

ECO 120 / 121 Waterproof alarm thermometer

For exchangeable probes BNC / permanent probes

- Modern and functional housing
- Quick and precise measurement
- Waterproof (IP65 / IP67)
- Available in two versions:
 - With permanently connected probe (ECO 120)
 - With BNC connection for quickly changed probes (ECO 121)
- Probe and cable permanently resistant to temperatures up to 230°C (2 hours up to 250 °C)
- 3-line display / overhead display at the push of a button
- Backlight
- Alarm function
- Adjustable
- Robust, long battery life
- Hold-function to freeze measured values
- Min/Max-function for minimum and maximum recorded measured values
- Made in Germany



DESCRIPTION

The primary focus in the development of the new ECO 100 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 according to 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. Integrated: High-quality Pt1000 sensors.



ECO 120 front

Family Datasheet

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Display

Thanks to the backlight, the three-line LCD display offers ergonomic wide-angle visibility - by day and by night.

The HOLD function enables the display values to be frozen.

Power supply

2 powerful AA batteries, the energy-saving design and the configurable automatic switch-off function ensure long operation.

Configurable LCD backlight for further energy saving options.

TECHNICAL DATA

Measurement specifications

	ECO 120	ECO 121 -3 / -I3 / -I1.5
Inputs	BNC socket for interchangeable probes, see accessories / interchangeable probes	fixed Pt1000 probe
Measuring range	Temperature -200.0 ... +450.0 °C (-328.0..+842.0 °F) with BNC probe (observe permissible range of the probe!)	Temperature -70.0 ... +250.0 °C (-94.0..+482.0 °F)
Accuracy (nominal temperature)	-20 ... +100 °C: $\pm 0.1 \text{ K} \pm 1 \text{ digit}$ (device otherwise with 0.1 % of measured value ± 2 digits, BNC connection) plus probe inaccuracy	-20 ... +100 °C: $\pm 0.1 \text{ K} \pm 1 \text{ digit}$ (device with fixed -70 ... +250 °C: $\pm 0.2 \%$ of measured value ± 2 digit connected probe)
Max. cable length	3 m	

General specifications

Display	3-line with battery status indicator, Backlight, protected by shatterproof screen, overhead display at the push of a button
Power supply	2 x AA Alkaline batteries (included)
Power consumption	< 1 mA
Battery life	> 3000 h typ. Continuous operation
Automatic Power-Off	Yes, configurable by the user
Operating conditions	-20 to 50 °C; 0 to 85 % r.h. (non-condensing)
Storage temperature	-25...65 °C (without batteries)
Protection class	IP65 / 67 (only with waterproof probes in the connected state for devices with BNC connection)
Dimensions	108 x 54 x 28 mm (H x W x D)
Weight	approx. 130 g (without probe)
Housing	Impact resistant ABS, Polyester (front panel)

Scope of delivery

- Dust-proof and waterproof handheld device (with or without probe) according to IP 65 / 67
- Test report
- 2x AA battery
- Manual

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ORDERING CODES

ECO120	
Waterproof alarm thermometer for exchangeable probes BNC (formerly G 1700)	
1	Set-Option - Device in carton box, test protocol, batteries, manual -GKK1000 Device in case GKK 1000, test protocol, batteries, manual -WPT2A Device in case GKK 1000, immersion probe GF1T-T3-AA-BNC, factory calibration WPT2A 0 / 70 °C not DAkkS accredited -WPT2B Device in case GKK 1000, immersion probe GF1T-T3-AA-BNC, factory calibration WPT2A 0 / 37 °C not DAkkS accredited -WPT3 Device in case GKK 1000, immersion probe GF1T-T3-AA-BNC, factory calibration WPT3 -20 / 0 / 70 °C not DAkkS accredited
ECO121-3	
Waterproof alarm thermometer with immersion probe (formerly G 1710)	
1	Probe (permanently connected) - With immersion probe GF 1TK-T3, Ø3 mm, handle short time 250°C, permanent 230°C, 1 m silicon cable 200°C
2	Set-Option - Device in carton box, test protocol, batteries, manual -GKK1000 Device in case GKK 1000, test protocol, batteries, manual -WPT2A incl. WPT2A, factory calibration, test points: 0 °C / 70 °C + GKK 1000, not DAkkS accredited -WPT2B incl. WPT2B, factory calibration, test points: 0 °C / 37 °C + GKK 1000, not DAkkS accredited -WPT3 incl. WPT3, factory calibration, test points: -20 °C, 0 °C, 70 °C + GKK 1000, not DAkkS accredited -MB4 Measuring range -200 ... +250 °C (Standard: -70 ... +250 °C)
ECO121-I3	
Waterproof alarm thermometer with insertion probe (formerly G 1720)	
1	Probe (permanently connected) - With robust insertion probe, Ø3 mm, handle and cable shorttime 250°C, permanent 230°C
2	Set-Option - Device in carton box, test protocol, batteries, manual -GKK1000 Device in case GKK 1000, test protocol, batteries, manual -WPT2A incl. WPT2A, factory calibration, test points: 0 °C / 70 °C + GKK 1000, not DAkkS accredited -WPT2B incl. WPT2B, factory calibration, test points: 0 °C / 37 °C + GKK 1000, not DAkkS accredited -WPT3 incl. WPT3, factory calibration, test points: -20 °C, 0 °C, 70 °C + GKK 1000, not DAkkS accredited -MB4 Measuring range -200 ... +250 °C (Standard: -70 ... +250 °C)

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ECO121-I1.5	
Waterproof alarm thermometer with insertion probe (formerly G 1730)	
1	Probe (permanently connected) - With fast penetration probe Ø1.5 mm, handle and cable shorttime 250°C, permanent 230°C
2	Set-Option - Device in carton box, test protocol, batteries, manual -GKK1000 Device in case GKK 1000, test protocol, batteries, manual -WPT2A incl. WPT2A, factory calibration, test points: 0 °C / 70 °C + GKK 1000, not DAkkS accredited -WPT2B incl. WPT2B, factory calibration, test points: 0 °C / 37 °C + GKK 1000, not DAkkS accredited -WPT3 incl. WPT3, factory calibration, test points: -20 °C, 0 °C, 70 °C + GKK 1000, not DAkkS accredited

Probes

ECO 121-3 Device with probe



Immersion probe, Ø 3 mm, Pt1000 2-wire fixed connection, V4A, 1m cable

Art.-No.: 486750

ECO 121-I3 Device with probe



durable insertion probe Ø 3 mm, Pt1000 2-wire fixed connection, V4A, 1m cable

Art.-No.: 486751

ECO 121-I1.5 Device with probe



extra-thin insertion probe Ø 1.5 mm, Pt1000 2-wire fixed connection, V4A, 1 m cable

Art.-No.: 486757

Technical specifications probe

Probe reaction time (T90)	Ø 3 mm: Water 0.4 m/s < 2 s
	Ø 1.5 mm: Water 0.4 m/s < 1 s

Family Datasheet

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Accessories

Spare parts:

GB-AA-2	Spare batteries 2x AA	Art.-No.: 600704
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Probes:

GF1T-T3-B-BNC	Pt1000 immersion probe, with BNC connector, Ø 3 mm (like ECO 121-3)	Art.-No.: 609549
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GF1T-E3-B-BNC	Pt1000 insertion probe, with BNC connector, Ø 3 mm (like ECO 121-I3)	Art.-No.: 609639
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GF1T-E1.5-B-BNC	Pt1000 insertion probe, with BNC connector, Ø 1.5 mm (like ECO 121-I1.5)	Art.-No.: 609645
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Additional accessories:

G1000-Cover	Rubber protection cover, incl. 2 neodym magnets	Art.-No.: 483958
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ST-G1000	Protection bag with belt clip	Art.-No.: 611373
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GCLIP1000	Metal belt clip self-adhesive	Art.-No.: 475820
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G1000-BASE	G 1000 combined table base / wall suspension	Art.-No.: 481885
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GKK1000	Carrying case	Art.-No.: 611603
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