Instruction Manual

1. Marking

Cordset
V1-W-N4-BU20M-PUR-N1
ATEX marking
⟨Ex⟩ II 1G Ex ia IIC T6 Ga
⟨Ex⟩ II 1D Ex ia IIIC T_{200} 85°C Da
IECEx marking
Ex ia IIC T6 Ga
Ex ia IIIC T_{200} 85°C Da

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For the term "cordset", the term "device", "equipment" or "apparatus" may be used in the following.

2. Validity

Specific processes and instructions in this instruction manual require special provisions to guarantee the safety of the operating personnel.

3. 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.

4. 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 (see datasheet) are an integral part of this document. You can find this information under www.pepperl-fuchs.com.

For specific device information, scan the QR code on the device or 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.

5. Intended Use

The device is only approved for appropriate and intended use. Ignoring these instructions will void any warranty and absolve the manufacturer from any liability.

Technical data provided in the datasheet may be partly restrained by the information given in this instruction manual.

Use the device only within the specified ambient and operating conditions.

Take external cooling or heating sources into account.

The device is an electrical apparatus for hazardous areas.

The certificate applies only to the use of apparatus under atmospheric conditions.

If you use the device outside atmospheric conditions, consider that the permissible safety parameters should be reduced.

The device can be used in hazardous areas containing gas, vapor, and mist.

The device can be used in hazardous areas containing combustible dust.

The device does not fulfill the requirements for an infallible connection according to IEC/EN 60079-11.

The device must not carry any grounded intrinsically safe circuits if intrinsic safety depends on this earth connection

Refer to the relevant certificate to see the relationship between the connected circuit type, the maximum permitted ambient temperature, the effective inner reactances, and if applicable the surface temperature or the temperature class.

The suitability for use of the device at ambient temperatures >60 °C in conjunction with hot surfaces has been checked by the notified body.

Use in dust group IIIC:

The device is not suitable to separate intrinsically safe circuits from each other.

6. Improper Use

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

7. Mounting and Installation

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

Safety-relevant markings are found on the nameplate supplied. Ensure that the nameplate is present and legible. Take the ambient conditions into account.

Do not mount a damaged or polluted device.

Mount the device so that it complies with the specified degree of protection according to IEC/EN 60529.

If you use the device in environments subject to adverse conditions, you must protect the device accordingly.

Prevent the inside of the device from becoming contaminated when the connector is disconnected.

When connecting intrinsically safe devices with intrinsically safe circuits of associated apparatus, observe the maximum peak values with regard to explosion protection (verification of intrinsic safety). Observe the standards IEC/EN 60079-14 or IEC/EN 60079-25.

The type of protection is determined by the connected intrinsically safe circuit.

7.1. Specific Conditions of Use

Mount the device so that it complies with the specified degree of protection according to IEC/EN 60529.

7.1.1. Requirements in Relation to Electrostatics

Information on electrostatic hazards can be found in the technical specification IEC/TS 60079-32-1.

You can reduce the electrostatic hazards by minimizing the generation of static electricity. For example, you have the following options to minimize the generation of static electricity:

- Control the environmental humidity.
- Protect the device from direct airflow.
- Ensure a continuous drain off of the electrostatic charges.

Avoid inadmissibly high electrostatic charge of the metal housing components on the device.

Include the metal housing components in the equipotential bonding.

7.1.1.1. Requirements for Equipment Protection Level Ga

Usage in Gas Group IIC:

Avoid electrostatic charges which could result in electrostatic discharges while installing, operating, or maintaining the device.

7.1.2. Requirements to Mechanics

Protect the device from impact effects if it is used in the temperature range between the minimum permissible ambient temperature and -20 °C.

Mount the device with at least a degree of protection of IP20 according to IEC/EN 60529.

8. Operation, Maintenance, Repair

Observe the specific conditions of use.

Safety-relevant markings are found on the nameplate of the device or the nameplate supplied.

Do not use a damaged or polluted device.

Do not repair, modify, or manipulate the device.

Modifications are permitted only if approved in this instruction manual and in the device-related documentation.

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

Prevent the inside of the device from becoming contaminated when the connector is disconnected.

Only operate the device with intrinsically safe circuits according to IEC/EN 60079-11.

The type of protection is determined by the connected intrinsically safe circuit.

Observe the temperature table for the corresponding equipment protection level in the certificate.

Also observe the maximum permissible ambient temperature stated in the technical data. Keep to the lower of the two values.

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.

10. Safety-Relevant Technical Data

10.1. Equipment protection level Ga

Type of protection	Intrinsic safety
CE marking	CE-2829
Certificates	
ATEX certificate	TÜV 24 ATEX 9153 X
ATEX marking	Ex II 1G Ex ia IIC T6 Ga
ATEX standards	EN IEC 60079-0:2018-07, EN IEC 60079-11:2024-12
IECEx certificate	IECEx TUR 24.0043X
IECEx marking	Ex ia IIC T6 Ga
IECEx standards	IEC 60079-0:2017-12, IEC 60079-11:2023-01
Maximum input voltage U_i	See specifications for maximum permissible ambient temperature.
Maximum input current I_i	See specifications for maximum permissible ambient temperature.
Effective internal capacitance C_i	Determine the internal electrical reactances depending on the cable length. You may use the procedure described in IEC/EN 60079-14.
Effective internal inductance L_i	Determine the internal electrical reactances depending on the cable length. You may use the procedure described in IEC/EN 60079-14.
Maximum permissible ambient temperature in °C	Also observe the maximum permissible ambient temperature stated in the general technical data. Keep to the lower of the two values. U_i: Sum of voltages, when 2 different Ex-i circuits U_i = 30 V, I_i = 1 A T6: 70 °C U_i = 30 V, I_i = 0.1 A T6: 80 °C

10.2. Equipment protection level Da

Type of protection	Intrinsic safety
CE marking	CE-2829
Certificates	
ATEX certificate	TÜV 24 ATEX 9153 X
ATEX marking	Ex II 1D Ex ia IIIC T_{200} 85°C Da
ATEX standards	EN IEC 60079-0:2018-07, EN IEC 60079-11:2024-12
IECEx certificate	IECEx TUR 24.0043X
IECEx marking	Ex ia IIIC T_{200} 85°C Da
IECEx standards	IEC 60079-0:2017-12, IEC 60079-11:2023-01
Maximum input voltage U_i	See specifications for maximum permissible ambient temperature.
Maximum input current I_i	See specifications for maximum permissible ambient temperature.
Effective internal capacitance C_i	Determine the internal electrical reactances depending on the cable length. You may use the procedure described in IEC/EN 60079-14.
Effective internal inductance L_i	Determine the internal electrical reactances depending on the cable length. You may use the procedure described in IEC/EN 60079-14.
Maximum permissible ambient temperature in °C	Also observe the maximum permissible ambient temperature stated in the general technical data. Keep to the lower of the two values. U_i: Sum of voltages, when 2 different Ex-i circuits U_i = 30 V, I_i = 1 A 60 °C U_i = 30 V, I_i = 0.1 A 80 °C