

EX-Thermometers

On the next pages you will find our re-released EX-thermometers of the TFN 5x0 series, together with accessories. The various probes, specifically examined for their aptitude for EX applications, allow for the measurement of temperature within potentially explosive areas.

Applications

- Temperature measurement within potentially explosive areas:



II 2G Ex ia IIC T4 Gb
II 2G Ex ia IIIB T135°C Db

for environmental temperatures up to +60 °C

- Process and facility monitoring
- Examination in laboratories
- Usage during the production or examination of e.g. solvent-based products, fuels and gases



TFN 520-EX Typ K Thermometer

1-channel high accuracy thermometer for EX-areas



Without probe. Probe variants can be found on the following pages.



- With lemo connector
- Robust design for years of industrial use
- Approximately 5 years battery life time

Technical Data

Measurement range	-20 °C ... +80 °C
Accuracy at +25 °C ambient temperature	±0.3 °C
Resolution	0.1 °C
Operating temperature	-5 °C ... +60 °C
Storage temperature	-25 °C ... +60 °C
Measurement interval	0.5 sec. to 15 sec.
Sensor	External; thermo element type K
Sensor connection	LEMO size 0
Channels	1
Battery	Lithium, 3 V CR 2477
Battery life time	5 years
Dimensions (l x w x h)	115 x 54 x 22 mm
Weight	Approximately 90 g
Housing material	ABS, metalized
Protection class	IP 52

Type	Description	Part No.
TFN 520-EX	1-channel EX thermometer	1340-5521-EX

TFN 530-EX Type K Thermometer

2-channel high accuracy thermometer for EX-areas



Without probe. Probe variants can be found on the following pages.



- With two lemo connectors
- Robust design for years of Industrial use
- Approximately 5 years battery life time

Technical Data

Measurement range	-20 °C ... +80 °C
Accuracy at +25 °C	±0.3 °C
Resolution	0.1 °C
Operating temperature	-5 °C ... +60 °C
Storage temperature	-25 °C ... +60 °C
Measurement interval	0.5 sec. to 15 sec.
Sensor	External; thermo element type K
Sensor connection	LEMO size 0
Channels	2
Battery	Lithium, 3 V CR 2477
Battery life time	5 years
Dimensions (l x w x h)	115 x 54 x 22 mm
Weight	Approximately 90 g
Housing material	ABS, metalized
Protection class	IP 52

Type	Description	Part No.
TFN 530-EX	2-channel EX thermometer	1340-5531-EX

Thermo element Type K-probes for TFN 5x0 EX thermometers

EX-rod probes

Temperature measurement of air, surfaces, fluids and gases

TPN 100-EX

- Probe (L = 185 or 300 mm, Ø 0.5 mm, pointed, inconel needle, with Lemo connection)
- Accuracy: exceeds DIN IEC 584, class 2
- Response time (t_{99} water 0.2 m/s): 0.4 sec



TPN 110-EX

- Probe (L = 185, 300 or 500 mm, Ø 1 mm, pointed, inconel needle, with Lemo connection)
- Accuracy: exceeds DIN IEC 584, class 2
- Response time (t_{99} water 0.2 m/s): 1 sec



TPN 120-EX

- Probe (L = 185, 300, 500, 600, 700 or 1,000 mm, Ø 1.5 mm, pointed, inconel needle, with Lemo connection)
- Accuracy: exceeds DIN IEC 584, class 2
- Response time (t_{99} water 0.2 m/s): 2 sec



TPN 140-EX

- Probe (L = 185 or 300 mm, Ø 3 mm, pointed, inconel needle, with Lemo connection)
- Accuracy: exceeds DIN IEC 584, class 2
- Response time (t_{99} water 0.2 m/s): 4 sec



EX-Thermal wire probes

Temperature measurement of air, surfaces and gases

TPN 600-EX

- Probe (L = 1 m, outside 1.9 x 1.2 mm, Isolation: glass/silk meshwork, with Lemo connection)
- Accuracy: exceeds DIN IEC 584, class 2
- Response time
(t_{99} Air 0.2 m/s): 25 sec



Additional accessories for using the TFN 5x0 EX thermometers outside the EX-area can be found from page 54.

Type	Description	Part No.
TPN 100-EX	Rod probe without cable, L = 185 mm, Ø 0.5 mm, pointed	1341-0611-EX
TPN 100-30-EX	Rod probe without cable, L = 300 mm, Ø 0.5 mm, pointed	1341-0805-EX
TPN 110-EX	Rod probe without cable, L = 185 mm, Ø 1 mm, pointed	1341-0810-EX
TPN 110-30-EX	Rod probe without cable, L = 300 mm, Ø 1 mm, pointed	1341-0812-EX
TPN 110-50-EX	Rod probe without cable, L = 500 mm, Ø 1 mm, pointed	1341-0814-EX
TPN 120-EX	Rod probe without cable, L = 185 mm, Ø 1.5 mm, pointed	1341-0609-EX
TPN 120-30-EX	Rod probe without cable, L = 300 mm, Ø 1.5 mm, pointed	1341-0400-EX
TPN 120-50-EX	Rod probe without cable, L = 500 mm, Ø 1.5 mm, pointed	1341-0406-EX
TPN 120-60-EX	Rod probe without cable, L = 600 mm, Ø 1.5 mm, pointed	1341-0409-EX
TPN 120-70-EX	Rod probe without cable, L = 700 mm, Ø 1.5 mm, pointed	1341-0412-EX
TPN 120-100-EX	Rod probe without cable, L = 1,000 mm, Ø 1.5 mm, pointed	1341-0414-EX
TPN 140-EX	Rod probe without cable, L = 185 mm, Ø 3 mm, pointed	1341-0607-EX
TPN 140-30-EX	Rod probe without cable, L = 300 mm, Ø 3 mm, pointed	1341-0415-EX
TPN 600-EX	Flexible thermal wire probe without cable, L = 1 m, outside 1.9 x 1.2 mm	1341-0646-EX