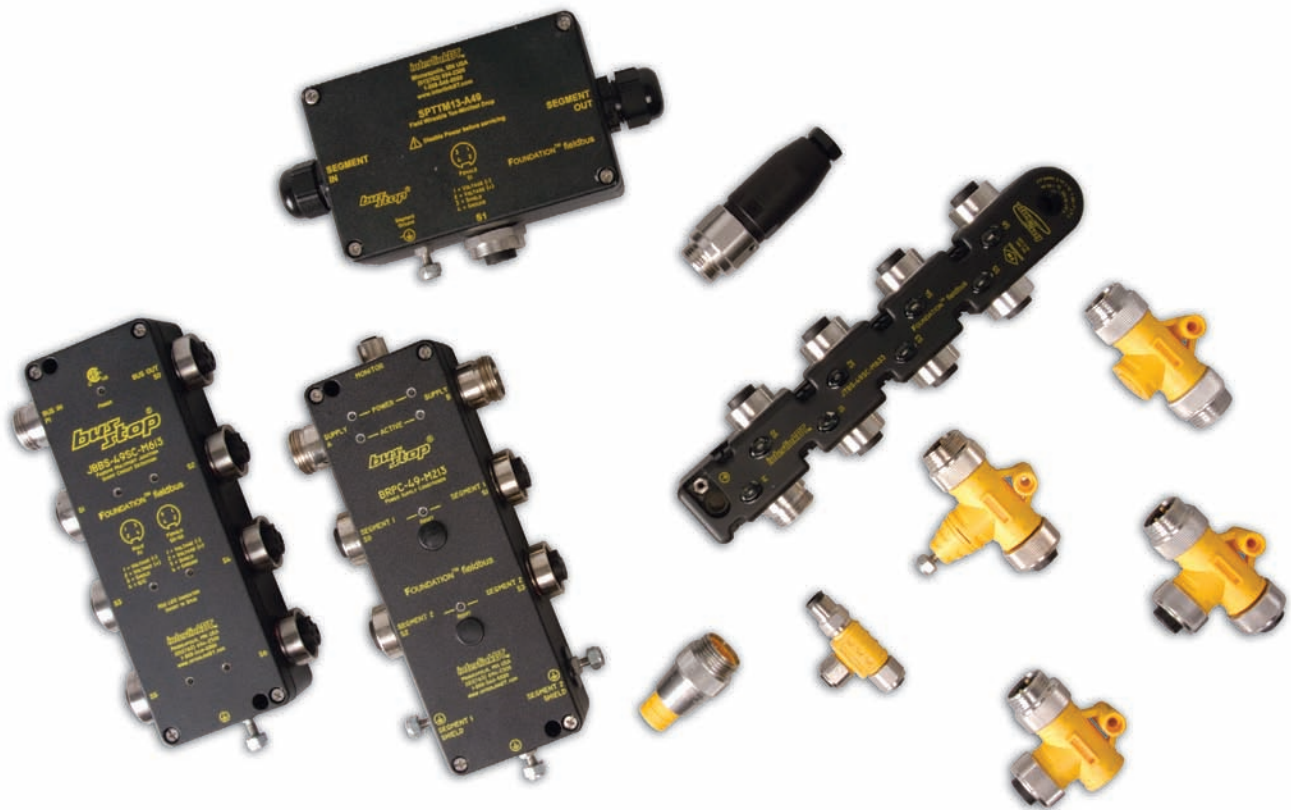


# FOUNDATION™ fieldbus



FOUNDATION fieldbus

# TURCK

## Network Media Products

### FOUNDATION™ fieldbus General Specifications

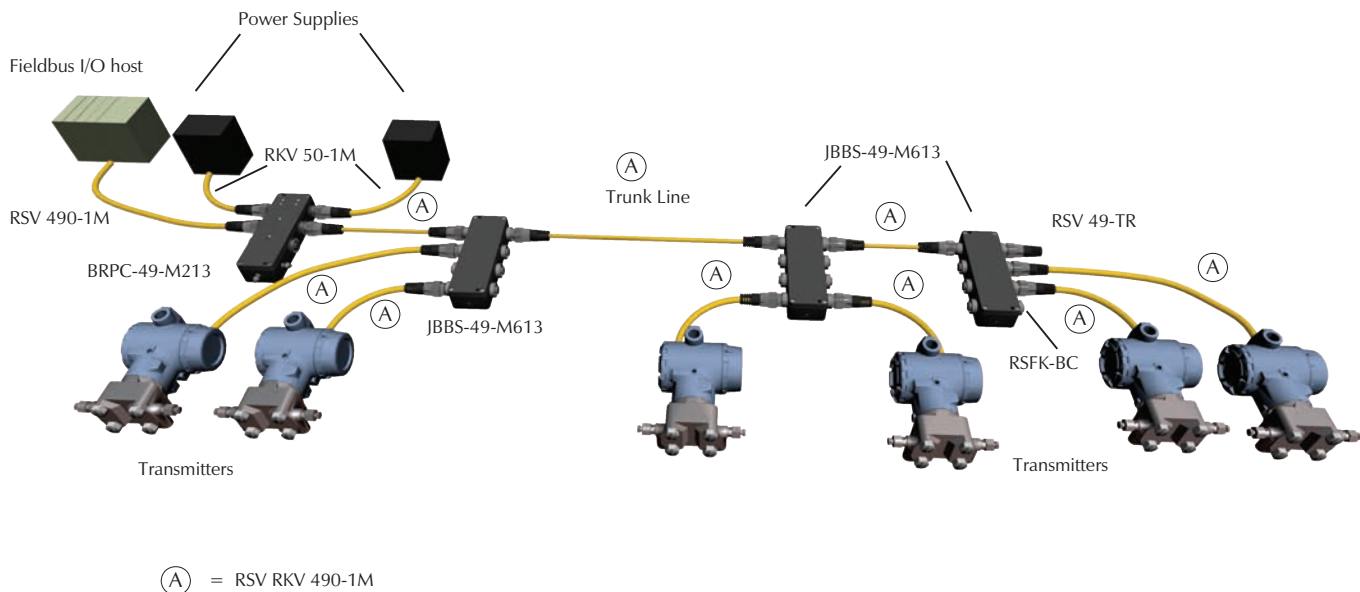
FOUNDATION fieldbus is a communication protocol and physical method to interconnect smart devices such as temperature transmitters, pressure transmitters and valve actuators. The physical layer conforms to ISA SP50.02 and IEC 1158-2 standards for fieldbuses.

Fieldbus technology allows many smart devices to share one communication medium. The digital communication signal is superimposed onto a DC carrier. This reduces the amount of terminations to connect all the field devices to a host system and allows greater flexibility for future additions of I/O points.

A FOUNDATION fieldbus device is addressable and can store and transmit data. The devices can store values, track changes and use pre-set alarms to trigger. Based on pre-defined tag names host systems can read transmitter values such as temperature and pressure to set values of a valve actuator.

Digital signal encoding is done using Manchester BiPhase-L and error checking is done with the CRC method. FOUNDATION fieldbus has two types of devices - A Basic Device (BD) which reads inputs, track values and set outputs if programmed to do so - A Link Active Scheduler (LAS) performs the same features as a BD and handles network communication timing between all the active devices on the network.

### Topology



FOUNDATION™ fieldbus, Selection Guide



Power Conditioner	Cables	Terminating Resistors	Feed Through Connectors
R5 - R14	R15	R22	R23



Field Wireable Tee	Junctions	Conduit Adapters
R24	R25	R51



Power Supply Conditioner	Tees	Gender Changers
R53	R55	R56, R68



Surge Suppressor	Receptacles	Field Wireable Connectors
R57	R58	R66

FOUNDATION fieldbus

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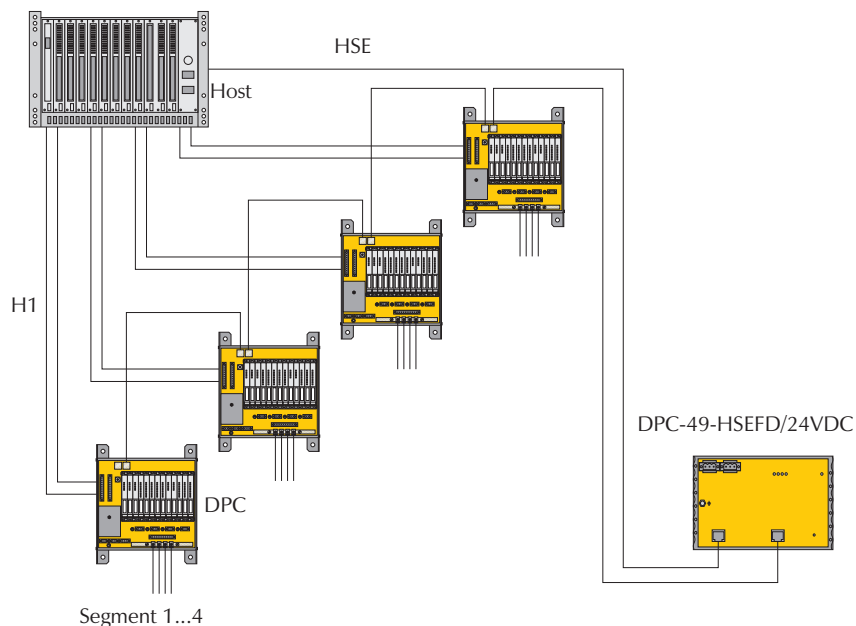
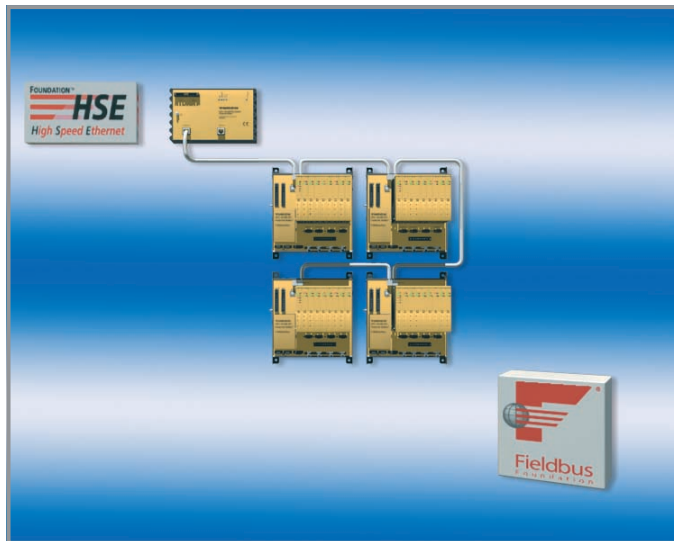
## Network Media Products

The DPC-System (Diagnostic Power Conditioner System) is a power supply system for the installation of FOUNDATION™ fieldbus H1 segments. It provides comprehensive diagnostic functions for the monitoring of FOUNDATION fieldbus segments and supports asset management for the entire system.

A DPC system consists of one or more module racks (DPC-49-MB-RC) each with up to eight power supply modules (DPC-49-IPS) and one diagnostic module (DPC-49-ADU). Up to four H1 segments for each module rack can be operated and monitored redundantly. The diagnostic data from the H1 segments are transmitted via the HSE interface module (DPC-49-HSEFD/24VDC) to the higher level asset management system.

The diagnostic module (DPC-49-ADU) is used as a communication and diagnostic interface between the H1 segments and the power supply module. The diagnostics module monitors the electrical parameters and the communication parameters of the H1 segments. Operation without diagnostic module is possible. In this configuration, simple diagnostics are provided locally.

The diagnostic information is collected in the device and transmitted via the HSE interface module to the higher fieldbus level (e.g. to the host) as diagnostic and alarm data. The diagnostic module can be plugged in and unplugged during operation (hot swappable).



**DPC system configuration**



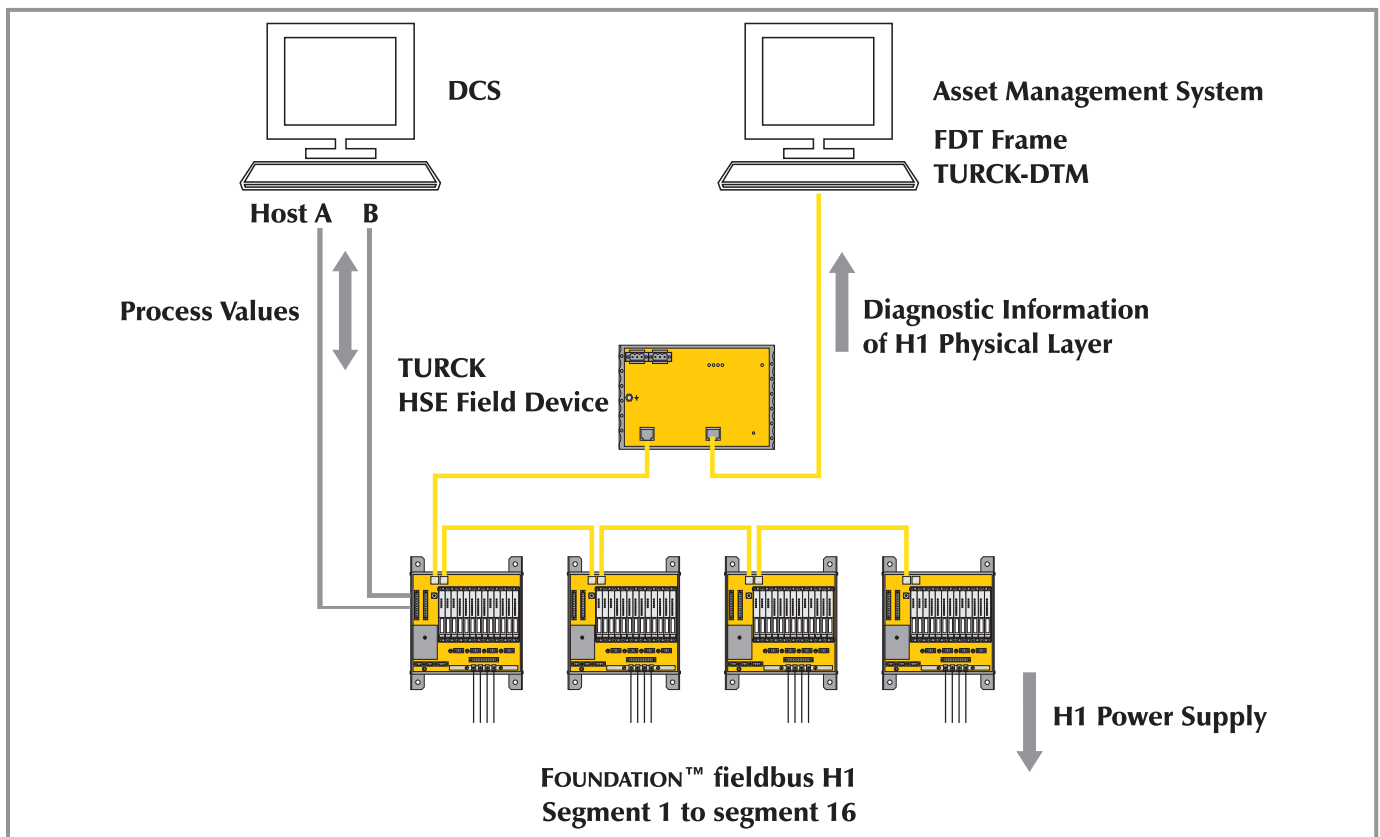
**Diagnostics via DTM**

## Fieldbus - The dynamic asset

Information concerning the components of the control system and field devices are typically stored and monitored by that system. Information on assets that make up the communication infrastructure (physical layer components) have been simply stored in an asset management system. With the DPC system, the physical layer components are continuously monitored providing virtually instantaneous information regarding the quality and the status of the communication link.

This aspect of the system is the key to achieving the main objective of asset management to minimize maintenance and lower system operating costs.

**TURCK** has drastically improved on existing physical layer components for use in FOUNDATION™ fieldbus applications. The introduction of this system allows the continuous monitoring of every physical layer component, thus treating the entire physical layer as an asset and providing the means for it to be managed as such.



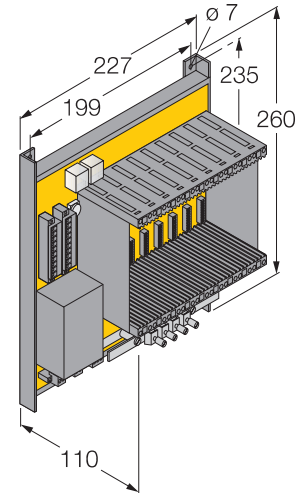
The DPC System detects errors that may develop over an extended period of time or through typical failure modes. These changes can occur due to many factors, such as environmental changes, deterioration of components over time, and any other factors that may affect the physical components of a fieldbus segment. Some of these factors may appear as changes in jitter, hum, noise levels etc. Alarm strategies may be employed that will warn of typical asset errors, potential errors or failures. Preventive measures can be implemented well in advance of a potential system failure. Most common failures can be completely avoided when a preventive maintenance schedule is implemented. The DPC system also supports the set-up of fieldbus assets by using expedient localization of error sources, as well as documentation indicating a "good condition" of the segment structure.

The DPC system provides an option for redundant segment supplies. The system, fully loaded, can accommodate up to 16 fully redundant FOUNDATION fieldbus segments each with an output of 800 mA and 30 VDC. Diagnostic data is available via a DTM, standard FOUNDATION fieldbus function block libraries or an embedded web server in the HSE field device.



**DPC-49-MB-RC**

**Backplane for the DPC System**



The DPC-System (Diagnostic-Power-Conditioner-System) is a power supply system for the installation of FOUNDATION™ fieldbus H1 segments. It offers comprehensive diagnostic functions for the monitoring of FOUNDATION™ fieldbus segments and thus supporting Asset Management for the whole system.

A DPC system consists of one or more module racks DPC-49-MB-RC each with up to eight power supply modules DPC-49-IPS and one diagnostic module DPC-49-ADU. Up to four H1 segments for each module rack can be operated and monitored redundantly in the FOUNDATION™ fieldbus. The diagnostic data from the H1 segments are transmitted via the HSE interface module DPC-49-HSEFD/24VDC to the higher level Asset-Management-System.

The module rack DPC-49-MB-RC consists of a backplane and the actual rack system for the power supply modules and the diagnostic module.

The single components of the system are electrically linked via the connection terminals of the backplane from the user side. Thereby from an electrical perspective, the backplane is to be considered passive.

The power can be supplied via two 2-pole screw connectors. The connection to the host system is established via two system cables. Optional Pre-assembled system cables are available at **TURCK**.

For the connection of the H1 segments to the fieldbus side a 2-pole screw connector terminal is provided for each segment, or alternatively a 10-pole screw connector terminal for all segments together on the system side (system connection). Each H1 segment is equipped with a terminating resistor.

Shielding is established via a shielding bus bar DPC-49-SB4 or via the system connection, which is internally connected with the M5 threaded bolt for equipotential bonding.

A connection to the relay alarm contact of the diagnostic module is available for simple diagnostics processing. Additionally a terminal for the connection of test devices is available for each H1 segment.

The rack system is made of extruded aluminum sections. Thus high system stability and shielding is guaranteed. The module rack is suited for wall mounting as well as for 19" rail mounting.

**Features:**

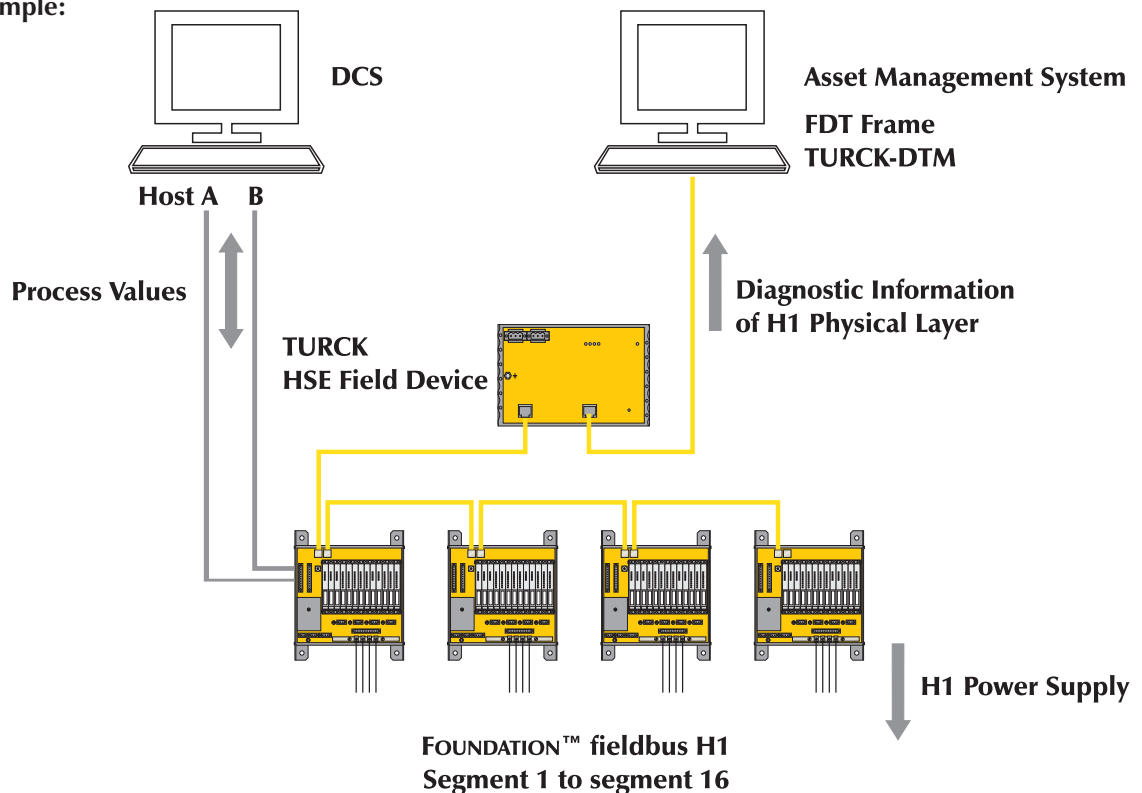
- Backplane for up to 8 power conditioner modules and 1 diagnostics module
- Exchangeable EMC filter
- Redundant host connection
- Redundant power supply
- Removable terminal blocks with screw connection
- RJ45 connector for HSE fieldbus diagnostics
- Insulated shield terminals
- Terminating resistor with segment output

## Backplane for the DPC System

**DPC-49-MB-RC**

<b>Part Number</b>	DPC-49-MB-RC
ID Number	M6882010
<b>Fieldbus Standard</b>	IEC 61158-2
<b>Operating Voltage (Pwr)</b>	18 to 32 VDC
Surge / Overvoltage Suppression	< 250 mA
<b>Connection</b>	Removable terminal block, reverse polarity protected, screw connection RJ45 socket
<b>Protection Degree</b>	IP 20
Ambient Temperature	-20 to +60°C (-4 to +140°F)
Housing Material	Aluminum
Housing Color	Black / Yellow
Dimensions	227 x 260 x 110 mm
Mounting	Flush Panel

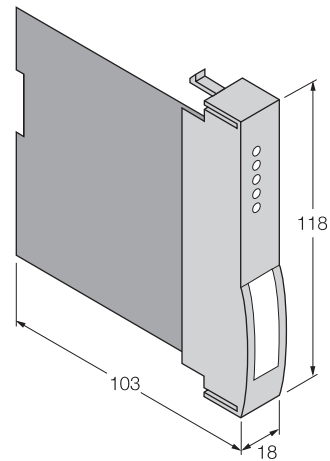
### Installation Example:



FOUNDATION fieldbus

**DPC-49-IPS**

**Power Supply Module**



The DPC-System (Diagnostic-Power-Conditioner-System) is a power supply system for the installation of Foundation fieldbus™ H1 segments. It offers comprehensive diagnostic functions for the monitoring of FOUNDATION™ fieldbus segments and thus supporting Asset Management for the whole system.

A DPC system consists of one or more module racks DPC-49-MB-RC each with up to eight power supply modules DPC-49-IPS and one diagnostic module DPC-49-ADU. Up to four H1 segments for each module rack can be operated and monitored redundantly in the FOUNDATION™ fieldbus. The diagnostic data from the H1 segments are transmitted via the HSE interface module DPC-49-HSEFD/24VDC to the higher level Asset-Management-System.

The power supply module provides up to 30 VDC and 800 mA for the installation of the segment. Due to this maximum output power broad segment allocation (up to 1900 m) is possible without restriction.

If two power supply modules are applied, a redundant operation of the segment is possible. Therefore the power supply modules can be plugged in and unplugged shock-free (Hot swappable in run).

Due to complete galvanic isolation:

H1 to H1  
H1 for the internal supply  
H1 to the diagnostics module  
H1 to the HSE diagnostics bus

Potential transfer is avoided and an error-free communication is insured. In order to simplify the start-up and the diagnostics on site, the following LED functions are available:

Pwr: green: Operational readiness  
On / Off yellow: Output switched on  
Load: yellow: Recognition of consumers (field device) at the segment  
Com: yellow: Communication display  
Fault: red: Short-circuit message

**Features:**

- Supply of a FOUNDATION™ fieldbus H1 segment
- Output current: 800 mA
- Output voltage: 28 to 30 VDC
- Local diagnostics via LEDs
- Complete galvanic isolation

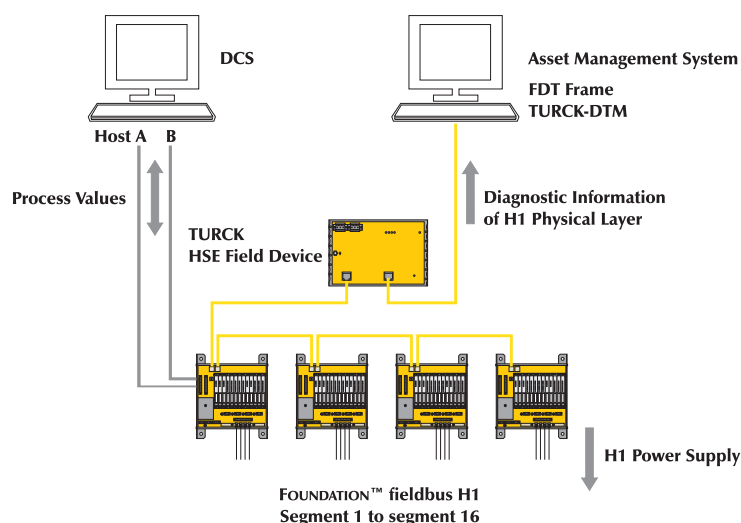


## Power Supply Module

**DPC-49-IPS**

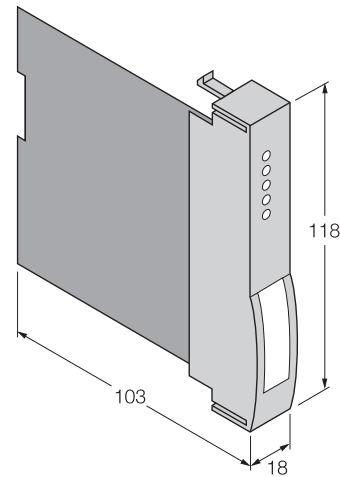
<b>Part Number</b>	DPC-49-IPS
ID Number	M6882013
<b>Fieldbus Standard</b>	IEC 61158-2
<b>Supply Voltage</b>	Via the backplane
Current Consumption	0.8 to 1.7 A
Galvanic Isolation	Complete galvanic isolation, test voltage 500 VAC
<b>Output Circuits</b>	Field
Output Current	≤ 800 mA
Output Voltage	> 28 VDC
Short-circuit Protection	≤ 850 mA
Efficiency	80%
Output Circuits	HOST
Output Current	< 30 mA
Output Voltage	< 27 VDC
<b>Indication</b>	
Operational Readiness	1 x green
Output Active	1 x yellow
Output Current	1 x yellow
Short-circuit Message	1 x red
Bus Communication	1 x yellow
<b>Protection Degree</b>	IP 20
Ambient Temperature	-20 to +60°C (-4 to +140°F)
Housing Material	Plastic / flammability class V-0 to UL 96
Housing Color	Yellow
Dimensions	18 x 118 x 103 mm

### Installation Example:



**DPC-49-ADU**

**Diagnostics Module**



The DPC-System (Diagnostic-Power-Conditioner-System) is a power supply system for the installation of FOUNDATION fieldbus™ H1 segments. It offers comprehensive diagnostic functions for the monitoring of FOUNDATION fieldbus™ segments and thus supporting Asset Management for the whole system.

A DPC system consists of one or more module racks DPC-49-MB-RC each with up to eight power supply modules DPC-49-IPS and one diagnostic module DPC-49-ADU. Up to four H1 segments for each module rack can be operated and monitored redundantly in the FOUNDATION fieldbus™. The diagnostic data from the H1 segments are transmitted via the HSE interface module DPC-49-HSEFD/24VDC to the higher level Asset-Management-System.

The diagnostic module DPC-49-ADU is used as a communication and diagnostic interface between the H1 segments and the power supply module. The diagnostics module monitors the electrical parameters and the communication parameters of the H1 segments. Operation without diagnostic module is possible.

The diagnostic information is collected in the device and transmitted via the HSE interface module to the higher fieldbus level (e.g. to the host) as diagnostic and alarm data. The diagnostic module can be plugged in and unplugged during operation (Hot swap-able in run).

The device features a LED display which indicates the operating status of the H1 segments. A pre-alarm is indicated yellow and a main alarm red on the LED display. Alarm signals can also be transmitted via a relay contact.

### Features:

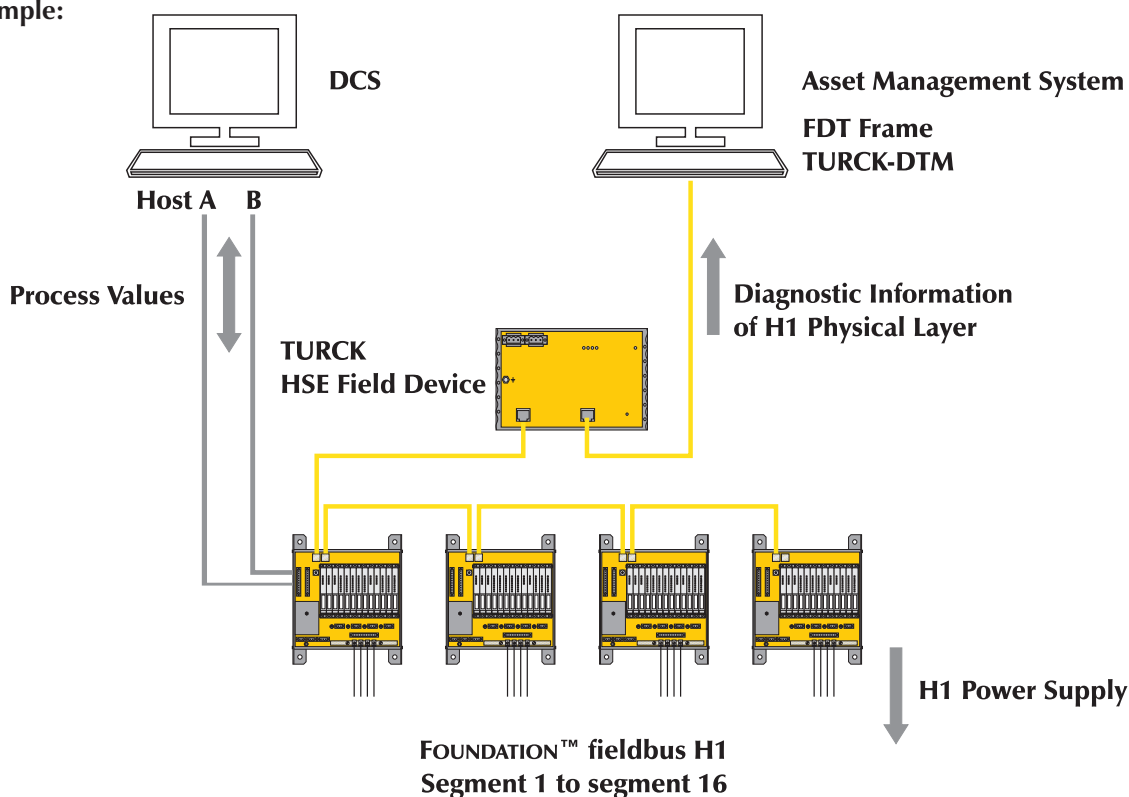
- Continuous diagnostics for 4 H1 segments
- Local diagnostics via LEDs
- Alarm signal via relay contact
- Complete galvanic isolation

## Diagnostics Module

**DPC-49-ADU**

<b>Part Number</b>	DPC-49-ADU
ID Number	M6882012
<b>Fieldbus Standard</b>	IEC 61158-2
<b>Supply Voltage</b>	Via the backplane
Current Consumption	< 100 mA
Galvanic Isolation	Complete galvanic isolation, test voltage 500 VAC
<b>Diagnosis</b>	1 x relay
Switching Current	≤ 1000 mA
Switching Voltage	≤ 30 VDC galvanically isolated against other electronic parts
<b>Operational Readiness</b>	1 x green / red
Alarm	4 x yellow / red
<b>Protection Degree</b>	IP 20
Ambient Temperature	-20 to +60°C (-4 to +140°F)
Housing Material	Plastic
Housing Color	Yellow
Dimensions	18 x 118 x 103 mm

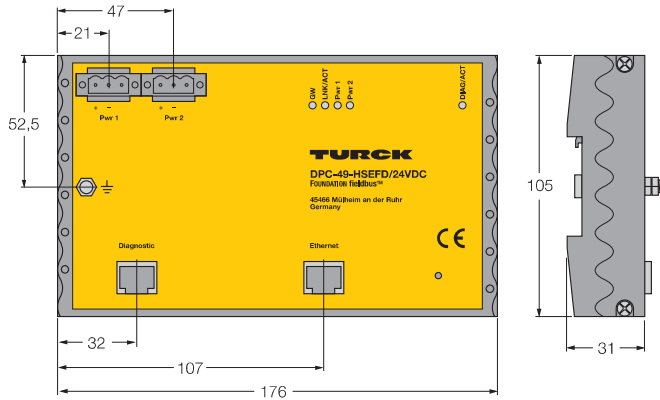
### Installation Example:



FOUNDATION fieldbus

**DPC-49-HSEFD/24VDC**

**HSE Field Device**



The DPC-System (Diagnostic-Power-Conditioner-System) is a power supply system for the installation of Foundation fieldbus™ H1 segments. It offers comprehensive diagnostic functions for the monitoring of FOUNDATION™ fieldbus segments thus supporting Asset Management for the whole system.

A DPC system consists of one or more module racks DPC-49-MB-RC, each with up to eight power supply modules DPC-49-IPS and one diagnostic module DPC-49-ADU. Up to four H1 segments for each module rack can be operated and monitored redundantly in the FOUNDATION™ fieldbus.

The diagnostic data from the H1 segments are transmitted via the HSE interface module DPC-49-HSEFD/24VDC to the higher level Asset-Management-System. Only the diagnostics data of the diagnostic module DPC-49-ADU are transmitted with the HSE interface module, not the process data of the H1 field device. Each diagnostic module monitors up to four H1 segments.

The HSE interface module is a FOUNDATION™ fieldbus field device, which contains one resource and one transducer block and various standard function blocks. On the basis of these standard function blocks, suitable applications for the analysis of the diagnostics data can be programmed in the control system.

**Features:**

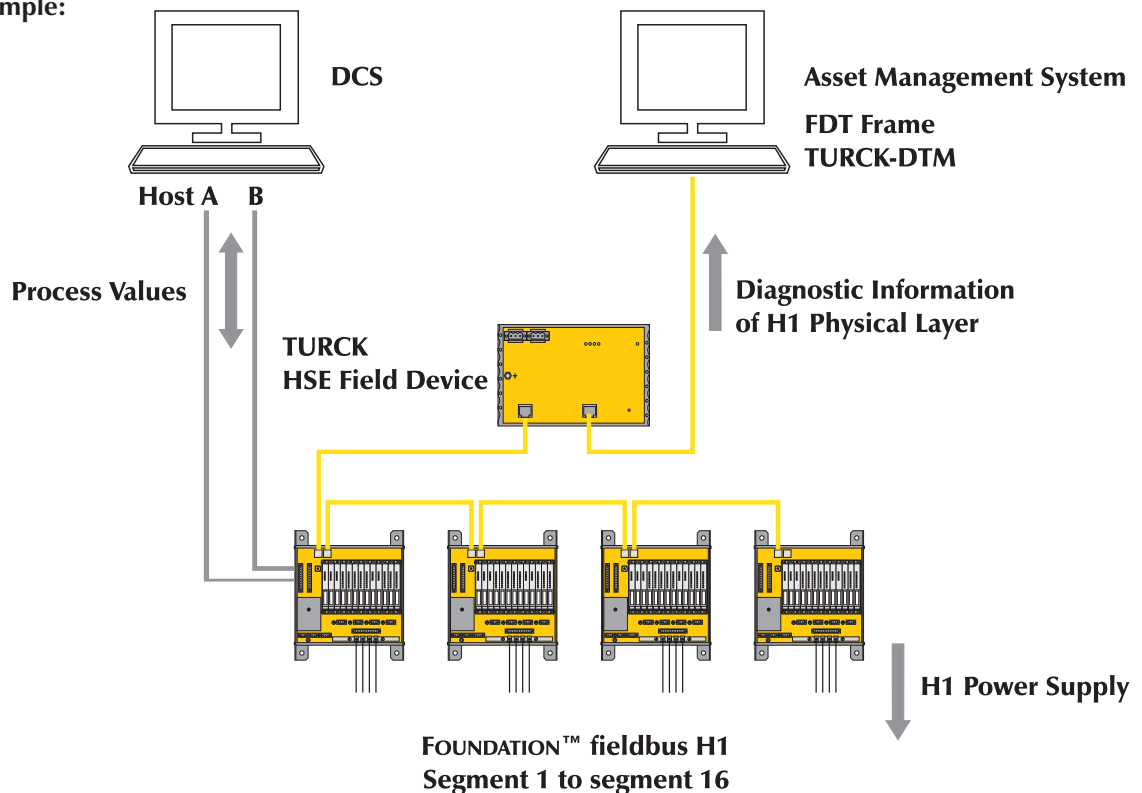
- HSE interface module for the transmission of diagnostic data
- FOUNDATION™ fieldbus function blocks for remote diagnostics
- Diagnostics via LEDs
- Continuous diagnostics for sixteen H1 segments
- Complete galvanic isolation
- Complete galvanic isolation

## HSE Field Device

DPC-49-HSEFD/24VDC

<b>Part Number</b>	DPC-49-HSEFD/24VDC
ID Number	M6882014
<b>Fieldbus Standard</b>	IEC 61158-2
<b>Supply Voltage</b>	Two power terminals - PWR1 & PWR2
Current Consumption	< 100 mA
Galvanic Isolation	Complete galvanic isolation, test voltage 500 VAC
<b>Indication</b>	
Operational Readiness	2 x green
State / Fault	1 x yellow / red
Bus Communication	1 x green / yellow
Int. Communication (CAN)	1 x yellow / red
<b>Protection Degree</b>	IP 20
Ambient Temperature	-20 to +60°C (-4 to +140°F)
Housing Material	Aluminum
Housing Color	Black / Yellow
Dimensions	176 x 105 x 31 mm
Connection Mode	Snap-on DIN rail (DIN 50022)

### Installation Example:

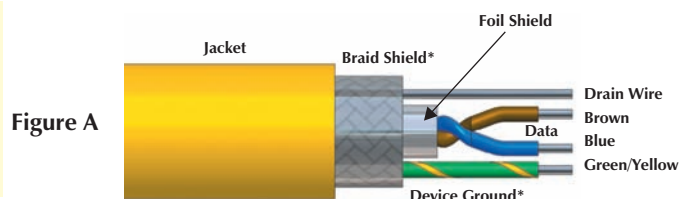


### FOUNDATION™ fieldbus, Cable Specifications

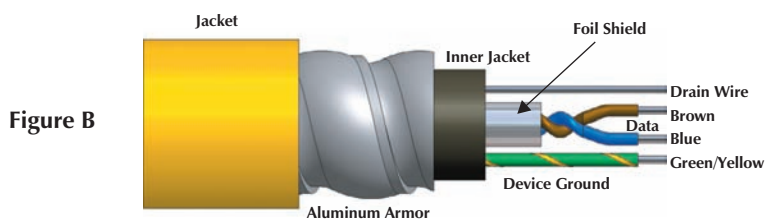
- Cable that Meets the Requirements of ISA/SP50 and FOUNDATION™ fieldbus Requirements for Type A Cable
- Cables are Available in 3-wire Versions with a Device Ground or 2-wire Versions

#### Type A Cable Specifications

- Temperature range: -40 to +105°C
- Governed by: ISA SP50.02 specification
- Sunlight Resistant
- PLTC and ITC Rated (CSA FT4)
- Impedance [ $Z_0$  at  $f_r$  (31.25 kHz)] = 100 Ohms  $\pm$  20 %
- Maximum Attenuation at 1.25  $f_r$  (39 kHz) = 3.0 dB/km
- Maximum Capacitive Unbalance to Shield = 2 nF/km
- Maximum DC Resistance (per conductor) = 24 Ohms/km
- Maximum Propagation Delay Variance 0.25  $f_r$  to 1.25  $f_r$  = 1.7  $\mu$ s/km
- Conductor Cross-sectional area (wire size) = nominal 0.8 mm<sup>2</sup> (#18 AWG) or 1.2 mm<sup>2</sup> (#16 AWG)
- Shield Coverage = 100 % (90 % minimum)



\*Available on some cable types



Type	Approvals	Data Pair		Device Ground	Outer Jacket	Shields	Bulk Cable Part Number / Weight/300 M	Figure
		AWG Color Code	DCR (/1000 feet) Insulation	AWG Color Code	Material Color Nominal O.D.	Type Drain Wire		
<b>490</b> AWM 2517 105°C 300 Volts	NEC ITC PLTC Open Wiring CEC [CMG] AWM I/II A/B FT4	2/18 AWG BU/BN	6.5 Ohms XLPE	18 AWG GN/YE	PVC Yellow 8.4 mm (.330 in)	Foil 20 AWG	RB50693-*M 58 lbs.	A
<b>490B</b> AWM 2517 105°C 300 Volts	NEC ITC PLTC Open Wiring CEC [CMG] AWM I/II A/B FT4	2/18 AWG BU/BN	6.5 Ohms XLPE	18 AWG GN/YE	PVC Blue 8.4 mm (.330 in)	Foil 20 AWG	RB50783-*M 58 lbs.	A
<b>492A</b> 105°C 300 Volts	NEC ITC PLTC/CM CEC [CMG HLBCD]	2/18 AWG BU/BN	6.5 Ohms XLPE	18 AWG GN/YE	Armor/PVC Yellow 14.9 mm (0.585 in)	Foil 18 AWG	RB50874-*M 96 lbs. <b>armorfast®</b>	B
<b>492BA</b> 105°C 300 Volts	NEC ITC PLTC/CM CEC [CMG HLBCD]	2/18 AWG BU/BN	6.5 Ohms XLPE	18 AWG GN/YE	Armor/PVC Blue 14.9 mm (0.585 in)	Foil 18 AWG	RB50803-*M 96 lbs. <b>armorfast®</b>	B
<b>493</b> AWM 2517 105°C 300 Volts	NEC ITC PLTC Open Wiring CEC [CMG] AWM I/II A/B FT4	2/18 AWG BU/BN	6.5 Ohms XLPE	None	PVC Yellow 8.5 mm (.335 in)	Foil/Braid 20 AWG	RB50784-*M 59 lbs.	A
<b>493B</b> AWM 2517 105°C 300 Volts	NEC ITC PLTC Open Wiring CEC [CMG] AWM I/II A/B FT4	2/18 AWG BU/BN	6.5 Ohms XLPE	None	PVC Blue 8.5 mm (.335 in)	Foil/Braid 20 AWG	RB50786-*M 59 lbs.	A

\* Indicates length in meters.

Standard cable lengths are 30, 75, 150, 225 and 300 meters.



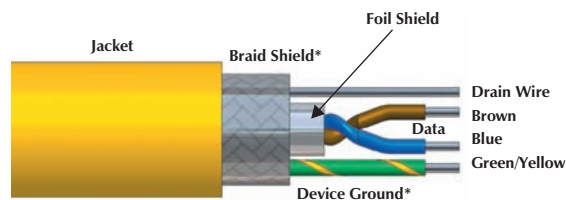
## FOUNDATION™ fieldbus, Cable Specifications

- Cable that Meets the Requirements of ISA/SP50 and FOUNDATION™ fieldbus Requirements for Type A Cable
- Cables are Available in 3-wire Versions with a Device Ground or 2-wire Versions

### Type A Cable Specifications

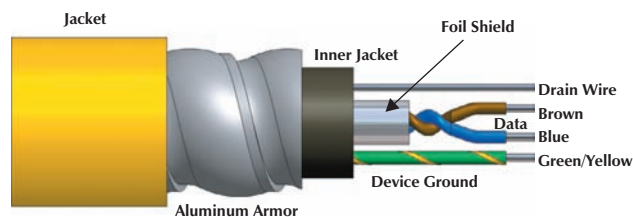
- Temperature range: -40 to +105°C
- Governed by: ISA SP50.02 specification
- Sunlight Resistant
- PLTC and ITC Rated (CSA FT4)
- Impedance [ $Z_0$  at  $f_r$  (31.25 kHz)] = 100 Ohms  $\pm$  20 %
- Maximum Attenuation at 1.25  $f_r$  (39 kHz) = 3.0 dB/km
- Maximum Capacitive Unbalance to Shield = 2 nF/km
- Maximum DC Resistance (per conductor) = 24 Ohms/km
- Maximum Propagation Delay Variance 0.25  $f_r$  to 1.25  $f_r$  = 1.7  $\mu$ s/km
- Conductor Cross-sectional area (wire size) = nominal 0.8 mm<sup>2</sup> (#18 AWG) or 1.2 mm<sup>2</sup> (#16 AWG)
- Shield Coverage = 100 % (90 % minimum)

Figure A



\*Available on some cable types

Figure B



Type	Approvals	Data Pair		Device Ground	Outer Jacket	Shields	Bulk Cable Part Number / Weight/300 M	Figure
		AWG Color Code	DCR (/1000 feet) Insulation	AWG Color Code	Material Color Nominal O.D.	Type Drain Wire		
<b>4930</b> AWM 2517 105°C 300 Volts	NEC ITC PLTC Open Wiring CEC [CMG] AWM I/II A/B FT4	2/18 AWG BU/BN	6.5 Ohms XLPE	None	PVC Orange 8.5 mm (.335 in)	Foil/Braid 20 AWG	RB50785-*M 59 lbs.	A
<b>496</b> AWM 2517 105°C 300 Volts	NEC ITC PLTC Open Wiring CEC [CMG] AWM I/II A/B FT4	2/16 AWG BU/BN	4.1 Ohms XLPE	None	PVC Yellow 9.6 mm (.378 in)	Foil 18 AWG	RB50891-*M 64 lbs.	A
<b>496BK</b> AWM 2517 105°C 300 Volts	NEC ITC PLTC Open Wiring CEC [CMG] AWM I/II A/B FT4	2/16 AWG BU/BN	4.1 Ohms XLPE	None	PVC Black 9.6 mm (.378 in)	Foil 18 AWG	RB51300-*M 64 lbs.	A

FOUNDATION fieldbus

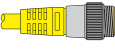

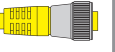











\* Indicates length in meters.

Standard cable lengths are 30, 75, 150, 225 and 300 meters.

# TURCK

## Network Media Products

### FOUNDATION™ fieldbus, Cable and Cordset Selection Matrix

		<i>minifast</i> ®				<i>eurofast</i> ®
		Pin (Male)		Socket (Female)		Pin (Male)
		1 	2 	3 	4 	5 
		RSV	WSV	RKV	WKV	RSCV
<i>minifast</i>		RSV 49x-*M	WSV 49x-*M	RKV 49x-*M	WKV 49x-*M	RSCV 49x-*M
	Bare					
	Pin (Male)					
	1 	RSV RSV 49x-*M	RSV WSV 49x-*M	RSV RKV 49x-*M	RSV WKV 49x-*M	RSV RSCV 49x-*M
	RSV					
	2 		WSV WSV 49x-*M	WSV RKV 49x-*M	WSV WKV 49x-*M	WSV RSCV 49x-*M
	WSV					
	Socket (Female)					
<i>eurofast</i>	3 			RKV RKV 49x-*M	RKV WKV 49x-*M	RKV RSCV 49x-*M
	RKV					
	4 				WKV WKV 49x-*M	WKV RSCV 49x-*M
	WKV					
	Pin (Male)					
	5 					RSCV RSCV 49x-*M
	RSCV					
	6 					
	WSCV					
	Socket (Female)					
	7 					
	RKCV					
	8 					
	WKCV					

See pages R19 - R20 for dimensional drawings.

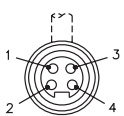
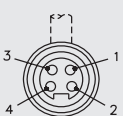
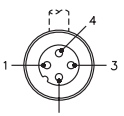
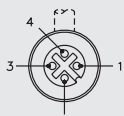
\* Indicates length in meters.

x Indicates cable type.

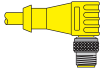


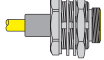
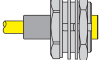
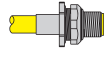
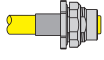
Refer to the Cordset Builder at [www.turck.com](http://www.turck.com) for assistance with cordset/cable combinations.

Standard cable lengths are 0.3, 0.5, 1.0, 2.0, 2.5, 3.0, 3.5, 4.0, 5.0, 6.0, 8.0, 10, 15....50 Meters. Consult factory for other lengths.

For stainless steel coupling nuts change part number RSM ... to RSV, WSM ... to WSV. For **eurofast armorfast**® cable RSC ... to RSA.

<i>minifast</i>		Pinouts	<i>eurofast</i>	
Male	Female		Male	Female
		1. Blue (- Voltage) 2. Brown (+ Voltage) 3. Bare (Shield Drain Wire) 4. Green/Yellow (Ground)		

## FOUNDATION™ fieldbus, Cable and Cordset Selection Matrix

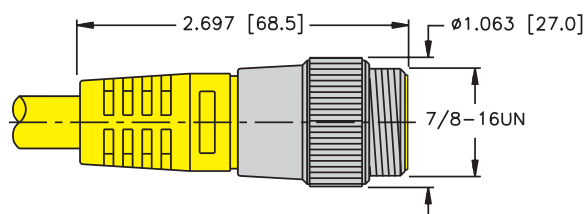
eurofast®			minifast® Bulkhead		eurofast Bulkhead	
Pin (Male)	Socket (Female)		Pin (Male)	Socket (Female)	Pin (Male)	Socket (Female)
6  WSCV	7  RKC	8  WKC	9  RSFPV	10  RKFPV	11  FSFDV	12  FKFDV
WSCV 49x-*M	RKC 49x-*M	WKC 49x-*M	RSFPV 49x-*M	RKFPV 49x-*M	FSFDV 49x-*M	FKFDV 49x-*M
RSV WSCV 49x-*M	RSV RKC 49x-*M	RSV WKC 49x-*M	RSV RSFPV 49x-*M	RSV RKFPV 49x-*M	RSV FSFDV 49x-*M	RSV FKFDV 49x-*M
WSV WSCV 49x-*M	WSV RKC 49x-*M	WSV WKC 49x-*M	WSV RSFPV 49x-*M	WSV RKFPV 49x-*M	WSV FSFDV 49x-*M	WSV FKFDV 49x-*M
RKV WSCV 49x-*M	RKV RKC 49x-*M	RKV WKC 49x-*M	RKV RSFPV 49x-*M	RKV RKFPV 49x-*M	RKV FSFDV 49x-*M	RKV FKFDV 49x-*M
WKV WSCV 49x-*M	WKV RKC 49x-*M	WKV WKC 49x-*M	WKV RSFPV 49x-*M	WKV RKFPV 49x-*M	WKV FSFDV 49x-*M	WKV FKFDV 49x-*M
RSCV WSCV 49x-*M	RSCV RKC 49x-*M	RSCV WKC 49x-*M	RSCV RSFPV 49x-*M	RSCV RKFPV 49x-*M	RSCV FSFDV 49x-*M	RSCV FKFDV 49x-*M
WSCV WSCV 49x-*M	WSCV RKC 49x-*M	WSCV WKC 49x-*M	WSCV RSFPV 49x-*M	WSCV RKFPV 49x-*M	WSCV FSFDV 49x-*M	WSCV FKFDV 49x-*M
	RKC RKC 49x-*M	RKC WKC 49x-*M	RKC RSFPV 49x-*M	RKC RKFPV 49x-*M	RKC FSFDV 49x-*M	RKC FKFDV 49x-*M
		WKC WKC 49x-*M	WKC RSFPV 49x-*M	WKC RKFPV 49x-*M	WKC FSFDV 49x-*M	WKC FKFDV 49x-*M

**FOUNDATION™ fieldbus, minifast® Cordset and Receptacle Connector Dimensions**

**Specifications**

<b>Housing:</b>	PUR (Polyurethane)
<b>Coupling Nut:</b>	Nickel Plated CuZn or Stainless Steel
<b>Contact Carrier:</b>	TPU (Polyurethane)
<b>Contacts:</b>	Gold Plated CuZn
<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 68
<b>Rated Voltage:</b>	300 V
<b>Rated Current:</b>	9 A
<b>Ambient Temperature:</b>	-40° to +105°C (-40° to +221°F)

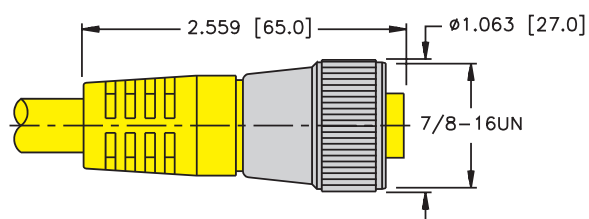
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RSV ..

Pages R17 - R18

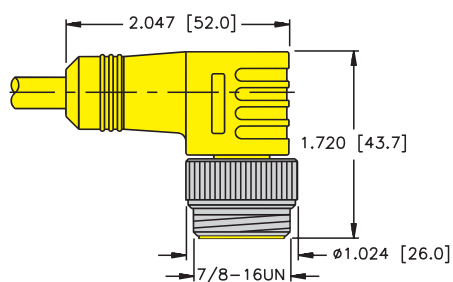
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RKV ..

Pages R17 - R18

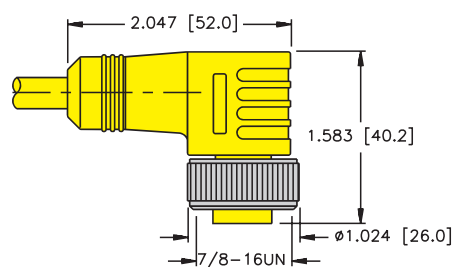
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WSV ..

Pages R17 - R18

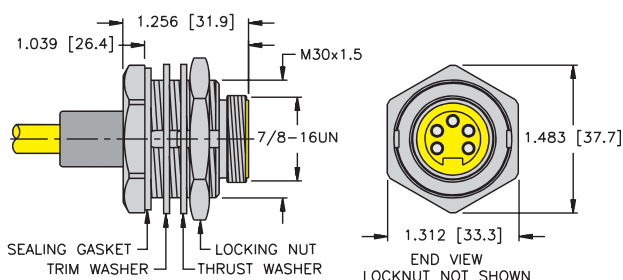
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WKV ..

Pages R17 - R18

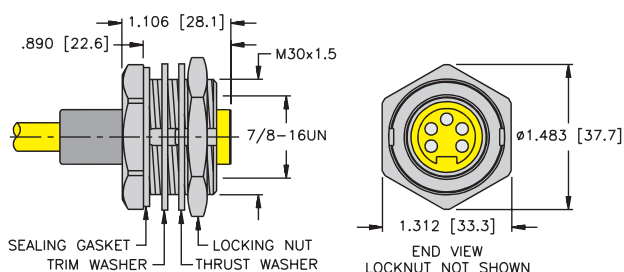
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RSFPV ..

Pages R17 - R18

10



RKFPV ..

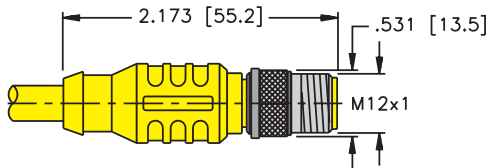
Pages R17 - R18

**FOUNDATION™ fieldbus, eurofast® Cordset and Receptacle Connector Dimensions**

**Specifications**

<b>Housing:</b>	PUR (Polyurethane)
<b>Coupling Nut:</b>	Nickel Plated CuZn or Stainless Steel
<b>Contact Carrier:</b>	TPU (Polyurethane) or POM (Nylon)
<b>Contacts:</b>	Gold Plated CuZn
<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 68
<b>Rated Voltage:</b>	250 V
<b>Rated Current:</b>	4 A
<b>Ambient Temperature:</b>	-40° to +105°C (-40° to +221°F)

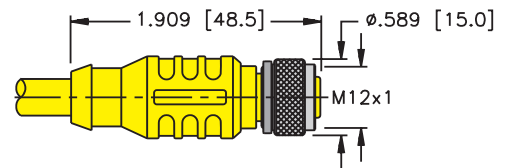
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RSCV ..

Pages R17 - R18

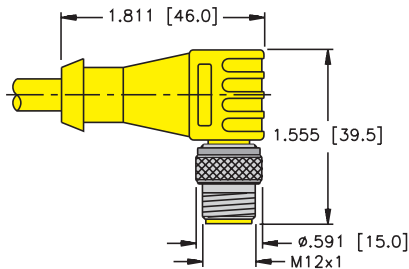
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RKCV ..

Pages R17 - R18

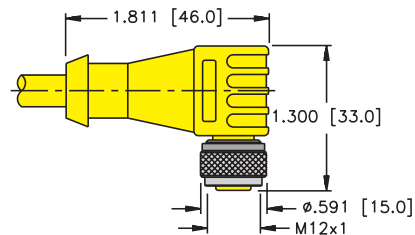
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WSCV ..

Pages R17 - R18

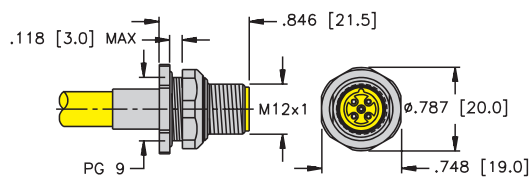
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WKCV ..

Pages R17 - R18

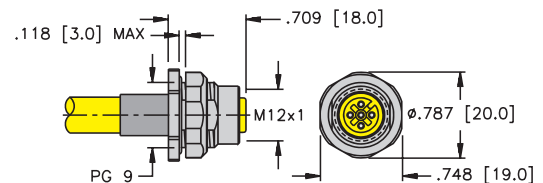
11



FSFDV ..

Pages R17 - R18

12



FKFDV ..

Pages R17 - R18

FOUNDATION fieldbus

FOUNDATION™ fieldbus, eurofast® Heavy Duty Cordsets

- Heavy Duty Coupling Nut Completely Supports the Molded Plug Body
- Provides Superior Strength



Housing	Part Number	Specs	Applications	Pinouts
	RSGV-49x-M	TPU (Polyurethane) Nickel Plated CuZn or Stainless Steel 250 V, 4 A -40° to +105°C	eurofast Heavy Duty Cordsets <ul style="list-style-type: none"><li>• Heavy coupling nut completely supports the molded plug body to provide superior strength</li></ul>	Male 
	RKGV-49x-M			Female 

\* Indicates length in meters.  
x Indicates cable type.  
For nickel plated brass coupling nut change: RSGV ... to RSG ... or RKGV ... to RKG ...



FOUNDATION™ fieldbus, 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	Part Number	Specs	Application	Pinouts
	RSV 49-TR	Nickel Plated Brass or Stainless Steel 250 V, 4 A -40° to +75°C	<b>minifast</b> ® Terminating Resistor <ul style="list-style-type: none"><li>• Male <b>minifast</b> connector</li></ul>	<b>Male</b> 
	RSEV 49-TR		<b>eurofast</b> ® Terminating Resistor <ul style="list-style-type: none"><li>• Male <b>eurofast</b> connector</li></ul>	<b>Male</b> 

FOUNDATION™ fieldbus, Feed Through Connectors

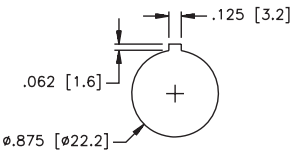
- Receptacles Provide Transition from Male to Female Connectors
- Available for Bulkhead and Feed Through Applications



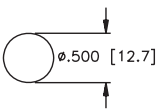
Housing	Part Number	Specs	Application	Pinouts
	RSFV RKFV 49/22	Nickel Plated CuZn or Stainless Steel 300 V, 9 A -40° to +75°C	minifast® Bulkhead Receptacle <ul style="list-style-type: none"><li>• Straight male/female feed-through</li><li>• For use with minifast cordsets</li></ul>	<div>Male</div> <div>Female</div>
	FKV FSV 49/M12	Nickel Plated CuZn or Stainless Steel 250 V, 4 A -40° to +75°C	eurofast® Bulkhead Receptacle <ul style="list-style-type: none"><li>• Straight male/female connector</li><li>• For use with eurofast cordsets</li></ul>	<div>Male</div> <div>Female</div>

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

Panel Cutout
RSF RKF 49/22



Panel Cutout
FKM FS 49/M12

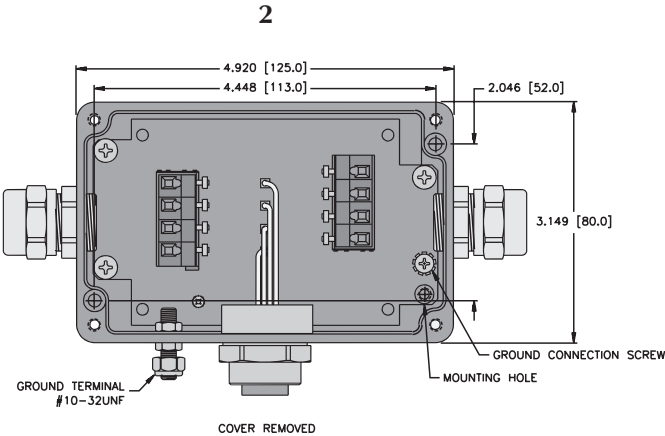
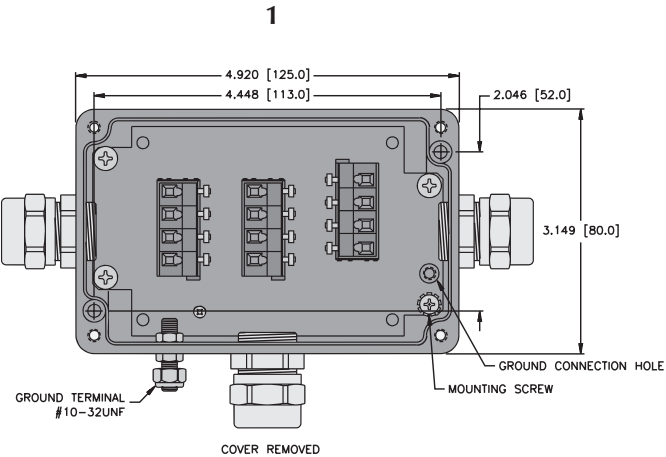


FOUNDATION™ fieldbus, Field Wireable Tee

- A Hybrid Connection System Offering Reliable Connections on Short Drops and Ease of Installation on Long Trunk Runs
- Features Standard *minifast*® Connector for the Drop Connection and Terminal Connectors on the Trunk Connections

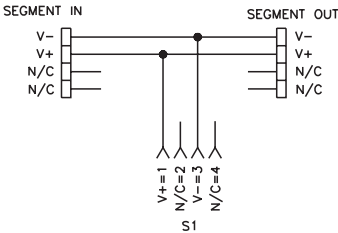


Housing	Part Number	Specs	Application	Pinout
See Drawing 1	SPTT1-A49	Anodized Aluminum 250 V, 4 A -40° to +75°C NEMA 1, 3, 4, 6P and IEC IP 68	Field wireable terminals and (7/8-16UN) <i>minifast</i> connector on drop connection	<p>Female</p>
See Drawing 2	SPTTM13-A49			



FOUNDATION fieldbus

Wiring Diagram



# TURCK

## Network Media Products

### FOUNDATION™ fieldbus, Junction Box for Din Rail Mounting

- IP20 DIN Rail Mounted Junctions
- Available in 4, 6, and 8 Channel



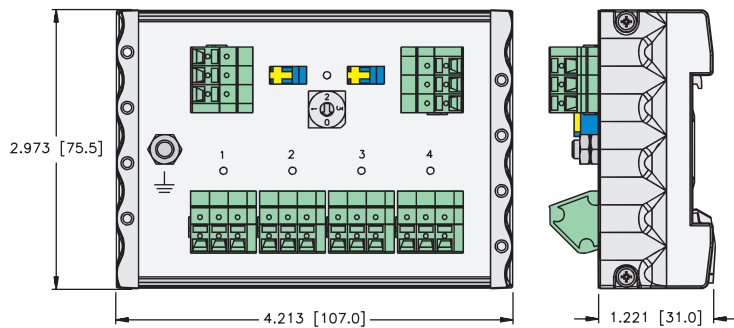
Part Number	Application	Wiring Diagram
<b>JRBS-40-4/EX</b>	4-port Junction Tee <ul style="list-style-type: none"> <li>• Four cage clamp device ports</li> <li>• Approval: ATEX II 2 G EEx ib IIC/IIB T4</li> </ul>	
<b>JRBS-40SC-4/EX</b>	4-port Junction Tee <ul style="list-style-type: none"> <li>• Four cage clamp device ports</li> <li>• Short-circuit protection: adjustable 30, 35, 45, 60 mA</li> <li>• Open circuit voltage: 32 V</li> <li>• Current consumption: 7 mA</li> <li>• LED indicators Power: Green = On Short-circuit: Red = On</li> <li>• Approval: ATEX II 2 G EEx ib IIC/IIB T4</li> </ul>	
<b>JRBS-40-6/EX</b>	6-port Junction Tee <ul style="list-style-type: none"> <li>• Six cage clamp device ports</li> <li>• Approval: ATEX II 2 G EEx ib IIC/IIB T4</li> </ul>	
<b>JRBS-40SC-6/EX</b>	6-port Junction Tee <ul style="list-style-type: none"> <li>• Six cage clamp device ports</li> <li>• Short-circuit protection: adjustable 30, 35, 45, 60 mA</li> <li>• Open circuit voltage: 32 V</li> <li>• Current consumption: 7 mA</li> <li>• LED indicators Power: Green = On Short-circuit: Red = On</li> <li>• Approval: ATEX II 2 G EEx ib IIC/IIB T4</li> </ul>	
<b>JRBS-40-8/EX</b>	8-port Junction Tee <ul style="list-style-type: none"> <li>• Eight cage clamp device ports</li> <li>• Approval: ATEX II 2 G EEx ib IIC/IIB T4</li> </ul>	
<b>JRBS-40SC-8/EX</b>	8-port Junction Tee <ul style="list-style-type: none"> <li>• Eight cage clamp device ports</li> <li>• Short-circuit protection: adjustable 30, 35, 45, 60 mA</li> <li>• Open circuit voltage: 32 V</li> <li>• Current consumption: 7 mA</li> <li>• LED indicators Power: Green = On Short-circuit: Red = On</li> <li>• Approval: ATEX II 2 G EEx ib IIC/IIB T4</li> </ul>	

## Specifications

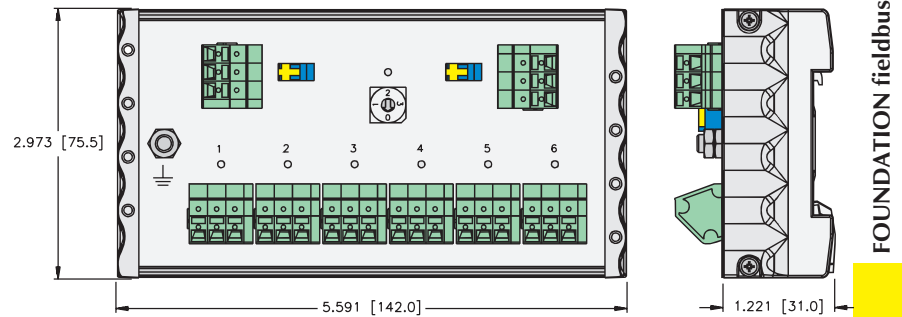
<b>Housing:</b>	Aluminum
<b>Contact Carrier:</b>	PA (Nylon)
<b>Contacts:</b>	Gold Plated CuZn
<b>Protection:</b>	NEMA 1 and IP 20
<b>Rated Voltage:</b>	250 V
<b>Rated Current:</b>	4 A
<b>Ambient Temperature:</b>	-25° to +70°C (-13° to +158°F)

## Dimensions

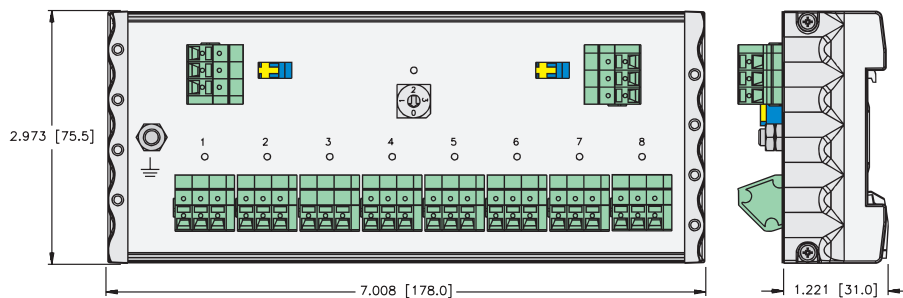
### 4 Channel



### 6 Channel



### 8 Channel



FOUNDATION™ fieldbus, Junction Box for Din Rail Mounting

- IP 20 DIN Rail Mounted Junctions
- 8 Channel



Part Number	Application	Wiring Diagram
JRBS-49SC-8	8-port Junction Tee <ul style="list-style-type: none"><li>• Eight cage clamp device ports</li><li>• 55 mA Short-circuit protected</li><li>• Open circuit voltage: 33 V</li><li>• Current consumption: 15 mA</li><li>• LED indicators<ul style="list-style-type: none"><li>Power: Green = On</li><li>Comm: Green = Data transfer</li><li>Short-circuit: Red = On</li></ul></li><li>• Switchable terminating resistor</li></ul>	

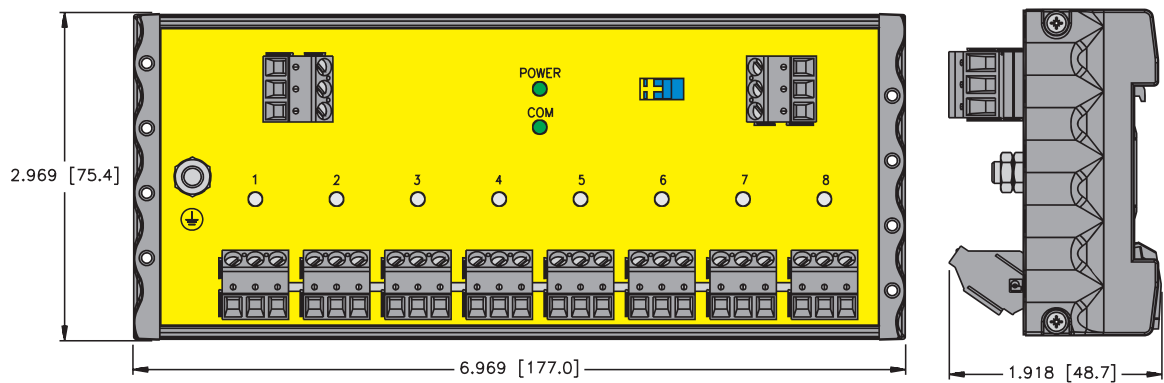


## Specifications

<b>Housing:</b>	Aluminum
<b>Contact Carrier:</b>	PA (Nylon)
<b>Contacts:</b>	Gold Plated CuZn
<b>Protection:</b>	NEMA 1 and IP 20
<b>Connection Mode:</b>	Snap-on DIN RAIL (DIN 50022)
<b>Ambient Temperature:</b>	-25° to +70°C (-13° to +158°F)

## Dimensions

### 8 Channel



# TURCK

## Network Media Products

### FOUNDATION™ fieldbus, *minifast*® Passive Multiport Junctions

- Rugged, Fully Encapsulated Enclosure
- For Connecting I/O in Concentrated Areas

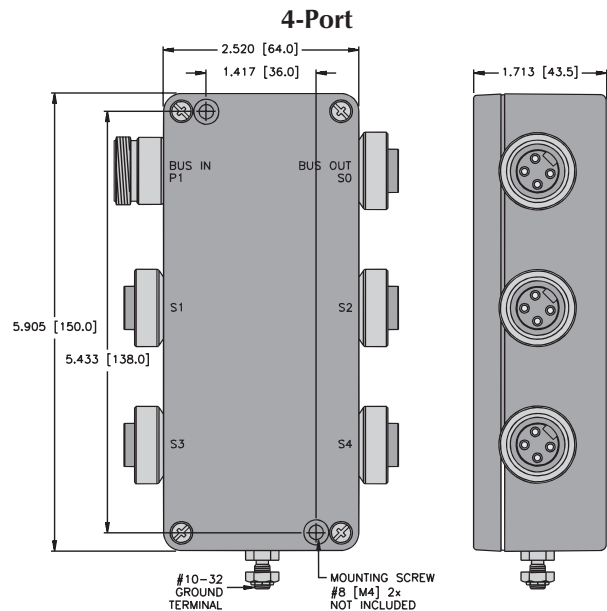
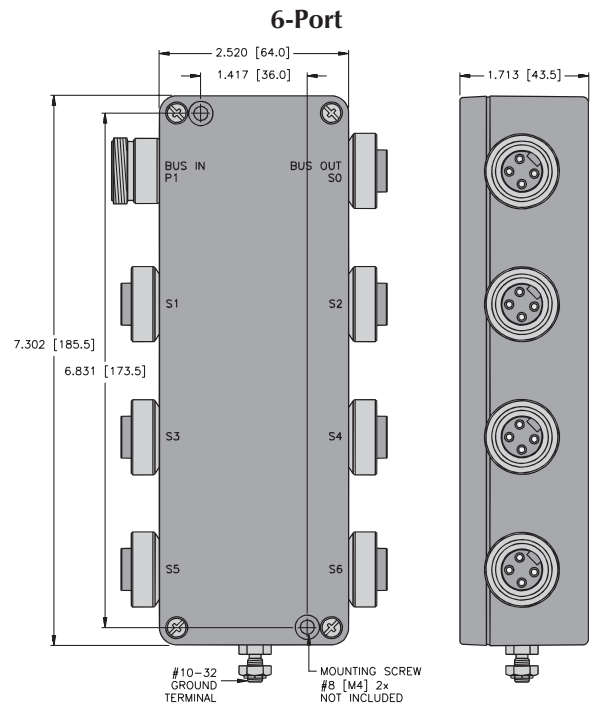
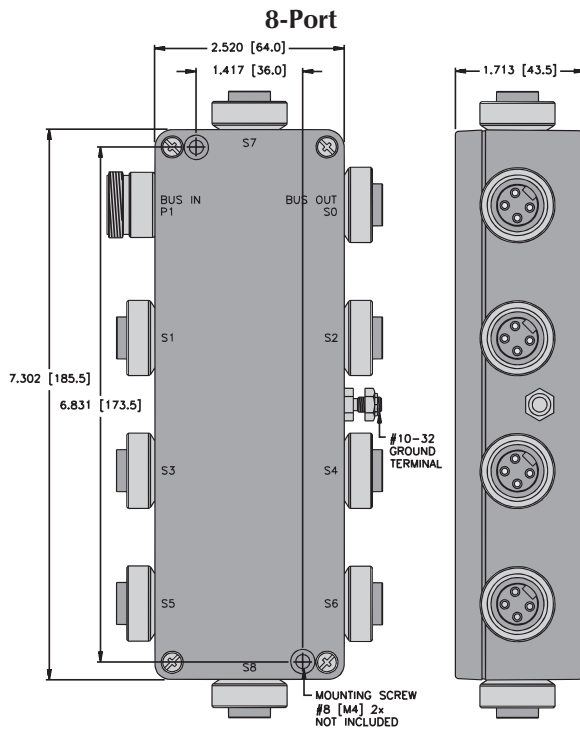


Part Number	Specs	Application	Wiring Diagrams
<b>JBBS-49-M413</b> <b>JBBS-49-M414</b>	No short-circuit protection	4-port Junction <ul style="list-style-type: none"> <li>• Bus in/bus out connections (7/8-16UN) <i>minifast</i></li> <li>• Four (7/8-16UN) <i>minifast</i> connectors for field devices</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	
<b>JBBS-49-M613</b> <b>JBBS-49-M614</b>	No short-circuit protection	6-port Junction <ul style="list-style-type: none"> <li>• Bus in/bus out connections (7/8-16UN) <i>minifast</i></li> <li>• Six (7/8-16UN) <i>minifast</i> connectors for field devices</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	
<b>JBBS-49-M813</b> <b>JBBS-49-M814</b>	No short-circuit protection	8-port Junction <ul style="list-style-type: none"> <li>• Bus in/bus out connections (7/8-16UN) <i>minifast</i></li> <li>• Eight (7/8-16UN) <i>minifast</i> connectors for field devices</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	

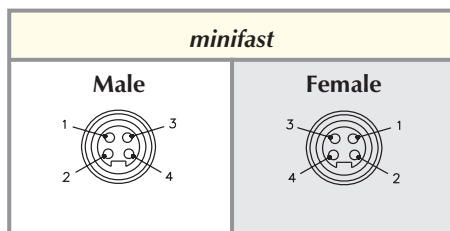
## Specifications

<b>Housing:</b>	Anodized Aluminum
<b>Coupling Nut:</b>	Nickel Plated CuZn or Stainless Steel
<b>Contact Carrier:</b>	TPU (Polyurethane)
<b>Contacts:</b>	Gold Plated CuZn
<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 67, IP 68, IP 69K
<b>Rated Voltage:</b>	300 V
<b>Rated Current:</b>	9 A
<b>Ambient Temperature:</b>	-40° to +75°C (-22° to +167°F)

## Dimensions



## Pinouts



# TURCK

## Network Media Products

### FOUNDATION™ fieldbus, *minifast*® Passive Multiport Junctions

- Rugged, Fully Encapsulated Enclosure
- For Connecting I/O in Concentrated Areas

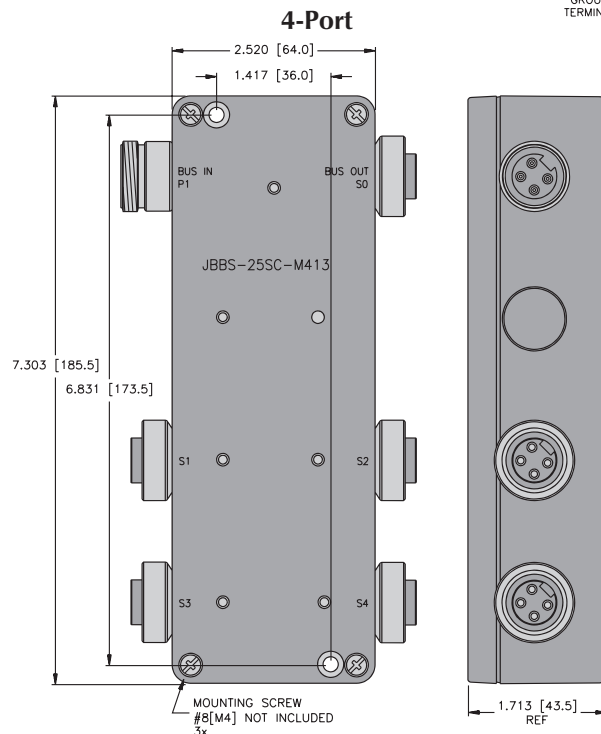
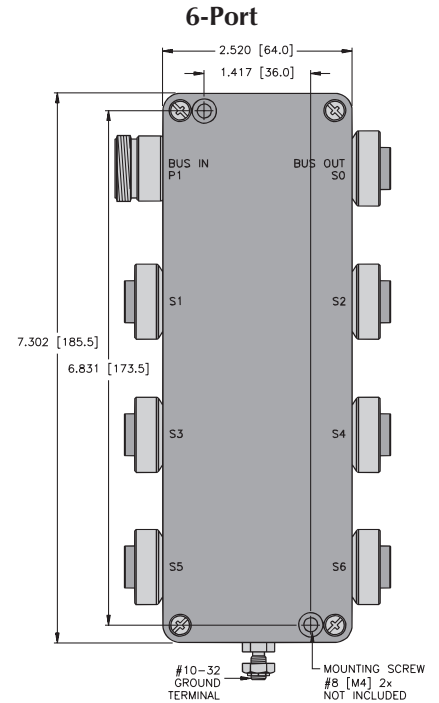
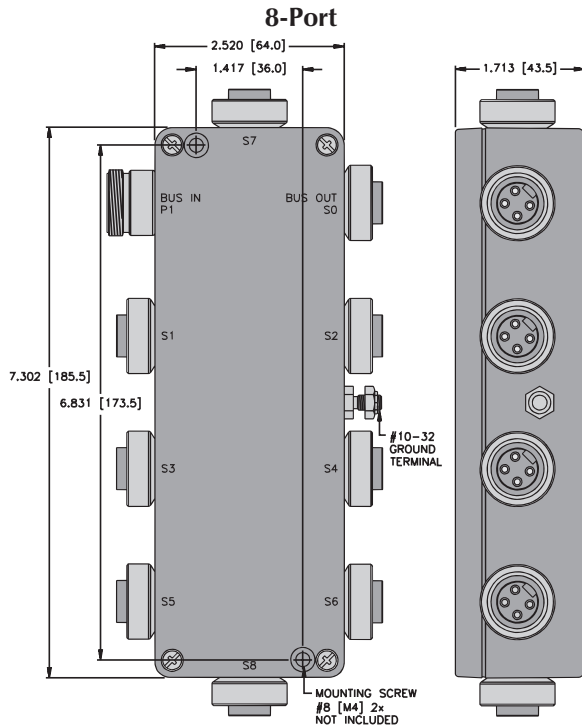


Part Number	Specs	Application	Wiring Diagrams
<b>JBBS-49SC-M413</b>	<b>Electrical</b> <ul style="list-style-type: none"> <li>• Short-circuit protection: 55 mA (Isc)</li> <li>• Open circuit voltage: 33 VDC</li> <li>• Current consumption: &lt;60 mA</li> </ul> <b>Diagnostic</b> <ul style="list-style-type: none"> <li>• LED indicators <ul style="list-style-type: none"> <li>Power: Green = On</li> <li>Short-circuit: Red = Shorted</li> </ul> </li> </ul>	<b>4-port Junction</b> <ul style="list-style-type: none"> <li>• Bus in/bus out connections (7/8-16UN) <i>minifast</i></li> <li>• Four (7/8-16UN) <i>minifast</i> connectors for field devices</li> </ul> CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)	
<b>JBBS-49SC-M613</b>	<b>Electrical</b> <ul style="list-style-type: none"> <li>• Short-circuit protection: 55 mA (Isc)</li> <li>• Open circuit voltage: 33 VDC</li> <li>• Current consumption: &lt;60 mA</li> </ul> <b>Diagnostic</b> <ul style="list-style-type: none"> <li>• LED indicators <ul style="list-style-type: none"> <li>Power: Green = On</li> <li>Short-circuit: Red = Shorted</li> </ul> </li> </ul>	<b>6-port Junction</b> <ul style="list-style-type: none"> <li>• Bus in/bus out connections (7/8-16UN) <i>minifast</i></li> <li>• Six (7/8-16UN) <i>minifast</i> connectors for field devices</li> </ul> CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)	
<b>JBBS-49SC-M813</b>	<b>Electrical</b> <ul style="list-style-type: none"> <li>• Short-circuit protection: 55 mA (Isc)</li> <li>• Open circuit voltage: 33 VDC</li> <li>• Current consumption: &lt;60 mA</li> </ul> <b>Diagnostic</b> <ul style="list-style-type: none"> <li>• LED indicators <ul style="list-style-type: none"> <li>Power: Green = On</li> <li>Short-circuit: Red = Shorted</li> </ul> </li> </ul>	<b>8-port Junction</b> <ul style="list-style-type: none"> <li>• Bus in/bus out connections (7/8-16UN) <i>minifast</i></li> <li>• Eight (7/8-16UN) <i>minifast</i> connectors for field devices</li> </ul> CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)	

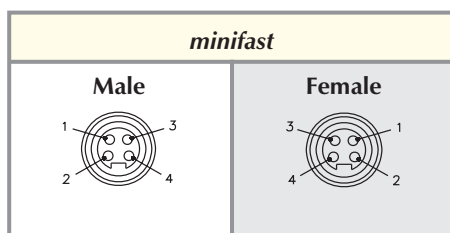
## Specifications

<b>Housing:</b>	Anodized Aluminum
<b>Coupling Nut:</b>	Stainless Steel
<b>Contact Carrier:</b>	TPU (Polyurethane)
<b>Contacts:</b>	Gold Plated CuZn
<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 67, IP 68, IP 69K
<b>Rated Voltage:</b>	300 V
<b>Rated Current:</b>	9 A
<b>Ambient Temperature:</b>	-40° to +75°C (-22° to +167°F)

## Dimensions



## Pinouts



# TURCK

## Network Media Products

### FOUNDATION™ fieldbus, *minifast*® Passive Multiport Junctions

- Rugged, Fully Encapsulated Enclosure
- For Connecting I/O in Concentrated Areas



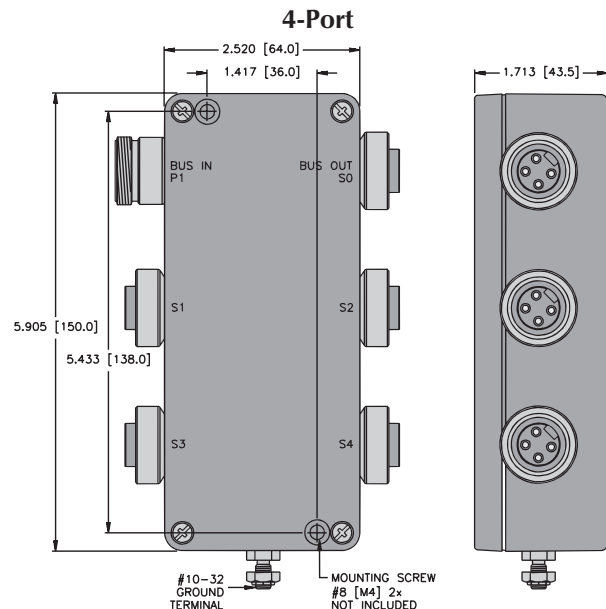
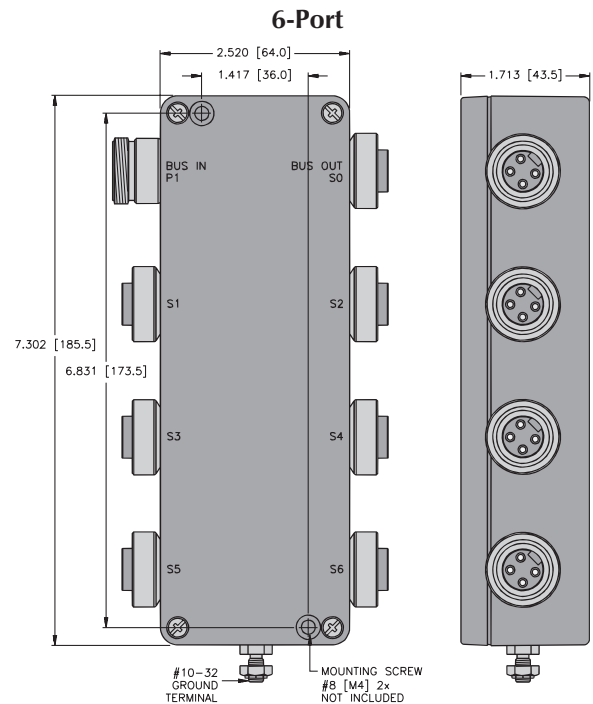
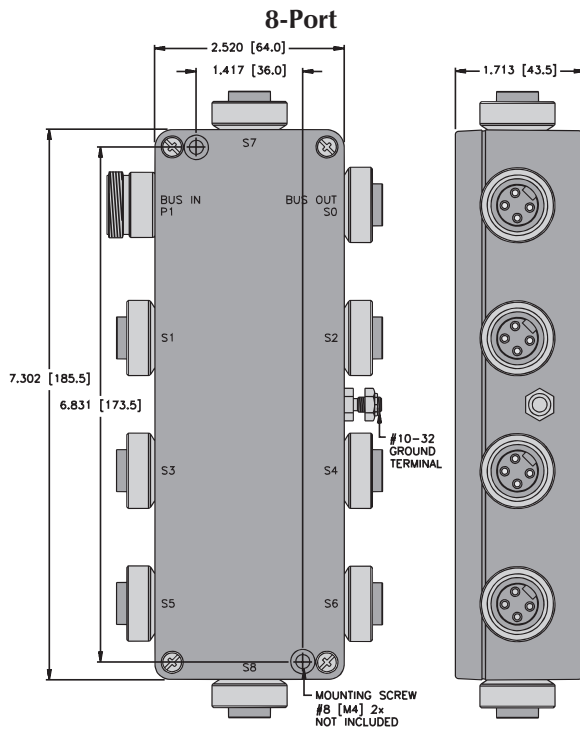
Part Number	Specs	Application	Wiring Diagrams
<b>JBBS-49-M423</b> <b>JBBS-49-M424</b>	No short-circuit protection Fiberglass housing	4-port Junction <ul style="list-style-type: none"> <li>• Bus in/bus out connections (7/8-16UN) <i>minifast</i></li> <li>• Four (7/8-16UN) <i>minifast</i> connectors for field devices</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	
<b>JBBS-49-M623</b> <b>JBBS-49-M624</b>	No short-circuit protection Fiberglass housing	6-port Junction <ul style="list-style-type: none"> <li>• Bus in/bus out connections (7/8-16UN) <i>minifast</i></li> <li>• Six (7/8-16UN) <i>minifast</i> connectors for field devices</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	
<b>JBBS-49-M823</b> <b>JBBS-49-M824</b>	No short-circuit protection Fiberglass housing	8-port Junction <ul style="list-style-type: none"> <li>• Bus in/bus out connections (7/8-16UN) <i>minifast</i></li> <li>• Eight (7/8-16UN) <i>minifast</i> connectors for field devices</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	



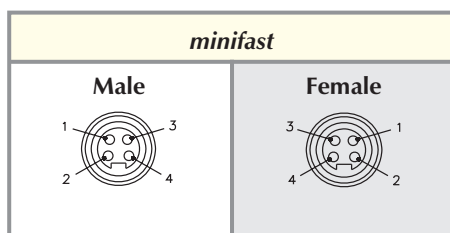
## Specifications

<b>Housing:</b>	Fiberglass
<b>Coupling Nut:</b>	Nickel Plated CuZn or Stainless Steel
<b>Contact Carrier:</b>	TPU (Polyurethane)
<b>Contacts:</b>	Gold Plated CuZn
<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 67, IP 68, IP 69K
<b>Rated Voltage:</b>	300 V
<b>Rated Current:</b>	9 A
<b>Ambient Temperature:</b>	-40° to +75°C (-22° to +167°F)

## Dimensions



## Pinouts



FOUNDATION™ fieldbus, minifast® Passive Multiport Junctions

- Rugged, Fully Encapsulated Enclosure
- For Connecting I/O in Concentrated Areas

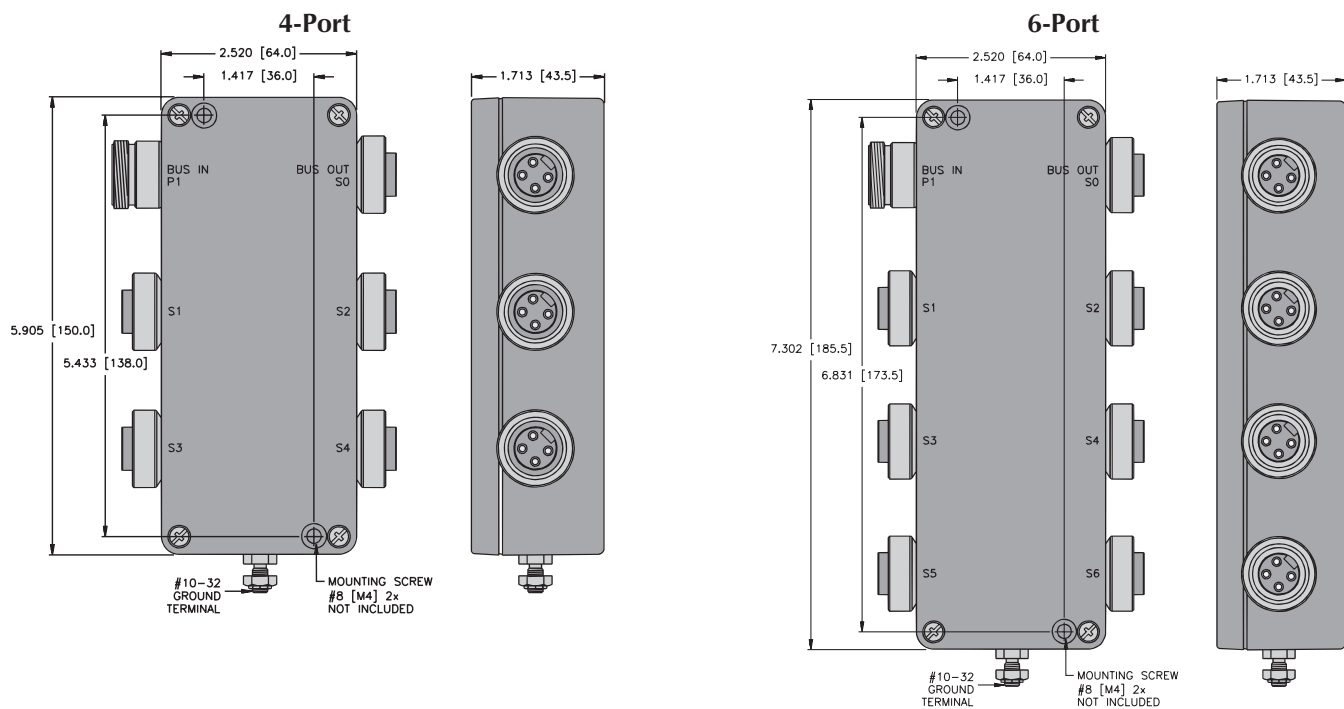


Part Number	Specs	Application	Wiring Diagrams
JBBS-49-M413/EX	No short-circuit protection	4-port Junction <ul style="list-style-type: none"><li>• Bus in/bus out connections (7/8-16UN) minifast</li><li>• Four (7/8-16UN) minifast connectors for field devices</li><li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li><li>• FISCO/ENTITY Field Device</li></ul>	
JBBS-49-M613/EX	No short-circuit protection	6-port Junction <ul style="list-style-type: none"><li>• Bus in/bus out connections (7/8-16UN) minifast</li><li>• Six (7/8-16UN) minifast connectors for field devices</li><li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li><li>• FISCO/ENTITY Field Device</li></ul>	

## Specifications

<b>Housing:</b>	Anodized Aluminum
<b>Coupling Nut:</b>	Stainless Steel
<b>Contact Carrier:</b>	TPU (Polyurethane)
<b>Contacts:</b>	Gold Plated CuZn
<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 67, IP 68, IP 69K
<b>Rated Voltage:</b>	300 V
<b>Rated Current:</b>	9 A
<b>Ambient Temperature:</b>	-40° to +75°C (-22° to +167°F)

## Dimensions



FOUNDATION fieldbus

## Pinouts

<i>minifast</i>	
Male	Female

# TURCK

## Network Media Products

FOUNDATION™
fieldbus, minifast®
Passive Multiport Junctions

- Rugged, Fully Encapsulated Enclosure
  - For Connecting I/O in Concentrated Areas

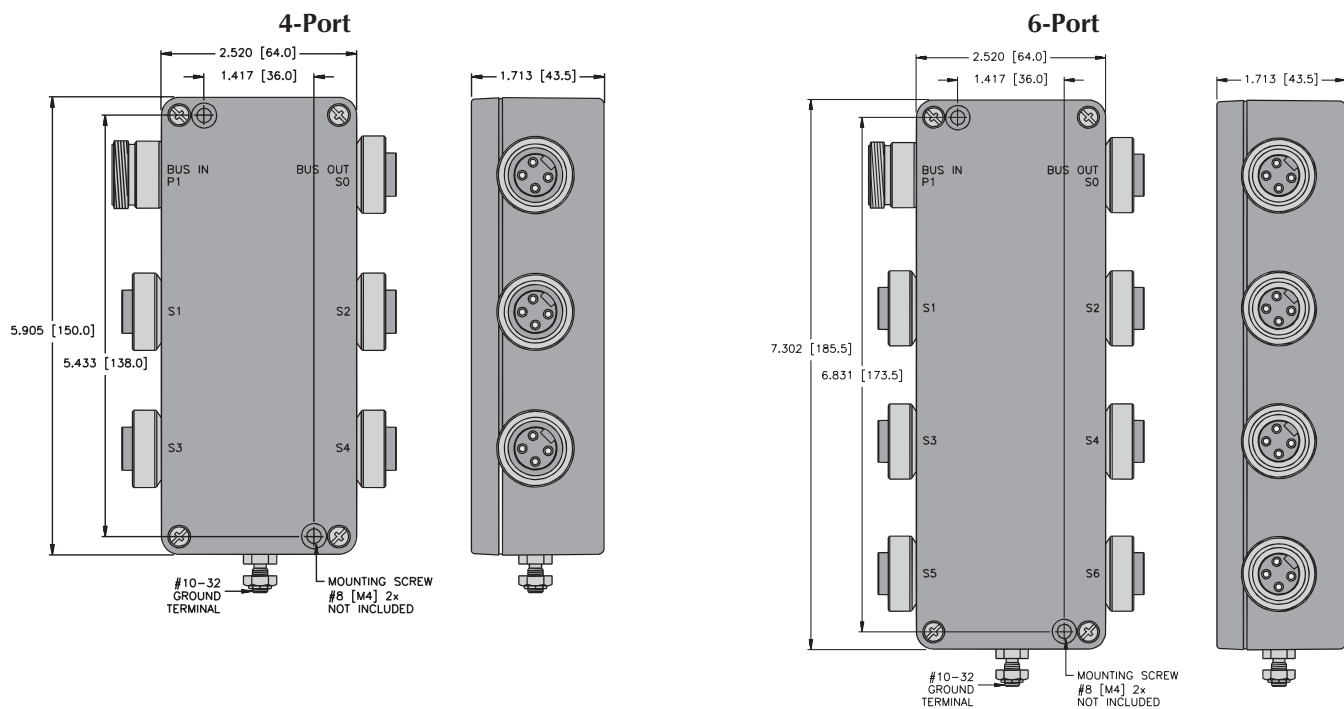


Part Number	Specs	Application	Wiring Diagrams
JBBS-49SC-M413/EX	<p><b>Electrical</b></p> <ul style="list-style-type: none"> <li>Short-circuit protection: 55 mA (Isc)</li> <li>Open circuit voltage: 35 VDC</li> <li>Current consumption: 5 mA</li> </ul> <p><b>Diagnostic</b></p> <ul style="list-style-type: none"> <li>LED indicators <ul style="list-style-type: none"> <li>Power: Green = On</li> <li>Short-circuit: Red = Shorted</li> </ul> </li> </ul>	<p>4-port Junction</p> <ul style="list-style-type: none"> <li>Bus in/bus out connections (7/8-16UN) <i>minifast</i></li> <li>Four (7/8-16UN) <i>minifast</i> connectors for field devices</li> </ul> <p>CL I, Div 2; Groups A-D see TURCK drawing N1-2.400</p> <p>T6, Ta = 70°C (SC Only)</p> <p>FISCO/ENTITY Field Device</p>	
JBBS-49SC-M613/EX	<p><b>Electrical</b></p> <ul style="list-style-type: none"> <li>Short-circuit protection: 55 mA (Isc)</li> <li>Open circuit voltage: 35 VDC</li> <li>Current consumption: 5 mA</li> </ul> <p><b>Diagnostic</b></p> <ul style="list-style-type: none"> <li>LED indicators <ul style="list-style-type: none"> <li>Power: Green = On</li> <li>Short-circuit: Red = Shorted</li> </ul> </li> </ul>	<p>6-port Junction</p> <ul style="list-style-type: none"> <li>Bus in/bus out connections (7/8-16UN) <i>minifast</i></li> <li>Six (7/8-16UN) <i>minifast</i> connectors for field devices</li> </ul> <p>CL I, Div 2; Groups A-D see TURCK drawing N1-2.400</p> <p>T6, Ta = 70°C (SC Only)</p> <p>FISCO/ENTITY Field Device</p>	

## Specifications

<b>Housing:</b>	Anodized Aluminum
<b>Coupling Nut:</b>	Stainless Steel
<b>Contact Carrier:</b>	TPU (Polyurethane)
<b>Contacts:</b>	Gold Plated CuZn
<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 67, IP 68, IP 69K
<b>Rated Voltage:</b>	300 V
<b>Rated Current:</b>	9 A
<b>Ambient Temperature:</b>	-40° to +75°C (-22° to +167°F)

## Dimensions



FOUNDATION fieldbus

## Pinouts

<i>minifast</i>	
Male	Female

# TURCK

## Network Media Products

### FOUNDATION™ fieldbus, minifast® Passive Multiport Junctions

- Rugged, Fully Encapsulated Enclosure
- For Connecting I/O in Concentrated Areas

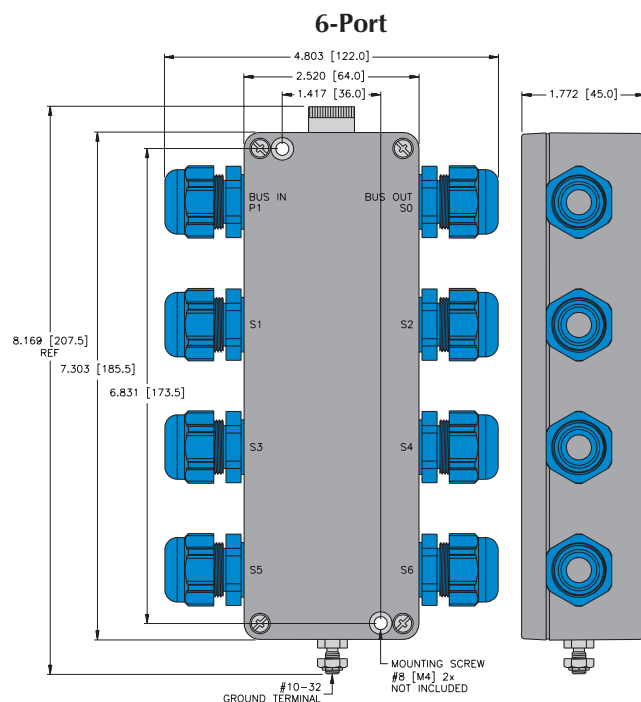
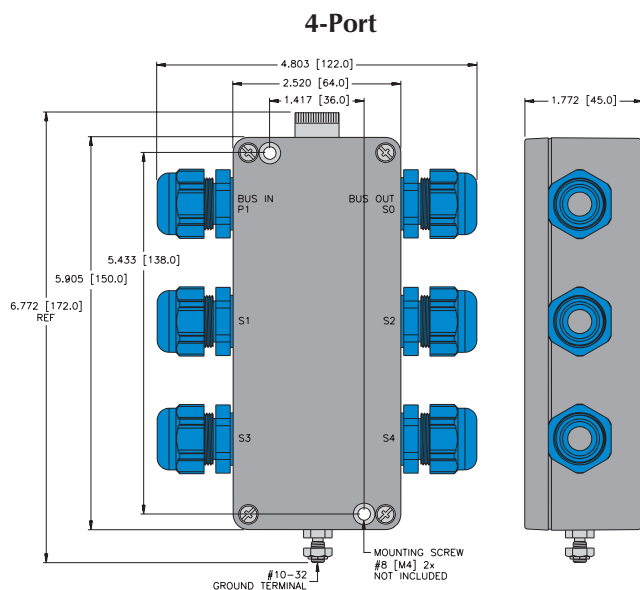


Part Number	Specs	Application	Wiring Diagrams
JBBS-49SC-T415B/EX	<p><b>Electrical</b></p> <ul style="list-style-type: none"> <li>• Short-circuit protection: 35 mA (Isc)</li> <li>• Voltage drop: 0.3 V</li> <li>• Current consumption: 7 mA</li> </ul> <p><b>Diagnostic</b></p> <ul style="list-style-type: none"> <li>• LED indicators Power: Green = On Short-circuit: Red = Shorted</li> </ul>	<p>4-port Junction</p> <ul style="list-style-type: none"> <li>• Bus in/bus out connections (7/8-16UN) <i>minifast</i></li> <li>• Four (7/8-16UN) <i>minifast</i> connectors for field devices</li> </ul> <p>CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only) FISCO/ENTITY Field Device</p>	
JBBS-49SC-T615B/EX	<p><b>Electrical</b></p> <ul style="list-style-type: none"> <li>• Short-circuit protection: 35 mA (Isc)</li> <li>• Voltage drop: 0.3 V</li> <li>• Current consumption: 5 mA</li> </ul> <p><b>Diagnostic</b></p> <ul style="list-style-type: none"> <li>• LED indicators Power: Green = On Short-circuit: Red = Shorted</li> </ul>	<p>6-port Junction</p> <ul style="list-style-type: none"> <li>• Bus in/bus out connections (7/8-16UN) <i>minifast</i></li> <li>• Six (7/8-16UN) <i>minifast</i> connectors for field devices</li> </ul> <p>CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only) FISCO/ENTITY Field Device</p>	

## Specifications

<b>Housing:</b>	Anodized Aluminum
<b>Coupling Nut:</b>	Cable Glands
<b>Contact Carrier:</b>	TPU (Polyurethane)
<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 67, IP 68, IP 69K
<b>Rated Voltage:</b>	300 V
<b>Rated Current:</b>	9 A
<b>Ambient Temperature:</b>	-40° to +75°C (-22° to +167°F)

## Dimensions



# TURCK

## Network Media Products

### FOUNDATION™ fieldbus, *eurofast*® Passive Multiport Junctions

- Rugged, Fully Encapsulated Enclosure
- For Connecting I/O in Concentrated Areas



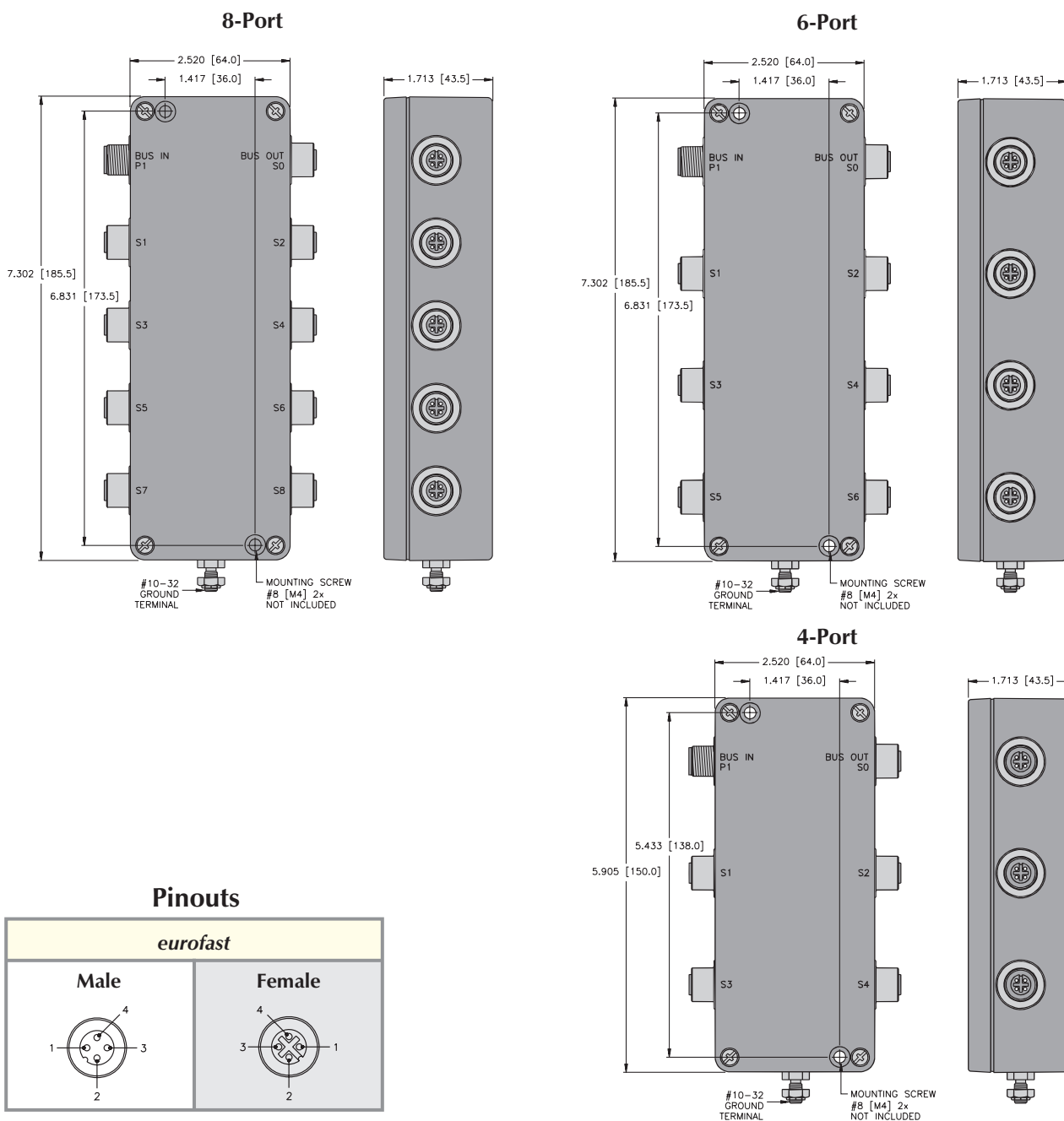
Part Number	Specs	Application	Wiring Diagrams
<b>JBBS-49-E413</b> <b>JBBS-49-E414</b>	No short-circuit protection	4-port Junction <ul style="list-style-type: none"> <li>• Bus in/bus out connections (M12x1) <i>eurofast</i></li> <li>• Four (M12x1) <i>eurofast</i> connectors for field devices</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	
<b>JBBS-49-E613/3GD</b> <b>JBBS-49-E614</b>	No short-circuit protection	6-port Junction <ul style="list-style-type: none"> <li>• Bus in/bus out connections (M12x1) <i>eurofast</i></li> <li>• Six (M12x1) <i>eurofast</i> connectors for field devices</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	
<b>JBBS-49-E813</b> <b>JBBS-49-E814</b>	No short-circuit protection	8-port Junction <ul style="list-style-type: none"> <li>• Bus in/bus out connections (M12x1) <i>eurofast</i></li> <li>• Eight (M12x1) <i>eurofast</i> connectors for field devices</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	



## Specifications

<b>Housing:</b>	Anodized Aluminum
<b>Coupling Nut:</b>	Nickel Plated CuZn or Stainless Steel
<b>Contact Carrier:</b>	TPU (Polyurethane)
<b>Contacts:</b>	Gold Plated CuZn
<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 67, IP 68, IP 69K
<b>Rated Voltage:</b>	250 V
<b>Rated Current:</b>	4 A
<b>Ambient Temperature:</b>	-40° to +75°C (-22° to +167°F)

## Dimensions



**FOUNDATION™ fieldbus, eurofast® Passive Multiport Junctions**

- Rugged, Fully Encapsulated Enclosure
- For Connecting I/O in Concentrated Areas



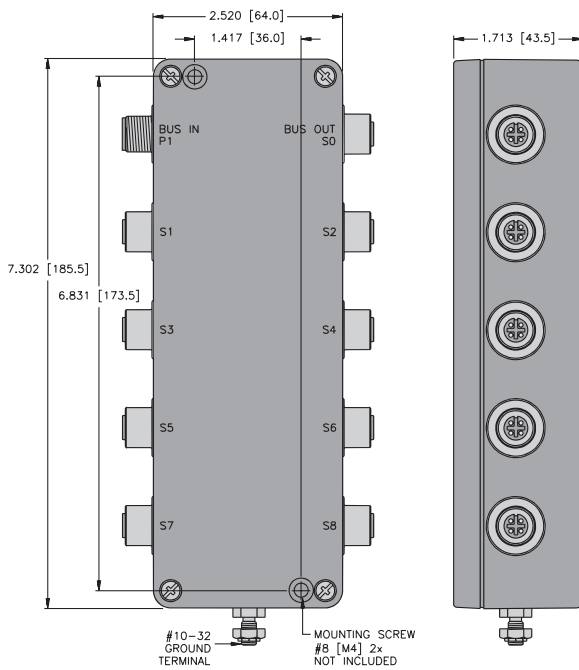
Part Number	Specs	Application	Wiring Diagrams
<b>JBBS-49SC-E413</b>	<p><b>Electrical</b></p> <ul style="list-style-type: none"> <li>• Short-circuit protection: 55 mA (Isc)</li> <li>• Open circuit voltage: 35 VDC</li> <li>• Current consumption: 5 mA</li> </ul> <p><b>Diagnostic</b></p> <ul style="list-style-type: none"> <li>• LED indicators Power: Green = On Short-circuit: Red = Shorted</li> </ul>	<p>4-port Junction</p> <ul style="list-style-type: none"> <li>• Bus in/bus out connections (M12x1) <b>eurofast</b></li> <li>• Four (M12x1) <b>eurofast</b> connectors for field devices</li> </ul> <p>CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</p>	
<b>JBBS-49SC-E613</b>	<p><b>Electrical</b></p> <ul style="list-style-type: none"> <li>• Short-circuit protection: 55 mA (Isc)</li> <li>• Open circuit voltage: 35 VDC</li> <li>• Current consumption: 5 mA</li> </ul> <p><b>Diagnostic</b></p> <ul style="list-style-type: none"> <li>• LED indicators Power: Green = On Short-circuit: Red = Shorted</li> </ul>	<p>6-port Junction</p> <ul style="list-style-type: none"> <li>• Bus in/bus out connections (M12x1) <b>eurofast</b></li> <li>• Six (M12x1) <b>eurofast</b> connectors for field devices</li> </ul> <p>CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</p>	
<b>JBBS-49SC-E813</b>	<p><b>Electrical</b></p> <ul style="list-style-type: none"> <li>• Short-circuit protection: 55 mA (Isc)</li> <li>• Open circuit voltage: 35 VDC</li> <li>• Current consumption: 5 mA</li> </ul> <p><b>Diagnostic</b></p> <ul style="list-style-type: none"> <li>• LED indicators Power: Green = On Short-circuit: Red = Shorted</li> </ul>	<p>8-port Junction</p> <ul style="list-style-type: none"> <li>• Bus in/bus out connections (M12x1) <b>eurofast</b></li> <li>• Eight (M12x1) <b>eurofast</b> connectors for field devices</li> </ul> <p>CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</p>	

## Specifications

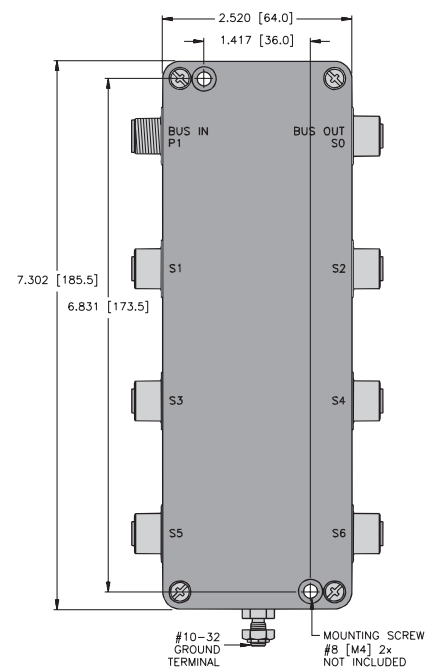
<b>Housing:</b>	Anodized Aluminum
<b>Coupling Nut:</b>	Nickel Plated CuZn or Stainless Steel
<b>Contact Carrier:</b>	TPU (Polyurethane)
<b>Contacts:</b>	Gold Plated CuZn
<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 67, IP 68, IP 69K
<b>Rated Voltage:</b>	250 V
<b>Rated Current:</b>	4 A
<b>Ambient Temperature:</b>	-40° to +75°C (-22° to +167°F)

## Dimensions

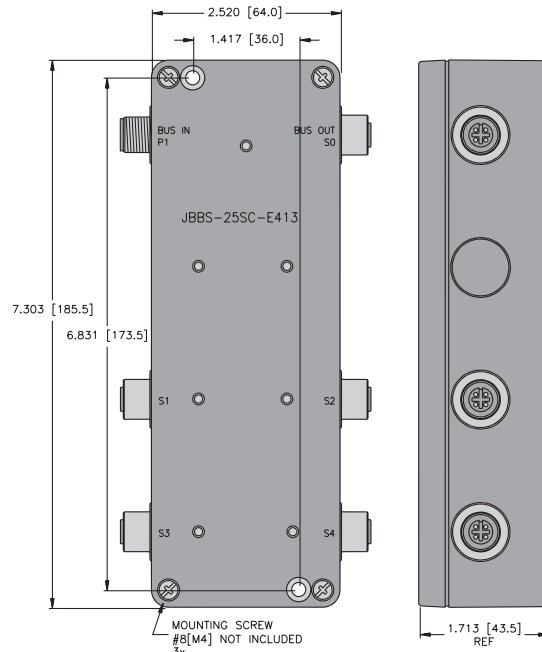
**8-Port**



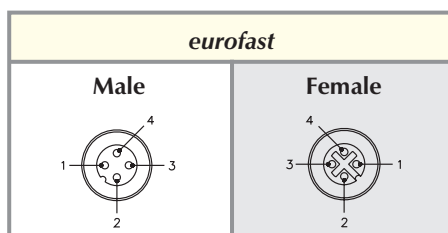
**6-Port**



**4-Port**



## Pinouts



### FOUNDATION™ fieldbus, *eurofast*® Passive Multiport Junctions

- Rugged, Fully Encapsulated Enclosure
- For Connecting I/O in Concentrated Areas

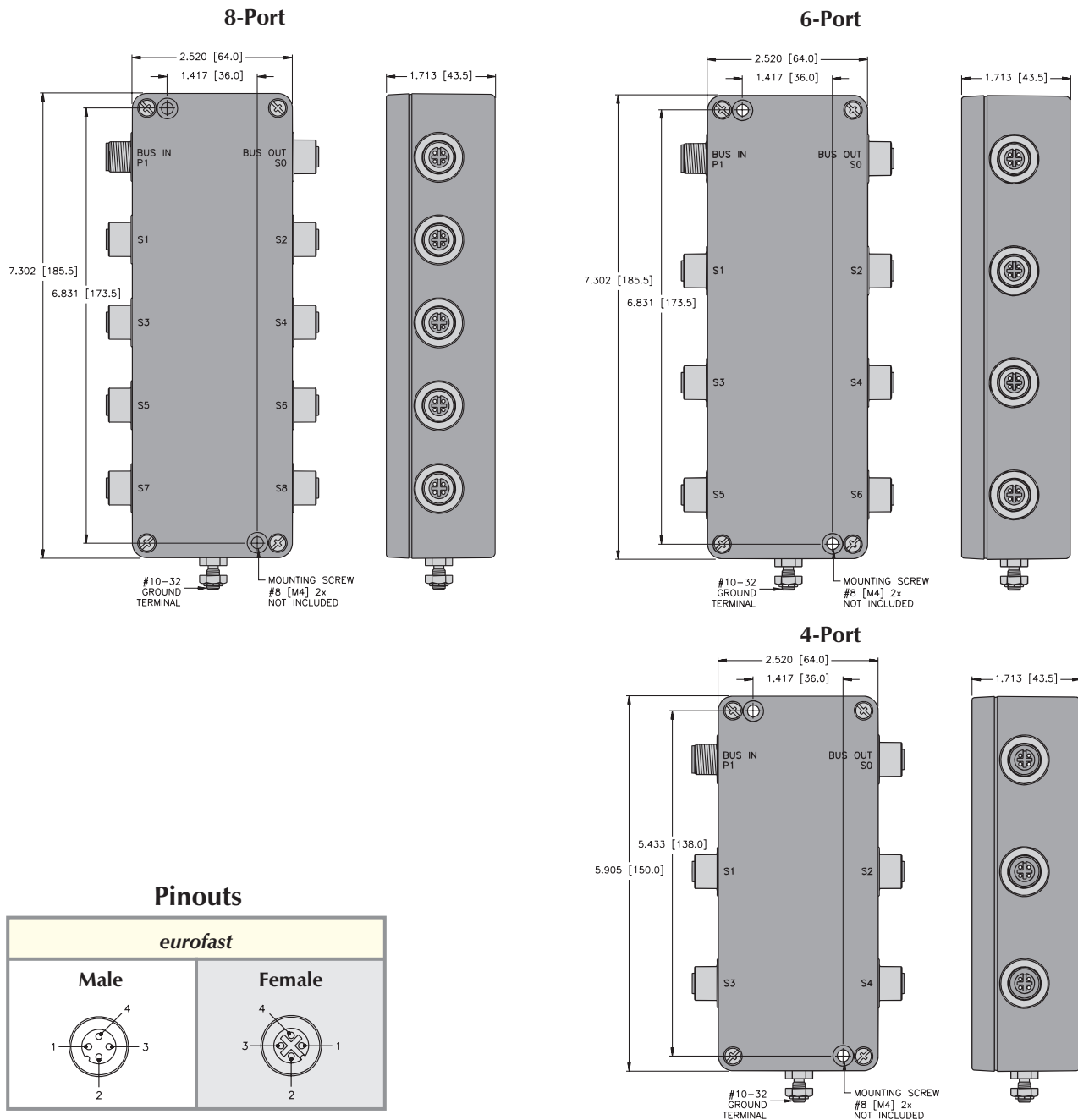


Part Number	Specs	Application	Wiring Diagrams
<b>JBBS-49-E423</b> <b>JBBS-49-E424</b>	No short-circuit protection	4-port Junction <ul style="list-style-type: none"> <li>• Bus in/bus out connections (M12x1) <i>eurofast</i></li> <li>• Four (M12x1) <i>eurofast</i> connectors for field devices</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	
<b>JBBS-49-E623</b> <b>JBBS-49-E624</b>	No short-circuit protection	6-port Junction <ul style="list-style-type: none"> <li>• Bus in/bus out connections (M12x1) <i>eurofast</i></li> <li>• Six (M12x1) <i>eurofast</i> connectors for field devices</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	
<b>JBBS-49-E823</b> <b>JBBS-49-E824</b>	No short-circuit protection	8-port Junction <ul style="list-style-type: none"> <li>• Bus in/bus out connections (M12x1) <i>eurofast</i></li> <li>• Eight (M12x1) <i>eurofast</i> connectors for field devices</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	

## Specifications

<b>Housing:</b>	Fiberglass
<b>Coupling Nut:</b>	Nickel Plated CuZn or Stainless Steel
<b>Contact Carrier:</b>	TPU (Polyurethane)
<b>Contacts:</b>	Gold Plated CuZn
<b>Protection:</b>	NEMA 1, 3, 4, 6P and IEC IP 67, IP 68, IP 69K
<b>Rated Voltage:</b>	250 V
<b>Rated Current:</b>	4 A
<b>Ambient Temperature:</b>	-40° to +75°C (-22° to +167°F)

## Dimensions



# TURCK

## Network Media Products

### FOUNDATION™ fieldbus, *minifast*® Junction Tees

- Indoor Use Only (for outdoor applications use JBBS family)
- Multi-port Junction Provides a Rugged Connection to Network Devices
- Bus-in/Bus-out Feature Eliminates Need for Splitter Tee
- Short-Circuit Protection Available



Part Number	Specs	Application	Wiring Diagrams
<b>JTBS-49-M433</b>	No short-circuit protection	4-port Junction Tee	
<b>JTBS-49SC-M433</b>	<b>Electrical</b> <ul style="list-style-type: none"> <li>• Short-circuit protection: 55 mA (Isc)</li> <li>• Open circuit voltage: 35 VDC</li> <li>• Current consumption: 5 mA</li> </ul> <b>Diagnostic</b> <ul style="list-style-type: none"> <li>• LED indicators Power: Green = On Short-circuit: Red = Shorted</li> </ul>	<ul style="list-style-type: none"> <li>• (7/8-16UN) <i>minifast</i> bus in/bus out connections</li> <li>• Four (7/8-16UN) <i>minifast</i> device ports</li> <li>• For nickel plated brass connectors change part number to JTBS 49SC-M434</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	
<b>JTBS-49-M633</b>	No short-circuit protection	6-port Junction Tee	
<b>JTBS-49SC-M633</b>	<b>Electrical</b> <ul style="list-style-type: none"> <li>• Short-circuit protection: 55 mA (Isc)</li> <li>• Open circuit voltage: 35 VDC</li> <li>• Current consumption: 5 mA</li> </ul> <b>Diagnostic</b> <ul style="list-style-type: none"> <li>• LED indicators Power: Green = On Short-circuit: Red = Shorted</li> </ul>	<ul style="list-style-type: none"> <li>• (7/8-16UN) <i>minifast</i> bus in/bus out connections</li> <li>• Six (7/8-16UN) <i>minifast</i> device ports</li> <li>• For nickel plated brass connectors change part number to JTBS 49SC-M634</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	

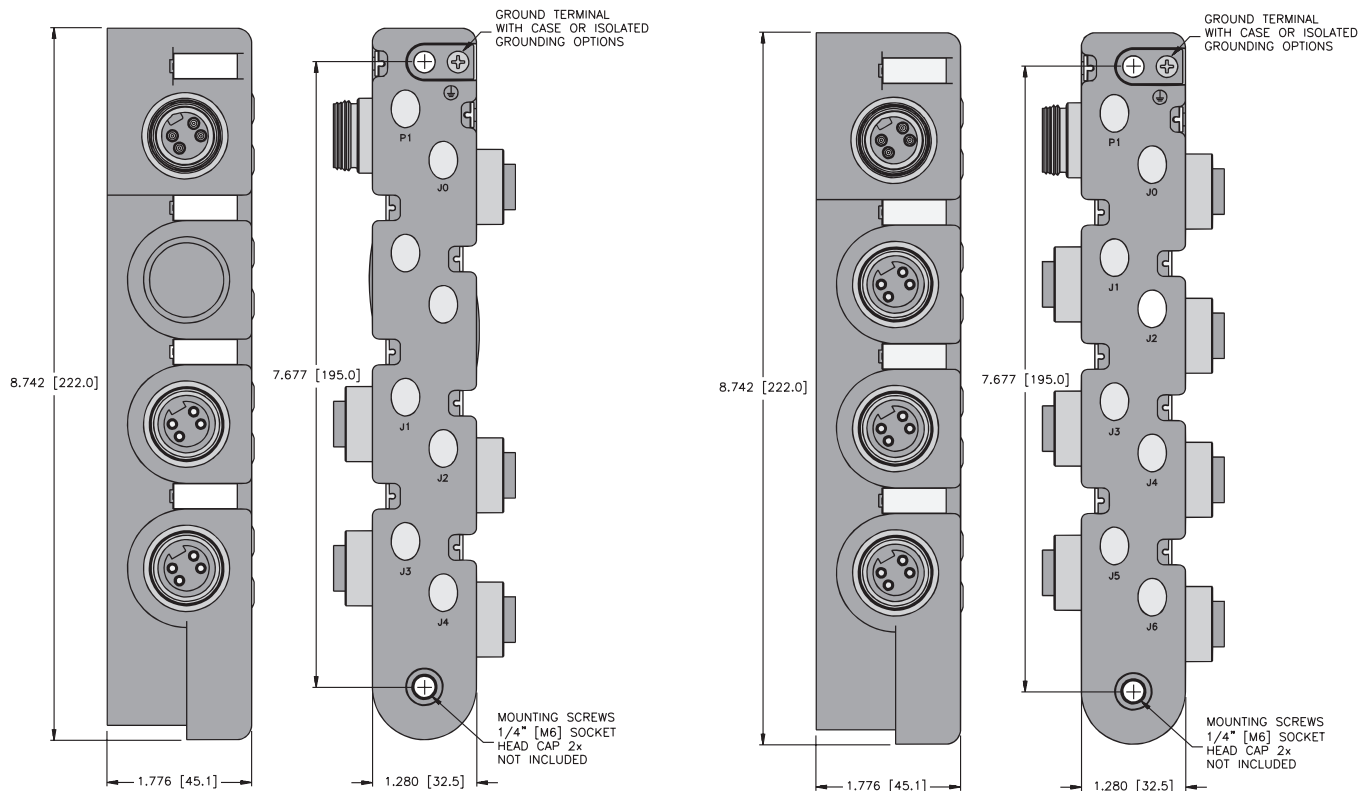
## Specifications

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

## Dimensions

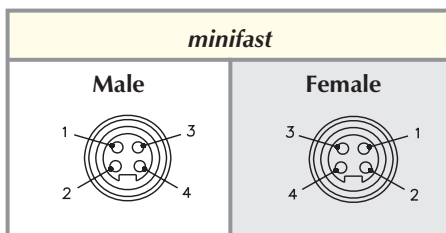
4-port

6-port



FOUNDATION fieldbus

## Pinouts



# TURCK

## Network Media Products

### FOUNDATION™ fieldbus, *eurofast*® Junction Tees

- Indoor Use Only (for outdoor applications use JBBS family)
- Multi-port Junction Provides a Rugged Connection to Network Devices
- Bus-in/Bus-out Feature Eliminates Need for Splitter Tee
- Short-Circuit Protection Available



Part Number	Specs	Application	Wiring Diagrams
<b>JTBS-49-E433</b>	No short-circuit protection	4-port Junction Tee	
<b>JTBS-49SC-E433</b>	<b>Electrical</b> <ul style="list-style-type: none"> <li>• Short-circuit protection: 55 mA (Isc)</li> <li>• Open circuit voltage: 35 VDC</li> <li>• Current consumption: 5 mA</li> </ul> <b>Diagnostic</b> <ul style="list-style-type: none"> <li>• LED indicators Power: Green = On Short-circuit: Red = Shorted</li> </ul>	<ul style="list-style-type: none"> <li>• (M12x1) <i>eurofast</i> bus in/bus out connections</li> <li>• Four (M12x1) <i>eurofast</i> device ports</li> <li>• For nickel plated brass connectors change part number to JTBS 49SC-E434</li> <li>• Short-circuit threshold: 280 mA</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	
<b>JTBS-49-E633</b>	No short-circuit protection	6-port Junction Tee	
<b>JTBS-49SC-E633</b>	<b>Electrical</b> <ul style="list-style-type: none"> <li>• Short-circuit protection: 55 mA (Isc)</li> <li>• Open circuit voltage: 35 VDC</li> <li>• Current consumption: 5 mA</li> </ul> <b>Diagnostic</b> <ul style="list-style-type: none"> <li>• LED indicators Power: Green = On Short-circuit: Red = Shorted</li> </ul>	<ul style="list-style-type: none"> <li>• (M12x1) <i>eurofast</i> bus in/bus out connections</li> <li>• Six (M12x1) <i>eurofast</i> device ports</li> <li>• For nickel plated brass connectors change part number to JTBS 49SC-E634</li> <li>• Short-circuit threshold: 280 mA</li> <li>• CL I, Div 2; Groups A-D see TURCK drawing N1-2.400 T6, Ta = 70°C (SC Only)</li> </ul>	



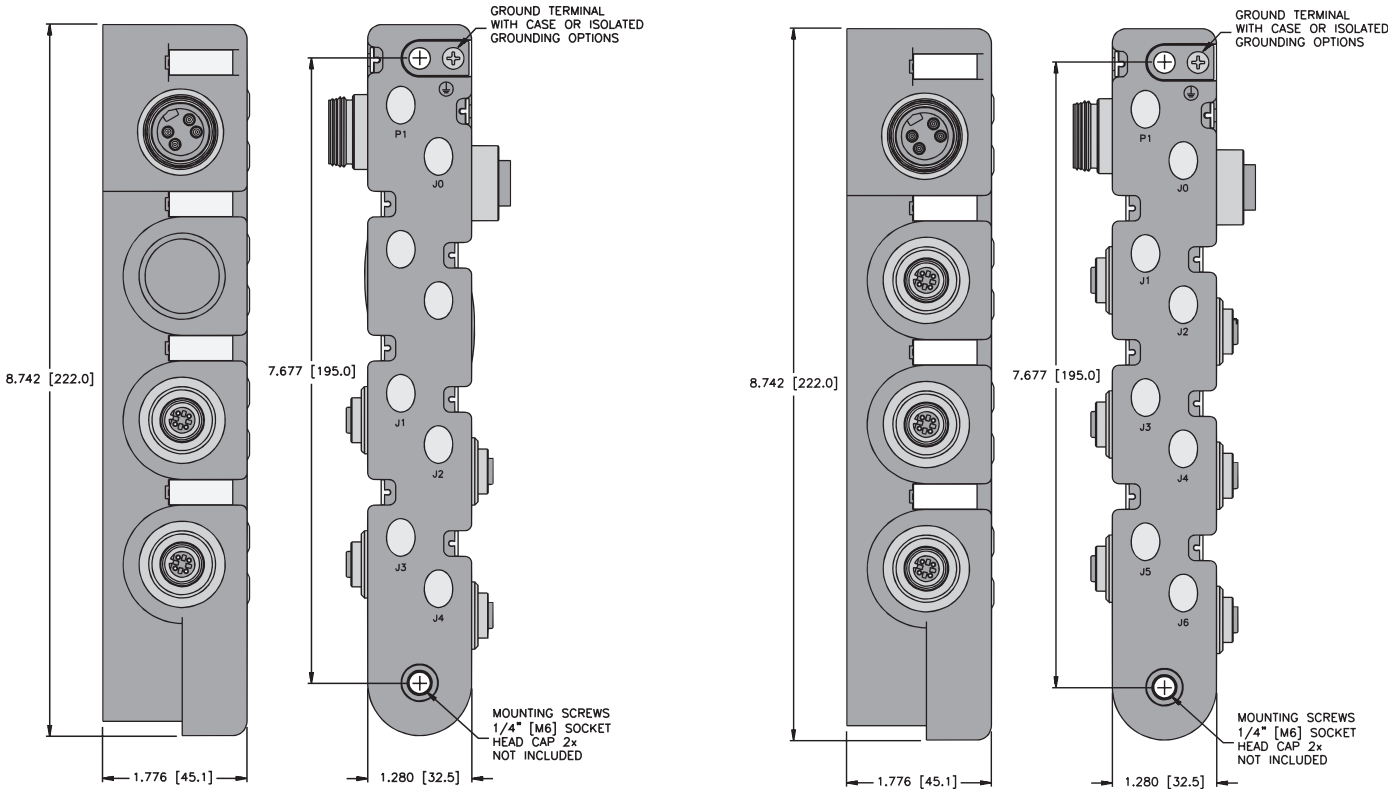
Specifications

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

Dimensions

4-port

6-port



Pinouts

<i>minifast</i>		<i>eurofast</i>
<b>Female</b>	<b>Male</b>	<b>Female</b>

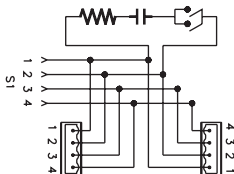
FOUNDATION™ fieldbus, minifast® Conduit Adapters

- Gasket and Mounting Screws Provided
- Same Housing Style for Single or Double Port

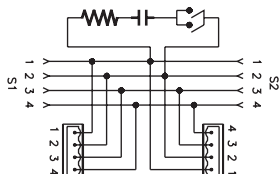


Housing	Part Number	Specs	Application	Pinout
	BCA 49-M123	Nylon Housing 300 V, 9 A -40° to +75°C	Attaches to standard conduit body* for transition to 4-wire (7/8-16UN) <i>minifast</i> connector	
	BCA 49SC-M123	<b>Electrical</b> <ul style="list-style-type: none"><li>• Short-circuit protection: 55 mA</li><li>• Open circuit voltage: 35 VDC</li><li>• Current consumption: 5 mA</li></ul> <b>Diagnostics</b> <ul style="list-style-type: none"><li>• LED indicators Power: Green = On Short-circuit: Red = Shorted</li></ul>		
	BCA 49-M223	Nylon Housing 300 V, 9 A -40° to +75°C		
	BCA 49SC-M223	<b>Electrical</b> <ul style="list-style-type: none"><li>• Short-circuit protection: 55 mA</li><li>• Open circuit voltage: 35 VDC</li><li>• Current consumption: 5 mA</li></ul> <b>Diagnostics</b> <ul style="list-style-type: none"><li>• LED indicators Power: Green = On Short-circuit: Red = Shorted</li></ul>		

1-port Wiring Diagram



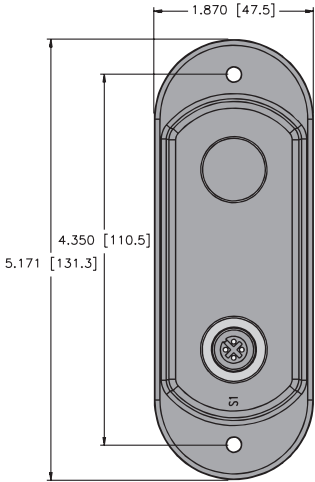
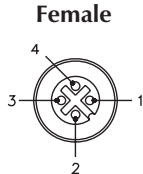
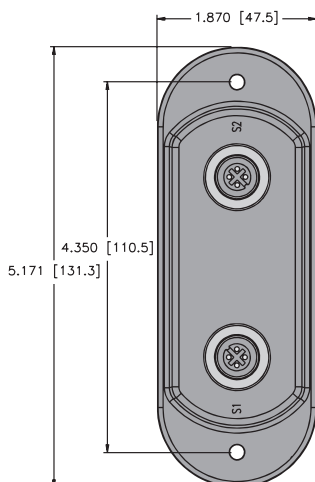
2-port Wiring Diagram



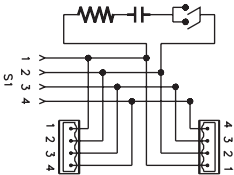
**FOUNDATION™ fieldbus, eurofast® Conduit Adapters**

- Gasket and Mounting Screws Provided
- Same Housing Style for Single or Double Port

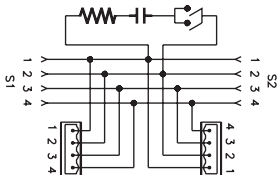


Housing	Part Number	Specs	Application	Pinout
	<b>BCA 49-E123</b>	Nylon Housing 250 V, 4 A -40° to +75°C	Attaches to standard conduit body* for transition to 4-wire (M12x1) <b>eurofast</b> connector  *Crouse-Hinds 3/4" Form 8, or Mark 9 or equivalent.	 <b>Female</b>
	<b>BCA 49-E223</b>		Attaches to standard conduit body* for transition to 4-wire (M12x1) <b>eurofast</b> connector  *Crouse-Hinds 3/4" Form 8, or Mark 9 or equivalent.	

**1-port Wiring Diagram**



**2-port Wiring Diagram**



FOUNDATION™ fieldbus, Power Supply Conditioner

- Meets the Needs of Redundant Power Supplies for FOUNDATION fieldbus
- Has Primary and Secondary Power Inputs to Supply Two Fieldbus H1 Segments
- Filters the Fieldbus Signal from the Power Source



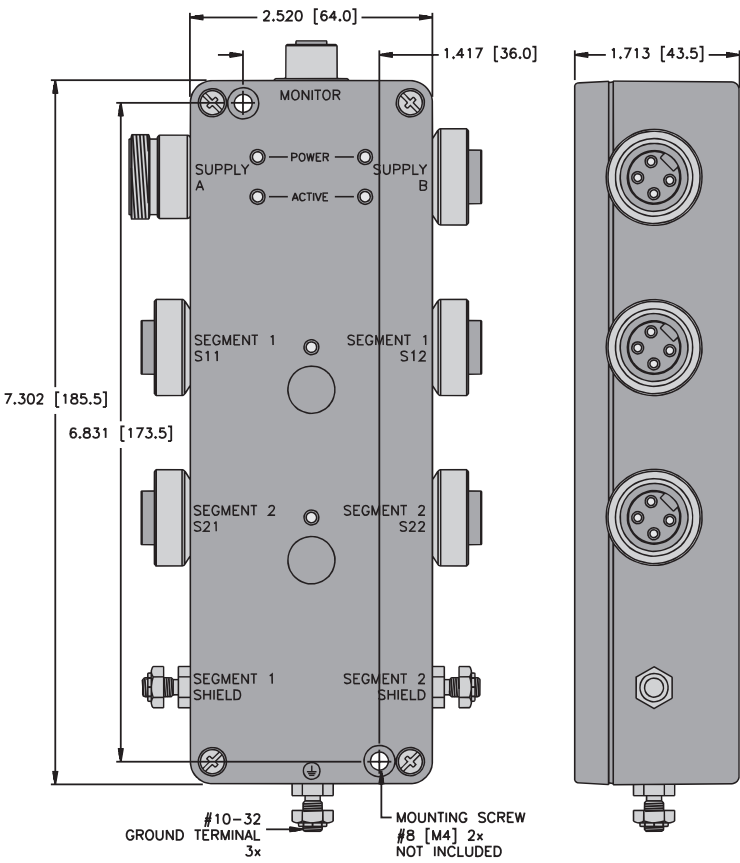
Part Number	Specs	Application
BRPC-49-M213	<p><b>Electrical</b></p> <ul style="list-style-type: none"><li>• Supply voltage (Supply A &amp; B): 12-32 VDC</li><li>• Supply surge protection (Supply A &amp; B): &gt; 36 VDC</li><li>• Supply redundancy (Supply A &amp; B): Supply "A" is primary. If Supply "A" Voltage drops below 11 Volts, Supply "B" becomes Active. Supply "A" becomes active once voltage &gt;11 Volts</li><li>• Output voltage (Segment 1 &amp; 2): Input Voltage - 3 Volts</li><li>• Output current (Segment 1 &amp; 2): &lt;1 Amp</li><li>• Short-circuit protection (Segment 1 &amp; 2): &gt; 1 Amp to infinite</li></ul> <p><b>Diagnostic</b></p> <ul style="list-style-type: none"><li>• Power LED indications: Green - Active / Red - No Power</li><li>• Segment LED indications: Green - Active</li><li>• Supply monitor contacts (Supply A &amp; B): Solid State, AC/DC &lt;400 Volts, &lt;70 mA when supply voltage &gt;11 Volts, contact is closed.</li></ul>	<p>4-port Power Supply Conditioner</p> <ul style="list-style-type: none"><li>• Primary and secondary power inputs</li><li>• Diagnostics for each power supply</li><li>• Internal switches for terminators</li></ul>

Specifications

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

Dimensions

BRPC-49-M213



FOUNDATION fieldbus

Pinouts

<i>minifast</i>		<i>eurofast</i>
<b>Female</b>	<b>Male</b>	<b>Female</b>

# TURCK

## Network Media Products

### FOUNDATION™ fieldbus, Tees

- Creates a Drop or Branch from the Main Bus Line
- *minifast*® Connectors on Bus Line
- *minifast* or *eurofast*® Connectors on Dropline



Housing	Part Number	Specs	Application	Wiring Diagrams
	RSV 2RKV 49		<i>minifast</i> Tee <ul style="list-style-type: none"> <li>• Data, ground, shield</li> <li>• Stainless steel coupling nuts</li> </ul>	
	RSV FKV RKV 49	PUR (Polyurethane) 250 V, 4 A -40° to +75°C	<i>minifast</i> to <i>eurofast</i> Drop <ul style="list-style-type: none"> <li>• Data, ground, shield</li> <li>• Stainless steel coupling nuts</li> </ul>	
	RSCV 2RKCV 49		<i>eurofast</i> Tee <ul style="list-style-type: none"> <li>• Stainless steel coupling nuts</li> </ul>	

### Pinouts

<i>minifast</i>		<i>eurofast</i>	
Male	Female	Male	Female

**FOUNDATION™ fieldbus, Gender Changers and Elbow Connectors**

- Allows Quick and Easy Changes from Male to Female *minifast*® Connectors



Housing	Part Number	Specs	Application	Wiring Diagrams
	RSV RSV 49		Male <i>minifast</i> Gender Changer <ul style="list-style-type: none"><li>• Changes female cordset to male receptacle</li></ul>	
	RKV RKV 49	TPU (Polyurethane) 250 V, 4 A -40° to +75°C	Female <i>minifast</i> Gender Changer <ul style="list-style-type: none"><li>• Changes female cordset to male receptacle</li></ul>	
	WSV RKV 49		<i>minifast</i> Elbow <ul style="list-style-type: none"><li>• Right angle male to female connector</li></ul>	

FOUNDATION fieldbus

**Pinouts**

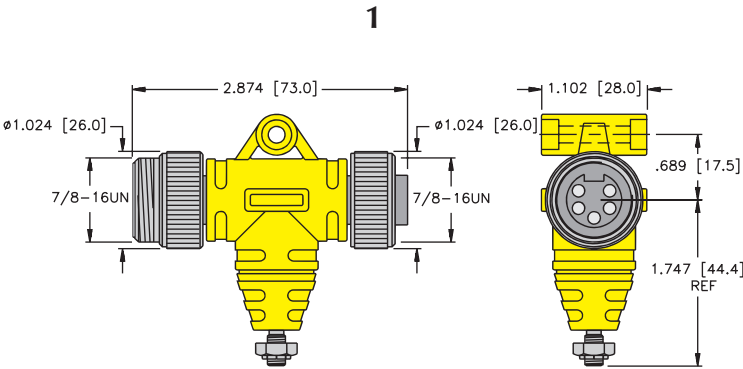
<i>minifast</i>	
Male	Female

FOUNDATION™ fieldbus, Surge Suppressor

- Protects Data Communication Lines (V+ and V-)
- Absorbs the Front End of the Transient, Responding in Less Than a Nanosecond
- Diverts the Surge Energy to Ground
- Automatically Resets and waits for Next Surge



Housing	Part Number	Specs	Application	Pinouts
See Drawing 1	RSV RKV 49 SS	<p><b>Electrical</b></p> <ul style="list-style-type: none"><li>• Maximum operating voltage: 27 Volts</li><li>• Maximum operating current: 200mA</li><li>• Clamping action turn-on: 28.5 Volts</li><li>• Maximum clamping at 2 kA: (8 x 20 Sec): 44 Volts</li><li>• Maximum surge voltage: 20 kV</li><li>• Maximum surge current: 2.5 kA</li><li>• Current leakage/line at operating voltage: 5 A</li><li>• Capacitance /line at operating voltage: 500 pF</li><li>• Response time: less than 1 nanosecond</li></ul> <p><b>Mechanical</b></p> <ul style="list-style-type: none"><li>• Ground stud: 10-32 stainless steel</li><li>• Operating temperature: -40° to +85°C</li></ul>	Male and Female <i>minifast</i> ®, 4-pin	<p><b>Male</b></p> <p><b>Female</b></p>





**FOUNDATION™ fieldbus, (7/8-16UN) minifast® Male Receptacles**

- Provides Quick Connection to Field Devices
- Available for 1/2-14NPT, 1/2-14NPSM, 3/4-14NPT and M20 Threads



Housing	Part Number	Specs	Application	Pinouts
<b>13</b> 	RSFV 49-*M/14.5	Nickel Plated CuZn or Stainless Steel 300 V, 9 A -40° to +105°C	1/2-14NPT full length threads	<b>Male</b> 
<b>15</b> 	RSFV 49-*M/14.75		3/4-14NPT full length threads	
<b>14</b> 	RSFV 49-*M/M20		M20x1.5 threads	
<b>16</b> 	RSFV 49-*M		1/2-14NPSM threads	
<b>17</b> 	RSFV 49-*M/NPT		1/2-14NPT modified length threads	

FOUNDATION fieldbus

See page R62 for dimensional drawings.

Standard cable length is 0.3 meters. Consult factory for other lengths.

Receptacles require a 13/16" (21.0 mm) clearance hole for panel mounting.

Standard housing material is stainless steel. "RKF .."; "RKFV .." indicates 316 nickel plated brass housing.

For locknuts to be included, add "W/LN" to the end of the part number.

# TURCK

## Network Media Products

### FOUNDATION™ fieldbus, (7/8-16UN) *minifast*® Female Receptacles

- Provides Quick Connection to Field Devices
- Available for 1/2-14NPT, 1/2-14NPSM, 3/4-14NPT and M20 Threads



Housing	Part Number	Specs	Application	Pinouts
<b>18</b> 	RKFV 49-*M/14.5	Nickel Plated CuZn or Stainless Steel 300 V, 9 A -40° to +105°C	1/2-14NPT full length threads	<b>Female</b> 
<b>20</b> 	RKFV 49-*M/14.75		3/4-14NPT full length threads	
<b>19</b> 	RKFV 49-*M/M20		M20x1.5 threads	
<b>21</b> 	RKFV 49-*M		1/2-14NPSM threads	
<b>22</b> 	RKFV 49-*M/NPT		1/2-14NPT modified length threads	

See page R63 for dimensional drawings.

Standard cable length is 0.3 meters. Consult factory for other lengths.

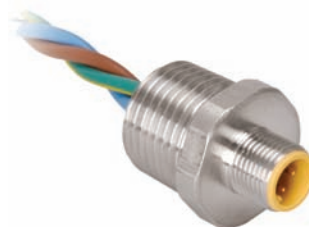
Receptacles require a 13/16" (21.0 mm) clearance hole for panel mounting.

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

For locknuts to be included, add "W/LN" to the end of the part number.

## FOUNDATION™ fieldbus, (M12x1) eurofast® Male Receptacles

- Mounted for Quick Connection to Enclosures
- Available for 1/2-14NPT, 1/2-14NPSM, 3/4-14NPT and M20 Threads



Housing	Part Number	Specs	Application	Pinout
<b>23</b> 	FSV 49-*M/14.5	Nickel Plated CuZn or Stainless Steel 250 V, 4 A -40° to +105°C	1/2-14NPT full length threads	<b>Male</b> 
<b>25</b> 	FSV 49-*M/14.75		3/4-14NPT full length threads	
<b>24</b> 	FSV 49-*M/M20		M20x1.5 threads	
<b>26</b> 	FSV 49-*M		PG 9 threads	
<b>27</b> 	FSV 49-*M/NPT		1/2-14NPT modified length threads	

FOUNDATION fieldbus

See page R64 for dimensional drawings.

Standard cable length is 0.3 meters. Consult factory for other lengths.

Receptacles require a 13/16" (21.0 mm) clearance hole for panel mounting.

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

# TURCK

## Network Media Products

### FOUNDATION™ fieldbus, (M12x1) eurofast® Female Receptacles

- Mounted for Quick Connection to Enclosures
- Available for 1/2-14NPT, 1/2-14NPSM, 3/4-14NPT and M20 Threads



Housing	Part Number	Specs	Application	Pinouts
<b>28</b> 	FKV 49-*M/14.5	Nickel Plated CuZn or Stainless Steel 250 V, 4 A -40° to +105°C	1/2-14NPT Full Length Threads	<b>Female</b> 
<b>30</b> 	FKV 49-*M/14.75		3/4-14NPT Full Length Threads	
<b>29</b> 	FKV 49-*M/M20		M20x1.5 Threads	
<b>31</b> 	FKV 49-*M		PG 9 Threads	
<b>32</b> 	FKV 49-*M/NPT		1/2-14NPT Modified Length Threads	

See page R65 for dimensional drawings.

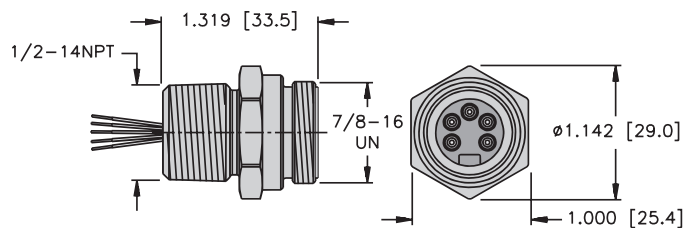
Standard cable length is 0.3 meters. Consult factory for other lengths.

Receptacles require a 13/16" (21.0 mm) clearance hole for panel mounting.

Standard housing material is stainless steel. "RKF .."; "RKfV .." indicates 316 nickel plated brass housing.

**minifast® Male Receptacles**

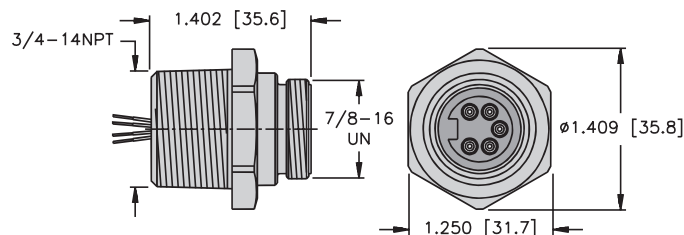
13



RSFV .. 14.5

Page R58

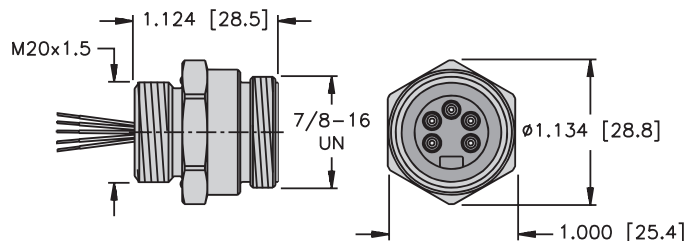
15



RSFV .. 14.75

Page R58

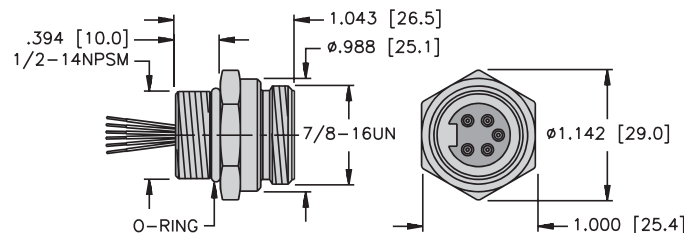
14



RSFV .. M20

Page R58

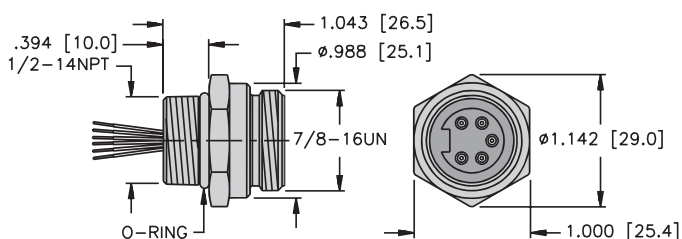
16



RSFV ..

Page R58

17

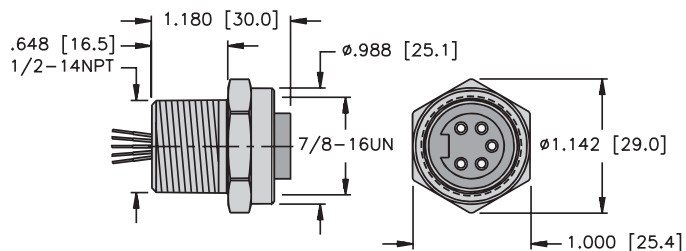


RSFV .. NPT

Page R58

**minifast® Female Receptacles**

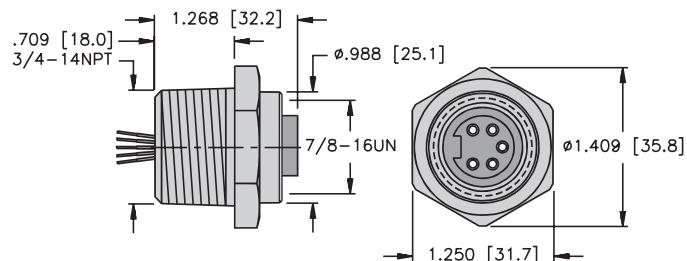
**18**



**RKFV .. 14.5**

**Page R59**

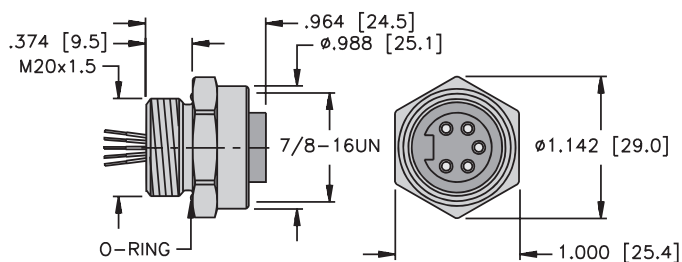
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**RKFV .. 14.75**

**Page R59**

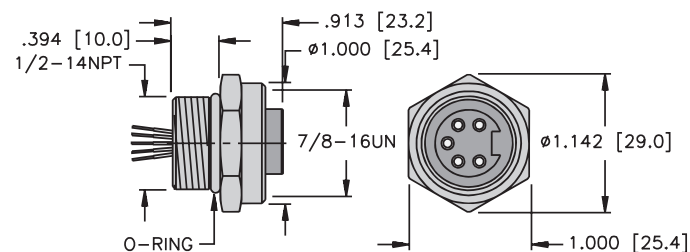
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**RKFV .. M20**

**Page R59**

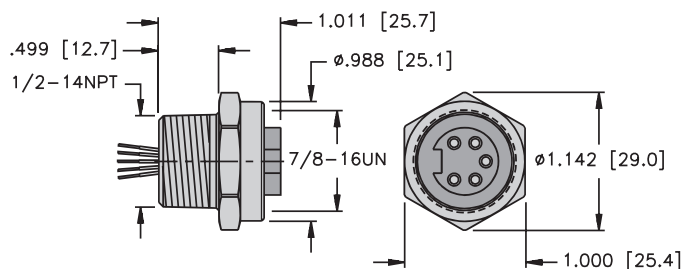
**21**



**RKFV ..**

**Page R59**

**22**

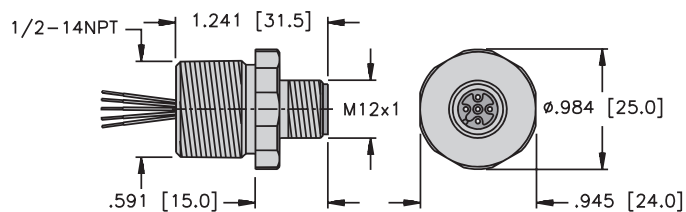


**RKFV .. NPT**

**Page R59**

**eurofast® Male Receptacles**

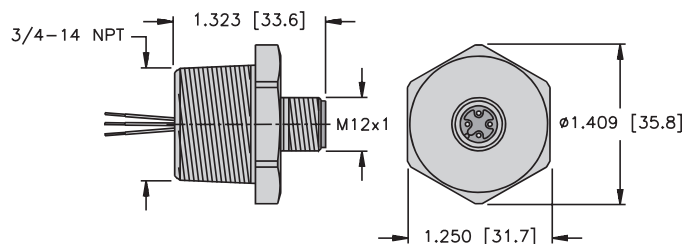
23



FSV .. 14.5

Page R60

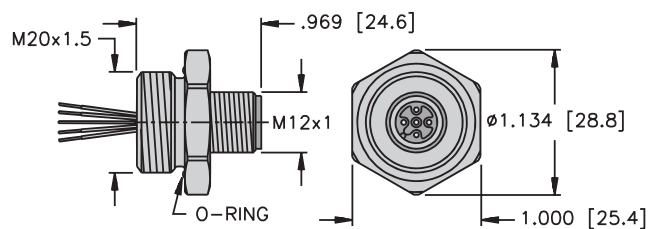
25



FSV .. 14.75

Page R60

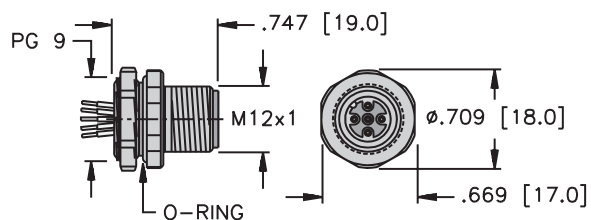
24



FSV .. M20

Page R60

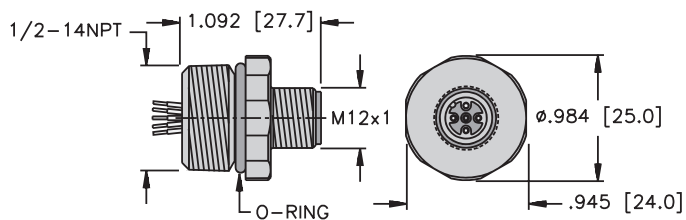
26



FSV ..

Page R60

27

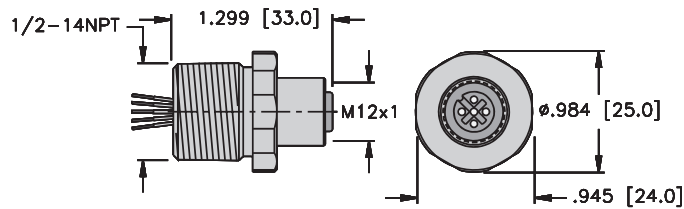


FSV .. NPT

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eurofast® Female Receptacles

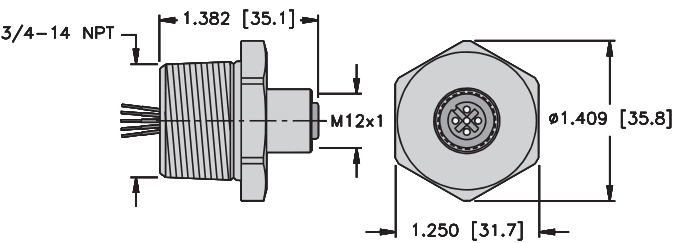
28



FKV .. 14.5

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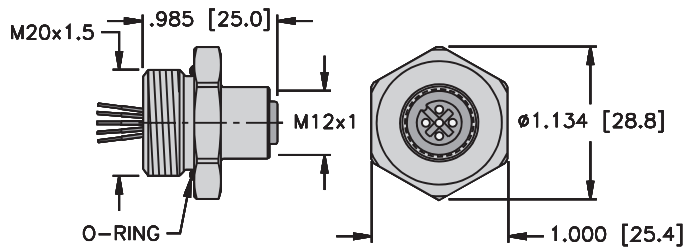
30



FKV .. 14.75

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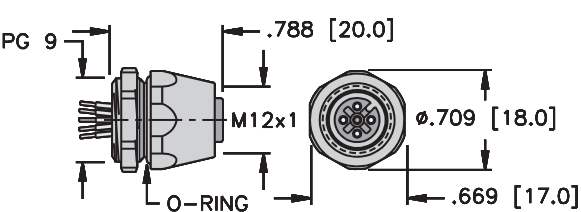
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FKV .. M20

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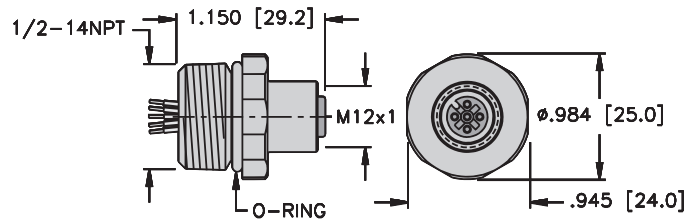
31



FKV ..

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FKV .. NPT

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FOUNDATION™ fieldbus, minifast® Field Wireable Connectors

- Screw Terminals Accept up to 16 AWG Conductors



Housing	Part Number	Specs	Application	Pinouts
	<b>BSV 4149-0/9</b>	Glass filled nylon, stainless steel coupling nut PG 9 cable gland, accepts 6-8 mm cable diameter 85°C 250 V, 9 A	Mates with all 4-pin cordsets and receptacles	<b>Male</b> 
	<b>BSV 4149-0/16</b>	Glass filled nylon, stainless steel coupling nut PG 13.5 cable gland accepts 12-14 mm cable diameter 85°C 250 V, 9 A		
	<b>BV 4149-0/9</b>	Glass filled nylon, stainless steel coupling nut PG 9 cable gland, accepts 6-8 mm cable diameter 85°C 250 V, 9 A		<b>Female</b> 
	<b>BV 4149-0/16</b>	Glass filled nylon, stainless steel coupling nut PG 13.5 cable gland accepts 12-14 mm cable diameter 85°C 250 V, 9 A		

# TURCK

## Network Media Products

FOUNDATION™
fieldbus, eurofast®
Field Wireable Connectors

- Screw Terminals Accept up to 18 AWG Conductors

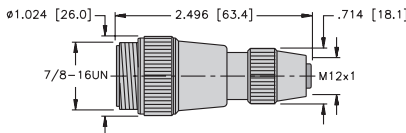


Housing	Part Number	Specs	Application	Pinouts
	BS 8141-0/PG9	PBT, Black PG 7 cable gland accepts 6-8 mm cable diameter 85°C 125 V, 4 A	Mates with standard key 4-pin cordsets and receptacles	<b>Male</b>
	BS 8241-0/PG9	PBT, Black PG 7 cable gland accepts 6-8 mm cable diameter 85°C 125 V, 4 A		
	B 8141-0/PG9	PBT, Black PG 7 cable gland accepts 6-8 mm cable diameter 85°C 250 V, 4 A		<b>Female</b>
	B 8241-0/PG9	PBT, Black PG 7 cable gland accepts 6-8 mm cable diameter 85°C 250 V, 4 A		

FOUNDATION™ fieldbus, Gender Changer


- Allows Quick and Easy Changes from Male to Female and *minifast*® to *eurofast*® Connectors



Housing	Part Number	Specs	Application	Wiring Diagram																		
	RSM 49-FK 4.4	Nickel Plated CuZn or Stainless Steel 250 V, 4 A -40° to +75°C	Female <i>eurofast</i> , male <i>minifast</i> , 4-pin	<table><tr><td>MALE</td><td></td><td>FEMALE</td></tr><tr><td>1</td><td>←</td><td>1</td></tr><tr><td>2</td><td>←</td><td>2</td></tr><tr><td>3</td><td>←</td><td>3</td></tr><tr><td>4</td><td>←</td><td>4</td></tr><tr><td>P1</td><td></td><td>J1</td></tr></table>	MALE		FEMALE	1	←	1	2	←	2	3	←	3	4	←	4	P1		J1
MALE		FEMALE																				
1	←	1																				
2	←	2																				
3	←	3																				
4	←	4																				
P1		J1																				

FOUNDATION fieldbus

Pinouts

<i>minifast</i>	<i>eurofast</i>
Male 	Female 