SCREW-IN TEMPERATURE SENSOR EX



- EX IA IIC · ZONE 0
- PT100 UP TO +425 °C
- ACCURACY 0.1 %
- 4...20 MA OR 0...10 V
- IP 65

IP65

KEY DATA

Property	Value	Property	Value
Explosion protection	II 1 G Ex ia IIC T6..T1 Ga (3)	Medium	-50 ... +425 °C
Input	Pt100, 2-wire	Ambient	-20 ... +75 °C / +50 °C (2)
Output	4 ... 20 mA or 0 ... 10 V	Supply	12 ... 30 VDC
Accuracy	max. 0.1 % of span	Resolution	24 bit
Approval	TÜV 21 ATEX 201293 X	Product code	GF

Screw-in temperature sensor in an intrinsically safe version for zone 0, with a Pt100 up to +425 °C and the accurate transmitter of the series. The ambient temperature depends on the type of output — see note (2).

TECHNICAL DATA

INPUT AND OUTPUT

Sensor	Pt100, 2-wire
Measuring range	-50 … +425 °C, minimum span 50 °C
	other ranges on request
Sensor class	A · B · AA (B1/3 DIN)
Current signal	4 … 20 mA, 2-wire
Voltage signal	0 … 10 V · 0.5 … 10.5 V · 2 … 10 V
	3-wire each
Current range	3.8 … 20.5 mA

PERFORMANCE

Accuracy	max. 0.1 % of span + sensor error
Resolution	24 bit
Filter setting	5 … 5000 ms
Switch-on delay	5 ms
Setting	by TrComm software (4)
Display	none
Limit contacts	none
ATEX	TÜV 21 ATEX 201293 X
IECEx	IECEx TUN 21.0005X
Marking	II 1 G Ex ia IIC T6..T1 Ga
	II 1/2 G Ex ia IIC T6..T1 Ga/Gb
	II 2 G Ex ia IIC T6..T1 Gb

SUPPLY AND ENVIRONMENT

Supply	12 … 30 VDC
Reverse protection	yes
Ambient 2-wire	-20 … +75 °C (2)
Ambient 3-wire	-20 … +50 °C (2)
Medium	-50 … +425 °C
Storage	-40 … +100 °C
Condensation	harmless

MECHANICS

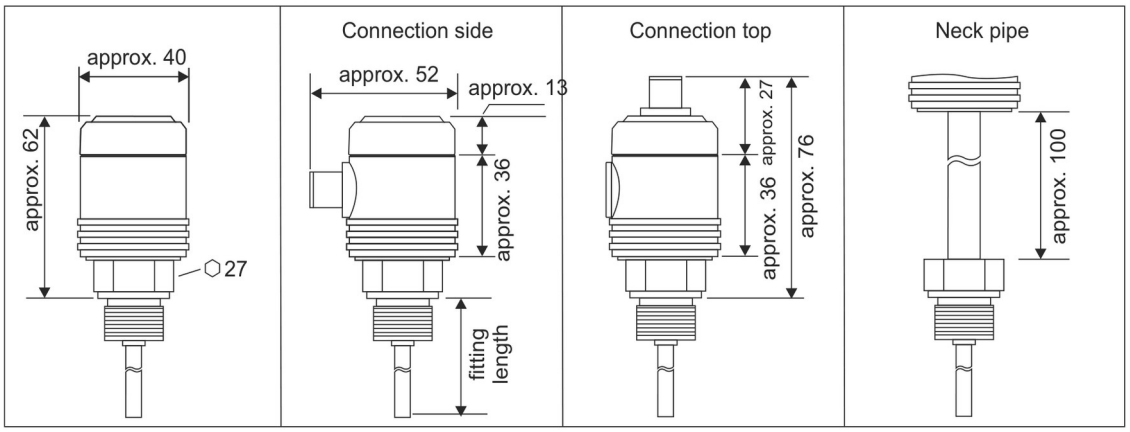
Process connection	1/4″ · 3/8″ · 1/2″ · 3/4″ · 1″ ·
	1/4NPT · 3/8NPT · 1/2NPT
Neck tube	100 mm (option)
Sheath	1.4571, standard Ø 6 × 0.5 mm
Housing	PBT GF30
Mounting position	any
System pressure	PN 25
Protection	at least IP 65, boards potted
Cover	PBT GF30
Weight	approx. 140 g

(1) The ambient temperature is not the medium temperature: the medium may be hotter than the electronics in the head.
(2) The ambient temperature depends on the type of output: -20 … +75 °C at the 2-wire current output, but only -20 … +50 °C at the 3-wire voltage output.
(3) Temperature class T6..T1; which one applies follows from the installation.
(4) This product has neither display nor keys.

ELECTRICAL CONNECTION

Ten electrical connections are available: M12x1 four-, five- and eight-pole, Deutsch DT04 three- and four-pole, Super Seal 1.5 three-pole, bayonet (DIN) four-pole, valve plug four-pole, MIL six-pole and cable. The connection is at the side, optionally on top.

DIMENSIONS



Dimensions in mm.

CONFORMITY

Explosion protection	II 1 G Ex ia IIC T6..T1 Ga · II 1/2 G Ex ia IIC T6..T1 Ga/Gb · II 2 G Ex ia IIC T6..T1 Gb
Installation	For gases; zone 0, zone 1 and zone 2
ATEX	TÜV 21 ATEX 201293 X · directive 2014/34/EU
IECEx	IECEx TUN 21.0005X
Meaning of the X	Special conditions. Both numbers end in X; the conditions are in the operating manual
Protection	at least IP 65 at the electronics

ORDER INFORMATION

Accessories

- Configurator DEV-KMA with the TrComm software. Without it the sensor cannot be programmed; the software is included with the configurator and is also available separately on request.

ORDER KEY

Field	Value	Meaning
Product code	GF	stands at the beginning of every order code
Input	0	Pt100, 2-wire
Output	0 ... 3	4 ... 20 mA 2-wire · 0 ... 10 V · 0.5 ... 10.5 V · 2 ... 10 V, 3-wire each
Sensor class	0 · 1 · 3	class A · class B · class AA (B1/3 DIN)
Sheath	0 ... 3	Ø 6×0.5 mm · other · Ø 6×0.5 with 100 mm neck · other with neck
Fitting length	0 ... 7	50 · 100 · 200 · 250 · 400 · 600 · 1000 mm · other
Process connection	0 ... 7	1/4″ · 3/8″ · 1/2″ · 3/4″ · 1″ · 1/4NPT · 3/8NPT · 1/2NPT
Position of connection	0 · 1	side · top
Electrical connection	0 ... 9	M12 4/5/8-pole · Deutsch DT04 3/4-pole · Super Seal 3-pole · bayonet · valve · cable · MIL

The order code is formed from the product code and the fields of the key.