Features

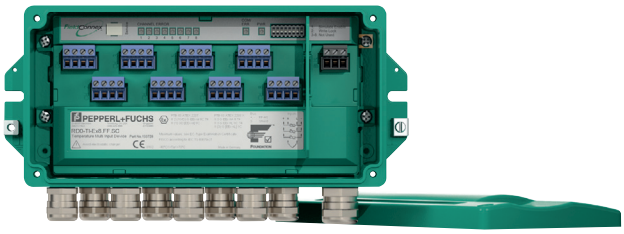
- For 8 temperature or analog sensors
- Installation in Zone 1/Div. 1, intrinsically safe
- Sensors in Zone 0/Div. 1
- Connection to fieldbus acc. to FISCO or Entity
- For FOUNDATION Fieldbus H1
- PCS integration via device description and function blocks
- Concentrator method for simplified configuration
- Monitors sensor condition
- For T/C, RTD 2-, 3-, 4-wire, voltage and resistance
- Cold junction compensation
- Removable terminals

Function

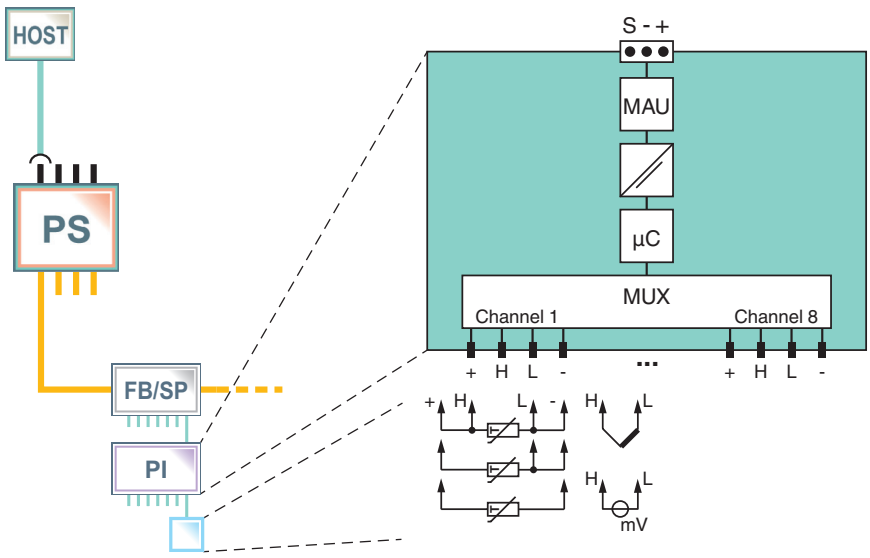
This fieldbus junction box holds a temperature multi-input device for transferring signals from resistance temperature measuring sensors and thermocouples, as well as resistance and millivolt signals via FOUNDATION Fieldbus H1. The fieldbus junction box with 8 inputs can be installed in Zone 1/Div. 1 with sensors located in Zone 0/Div. 1.

The housing, type F2, is made of sturdy cast aluminum for installation in rough environments. Fieldbus and field device entrances can be selected individually from a range of cable glands. Optionally, either screw terminals or spring terminals can be chosen. A tag plate is available as option.

Assembly



Connection



Zone 1/Div. 1

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General specifications	
Design / Mounting	Outside installation
Electronic component	Temperature Multi-Input Device RD0-TI-Ex8.FF* For technical data on installed electronic component see data sheet.
Directive conformity	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013
Standard conformity	
Galvanic isolation	EN 60079-11
Electromagnetic compatibility	NE 21:2011
Degree of protection	IEC 60529
Fieldbus standard	IEC 61158-2
Shock resistance	EN 60068-2-27
Vibration resistance	EN 60068-2-6
Ambient conditions	
Ambient temperature	see table 1
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)
Relative humidity	≤ 95 % non-condensing
Shock resistance	15 g , 11 ms
Vibration resistance	10 g , 10 ... 150 Hz
Corrosion resistance	acc. to ISA-S71.04-1985, severity level G3
Mechanical specifications	
Connection type	plug-in terminals , spring terminal and screw terminal
Core cross-section	
Bus	up to 2.5 mm^2
Inputs	up to 2.5 mm^2
Cable diameter	see table 2
Cable gland	sensor inputs M16, fieldbus M20
Housing material	EN 1780-1 46000 , ISO AlSi9Cu3(Fe) , anodized
Degree of protection	IP67
Mass	1800 g
Mounting	panel mounting
Data for application in connection with hazardous areas	
EU-type examination certificate	PTB 03 ATEX 2237
Marking	Ex II 2 (1) G Ex ia [ia Ga] IIC T4 Gb , Ex II (1) G [Ex ia Ga] IIC , Ex II (1) D [Ex ia Da] IIIC , Ex II 3 G Ex ic IIC T4 Gc
Bus	FISCO see EC-Type Examination Certificate
Inputs	see EC-Type Examination Certificate
Certificate	PTB 03 ATEX 2238 X
Marking	Ex II 3 G Ex nA IIC T4 Gc
Galvanic isolation	
Bus	see Statement of Conformity
Input	see EC-Type Examination Certificate
Directive conformity	
Directive 2014/34/EU	EN 60079-0:2012 , EN 60079-11:2012 , EN 60079-15:2010
International approvals	
IECEx approval	IECEx PTB 05.0001 , IECEx PTB 05.0002X
Approved for	Ex ia [ia Ga] IIC T4 Gb , [Ex ia Ga] IIC , [Ex ia Da] IIIC , Ex ic IIC T4 Gc , Ex nA IIC T4 Gc
Certificates and approvals	
Marine approval	DNV A-14038
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

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Type code/order designation

Type of housing

F2D0 Field housing, aluminum, IP67

Type of device

TI Temperature Multi-Input Device

Explosion protection method

Ex intrinsically safe

Number of inputs

8

Fieldbus type

FF FOUNDATION Fieldbus

Type of connection

CG Cable gland, plastic

CGB Cable gland, nickel plated brass

CGS Cable gland, stainless steel

Type of terminal

ST Screw terminals

SC Spring terminals

F2D0	-	**TI**	-	**Ex**	**8**	.	**FF**	.		.	
A	-	**B**	-	**C**	**D**	.	**E**	.	**F**	.	**G**

Identification for assignment of the type code to the following tables

Example:

F2D0-TI-Ex8.FF.CGB.ST: Temperature Multi-Input Device in aluminum housing with cable glands made of nickel plated brass and 8 inputs with screw terminals

Note:

Contact your Pepperl+Fuchs representative to check the availability of individual variants.

Dimensions

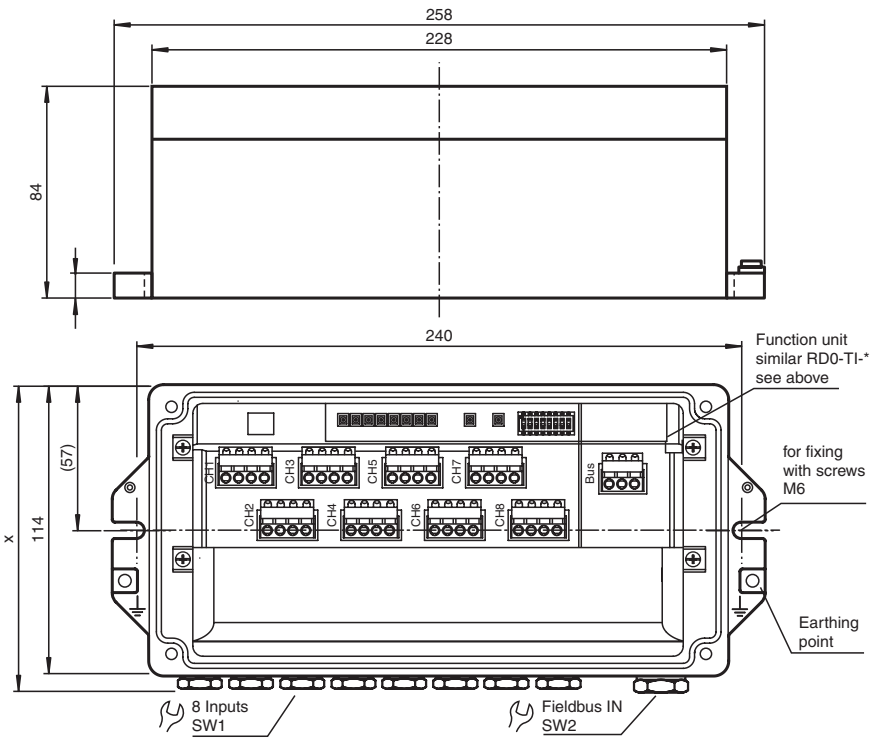

Figure 1: F2D0-TI-Ex8.FF.CGB.SC

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Installation note

see manual

Electrical connection

Table 1: Variations of cable connections, housing types and temperature ranges

Type of connection, identification F	Type of cable connection	Number of inputs, identification D	F2 housing, outside dimension "X" (mm)	Temperature range for use in hazardous area (°C)	Temperature range for use in safe area (°C)
CG	Terminals, cable glands plastic	8	140	-30 ... 70	-30 ... 85
CGB	Terminals, cable glands nickel plated brass	8	140	-40 ... 70	-40 ... 85
CGS	Terminals, cable glands stainless steel	8	140	-40 ... 70	-40 ... 85

Table 2: Cable diameter depending on cable gland

Type of connection, identification F	Sensors				Fieldbus			
	Type	Material	Cable diameter (mm)	SW1	Type	Material	Cable diameter (mm)	SW2
CG	M16 x 1.5	Plastic	5 ... 10	20	M20 x 1.5	Plastic	5 ... 13	24
CGB	M16 x 1.5	Nickel plated brass	5 ... 10	20	M20 x 1.5	Nickel plated brass	7 ... 12	24
CGS	M16 x 1.5	Stainless steel	5 ... 9	17	M20 x 1.5	Stainless steel	7 ... 12	24

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