

PRECISE PT 1000 UNIVERSAL THERMOMETER



HIGHLIGHTS:

- Modern and functional housing
- 3-line display / overhead display at the push of a button
- Backlighting
- Alarm function
- Waterproof (IP65 / IP67)
- Durable, long battery life

G 1710, G 1720, G 1730 WITH PERMANENTLY CONNECTED SENSOR SEE PAGE 24



Connection

DURABLE AND AFFORDABLE

G 1700

Art. no. 609826

Waterproof alarm thermometer for exchangeable probes BNC, without sensor

General:

The primary focus in the development of the new GMH 1000 series was placed on the essential functions of the measurement technology. Pure measurement with a focus on precision, speed and reliability packaged in a compact housing distinguish an impressive price/performance ratio. Made in Germany.

The new handheld measuring devices also impress with their ergonomic design, dust and water-protected design in accordance with IP 65/67 and the illuminated display. The compact thermometer is available with a practical BNC connection for interchangeable sensors. The device redefines our entry-level measurement class - calibration log included.

Application:

The highest-precision measurements in liquids and in air, for measurement of core temperatures (with insertion sensor); laboratories, quality assurance, service, food, etc.

Specifications:

Measuring range:	-200.0 ... +450.0 °C (-328.0 ... +842.0 °F) with plug-in sensor (Observe the permissible range of application of the sensor that is used!)
Accuracy (device): (at nominal temperature = 25 °C)	-20 ... +100 °C: $\pm 0.1 \text{ K} \pm 1 \text{ digit}$ otherwise 0.1 % of m. v. $\pm 2 \text{ digits}$
Operating conditions:	-20 ... +50 °C; 0 ... 95 % RH (non-condensing)
Display:	3-line unit incl. battery change indicator, with background light, protected by an unbreakable pane, overhead display at the push of a button
Power supply:	2 x AA battery, >5000 h operating time
Sensor:	Pt1000 2-wire can be used with BNC connection
Protection rating:	IP65 / IP67 (only with sensors identified as waterproof in the connected state)
Housing:	break-proof ABS housing
Dimensions:	108 x 54 x 28 mm (H x W x D) without sensor connection
Weight:	130 g (without sensor)
Scope of supply:	Device, calibration protocol, 2 x battery, manual

Accessories and spare parts:

GF 1T-T3-B-BNC

Art. no. 609549

Pt1000 handheld sensor, Pt1000 Class B, with BNC connector, Ø 3 mm, p.r.t. page 22

GF 1T-E3-B-BNC

Art. no. 609639

Pt1000 handheld sensor, Pt1000 Class B, with BNC connector, Ø 3 mm, p.r.t. page 23

GF 1T-E1.5-B-BNC

Art. no. 609645

Extra-thin Pt1000 insertion sensor, Pt1000 Class B, with BNC connector, Ø 1.5 mm, p.r.t. page 23

ST-G1000

Art. no. 611373

Device protection bag with 1 round cut-out

GB AA

Art.-Nr: 610049

Spare battery Mignon (AA) 1,5 V (2 batteries required)

Further sensors see page 21-23

SUITABLE PT1000 - MEASURING PROBES, 2-WIRE

Accuracy Pt1000:

sensor accuracy acc. to DIN EN 60751

DIN cl. B: (area of validity: -50 ... +500 °C)

 $\pm 0.3 \text{ °C at } 0 \text{ °C}$

DIN cl. A: (area of validity: -30 ... +300 °C)

 $\pm 0.15 \text{ °C at } 0 \text{ °C}$

DIN cl. AA = 1/3 DIN cl. B: (area of validity: 0 ... +150 °C)

 $\pm 0.1 \text{ °C at } 0 \text{ °C}$

Upcharges special designs: (Deviations are possible based on the construction)

longer probe tube

upcharge per further starting 100 mm

longer cable (silicone)

upcharge per further starting meter

other cable material upon request

Probe tube with Teflon coating

(for probes up to 200 mm)

(for probes used in acids and salt water, upper temperature range 250 °C)

casted waterproof probe handle

(only possible with PVC cable -20 ... +105 °C)

higher sensor accuracy:

DIN cl. AA, for Pt1000, tolerances: 0.1 °C at 0 °C

higher sensor accuracy:

1/10 DIN cl. B, for Pt1000-probes, tolerances: 0.03 °C at 0 °C

basic fee for custom made probe

All types of probes also available for Pt100 2- / 3- or 4-wire connection
We manufacture all types of probes according to your special desires - low priced and fast. Please contact us.

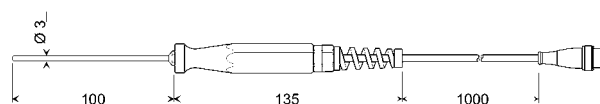


GTF 175-BNC

Art. no. 607165

Immersion probe for liquids / gases

-70 ... +250 °C, Pt1000 cl. B



non-corrosive V4A tube, Ø 3 mm, plastic handle, anti-buckling glanding, 1 m highly flexible silicone cable, BNC connector

Response time T_{90} : water 0.4 m/s < 2 s, air 2 m/s approx. 40 s

Advantages of sheath element Pt1000:

- high temperature resistance
- sheath cable is bendable
- high shock resistance
- high service life

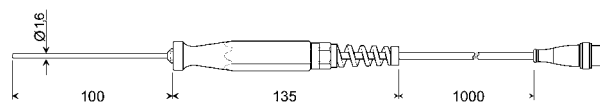


GTF 175 / 1.6-BNC

Art. no. 611323

Immersion probe with sheath element Pt1000

-70 ... +250 °C, Pt1000 cl. B



stainless steel tube (V4A), flexible, Ø 1.6 mm, plastic handle, anti-buckling glanding, 1 m highly flexible silicone cable, BNC connector

Response time T_{90} : water 0.4 m/s < 2 s, air 2 m/s approx. 25 s

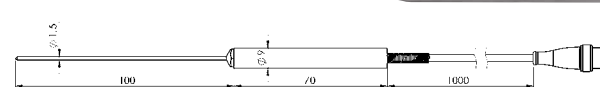


GES 20-T-B-BNC

Art. no. 607377

Core temperature- / food probe with compact teflon handle

-200 ... +250 °C, Pt1000 cl. B



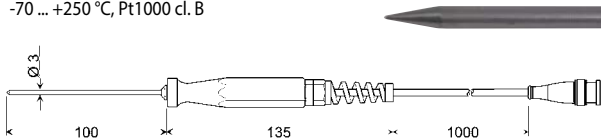
V4A tube with Ø 1.5 mm slim insertion tip, small teflon handle, stainless steel kink protection, 1 m Teflon cable, BNC connector

Response time T_{90} : water 0.4 m/s < 1 s, air 2 m/s approx. 12 s

SUITABLE PT1000 - MEASURING PROBES, 2-WIRE

-70 °C
+250 °C**GES 175-BNC**

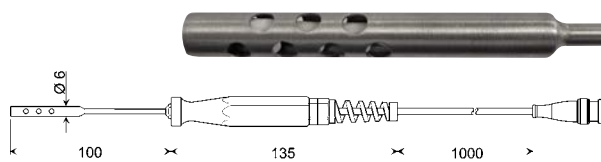
Art. no. 611324

Insertion probe for soft media
-70 ... +250 °C, Pt1000 cl. B

V4A tube Ø 3 mm with slim insertion tip, plastic handle, anti-buckling glanding, 1 m highly flexible silicone cable, BNC connector

Response time T_{90} : water 0.4 m/s < 2 s, air 2 m/s approx. 40 s-70 °C
+250 °C**GLF 175-BNC**

Art. no. 607162

Air / gas probe for clean media
-70 ... +250 °C, Pt1000 cl. B

(for dirty measurands use GTF 175), punched V4A protection tube, fast miniaturized Pt1000 mounted freely in tube, resulting in fast response, plastic handle, anti-buckling glanding, 1 m highly flexible silicone cable, BNC connector

Response time T_{90} : air 2 m/s approx. 15 s-70 °C
+250 °C**GOF 175-BNC**

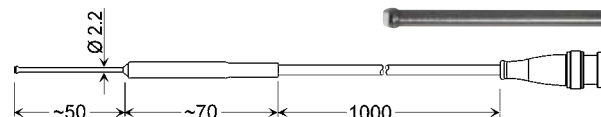
Art. no. 607163

Surface probe for solid surface
-70 ... +250 °C, Pt1000 cl. B

2 x 2.3 mm ceramic Pt1000 sensor mounted at the tip, V4A tube, quadratic 3 x 3 mm at the tip, plastic handle, anti-buckling glanding, 1 m highly flexible silicone cable, BNC connector

Response time T_{90} : approx. 15 s-70 °C
+120 °C**GOF 175 Mini-BNC**

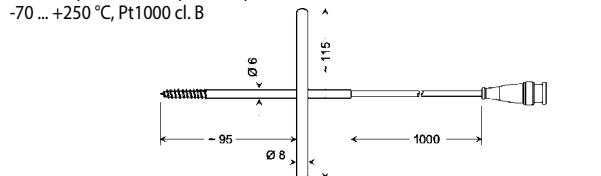
Art. no. 610399

Surface probe for solid surface
-70 ... +120 °C, Pt1000 cl. B

2 x 2.3 mm ceramic Pt1000 sensor mounted at the tip, V4A tube Ø 2.2 mm, 1 m highly flexible silicone cable, BNC connector

Response time T_{90} : approx. 15 s-70 °C
+250 °C**GGF 175-BNC**

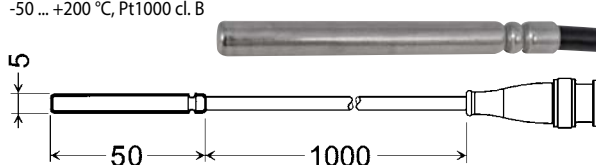
Art. no. 610397

Screw in probe for deep frozen products
-70 ... +250 °C, Pt1000 cl. B

to screw into deep-frozen products, etc. no predrilling required. V4A tube, 6 mm Ø with screw prod, 1 m highly flexible silicone cable, BNC connector

Response time T_{90} : approx. 15 s-50 °C
+200 °C**GTF 2000-BNC**

Art. no. 607164

Air / pipe probe
-50 ... +200 °C, Pt1000 cl. B

V4A-sensor sleeve Ø 5 mm, 1 m highly flexible silicone cable, BNC connector, each beginning meter upcharge

Response time T_{90} : water 0.4 m/s < 10 s, air 2 m/s approx. 60 s**Variant:****GTF 2000-WD**

Art. no. 476007

Water proof type, construction like described before, but cable of PVC and tube enclosed water proof. Max. 105 °C!

**HIGHLIGHTS:**

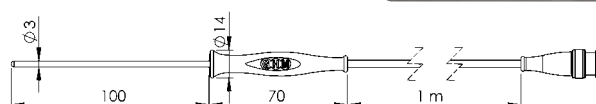
- Lightweight, manageable handle with optimised ergonomics and flexible cable
- Waterproof: can be completely immersed
- Temporary temperature resistance of up to 250 °C

-70 °C
+250 °C**GF 1T-T3-B-BNC**

Art. no. 609549

compact Pt1000 temperature probe with silicone handle
-70 ... +250 °C, Pt1000 cl. B**GF 1T-T3-AA-BNC**

Art. no. 609550

compact Pt1000 temperature probe with silicone handle
-70 ... +250 °C, Pt1000 cl. AA

Immersion probe Ø 3 mm made of V4A tube, black silicone handle from -50 ... +250 °C, 1 m Silicone cable from -50 ... +230 °C continuously / +250 °C for 2 h, sensor probe and silicone handle IP67, BNC connector

Response time T_{90} : water 0.4 m/s < 2 s, air 2 m/s approx. 40 s**Variants:****GF 1T-T3-B-LE**

Art. no. 609547

Pt1000 handheld sensor, Pt1000 cl. B, with loose ends

GF 1T-T3-AA-LE

Art. no. 609548

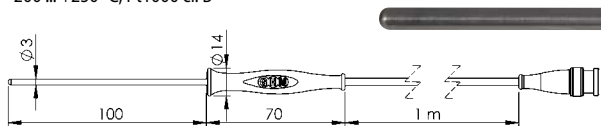
Precision Pt1000 handheld sensor, Pt1000 cl. AA, with loose ends

SUITABLE PT1000 - MEASURING PROBES, 2-WIRE

-200 °C
+250 °C

GF 1T-T3-B-BNC-MB4

Art. no. 611763

Pt1000 handheld probe for low temperatures
-200 ... +250 °C, Pt1000 cl. B

Immersion probe Ø 3 mm made of V4A tube, black silicone handle -50 ... +250 °C, 1 m silicone cable, -50 ... +230 °C permanently / +250 °C for 2 h, probe tip and silicone handle IP67, BNC plug

Response time T_{90} : water 0.4 m/s <2 s, air 2 m/s approx. 40 s

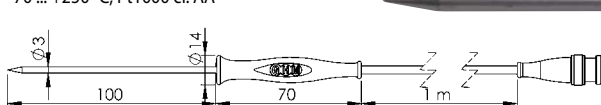
-70 °C
+250 °C

GF 1T-E3-B-BNC

Art. no. 609639

Insertion sensor, Ø 3 mm
-70 ... +250 °C, Pt1000 cl. B**GF 1T-E3-AA-BNC**

Art. no. 609640

Insertion sensor, Ø 3 mm
-70 ... +250 °C, Pt1000 cl. AA

Insertion probe Ø 3 mm made of V4A tube, black silicone handle from -50 ... +250 °C, 1 m silicone cable from -50 ... +230 °C continuously / +250 °C for 2 h, sensor probe and silicone handle IP67, BNC connector,

Response time T_{90} : water 0.4 m/s <2 s, air 2 m/s approx. 40 s**Variants:****GF 1T-E3-B-LE**

Art. no. 609637

Pt1000 insertion sensor, Pt1000 cl. B, with loose ends

GF 1T-E3-AA-LE

Art. no. 609638

Precision Pt1000 insertion sensor, Pt1000 Cl. AA, with loose ends

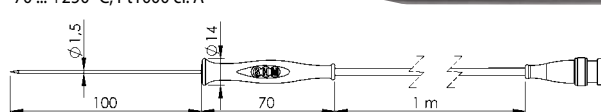
-70 °C
+250 °C

GF 1T-E1.5-B-BNC

Art. no. 609645

Extra-thin Pt1000 insertion sensor, Ø 1.5 mm
-70 ... +250 °C, Pt1000 cl. B**GF 1T-E1.5-A-BNC**

Art. no. 609646

Extra-thin Pt1000 insertion sensor, Ø 1.5 mm
-70 ... +250 °C, Pt1000 cl. A

Insertion probe Ø 1.5 mm made of V4A tube, black silicone handle from -50 ... +250 °C, 1 m silicone cable from -50 ... +230 °C continuously / +250 °C for 2 h, sensor probe and silicone handle IP67, BNC connector

Response time T_{90} : water 0.4 m/s <1 s, air 2 m/s approx. 12 s**Variants:****GF 1T-E1.5-B-LE**

Art. no. 609643

Extra-thin Pt1000 insertion sensor, Pt1000 Cl. B, with loose ends

GF 1T-E1.5-A-LE

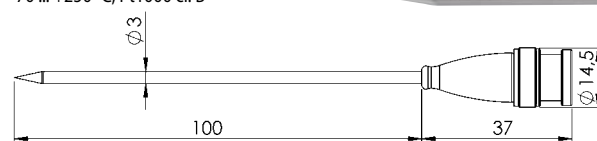
Art. no. 609644

Extra-thin Pt1000 insertion sensor, Pt1000 Cl. A, with loose ends

-70 °C
+250 °C

GF 2T-E3-B-BNC

Art. no. 609926

Pt1000 insertion sensor, BNC connector, without cable
-70 ... +250 °C, Pt1000 cl. B

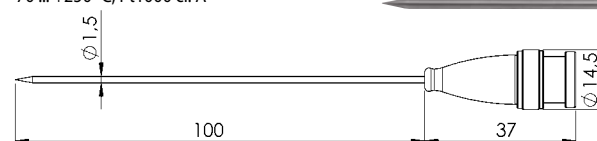
Insertion probe Ø 3 mm made of V4A tube, IP67 in connected state, BNC connector with EPDM grommet up to +75 °C

Response time T_{90} : water 0.4 m/s <2 s, air 2 m/s approx. 40 s

-70 °C
+250 °C

GF 2T-E1.5-A-BNC

Art. no. 609824

Pt1000 insertion sensor, BNC connector, without cable
-70 ... +250 °C, Pt1000 cl. A

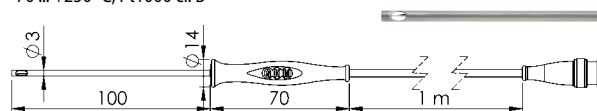
Insertion probe Ø 1.5 mm made of V4A tube, IP67 in connected state, BNC connector with EPDM grommet up to +75 °C

Response time T_{90} : water 0.4 m/s <1 s, air 2 m/s approx. 12 s

-70 °C
+250 °C

GF 1T-L3-B-BNC

Art. no. 611297

Pt1000 air sensor for clean media
-70 ... +250 °C, Pt1000 cl. B

(use GF 1T-T3 for contaminated media), perforated V4A tube Ø 3 mm, quick-reaction Pt1000 freely arranged, black silicone handle, up to +250 °C, 1 m silicone cable, up to +230 °C permanently / +250 °C for 2 h, BNC plug

Response time T_{90} : air 2 m/s approx. 15 s**Variant:****GF 1T-L3-B-LE**

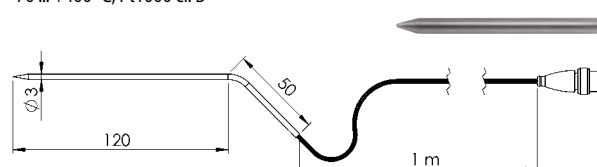
Art. no. 611298

Pt1000 air sensor, Pt1000 Class B, with loose ends

-70 °C
+400 °C

GF 3T-E3-BNC

Art. no. 611301

Barbecue insertion probe up to 400 °C
-70 ... +400 °C, Pt1000 cl. B

Insertion probe Ø 3 mm made of bent V4A tube, 1 m glass fibre insulated cable with stainless steel branding up to +350 °C continuously / +400 °C for 2 h, BNC plug

Response time T_{90} : water 0.4 m/s approx. 10 s, air 2 m/s approx. 40 s**Variant:****GF 3T-E3-B-LE**

Art. no. 611302

Pt1000 grill sensor, Pt1000 Class B, with loose ends