R2-SP-IC*

Marking

Segment Protector family: R2-SP-IC4 (4 spurs), R2-SP-IC6 (6 spurs), R2-SP-IC8 (8 spurs), R2-SP-IC10 (10 spurs), R2-SP-IC12 (12 spurs)
Pepperl+Fuchs GmbH Lilienthalstrasse 200, 68307 Mannheim, Germany
EC-type examination certificate: TÜV 12 ATEX 098651 X Ex II 3 G Ex nAc [ic] IIC T4
IECEx TUN 12.0015X Ex Ex nAc [ic] IIC T4

table 1

Validity

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

Target Group, Personnel

Responsibility for planning, assembly, commissioning, operation, maintenance, and dismounting lies with the plant operator.
Mounting, installation, commissioning, operation, maintenance and dismounting of the device may only be carried out by appropriate trained and qualified personnel. The instruction manual must be read and understood.

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, declarations of conformity, EC-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.
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.

Intended Use

The Segment Protector is a fieldbus device coupler designed in accordance with IEC/EN 61158-2 to connect field devices via spurs to the trunk of a segment.
Each spur individually limits or isolates the current during a spur failure, ensuring that the remaining segment is not affected.
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.
The device is designed for use in intrinsically safe fieldbus systems according to FISCO or Entity.
The device must only be operated in the specified ambient temperature range and at the specified relative humidity without condensation.

Improper Use

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

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.
Do not mount a damaged or polluted device.
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.
Only use operating elements in the absence of a potentially explosive atmosphere.
Only use operating elements in the specified ambient temperature range.

Temperature range:	-5 C° ... +70 C°

table 2

Do not connect the signal lines to earth or to the cable shield.
All cables and connection lines must be mechanically secured.
Only manipulate the connections within the specified ambient temperature range.

Temperature range:	-5 C° ... +70 C°

table 3

The device may be installed in a corrosive atmosphere according to ISA-S71.04-1985, severity level G3.
Observe the tightening torque of the screws.

Requirements for Cables and Connection Lines

Observe the following points when installing cables and connection lines:
Observe the permissible core cross-section of the conductor.
The insulation stripping length must be considered.
If you use stranded conductors, crimp on wire end ferrules.

Hazardous Area

Observe the compliance of the separation distances between two adjacent 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.
In order to maintain the separation distances defined in IEC/EN 60079-11 when using a Segment Protector to generate intrinsically safe outputs, use the specified accessories.

Accessory:	ACC-R2-SW.3

table 4

In order to maintain the separation distances defined in IEC/EN 60079-11 when using the SCP-LBF* surge protectors on intrinsically safe spur outputs, use the surge protector TCP-LBF* with an integrated separation wall at the trunk.
Ensure that the trunk is equipped with two terminators, one at each end of the trunk.
Ensure that the operating element for gas group selection is set to the correct position for your intended application.

Gas

Zone 2

The device may only be installed and operated in Zone 2 if it has been mounted in a surrounding enclosure with degree of protection IP54 according to IEC/EN 60529. The surrounding enclosure must correspond to equipment protection level Gc.
Connection or disconnection of energized non-intrinsically safe circuits is only permitted in the absence of a potentially explosive atmosphere.

Dust

Zone 22

The device may only be installed and operated in Zone 22 if mounted in a surrounding enclosure, which corresponds to equipment protection level Dc.
Connection or disconnection of energized non-intrinsically safe circuits is only permitted in the absence of a potentially explosive atmosphere.

Operation, Maintenance, Repair

Prior to using the device you should make yourself familiar with the device and carefully read the instruction manual.
The device must not be repaired, changed or manipulated.
If there is a defect, always replace the device with an original device from Pepperl+Fuchs.

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 (see datasheet) must be considered.
Disposing of device, packaging, and possibly contained batteries must be in compliance with the applicable laws and guidelines of the respective country.