

Double/difference quick-response thermometer for 5 different thermocouples!



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GMH 3230 access. not incl.

Digital-precision quick-response thermometer for thermocouples simultaneous connection of 2 plug-in probes (p.r.t. p. 7, 14, 15, 90/91)

Specification :

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

Measuring ranges:

Type K: (NiCr-Ni) -199,9 ... +999,9°C or -220 ... +1370°C
 (-199,9 ... +999,9°F or -364 ... +2498°F)

Type J: (Fe-CuNi) -120,0 ... +700,0°C or -200 ... +1100°C
 (-184,0 ... +999,9°F or -328 ... +2012°F)

Type N: (NiCrSi-NiSi) -199,9 ... +999,9°C or -200 ... +1300°C
 (-199,9 ... +999,9°F or -328 ... +2372°F)

Type S: (Pt10Rh-Pt) -0,0 ... +999,9°C or -50 ... +1750°C
 (32,0 ... +999,9°F or -58 ... +3182°F)

Type T: (Cu-CuNi) -120,0 ... +400,0°C or -200 ... +400°C
 (-184,0 ... +752,0°F or -328 ... +752°F)

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

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

Type K: -199,9 ... +999,9°C: ±0,03% of m.v. ±0,05% f.s. (T≥-60°C)
 ±0,2% of m.v. ±0,05% f.s. (T<-60°C)
 -220 ... +1370°C: ±0,08% of m.v. ±0,1% f.s. (T≥-100°C)
 ±1°C ±0,1% f.s. (T<-100°C)

Type J: -120,0 ... +700,0°C: ±0,03% of m.v. ±0,08% f.s. (T≥-80°C)
 ±0,2% of m.v. ±0,08% f.s. (T<-80°C)
 -200 ... +1100°C: ±0,08% of m.v. ±0,1% f.s. (T≥-150°C)
 ±1°C ±0,1% f.s. (T<-150°C)

Type N: -199,9 ... +999,9°C: ±0,03% of m.v. ±0,05% f.s. (T°C)
 ±0,2% of m.v. ±0,05% f.s. (T<-60°C)
 -200 ... +1300°C: ±0,08% of m.v. ±0,1% f.s. (T≥-100°C)
 ±1°C ±0,1% f.s. (T<-100°C)

Type S: 0,0 ... +999,9°C: ±0,05% of m.v. ±0,08% f.s. (T≥200°C)
 ±1°C ±0,08% f.s. (T<200°C)
 -50 ... +1750°C: ±0,1% of m.v. ±0,1% f.s. (T≥200°C)
 ±1°C ±0,1% f.s. (T<200°C)

Type T: -120,0 ... +400,0°C: ±0,03% of m.v. ±0,1% f.s. (T≥-70°C)
 ±0,2% of m.v. ±0,1% f.s. (T<-70°C)
 -200 ... +400°C: ±1°C (T≥-100°C)
 ±1°C ±1digit (T<-100°C)

Temperature drift: 0,01%/K

Point of comparison: ±0,3°C

Working temperature: 0 to +50°C

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

Storage temperature: -20 to +70°C

- 2 plug-in probes can be connected and read simultaneously
- Measuring of temperature differences (probe1 - probe 2) 0,1° or 1° resolution possible.
- 5 different thermocouples can be used! (types K, J, N, S, T)
- Temperature differences can also be measured on metal surfaces and in liquid with non volt-free probes!
- Correction of meas. values for surface meas. can be switched on / off
- Serial interface
- Device can be connected to a bus system (up to 5 devices can be connected to one PC interface)
- Min./Max. value memory, Hold function
- Battery and d.c. operation
- Tare/diff-function
- Zero-point offset entry for each probe

Probe connections: 2 jacks for flat-pin plug

Display: 2 four digit LCDs (12.4mm and/or 7mm high) for temperature, min./max. values, hold function, etc. as well as additional functional arrows.

Interface: Serial interface (3.5mm jack connector), direct connection to RS232 interface of a PC via electrically isolated interface adapter GRS3100 or GRS3105 (p.r.t. accessories).

Min./Max. value memory: Memorizing of max. and min. values for probe 1, probe 2 and difference.

Hold function: By pressing a button the current values for temperature 1, temperature 2 and difference will be memorized.

Pushbuttons: 6 membrane keys for ON/OFF-switch, selection of thermocouples, 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 10-12V direct voltage supply.

(suitable power supply: GNG10/3000)

Low battery warning: Δ and 'bAt'

Power consumption: approx. 2,5 mA

Power-Off-function: Device will be automatically switched off if no key is pressed/no interface communication takes place for the time of the power-off delay. The power-off delay can be set between 1 and 120 min.; it can be completely deactivated

Housing 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 for table top or suspended use

Weight: approx. 155 g

Special applications:

- **Difference measurements:** with a resolution of 0,1° or 1°. Temperature difference probe 1 - probe 2 can be displayed if 2 probes are connected.

- **Compensation value 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.

- **Tare/diff-function:** Press button to set the difference display 'probe 1 - probe 2' to zero

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

Accessories:

please refer to pages: 8, 14/15, 90/91 and 38, 40