Equipment protection level Ga

Instruction		**Manual electrical apparatus for hazardous areas**
Device category 1G		for use in hazardous areas with gas, vapour and mist
EC-Type Examination Certificate		PTB 00 ATEX 2048 X
CE marking		CE 0102
ATEX marking		Ex II 1G Ex ia IIC T6…T1 Ga The Ex-related marking can also be printed on the enclosed label.
Directive conformity		94/9/EG
Standards		EN 60079-0:2012+A11:2013 EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions
Appropriate type		NCB4-12GM...-N0...
Effective internal inductivity	C_i	≤ 120 nF ; a cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 50 µH ; a cable length of 10 m is considered.
General		The apparatus has to be operated according to the appropriate data in the data sheet and in this instruction manual. The EC-Type Examination Certificate has to be observed. The special conditions must be adhered to! Directive 94/9/EG and hence also EC-Type Examination Certificates apply in general only to the use of electrical apparatus under atmospheric conditions. The use in ambient temperatures of > 60 °C was tested with regard to hot surfaces by the mentioned certification authority. If the equipment is not used under atmospheric conditions, a reduction of the permissible minimum ignition energies may have to be taken into consideration.
Ambient temperature		Details of the correlation between the type of circuit connected, the maximum permissible ambient temperature, the temperature class, and the effective internal reactance values can be found on the EC-type examination certificate. **Note:** Use the temperature table for category 1 !!! The 20 % reduction in accordance with EN 1127-1 has already been applied to the temperature table for category 1.
Installation, commissioning		Laws and/or regulations and standards governing the use or intended usage goal must be observed. The intrinsic safety is only assured in connection with an appropriate related apparatus and according to the proof of intrinsic safety. The associated apparatus must satisfy the requirements of category ia. Due to the possible danger of ignition, which can arise due to faults and/or transient currents in the equipotential bonding system, galvanic isolation of the power supply and signal circuit is preferable. Associated apparatus without electrical isolation must only be used if the appropriate requirements of IEC 60079-14 are met. If the Ex-related marking is printed only on the supplied label, then this must be attached in the immediate vicinity of the sensor. The sticking surface for the label must be clean and free from grease. The attached label must be legible and indelible, including in the event of possible chemical corrosion.
Maintenance		No changes can be made to apparatus, which are operated in hazardous areas. Repairs to these apparatus are not possible.
Special conditions		The connecting parts of the sensor must be set up in such a way that degree of protection IP20, in accordance with IEC 60529, is achieved as a minimum.
Protection from mechanical danger		When using the device in a temperature range of -60 °C to -20 °C, protect the sensor against the effects of impact by installing an additional enclosure. The information regarding the minimum ambient temperature for the sensor as provided in the datasheet must also be observed.
Electrostatic charge		Electrostatic charges must be avoided on the mechanical housing components. Dangerous electrostatic charges on the mechanical housing components can be avoided by incorporating these in the equipotential bonding.

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Equipment protection level Gb

Instruction		**Manual electrical apparatus for hazardous areas**
Device category 2G		for use in hazardous areas with gas, vapour and mist
EC-Type Examination Certificate		PTB 00 ATEX 2048 X
CE marking		CE 0102
ATEX marking		Ⓔx II 1G Ex ia IIC T6…T1 Ga The Ex-significant identification is on the enclosed adhesive label
Directive conformity		94/9/EG
Standards		EN 60079-0:2012+A11:2013 EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions
Appropriate type		NCB4-12GM...-N0...
Effective internal inductivity	C_i	≤ 120 nF ; a cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 50 µH ; a cable length of 10 m is considered.
General		The apparatus has to be operated according to the appropriate data in the data sheet and in this instruction manual. The EC-Type Examination Certificate has to be observed. The special conditions must be adhered to! Directive 94/9/EG and hence also EC-Type Examination Certificates apply in general only to the use of electrical apparatus under atmospheric conditions. The use in ambient temperatures of > 60 °C was tested with regard to hot surfaces by the mentioned certification authority. If the equipment is not used under atmospheric conditions, a reduction of the permissible minimum ignition energies may have to be taken into consideration.
Maximum permissible ambient temperature T_{amb}		Details of the correlation between the type of circuit connected, the maximum permissible ambient temperature, the temperature class, and the effective internal reactance values can be found on the EC-type examination certificate.
Installation, commissioning		Laws and/or regulations and standards governing the use or intended usage goal must be observed. The intrinsic safety is only assured in connection with an appropriate related apparatus and according to the proof of intrinsic safety. If the Ex-related marking is printed only on the supplied label, then this must be attached in the immediate vicinity of the sensor. The sticking surface for the label must be clean and free from grease. The attached label must be legible and indelible, including in the event of possible chemical corrosion.
Maintenance		No changes can be made to apparatus, which are operated in hazardous areas. Repairs to these apparatus are not possible.
Special conditions		The connecting parts of the sensor must be set up in such a way that degree of protection IP20, in accordance with IEC 60529, is achieved as a minimum.
Protection from mechanical danger		When using the device in a temperature range of -60 °C to -20 °C, protect the sensor against the effects of impact by installing an additional enclosure. The information regarding the minimum ambient temperature for the sensor as provided in the datasheet must also be observed.
Electrostatic charge		Electrostatic charges must be avoided on the mechanical housing components. Dangerous electrostatic charges on the mechanical housing components can be avoided by incorporating these in the equipotential bonding.

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Refer to “General Notes Relating to Pepperl+Fuchs Product Information”.
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