

Multi-Input/Output Junction Box

F.MIO.T12.*12.P.*.*.*.*.*00

- For discrete inputs and outputs
- Brushed enclosure, IP66
- Configurable cable entries for bus lines and field signal lines
- International approvals
- For PROFIBUS PA
- Installation in Zone 1/Div. 1, intrinsically safe
- Sensors in Zone 0/Div. 1

Multi-Input/Output Junction Box, Brushed Stainless Steel



Function

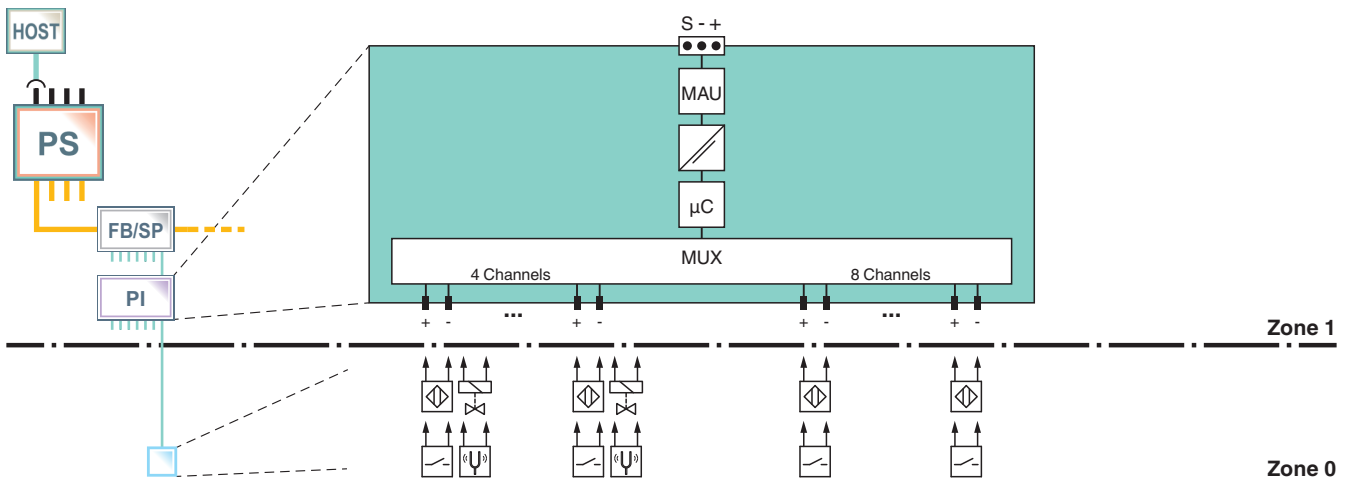
This fieldbus junction box holds a multi-input/output (MIO) for transferring signals from discrete inputs and valves to the control system. The MIO offers the same functionality as components FD0-VC-Ex* and FD0-BI-*. The fieldbus junction box can be installed in Zone 1 with sensors and actuators located in Zone 0.

Brushed stainless steel 316L provides high corrosion and shock resistance at a very wide temperature range.

Bus and field signal line entries can be chosen individually from a range of cable glands and stopping plugs. A breather drain is included by default. Tag plate and grounding bar are available as options.

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

Connection



Technical Data

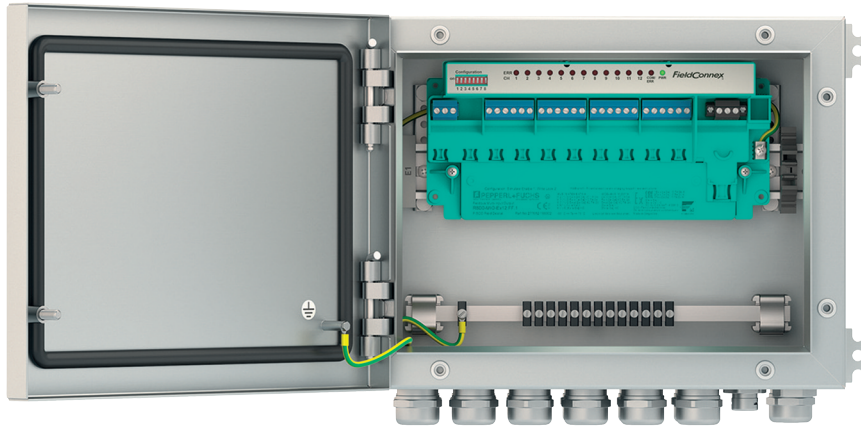
General specifications	
Design / Mounting	Outside installation
Installed components	Binary multi-input/output R8D0-MIO-Ex12.PA* , For technical data on installed electronic component see data sheet.
Fieldbus connection	
Fieldbus type	PROFIBUS PA
Conformity	
Degree of protection	EN 60529
Impact resistance	EN 60079-0
Ambient conditions	
Ambient temperature	-40 ... 60 °C (-40 ... 140 °F)

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Technical Data

Storage temperature	-40 ... 70 °C (-40 ... 158 °F)
Relative humidity	< 75 % (annual mean) < 95 % (30 d/year), no moisture condensation
Impact resistance	7J
Mechanical specifications	
Enclosure cover	Hinged door with captive retaining screws
Degree of protection	IP66
Cable entry	cable gland and stopping plug options see separate table
Material	
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) 300 x 230 x 160 mm
Mounting	thru-holes Ø 7 mm
Grounding	grounding bolt M6 , brass, nickel-plated
Data for application in connection with hazardous areas	
EU-type examination certificate	PTB 07 ATEX 1061 X (assembled Junction Box) , for additional certificates see www.pepperl-fuchs.com
Marking	Ⓢ II 2(1)G Ex ib [ia Ga] IIC T4 Gb Ⓢ II 2(1)D Ex tb [ia Da] IIIC T135°C Db
Certificate	PTB 17 ATEX 1011 X (assembled Junction Box) , for additional certificates see www.pepperl-fuchs.com
Marking	Ⓢ II 3(1)G Ex ic [ia Ga] IIC T4 Gc Ⓢ II 3(1)G Ex ec [ia Ga] IIC T4 Gc Ⓢ II 3(1)D Ex tc [ia Da] IIIC T135°C Dc
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
International approvals	
IECEx approval	IECEx PTB 07.0036 X , Zone 1 , suitable Junction Box on request IECEx PTB 09.0016 X , Zone 2 , suitable Junction Box on request
INMETRO approval	TÜV 13.1143
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 .

Assembly



Type Code

1		2		3	4		5		6		7		8		9	10	11	12
F.MIO	.	T 12	.	*	12	.	P	.	*	.	***	.	***	.	*	*	0	0

Example:
F.MIO.T12.A12.P.0.H02.H02.A100

1	Electronic type
F.MIO	Multi-Input/Output Junction Box
2	Enclosure material - W x H x D
T12	Stainless steel 3.16 - brushed - 300 x 230 x 160 mm (SRM.23.30.16)
3	Certification
A	ATEX (Zone 1 + Zone 21)
B	ATEX (Zone 2 + Zone 22)
G	ATEX + IECEx (Zone 1 + Zone 21)
H	ATEX + IECEx (Zone 2 + Zone 22)
4	Channels
12	12 channels
5	Fieldbus type
F	Suitable for FOUNDATION Fieldbus H1
P	Suitable for PROFIBUS PA
6	Spur terminals
0	Screw terminals
3	Spring terminals
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

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Type Code

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
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
12	Additional accessories
0	None

Product Versions

Cable Gland Versions

Type	Cable gland					Stopping plug		
	GP2	GB2	GS2	GN2	GA2	H02	H03	H04
Mechanical specifications								
Degree of protection	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)	–	–	–	6 ... 11	6 ... 11	–	–	–
Outer sheath (mm)	6 ... 12	4 ... 12	4 ... 12	8 ... 15	8 ... 15	–	–	–
Cable								
Suitable for armored cable	no	no	no	yes	yes	–	–	–
Data for application with hazardous areas								
Type of protection	Ex e	Ex de	Ex de	Ex de	Ex de	Ex e	Ex de	Ex de