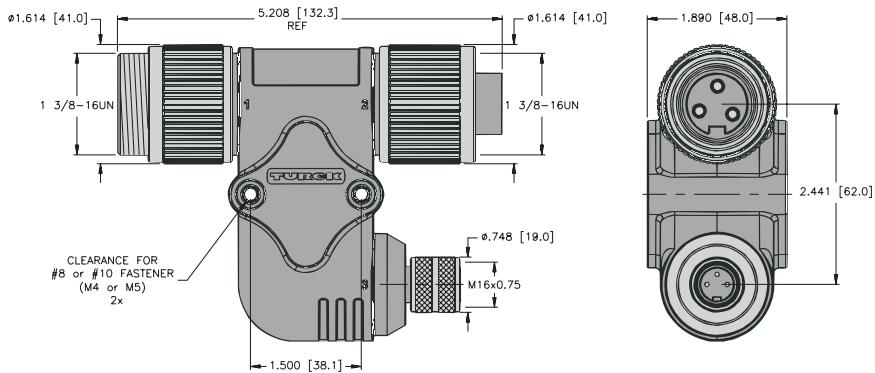
22

**Integral A-Size Power Connector Drop  
SH-GSDM/GKDM/RKM..**



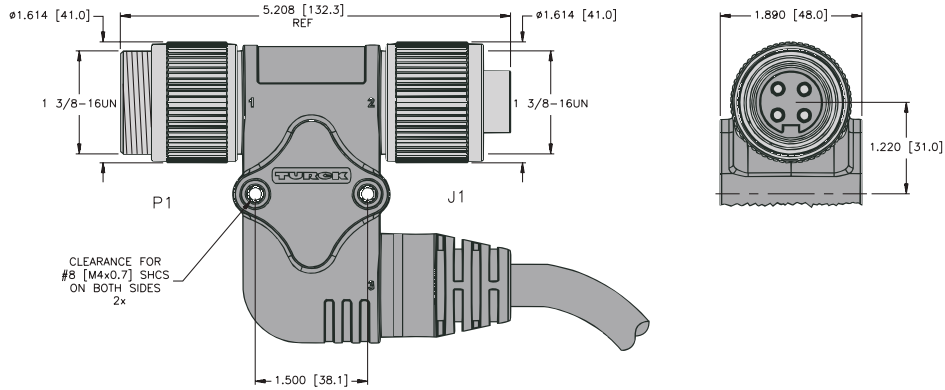
23

**Integral M16 Power Connector Drop  
SH-GSDM/GKDM/BKM..**

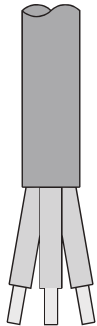


D-Size 1 3/8" powerfast

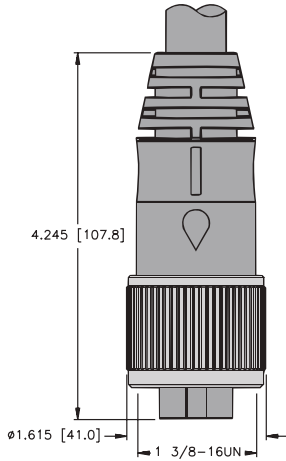
**h-Style Tee with Cable Drop and Connector Options**



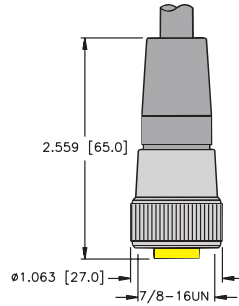
**24 Cable Drop**  
SH-GSDM/GKDM/T



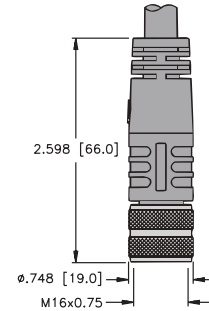
**25 D-Size Power Connector**  
SH-GSDM/2GKDM..



**26 A-Size Power Connector**  
SH-GSDM/GKDM/RKM..



**27 M16 Power Connector**  
SH-GSDM/GKDM/BKM..



**D-Size 1 3/8" Powerfast Power Reducer Specifications**

**Mechanical**

<b>Mold material/color:</b>	PVC/Black
<b>Contact carrier material:</b>	PVC
<b>Coupling nut material:</b>	
Standard:	Nickel plated brass
Additional options:	Anodized aluminum 316 stainless steel
<b>Environmental protection:</b>	NEMA 1, 3, 4, 6P and IEC IP67, IP68, IP69K
<b>Temperature rating:</b>	-40 °C to +90 °C (-40 °F to +194 °F)

**Electrical**

<b>Contact material:</b>	Brass or copper with gold plating
<b>Ratings:</b>	15 Amps, 600 VAC



Note: UL approval applies to D-size and A-size Power connectors.

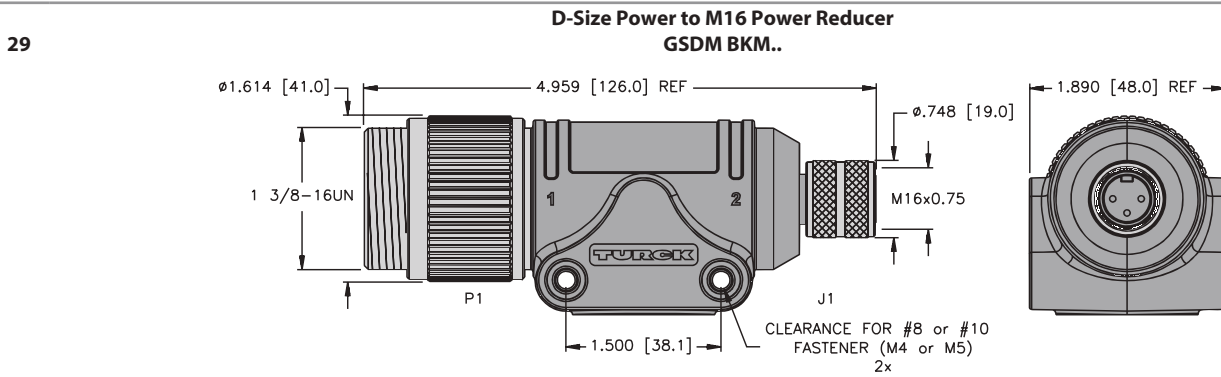
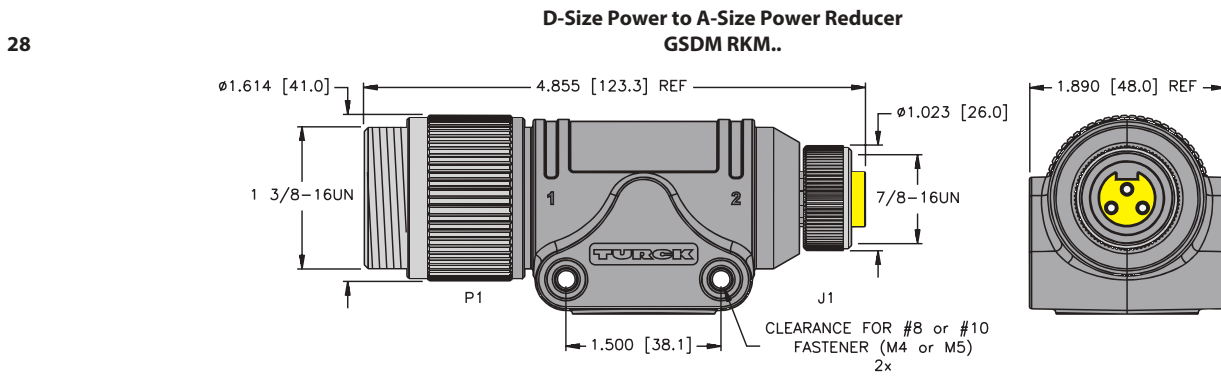
**D-Size 1 3/8" Powerfast Power Reducer Selection Matrix**

			28		29	
<b>Pins</b>	<b>Drop AWG</b>	<b>Current Rating</b>	<b>D-Size Power to A-Size Power Reducer</b>		<b>D-Size Power to M16 Power Reducer</b>	
3	14	Up to 15 Amps	GSDM RKM 34-0		GSDM BKM 34-0	
4	14	Up to 15 Amps	GSDM RKM 44-0		GSDM BKM 44-0	

See below for dimensional drawings.

Note: Standard coupling nut material is nickel plated brass. Consult factory for anodized aluminum and 316 stainless steel options.

**D-Size 1 3/8" Powerfast Power Reducer Dimensions**



We reserve the right to make technical alterations without prior notice.

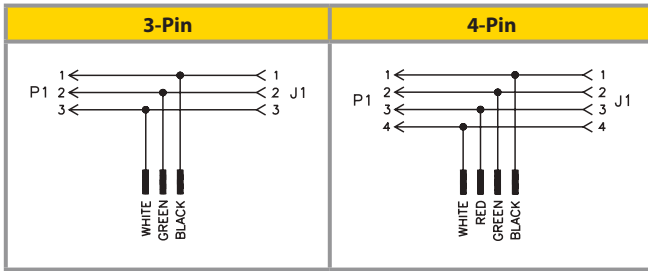
D-Size 1 3/8" powerfast

# D-Size 1 3/8" powerfast Connectivity

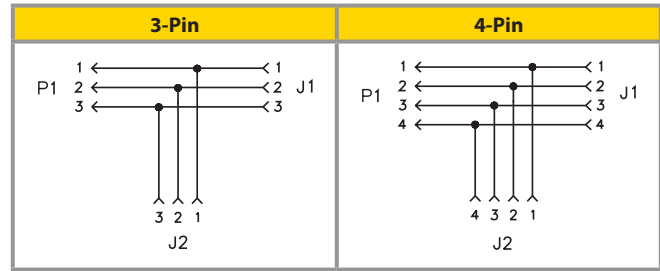


## D-Size 1 3/8" Powerfast Tee Wiring Diagrams

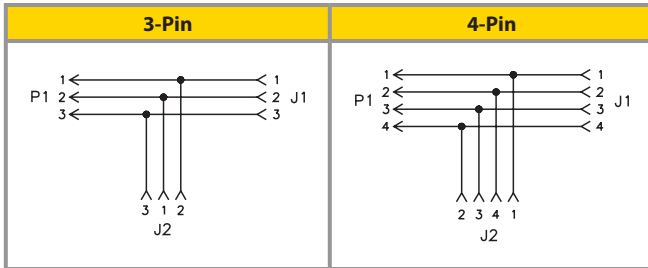
Cable Drop



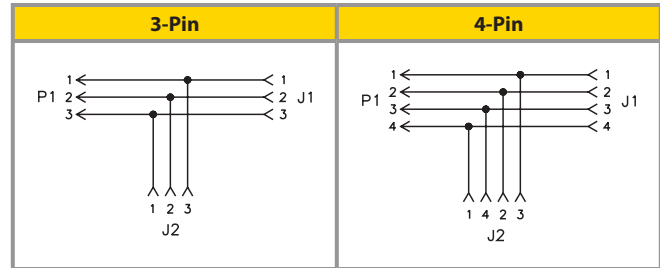
D-Size Power Drop



A-Size Power Drop

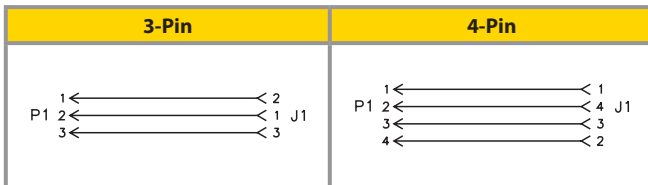


M16 Power Drop

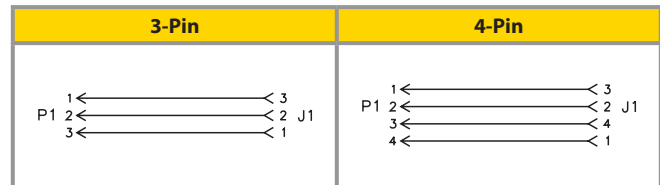


## D-Size 1 3/8" Powerfast Power Reducer Wiring Diagrams

D-Size Power to A-Size Power

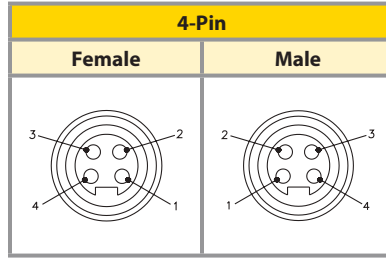
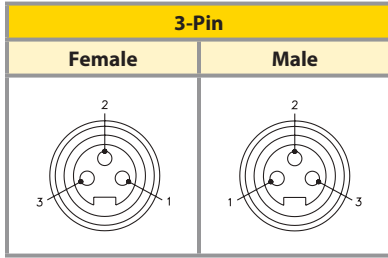


D-Size Power to M16 Power

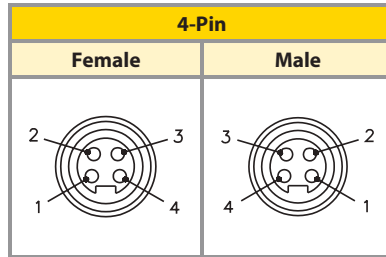
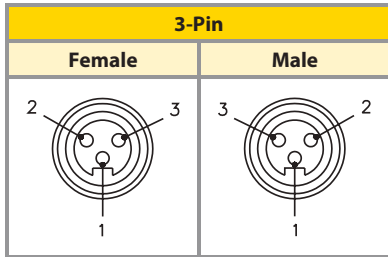


## D-Size 1 3/8" Powerfast Tee and Power Reducer Pinouts

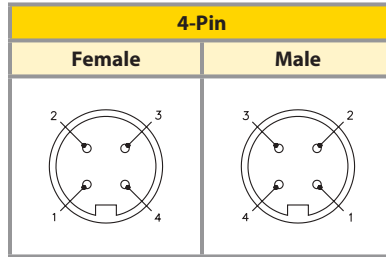
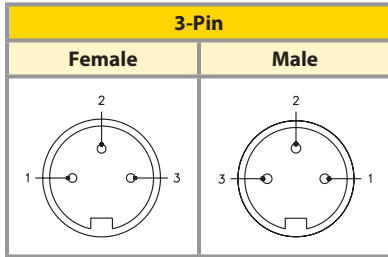
### D-Size Power



### A-Size Power



### M16 Power



# D-Size 1 3/8" powerfast Connectivity

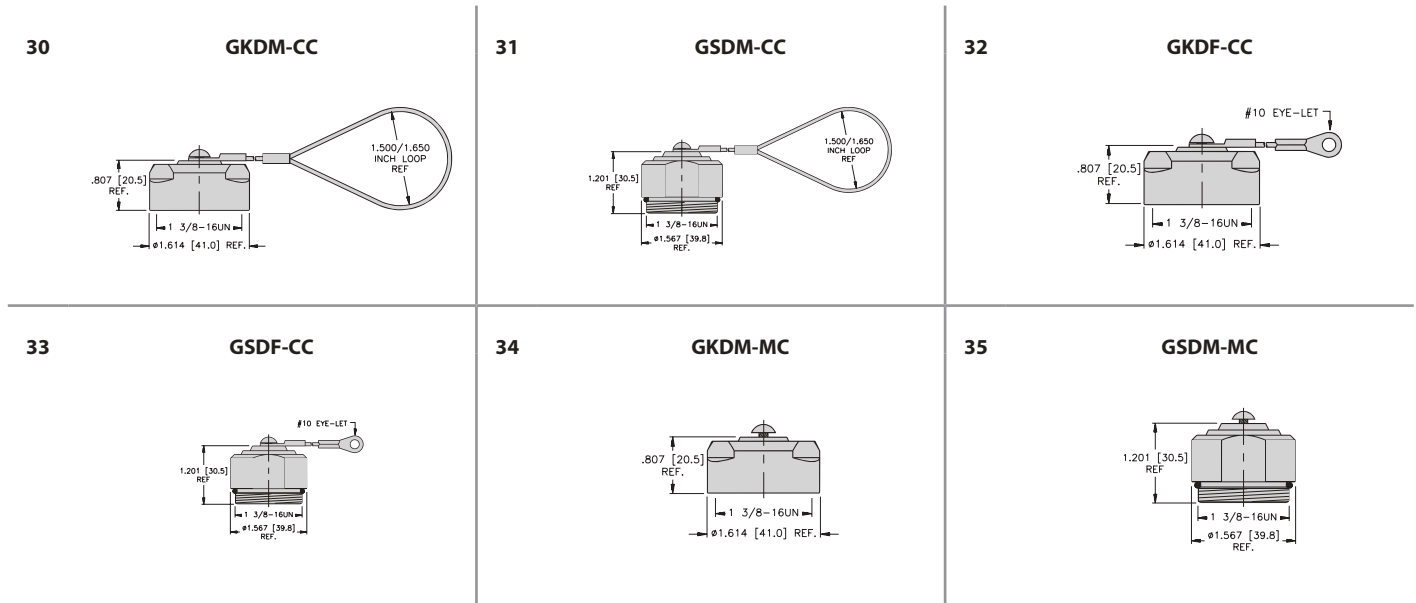


## D-Size 1 3/8" Powerfast Closure Cap Selection Matrix

		30	31	32	33	34	35
		Mates to male cordsets and receptacles	Mates to female cordsets and receptacles	Mates to male receptacles	Mates to female receptacles	Mates to male cordsets and receptacles	Mates to female cordsets and receptacles
Material	Thread	6" SS Loop Lanyard	6" SS Loop Lanyard	6" SS Lanyard with Eyelet	6" SS Lanyard with Eyelet	No Lanyard	No Lanyard
Nickel Plated Brass	1 3/8-16 UN	GKDM-CC	GSDM-CC	GKDF-CC	GSDF-CC	GKDM-MC	GSDM-MC

See table below for dimensional drawings.

## D-Size 1 3/8" Powerfast Power Reducer Wiring Diagrams



## D-Size 1 3/8" Powerlok

Part Number	Application
<b>LOCK-A POWER</b>	Nylon locking guard for straight or right angle D-Size Powerfast connectors

A-Size Powerlok Open



A-Size Powerlok Closed



<b>Part Number Keys</b>	<b>J28</b>
<b>Cordset, Receptacle and Field Wireable Specifications</b>	<b>J30</b>
<b>Cordset, Receptacle and Field Wireable Selection Matrix</b>	<b>J31</b>
<b>Cordset, Receptacle and Field Wireable Dimensions</b>	<b>J32</b>
<b>Cordset, Receptacle and Field Wireable Pinouts</b>	<b>J33</b>
<b>Tee Specifications</b>	<b>J34</b>
<b>Tee Selection Matrix</b>	<b>J34</b>
<b>Tee Dimensions</b>	<b>J35</b>
<b>Tee Wiring Diagrams</b>	<b>J41</b>
<b>Tee Pinouts</b>	<b>J41</b>
<b>Closure Caps</b>	<b>J42</b>
<b>Powerlok Accessories</b>	<b>J42</b>

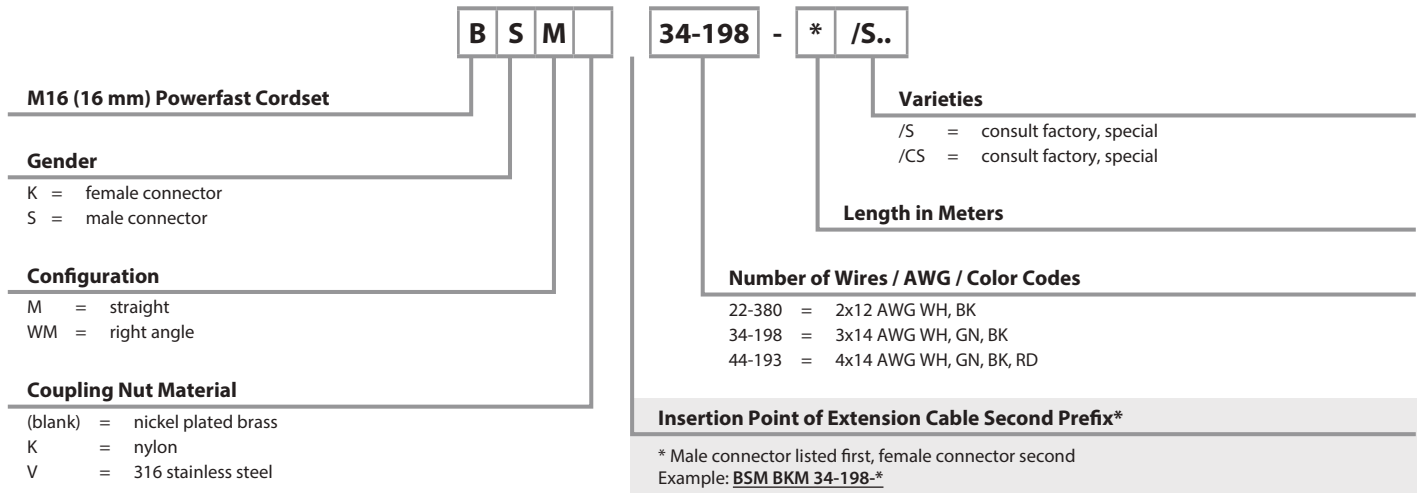
## Features

- Ideal for small motor applications
- Shielded versions available
- Multiple tee configurations
- 2 to 4-pin
- 12 and 14 AWG conductors
- Up to 18 Amp, 600 Volt rated
- Tray rated-exposed run PVC cable
- IEC IP67 protection



## M16 Powerfast Cordset Part Number Key

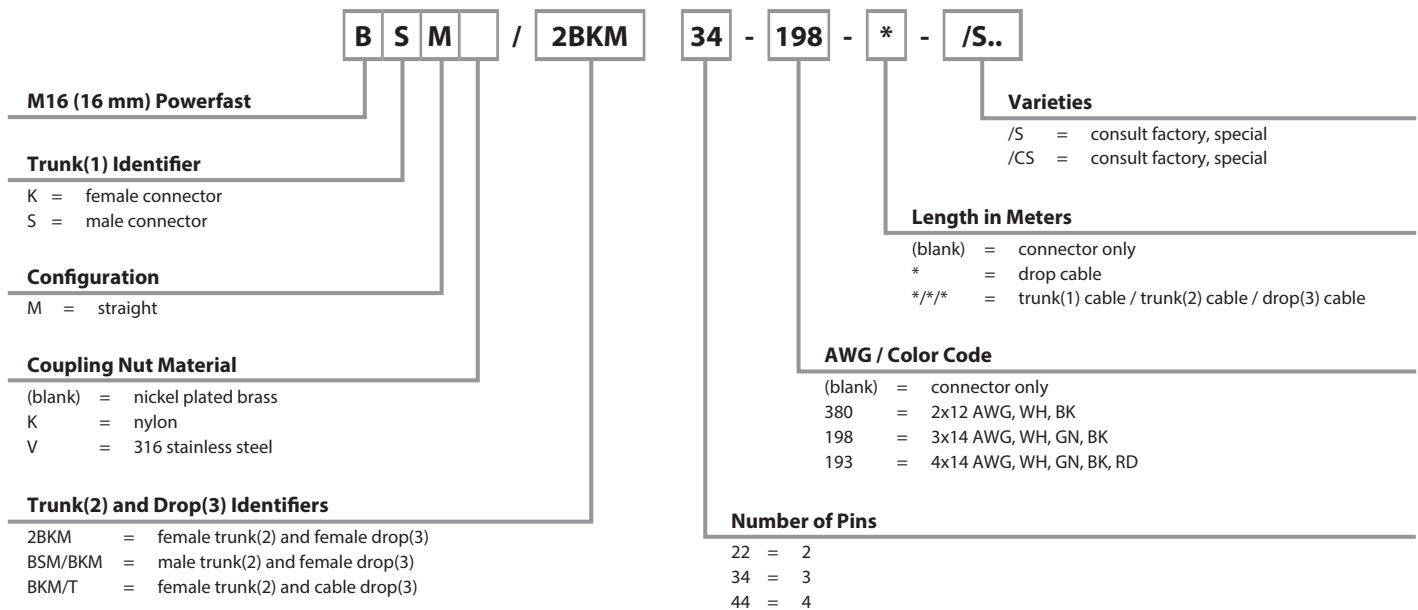
Part Number Keys are to assist in IDENTIFICATION ONLY. Consult factory for catalog items not identified.



### Extension Examples

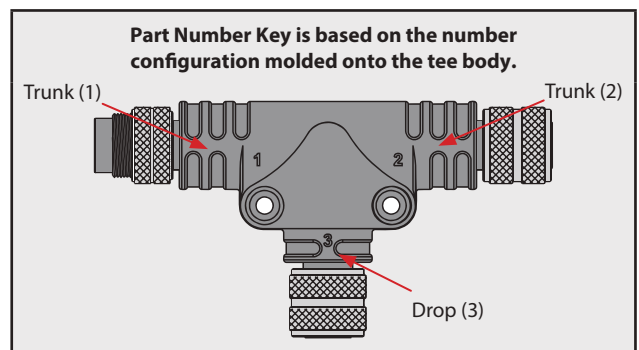


## M16 Powerfast Tee Part Number Key



Note: Only one male connector per tee available.

### Extension Examples



## M16 Powerfast Receptacle Part Number Key

Part Number Keys are to assist in IDENTIFICATION ONLY. Consult factory for catalog items not identified.

<b>B</b>	<b>K</b>	<b>F</b>			<b>22</b>	-	*	<b>/14.5/NPT</b>
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**M16 (16 mm) Powerfast Receptacle**

**Gender**  
K = female receptacle  
S = male receptacle

**Designator for Receptacle**

**Housing Style**  
(blank) = front mount  
D = rear mount

**Housing Material**  
(blank) = nickel plated brass  
V = 316 stainless steel

**Thread Type**  
/14.5/NPT = 1/2-14 NPT threads  
/18.375/NPT = 3/8-18 NPT threads  
/M20 = M20 threads  
/M18 = M18 threads

**Length in Meters**

**Number of Wires / AWG / Color Codes**  
22 = 2x12 AWG WH, BK  
34 = 3x14 AWG WH, GN, BK  
44 = 4x14 AWG WH, GN, BK, RD

## M16 Powerfast Tee Part Number Key

<b>BH</b>	-	<b>B</b>	<b>S</b>	<b>M</b>		<b>2BKM</b>		<b>34</b>	-	<b>198</b>	-	*	-	<b>/S..</b>
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**M16 (16 mm) Powerfast**  
BH = big H  
SH = small h

**M16 (16 mm) Powerfast**

**Trunk(1) Identifier**  
K = female connector  
S = male connector

**Configuration**  
M = straight

**Coupling Nut Material**  
(blank) = nickel plated brass  
K = nylon  
V = 316 stainless steel

**Trunk(2) and Drop(3) Identifiers**  
2BKM = female trunk(2) and female drop(3)  
BSM/BKM = male trunk(2) and female drop(3)  
BKM/T = female trunk(2) and cable drop(3)  
BSM/BKM = male trunk(2) and female drop(3)  
BKM/T = female trunk(2) and cable drop(3)

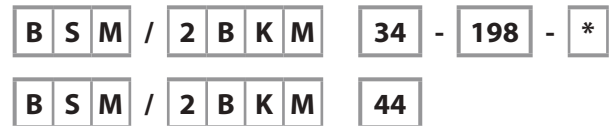
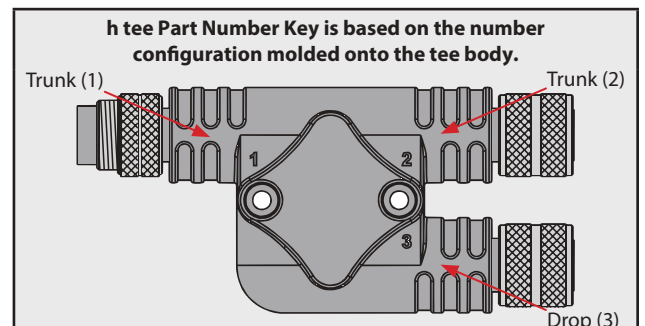
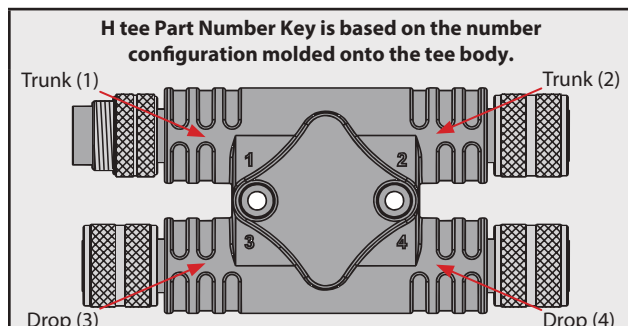
**Varieties**  
/S = consult factory, special  
/CS = consult factory, special

**Length in Meters**  
(blank) = connector only  
\* = drop cable  
\*\*/\* = trunk(1) cable / trunk(2) cable / drop(3) cable  
\*\*/\*/\* = trunk(1) cable / trunk(2) cable / drop(3) cable / drop(4) cable

**AWG / Color Code**  
(blank) = connector only  
380 = 2x12 AWG, WH, BK  
198 = 3x14 AWG, WH, GN, BK  
193 = 4x14 AWG, WH, GN, BK, RD

**Number of Pins**  
22 = 2  
34 = 3  
44 = 4

Note: Only one male connector per tee available.



M16 powerfast

## M16 Powerfast Cordset Specifications

### Mechanical

<b>Mold material/color:</b>	PUR/Black
<b>Contact carrier material:</b>	PUR
<b>Coupling nut material:</b>	
Standard:	Nickel plated brass
Additional options:	Nylon 316 stainless steel
<b>Environmental protection:</b>	IEC IP67
<b>Temperature rating:</b>	-40 °C to +90 °C (-40 °F to +194 °F)

### Electrical

<b>Contact material:</b>	Brass or copper with gold plating
<b>Cable jacket material/color:</b>	TC-ER PVC/Black
<b>Ratings:</b>	15-18 Amps, 600 V



## M16 Powerfast Receptacle Specifications

### Mechanical

<b>Contact carrier material:</b>	PUR
<b>Housing material/plating:</b>	
Standard:	Nickel plated brass
Additional options:	316 stainless steel
<b>O-Ring material:</b>	Nitrile (BUNA-N)
<b>Environmental protection:</b>	IEC IP67
<b>Temperature rating:</b>	-40 °C to +105 °C (-40 °F to +221 °F)

### Electrical

<b>Contact material:</b>	Brass or copper with gold plating
<b>Conductor insulation:</b>	PVC
<b>Ratings:</b>	15-18 Amps, 600 V



## M16 Powerfast Field Wireable Specifications





### Mechanical

<b>Housing material/color:</b>	Glass filled nylon or PVC/Black
<b>Contact carrier material:</b>	PUR
<b>Coupling nut material:</b>	
Standard:	Nickel plated brass
Additional options:	Nylon 316 stainless steel
<b>Environmental protection:</b>	NEMA 6P and IEC IP67
<b>Temperature rating:</b>	-40 °C to +90 °C (-40 °F to +194 °F)

### Electrical

<b>Contact material:</b>	Brass or copper with gold plating
<b>Ratings:</b>	15-18 Amps, 600 VAC





## M16 Powerfast Cordset Selection Matrix





			1 	2 	3 	4 
			Straight Female	Straight Male	Right Angle Female	Right Angle Male
Pins	AWG	Current Rating	TC-ER	TC-ER	TC-ER	TC-ER
2	12	18 Amps	BKM 22-380-*	BSM 22-380-*	BKWM 22-380-*	BSWM 22-380-*
3	14	15 Amps	BKM 34-198-*	BSM 34-198-*	BKWM 34-198-*	BSWM 34-198-*
4	14	15 Amps	BKM 44-193-*	BSM 44-193-*	BKWM 44-193-*	BSWM 44-193-*



Pins	AWG	Current Rating	SHIELDED TC-ER	SHIELDED TC-ER	SHIELDED TC-ER	SHIELDED TC-ER
2	12	18 Amps	BKMS 22-1759-*	BSMS 22-1759-*	BKWMS 22-1759-*	BSWMS 22-1759-*
3	14	15 Amps	BKMS 34-1364-*	BSMS 34-1364-*	BKWMS 34-1364-*	BSWMS 34-1364-*
4	14	15 Amps	BKMS 44-1363-*	BSMS 44-1363-*	BKWMS 44-1363-*	BSWMS 44-1363-*

We reserve the right to make technical alterations without prior notice.

2 and 3-Wire Receptacles, Front Mount, 1/4-18 NPT Threads

Front Mount			5		6		7		8	
			Female		Male		Female		Male	
Pins	AWG	Current Rating	1/2-14 NPT Mounting Thread	1/2-14 NPT Mounting Thread	3/8-18 NPT Mounting Thread	3/8-18 NPT Mounting Thread				
2	12	18 Amps	BKF 22-*/14.5/NPT	BSF 22-*/14.5/NPT	BKF 22-*/18.375/NPT	BSF 22-*/18.375/NPT				
3	14	15 Amps	BKF 34-*/14.5/NPT	BSF 34-*/14.5/NPT	BKF 34-*/18.375/NPT	BSF 34-*/18.375/NPT				
4	14	15 Amps	BKF 44-*/14.5/NPT	BSF 44-*/14.5/NPT	BKF 44-*/18.375/NPT	BSF 44-*/18.375/NPT				

Front Mount			9		10		11		12	
			Female		Male		Female		Male	
Pins	AWG	Current Rating	M18 Mounting Thread	M18 Mounting Thread	M20 Mounting Thread	M20 Mounting Thread				
2	12	18 Amps	BKF 22-*/M18	BSF 22-*/M18	BKF 22-*/M20	BSF 22-*/M20				
3	14	15 Amps	BKF 34-*/M18	BSF 34-*/M18	BKF 34-*/M20	BSF 34-*/M20				
4	14	15 Amps	BKF 44-*/M18	BSF 44-*/M18	BKF 44-*/M20	BSF 44-*/M20				

Front Mount			13		14	
			Female		Male	
Pins	AWG	Current Rating	M18 Mounting Thread	M18 Mounting Thread		
2	12	18 Amps	BKFD 22-*/M18	BSFD 22-*/M18		
3	14	15 Amps	BKFD 34-*/M18	BSFD 34-*/M18		
4	14	15 Amps	BKFD 44-*/M18	BSFD 44-*/M18		

See pages 32-33 for dimensional drawings.



\* Length in meters. Standard lead length is 0.5 meters. Consult factory for other lengths.

Note: Standard housing material is nickel plated brass. Consult Part Number Key (page 27) for 316 stainless steel options.

We reserve the right to make technical alterations without prior notice.

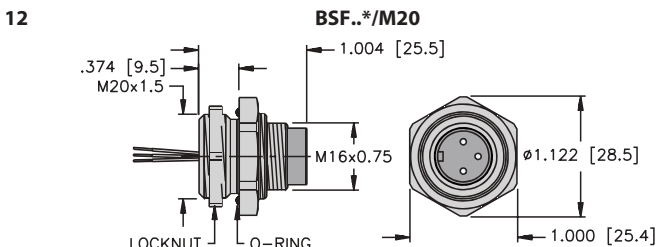
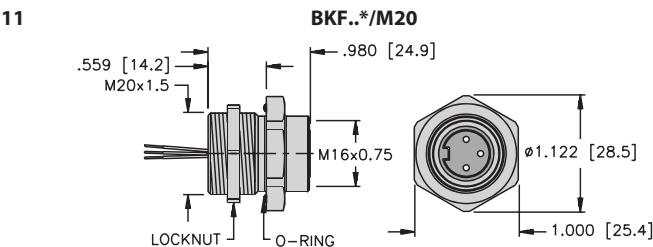
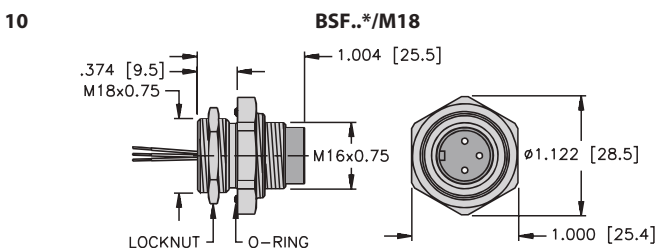
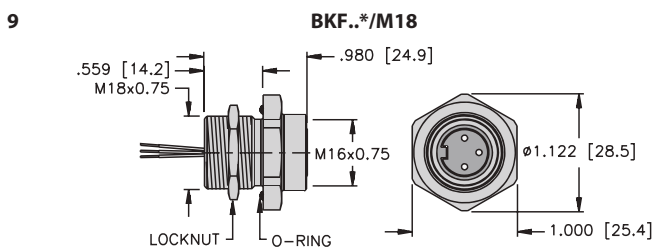
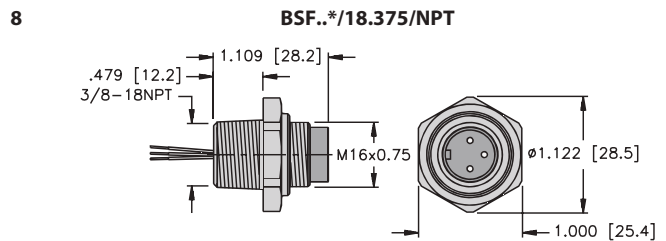
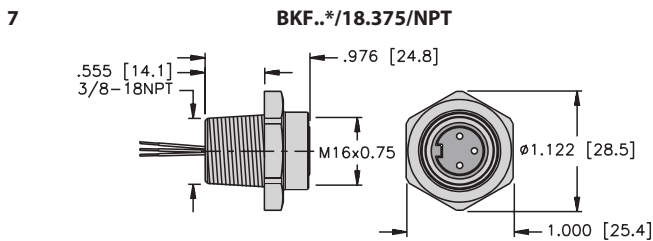
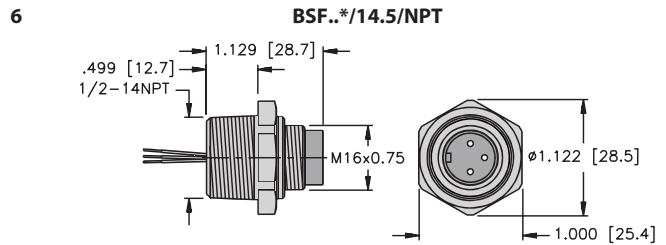
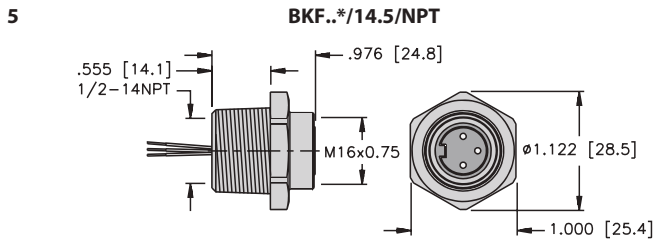
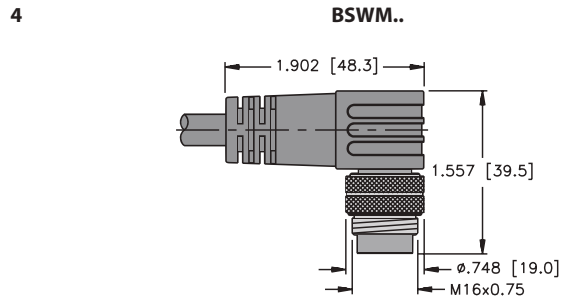
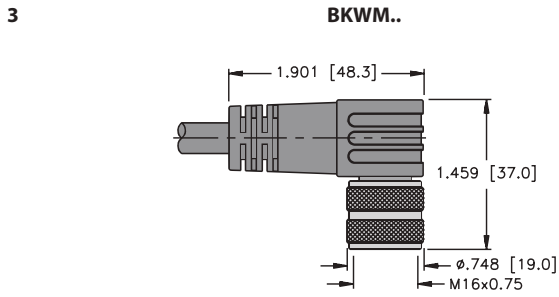
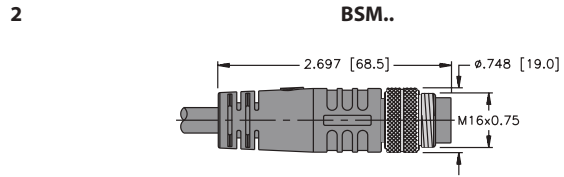
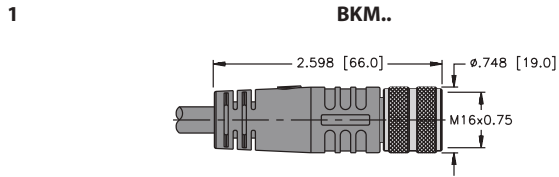
M16 powerfast

M16 Powerfast Field Wireable Selection Matrix

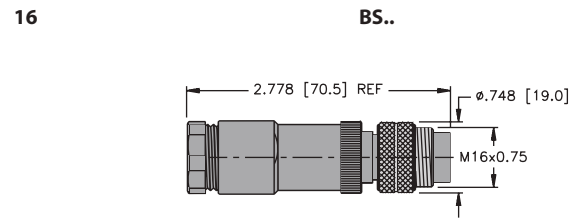
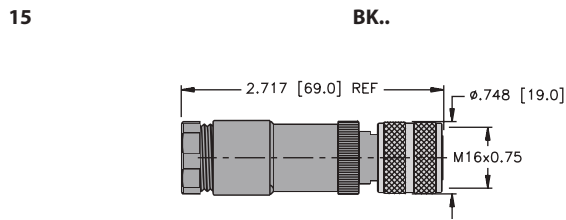
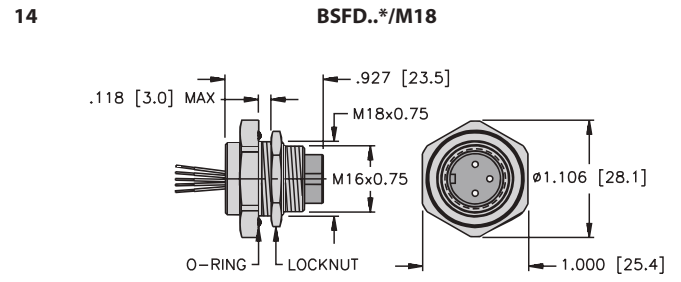
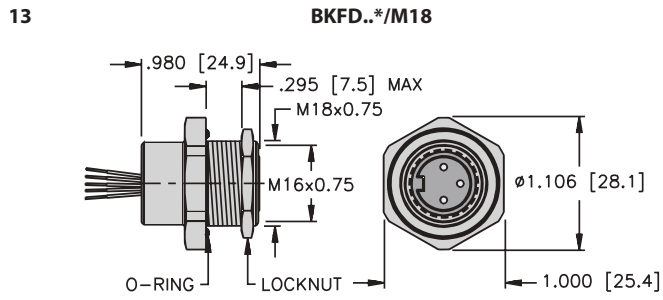
			15		16	
			Straight Female, PG 11 Cable Gland Accepts 8-11 mm Cable Diameter		Straight Male, PG 11 Cable Gland Accepts 8-11 mm Cable Diameter	
Pins	Acceptable Conductor AWG	Current Rating	Screw Terminal		Screw Terminal	
2	12	18 Amps	BK 22-0		BS 22-0	
3	14	15 Amps	BK 34-0		BS 34-0	
4	14	15 Amps	BK 44-0		BS 44-0	

See page 33 for dimensional drawings.

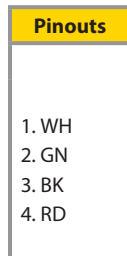
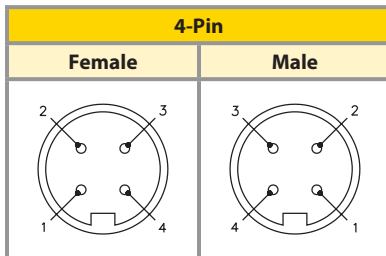
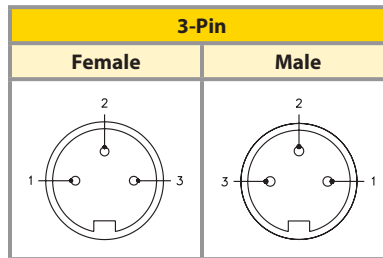
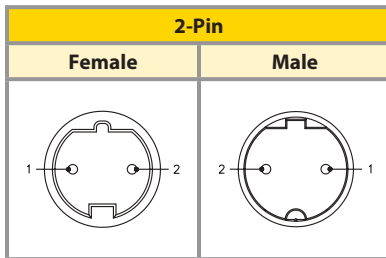
\* Note: Standard coupling nut material is nickel plated brass. Consult factory for nylon and 316 stainless steel options.



M16 Powerfast Cordset, Receptacle and Field Wireable Dimensions



M16 Powerfast Cordset, Receptacle and Field Wireable Pinouts



## M16 Powerfast Tee Specifications

### Mechanical

<b>Mold material/color:</b>	PUR/Black
<b>Contact carrier material:</b>	PUR
<b>Housing material/plating:</b>	
Standard:	Nickel plated brass
Additional options:	Nylon 316 stainless steel
<b>Environmental protection:</b>	IEC IP67

### Electrical

<b>Contact material:</b>	Brass or copper with gold plating
<b>Cable jacket material/color:</b>	TC-ER PVC/Black
<b>Ratings:</b>	15-18 Amps, 600 V



### Temperature rating:

Integral connector version:	-40 °C to +105 °C (-40 °F to +221 °F)
Cable version:	-40 °C to +90 °C (-40 °F to +194 °F)

## M16 Powerfast Tee Selection Matrix

			17	18	19	20
			Integral M16 Power Connector Drop	Cable Drop with M16 Power Connector	Cable Trunk and Cable Drop with M16 Power Connectors	Cable Drop
Pins	AWG	Current Rating	TC-ER		TC-ER	
2	12	18 Amps	BSM/2BKM 22	BSM/2BKM 22-380-*	BSM/2BKM 22-380-*/*/*	BSM/BKM/T22-380-*
3	14	15 Amps	BSM/2BKM 34	BSM/2BKM 34-198-*	BSM/2BKM 34-198-*/*/*	BSM/BKM/T34-198-*
4	14	15 Amps	BSM/2BKM 44	BSM/2BKM 44-193-*	BSM/2BKM 44-193-*/*/*	BSM/BKM/T44-193-*

We reserve the right to make technical alterations without prior notice.

## M16 Powerfast h-Style Tee Selection Matrix

			21	22	23	24
			Integral M16 Power Connector Drop	Cable Drop with M16 Power Connector	Cable Trunk and Cable Drop with M16 Power Connectors	Cable Drop
Pins	AWG	Current Rating	TC-ER		TC-ER	
2	12	18 Amps	SH-BSM/2BKM 22	SH-BSM/2BKM 22-380-*	SH-BSM/2BKM 22-380-*/*/*	SH-BSM/BKM/T22-380-*
3	14	15 Amps	SH-BSM/2BKM 34	SH-BSM/2BKM 34-198-*	SH-BSM/2BKM 34-198-*/*/*	SH-BSM/BKM/T34-198-*
4	14	15 Amps	SH-BSM/2BKM 44	SH-BSM/2BKM 44-193-*	SH-BSM/2BKM 44-193-*/*/*	SH-BSM/BKM/T44-193-*

			25	26	27	28
			Integral M16 Power Connector Drop	Cable Drop with M16 Power Connector	Cable Trunk and Cable Drop with M16 Power Connectors	Cable Drop
Pins	AWG	Current Rating	TC-ER		TC-ER	
2	12	18 Amps	SH-BKM/BSM/BKM 22	SH-BKM/BSM/BKM 22-380-*	SH-BKM/BSM/BKM 22-380-*/*/*	SH-BKM/BSM/T22-380-*
3	14	15 Amps	SH-BKM/BSM/BKM 34	SH-BKM/BSM/BKM 34-198-*	SH-BKM/BSM/BKM 34-198-*/*/*	SH-BKM/BSM/T34-198-*
4	14	15 Amps	SH-BKM/BSM/BKM 44	SH-BKM/BSM/BKM 44-193-*	SH-BKM/BSM/BKM 44-193-*/*/*	SH-BKM/BSM/T44-193-*

## 2 and 3-Wire Receptacles, Front Mount, 1/4-18 NPT Threads

			29	30	31
<b>Trunk #1: Male Connector</b>			<b>Integral M16 Power Connector Drop</b>	<b>Cable Drop with M16 Power Connector</b>	<b>Cable Trunk and Cable Drop with M16 Power Connectors</b>
<b>Pins</b>	<b>AWG</b>	<b>Current Rating</b>	<b>TC-ER</b>		<b>TC-ER</b>
2	12	18 Amps	BH-BSM/3BKM 22	BH-BSM/3BKM 22-380-*	BH-BSM/3BKM 22-380-*/*/**
3	14	15 Amps	BH-BSM/3BKM 34	BH-BSM/3BKM 34-198-*	BH-BSM/3BKM 34-198-*/*/**
4	14	15 Amps	BH-BSM/3BKM 44	BH-BSM/3BKM 44-193-*	BH-BSM/3BKM 44-193-*/*/**

			32	33	34
<b>Trunk #1: Male Connector</b>			<b>Integral M16 Power Connector Drop</b>	<b>Cable Drop with M16 Power Connector</b>	<b>Cable Trunk and Cable Drop with M16 Power Connectors</b>
<b>Pins</b>	<b>AWG</b>	<b>Current Rating</b>	<b>TC-ER</b>		<b>TC-ER</b>
2	12	18 Amps	BH-BKM/BSM/2BKM 22	BH-BKM/BSM/2BKM 22-380-*	BH-BKM/BSM/2BKM 22-380-*/*/**
3	14	15 Amps	BH-BKM/BSM/2BKM 34	BH-BKM/BSM/2BKM 34-198-*	BH-BKM/BSM/2BKM 34-198-*/*/**
4	14	15 Amps	BH-BKM/BSM/2BKM 44	BH-BKM/BSM/2BKM 44-193-*	BH-BKM/BSM/2BKM 44-193-*/*/**

See pages 35-40 for dimensional drawings.

\* Length in meters. Standard cable lengths are 2, 5 and 10 meters. Consult factory for other lengths.

Note: Standard coupling nut material is nickel plated brass. Consult Part Number Key (page 27) for nylon and 316 stainless steel options.

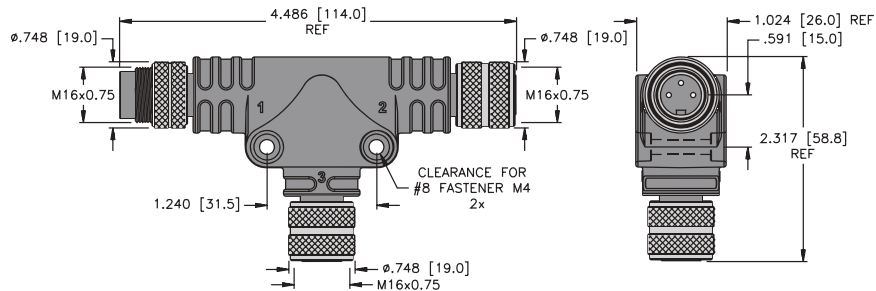
We reserve the right to make technical alterations without prior notice.

M16 powerfast

## M16 Powerfast Tee Dimensions

17

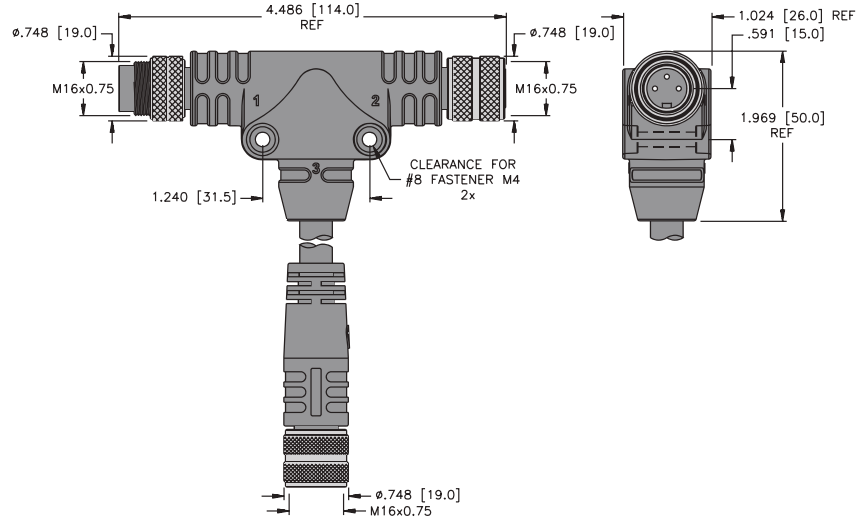
**Integral M16 Power Connector Drop  
BSM/2BKM..**



M16 Powerfast Tee Dimensions

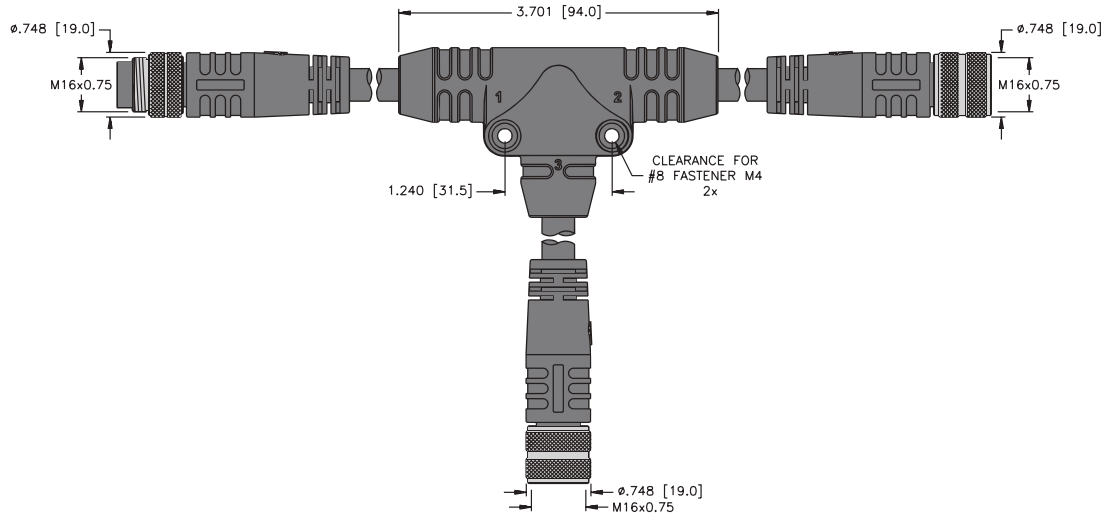
18

Cable Drop with M16 Power Connector  
BSM/2BKM..



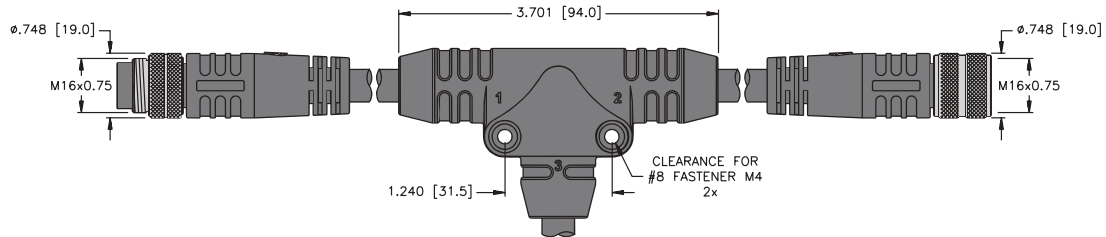
19

Cable Trunk and Cable Drop with M16 Power Connectors  
BSM/2BKM..



20

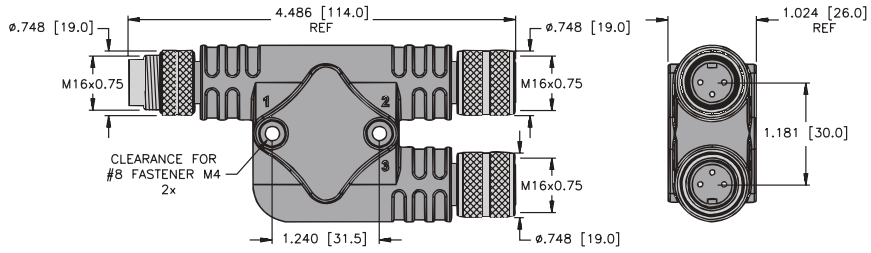
Cable Drop  
BSM/BKM/T..



M16 Powerfast h-Style Tee Dimensions

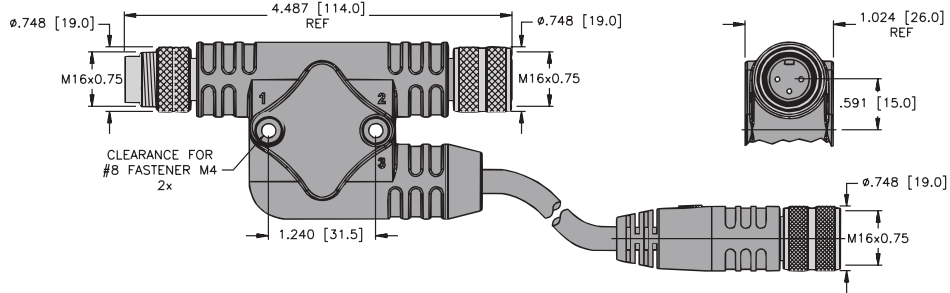
21

Integral M16 Power Connector Drop, Trunk #1 Male  
SH-BSM/2BKM..



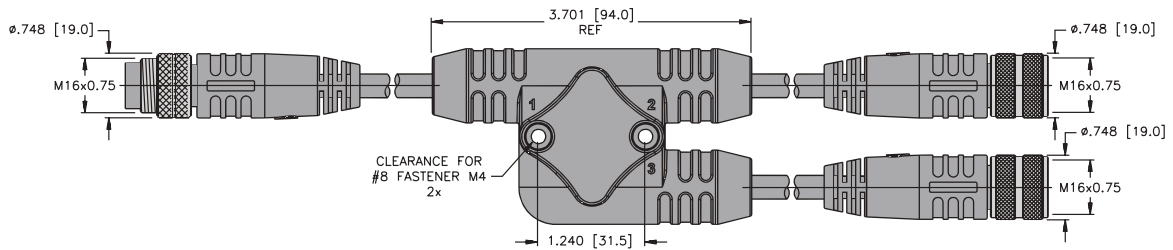
22

Cable Drop with M16 Power Connector, Trunk #1 Male  
SH-BSM/2BKM..



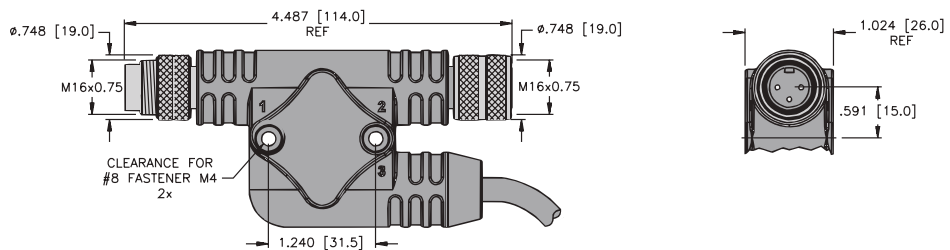
23

Cable Trunk and Cable Drop with M16 Power Connectors, Trunk #1 Male  
SH-BSM/2BKM..



24

Cable Drop, Trunk #1 Male  
SH-BSM/BKM/T..

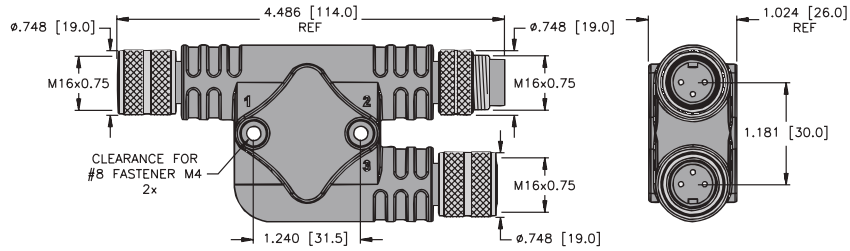


M16 powerfast

M16 Powerfast h-Style Tee Dimensions

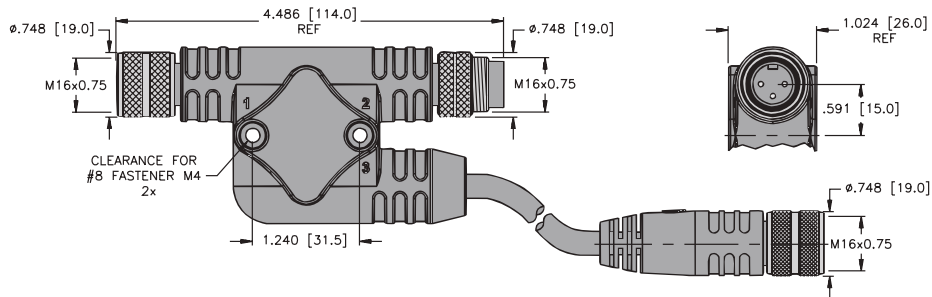
25

**Integral M16 Power Connector Drop, Trunk #2 Male  
SH-BKM/BSM/BKM..**



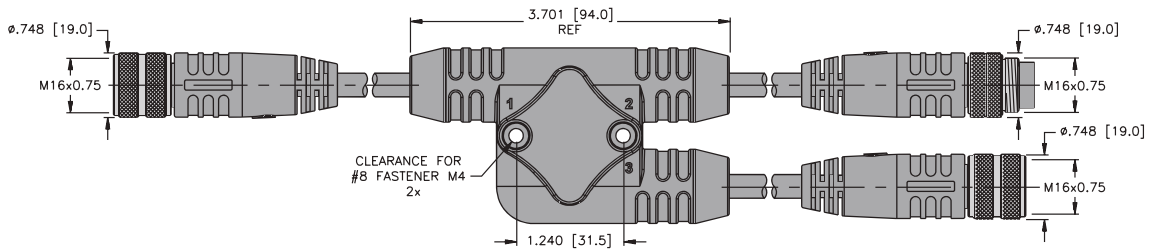
26

**Cable Drop with M16 Power Connector, Trunk #2 Male  
SH-BKM/BSM/BKM..**



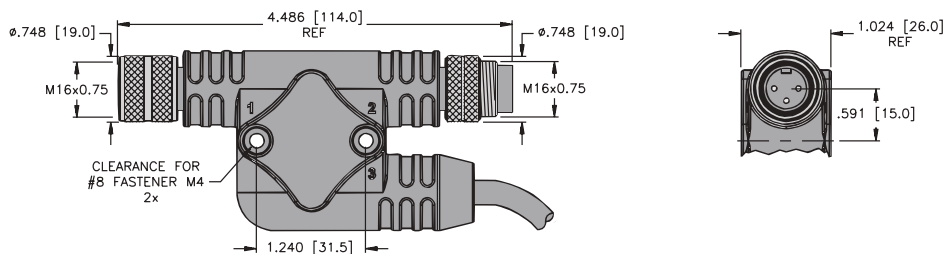
27

**Cable Trunk and Cable Drop with M16 Power Connectors, Trunk #2 Male  
SH-BKM/BSM/BKM..**



28

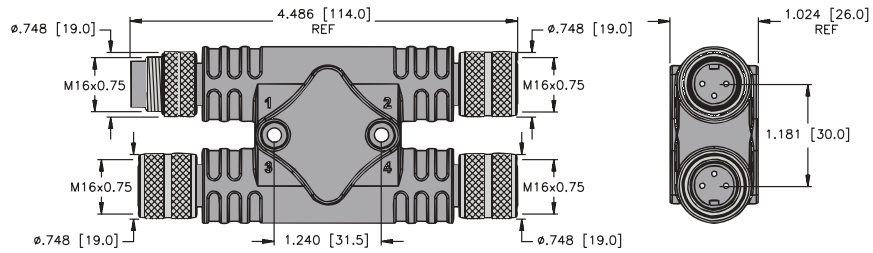
**Cable Drop, Trunk #2 Male  
SH-BKM/BSM/T..**



**M16 Powerfast H-Style Tee Dimensions**

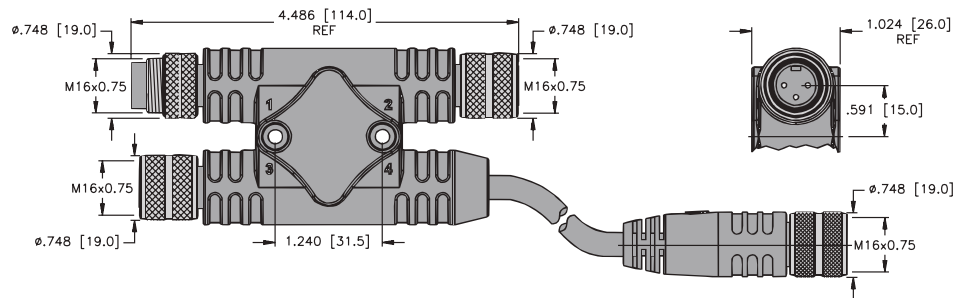
29

**Integral M16 Power Connector Drop, Trunk #1 Male  
BH-BSM/3BKM..**



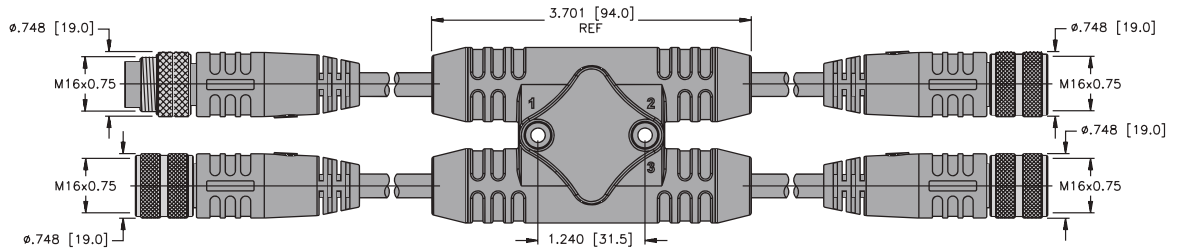
30

**Cable Drop with M16 Power Connector, Trunk #1 Male  
BH-BSM/3BKM..**



31

**Cable Trunk and Cable Drop with M16 Power Connectors, Trunk #1 Male  
BH-BSM/3BKM..**

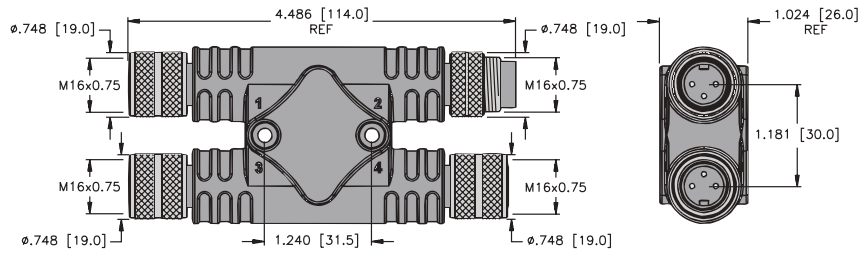


M16 powerfast

M16 Powerfast H-Style Tee Dimensions

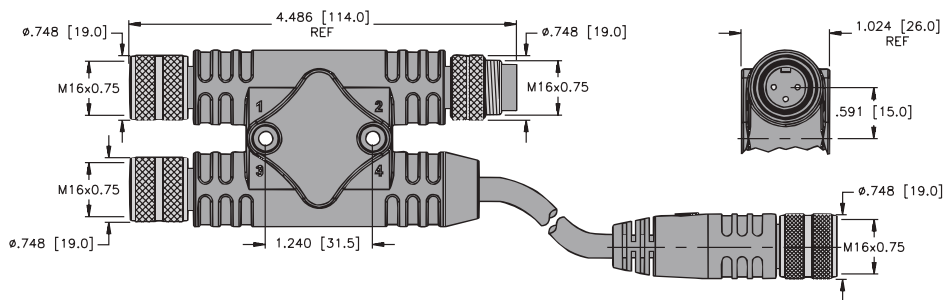
32

**Integral M16 Power Connector Drop, Trunk #2 Male  
BH-BKM/BSM/2BKM..**



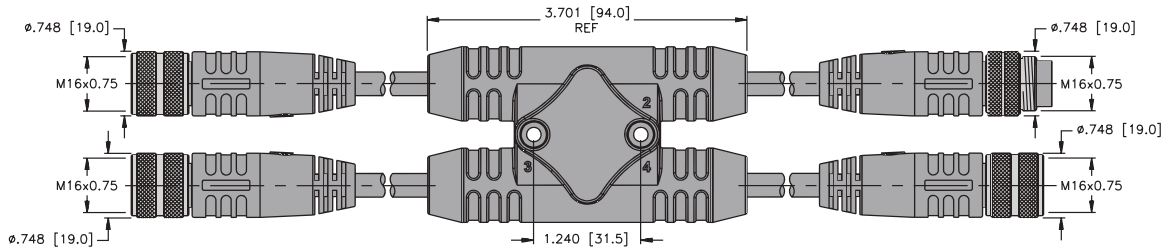
33

**Cable Drop with M16 Power Connector, Trunk #2 Male  
BH-BKM/BSM/2BKM..**

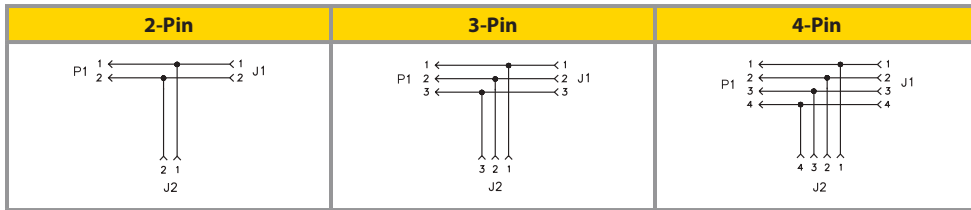


34

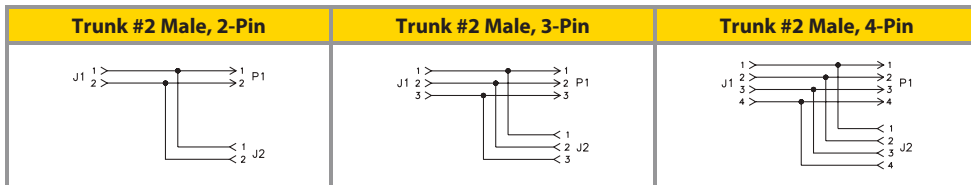
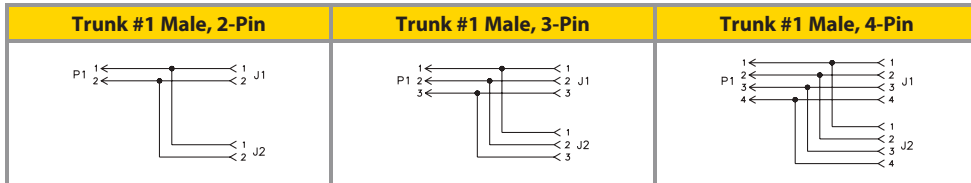
**Cable Trunk and Cable Drop with M16 Power Connectors, Trunk #2 Male  
BH-BKM/BSM/2BKM..**



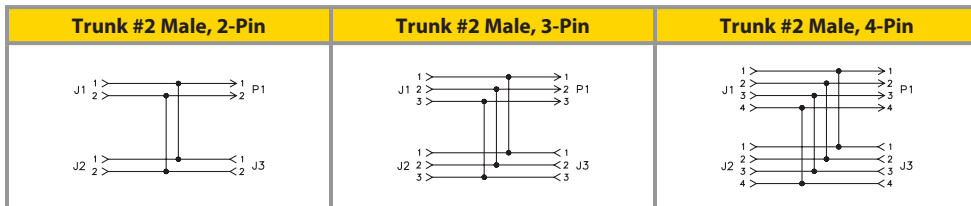
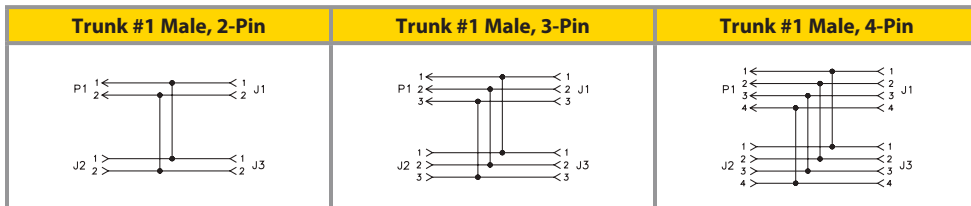
M16 Powerfast Tee Wiring Diagrams



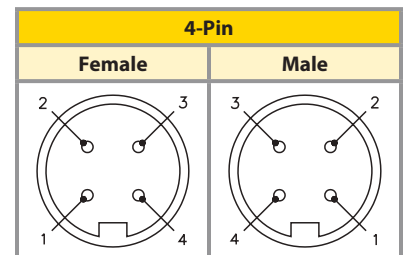
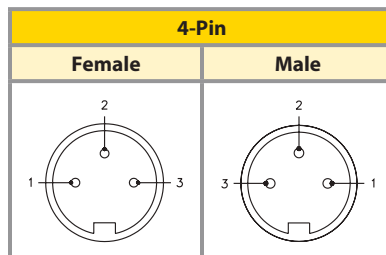
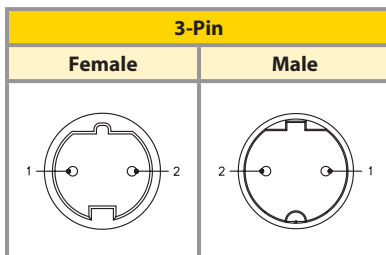
M16 Powerfast h-Style Tee Wiring Diagrams



M16 Powerfast H-Style Tee Wiring Diagrams



M16 Powerfast Tee Pinouts



M16 powerfast

## M16 Powerfast Closure Cap Selection Matrix

		35	36	37	38	39	40
		Mates to male cordsets and receptacles	Mates to female cordsets and receptacles	Mates to male receptacles	Mates to female receptacles	Mates to male cordsets and receptacles	Mates to female cordsets and receptacles
Material	Thread	6" SS Loop Lanyard	6" SS Loop Lanyard	6" SS Lanyard with Eyelet	6" SS Lanyard with Eyelet	No Lanyard	No Lanyard
Nickel Plated Brass	M16	BKM-CC	BSM-CC	BKF-CC	BSK-CC	BKM-MC	BSM-MC

See table below for dimensional drawings.

## M16 Powerfast Closure Cap Dimensions

<p><b>35 GKDM-CC</b></p>	<p><b>36 GSDM-CC</b></p>	<p><b>37 GKDF-CC</b></p>
<p><b>38 GSDF-CC</b></p>	<p><b>39 GKDM-MC</b></p>	<p><b>40 GSDM-MC</b></p>

## M16 Powerlok

Part Number	Application
LOCK-M16	Nylon locking guard for straight M16 Powerfast connectors
LOCK-M16-TEE	

M16 Powerlok Open



M16 Powerlok Closed



<b>Part Number Keys</b>	<b>J44</b>
<b>Cordset and Receptacle Specifications</b>	<b>J45</b>
<b>Cordset and Receptacle Selection Matrix</b>	<b>J46</b>
<b>Cordset and Receptacle Dimensions</b>	<b>J47</b>
<b>Cordset and Receptacle Pinouts</b>	<b>J48</b>

## Features

- Options for combination of power and signal wires in one cable
- Shielded versions available
- 6 to 9-pin
- 12 to 14 AWG conductors for power, 18 AWG conductors for signal
- Up to 30 Amp, 600 Volt rated for power
- Up to 8 Amp, 300 Volt rated for signal
- AWM or tray rated-exposed run PVC cable
- IEC IP67 protection

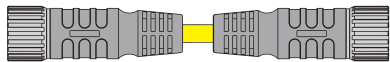


## M23 Powerfast Cordset Part Number Key

Part Number Keys are to assist in IDENTIFICATION ONLY. Consult factory for catalog items not identified.

<b>M23 (23 mm) Powerfast Cordset</b>	<b>B S M</b>	<b>34-198</b>	-	<b>*</b>	<b>/S..</b>
<b>Gender</b>					
K = female contact holder, female threads					
S = male contact holder, female threads					
SS = male contact holder, male threads					
<b>Configuration</b>					
M = straight					
WM = right angle					
(blank) = straight assembled connector					
<b>Coupling Nut Material</b>					
(blank) = nickel plated brass					
V = stainless steel					
S = shielded					
				<b>Varieties</b>	
				(blank) = PVC jacket	
				/S90 = PUR jacket	
				<b>Length in Meters</b>	
				<b>Number of Wires / AWG / Color Codes</b>	
				64-078 = 6x14 AWG WH, RD, GN, OG, BK, BU	
				74-079 = 7x14 AWG WH/BK, BK, WH, RD, OG, BU, GN	
				94-080 = 3x14 & 6X18 AWG RD, WH, WH/BK, BU, OG, BK, GN/BK, GN, RD/BK	
				622-059 = 6x12 AWG BU, RD, GN, BN, OG, YE	
				822-287 = 4x12 & 4X18 AWG BU, GN, WH, BK, OG, RD, WH/BK, RD/BK	
				622-286 = 6x12 AWG BU, RD, GN, BN, OG, YE	
				822-288 = 4x12 & 4X18 AWG BU, GN, WH, BK, OG, RD, WH/BK, RD/BK	
				<b>Insertion Point of Extension Cable Second Prefix*</b>	
				* Male connector listed first, female connector second	
				Example: <u>CSM CKM 64-078-1</u>	

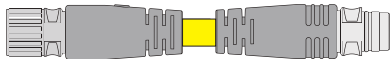
### Extension Examples



**C K M**

**C K M**

**74-079** - **\*** **/S..**



**C SS M**

**C K M**

**622-059** - **\*** **/S..**

## M23 Powerfast Receptacle Part Number Key

<b>M23 (23 mm) Powerfast Cordset</b>	<b>C K F</b>	<b>64-6</b>	-	<b>*</b>	<b>/M20</b>
<b>Gender</b>					
K = female contact holder, male threads					
S = male contact holder, male threads					
<b>Designator for Receptacle</b>					
				<b>Connection Thread</b>	
				/M20 = M20x1.5 threads	
				<b>Length in Meters</b>	
				<b>Number of Wires / AWG / Color Codes</b>	
				64-6 = 6x14 AWG WH, RD, GN, OG, BK, BU	
				74-7 = 7x14 AWG WH/BK, BK, WH, RD, OG, BU, GN	
				94-9 = 3x14 & 6X18 AWG RD, WH, WH/BK, BU, OG, BK, GN/BK, GN, RD/BK	
				622-6 = 6x12 AWG BU, RD, GN, BN, OG, YE	
				822-8 = 4x12 & 4X18 AWG BU, GN, WH, BK, OG, RD, WH/BK, RD/BK	
				<b>Number of Wires / AWG / Color Codes</b>	
				(blank) = front mount	
				D = rear mount	
				F = flange	
				MF = flange, rotating coupling nut	
				L = front mount, long threads	

**M23 Powerfast Single Keyway Cordset Specifications**

**Mechanical**

<b>Mold material/color:</b>	PUR/Black
<b>Contact carrier material:</b>	Nylon or PBT
<b>Coupling nut material:</b>	
Standard:	Nickel plated brass
Additional options:	316 stainless steel
<b>Environmental protection:</b>	IEC IP67
<b>Temperature rating:</b>	-40 °C to +105 °C (-40 °F to +221 °F)

**Electrical**

<b>Contact material:</b>	Brass with gold plating
<b>Cable jacket material/color:</b>	PVC/Yellow
<b>Ratings:</b>	
Power:	20 Amps, 300 V
Signal:	8 Amps, 150 V

**M23 Powerfast 3-Key Cordset Specifications**

**Mechanical**

<b>Mold material/color:</b>	PUR/Black
<b>Contact carrier material:</b>	Nylon or PBT
<b>Coupling nut material:</b>	
Standard:	Nickel plated brass
<b>Environmental protection:</b>	IEC IP67
<b>Temperature rating:</b>	-40 °C to +90 °C (-40 °F to +194 °F)

**Electrical**

<b>Contact material:</b>	Brass with gold plating
<b>Cable jacket material/color:</b>	TC-ER PVC/Yellow
<b>Ratings:</b>	
Power:	30 Amps, 600 V
Signal:	9 Amps, 300 V

**M23 Powerfast Single Keyway Receptacle Specifications**

**Mechanical**

<b>Contact carrier material:</b>	Nylon or PBT
<b>Housing material/plating:</b>	
Standard:	Nickel plated brass
Additional options:	316 stainless steel
<b>Environmental protection:</b>	IEC IP67
<b>Temperature rating:</b>	-30 to +90 °C (-40 °F to +194 °F)

**Electrical**

<b>Contact material:</b>	Brass with gold plating
<b>Conductor insulation:</b>	PVC
<b>Ratings:</b>	
Power:	20 Amps, 300 V
Signal:	8 Amps, 150 V

**M23 Powerfast 3-Key Receptacle Specifications**

**Mechanical**

<b>Contact carrier material:</b>	Nylon or PBT
<b>Housing material/plating:</b>	
Standard:	Zinc die-cast, chromated
<b>Environmental protection:</b>	IEC IP67
<b>Temperature rating:</b>	-30 to +80 °C (-40 °F to +176 °F)

**Electrical**

<b>Contact material:</b>	Brass with gold plating
<b>Conductor insulation:</b>	PVC
<b>Ratings:</b>	
Power:	30 Amps, 600 V
Signal:	9 Amps, 300 V

We reserve the right to make technical alterations without prior notice.

M23 powerfast

## M23 Powerfast Single Keyway Cordset Selection Matrix

			1	2	3
			Straight Female	Straight Male	Straight Male
Pins	AWG	Current Rating	Single Keyway	Single Keyway	Single Keyway
6	14	20 Amps	CKM 64-078-*	CSM 64-078-*	CSSM 64-078-*
7	14	20 Amps	CKM 74-079-*	CSM 74-079-*	CSSM 74-079-*
9	3x14; 6x18	8 Amps (1-3,5,7,9), 20 Amps (4,6,8)	CKM 94-080-*	CSM 94-080-*	CSSM 94-080-*

## M23 Powerfast 3-Key Cordset Selection Matrix

			4	5	6	7
			Straight Female	Straight Male	Right Angle Female	Right Angle Male
Pins	AWG	Current Rating	3-Key	3-Key	3-Key	3-Key
6	12	30 Amps	CKM 622-059-*	CSSM 622-059-*	CKWM 622-059-*	CSSWM 622-059-*
8	4x12; 4x18	9 Amps (A-D), 30 Amps (1-4)	CKM 822-287-*	CSSM 822-287-*	CKWM 822-287-*	CSSWM 822-287-*

Pins	AWG	Current Rating	Shielded 3-Key	Shielded 3-Key	Shielded 3-Key	Shielded 3-Key
6	12	30 Amps	CKMS 622-286-*	CSSMS 622-286-*	CKWMS 622-286-*	CSSWMS 622-286-*
8	4x12; 4x18	9 Amps (A-D), 30 Amps (1-4)	CKMS 822-288-*	CSSMS 822-288-*	CKWMS 822-288-*	CSSWMS 822-288-*

We reserve the right to make technical alterations without prior notice.

## M23 Powerfast Single Keyway Receptacle Selection Matrix

			8	9	10	11
			Female	Male	Female	Male
Pins	AWG	Current Rating	M20 Mount, Standard Thread	M20 Mount, Standard Thread	M20 Mounting, Long Thread	M20 Mounting, Long Thread
6	14	20 Amps	CKF 64-6-*	CSF 64-6-*	CKFL 64-6-*	CSFL 64-6-*
7	14	20 Amps	CKF 74-7-*	CSF 74-7-*	CKFL 74-7-*	CSFL 74-7-*
9	3x14; 6x18	8 Amps (1-3,5,7,9), 20 Amps (4,6,8)	CKF 94-9-*	CSF 94-9-*	CKFL 94-9-*	CSFL 94-9-*

## M23 Powerfast 3-Key Receptacle Selection Matrix

			12	13	14	15
			Female	Male	Female	Male
Pins	AWG	Current Rating	Flange Mount	Flange Mount	M20 Mounting Thread	M20 Mounting Thread
6	12	30 Amps	CKFMF 622-6-*	CSFF 622-6-*	CKFMF 622-6-*/M20	CSFF 622-6-*/M20
8	4x12; 4x18	9 Amps (A-D), 30 Amps (1-4)	CKFMF 822-8-*	CSFF 822-8-*	CKFMF 822-8-*/M20	CSFF 822-8-*/M20

See pages 47-48 for dimensional drawings.

\* Length in meters. Standard cable lengths are 2, 5 and 10 meters. Standard lead length is 0.5 meters. Consult factory for other lengths.

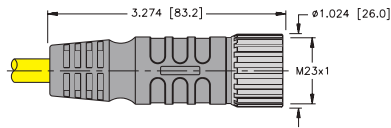
Note: Extension cables are available, please consult Part Number Key (page 42).

Standard coupling nut and housing material is nickel plated brass. Consult Part Number Key (page 42) for 316 stainless steel options.

**M23 Powerfast Single Keyway Cordset Dimensions**

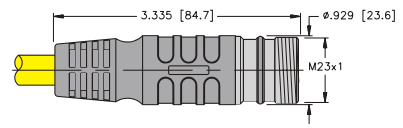
1 & 2

**CKM (CSM)..**



3

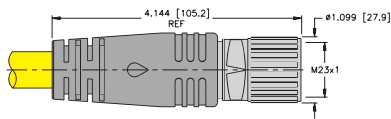
**CSSM..**



**M23 Powerfast 3-Key Cordset Dimensions**

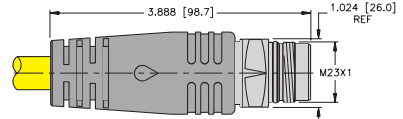
4

**CKM..**



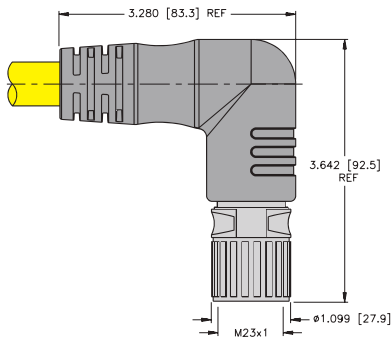
5

**CSSM..**



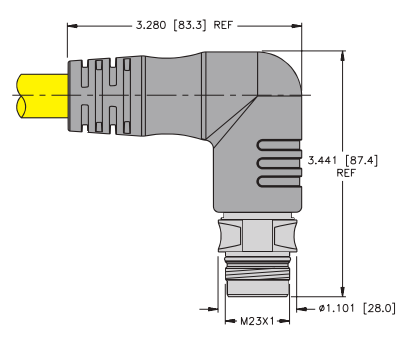
6

**CKWM..**



7

**CSSWM..**

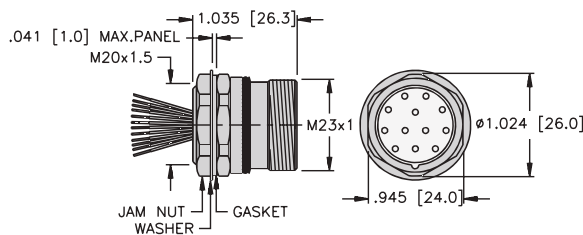


M23 powerfast

**M23 Powerfast Single Keyway Receptacle Dimensions**

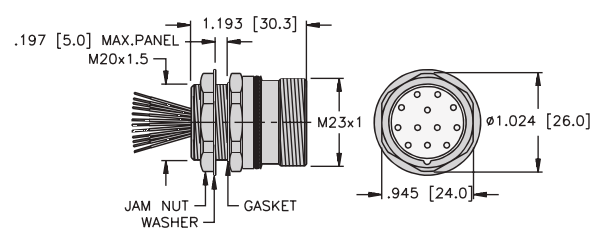
8 & 9

**CKF (CSF)..**

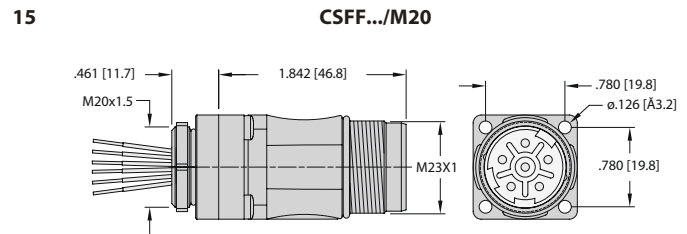
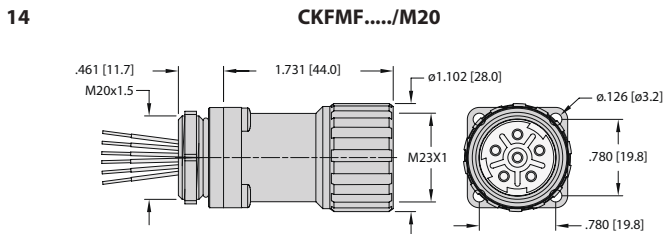
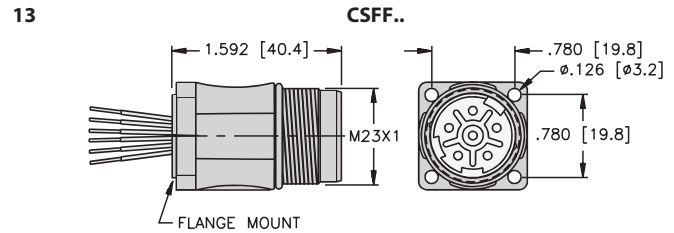
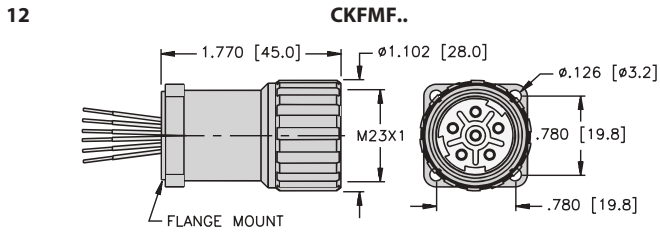


10 & 11

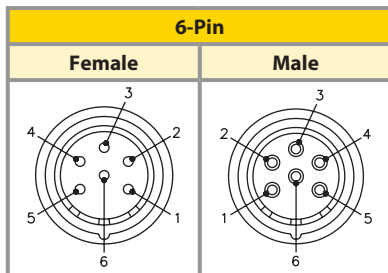
**CKFL (CSFL) ..**



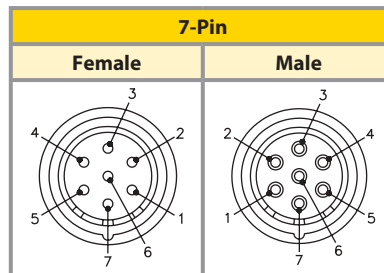
## M23 Powerfast 3-Key Receptacle Dimensions



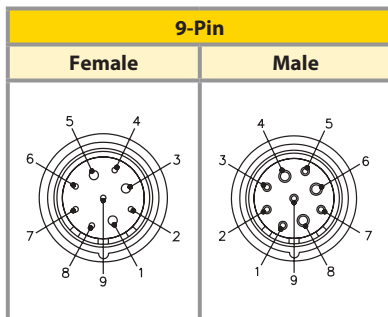
## M23 Powerfast Single Keyway Cordset and Receptacle Pinouts



- Pinouts**
1. WH
  2. RD
  3. GN
  4. OG
  5. BK
  6. BU

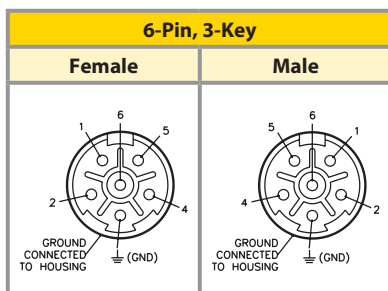


- Pinouts**
1. WH/BK
  2. BK
  3. WH
  4. RD
  5. OG
  6. BU
  7. GN

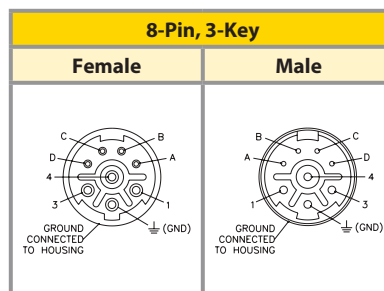


- Pinouts**
1. RD
  2. WH
  3. WH/BK
  4. BU
  5. OG
  6. BK
  7. GN/BK
  8. GN
  9. RD/BK

## M23 Powerfast 3-Key Cordset and Receptacle Pinouts



- Pinouts**
1. BU
  2. RD
  3. GN
  4. BN
  5. OG
  6. YE



- Pinouts**
1. BU
  2. GN
  3. WH
  4. BK
  - A. OG
  - B. RD
  - C. WH/BK
  - D. RD/BK

<b>Part Number Keys</b>	<b>J50</b>
<b>Cordset and Receptacle Specifications</b>	<b>J51</b>
<b>Cordset and Receptacle Selection Matrix</b>	<b>J51</b>
<b>Cordset and Receptacle Dimensions</b>	<b>J52</b>
<b>Cordset and Receptacle Pinouts</b>	<b>J52</b>
<b>h-Style Tee, Jumper Plug and Extension Specifications</b>	<b>J53</b>
<b>h-Style Tee, Jumper Plug and Extension Matrix</b>	<b>J54</b>
<b>h-Style Tee, Jumper Plug and Extension Dimensions</b>	<b>J55</b>
<b>h-Style Tee, Jumper Plug and Extension Pinouts</b>	<b>J55</b>

**Features**

- Options for combination of power & signal wires in one cable
- 8 AWG conductors for power
- 14 AWG and 18 AWG conductor options for signal
- Up to 35 Amp, 250 and 600 volt rated





M40 Powerfast Cordset Specifications

Mechanical

<b>Mold material/color:</b>	Polyamide/Black
<b>Contact carrier material:</b>	Nylon
<b>Coupling nut material</b>	Nickel plated brass
<b>Environmental protection:</b>	IEC IP67
<b>Temperature rating:</b>	-40 °C to +90 °C (-40 °F to +194 °F)

Electrical

<b>Contact material:</b>	Brass or copper with gold plating
<b>Cable jacket material/color:</b>	TC-ER PVC
<b>Ratings:</b>	
Power:	35 Amps, 600 VAC
Signal:	4-9 Amps, 250 VAC



M40 Powerfast Receptacle Specifications

Mechanical

<b>Contact carrier material:</b>	Nylon
<b>Housing material/plating:</b>	Nickel plated brass
<b>Environmental protection:</b>	IEC IP67
<b>Temperature rating:</b>	-40 °C to +105 °C (-40 °F to +221 °F)

Electrical

<b>Contact material:</b>	Brass or copper with gold plating
<b>Conductor insulation:</b>	PVC
<b>Ratings:</b>	
Power:	35 Amps, 600 VAC
Signal:	4-9 Amps, 250 VAC



M40 Powerfast Cordset Selection Matrix

Front Mount			1	2	3	4
Pins	AWG	Current Rating	Straight Female	Straight Male	Right Angle Female	Right Angle Male
4	8	35 Amps	HKM 4800-1279-*	HSM 4800-1279-*	HKWM 4800-1279-*	HSWM 4800-1279-*
6	4x8; 2x14	35 Amps (8 AWG), 9 Amps (14 AWG)	HKM 4824-1884-*	HSM 4824-1884-*	HKWM 4824-1884-*	HSWM 4824-1884-*
8	4x8; 4x18	35 Amps (8 AWG), 4 Amps (18 AWG)	HKM 4848-1314-*	HSM 4848-1314-*	HKWM 4848-1314-*	HSWM 4848-1314-*

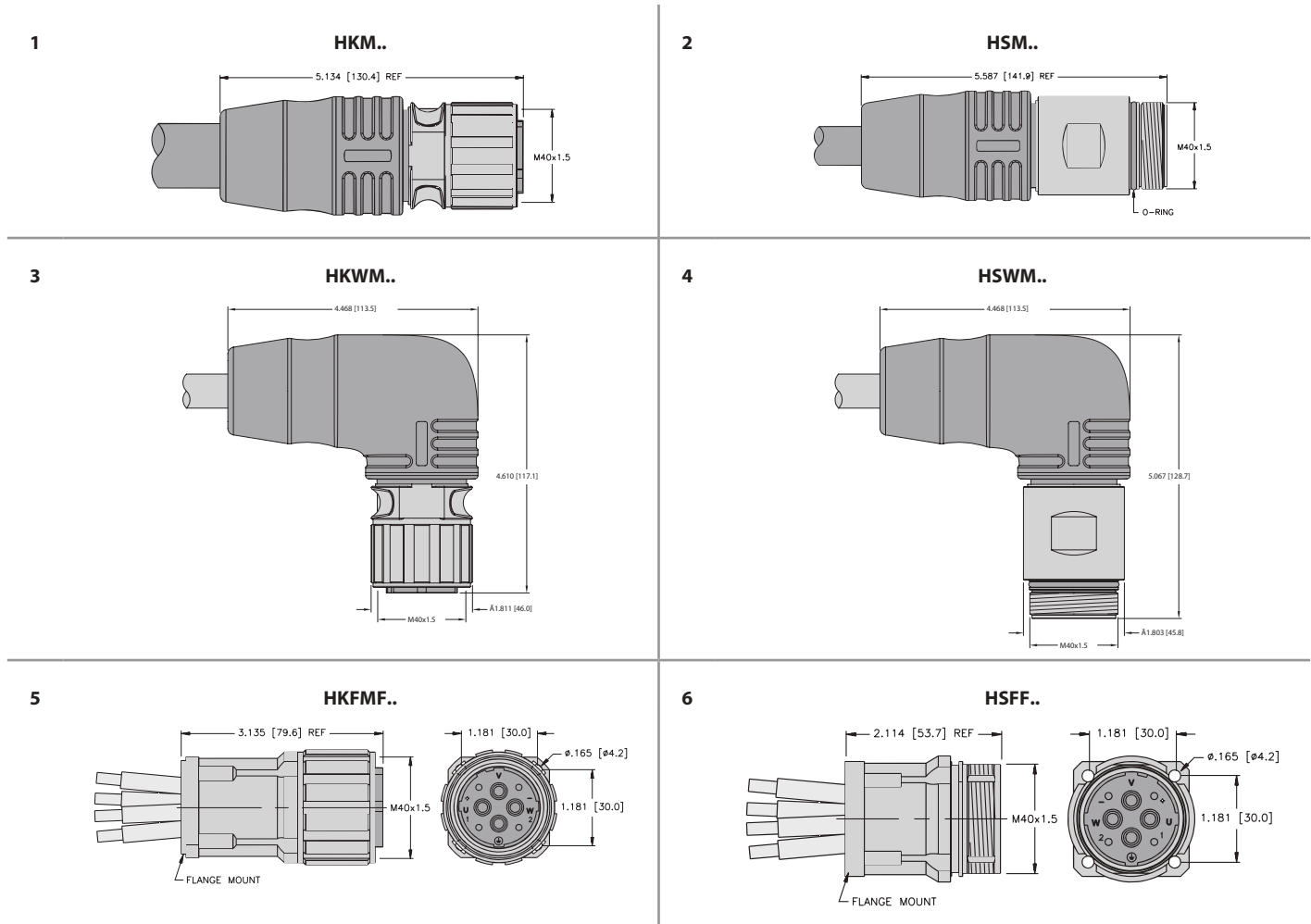
M40 Powerfast Receptacle Selection Matrix

Front Mount			5	6
Pins	AWG	Current Rating	Female Flange Mount	Male Flange Mount
4	8	35 Amps	HKFMF 4800-*	HSFF 4800-*
6	4x8; 2x14	35 Amps (8 AWG), 9 Amps (14 AWG)	HKFMF 4824-*	HSFF 4824-*
8	4x8; 4x18	35 Amps (8 AWG), 4 Amps (18 AWG)	HKFMF 4848-*	HSFF 4848-*

We reserve the right to make technical alterations without prior notice.

M40 powerfast

## M40 Powerfast Cordset and Receptacle Dimensions



## M40 Powerfast Cordset and Receptacle Pinouts

4-Pin		Pinouts	6-Pin		Pinouts
Female	Male		Female	Male	
		V. WH U. BK W. RD ±. GN +. N/C -. N/C 1. N/C 2. N/C			V. Black V U. Black U W. Black W ±. GN/YE +. BU/YE "+" -. BU/YE "-"
			V. WH U. BK W. RD ±. GN +. BK -. BU 1. WH 2. BN		

**M40 Powerfast h-Style Tee Specifications**

**Mechanical**

<b>Mold material/color:</b>	Polyamide/Black
<b>Contact carrier material:</b>	Nylon
<b>Coupling nut material</b>	Nickel plated brass
<b>Environmental protection:</b>	IEC IP67
<b>Temperature rating:</b>	-40 °C to +90 °C (-40 °F to +194 °F)

**Electrical**

<b>Contact material:</b>	Brass or copper with gold plating
<b>Ratings:</b>	
Power:	35 Amps, 600 VAC
Signal:	9 Amps, 250 VAC



**M40 Powerfast Jumper Plug Specifications**

**Mechanical**

<b>Mold material/color:</b>	Polyamide/Black
<b>Contact carrier material:</b>	Nylon
<b>Coupling nut material</b>	Nickel plated brass
<b>Environmental protection:</b>	IEC IP67
<b>Temperature rating:</b>	-40 °C to +90 °C (-40 °F to +194 °F)

**Electrical**

<b>Contact material:</b>	Brass or copper with gold plating
<b>Ratings:</b>	
Power:	35 Amps, 600 VAC
Signal:	9 Amps, 250 VAC



**M40 Powerfast to Harting Connector Specifications**

**Mechanical**

<b>Mold material/color:</b>	
M40 connector:	Polyamide/Black
<b>Hood material/color:</b>	
Harting connector:	Zinc die-cast/Black (Harting)
<b>Contact carrier material:</b>	
M40 connector:	Nylon
Harting connector:	Polycarbonate
<b>Coupling nut material:</b>	
M40 connector:	Nickel plated brass
<b>Environmental protection:</b>	
M40 connector:	IEC IP67
Harting connector:	IEC IP65
<b>Temperature rating:</b>	-40 °C to +90 °C (-40 °F to +194 °F)

**Electrical**

<b>Contact material:</b>	
M40 connector:	Brass or copper with gold plating
Harting connector:	Copper alloy with gold over silver plating
<b>Cable jacket material:</b>	
Standard:	TC-ER STOOW PVC
Additional options:	TC-ER PVC (/S4000 version)
<b>Ratings:</b>	20 Amps, 600 VAC

We reserve the right to make technical alterations without prior notice.

M40 powerfast

**M40 Powerfast h-Style Tee Selection Matrix**



Pins	Drop AWG	Trunk Current Rating	Drop Current Rating	Integral M40 Connector Drop
6	4x8; 2x14	35 Amps (8 AWG), 6 Amps (14 AWG)	35 Amps (8 AWG), 9 Amps (14 AWG)	SH-HSM/2 HKM 4824

**M40 Powerfast Jumper Plug Selection Matrix**



Pins	AWG	Current Rating	Male
6	4x8; 2x14	35 Amps (8 AWG), 9 Amps (14 AWG)	HSM 4824/J+ -

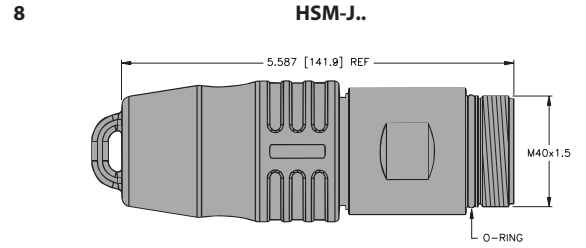
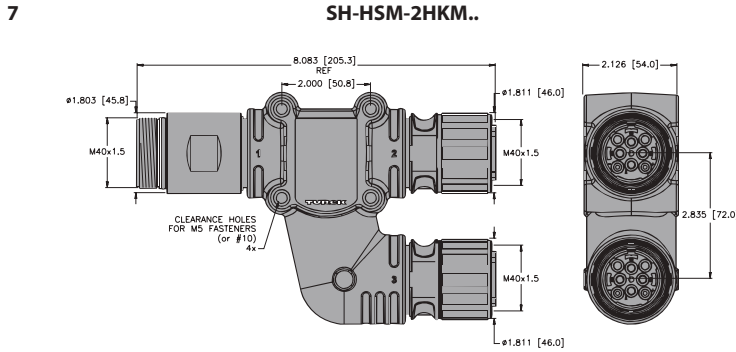
**M40 Powerfast to Harting Connector Selection Matrix**



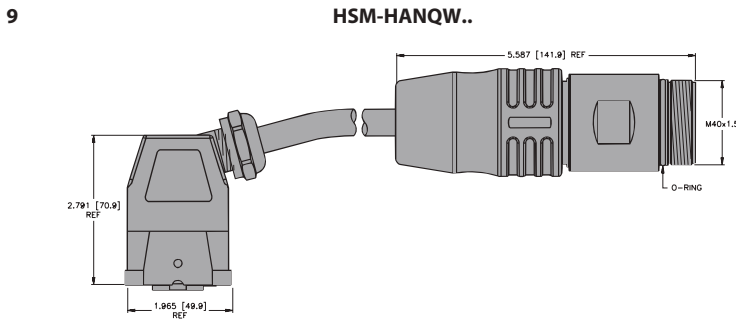
Pins	AWG	Current Rating	TC-ER	TC-ER STOOW
6	4x8; 2x14	20 Amps (12 AWG), 9 Amps (14 AWG)	HSM 40 HANQW4/2-1850-*/S4000	HSM 40 HANQW4/2-1668-*

We reserve the right to make technical alterations without prior notice.

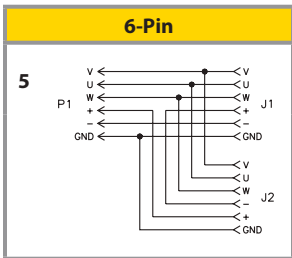
M40 Powerfast h-Style Tee and Jumper Plug Receptacle Dimensions



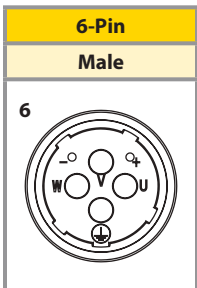
M40 Powerfast to Harting Receptacle Dimensions



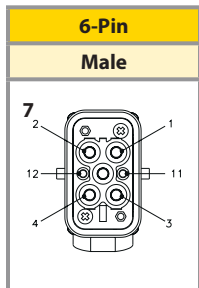
M40 Powerfast h-Style Wiring Diagram



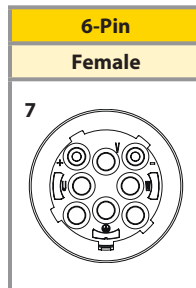
M40 Powerfast Jumper Plug and M40 Powerfast to Harting Connector Pinouts



Pinouts
V. N/C
U. N/C
W. N/C
±. N/C
+. Jumper to "-"
-. Jumper to "+"



Pinouts
1. RD
2. WH
3. BK
±. GN
4. N/C
11. N/C
12. N/C



Pinouts
U. RD
V. WH
W. BK
±. GN
+. Jumper to "-"
-. Jumper to "+"



<b>Part Number Keys</b>	<b>K3</b>
<b>Cordsets</b>	<b>K6</b>
<b>Receptacles</b>	<b>K13</b>
<b>EtherNet/IP Cordsets</b>	<b>K16</b>
<b>Field Wireables</b>	<b>K23</b>

## Features

- CAT 5e rated cables
- 2 pair and 4 pair cable option
- 8-pin and 4-pin D-coded connectors
- M12 and RJ45 connectors
- Up to 4 Amp and 250 Volt rated
- IP67/IP69K rated



## System Description

Ethernet is the most popular protocol used to connect office computers and peripherals today. It is increasingly finding its way into other applications, and is rapidly becoming the network of choice for higher level industrial control applications. Ethernet is primarily used to connect PLCs, computers, HMI displays and other high level components.

The term “Ethernet” actually refers to the lower level communication structure. Various different versions, or implementations, of Ethernet are available, such as EtherNet/IP™ and Modbus-TCP. It is important to note that while all of these different specifications use the same physical communication method and can operate on the same cable simultaneously, they cannot necessarily communicate with each other. For example, Modbus-TCP devices cannot communicate with EtherNet/IP devices. This is because the messages and communication protocol have been defined differently for these systems, even though the physical electrical structure is the same. Think of it as two people who speak different languages; they speak by moving air with their mouths, but the rules of the languages are different.

Turck’s BL67 Ethernet gateways provide a convenient way to connect industrial I/O devices directly to the Ethernet system, expediting monitoring and troubleshooting for the overall control scheme.

## Typical System Configuration

### Basic Parts List

A typical Ethernet system consists of the following parts:

- Controller
- Ethernet I/O modules
- Power supply
- Switches
- Ethernet cable

Ethernet I/O modules act as clients on a network. A server device is needed to retrieve data from and post data to the client. This is analogous to an office network, where the client PC on a user’s desk may actively connect with multiple servers to access information in different areas of the enterprise. Turck Ethernet stations are designed to be fully compatible with established Ethernet standards for industrial use.

## Cordsets

Turck offers a complete line of molded Ethernet cordsets to facilitate network installation, resulting in a faster start-up and fewer wiring errors. Cables are available with stranded or solid-core conductors, with or without shielding.

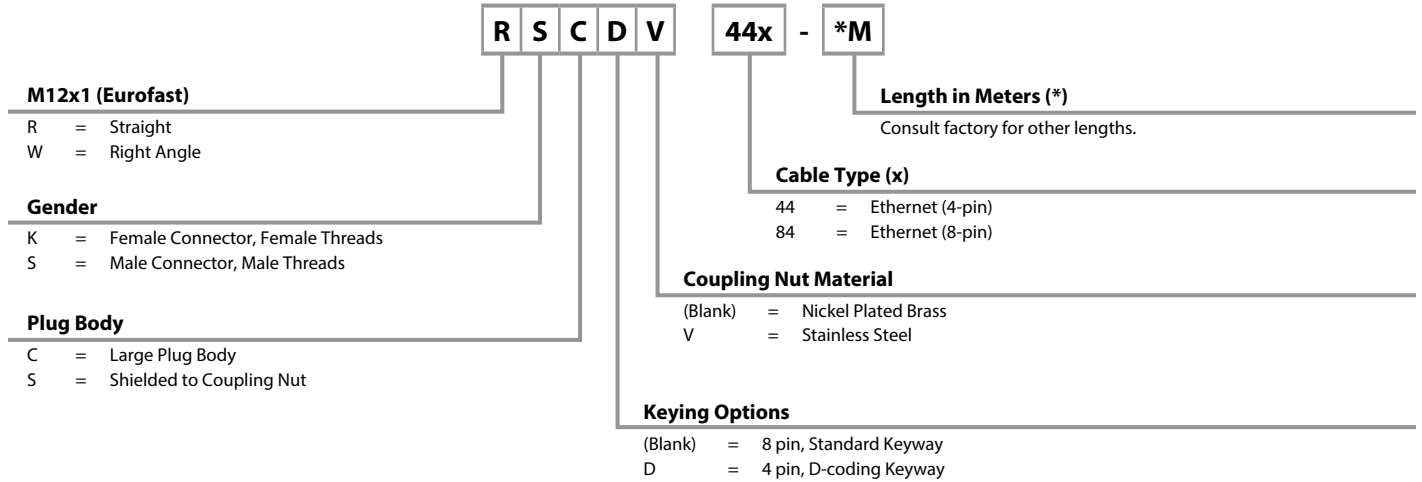
Most Turck Ethernet equipment uses the 4 or 8-pin (M12) Eurofast® connector specifications. These connectors provide a tough, rugged seal, and are IP 67 rated. In some cases (mainly in the control cabinet) a traditional RJ45 Ethernet connector needs to be used. Turck provides RJ45 cordsets, as well as a variety of devices made to convert between RJ45 and Eurofast connectors. Turck cordsets for the Ethernet system are available in standard lengths. Please contact your local sales representative to order custom lengths.

## Maximum Lengths Ratings

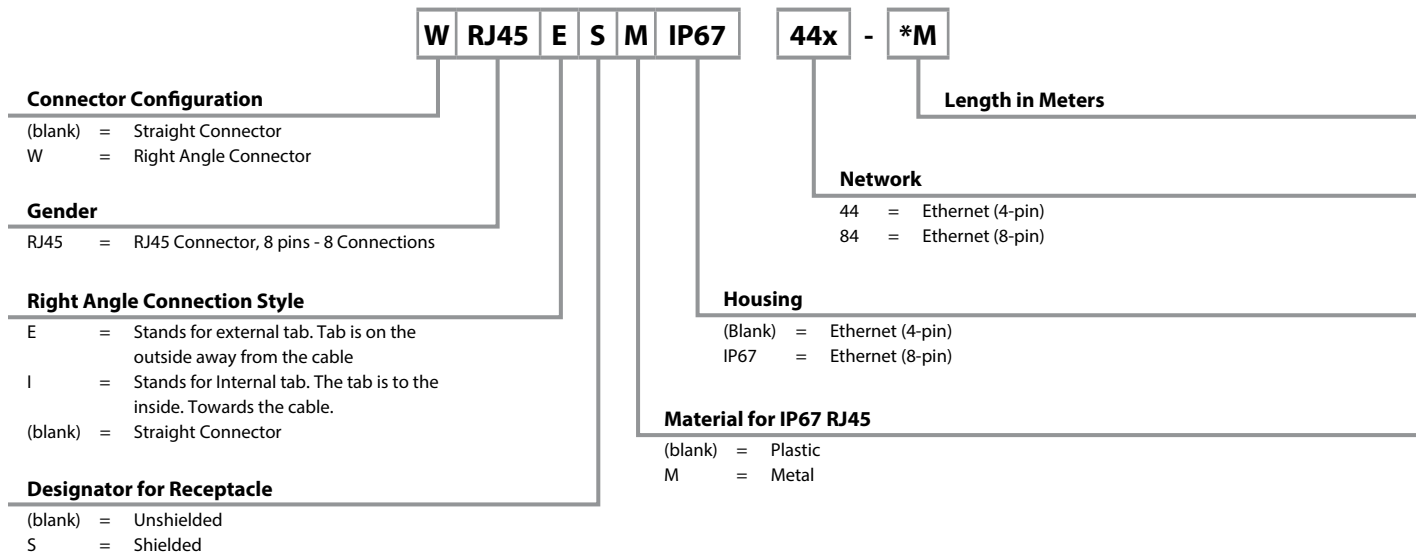
Ethernet allows different maximum cable lengths depending on the type of cable being used. An Ethernet segment may be as long as 100 m, with up to 90 m solid core cable and the remaining 10 m can be stranded patch cords.

## Eurofast® Cordset Part Number Key

Part Number Keys are to assist in IDENTIFICATION ONLY. Consult factory for catalog items not identified.



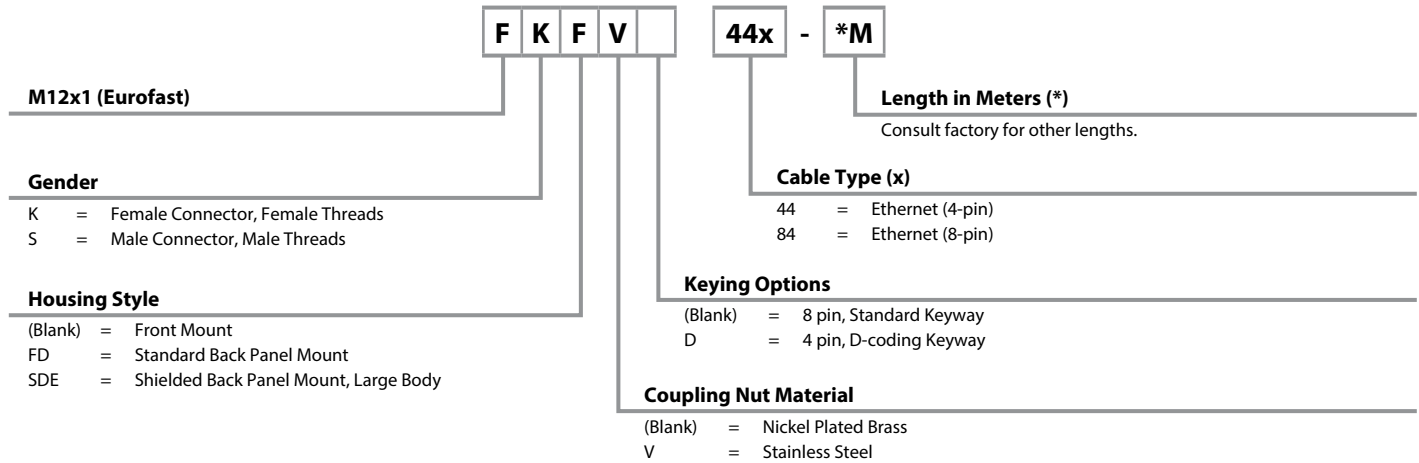
## RJ45 Network Cordsets Part Number Key



# Ethernet Physical Media Connectivity

## Eurofast® Receptacle Part Number Key

Part Number Keys are to assist in IDENTIFICATION ONLY. Consult factory for catalog items not identified.



## Ethernet, Cable Specifications, 8-wire

- Cable that meets the requirements of TIA/EIA568-C.2 Category 5e Cable for 10 and 100 Base-T Ethernet
- Cable is UL Rated for Sunlight and Oil Resistant



We reserve the right to make technical alterations without prior notice.

Type	Approvals	Data Pair		Outer Jacket Material Color Nominal O.D.	Shields Type	Bulk Cable Part Number / Weight/300 M	Flexlife Ratings
		AWG Color Code	DCR (/1000 feet) Insulation				
<b>840</b> 80 °C, 600 V	c(UL)us Type CM AWM	4UTPx24 AWG Stranded	26.5 Ohms PE	TPE Teal 6.3 mm (.118 in)	-	RB51460-*M 29 lbs. Flexlife®	10xO.D. 1 million cycles 20xO.D. 10 million cycles
<b>841</b> 80 °C, 600 V	c(UL)us Type CM AWM	4UTPx24 AWG Stranded	26.5 Ohms PE	TPE Teal 7.7 mm (.303 in)	Foil/Braid	RB50893-*M 43 lbs. Flexlife	10xO.D. 1 million cycles 20xO.D. 10 million cycles
<b>842</b> 75 °C, 300 V	c(UL)us Type CM AWM	4UTPx24 AWG Solid	31.5 Ohms PE	TPE Teal 6.1 mm (.240 in)	-	RB51462-*M 26 lbs.	-
<b>843</b> 80 °C, 600 V	c(UL)us Type CM AWM	4UTPx24 AWG Solid	28.6 Ohms PE	TPE Teal 7.3 mm (.287 in)	Foil/Braid	RB51463-*M 41 lbs.	-
<b>849A</b> AWM 444 75 °C, 300 V	NEC CM IAA CMG, FT4	4UTPx24 AWG Solid	27.5 Ohms PO	PVC Black 14.1 mm (.555 in)	Foil/Braid Armor	RB51100-*M 100 lbs. Armorfast®	-

\* Indicates length in meters.

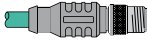
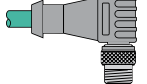
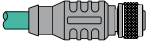
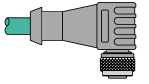
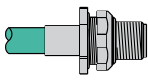


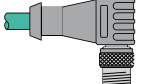
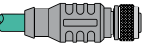
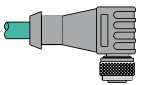

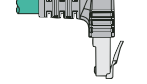
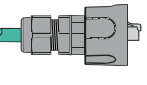
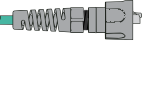
Standard spool lengths are 30, 75, 100, 150, 200, 225, 300 meters. Consult factory for other lengths.

†† 1 million cycles at 1.5" bend radius.

††† 2 million cycles at 2.5" bend radius.

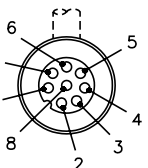
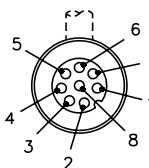
# Ethernet Physical Media Connectivity

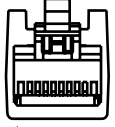
## Ethernet, (M12x1) Eurofast®, RJ45, Cable/Cordset Selection Matrix - Unshielded

		Eurofast					
		Male		Female		Male	
		1 	2 	3 	4 	5 	
		RSC	WSC	RKC	WKC	FSFD	
		Bare	RSC 84x-*M	WSC 84x-*M	RKC 84x-*M	WKC 84x-*M	FSFD 84x-*M
Eurofast	Male	1 	RSC RSC 84x-*M	RSC WSC 84x-*M	RSC RKC 84x-*M	RSC WKC 84x-*M	RSC FSFD 84x-*M
		2 	WSC RSC 84x-*M	WSC WSC 84x-*M	WSC RKC 84x-*M	WSC WKC 84x-*M	WSC FSFD 84x-*M
	Female	3 			RKC RKC 84x-*M		RKC FSFD 84x-*M
		4 			RKC WKC 84x-*M	WKC WKC 84x-*M	WKC FSFD 84x-*M
RJ45	RJ45 Plug	9 					RJ45 FSFD 84x-*M
	WRJ45 Plug	10 					WRJ45E FSFD 84x-*M
	RJ45M IP67 Plug	11 					RJ45MIP67 FSFD 84x-*M
	RJ45 IP67 Plug	12 					RJ45IP67 FSFD 84x-*M

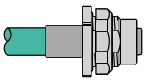

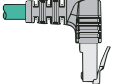


We reserve the right to make technical alterations without prior notice.

See pages K10 - K11 for dimensional drawings.

Eurofast	Pinouts	Eurofast
Male	1. White/Blue 2. White/Brown 3. Brown 4. Orange 5. White/Green 6. White/Orange 7. Blue 8. Green	Female
		

Standard Pinout	RJ45 Plug	(CR) Pinout
1. White/Orange 2. Orange 3. White/Green 4. Blue 5. White/Blue 6. Green 7. White/Brown 8. Brown	Male  12345678	1. White/Green 2. Green 3. White/Orange 4. Blue 5. White/Blue 6. Orange 7. White/Brown 8. Brown

## Ethernet, (M12x1) Eurofast®, RJ45, Cable/Cordset Selection Matrix - Unshielded

Eurofast	RJ45			
Female	RJ45 Plug	WRJ45 Plug	RJ45M IP67 Plug	RJ45 IP67 Plug
<b>6</b>  FKFD	<b>9</b>  RJ45	<b>10</b>  WRJ45E	<b>11</b>  RJ45MIP67	<b>12</b>  RJ45IP67
FKFD 84x-*M	RJ45 84x-*M	WRJ45E 84x-*M	RJ45MIP67 84x-*M	RJ45IP67 84x-*M
RSC FKFD 84x-*M	RSC RJ45 84x-*M	RSC WRJ45E 84x-*M	RSC RJ45MIP67 84x-*M	RSC RJ45IP67 84x-*M
WSC FKFD 84x-*M	WSC RJ45 84x-*M	WSC WRJ45E 84x-*M	WSC RJ45MIP67 84x-*M	WSC RJ45IP67 84x-*M
RKC FKFD 84x-*M	RKC RJ45 84x-*M	RKC WRJ45E 84x-*M	RKC RJ45MIP67 84x-*M	RKC RJ45IP67 84x-*M
WKC FKFD 84x-*M	WKC RJ45 84x-*M	WKC WRJ45E 84x-*M	WKC RJ45MIP67 84x-*M	WKC RJ45IP67 84x-*M
RJ45 FKFD 84x-*M	RJ45 RJ45 84x-*M		RJ45 RJ45MIP67 84x-*M	RJ45 RJ45IP67 84x-*M
WRJ45E FKFD 84x-*M	WRJ45E RJ45 84x-*M	WRJ45E WRJ45E 84x-*M	WRJ45 RJ45MIP67 84x-*M	WRJ45E RJ45IP67 84x-*M
RJ45MIP67 FKFD 84x-*M			RJ45MIP67 RJ45MIP67 84x-*M	RJ45MIP67 RJ45IP67 84x-*M
RJ45IP67 FKFD 84x-*M			RJ45IP67 RJ45MIP67 84x-*M	RJ45IP67 RJ45IP67 84x-*M

See pages K10 - K11 for dimensional drawings.

\* Indicates length in meters.

x Indicates cable type.

Standard cable lengths are 1, 2, 4, 6, 8, 10, 15, and in +5 meter increments from there. Consult factory for other lengths.

For stainless steel coupling nuts change part number RSC ... to RSCV, FKFD ... to FKFDV.

For cross-over cable, add "CR" to part number RJ45 RJ45 CR 84x-\*M.

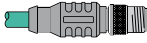
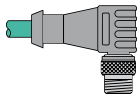
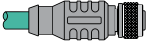
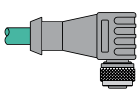

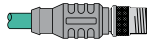
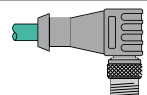

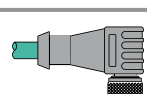

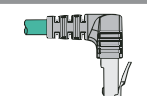
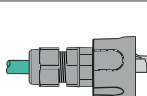
For right angle RJ45, select WRJ45I for internal tab or WRJ45E for external tab.

We reserve the right to make technical alterations without prior notice.

Ethernet Media

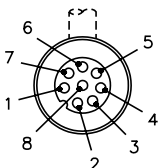
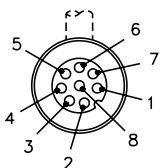
# Ethernet Physical Media Connectivity

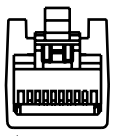
## Ethernet, (M12x1) Eurofast®, RJ45, Cable/Cordset Selection Matrix - Shielded

		Eurofast				
		Male		Female		
		1 	2 	3 	4 	
		RSS	WSS	RKS	WKS	
		RSS 84x-*M	WSS 84x-*M	RKS 84x-*M	WKS 84x-*M	
Bare						
Eurofast	Male	1 	RSS RSS 84x-*M	RSS WSS 84x-*M	RSS RKS 84x-*M	RSS WKS 84x-*M
		2 	WSS RSS 84x-*M	WSS WSS 84x-*M	WSS RKS 84x-*M	WSS WKS 84x-*M
	Female	3 			RKS RKS 84x-*M	
		4 			WKS RKS 84x-*M	WKS WKS 84x-*M
RJ45	RJ45 Plug	9 				
	WRJ45 Plug	10 				
	RJ45M IP67 Plug	11 				
		RJ45S				
		WRJ45ES				
		RJ45SMIP67				

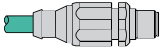
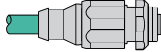

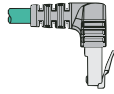

We reserve the right to make technical alterations without prior notice.

See pages K10 - K11 for dimensional drawings.

Eurofast	Pinouts	Eurofast
Male	1. White/Blue 2. White/Brown 3. Brown 4. Orange 5. White/Green 6. White/Orange 7. Blue 8. Green	Female
		

Standard Pinout	RJ45 Plug	(CR) Pinout
1. White/Orange 2. Orange 3. White/Green 4. Blue 5. White/Blue 6. Green 7. White/Brown 8. Brown	Male  <b>12345678</b>	1. White/Green 2. Green 3. White/Orange 4. Blue 5. White/Blue 6. Orange 7. White/Brown 8. Brown

## Ethernet, (M12x1) Eurofast®, RJ45, Cable/Cordset Selection Matrix - Shielded

Eurofast		RJ45		
Male	Female	RJ45 Plug	WRJ45 Plug	RJ45M IP67 Plug
<b>7</b>  FSSDE	<b>8</b>  FKSDE	<b>9</b>  RJ45S	<b>10</b>  WRJ45ES	<b>11</b>  RJ45SMIP67
FSSDE 84x-*M	FKSDE 84x-*M	RJ45S 84x-*M	WRJ45ES 84x-*M	RJ45SMIP67 84x-*M
RSS FSSDE 84x-*M	RSS FKSDE 84x-*M	RSS RJ45S 84x-*M	RSS WRJ45ES 84x-*M	RSS RJ45SMIP67 84x-*M
WSS FSSDE 84x-*M	WSS FKSDE 84x-*M	WSS RJ45S 84x-*M	WRJ45ES 84x-*M	WSS RJ45SMIP67 84x-*M
RKSS FSSDE 84x-*M	RKS FKSDE 84x-*M	RKS RJ45S 84x-*M	RKS WRJ45ES 84x-*M	RKS RJ45SMIP67 84x-*M
WKS FSSDE 84x-*M	WKS FKSDE 84x-*M	WKS RJ45S 84x-*M	WKS WRJ45ES 84x-*M	WKS RJ45SMIP67 84x-*M
RJ45S FSSDE 84x-*M	RJ45S FKSDE 84x-*M	RJ45S RJ45S 84x-*M		RJ45SS RJ45SMIP67 84x-*M
WRJ45 FSSDE 84x-*M	WRJ45 FKSDE 84x-*M	WRJ45ES RJ45S 84x-*M	WRJ45ES WRJ45ES 84x-*M	WRJ45ES RJ45SMIP67 84x-*M
RJ45SMIP67 FSSDE 84x-*M	RJ45SMIP67 FKSDE 84x-*M			RJ45SMIP67 RJ45SMIP67 84x-*M

See pages K10 - K11 for dimensional drawings.

\* Indicates length in meters.

x Indicates cable type.

Standard cable lengths are 1, 2, 4, 6, 8, 10, 15, and in +5 meter increments from there. Consult factory for other lengths.

For stainless steel coupling nuts change part number RSS ... to RSSV, FKSDE ... to FKSDEV.

For cross-over cable, add "CR" to part number RJ45S RJ45S CR 84x-\*M.

For right angle RJ45, select WRJ45I for internal tab or WRJ45E for external tab.

We reserve the right to make technical alterations without prior notice.

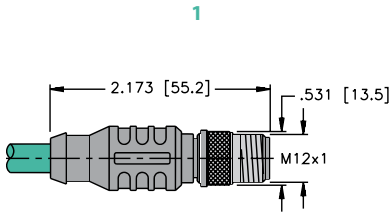
Ethernet Media

# Ethernet Physical Media Connectivity

## Ethernet, Eurofast® Cordset Connector Dimensions / Configuration

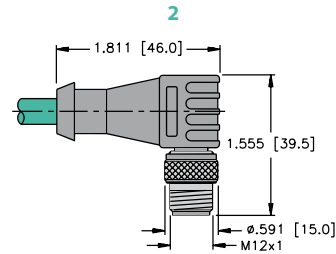
### Specifications

<b>Overmold:</b>	TPU	<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 67
<b>Coupling Nut:</b>	Nickel Plated CuZn or Stainless Steel	<b>Rated Voltage:</b>	60 V
<b>Contact Carrier:</b>	TPU or POM (Nylon)	<b>Rated Current:</b>	2 A
<b>Contacts:</b>	Gold Plated CuZn	<b>Ambient Temperature:</b>	-40 °C to +80 °C (32 °F to +176 °F)



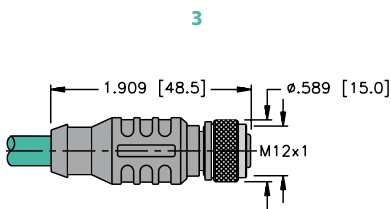
RSC/RSS ..

Page K6



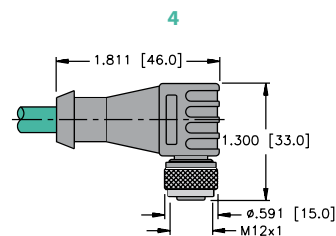
WSC/WSS ..

Page K6



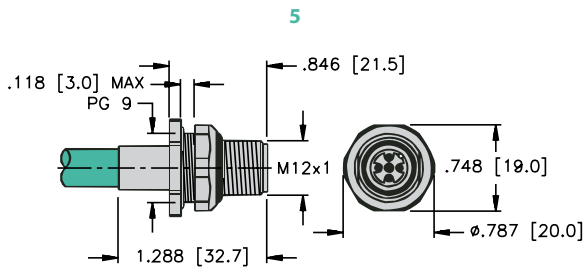
RKC/RKS ..

Page K6



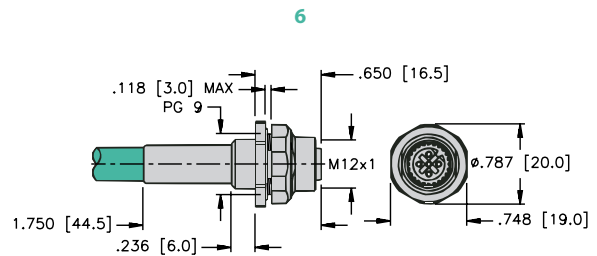
WKC/WKS ..

Page K6



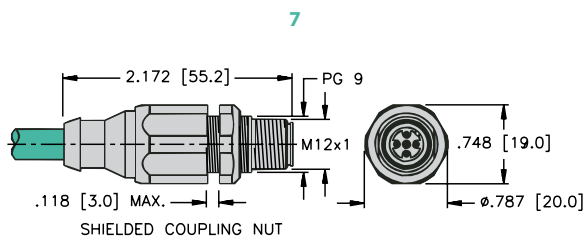
FSFD ..

Page K6



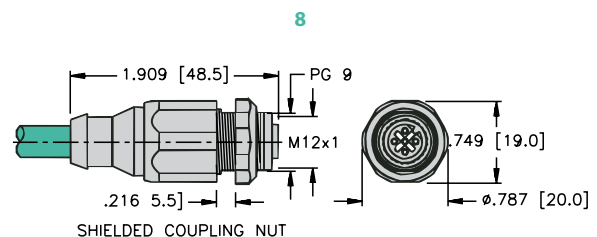
FKFD ..

Page K7



FSSDE ..

Page K9



FKSDE ..

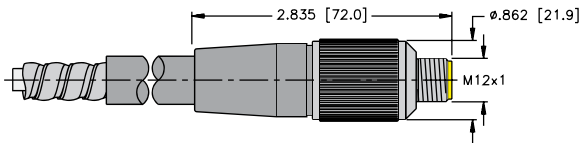
Page K9

We reserve the right to make technical alterations without prior notice.

### Specifications

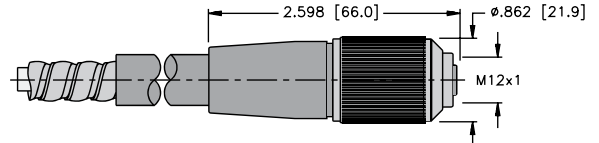
**Overmold:** TPU  
**Coupling Nut:** Nickel Plated CuZn or Stainless Steel  
**Contact Carrier:** TPU or POM (Nylon)  
**Contacts:** Gold Plated CuZn

**Protection:** NEMA 1, 3, 4, 6P and IEC IP 67  
**Rated Voltage:** 60 V  
**Rated Current:** 2 A  
**Ambient Temperature:** -40 °C to +75 °C (-22 °F to +167 °F)



RSA ..

(Armorfast® only)



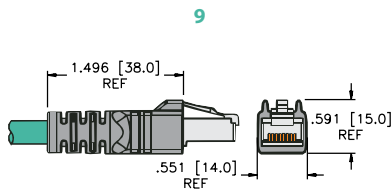
RKA ..

(Armorfast only)

### Specifications

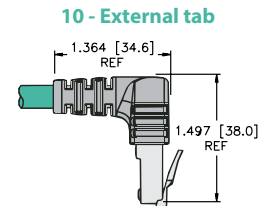
**Overmold:** TPU  
**Plug Material:** Polycarbonate  
**Protection:** NEMA 1 and IEC IP 20

**Rated Voltage:** 42 V  
**Rated Current:** 1.5 A



RJ45/RJ45S ..

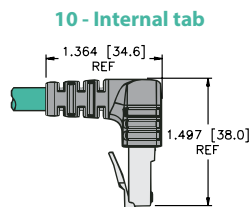
Page K6



WRJ45E/WRJ45ES ..

External tab

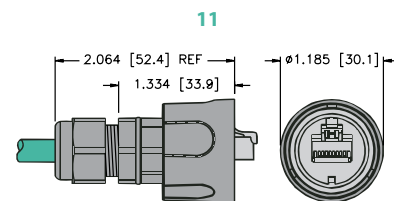
Page K6



WRJ45I/WRJ45IS ..

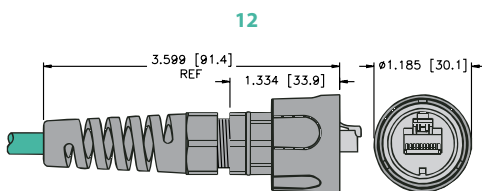
Internal tab

Page K6



RJ45MIP67/RJ45SMIP67..

Page K6



RJ45IP67 ..

Page K6

We reserve the right to make technical alterations without prior notice.

Ethernet Media

# Ethernet Physical Media Connectivity

## Ethernet, Economy RJ45 to RJ45 Cordsets

- For "In the Panel" applications where Industrial Cordsets are not needed
- Available in Yellow, 3 ft and 7 ft lengths only



Housing	Part Number	Application	End View	Pinout
	RJ45 RJ45 840-3FT/ECON	<ul style="list-style-type: none"> <li>• Ethernet patch cordsets for panel connections</li> <li>• Economy, non industrial</li> </ul>	<p style="text-align: center;"><b>Male</b></p> <p style="text-align: center;">12345678</p>	<ol style="list-style-type: none"> <li>1. WH/OG</li> <li>2. OG</li> <li>3. WH/GN</li> <li>4. BU</li> <li>5. WH/BU</li> <li>6. GN</li> <li>7. WH/BN</li> <li>8. BN</li> </ol>
	RJ45 RJ45 840-7FT/ECON			

We reserve the right to make technical alterations without prior notice.

## Ethernet, Circuit Board Connectors and OEM Receptacles, 8-wire

- Provides (M12x1) Eurofast® 8-Pin Connection to Field Devices

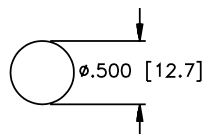


Housing	Female Part Number	Male Part Number	Features	Pinout
<p><b>FK 84 PCB KIT</b></p>	<p><b>FK 84-PCB KIT</b></p>	<p><b>FS 84-PCB KIT</b></p>	<p>Nickel plated CuZn or stainless steel, 36 VDC, 1.5 A, -40 °C to +80 °C, Eurofast with mounting kit</p>	<p><b>Female</b></p>
<p><b>FS 84 PCB KIT</b></p>				<p><b>Male</b></p>
<p><b>FK 84 PCB</b></p>	<p><b>FK 84-PCB</b></p>		<p>Nickel plated CuZn or stainless steel, 36 VDC, 1.5 A, -40 °C to +80 °C, Eurofast</p>	

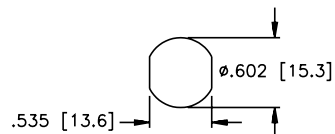
We reserve the right to make technical alterations without prior notice.

Standard housing material is nickel plated brass "FSV .."; "FKV .." indicates 316 stainless steel.

Panel Cutout  
FK ... FS



Panel Cutout  
FKFD ... FSFD



# Ethernet Physical Media Connectivity

## Ethernet, Circuit Board Connectors and OEM Receptacles, 8-wire

- Provides (M12x1) Eurofast® 8-Pin Connection to Field Devices

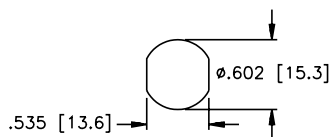


Housing	Female Part Number	Male Part Number	Features	Pinout
<p><b>FKFD..</b></p>	<b>FKFD 84-PCB</b>	<b>FSFD 84-PCB</b>	Nickel plated CuZn or stainless steel 36 VDC, 1.5 A, -40 °C to +80 °C, Eurofast PCB pins	<p><b>Female</b></p>
<p><b>FSFD..</b></p>				
<p><b>FKFDL</b></p>	<b>FKFDL 84</b>	<b>FSFDL 84</b>	Nickel plated CuZn or stainless steel 36 VDC, 1.5 A, -40 °C to +80 °C, male Eurofast solder cups	<p><b>Male</b></p>
<p><b>FSFDL..</b></p>				
<p><b>WFS..</b></p>		<b>WFS 84-PCB</b>	Nickel plated CuZn or stainless steel 36 VDC, 1.5 A, -40 °C to +80 °C, male Eurofast right angle PCB pins	

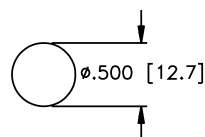
We reserve the right to make technical alterations without prior notice.

Standard housing material is nickel plated brass "FKFD.."; "FKFDV.." indicates 316 stainless steel.

Panel Cutout  
FKFD ... FSFD

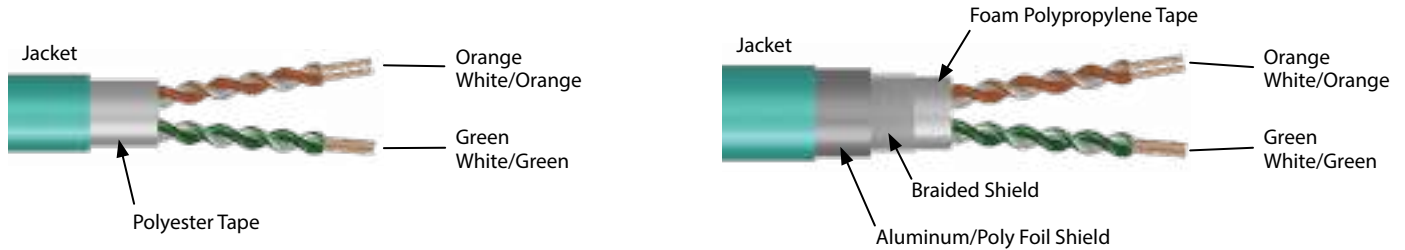


Panel Cutout  
WFS



## Ethernet, Cable Specifications, 4-wire

- Cable that meets the requirements of TIA/EIA568-C Category 5e performance requirements cable for 10 and 100 Base-T Ethernet
- Compliant with EtherNet/IP standards
- Cable is UL Rated for Sunlight and Oil Resistant



Maximum 100 meters of cable of which:

- 90 meters Horizontal Cable (SOLID - 442 or 443)
- 2 x 5 meters Patch Cables (STRANDED - 440 or 441)

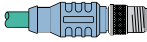
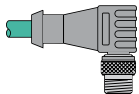

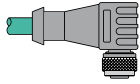
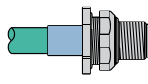
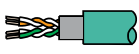
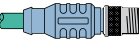
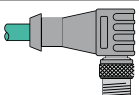
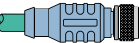
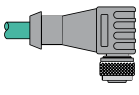

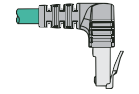
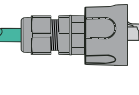
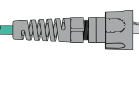
We reserve the right to make technical alterations without prior notice.

Type	Approvals	Data Pair		Outer Jacket Material Color Nominal O.D.	Shields Type	Bulk Cable Part Number / Weight/300 M	Flexlife Ratings
		AWG Color Code	DCR (/1000 feet) Insulation				
<b>440</b> 80 °C, 600 V	c(UL)us Type CM AWM	2UTPx24 AWG Stranded	26.5 Ohms PE	TPE Teal 6.1 mm (.240 in)	-	RB51210-*M 26 lbs. Flexlife®	10xO.D. 1 million cycles 20xO.D. 10 million cycles
<b>441</b> 80 °C, 600 V	c(UL)us Type CM AWM	2UTPx24 AWG Stranded	26.5 Ohms PE	TPE Teal 6.7 mm (.240 in)	Foil/Braid	RB51211-*M 35 lbs. Flexlife	10xO.D. 1 million cycles 20xO.D. 10 million cycles
<b>442</b> 75 °C, 300 V	c(UL)us Type CM	2UTPx24 AWG Solid	31.5 Ohms PE	TPE Teal 6.1 mm (.220 in)	-	RB51212-*M 18 lbs.	-
<b>443</b> 80 °C, 600 V	c(UL)us Type CM AWM	2UTPx24 AWG Solid	31.5 Ohms PE	TPE Teal 6.9 mm (.270 in)	Foil/Braid	RB51213-*M 38 lbs.	-

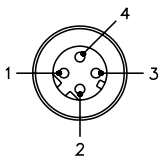
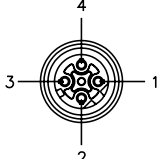
\* Indicates length in meters.  
Standard spool lengths are 30, 75, 100, 150, 200, 225, 300 meters. Consult factory for other lengths.

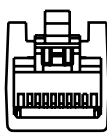
# Ethernet Physical Media Connectivity

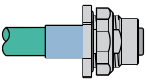

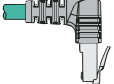


## Ethernet, (M12x1) Eurofast®, RJ45 Cables and Extensions - Unshielded D-coded

		Eurofast					
		Male		Female		Male	
		11 	2 	12 	4 	13 	
		RSCD	WSCD	RKCD	WKCD	FSFDD	
		RSCD 44x-*M	WSCD 44x-*M	RKCD 44x-*M	WKCD 44x-*M	FSFDD 44x-*M	
Eurofast	Male	11 	RSCD RSCD 44x-*M	RSCD WSCD 44x-*M	RSCD RKCD 44x-*M	RSCD WKCD 44x-*M	RSCD FSFDD 44x-*M
		2 	WSCD RSCD 44x-*M	WSCD WSCD 44x-*M	WSCD RKCD 44x-*M	WSCD WKCD 44x-*M	WSCD FSFDD 44x-*M
	Female	12 			RKCD RKCD 44x-*M		RKCD FSFDD 44x-*M
		4 			WKCD RKCD 44x-*M	WKCD WKCD 44x-*M	WKCD FSFDD 44x-*M
RJ45	RJ45 Plug	17 					RJ45 FSFDD 44x-*M
	WRJ45 Plug	18 					WRJ45E FSFDD 44x-*M
	RJ45M IP67 Plug	19 					RJ45MIP67 FSFDD 44x-*M
	RJ45 IP67 Plug	20 					RJ45IP67 FSFDD 44x-*M

We reserve the right to make technical alterations without prior notice.

Eurofast	Pinouts	Eurofast
Male		Female
	1. White/Orange (+ tx) 2. White/Green (+rx) 3. Orange (-tx) 4. Green (-rx)	

RJ45 Pinout	RJ45 Plug	RJ45 (CR) Pinout
1. White/Orange 2. Orange 3. White/Green 4. N/C 5. N/C 6. Green 7. N/C 8. N/C	Male  12345678	1. White/Green 2. Green 3. White/Orange 4. N/C 5. N/C 6. Orange 7. N/C 8. N/C

Eurofast	RJ45			
Female	RJ45 Plug	WRJ45 Plug	RJ45M IP67 Plug	RJ45 IP67 Plug
 14 FKFDD	 17 RJ45	 18 WRJ45E	 19 RJ45MIP67	 20 RJ45IP67
FKFDD 44x-*M	RJ45 44x-*M	WRJ45E 44x-*M	RJ45MIP67 44x-*M	RJ45IP67 44x-*M
RSCD FKFDD 44x-*M	RSCD RJ45 44x-*M	RSCD WRJ45E 44x-*M	RSCD RJ45MIP67 44x-*M	RSCD RJ45IP67 44x-*M
WSCD FKFDD 44x-*M	WSCD RJ45 44x-*M	WSCD WRJ45E 44x-*M	WSCD RJ45MIP67 44x-*M	WSCD RJ45IP67 44x-*M
RKCD FKFDD 44x-*M	RKCD RJ45 44x-*M	RKCD WRJ45E 44x-*M	RKCD RJ45MIP67 44x-*M	RKCD RJ45IP67 44x-*M
WKCD FKFDD 44x-*M	WKCD RJ45 44x-*M	WKCD WRJ45E 44x-*M	WKCD RJ45MIP67 44x-*M	WKCD RJ45IP67 44x-*M
RJ45 FKFDD 44x-*M	RJ45 RJ45 44x-*M		RJ45 RJ45MIP67 44x-*M	RJ45 RJ45IP67 44x-*M
WRJ45E FKFDD 44x-*M	WRJ45E RJ45 44x-*M	WRJ45E WRJ45E 44x-*M	WRJ45E RJ45MIP67 44x-*M	WRJ45E RJ45IP67 44x-*M
RJ45MIP67 FKFDD 44x-*M			RJ45MIP67 RJ45MIP67 44x-*M	
RJ45IP67 FKFDD 44x-*M			RJ45IP67 RJ45MIP67 44x-*M	RJ45IP67 RJ45IP67 44x-*M

We reserve the right to make technical alterations without prior notice.

Ethernet Media

See pages K20 - K21 for dimensional drawings.

\* Indicates length in meters.

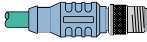
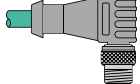

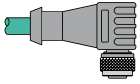
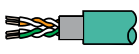
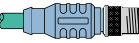
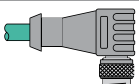
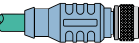
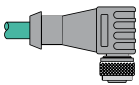




x Indicates cable type.

Standard cable lengths are 1, 2, 4, 6, 8, 10, 15, and in +5 meter increments from there. Consult factory for other lengths.

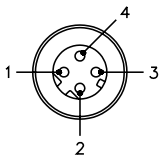
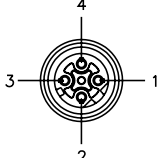
For right angle RJ45, select WRJ45I for internal tab or WRJ45E for external tab.

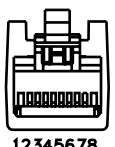
# Ethernet Physical Media Connectivity

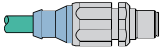
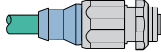

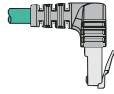

## Ethernet, (M12x1) Eurofast®, RJ45, Cables and Extensions - Shielded Cable D-coded

		Eurofast				
		Male		Female		
Eurofast	Male	11 	2 	12 	4 	
		RSSD	WSSD	RKSD	WKSD	
	Female	Bare 	RSSD 44x-*M	WSSD 44x-*M	RKSD 44x-*M	WKSD 44x-*M
		11 	RSSD RSSD 44x-*M	RSSD WSSD 44x-*M	RSSD RKSD 44x-*M	RSSD WKSD 44x-*M
	Male	2 	WSSD RSSD 44x-*M	WKSD WSSD 44x-*M	WSSD RKSD 44x-*M	WSSD WKSD 44x-*M
		12 			RKSD RKSD 44x-*M	
	Female	4 			RKSD WKSD 44x-*M	WKSD WKSD 44x-*M
		RJ45 Plug 				
	RJ45	17 	RJ45S			
		WRJ45 Plug 	WRJ45ES			
RJ45M IP67 Plug 		RJ45MIP67				

We reserve the right to make technical alterations without prior notice.

Eurofast	Pinouts	Eurofast
Male		Female
	1. White/Orange (+ tx) 2. White/Green (+rx) 3. Orange (-tx) 4. Green (-rx)	

RJ45 Pinout	RJ45 Plug	RJ45 (CR) Pinout
1. White/Orange 2. Orange 3. White/Green 4. N/C 5. N/C 6. Green 7. N/C 8. N/C	Male  12345678	1. White/Green 2. Green 3. White/Orange 4. N/C 5. N/C 6. Orange 7. N/C 8. N/C

Eurofast		RJ45		
Male	Female	RJ45 Plug	WRJ45 Plug	RJ45M IP67 Plug
15 	16 	17 	18 	19 
FSSDED	FKSDED	RJ45S	WRJ45ES	RJ45SMIP67
FSSDED 44x-*M	FKSDED 44x-*M	RJ45S 44x-*M	WRJ45ES 44x-*M	RJ45SMIP67 44x-*M
RSSD FSSDED 44x-*M	RSSD FKSDED 44x-*M	RSSD RJ45S 44x-*M	RSSD WRJ45ES 44x-*M	RSSD RJ45SMIP67 44x-*M
WSSD FSSDED 44x-*M	WSSD FKSDED 44x-*M	WSSD RJ45S 44x-*M	WSSD WRJ45ES 44x-*M	WSSD RJ45SMIP67 44x-*M
RKSD FSSDED 44x-*M	RKSD FKSDED 44x-*M	RKSD RJ45S 44x-*M	RKSD WRJ45ES 44x-*M	RKSD RJ45SMIP67 44x-*M
WKSD FSSDED 44x-*M	RSSD FKSDED 44x-*M	WKSD RJ45S 44x-*M	WKSD WRJ45ES 44x-*M	WKSD RJ45SMIP67 44x-*M
RJ45S FSSDED 44x-*M	RJ45S FKSDED 44x-*M	RJ45S RJ45S 44x-*M		RJ45S RJ45SMIP67 44x-*M
WRJ45ES FSSDED 44x-*M	WRJ45ES FKSDED 44x-*M	WRJ45ES RJ45S 44x-*M	WRJ45ES WRJ45ES 44x-*M	WRJ45ES RJ45SMIP67 44x-*M
RJ45SMIP67 F5FD 84x-*M	RJ45SMIP67 FKFD 84x-*M			RJ45SMIP67 RJ45SMIP67 44x-*M

We reserve the right to make technical alterations without prior notice.

Ethernet Media

See pages K20 - K21 for dimensional drawings.

\* Indicates length in meters.

x Indicates cable type.

Standard cable lengths are 1, 2, 4, 5, 6, 8, 10, 15, and in +5 meter increments from there. Consult factory for other lengths.

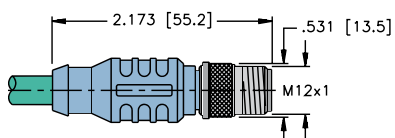
For stainless steel coupling nuts change part number RSSD ... RSSDV, FSSDED ... FSSDEDV.

For right angle RJ45, select WRJ45I for internal tab or WRJ45E for external tab.

### Specifications

<b>Overmold:</b>	TPU	<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 67
<b>Coupling Nut:</b>	Nickel Plated CuZn or Stainless Steel	<b>Rated Voltage:</b>	250 V
<b>Contact Carrier:</b>	TPU or POM (Nylon)	<b>Rated Current:</b>	4 A
<b>Contacts:</b>	Gold Plated CuZn	<b>Ambient Temperature:</b>	-40 °C to +80 °C (32 °F to +176 °F)

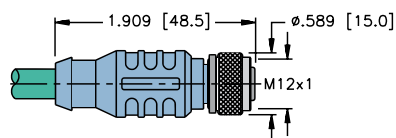
11



RSCD/RSSD ..

Page K16

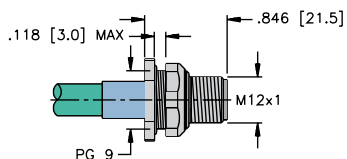
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RKCD/RKSD ..

Page K16

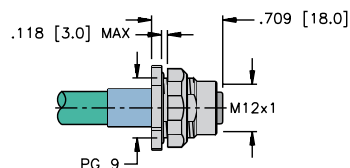
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FSFDD ..

Page K16

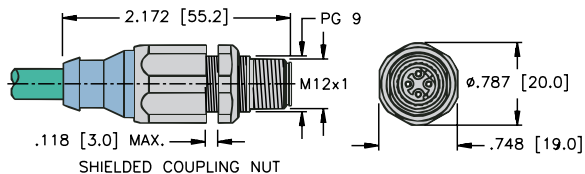
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FKFDD ..

Page K17

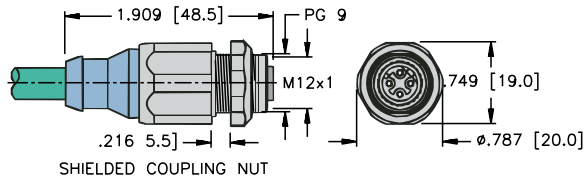
15



FSSDED ..

Page K19

16



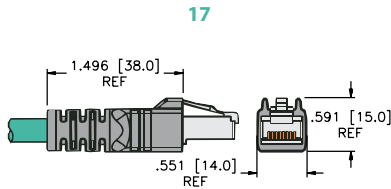
FKSDDED ..

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We reserve the right to make technical alterations without prior notice.

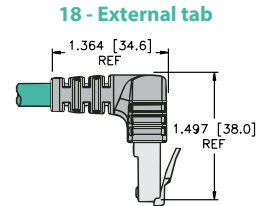
### Specifications

<b>Overmold:</b>	TPU	<b>Rated Voltage:</b>	42 V
<b>Plug Material:</b>	Polycarbonate	<b>Rated Current:</b>	1.5 A
<b>Protection:</b>	NEMA and IEC IP 20	<b>Ambient Temperature:</b>	-25 °C to +80 °C (-22 °F to +176 °F)



RJ45/RJ45S ..

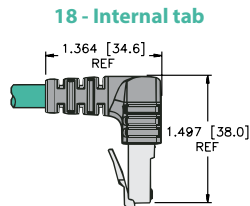
Page K16



WRJ45E/WRJ45ES ..

External tab

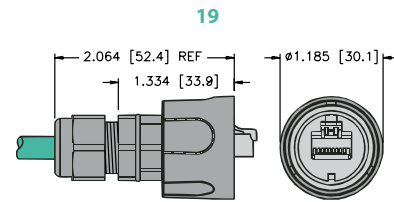
Page K16



WRJ45I/WRJ45IS ..

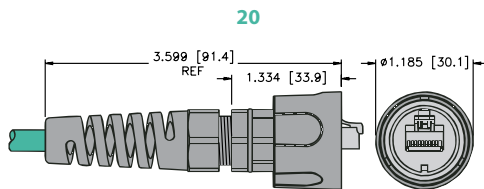
Internal tab

Page K16



RJ45MIP67/RJ45SMIP67..

Page K16



RJ45IP67 ..

Page K16

We reserve the right to make technical alterations without prior notice.

Ethernet Media

# Ethernet Physical Media Connectivity

## Ethernet, Receptacle

- Transitions from a RJ45 Connector to a 4-wire Eurofast® Connector

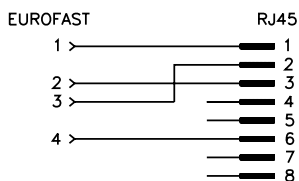


Housing Style	Part Number	Features
	<b>FKSD RJ45SF 44</b>	Polyurethane, TPU Overmold, 42 V, 1.5 A, -40 °C to +75 °C
	<b>FKSD RJ45SF 44/ST</b>	Polyurethane, TPU Overmold, 42 V, 1.5 A, -40 °C to +75 °C
	<b>FKD FKD 44/M12</b>	4 A, 50 V, -25 °C to +85 °C, wired one-to-one

We reserve the right to make technical alterations without prior notice.

Panel mounting clearance hole 19/32" (15 mm). Panel thickness: .060-.120" (1.5-3 mm)

### Wiring Diagrams



## Ethernet, 4-Pin D-coded Field Wireables

- Allows for Quick Connections when Pre-Molded Cables are not available
- Available in Male, Straight and Right Angle Connector configurations



We reserve the right to make technical alterations without prior notice.

Housing Style	Female Part Number	Male Part Number	Features	Pinout
<p><b>CMBD 81..</b></p>	CMBD 8141-0/PG9	CMBSD 8141-0/PG9	4 A, 250 V, -40 °C to +85 °C, mates with female 4-pin D-coded Eurofast® cordsets and receptacles	<p><b>Female</b></p>
<p><b>CMBSD 81..</b></p>				
<p><b>CMBD 82..</b></p>	CMBD 8241-0/PG9	CMBSD 8241-0/PG9		<p><b>Male</b></p>
<p><b>CMBSD 82..</b></p>				

Ethernet Media

# Ethernet Physical Media Connectivity

## Ethernet, RJ45 Field Wireable

- Allows for Quick Connections in the field
- Fully Shielded
- Includes assembly instructions



Housing	Part Number	Features	Pinout
	<b>Connector, RJ45S IDC</b>	22-24 AWG stranded, 22-23 AWG solid, -40 °C to +70 °C	<b>Male</b> 
	<b>Connector, FW, RJ45S 84 IDC</b>	22-27 AWG stranded, 22-24 AWG solid, -40 °C to +85 °C, Cat 6 A	<b>Male</b> 
	<b>Connector, FW, RJ45S 86 IDC CAT 6</b>	22-26 AWG, -40 °C to +70 °C, Cat 6 A	<b>Male</b> 

We reserve the right to make technical alterations without prior notice.

<b>Part Number Keys</b>	<b>L2</b>
<b>Cable Specifications</b>	<b>L3</b>
<b>Cordsets</b>	<b>L4</b>
<b>Receptacles</b>	<b>L8</b>
<b>Field Wireables</b>	<b>L10</b>

**Features**

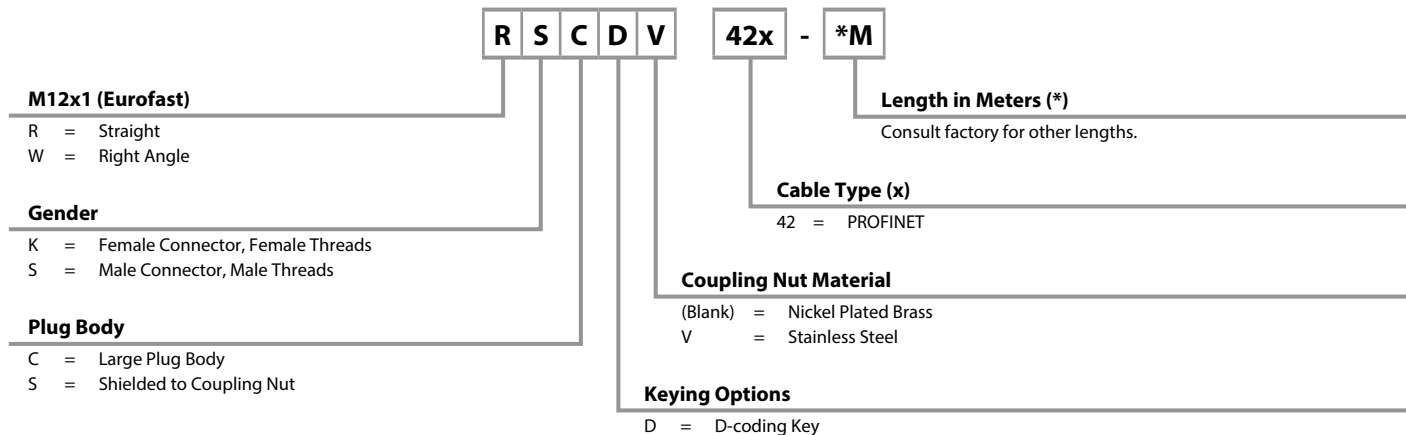
- CAT 5e rated cables
- 2 Pair cable option
- 4-pin D-coded M12 connectors
- RJ45 connectors
- Up to 4 Amps and 250 Volt rated
- IP67 rated



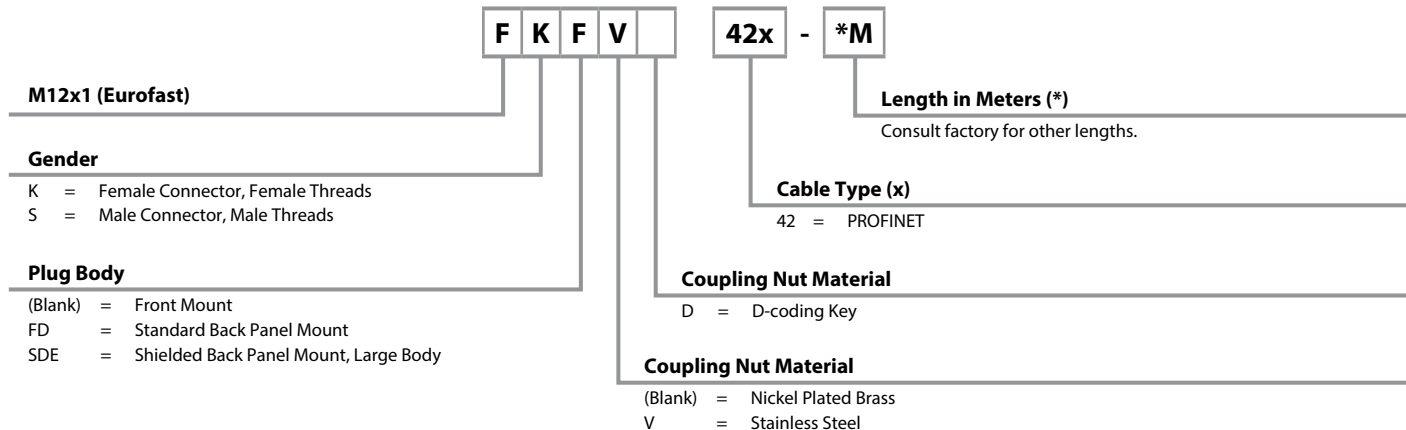
# PROFINET Physical Media Connectivity

## Eurofast® Cordset Part Number Key

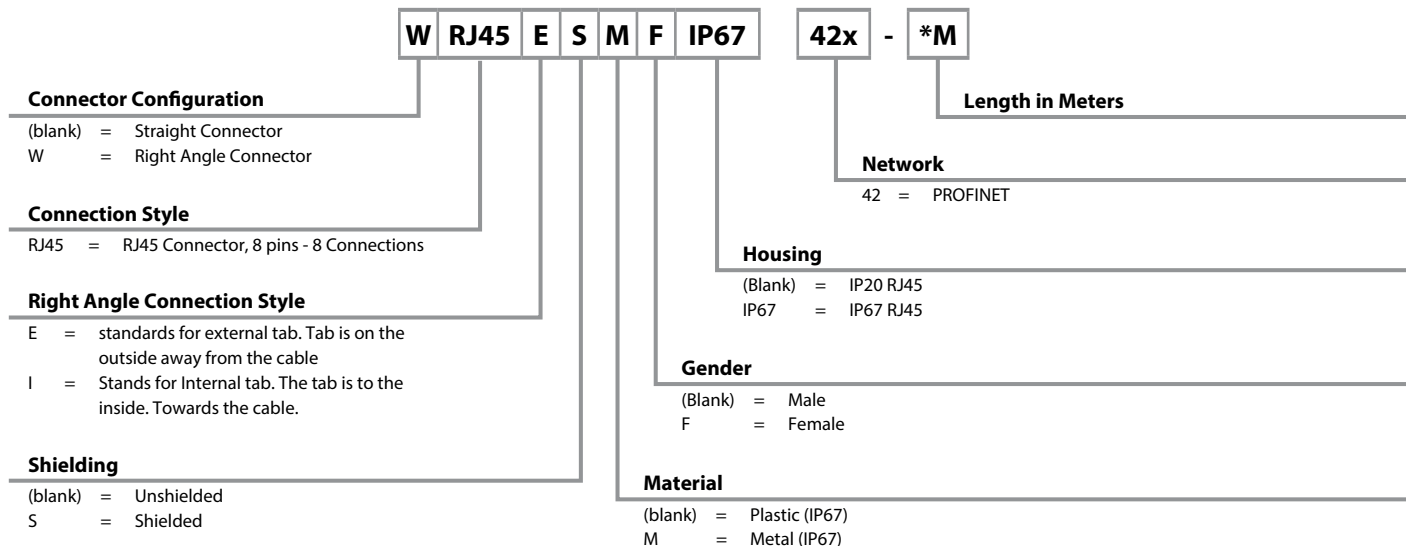
Part Number Keys are to assist in IDENTIFICATION ONLY. Consult factory for catalog items not identified.



## Eurofast Receptacle Part Number Key

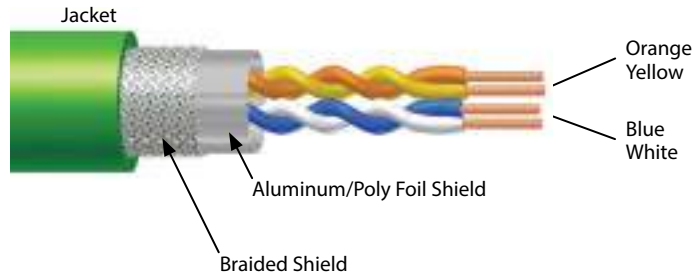


## RJ Network Cordsets Part Number Key



## PROFINET, Cable Specifications, 4-wire

- Compliant with PROFINET Cable Standards
- Cable is UL Rated for Sunlight and Oil Resistant



We reserve the right to make technical alterations without prior notice.

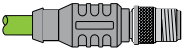
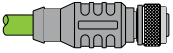
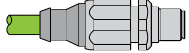
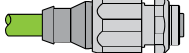

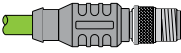
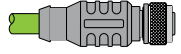

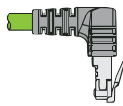
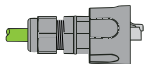
PROFINET Media

Version	Type	Approvals	Data Pair		Outer Jacket Material Color Nominal O.D.	Shields Type	Bulk Cable Part Number / Weight/300 M
			AWG Color Code	DCR (/1000 feet) Insulation			
<b>Type A Stationary with solid conductors</b>	<b>421 80 °C, 600 V</b>	UL ITC/PLTC AWM	4UTPX22 AWG Solid	17.2 Ohm	TPE/Green 7.8 mm	Foil/Braid	RB51604* <sup>M</sup> , 49 lbs.
<b>Type C Highly flexible with stranded conductors</b>	<b>423 80 °C, 600 V</b>	UL ITC/PLTC	4UTPX22 AWG Stranded	17.5 Ohm	TPE/Green 8.1 mm	Foil/Braid	RB51216* <sup>M</sup> , 49 lbs. Flexlife®

\* Indicates length  
Standard spool lengths are 30, 75, 100, 150, 200, 225, 300 meters. Consult factory for other lengths.

# PROFINET Physical Media Connectivity

## PROFINET, (M12x1) Eurofast®, RJ45, Cables and Extensions - Shielded Cable D-coded

		Eurofast (Male)	Eurofast (Female)	Eurofast (Male)	Eurofast (Female)
		1 	2 	3 	4 
		RSSD	RKSD	FSSDED	FKSDED
		RSSD 42x-*M	RKSD 42x-*M	FSSDED 42x-*M	FKSDED 42x-*M
Bare					
Eurofast (Male)	1 	RSSD RSSD 42x-*M	RSSD RKSD 42x-*M	RSSD FSSDED 42x-*M	RSSD FKSDED 42x-*M
	RSSD				
Eurofast (Female)	2 		RKSD RKSD 42x-*M	RKSD FSSDED 42x-*M	RKSD FKSDED 42x-*M
	RKSD				
RJ45 Plug	5 			RJ45S FSSDED 42x-*M	RJ45S FKSDED 42x-*M
	RJ45S				
WRJ45 Plug	6 			WRJ45ES FSSDED 42x-*M	WRJ45ES FKSDED 42x-*M
	WRJ45ES				
RJ45M IP67 Plug	7 			RJ45SMIP67 FSSDED 42x-*M	RJ45SMIP67 FKSDED 42x-*M
	RJ45SMIP67				

We reserve the right to make technical alterations without prior notice.

See pages L8 - L9 for dimensional drawings.

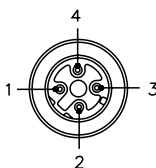
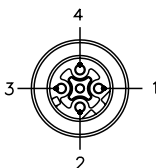
\* Indicates length in meters.

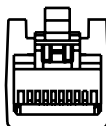
x Indicates cable type.

Standard cable lengths are 1, 2, 4, 6, 8, 10, 15, and in +5 meter increments from there. Consult factory for other lengths.

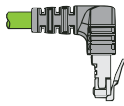
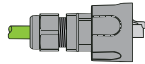

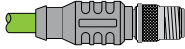
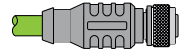

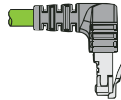
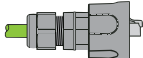
For stainless steel coupling nuts change part number RSSD ... RSSDV, FSSDED ... FSSDEDV.

For right angle RJ45, select WRJ45I for internal tab or WRJ45E for external tab.

Eurofast	Pinouts	Eurofast
Male		Female
	1. Yellow (+tx) 2. White (+rx) 3. Orange (-tx) 4. Blue (-rx)	

RJ45 Pinout	RJ45 Plug
1. Yellow 2. Orange 3. White 4. N/C 5. N/C 6. Blue 7. N/C 8. N/C	Male  12345678

PROFINET, (M12x1) Eurofast®, RJ45, Cables and Extensions - Shielded Cable D-coded

		RJ45 Plug	WRJ45 Plug	RJ45M IP67 Plug
		5  RJ45S	6  WRJ45ES	7  RJ45SMIP67
 Bare		RJ45S 42x-*M	WRJ45ES 42x-*M	RJ45SMIP67 42x-*M
<b>Eurofast (Male)</b>	1  RSSD	RSSD RJ45S 42x-*M	RSSD WRJ45ES 42x-*M	RSSD RJ45SMIP67 42x-*M
<b>Eurofast (Female)</b>	2  RKSD	RKSD RJ45S 42x-*M	RKSD WRJ45ES 42x-*M	RKSD RJ45SMIP67 42x-*M
<b>RJ45 Plug</b>	5  RJ45S	RJ45S RJ45S 42x-*M		RJ45S RJ45SMIP67 42x-*M
<b>WRJ45 Plug</b>	6  WRJ45ES	WRJ45ES RJ45S 42x-*M	WRJ45ES WRJ45ES 42x-*M	WRJ45ES RJ45SMIP67 42x-*M
<b>RJ45M IP67 Plug</b>	7  RJ45SMIP67	RJ45SMIP67 RJ45S 42x-*M	RJ45SMIP67 WRJ45ES 42x-*M	RJ45SMIP67 RJ45SMIP67 42x-*M

We reserve the right to make technical alterations without prior notice.

PROFINET Media

See pages L8 - L9 for dimensional drawings.

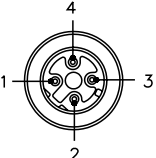
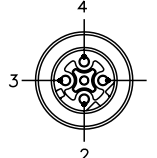
\* Indicates length in meters.

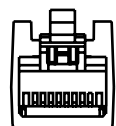
x Indicates cable type.

Standard cable lengths are 1, 2, 4, 6, 8, 10, 15, and in +5 meter increments from there. Consult factory for other lengths.

For stainless steel coupling nuts change part number RSSD ... RSSDV, FSSDED ... FSSDEDV.

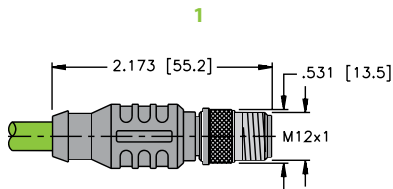
For right angle RJ45, select WRJ45I for internal tab or WRJ45E for external tab.

Eurofast	Pinouts	Eurofast
<b>Male</b>		<b>Female</b>
	1. Yellow (+tx) 2. White (+rx) 3. Orange (-tx) 4. Blue (-rx)	

RJ45 Pinout	RJ45 Plug
1. Yellow 2. Orange 3. White 4. N/C 5. N/C 6. Blue 7. N/C 8. N/C	<b>Male</b>  12345678

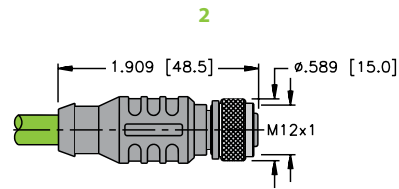
### Specifications

<b>Overmold:</b>	TPU	<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 67
<b>Coupling Nut:</b>	Nickel Plated CuZn or Stainless Steel	<b>Rated Voltage:</b>	250 V
<b>Contact Carrier:</b>	TPU (Polyurethane) or POM (Nylon)	<b>Rated Current:</b>	4 A
<b>Contacts:</b>	Gold Plated CuZn	<b>Ambient Temperature:</b>	-40 °C to +80 °C (32 °F to +176 °F)



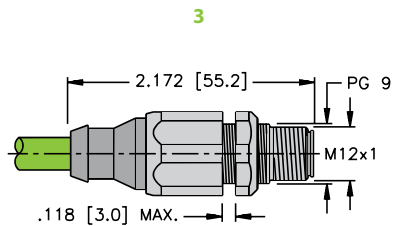
RSCD/RSSD ..

Page L4



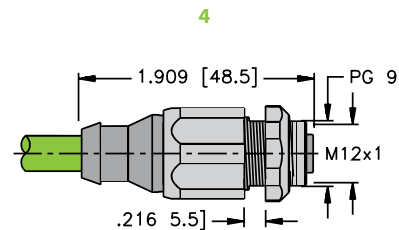
RKCD/RKSD ..

Page L4



FSSDED ..

Page L4



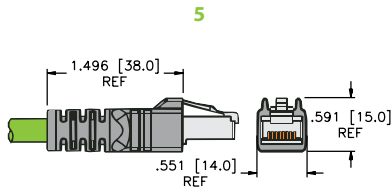
FKSDDED ..

Page L4

We reserve the right to make technical alterations without prior notice.

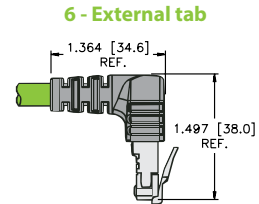
**Specifications**

<b>Overmold:</b>	TPU	<b>Rated Voltage:</b>	42 V
<b>Plug Material:</b>	Polycarbonate	<b>Rated Current:</b>	1.5 A
<b>Protection:</b>	NEMA 1 and IEC IP 20 and IP 67	<b>Ambient Temperature:</b>	-25 °C to +75 °C (-22 °F to +176 °F)



RJ45/RJ45S ..

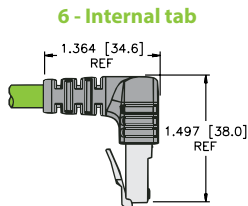
Page L4



WRJ45E/WRJ45ES ..

External tab

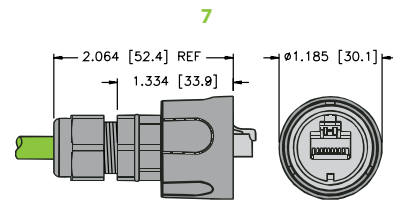
Page L4



WRJ45I/WRJ45IS ..

Internal tab

Page L4



RJ45MIP67/RJ45SMIP67..

Page L4

We reserve the right to make technical alterations without prior notice.

PROFINET Media

# PROFINET Physical Media Connectivity

## PROFINET, Receptacle

- Transitions from a RJ45 Connector to a 4-wire Eurofast® Connector

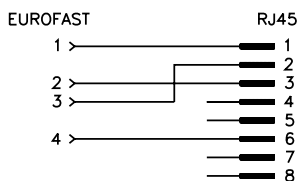


Housing Style	Part Number	Features
	<b>FKSD RJ45SF 44</b>	Polyurethane, TPU Overmold, 42 V, 1.5 A, -40 °C to +75 °C
	<b>FKSD RJ45SF 44/ST</b>	Polyurethane, TPU Overmold, 42 V, 1.5 A, -40 °C to +75 °C
	<b>FKD FKD 44/M12</b>	4 A, 50 V, -25 °C to +85 °C, wired one-to-one

We reserve the right to make technical alterations without prior notice.

Panel mounting clearance hole 19/32" (15 mm). Panel thickness: .060-.120" (1.5-3 mm)

### Wiring Diagrams



PROFINET, 4-Pin D-coded Field Wireables

- Allows for Quick Connections when Pre-Molded Cables are not available
- Available in Male, Straight and Right Angle Connector configurations



We reserve the right to make technical alterations without prior notice.

Housing Style	Female Part Number	Male Part Number	Features	Pinout
<p><b>CMBD 81..</b></p>	CMBD 8141-0/PG9	CMBSD 8141-0/PG9	4 A, 250 V, -40 °C to +85 °C, mates with female 4-pin D-coded Eurofast® cordsets and receptacles	<p><b>Female</b></p>
<p><b>CMBSD 81..</b></p>				
<p><b>CMBD 82..</b></p>	CMBD 8241-0/PG9	CMBSD 8241-0/PG9		<p><b>Male</b></p>
<p><b>CMBSD 82..</b></p>				

PROFINET Media

# PROFINET Physical Media Connectivity

## PROFINET, RJ45 Field Wireable

- Allows for Quick Connections in the field
- Fully Shielded
- Includes assembly instructions



Housing	Part Number	Features	Pinout
	Connector, RJ45S 42 IDC	22-26 AWG, -20 °C to 70 °C, 6 - 7 mm cable diameter	1. Yellow (+TX) 2. Orange (-TX) 3. White (+RX) 4. N/C 5. N/C 6. Blue (-RX) 7. N/C 8. N/C
	Connector, RJ45S 84 IDC (7- 8 mm)	22-26 AWG, -20 °C to 70 °C, 7 - 8 mm cable diameter	

We reserve the right to make technical alterations without prior notice.

<b>Part Number Keys</b>	<b>M4</b>
<b>Cordsets</b>	<b>M10</b>
<b>Receptacles</b>	<b>M37</b>
<b>Field Wireables</b>	<b>M46</b>

**Features**

- Cables that meet the requirements of the ODVA
- PLTC rated cable
- Available in thin, mid, and thick styles
- 7/8 and M12 connectors
- Rated up to 9 Amps and 600 Volts
- IP67/IP69K rated



## DeviceNet System Description

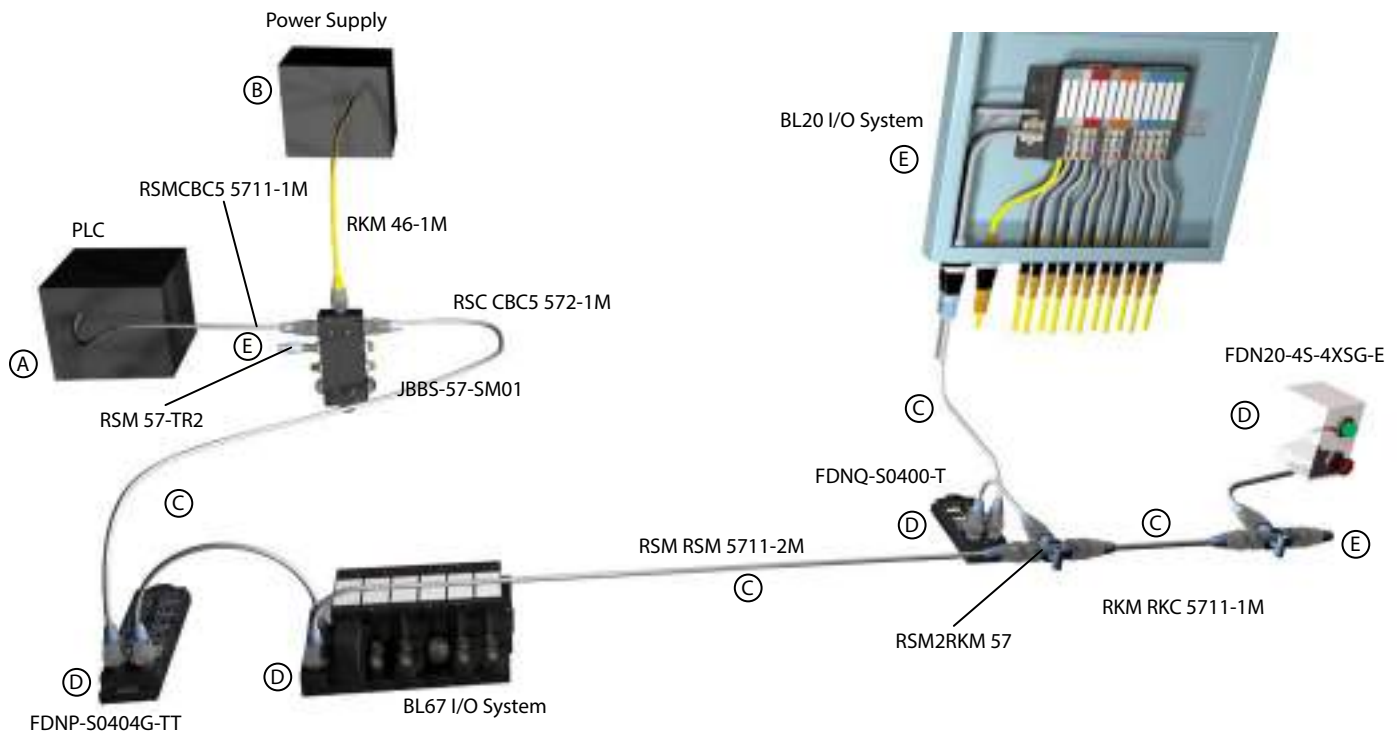
DeviceNet is a low-cost communications protocol that eliminates hard wiring and connects industrial devices such as limit switches, photoelectric sensors, valve manifolds, motor starters, process sensors, bar code readers, variable frequency drives, panel displays and operator interfaces to a network. DeviceNet's direct connection provides improved communication between devices, as well as important device-level diagnostics not easily accessible or available through hard-wired I/O interfaces.

DeviceNet is based on the Controller Area Network (CAN) broadcast-oriented communication architecture. CAN uses a bus arbitration method (CSMA/BA) that ensures the highest priority message is given preference in the event of a data collision. The DeviceNet protocol further defines message priorities such that I/O messages are given top priority and configuration messages have lower priority.

A DeviceNet network supports up to 64 nodes and virtually an unlimited amount of I/O. The bus uses a trunkline/dropline topology, where bus power and communication are supplied on a single cable. Bus power is 24 VDC and supplies current to operate the nodes and, typically, the power input devices. Some Turck stations require an additional 24 VDC auxiliary power to supply current for outputs.

DeviceNet allows peer-to-peer data exchange (where a DeviceNet node can initiate communication with other nodes or peers), and a master/slave configuration in which the master node initiates all communication and all other nodes, or slaves, respond to the master node's requests.

## Typical System Configuration



A typical DeviceNet system consists of the following parts:

- A - Controller
- B - Power Supply
- C - DeviceNet Cable
- D - DeviceNet I/O Modules (or Slaves)
- E - Terminating Resistors

DeviceNet stations require a network master (also called a scanner) to interface the stations to the host controller. Turck DeviceNet stations are designed to be fully compatible with DeviceNet equipment from other manufacturers.

## Cordsets

Turck offers a complete line of molded DeviceNet cordsets to facilitate network installation, resulting in a faster start-up and fewer wiring errors. The bus and drop cables are specially designed foil-shielded, high-flex cables with very low inductance and capacitance to minimize propagation delay time. DeviceNet cables consist of a shielded and twisted data pair, as well as a shielded and twisted power pair for the 24 VDC bus power, with an additional outer shield. The 24 VDC power pair provides bus power to the station's communication electronics and (typically) to input circuits.

The data lines for CAN-High and CAN-Low differential signals conform to the CAN standard, and support network data exchange at the maximum transmission speed of 500 kbps.

In most cases, bus cable connections are made using 5-pin Minifast® (7/8-16 UN) or Eurofast® (M12) connectors. A variety of stations are also available that support terminal-block type connections. Stations with output circuits for DC actuators normally require 24 VDC auxiliary power fed through a separate connection from the communication bus.

Turck cordsets for the DeviceNet system are available in standard lengths. Contact your local sales representative to order custom lengths.

## Diagnostics

Turck stations provide increased diagnostics when used with standard proximity or photoelectric sensors and discrete actuators. Turck stations also serve as a buffer between I/O devices and the DeviceNet bus by detecting short-circuits without disrupting DeviceNet communication.

For deluxe style stations, each I/O point on the station provides state and status data. State data represents the real world value of the I/O device; for example, when the sensor is on or the actuator is off. Status data indicates short-circuits in the I/O device or in the wiring between the device and the station. Some models also use status data to indicate open circuits.

State and status data are transferred to the DeviceNet scanner where it is available for fault handling in the control program. Additionally, each input and output has a multicolored LED to indicate its state and status and pinpoint I/O problems quickly; for example, the module status LED indicates the internal health of the station, and the network status LED indicates the station's communication on the DeviceNet network.

## Addressing

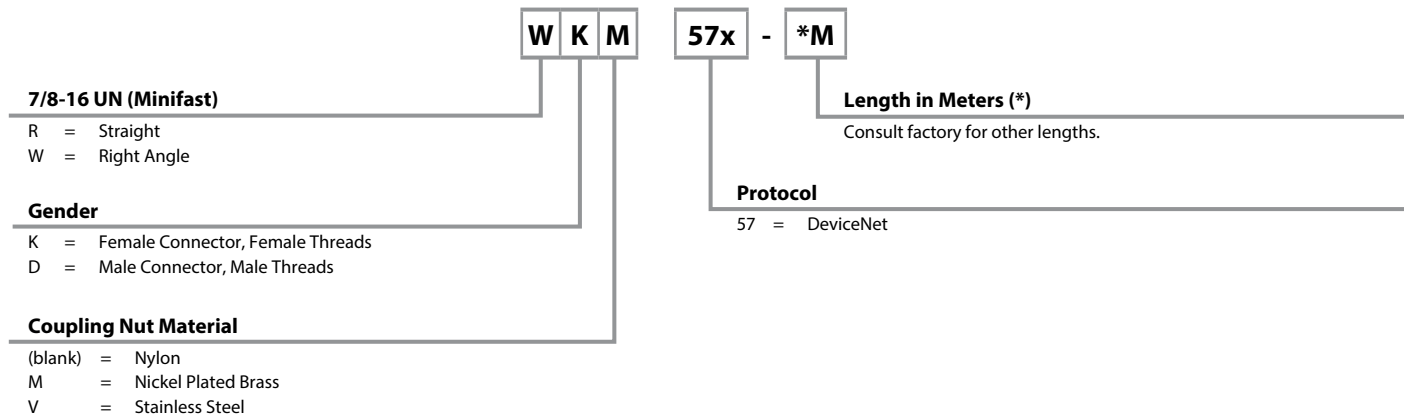
The valid range of DeviceNet node addresses is 0 to 63. The station's default node address is 63. Each node's address must be initially set, usually via rotary dials or switches on the node. The address can also be set with a DeviceNet configuration tool.

Changes to the address settings take effect when the station power is cycled. Care must be taken to prevent the same address from being assigned to more than one node in a system. If the same address is set on multiple nodes, one node will take control of the address and the others will go into "Critical Link Failure" state, indicated by the network status LED (solid red).

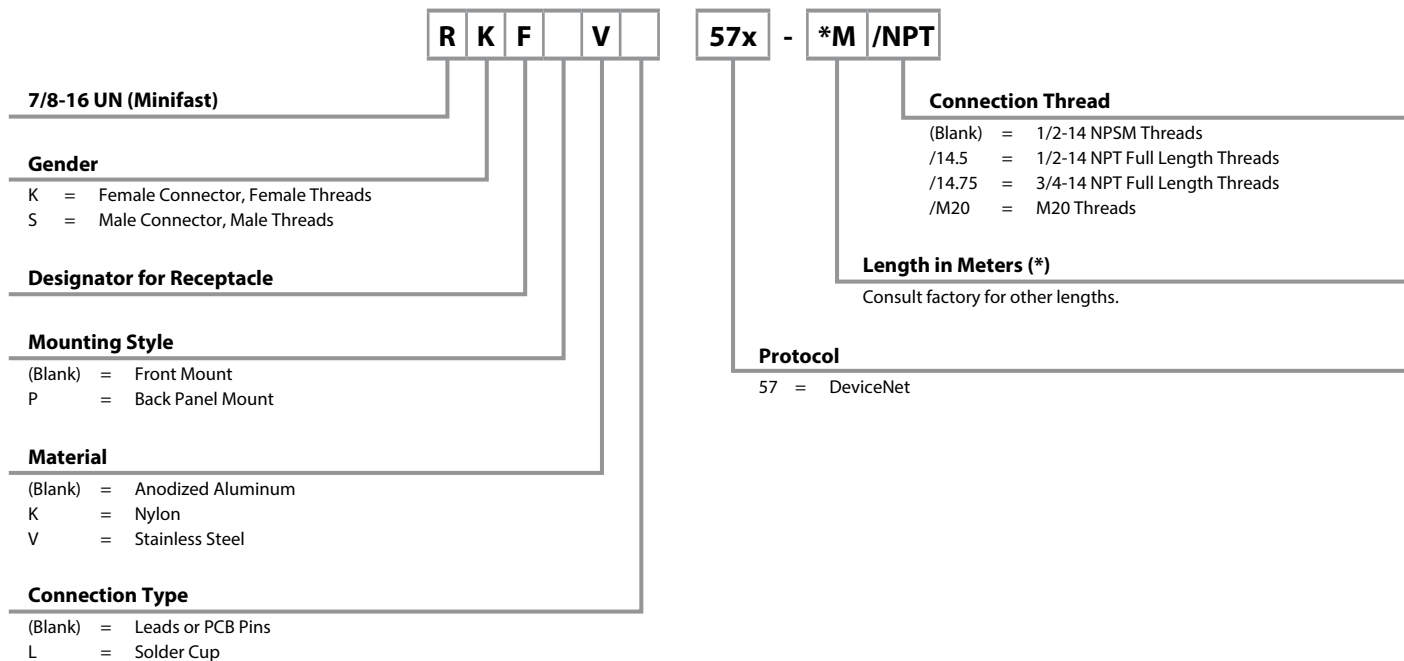
# DeviceNet™ Physical Media Connectivity

## Minifast® Cordset Part Number Key

Part Number Keys are to assist in IDENTIFICATION ONLY. Consult factory for catalog items not identified.

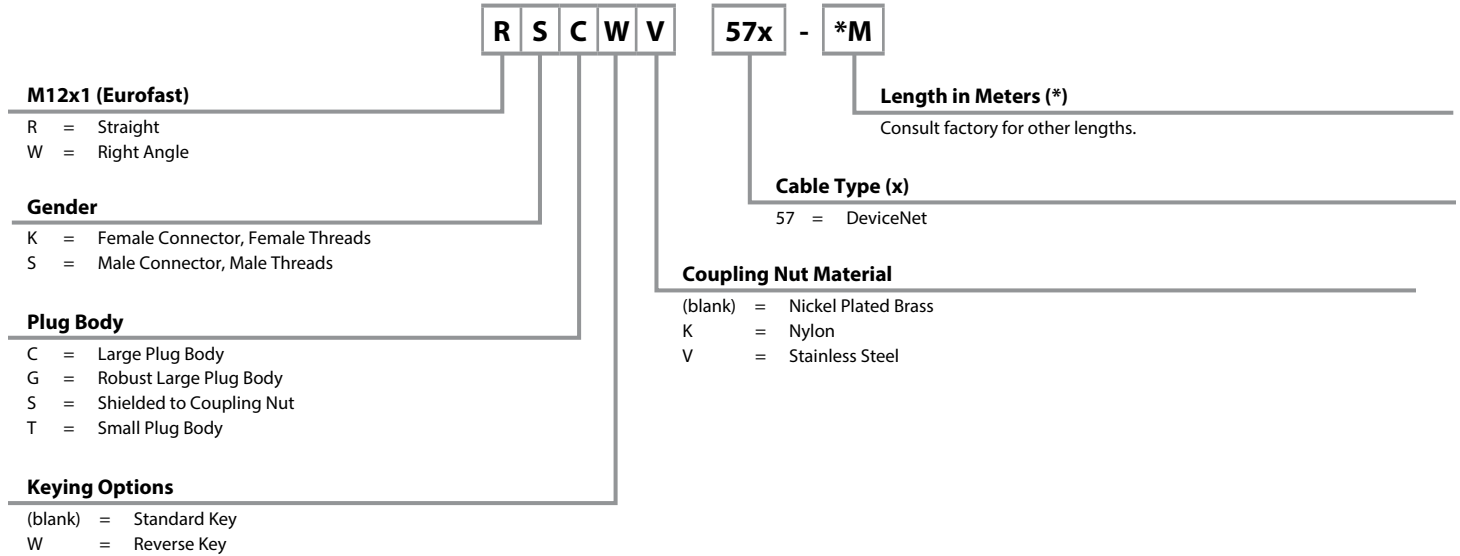


## Minifast Receptacle Part Number Key

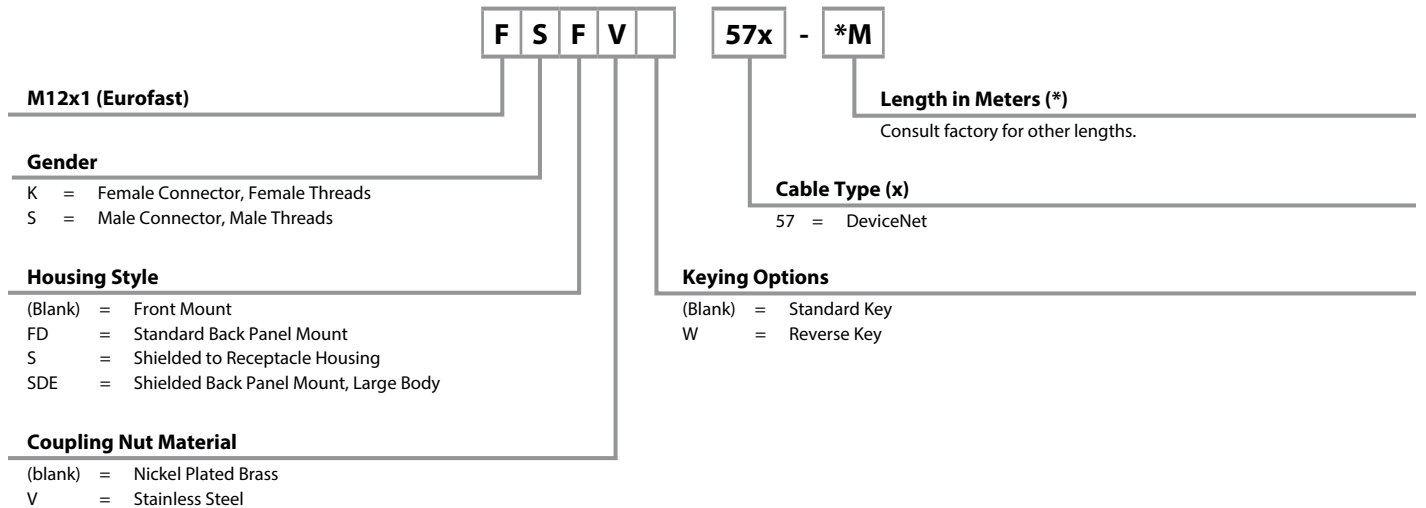


## Eurofast® Cordset Part Number Key

Part Number Keys are to assist in IDENTIFICATION ONLY. Consult factory for catalog items not identified.



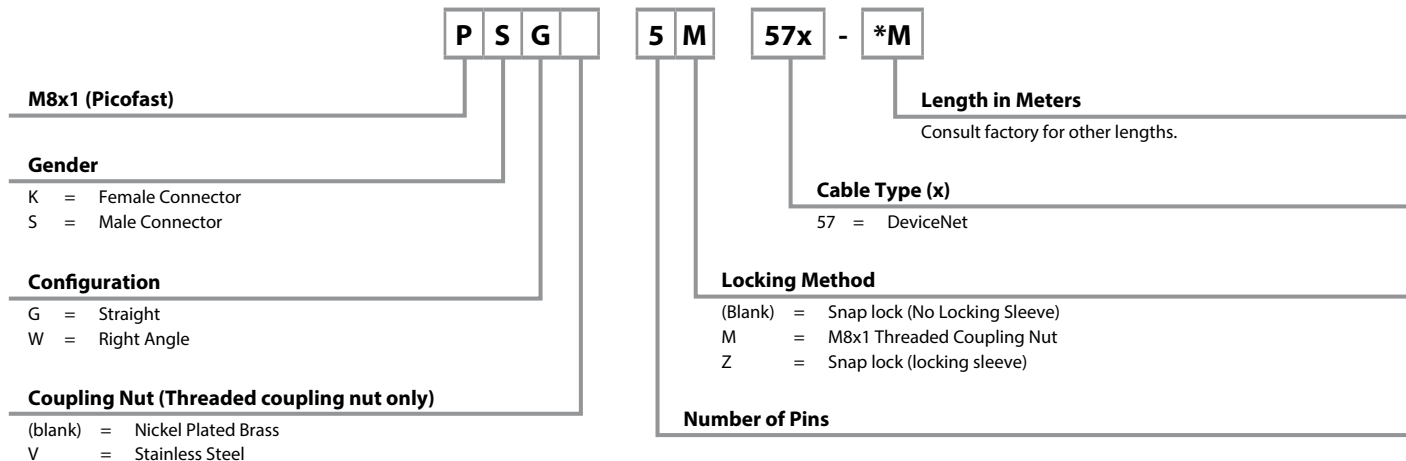
## Eurofast Receptacle Part Number Key



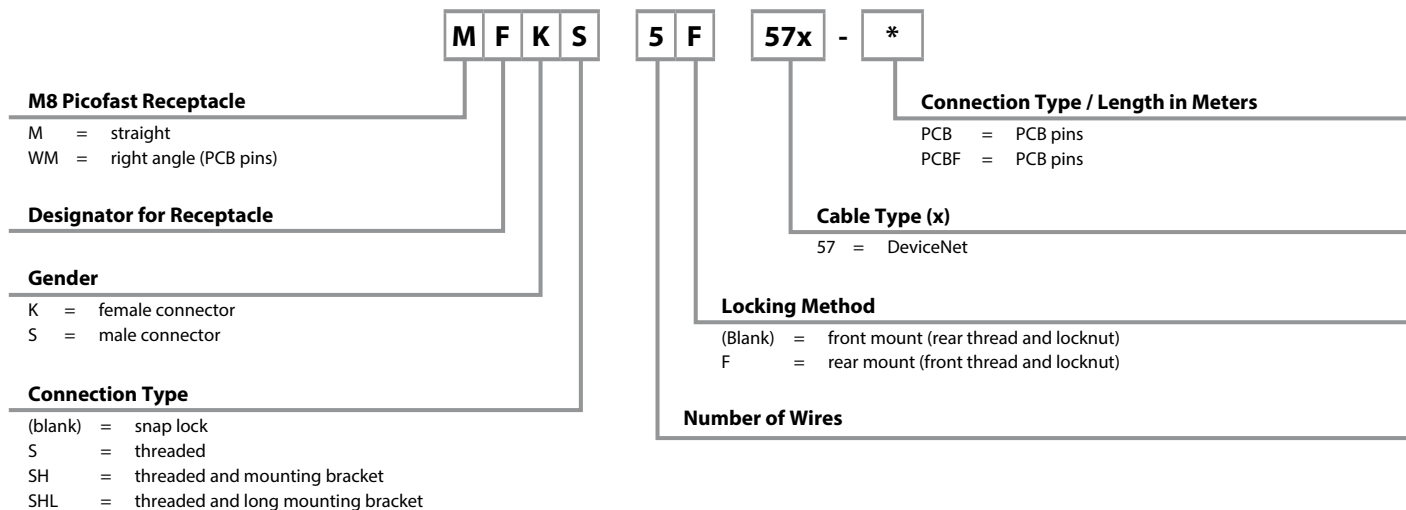
# DeviceNet™ Physical Media Connectivity

## Picofast® Part Number Key

Part Number Keys are to assist in IDENTIFICATION ONLY. Consult factory for catalog items not identified.



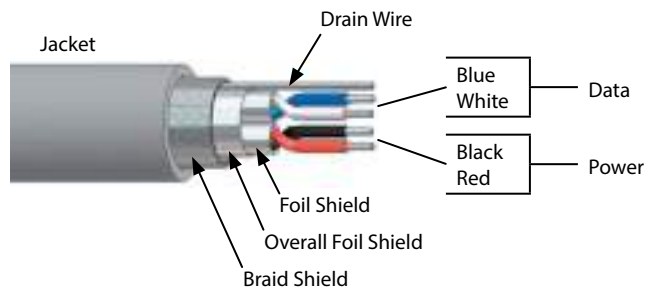
## M8 Picofast Receptacle Part Number Key



We reserve the right to make technical alterations without prior notice.

## DeviceNet, Thin Cable Specifications

- Cable that meets the requirements of ODVA Thin or Type 1 Cable
- Commonly used as Drop Cable to a maximum length of 6 meters (20 Feet) or Trunk Cable in Networks up to a maximum length of 100 meters (328 feet)



Data Rate	Maximum Trunk Length	Drop Length	
		Maximum	Cumulative
125 Kbaud	100 meters (328 feet)	6 meters (20 feet)	156 meters (512 feet)
250 Kbaud	100 meters (328 feet)		78 meters (256 feet)
500 Kbaud	100 meters (328 feet)		39 meters (128 feet)

Type	Approvals	Power Pair		Data Pair		Outer Jacket	Shields	Bulk Cable Part Number / Weight/300 M
		AWG Color Code	DCR (/1000 feet) Insulation	AWG Color Code	Characteristic Impedance 1 MHz/Insulation			
<b>572</b> 80 °C, 300 V	UL PLTC CSA CMX-OUTDOOR-CMG AWM I/II A/B, FT 4	2X22 AWG BK/RD	18.1 Ohms PVC	2X22 AWG BU/WH	120 Ohms HDPE	PVC, GRAY, 7.2 mm (.285 in)	Foil, 22 AWG	RB50603-*M, 44 lbs.
<b>577</b> 80 °C, 300 V	UL PLTC CSA CMX-OUTDOOR-CMG AWM I/II A/B, FT 4	2X22 AWG BK/RD	17.5 Ohms PVC	2X22 AWG BU/WH	120 Ohms HDPE	PVC, GRAY, 8.4 mm (.330 in)	Foil/braid, 22 AWG	RB50629-*M, 65 lbs. Flexlife®
<b>578</b> 80 °C, 600 V	UL PLTC, CL2 CSA CMX-OUTDOOR-CMG AWM I/II A/B, FT 4	2X22 AWG BK/RD	18.1 Ohms PVC	2X22 AWG BU/WH	120 Ohms HDPE	PVC, GRAY, 7.9 mm (.310 in)	Foil/braid, 22 AWG	RB50651-*M, 51 lbs.
<b>5715</b> 80 °C, 300 V	UL recognized AWM CSA AWM I/II A/B, FT 1	2X22 AWG BK/RD	18.1 Ohms PVC	2X22 AWG BU/WH	120 Ohms HDPE	PVC, GRAY, 6.0 mm (.235 in)	Foil (data only), 22 AWG	RB50764-*M, 26 lbs.
<b>5725</b> 80 °C, 300 V	UL recognized AWM CSA AWM I/II A/B, FT 1	2X22 AWG BK/RD	18.1 Ohms PO	2X24 AWG BU/WH	120 Ohms PE	TPU, VIOLET, 7.0 mm (.276 in)	Foil/braid, 22 AWG	RB51916-*M, 50 lbs. Halogen-free
<b>5732</b> 80 °C, 600 V	UL recognized AWM CSA AWM I/II A/B, FT 1	2X22 AWG BK/RD	18.1 Ohms PVC	2X22 AWG BU/WH	120 Ohms HDPE	TPE, CHARCOAL GRAY, 8.5 mm (.335 in)	Foil/braid, 22 AWG	RB51296-*M, 68 lbs. Flexlife, Weldlife

\* Indicates length in meters.

Standard spool lengths are 30, 75, 100, 150, 200, 225, 300 meters. Consult factory for other lengths.

†† Zero Halogen: to DIN VDE 0472 part 815 + IEC 60754-1

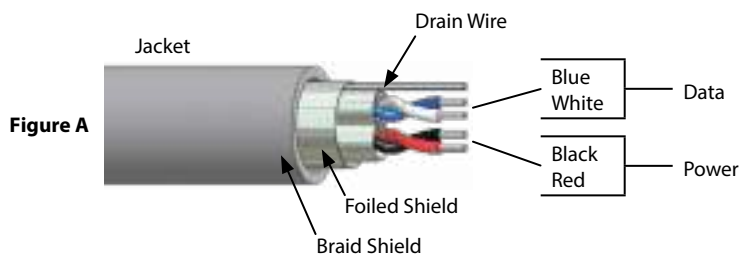
We reserve the right to make technical alterations without prior notice.

DeviceNet™ Media

# DeviceNet™ Physical Media Connectivity

## DeviceNet, Mid Cable Specifications

- Cable that meets the requirements of ODVA Mid or Type III Cable
- Provides more flexibility when used as a Trunk Cable up to a maximum length of 300 meters (984 feet)



Data Rate	Maximum Trunk Length
125 Kbaud	300 meters (984 feet)
250 Kbaud	250 meters (820 feet)
500 Kbaud	100 meters (328 feet)

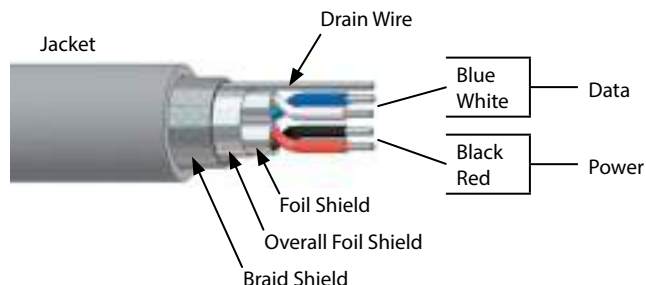
Type	Approvals	Power Pair		Data Pair		Outer Jacket	Shields	Bulk Cable Part Number / Weight/300 M
		AWG Color Code	DCR (/1000 feet) Insulation	AWG Color Code	Characteristic Impedance 1 MHz/Insulation	Material Color Nominal O.D.	Type Drain Wire	
<b>5711</b> 80 °C, 300 V	UL PLTC CSA CMX-OUTDOOR-CMG AWM I/II A/B, FT 4	2X16 AWG BK/RD	4.1 Ohms PVC	2X20 AWG BU/WH	120 Ohms HDPE	PVC, GRAY, 8.4 mm (.330 in)	Foil, 20 AWG	RB50721-*M, 65 lbs.
<b>5722</b> 80 °C, 300 V	UL PLTC CSA CMX-OUTDOOR-CMG AWM I/II A/B, FT 4	2X17 AWG BK/RD	5.8 Ohms PVC	2X20 AWG BU/WH	110 Ohms HDPE	PVC, GRAY, 8.9 mm (.350 in)	Foil, 20 AWG	RB50876-*M, 71 lbs. Flexlife®
<b>5723</b> 80 °C, 300 V	UL recognized AWM CSA AWM I/II A/B, FT 1	2X17 AWG BK/RD	5.8 Ohms PVC	2X20 AWG BU/WH	110 Ohms HDPE	TPU, GRAY, 8.4 mm (.330 in)	Foil, 20 AWG	RB50877-*M, 60 lbs. Flexlife
<b>5731</b> 80 °C, 300 V	UL recognized AWM CSA AWM I/II A/B, FT 1	2X16 AWG BK/RD	4.1 Ohms PVC	2X20 AWG BU/WH	120 Ohms HDPE	TPE, GRAY, 9.6 mm (.378 in)	Foil/braid, 20 AWG	RB51235-*M, 95 lbs. Weldlife
<b>5737</b> 80 °C, 300 V	UL recognized AWM CSA AWM I/II A/B, FT 1	2X17 AWG BK/RD	5.8 Ohms PVC	2X20 AWG BU/WH	110 Ohms HDPE	TPU, GRAY, 8.4 mm (.330 in)	Foil, 22 AWG	RB51903-*M, 60 lbs. C-track

\* Indicates length in meters.  
Standard spool lengths are 30, 75, 100, 150, 200, 225, 300 meters. Consult factory for other lengths.

We reserve the right to make technical alterations without prior notice.

## DeviceNet, Thick Cable Specifications

- Cable that meets the requirements of ODVA Thick or Type 1 Cable
- It provides the most power to a Network when used as a Trunk Cable up to a maximum Standard Cable Length of 500 meters (1640 feet)



Data Rate	Maximum Trunk Length	Maximum Trunk Length (5720)
125 Kbaud	500 meters (1640 feet)	420 meters (1378 feet)
250 Kbaud	250 meters (820 feet)	200 meters (656 feet)

Type	Approvals	Power Pair		Data Pair		Outer Jacket	Shields	Bulk Cable Part Number / Weight/300 M
		AWG Color Code	DCR (/1000 feet) Insulation	AWG Color Code	Characteristic Impedance 1 MHz/Insulation			
<b>575</b> 80 °C, 300 V	UL recognized AWM CSA AWM I/II A/B, FT 1	2X15 AWG BK/RD	3.6 Ohms PVC	2X18 AWG BU/WH	120 Ohms HDPE	TPU, GRAY, 10.4 mm (.409 in)	Foil/braid, 18 AWG	RB50633-*M, 94 lbs.
<b>579</b> 80 °C, 600 V	UL PLTC, CL2 CSA CMX-OUTDOOR-CMG AWM I/II A/B, FT 4	2X15 AWG BK/RD	3.6 Ohms PVC	2X18 AWG BU/WH	120 Ohms HDPE	PVC, GRAY, 11.2 mm (.440 in)	Foil/braid, 18 AWG	RB50652-*M, 122 lbs.
<b>5720</b> 75 °C, 600 V	UL TC-ER CSA AWM I/II A/B, FT 1	2X16 AWG BK/RD	4.9 Ohms PVC	2X18 AWG BU/WH	120 Ohms HDPE	PVC, GRAY, 13.3 mm (.525 in)	Foil/braid, 16 AWG	RB50793-*M, 168 lbs.
<b>5727</b> 80 °C, 600 V	UL PLTC CSA CMX-OUTDOOR-CMG AWM I/II A/B, FT 4	2X15 AWG BK/RD	3.6 Ohms PVC	2X18 AWG BU/WH	120 Ohms HDPE	PVC, CHARCOAL GRAY, 12.5 mm (.492 in)	Foil/braid, 18 AWG	RB51106-*M, 157 lbs. Flexlife
<b>5730</b> 80 °C, 600 V	UL recognized AWM CSA AWM I/II A/B, FT 1	2X15 AWG BK/RD	3.6 Ohms PVC	2X18 AWG BU/WH	120 Ohms HDPE	TPE, GRAY, 10.5 mm (.254 in)	Foil/braid, 18 AWG	RB51231-*M, 110 lbs. Weldlife

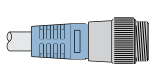
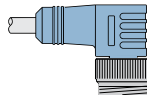
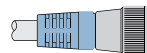
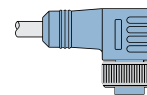
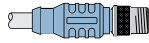


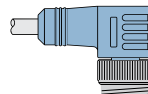

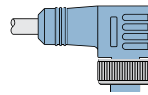
\* Indicates length in meters.  
Standard spool lengths are 30, 75, 100, 150, 200, 225, 300 meters. Consult factory for other lengths.

We reserve the right to make technical alterations without prior notice.

DeviceNet™ Media

# DeviceNet™ Physical Media Connectivity

## DeviceNet, Cable/Cordset Selection Matrix

		Minifast®				Eurofast® Thin/Mid Only
		(Male)		(Female)		Male
		1 	2 	3 	4 	7 
		RSM	WSM	RKM	WKM	RSC
		RSM 57x-*M	WSM 57x-*M	RKM 57x-*M	WKM 57x-*M	RSC 57x-*M
Bare						
Minifast (Male)	1 	RSM RSM 57x-*M	RSM WSM 57x-*M	RSM RKM 57x-*M	RSM WKM 57x-*M	RSM RSC 57x-*M
	RSM					
Minifast (Female)	2 		WSM WSM 57x-*M	WSM RKM 57x-*M	WSM WKM 57x-*M	WSM RSC 57x-*M
	WSM					
Minifast (Female)	3 			RKM RKM 57x-*M	RKM WKM 57x-*M	RKM RSC 57x-*M
	RKM					
Minifast (Female)	4 				WKM WKM 57x-*M	WKM RSC 57x-*M
	WKM					

See pages M16 - M17 for dimensional drawings.

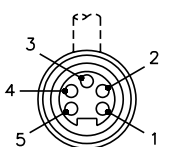
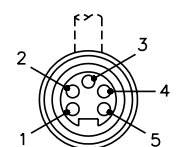
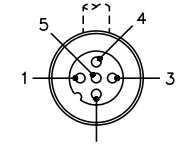
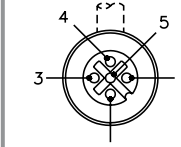
\* Indicates length in meters.

x Indicates cable type.

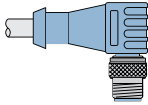
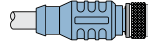
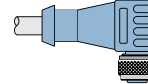
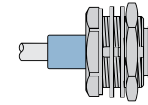
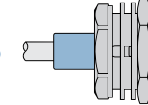
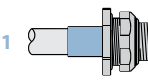
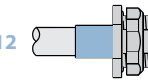
Standard cable lengths are 1, 2, 4, 6, 8, 10, 15, and in +5 meter increments from there. Consult factory for other lengths.

For stainless steel coupling nuts change part number RSM ... to RSV, WSM ... to WSV.

We reserve the right to make technical alterations without prior notice.

Minifast		Pinouts	Eurofast	
Male	Female		Male	Female
		1. Bare (Shield Drain Wire) 2. Red (+ Voltage) 3. Black (- Voltage) 4. White (CAN_H) 5. Blue (CAN_L)		

## DeviceNet, Cable/Cordset Selection Matrix

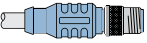
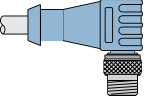
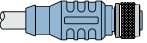
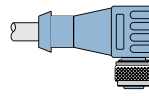

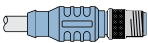
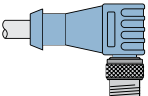

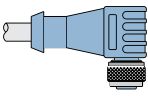
Eurofast® (Thin/Mid Only)			Minifast® Bulkhead		Eurofast Bulkhead (Thin Only)	
Male	Female	Female	Male	Female	Male	Female
 8 WSC	 9 RKC	 10 WKC	 5 RSFP	 6 RKFP	 11 FSFD	 12 FKFD
WSC 57x-*M	RKC 57x-*M	WKC 57x-*M	RSFP 57x-*M	RKFP 57x-*M	FSFD 57x-*M	FKFD 57x-*M
RSM WSC 57x-*M	RSM RKC 57x-*M	RSM WKC 57x-*M	RSM RSFP 57x-*M	RSM RKFP 57x-*M	RSM FSFD 57x-*M	RSM FKFD 57x-*M
WSM WSC 57x-*M	WSM RKC 57x-*M	WSM WKC 57x-*M	WSM RSFP 57x-*M	WSM RKFP 57x-*M	WSM FSFD 57x-*M	WSM FKFD 57x-*M
RKM WSC 57x-*M	RKM RKC 57x-*M	RKM WKC 57x-*M	RKM RSFP 57x-*M	RKM RKFP 57x-*M	RKM FSFD 57x-*M	RKM FKFD 57x-*M
WKM WSC 57x-*M	WKM RKC 57x-*M	WKM WKC 57x-*M	WKM RSFP 57x-*M	WKM RKFP 57x-*M	WKM FSFD 57x-*M	WKM FKFD 57x-*M

We reserve the right to make technical alterations without prior notice.

DeviceNet™ Media

# DeviceNet™ Physical Media Connectivity

## DeviceNet, Cable/Cordset Selection Matrix

		Eurofast® (Thin/Mid Only)			
		Male		Female	
		7 	8 	9 	10 
		RSC	WSC	RKC	WKC
	 Bare	RSC 57x-*M	WSC 57x-*M	RKC 57x-*M	WKC 57x-*M
Eurofast (Male) Thin/Mid Only	7 	RSC RSC 57x-*M	RSC WSC 57x-*M	RSC RKC 57x-*M	RSC WKC 57x-*M
	8 		WSC WSC 57x-*M	WSC RKC 57x-*M	WSC WKC 57x-*M
Eurofast (Female) Thin/Mid Only	9 			RKC RKC 57x-*M	RKC WKC 57x-*M
	10 				WKC WKC 57x-*M

See pages M16 - M17 for dimensional drawings.

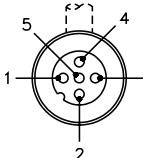
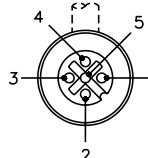
\* Indicates length in meters.

x Indicates cable type.

Standard cable lengths are 1, 2, 4, 6, 8, 10, 15, and in +5 meter increments from there. Consult factory for other lengths.

For stainless steel coupling nuts change part number RSM ... to RSV, WSM ... to WSV.

We reserve the right to make technical alterations without prior notice.

Pinouts	Eurofast	
	Male	Female
1. Bare (Shield Drain Wire) 2. Red (+ Voltage) 3. Black (- Voltage) 4. White (CAN_H) 5. Blue (CAN_L)		

## DeviceNet, Cable/Cordset Selection Matrix

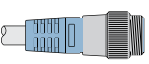
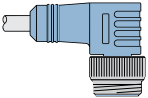
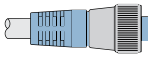
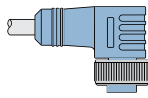
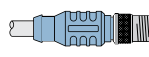
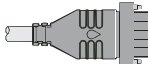
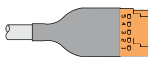
Minifast® Bulkhead		Eurofast® Bulkhead (Thin Only)	
Male	Female	Male	Female
 5 RSFP	 6 RKFP	 11 FSFD	 12 FKFD
RSFP 57x-*M	RKFP 57x-*M	FSFD 57x-*M	FKFD 57x-*M
RSC RSFP 57x-*M	RSC RKFP 57x-*M	RSC FSFD 57x-*M	RSC FKFD 57x-*M
WSC RSFP 57x-*M	WSC RKFP 57x-*M	WSC FSFD 57x-*M	WSC FKFD 57x-*M
RKC RSFP 57x-*M	RKC RKFP 57x-*M	RKC FSFD 57x-*M	RKC FKFD 57x-*M
WKC RSFP 57x-*M	WKC RKFP 57x-*M	WKC FSFD 57x-*M	WKC FKFD 57x-*M

We reserve the right to make technical alterations without prior notice.

DeviceNet™ Media

# DeviceNet™ Physical Media Connectivity

## DeviceNet, Open Connector Cordset Selection Matrix

		Minifast®				Eurofast®
		(Male)		(Female)		Male
		1  RSM	2  WSM	3  RKM	4  WKM	7  RSC
15  Bare	CBC5 57x-*M	RSM CBC5 57x-*M	WSM CBC5 57x-*M	RKM CBC5 57x-*M	WKM CBC5 57x-*M	RSC CBC5 57x-*M
16  Bare	BK52C 57x-*M	RSM BK52C 57x-*M	WSM BK52C 57x-*M	RKM BK52C 57x-*M	WKM BK52C 57x-*M	RSC BK52C 57x-*M
	Thin, Mid and Thick Cable					Thin Cable Only

See pages M16 - M17 for dimensional drawings.

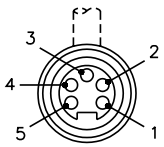
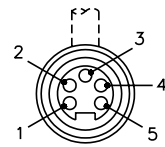
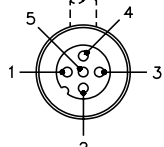
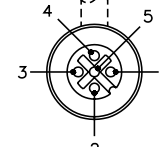
\* Indicates length in meters.

x Indicates cable type.

Standard cable lengths are 1, 2, 4, 6, 8, 10, 15, and in +5 meter increments from there. Consult factory for other lengths.

For stainless steel coupling nut: Change part number (RSM ... to RSV, RSC ... to RSCV).

We reserve the right to make technical alterations without prior notice.

Minifast		Pinouts	Eurofast	
Male	Female		Male	Female
		1. Bare (Shield Drain Wire) 2. Red (+ Voltage) 3. Black (- Voltage) 4. White (CAN_H) 5. Blue (CAN_L)		

## DeviceNet, Open Connector Cordset Selection Matrix

Eurofast®			Minifast® Bulkhead		Eurofast Bulkhead	
Male	Female	Female	Male	Female	Male	Female
8	9	10	5	6	11	12
WSC	RKC	WKC	RSFP	RKFP	FSFD	FKFD
WSC CBC5 57x-*M	RKC CBC5 57x-*M	WKC CBC5 57x-*M	RSFP CBC5 57x-*M	RKFP CBC5 57x-*M	FSFD CBC5 57x-*M	FKFD CBC5 57x-*M
WSC BK52C 57x-*M	RKC BK52C 57x-*M	WKC BK52C 57x-*M	RSFP BK52C 57x-*M	RKFP BK52C 57x-*M	FSFD BK52C 57x-*M	FKFD BK52C 57x-*M
Thin and Mid Cable Only			Thin, Mid and Thick Cable		Thin Cable Only	

See pages M16 - M17 for dimensional drawings.

\* Indicates length in meters.

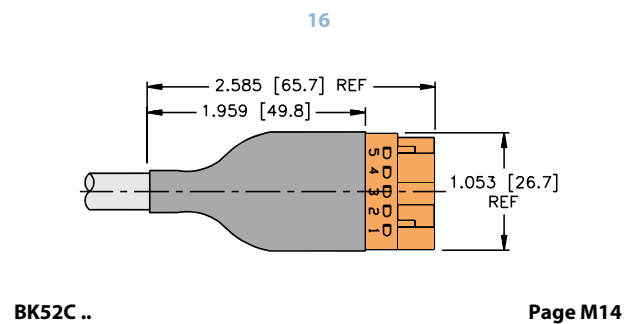
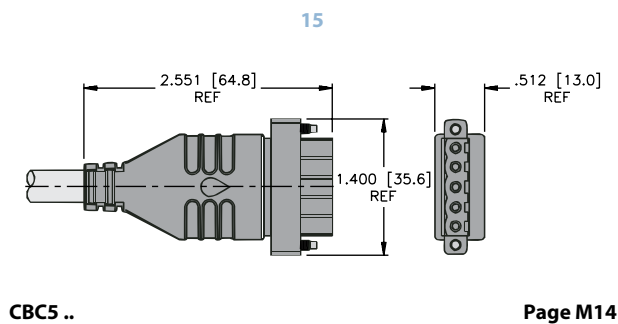
x Indicates cable type.

Standard cable lengths are 1, 2, 4, 6, 8, 10, 15, and in +5 meter increments from there. Consult factory for other lengths.

We reserve the right to make technical alterations without prior notice.

## Specifications

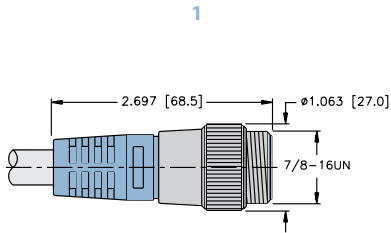
<b>Overmold:</b>	TPU	<b>Rated Voltage:</b>	250 V
<b>Contact Carrier:</b>	PA (Nylon)	<b>Rated Current:</b>	12 A
<b>Protection:</b>	NEMA 1, and IEC IP 20	<b>Ambient Temperature:</b>	-40 °C to +75 °C (-22 °F to +167 °F)



CBC5	Pinouts	BK52C
	1 = Black (- Voltage) 2 = Blue (CAN_L) 3 = Bare (Shield Drain) 4 = White (CAN_H) 5 = Red (+ Voltage)	

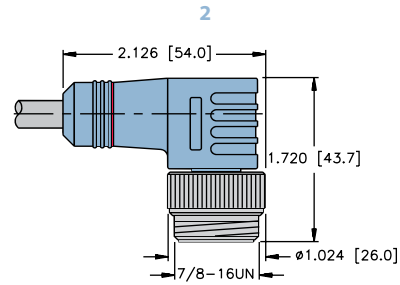
### Specifications

<b>Overmold:</b>	TPU	<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 67
<b>Coupling Nut:</b>	Nickel Plated CuZn or Stainless Steel	<b>Rated Voltage:</b>	300 V
<b>Contact Carrier:</b>	TPU	<b>Ambient Temperature:</b>	-40 °C to +75 °C (-22 °F to +167 °F)
<b>Contacts:</b>	Gold Plated CuZn		



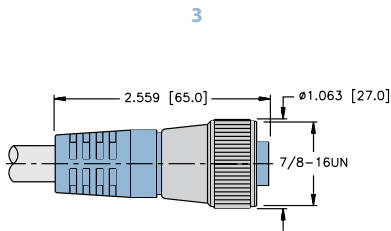
RSM ..

Page M10



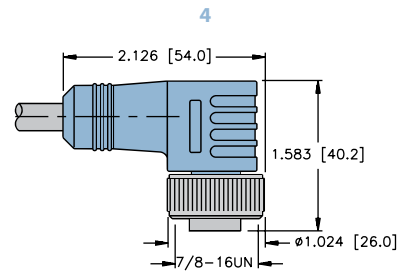
WSM ..

Page M10



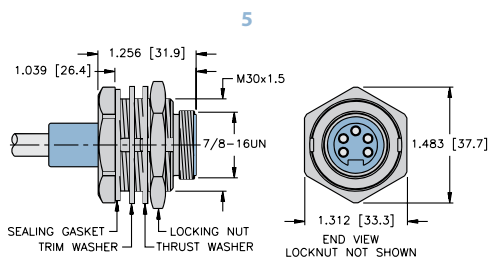
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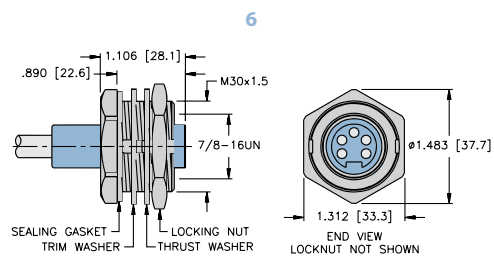
WKM ..

Page M10



RSFP ..

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RKFP ..

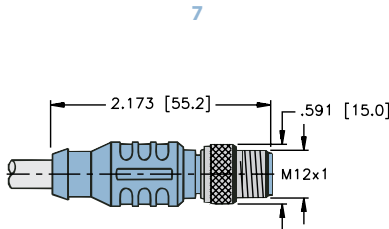
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We reserve the right to make technical alterations without prior notice.

Specifications

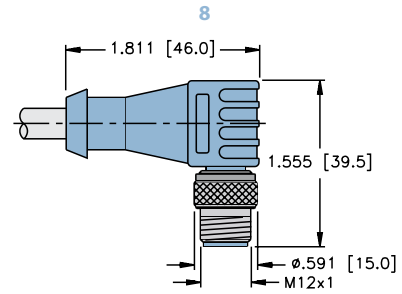
<b>Overmold:</b>	TPU	<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 68
<b>Coupling Nut:</b>	Nickel Plated CuZn or Stainless Steel	<b>Rated Voltage:</b>	250 V
<b>Contact Carrier:</b>	TPU or POM (Nylon)	<b>Rated Current:</b>	4 A
<b>Contacts:</b>	Gold Plated CuZn	<b>Ambient Temperature:</b>	-40 °C to +75 °C (-22 °F to +167 °F)

We reserve the right to make technical alterations without prior notice.



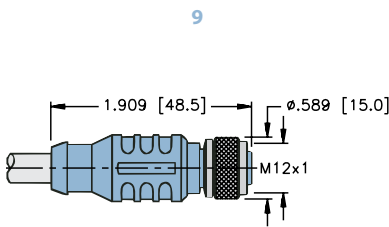
RSC ..

Page M10



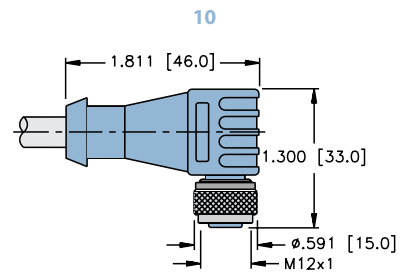
WSC ..

Page M11



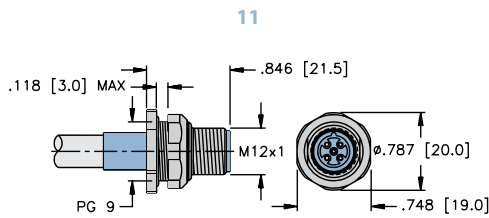
RKC ..

Page M11



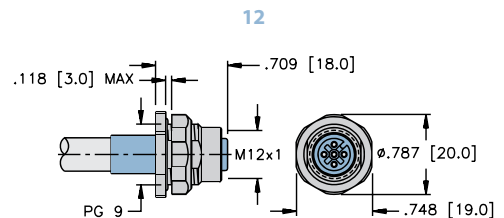
WKC ..

Page M11



FSFD ..

Page M11



FKFD ..

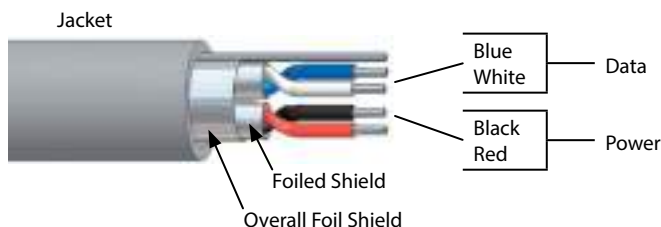
Page M11

DeviceNet™ Media

# DeviceNet™ Physical Media Connectivity

## DeviceNet, Pico Cable Specifications

- Cable that meets the electrical requirements of ODVA Thin Cable
- Pico Cable has 24 AWG Conductors which may be used with Picofast® Connectors



DeviceNet - Pico Cable 5724

Data Rate	Maximum Trunk Length
125 Kbaud	35 meters (115 feet)
250 Kbaud	35 meters (115 feet)
500 Kbaud	35 meters (115 feet)

DeviceNet - Thin Cable 5715

Data Rate	Maximum Trunk Length
125 Kbaud	100 meters (328 feet)
250 Kbaud	100 meters (328 feet)
500 Kbaud	100 meters (328 feet)

Type	Approvals	Power Pair		Data Pair		Outer Jacket	Shields	Bulk Cable Part Number / Weight/300 M
		AWG Color Code	DCR (/1000 feet) Insulation	AWG Color Code	Characteristic Impedance 1 MHz/Insulation	Material Color Nominal O.D.	Type Drain Wire	
<b>5724</b> 80 °C, 300 V	UL recognized AWM CSA AWM I/II A/B, FT 1	2X24 AWG BK/RD	24.9 Ohms PVC	2X24 AWG BU/WH	120 Ohms HDPE	PVC, GRAY, 5.7 mm (.224 in)	Foil, 24 AWG	RB51045-*M, 27 lbs.
<b>5715</b> 80 °C, 300 V	UL recognized AWM CSA AWM I/II A/B, FT 1	2X22 AWG BK/RD	18.1 Ohms PVC	2X22 AWG BU/WH	120 Ohms HDPE	PVC, GRAY, 6.0 mm (.235 in)	Foil (data only), 22 AWG	RB50764-*M, 26 lbs.

\* Indicates length in meters.  
Standard cable lengths are 1, 2, 4, 6, 8, 10, 15, and in +5 meter increments from there. Consult factory for other lengths.

We reserve the right to make technical alterations without prior notice.

## DeviceNet, Cable/Cordsets Selection Matrix - Threaded

		Picofast® (M8)				Eurofast® (M12)			
		Female		Male		Male		Female	
		3 PKG 5M	4 PKW 5M	1 PSG 5M	2 PSW 5M	7 RST	8 WST	9 RKT	10 WKT
Bare		PKG 5M-57x	PKW 5M-57x	PSG 5M-57x	PSW 5M-57x	RST 57x*	WST 57x	RKT 57x*	WKT 57x*
Picofast (Female)	3 PKG 5M	PKG 5M PKG 5M-57x	PKW 5M PKW 5M-57x	PKG 5M PSG 5M-57x	PKG 5M PSW 5M-57x	PKG 5M RST 57x*M	PKG 5M WST 57x*M	PKG 5M RKT 57x*M	PKG 5M WKT 57x*M
	4 PKW 5M		PKW 5M PKW 5M-57x	PKW 5M PSG 5M-57x	PKW 5M PSW 5M-57x	PKW 5M RST 57x*M	PKW 5M WST 57x*M	PKW 5M RKT 57x*M	PKW 5M WKT 57x*M
Picofast (Male)	1 PSG 5M			PSG 5M PSG 5M-57x	PSG 5M PSW 5M-57x	PSG 5M RST 57x*M	PSG 5M WST 57x*M	PSG 5M RKT 57x*M	PSG 5M WKT 57x*M
	2 PSW 5M				PSW 5M PSW 5M-57x	PSW 5M RST 57x*M	PSW 5M WST 57x*M	PSW 5M RKT 57x*M	PSW 5M WKT 57x*M

See pages M23 - M24 for dimensional drawings.

\* Indicates length in meters.

x Indicates cable type. See page B125 for available cable types.

Standard cable lengths are 1, 2, 6, 8, 10, 15, and in +5 meter increments from there. Consult factory for other lengths.

For stainless steel coupling nuts change part number PSG 5M ... to PSGV 5M, PSW 5M ... to PSWV 5M.

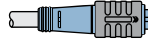
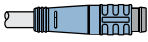
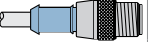
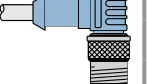
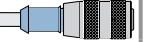
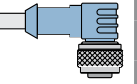
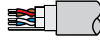
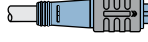
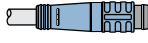
We reserve the right to make technical alterations without prior notice.

DeviceNet™ Media

Picofast		Pinouts	Eurofast	
Male	Female		Male	Female
		1. Bare (Shield Drain Wire) 2. Red (+ Voltage) 3. Black (- Voltage) 4. White (CAN_H) 5. Blue (CAN_L)		

# DeviceNet™ Physical Media Connectivity

## DeviceNet, Cable/Cordsets Selection Matrix - Snap Lock

		Picofast®		Eurofast®			
		(Male)		(Female)		Male	Male
		 6 PKG 5Z	 5 PSG 5	 7 RST	 8 WST	 9 RKT	 10 WKT
 Bare		PKG 5Z 57x-*M	PSG 5 57x-*M	RST 57x-*	WST 57x-*	RKT 57x-*	WKT 57x-*
Picofast (Male) (5724 Cable Only)	 6 PKG 5Z	PKG 5Z PKGZ 5Z 57x-*M	PKG 5Z PSG 57x-*M	PKG 5Z RST 57x-*M	PKG 5Z WST 57x-*M	PKG 5Z RKT 57x-*M	PKG 5Z WKT 57x-*M
	 5 PSG 5		PSG 5 PSG 5 57x-*M	PSG 5 RST 57x-*M	PSG 5 WST 57x-*M	PSG 5 RKT 57x-*M	PSG 5 WKT 57x-*M

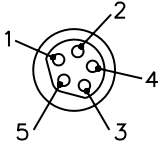
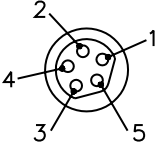
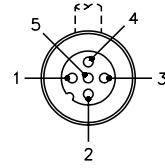
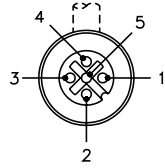
See pages M23 - M24 for dimensional drawings.

\* Indicates length in meters.

x Indicates cable type. See page M20 for available cable types.

Standard cable lengths are 1, 2, 4, 5, 6, 8, 10, 15, and in +5 meter increments from there. Consult factory for other lengths.

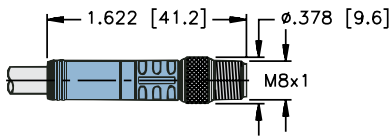
We reserve the right to make technical alterations without prior notice.

Picofast		Pinouts	Eurofast	
Male	Female		Male	Female
		1. Bare (Shield Drain Wire) 2. Red (+ Voltage) 3. Black (- Voltage) 4. White (CAN_H) 5. Blue (CAN_L)		

Specifications

<b>Overmold:</b>	TPU	<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 67
<b>Coupling Nut:</b>	Nickel Plated CuZn or Stainless Steel (thread), Nylon (snap lock)	<b>Rated Voltage:</b>	30 V
<b>Contact Carrier:</b>	TPU or POM (Nylon)	<b>Rated Current:</b>	3 A
<b>Contacts:</b>	Gold Plated CuZn	<b>Ambient Temperature:</b>	-40 °C to +80 °C (-22 °F to +176 °F)

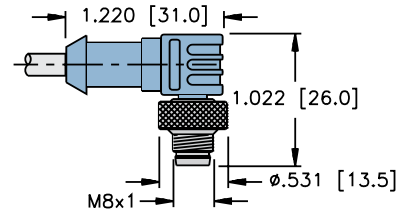
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PSG 5M ..

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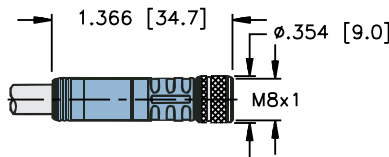
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PSW 5M ..

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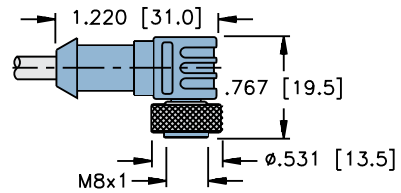
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PKG 5M ..

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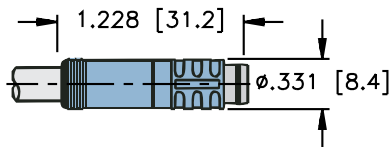
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PKW 5M ..

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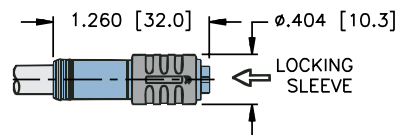
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PSG 5 ..

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6



PKG 5Z ..

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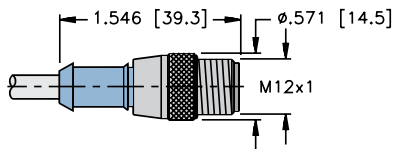
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DeviceNet™ Media

### Specifications

<b>Overmold:</b>	TPU	<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 68
<b>Coupling Nut:</b>	Nickel Plated CuZn or Stainless Steel	<b>Rated Voltage:</b>	250 V
<b>Contact Carrier:</b>	TPU	<b>Rated Current:</b>	4 A
<b>Contacts:</b>	Gold Plated CuZn	<b>Ambient Temperature:</b>	-40 °C to +80 °C (-22 °F to +176 °F)

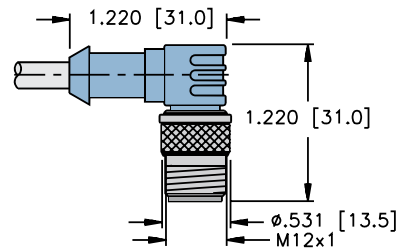
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RST ..

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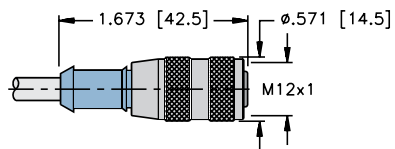
8



WST ..

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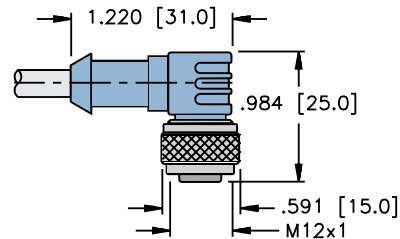
9



RKT ..

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10



WKT ..

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## DeviceNet, Terminating Resistors

- Terminating Resistors stabilize and minimize reflections on the Bus Line
- A Terminating Resistor is required at the beginning and end of the Main Bus Line



Housing Style	Part Number	Features	Pinout
	<b>RSM 57-TR2</b>	Nickel plated brass or stainless steel, 300 V (7.6 V max. on pins with resistor), -40 °C to +80 °C, IP 67, 120 Ohms, 1/2 W internal resistance	<b>Male</b> 
	<b>RKM 57-TR2</b>	Nickel plated brass or stainless steel, 300 V (7.6 V max. on pins with resistor), -40 °C to +80 °C, IP 67, 120 Ohms, 1/2 W internal resistance	<b>Female</b> 
	<b>RSM 57-TR2/VM</b>	Nickel plated brass or stainless steel, 24 V (7.6 V max. on pins with resistor), -40 °C to +80 °C, IP 67, 120 Ohms, 1/2 W internal resistance, voltage monitoring  Led indication: Red - reverse polarity Green - okay	<b>Male</b> 
	<b>RSE 57-TR2</b>	Nickel plated CuZn or stainless steel, 250 V (7.6 V max. on pins with resistor), 4 A, -40 °C to +80 °C, IP 68, 120 Ohms, 1/2 W internal resistance	<b>Male</b> 
	<b>RKE 57-TR2</b>	Nickel plated CuZn or stainless steel, 250 V (7.6 V max. on pins with resistor), 4 A, -40 °C to +80 °C, IP 68, 120 Ohms, 1/2 W internal resistance	<b>Female</b> 
	<b>RSE 57-TR2/VM</b>	Nickel plated CuZn or stainless steel, 10-30 VDC, -40 °C to +80 °C, IP 68, 120 Ohms, 1/2 W internal resistance, voltage monitoring  Led indication: Red - reverse polarity Green - okay	<b>Female</b> 

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DeviceNet™ Media

# DeviceNet™ Physical Media Connectivity

## DeviceNet, Terminating Resistors

- Terminating Resistors stabilize and minimize reflections on the Bus Line
- A Terminating Resistor is required at the beginning and end of the Main Bus Line



Housing Style	Part Number	Features	Pinout
	PSG 5M 57-TR	Nickel plated brass or stainless steel, 125 V(7.6 V max on resistor), 2 A, -40 °C to +105 °C, IP 67, male Picofast® connector, 120 Ohms, 1/2 W internal resistance	<b>Male</b> 
	PKG 5M 57-TR		<b>Female</b> 

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## DeviceNet, Receptacles

- Receptacles provide transition from Male to Female Connectors
- Available for Bulkhead and Feed Through applications



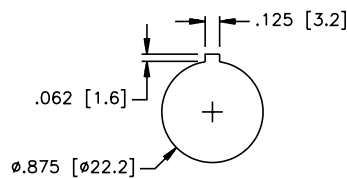
Housing Style	Part Number	Features	Pinout
	<b>RSF RKF 57/22</b>	Straight male/female feed through, nickel plated CuZn or stainless steel, 300 V, 9 A, -40 °C to +75 °C, IP 67	
	<b>FKM FS 57/M12</b>	Straight male/female feed through, nickel plated CuZn or stainless steel, 150 V, 4 A, -40 °C to +75 °C, IP 67	

Standard housing material is nickel plated brass. "RSF RKF.."; "RSFV RKFV.." indicates stainless steel housing.

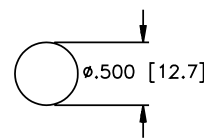
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DeviceNet™ Media

**Panel Cutout  
RSF RKF 57/22**



**Panel Cutout  
FKM FS 57/M12**



# DeviceNet™ Physical Media Connectivity

## DeviceNet, Eurofast® Drop Junctions

- Creates a Drop or Branch from the Main Bus Line
- Cable Drop Lengths available up to a maximum of 6 meters



Housing Style	Part Number	Features	Wiring Diagrams
	<b>VB2-FKM/FKM/FSM 57</b>	Ready for Eurofast drop and trunk cordsets, maximum six meter drop	
	<b>VB2-RKC 57x-*/FKM FSM</b>	Ready for Eurofast trunk line, maximum six meter drop	
	<b>VB2-FKM/RKC RSC 57x-*M-*M</b>	Ready for Eurofast drop cordsets, maximum six meter branch	

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\* Indicates length in meters.  
 x Indicates cable type.