# Instruction Manual

## 1. Marking

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| Temperature multi-input device *D0-TI-Ex8.*:<br>For FOUNDATION Fieldbus in aluminum housing: F2D0-TI-Ex8.FF.CG*<br>For FOUNDATION Fieldbus in DIN mounting rail housing: RD0-TI-Ex8.FF.S*<br>For FOUNDATION Fieldbus spare part: SPD0-TI-Ex8.FF.ST<br>For PROFIBUS PA in aluminum housing: F2D0-TI-Ex8.PA.CG*<br>For PROFIBUS PA in DIN mounting rail housing: RD0-TI-Ex8.PA.S* |
| ATEX certificate: PTB 03 ATEX 2237<br>ATEX 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<br>ATEX certificate: PTB 03 ATEX 2238 X<br>ATEX marking: ⟨Ex⟩ II 3 G Ex nA IIC T4 Gc |
| IECEx certificate: IECEx PTB 05.0001 , IECEx PTB 05.0002X<br>IECEx marking: 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 |


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## 2. Target Group, Personnel

Responsibility for planning, assembly, commissioning, operation, maintenance, and dismounting lies with the plant operator.

The personnel must be appropriately trained and qualified in order to carry out mounting, installation, commissioning, operation, maintenance, and dismounting of the device. The trained and qualified personnel must have read and understood the instruction manual.

## 3. Reference to Further Documentation

Observe laws, standards, and directives applicable to the intended use and the operating location. Observe Directive 1999/92/EC in relation to hazardous areas.

The corresponding datasheets, manuals, declarations of conformity, EU-type examination certificates, certificates, and control drawings if applicable supplement this document. You can find this information under www.pepperl-fuchs.com.

For specific device information such as the year of construction, scan the QR code on the device. As an alternative, enter the serial number in the serial number search at www.pepperl-fuchs.com.

Due to constant revisions, documentation is subject to permanent change. Please refer only to the most up-to-date version, which can be found under www.pepperl-fuchs.com.

## 4. Intended Use

The 8-channel temperature multi-input device is a FieldConnex® process interface that measures temperature with resistance thermometers (RTD) or thermocouples (TC). Each channel can be configured independently.

The device is designed for use in intrinsically safe fieldbus systems according to FISCO or Entity.

Independent of the type of protection of the fieldbus, the sensor inputs remain intrinsically safe.

Use the device only within the specified ambient temperature range.

## 5. Improper Use

Protection of the personnel and the plant is not ensured if the device is not used according to its intended use.

## 6. Mounting and Installation

Prior to mounting, installation, and commissioning of the device you should make yourself familiar with the device and carefully read the instruction manual.

Observe the installation instructions according to IEC/EN 60079-14.

Observe the installation instructions according to IEC/EN 60079-25.

The device may be used as intrinsically safe apparatus.

The device may be used as associated apparatus.

The device may be used as non-sparking apparatus.

If the device has already been operated in general electrical installations, the device may subsequently no longer be installed in electrical installations used in combination with hazardous areas.

Do not mount a damaged or polluted device.

### 6.1. Requirements for Cables and Connection Lines

The dielectric strength of the insulation must be at least 500 V according to IEC/EN 60079-14.

Observe the permissible core cross section of the conductor.

The insulation stripping length must be considered.

Observe the tightening torque of the terminal screws.

When using stranded conductors, crimp wire end ferrules on the conductor ends.

The cables and connection lines must not be strained. Provide an adequate strain relief.

Unused cables and connection lines must be either connected to terminals or securely tied down and isolated.

#### 6.1.1. F2D0* Requirements for Cable Glands

Only use cable glands that are suitably certified for the application.

Only use cable glands with a temperature range appropriate to the application.

Ensure that the degree of protection is not violated by the cable glands.

Protect plastic cable glands against mechanical hazard.

### 6.2. Hazardous Area

#### 6.2.1. Gas

##### 6.2.1.1. Zone 0

The intrinsically safe output circuits may lead into Zone 0.

##### 6.2.1.2. Zone 1

The device may be installed in Zone 1.

For applications in Zone 1, the type of protection must be Ex i.

##### 6.2.1.3. Zone 2

The device may be installed in Zone 2.

For Zone 2 applications, the type of protection must be Ex nA or Ex i.

Connection or disconnection of energized non-intrinsically safe circuits is only permitted in the absence of a potentially explosive atmosphere.

#### 6.2.2. Type of Protection

##### 6.2.2.1. Type of Protection Ex i

Observe the respective peak values of the field device and the associated apparatus with regard to explosion protection when connecting intrinsically safe field devices with intrinsically safe circuits of associated apparatus (verification of intrinsic safety). Also observe IEC/EN 60079-14 and IEC/EN 60079-25.

Keep the separation distances between all non-intrinsically safe circuits and intrinsically safe circuits according to IEC/EN 60079-14.

Intrinsically safe circuits of associated apparatus (installed in non-hazardous area) can be led into hazardous areas. Observe the compliance of the separation distances to all non-intrinsically safe circuits according to IEC/EN 60079-14.

Observe the compliance of the separation distances between two adjacent intrinsically safe circuits according to IEC/EN 60079-14.

If the device is supplied by a non-intrinsically safe circuit, the separation wall must be applied to maintain the requirements according to IEC/EN 60079-11.

Circuits of intrinsically safe apparatus can be led into hazardous areas, whereby special attention must be paid to maintaining separation distances to all non-intrinsically safe circuits according to the requirements in IEC/EN 60079-14.

## 7. Enclosures

### 7.1. RD0* Requirements for Housings and Surrounding Enclosures

The device must be installed and operated only in surrounding enclosures that

- comply with the requirements for surrounding enclosures according to IEC/EN 60079-0,
- are rated with the degree of protection IP54 according to IEC/EN 60529.

### 7.2. F2D0* Degree of Protection

Ensure that the surrounding enclosure is not damaged, distorted, or corroded.

Ensure that all seals are clean, undamaged, and correctly fitted.

Tighten all screws of the surrounding enclosure/surrounding enclosure cover with the appropriate torque.

For cable glands only use incoming cable diameters of the appropriate size.

Tighten all cable glands with the appropriate torque.

Close all unused cable glands with the appropriate sealing plugs.

Close all unused enclosure holes with the appropriate stopping plugs.

## 8. Operation, Maintenance, Repair

Do not repair, modify, or manipulate the device.

Do not use a damaged or polluted device.

If cleaning is necessary while the device is located in a hazardous area, in order to avoid electrostatic charging only use a clean damp cloth.

If there is a defect, always replace the device with an original device.

## 9. Delivery, Transport, Disposal

Check the packaging and contents for damage.

Check if you have received every item and if the items received are the ones you ordered.

Keep the original packaging. Always store and transport the device in the original packaging.

Store the device in a clean and dry environment. The permitted ambient conditions must be considered, see datasheet.

The device, built-in components, packaging, and any batteries contained within must be disposed in compliance with the applicable laws and guidelines of the respective country.