

# Probe Temperature Sensor

**Probe temperature sensor, Pt100**  
**passive sensor in hazardous locations zones 1, 2 and 22**

**Type TFT-2G3D**  
**ATEX compliant**      **Type TFT-VA-2G3D**

## APPLICATION

TFT-(VA)-2G3D probe sensors for measuring 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 Pt100 sensor 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 ducts, in plants as well as industrial areas.

TFT-2G3D / 100 mm	100 mm brass thermowell, Pt100	057.1220.01
TFT-V4A-2G3D / 200 mm	200 mm V4A thermowell, Pt100	057.1221.01
TFT-V4A-2G3D / 100 mm	100 mm V4A thermowell, Pt100	057.1222.01
TFT-2G3D / Pt100 / 100 mm	100 mm brass Ni plated Pt1000	057.1223.01
TFT-V4A-2G3D / 150 mm	150 mm V4A thermowell, Pt100	057.1224.01

## TECHNICAL DATAS

Type	TFT-(VA)-2G3D
Supply	by Ex-i transducer
Sensor	Pt100 DIN, others on request
Thermowell	Brass or Stainless steel (VA) / L= length on request
Process connection	Threat G1/2
Accuracy	Class B
Sensor current	< 2 mA
Ambient temperature	Ta = -30...+60 °C
Measure temperature	Tb = -30... +150 °C
Storage temperature	-40...+70 °C
Connection	screw clamps 0,14 - 1,5 mm <sup>2</sup>
Enclosure	Plastic, IP65 acc. to EN 60529
Dimension and weight	68 x 58 x 35 mm, approx. 150 g
Protection class	simple apparatus acc. to EN 60079-11
Temperature Class	T6 (max. 85 °C)
CE	94/9/EC (ATEX)
Includes in price	1 probe temperature sensor, Type TFT-(VA)-2G3D
Installation area	Hazardous locations in zone 1, 2 and 22

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



## Ex-i CIRCUITS

**Operation values maximum at terminal**  
Simple apparatus suitable for Zone 1, 2 and 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:

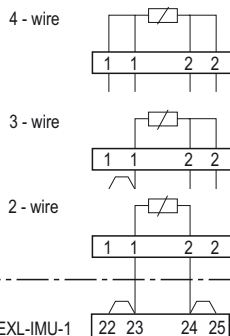
- Comply with the EMC directive
- Avoid parallel wiring of power cable this cause measurement errors.
- Recommendation: Use shielded cable. Connect shield at PLC or control room area, sensor side is open.
- permitted pressure, flow velocity
- choose fitting length and installation depth in such way that failures caused by heat abstraction keep small and the maximum ambient temperature are not reached

## 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.

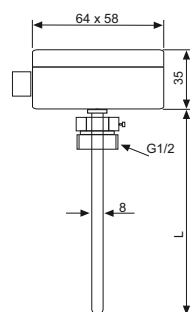
## ELECTRICAL CONNECTION

### Temperature Sensor TFT-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  
19-Okt-2012