

**Temperature average sensor
passive Sensor in hazardous locations zones 1, 2**

**Type TFM-2G-3
ATEX compliant**

APPLICATION

TFM-2G-3 ... average sensor for measuring duct temperatures. In combination with Ex-i transducer Type ExCos-A, RedCos-A or EXL-IMU-1 with intrinsic safe circuit the sensor may be used in hazardous areas 1, 2. The passive potential free resistor output is changed into an active signal of 0(2)... 10 V- and/or 0(4)... 20 mA. Applications area is non condense, aggressive air in living, work and office rooms as well as industrial areas.

TECHNICAL DATAS

Type	TFM-2G-3
Supply	by transducer
Sensor	Pt100 DIN
Sensor current	< 2 mA
Thermowell	Copper with plastic surface d=5 mm length 3 m
Installation	minimum bending radius 35 mm, no vibration <1/2 G
Ambient temperature	Ta: -20...+60 °C
Measurement range	Tb: -20...+70 °C
Storage temperature	-30...+60 °C
Connection	screw clamps 0,14 - 1,5 mm ²
Enclosure	Plastic, IP65 acc. to EN 60529
Dimension	72 x 64 x 39,4 mm
Protection class	simple apparatus acc. to EN 60079-0 / EN 60079-11
CE	94/9/EC (ATEX)
Includes in price	Temperature sensor, Type TFM-2G-...
Installation area	Hazardous locations in zone 1, 2

suitable for
Zone 1, 2
acc. to ATEX



Ex-i CIRCUITS - TABLE 1

Operation values maximum at terminal

Simple apparatus suitable for Zone 1, 2
Only for connecting to intrinsically safe circuits with max values

Voltage	U _o	10 VDC
Current	I _o	10 mA
Power	P _o	15 mW
Capacity	C _i	0 µF
Inductivity	L _i	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.

RECOMMENDED TRANSDUCER

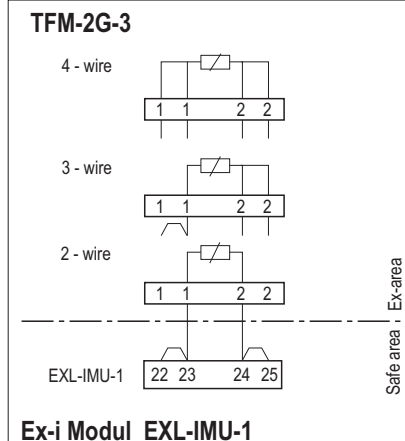
- Transducer Mfr. Schischek Type ExCos-A, RedCos-A or EXL-IMU-1.
- In combination with above named transducers is intrinsic safety proof for simple circuits given.
- Manufacturer declaration zone 1, 2

MONTAGE UND INSTALLATION

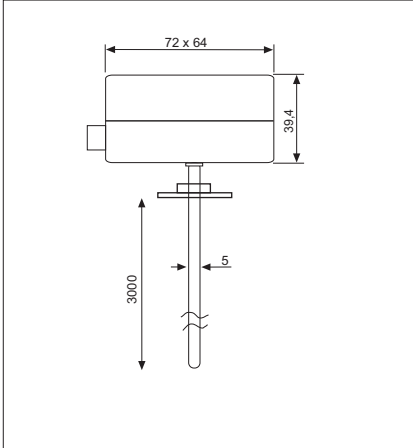
Notes to mechanical installation. The installation must comply with relevant directives and standards Particularly with regard to:

- 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.
- choose fitting length and installation depth in such way that failures caused by heat abstraction keep small and the maximum ambient temperature are not reached

ELECTRICAL CONNECTION



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
- 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
- The permitted ambient temperature may not exceed.

Änderungen vorbehalten