

Data sheet

Handheld measuring devices

**Temperature measuring device
 G 1700 series**



- Available in 2 versions
 - with fixed sensor
 - with BNC connection for interchangeable sensors
- Quick and precise measurement
- Waterproof (IP65/IP67)
- Three-line display/overhead display at the push of a button
- Backlighting
- Sensor, incl. cable, temporarily (2 hours) up to 250 °C
- Sensor, incl. cable, continuous use up to 230 °C
- Alarm function
- Hold function for freezing of measurement values, min/max function for minimum and maximum recorded measurements
- Adjustable

General information

The primary focus in the development of the new G 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 provide for the impressive price-performance ratio, Made in Germany.

The new handheld measuring devices also impress with their ergonomic, 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 or as a complete device including sensor with maximum overall precision. The device redefines our entry-level measurement class – calibration log included.

The matching sensors can be used at temperatures of up to 250 °C (incl. handle and cable) and are distinguished by their compact design and small tube diameter. High-quality Pt1000 sensors integrated.

Use

The highest-precision measurements in liquids and in air, for measurement of core temperatures (with insertion sensor); sensor handle and cable temperature range of up to 250 °C (permanent use temperature of 230 °C); laboratories, quality assurance, service, food, and much more.

Scope of delivery

- Dust-proof and waterproof handheld measuring device (with or without sensor) in accordance with 65/67
- Calibration log
- 2x AA battery
- Operating manual

Technical data

Measurement range : –70.0 ... +250.0 °C (–94.0 ... +482.0 °F) with fixed Pt1000 sensor;
 –200.0 ... +450.0 °C (–328.0 ... +842.0 °F) with BNC sensor (observe permissible range of the sensor!)

Accuracy
 (at nominal temperature = 25 °C)

G 1700 (device with BNC connection) : –20 ... +100 °C: ±0.1 K ±1 Digit otherwise 0.1 % of measured value ±2 digits, plus sensor inaccuracy

G 1710/20/30 (device with fixed sensor) : –20 ... +100 °C: ±0.1 K ±1 digit –70 ... +250 °C: ±0.2 % of measured value ±2 digits

Operating conditions (Device) : –20 ... +50 °C; 0 ... 95% relative humidity (non-condensing), temporarily usable up to 100 % relative humidity

Display/Backlighting : 3-line unit, with background light, protected by an unbreakable pane, overhead display at the push of a button

Power supply : 2 x AA battery, approx. 5000 h operating time

Protection rating : IP65/IP67 (with devices with BNC connection only with sensors with waterproof connection)

Housing : Break-proof ABS housing

Dimensions : 108 x 54 x 28 mm (H x W x T) without sensor connection

Weight : 130 g (without sensor)

Connection G 1700 : BNC socket: for interchangeable sensors, see accessories/interchangeable sensors

Sensor



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Sensor technical data

- G 1710** : Immersion sensor Ø 3 mm, Pt1000 permanent 2-wire connection, V4A, 1 m cable
- G 1720** : Durable insertion sensor Ø 3 mm, Pt1000 2-wire fixed connection, V4A, cable 1 m
- G 1730** : Extra-thin insertion sensor Ø 1.5 mm, Pt1000 2-wire fixed connection, V4A, 1 m cable
- Sensor reaction time (T90)** : Ø 3 mm: Water 0.4 m/s < 2 s;
Ø 1.5 mm: Water 0.4 m/s < 1 s

Ordering code

G1700 -

1.	Option	
0		Waterproof alarm thermometer for interchangeable sensors

Please also order the sensor!

G1710 -

1.	Option	
0		Waterproof alarm thermometer for universal sensor with 3 mm immersion sensor

G1720 -

1.	Option	
0		Waterproof alarm thermometer with 3 mm insertion sensor

G1730 -

1.	Option	
0		Waterproof alarm thermometer with 3 mm insertion sensor

Accessories / interchangeable sensors

1.	Pt1000 immersion sensor, Art. no. 609549 (like G 1710)
	Pt1000 insertion sensor, with BNC connector, Ø 3 mm GF 1T-T3-B-BNC
2.	Pt1000 insertion sensor, Art. no. 609639 (like G 1720)
	Pt1000 insertion sensor, with BNC connector, Ø 3 mm GF 1T-E3-B-BNC
3.	Pt1000 insertion sensor, extra thin, Art. no. 609645 (like G 1730)
	Pt1000 insertion sensor, with BNC connector, Ø 1.5 mm GF 1T-E1.5-B-BNC
4.	GB AA, Art. no.: 610049
	Spare battery AA (2 batteries required)

Other accuracy classes available on request

Additional beneficial accessories and services

1.	Air/gas sensor, GLF 175-BNC, Art. no. 607162 Large sensor handle, not waterproof
	for clean media, -70 ... +200 °C, Pt1000 Class B
2.	Frozen goods sensor GGF 175 -BNC, Art. no. 610397 Large sensor handle, plug connection not waterproof
	for insertion into frozen goods, determines core temperature -70 ... +200 °C, Pt1000 Class B
3.	Air/pipe-mounted sensor GTF 2000 -BNC, Art. no. 607164, plug connection not waterproof
	-50 ... +200 °C, Pt1000 Class B
4.	Surface sensor GOF 175-BNC, Art. no. 607163 Large sensor handle, not waterproof
	for solid surfaces, -70 ... +200 °C, Pt1000 Class B
5.	Calibration service with calibration certificate

Additional accessories on request or in our catalogue.