SCHISCHEK
EXPLOSIONPROOF

Pipe Temperature Sensor

Temperature sensor for pipe mounting, Pt100 passive Sensor in hazardous locations zones 1, 2 and 22

Type TFR-AN-2G3D ATEX compliant

APPLICATION

TFR-AN-2G3D temperature sensors for measuring surface temperatures. In combination with Ex-i transducer Type EXL-IMU-1 with intrinsic safe circuit the sensor may be used in hazardous areas 1, 2 and 22. The passive potential free resistor output of the sensor is changed into an active signal of 0(2)... 10 V- and/or 0(4)... 20 mA. Application is temperature measurement on pipes in non condensing, aggressive air.

suitable for Zone 1, 2, 22 acc. to ATEX

CE Ex

TECHNICAL DATAS

Type	**TFR-AN-2G3D**
Supply	by Ex-i transducer
Sensor	Pt100 DIN
Accuracy	Class B
Sensor current	< 2 mA
Ambient temperature	-30...+60 °C
Measure temperature	-30...+110 °C
Storage temperature	-40...+70 °C
Connection	screw clamps 0,14 - 1,5 mm²
Enclosure	Plastic, IP65 acc. to EN 60529
Stress rippon	d = 13...92 mm , adjustable
Dimension and weight	68 x 58 x 35 mm, approx. 150 g
Protection class	simple apparatus acc. to EN 60079-11
CE	94/9/EC (ATEX)
Includes in price	1 temperature sensor, Type TFR-AN-2G3D incl. stress rippon
Installation area	Hazardous locations in zone 1, 2 and 22

Ex-i CIRCUITS - TABLE 1

Operation values maximum at terminal
Simple apparatus suitable for Zone 1, 2,22
Only for connecting to intrinsically safe circuits with max values

Voltage	Uo	10 VDC
Current	Io	10 mA
Power	Po	15 mW
Capacity	Ci	0 µF
Inductivity	Li	0 mH

The maximum values must not be exceeded!
Please check your external capacities and inductivities in acc. to the length of the cable and the methode of installation.

MOUNTING AND INSTALLATION

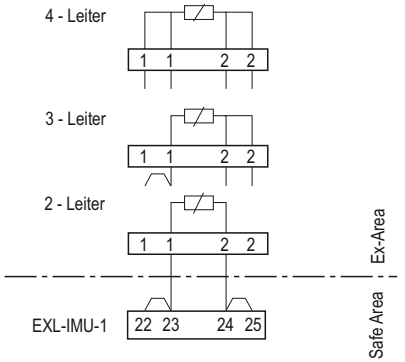
Notes to mechanical installation. The installation must comply with relevant directives and standards
Particularly with regard to:
- Comply with the EMC directive
- Avoid parallel wiring of power cable this cause measurement errors.
- Recommendation: Use shielded cable. Connect shield at PLC or control room area, sensor side is open.
- Measuring Range
- choose installation in such way that failtures caused by heat abstaction keep small and the maximum ambient temperature are not reached
- Avoid oscillations, vibrations, impacts

RECOMMENDED TRANSDUCER

- Transducer Mfr. Schischek Type EXL-IMU-1
- In combination with transducer EXL-IMU-1 is intrinsic safety proof for simple circuits given
- Manufacturer declaration zone 1, 2 and 22

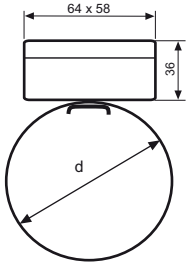
ELECTRICAL CONNECTION

Temperature Sensor TFR-AN-2G3D



Ex-i Module EXL-IMU-1

DIMENSIONS



ATTENTION!

- For installation, use and maintenance the official standards and rules must be applied
- The energy of intrinsically safe circuits are below the level to start an explosion in case of a spark
- Intrinsic safe circuits must be installed with light blue coloured and separate from non intrinsic safe circuits
- The sensor is passiv and potential free for use in hazardous locations in zone 1, 2 and 22
- Pay attention to the max values for wiring , listed in table 1.
- Avoid electrostatic discharge
- Only wet cleaning
- After mounting the protection class IP65 acc. to EN 60529 must be fulfilled

Subject to change

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