

# Multi-Input/Output Junction Box, Polyester (GRP)



F.MIO.P12.\*12.F.\*.\*.\*.\*.\*00



- For discrete inputs and outputs
- Glass fiber reinforced polyester, impact resistant, IP66
- Configurable cable entries for bus lines and field signal lines
- International approvals
- For FOUNDATION Fieldbus H1
- Installation in Zone 1/Div. 1, intrinsically safe
- Sensors in Zone 0/Div. 1



## Function

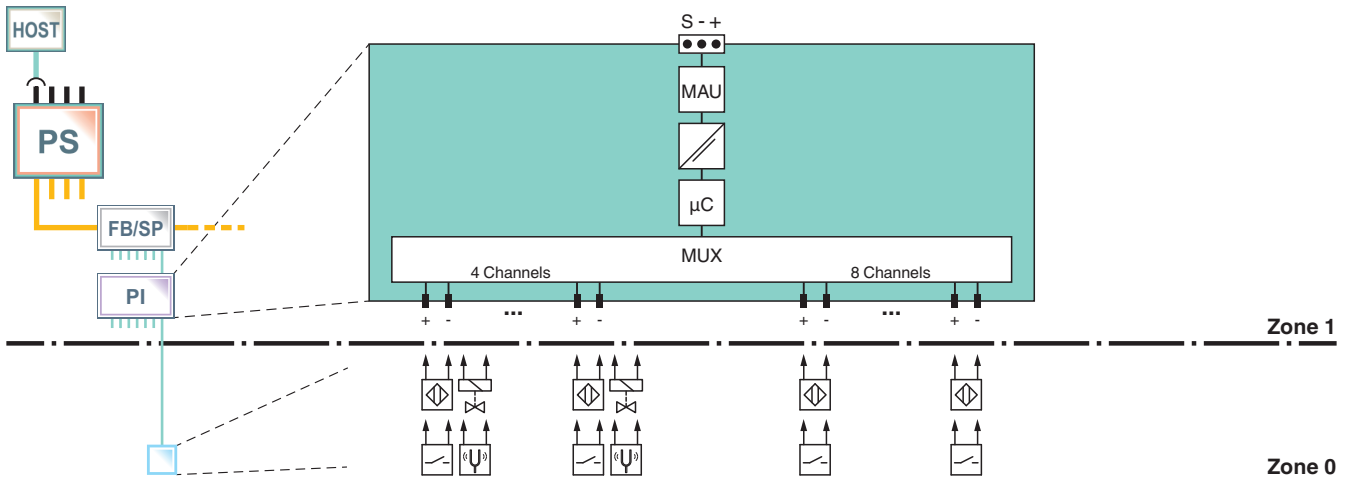
This fieldbus junction box holds a multi-input/output (MIO) for transferring signals from discrete inputs and valves to the control system. The MIO offers the same functionality as components FD0-VC-Ex\* and FD0-BI-\*. The fieldbus junction box can be installed in Zone 1 with sensors and actuators located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

Glass fiber reinforced polyester provides corrosion resistance and is lightweight. The surface resistance avoids electrostatic charge.

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.FF* , For technical data on installed electronic component see data sheet.

### Fieldbus interface

Fieldbus type	FOUNDATION Fieldbus
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### Conformity

Degree of protection	EN 60529
Impact resistance	EN 60079-0

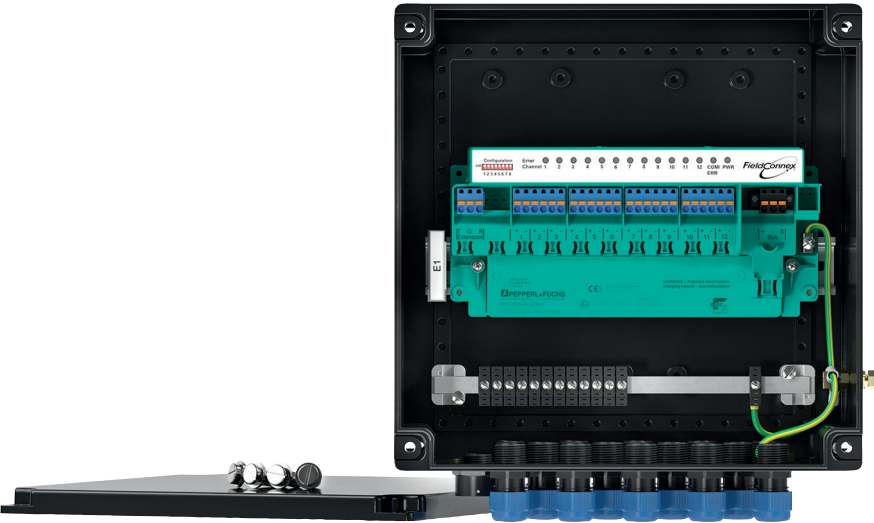
### Ambient conditions

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## Technical Data

Ambient temperature	-30 ... 55 °C (-22 ... 131 °F) , (extended temperature range available on request)
Storage temperature	-40 ... 70 °C (-40 ... 158 °F)
Relative humidity	< 75 % (annual mean) < 95 % (30 d/year), no moisture condensation
Impact resistance	7J
<b>Mechanical specifications</b>	
Enclosure cover	detachable cover with retaining screws
Degree of protection	IP66
Cable entry	cable gland and stopping plug options see separate table
<b>Material</b>	
Housing	polyester , impact resistant, glass fiber reinforced
Surface	black molded finish (RAL 9005)
Surface resistance	< 10 <sup>9</sup> Ω
Water absorption	< 6 %
Seal	silicone , one-piece
Grounding plate	brass
Material thickness	grounding plate: 3 mm
Dimensions	(W x H x D) 271 x 271 x 136 mm
Mounting	thru-holes Ø6.5 mm
Grounding	grounding bolt M6 , Stainless steel
<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	Ⓜ 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 <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a>
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
<b>Directive conformity</b>	
Directive 2014/34/EU	EN 60079-0:2012 , EN 60079-7:2015 , EN 60079-11:2012 , EN 60079-31:2014
<b>International approvals</b>	
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	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



# Matching System Components

	<b>R8D0-MIO-Ex12.FF*</b>	
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**Product Versions**

**Cable Gland Versions**

Type	Cable gland					Stopping plug		
	GP2	GB2	GS2	GN2	GA2	H02	H03	H04
<b>Mechanical specifications</b>								
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	-	-	-
<b>Cable</b>								
Suitable for armored cable	no	no	no	yes	yes	-	-	-
<b>Data for application with hazardous areas</b>								
Type of protection	Ex e	Ex de	Ex de	Ex de	Ex de	Ex e	Ex de	Ex de

**Type Code**

**Electronic type**

**F.MIO** Enclosure solution for R8D0-MIO-Ex12.FF\*

**Enclosure material**

**P** Glass fiber reinforced polyester, IP66

**Number of installed devices**

**12.A12** 1 x R8D0-MIO-Ex12.FF\* for installation in Zone 1

**12.B12** 1 x R8D0-MIO-Ex12.FF\* for installation in Zone 2

**Fieldbus type**

**F** Suitable for FOUNDATION Fieldbus

**Terminals**

**0** Screw terminals

**3** Spring terminals

**Bus line entries**

**Field signal line entries**

- GP2** **GP2** Cable gland M20, polyamide, Ex e, IP66
- GB2** **GB2** Cable gland M20, nickel plated brass, Ex e, IP66
- GS2** **GS2** Cable gland, M20, stainless steel, Ex e, IP66
- GN2** **GN2** Cable gland M20, nickel plated brass, Ex de, IP66, for armored cable
- GA2** **GA2** Cable gland M20, stainless steel, Ex de, IP66, for armored cable
- H02** **H02** Stopping plug M20, polyamide, Ex e, IP66
- H03** **H03** Stopping plug M20, nickel plated brass, Ex de, IP66
- H04** **H04** Stopping plug M20, stainless steel, Ex de, IP66

**Tag plate**

**D** Tag plate, stainless steel, 95 mm x 20 mm

**C** Tag plate, plastic, 95 mm x 20 mm

**0** No tag plate

**Grounding bar**

**2** With isolated grounding bar

**1** With grounding bar connected to potential equalization

**0** No grounding bar installed

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Predefined characters indicate pre-set attributes.

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