

*The temperature sensor assembly is shown for illustration purpose only. The remote mount or direct mount sensor, or its assembly with T142 is not covered by this certificate.

Ambient Temperature:

- Zone 0 ELP Ga Ta: -50...+40/50/60°C T6/T5/T4 (with or without display)
- Zone 1 EPL Gb Ta: -50...+55/70/85°C T6/T5/T4 (without display)
- Zone 1 EPL Gb Ta: -50...+55/70/80°C T6/T5/T4 (with display)
- Zone 21 EPL Db Ta: -40...+55/70/85°C T85/T100/T110°C (without display)
- Zone 21 EPL Db Ta: -40...+55/70/80°C T85/T100/T110°C (with display)

Safety instructions: Zone 0

- Only operate devices in potentially explosive vapour/air mixtures under atmospheric conditions:
-50 °C ≤ Ta ≤ +60°C
0.8 bar ≤ p ≤ 1.1 bar
- If no potentially explosive mixtures are present, or if additional protective measures have been taken, according to EN 1127-1, the transmitters may be operated under other atmospheric conditions in accordance with the manufacturer's specifications.
- The temperature transmitter must be installed so, that even in the event of rare incidents, an ignition source due to impact or friction between the enclosure and iron/steel is excluded.
- Associated apparatus with galvanic isolation between the intrinsically safe and non-intrinsically safe circuits are preferred.

Safety instructions: Special conditions

- Unit is may not be used when hybrid mixtures (gas, dust, air) are present.
- Use for integral temperature sensors only approved sensors certified for category 1D or 2D marked not less than II1/2D Ex ia IIIC T110 °C Da/Db or II2D Ex ia IIIC T110 °C Db for use in Zone 20 or Zone 21.
- Use for remote temperature sensors only approved sensors certified for category 2D marked not less than II2D Ex ia IIIC T110 °C Db for use in Zone 21.

Field Wiring Entry Threads

3 x 1/2" NPT

INTRINSICALLY SAFE



- Comply with the installation and safety instructions in the Operating Instructions.
- Install the device according to the manufacturer's instructions and any other valid standards and regulations (e.g. EN/IEC 60079-14).
- Connect the device using suitable cable and wire entries of protection type "Intrinsic safety (Ex i)".
- The type of protection changes as follows when the devices are connected to certified intrinsically safe circuits of Category ib: Ex ib IIC. When connecting an intrinsically safe ib circuit, do not operate the sensor at Zone 0.
- Continuous duty temperature of the cable Ta +5 K.
- To maintain the ingress protection of the housing IP66/67 install the housing cover and cable glands correctly.
- Close unused entry glands with sealing plugs.
- The pertinent guidelines must be observed when intrinsically safe circuits are connected together acc. IEC/EN 60079-14 (Proof of Intrinsic Safety).
- The electrical apparatus must be integrated into the local potential equalization.
- When connecting two independent sensors make sure that the potential equalization cables are at the same potential.
- Keep enclosure cover closed tightly and safety lock engaged when circuits are powered and an explosive atmosphere is present. Enclosure required 3mm hexagonal wrench to engage safety lock.




INTRINSICALLY SAFE

IECEx EPS 23.0019X; EPS 23 ATEX 1 088 X
II 1G, II 2G, II 2D
Ex ia IIC T6...T4 Ga
Ex ia IIC T6...T4 Gb
Ex ia IIIC T85...T110°C

Entity Parameters Table

| Terminals | Entity Parameters | | | | | | | | | | | | |
|----------------------------|---|---------|----|----|-----------|-------|---------|-----------|--------|--------|-----------|--------|---------|
| Supply Terminals (+ and -) | $U_i \leq 30$ VDC $I_i \leq 300$ mA $P_i \leq 1000$ mW $C_i \leq 5$ nF $L_i = 0$ | | | | | | | | | | | | |
| Sensor Terminals (1 to 4) | $U_o \leq 4.3$ V $I_o \leq 4.8$ mA $P_o = 5.2$ mW | | | | | | | | | | | | |
| Max. connection data | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th></th> <th>Lo</th> <th>Co</th> </tr> </thead> <tbody> <tr> <td>Ex ia IIC</td> <td>40 mH</td> <td>10.4 µF</td> </tr> <tr> <td>Ex ia IIB</td> <td>150 mH</td> <td>160 µF</td> </tr> <tr> <td>Ex ia IIA</td> <td>300 mH</td> <td>1000 µF</td> </tr> </tbody> </table> | | Lo | Co | Ex ia IIC | 40 mH | 10.4 µF | Ex ia IIB | 150 mH | 160 µF | Ex ia IIA | 300 mH | 1000 µF |
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| TITLE: CONTROL DRAWING EPS ATEX / IECEx, Ex ia T142 | PART NUMBER: | REVISION DATE: 02/15/2023 |  pyromation ^{INC} <small>beyond measure</small> FORT WAYNE, INDIANA 260-484-2580 |
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