

# FieldBarrier Junction Box

F.FB1.T14.\*\*\*.1..\*\*\*.\*\*\*.\*\*\*



- 8, 10, 12 outputs Ex ia
- Brushed enclosure, IP66
- Configurable cable entries for trunk and spurs
- Packaged certified solution
- For FOUNDATION Fieldbus H1 and PROFIBUS PA
- Installation in Zone 1

FieldBarrier Junction Box, Brushed Stainless Steel

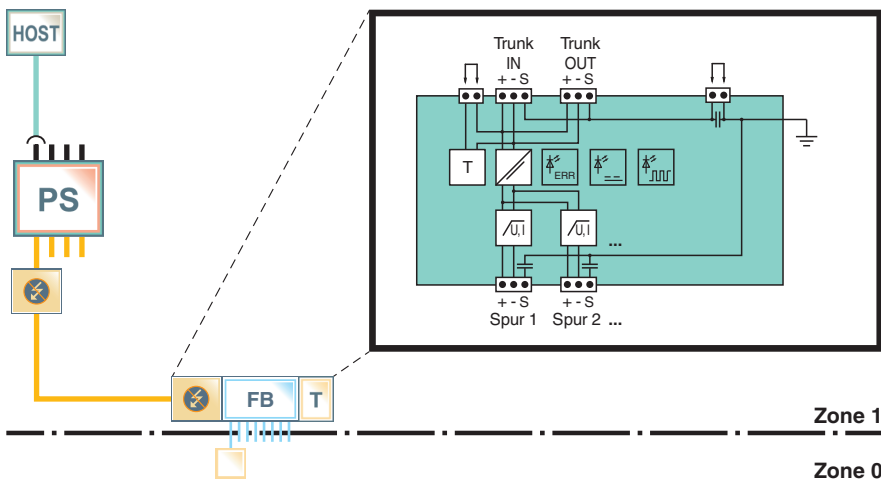


## Function

This Junction Box is a device coupler with a diagnostic-enabled FieldConnex® FieldBarrier for Zone 1. Devices can be located in Zone 0. Brushed stainless steel 316L provides high corrosion and impact resistance at a very wide temperature range. Trunk and spur entries can be selected individually from a range of cable glands and stopping plugs. A breather is included by default. Tag plate, grounding bar, surge protection for trunk and spurs are available as options. For the spurs, surge protection is available with integrated diagnostics.

This junction box is available pre-wired, with all accessories, for fast ordering, delivery, site installation, and commissioning.

## Connection



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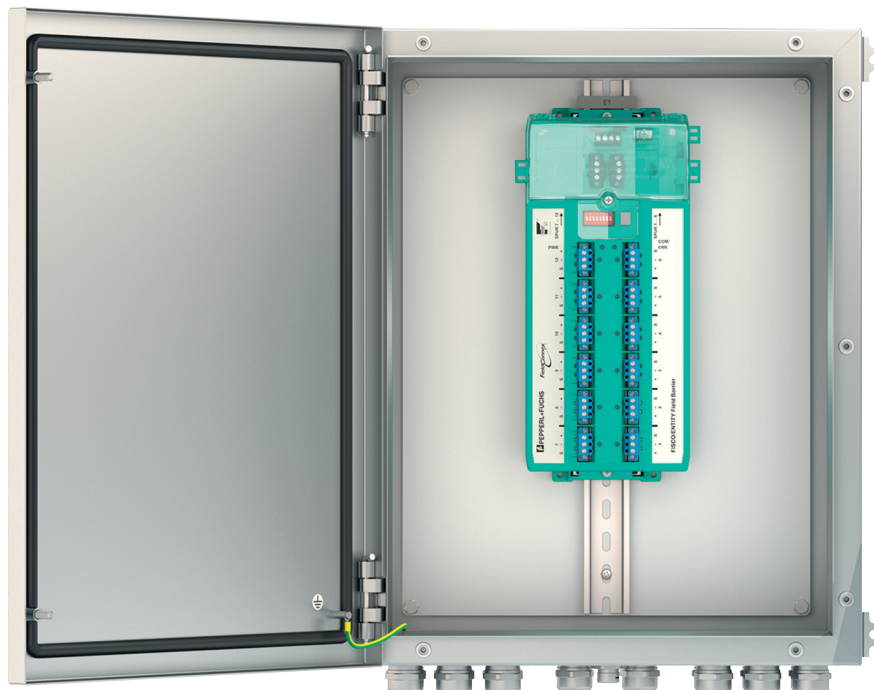
## Technical Data

General specifications	
Design / Mounting	Outside installation
Installed components	FieldBarrier R4D0-FB-IA* For technical data on installed electronic component see data sheet.
Conformity	
Degree of protection	EN 60529
Impact resistance	EN 60079-0
Ambient conditions	
Ambient temperature	-40 ... 60 °C (-40 ... 140 °F)
Storage temperature	-40 ... 70 °C (-40 ... 158 °F)
Relative humidity	< 75 % (annual mean) < 95 % (30 d/year), no moisture condensation

## Technical Data

Impact resistance	7J
<b>Mechanical specifications</b>	
Enclosure cover	Hinged door with captive retaining screws
Degree of protection	IP66
Cable entry	cable gland and stopping plug options see separate table
<b>Material</b>	
Housing	Stainless steel 1.4404 / AISI 316L
Surface	brushed
Seal	Silicone, fire-resistant, one piece, foamed
Material thickness	enclosure body, enclosure cover, mounting plate: 1.5 mm
Dimensions	(W x H x D) 380 x 480 x 160 mm
Mounting	thru-holes Ø 7 mm
Grounding	grounding bolt M6 , brass, nickel-plated
<b>Data for application in connection with hazardous areas</b>	
EU-type examination certificate	PTB 07 ATEX 1061 X (assembled Junction Box) , for additional certificates see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a>
Marking	<p>Ⓔ II 2(1)G Ex db eb ib mb [ia Ga] IIC T4 Gb</p> <p>Ⓔ II 2(1)D Ex tb [ia Da] IIIC T135°C Db</p> <p>Note: The marking is based on the maximum value and can be reduced depending on the selected options accordingly.</p>
Directive conformity	
Directive 2014/34/EU	EN IEC 60079-0:2018+AC:2020 , EN 60079-1:2014+AC:2018 , EN IEC 60079-7:2015+A1:2018 , EN 60079-11:2012 , EN 60079-18:2015+Cor.2018 , EN 60079-31:2014
<b>International approvals</b>	
IECEx approval	IECEx PTB 07.0036 X , suitable Junction Box on request
INMETRO approval	TÜV 13.1143
<b>General information</b>	
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 <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

## Assembly



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## Type Code

1	2	3	4	5	6	7	8	9	10	11	12							
F.FB1	.	T 14	.	A	**	.	1	.	*	.	***	.	***	.	*	*	*	*

Example:

F.FB1.T14.A10.1.0.H02.H02.0000

1	Electronic type
F.FB1	FieldBarrier junction box containing R4D0-FB-IA*

2	Enclosure material - W x H x D
T14	Stainless steel 3.16 - brushed - 380 x 480 x 160 mm (SRM.38.48.16)

3	Certification
A	ATEX (Zone 1 + Zone 21)
G	ATEX + IECEx (Zone 1 + Zone 21)

4	Channels
08	8 channels (R4D0-FB-IA8)
10	10 channels (R4D0-FB-IA10)
12	12 channels (R4D0-FB-IA12)
16	2 x 8 channels (R4D0-FB-IA8)
20	2 x 10 channels (R4D0-FB-IA10)
24	2 x 12 channels (R4D0-FB-IA12)

5	Fieldbus type
1	Suitable for FOUNDATION Fieldbus H1 and PROFIBUS PA

6	Spur terminals
0	Screw terminals
3	Spring terminals
6	Screw terminals and trunk connection (MFT) for 1 segment
7	Screw terminals and trunk connection (MFT) for 2 segments
8	Screw terminals and trunk connection (MFT) and spare terminals for 1 segment
9	Screw terminals and trunk connection (MFT) and spare terminals for 2 segments
A	Spring terminals and trunk connection (MFT) for 1 segment
B	Spring terminals and trunk connection (MFT) for 2 segments
C	Spring terminals and trunk connection (MFT) and spare terminals for 1 segment
D	Spring terminals and trunk connection (MFT) and spare terminals for 2 segments
E	Screw terminals for 1 segment
F	Screw terminals for 2 segments
G	Screw terminals and spare terminals for 1 segment
H	Screw terminals and spare terminals for 2 segments
K	Spring terminals for 1 segment
L	Spring terminals for 2 segments
M	Spring terminals and spare terminals for 1 segment
N	Spring terminals and spare terminals for 2 segments

7	Trunk entries
GP2	Cable gland M20, polyamide, Ex e, IP66, black
GB2	Cable gland M20, nickel-plated brass, Ex e, IP66
GS2	Cable gland, M20, stainless steel, Ex e, IP66
GN2	Cable gland M20, nickel-plated brass, Ex de, IP66, for armoured cable
GA2	Cable gland M20, stainless steel, Ex de, IP66, for armoured cable
H02	Stopping plug M20, polyamide, Ex e, IP66
H03	Stopping plug M20, nickel-plated brass, Ex de, IP66
H04	Stopping plug M20, stainless steel, Ex de, IP66

8	Spur entries
GP2	Cable gland M20, polyamide, Ex e, IP66, blue
GB2	Cable gland M20, nickel-plated brass, Ex e, IP66
GS2	Cable gland, M20, stainless steel, Ex e, IP66
GN2	Cable gland M20, nickel-plated brass, Ex de, IP66, for armoured cable
GA2	Cable gland M20, stainless steel, Ex de, IP66, for armoured cable
H02	Stopping plug M20, polyamide, Ex e, IP66
H03	Stopping plug M20, nickel-plated brass, Ex de, IP66
H04	Stopping plug M20, stainless steel, Ex de, IP66



9	Tag plate
0	None

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## Type Code

9		Tag plate
A		Plastic, 120 x 30 mm
B		Stainless steel, 120 x 30 mm
C		Plastic, 95 x 20 mm
D		Stainless steel, 95 x 20 mm
10		Grounding bar
0		None
1		With grounding bar, connected to equipotential bonding
2		With grounding bar, isolated
11		Surge protection
0		No surge protection
3		Surge protection for trunk (FS-LBF-D1.32)
5		Surge protection for spurs (SCP-LBF-IA1.36.IE.0)
7		Surge protection for spurs with diagnosis (SCP-LBF-IA1.36.IE.1)
8		Surge protection for trunk (FS-LBF-D1.32) and spurs (SCP-LBF-IA1.36.IE.0)
A		Surge protection for trunk (FS-LBF-D1.32) and spurs with diagnosis (SCP-LBF-IA1.36.IE.1)
12		Additional accessories
0		None
L		Enclosure leakage sensor (ELS-1)
D		Document pocket (DIN A4)
5		Enclosure leakage sensor (ELS-1) and document pocket (DIN A4)

## Matching System Components

	<b>R4D0-FB-IA*</b>	FieldConnex® FieldBarrier®
	<b>MFT-*</b>	Multifunction terminal, allows maintenance work to be carried out in hazardous areas without a hot work permit

## Product Versions

### Cable Gland Versions

Type	Cable gland					Stopping plug		
	GP2	GB2	GS2	GN2	GA2	H02	H03	H04
<b>Mechanical specifications</b>								
Protection degree	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66
Material	polyamide	nickel-plated brass	stainless steel	nickel plated brass	stainless steel	polyamide	nickel-plated brass	stainless steel
Thread	M20	M20	M20	M20	M20	M20	M20	M20
Inner sheath (mm)	–	–	–	7 ... 12	7 ... 12	–	–	–
Outer sheath (mm)	5.5 ... 13	3 ... 12	3 ... 12	10 ... 16	10 ... 16	–	–	–
<b>Cable</b>								
Suitable for armored cable	no	no	no	yes	yes	–	–	–
<b>Data for application in conjunction with hazardous areas</b>								
Type of protection	Ex e	Ex de	Ex de	Ex de	Ex de	Ex e	Ex de	Ex de