

Digital precision quick-response thermometer with freely adjustable analog output



- freely adjustable analog output or serial interface, selectable by menu setting
- Min./Max. value memory, Hold function
- Correction of meas. value for surface measurement can be switched on/off.
- Zero-point offset entry
- 5 different thermocouples selectable (type K, J, N, S or T)
- Battery and d.c. operation
- Auto power off, selectable within 1..120min, or permanent operation
- Low power consumption of ca 0.3 mA (with included standard battery 1000 hours of operation!)
- Display in °C or °F (selectable)
- ready for bus operation (up to 5 instruments of GMH3000 series can be connected to a single serial PC interface)

DIGITAL-PRECISION QUICK-RESPONSE THERMOMETER with analog output

GMH 3210

Battery / mains operation, for plug-in probes, data hold function, freely adjustable analog output 0..1V

Anwendungen: suitable for all quick-response, high-precision temperature measurements. Analog output 0-1V for recorder connection, min/max. memory.

Specification:

Thermocouples:

type J, K, N, S, T (acc. to DIN EN 60584)

Measuring ranges: (extract)

type K: (NiCr-Ni)

-65,0 ... +300,0°C or -220 ... +1372°C
(-85,0 ... +572,0°F or -364 ... +2500°F)

type S: (Pt10Rh-Pt)

-50 ... +1768°C (-58 ... +3214°F)

Resolution: 0,1°C or 1°C (0,1°F or 1°F)

Accuracy: (extract) ±1 digit
(at nominal temperature)

type K: -65,0...300,0°C: ±0.03% of m.v. ±0.1% f.s.
-220 ... 1372°C: ±0.08% of m.v. ±0.1% f.s.

type S: -50 ... 1768°C: ±0.1% of m.v. ±0.1% f.s.

Temperature drift: 0,01%/K

Point of comparison: ±0,3°C

Analog output: 0..1V, freely adjustable

Nominal temperature: 25°C

Working temperature: -25 to +50°C

Relative humidity: 0 to +95%r.F. (non-condensing)

Storage temperature: -25 bis +70°C

Probe connection: flat pin plug for the simultaneous connection

Display: 2 four digit LCDs for temperature, min./max. values, hold function, etc. as well as additional functional arrows.

Min./Max. value memory: Memorizing of max. and min. values.

Hold function: By pressing a button the current values will be memorized..

Pushbuttons: 6 membrane keys for ON/OFF-switch, feature selection, min. and max. value memory, hold-function, etc.

Power supply: 9V-battery, type IEC 6F22 (included) as well as additional d.c. connector (internal pin Ø 1.9mm) for external 10.5-12V direct voltage supply. (suitable power supply: GNG10/3000)

Low battery warning: Δ and 'bAt'

Power consumption: approx. 0.3 mA

Auto-Off-function: When the Auto Off function is activated, the device switches automatically off, if its interface and keypad is not attended for a longer time (selectable 1..120min)

Interface: serial interface (choice between interface or analog output operation is done via menu), direct connection to RS232 interface of a PC via electrically isolated interface adapter GRS3100 or GRS3105.

Dimensions: 142 x 71 x 26 mm (H x W x D)
Impact-resistant ABS plastic housing, membrane keyboard, transparent panel. Front side IP65, integrated pop-up clip.

Weight: approx. 155 g

Special applications:

- Compensation for surface measurements:

A compensation value (to compensate for the loss when transferring heat from the meas. object to the probe) can be set and switched on/off for surface measurements if required.

- Zero-point offset entry: By entering the offset temperature the parameter can be moved parallel to the calibration graph.

Accessories:

GKK 3000 case (275 x 229 x 83 mm) with punched lining for all GMH3xxx-devices

GRS 3100 interface converter

GB 9 V spare battery

GNG 10 / 3000 power supply

plug-in probes type K p.r.t. page 89 - 93

plug-in probes type S: add. probes p.r.t. p. 89

GTF 1500 - 300

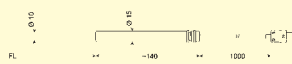
Type S - probe for air and gas temperature measurements

Meas. range: 0 ... 1500°C (permanent temperature)

Protective tube: overall probe length 300mm, 10mm Ø, additional stainless steel handle, 1m equalising cable and NST1700 - plug-in type.

GTF 1500 - 500

same as above but overall probe length 500mm



miscellaneous accessories p.r.t. page 35 - 37

Maximum speed, universal application, low price



DIGITAL-QUICK RESPONSE-THERMOMETER

GMH 1150

Battery/mains operation, for plug-in probes

Application: quick response measurements on surfaces, in liquids, soft media, air/gases, at the smallest objects etc..For all applications where a resolution of 1°C is sufficient.

Specification:

Measuring range: -50 ... +1150 °C

Resolution: 1°C

Accuracy: (at nominal temperature = 25°C) better 1% ± 1 digit (from -20 to +550 and 920 to 1150°C). From 550 to 920°C better 1,5% ±1digit. From -20 to -50°C according to attached correction table.

Probe connection: standard flat-pin plug (free of thermo-voltage) suitable for all NiCr-Ni (type K) probes. Probe is not included. Optimum probe to be ordered separately depending on desired application! Refer to pages 89 - 93

Display: 3½ digit LCD, approx. 13mm high

Working temperature: 0 to 45 °C

Storage temperature: -20 to +70 °C

Power supply: 9V battery type IEC 6F22 (included) as well as additional d.c. connector (internal pin Ø 1.9mm) for external 10.5-12V direct voltage supply. (suitable power supply: GNG10/3000)

Power consumption: approx. 0.4 mA

Battery service life: approx. 700 operating h

Low battery warning: „BAT“

Dimensions: approx. 142 x 71 x 26 mm (H x W x D). impact resistant ABS plastic case, front side IP65, integrated pop-up clip for table top or suspended use.

Weight: approx. 160 g (incl. battery)

Accessories:

approx. 50 different standard NiCr-Ni temperature probes (type K) as per list of probes or custom designed as per your specification are available. Please refer to pages 89 - 93.

GKK 252 case (235 x 185 x 48 mm) with foam lining

GKK 3000 case (275 x 229 x 83 mm) with punched lining suitable for all devices of the GMH3xxx-series and GMH1150

GNG 10 / 3000 power supply

GB 9 V spare battery

miscellaneous accessories p.r.t. page 35