

PRECISION QUICK-RESPONSE THERMOMETER FOR THERMOCOUPLES



VERY QUICK RESPONSE TIME!



Connection GMH 3211

HIGHLIGHTS:

- Serial interface (except GMH 3221)
- Correction factor for surface measuring can be switched on / off (switchable) (except GMH 3221)

GMH 3221, GMH 3231 AND GMH 3251:

- 2 plug-in probes can be connected and read simultaneously
- Differential temperature measurement

ADDITIONAL FUNCTIONS

GMH 3221/3231:



GMH 3251:



Connection GMH 3221



Connection GMH 3231/51

GMH 3201

Item No. 474930
Precision second thermometer type K

GMH 3211

Item No. 611381
Precision quick-response thermometer, universal

GMH 3221

Item No. 611384
Precision quick-response thermometer, 2 channel type K

GMH 3231

Item No. 611382
Precision quick-response thermometer, 2 channel universal

GMH 3251

Item No. 611383
Precision quick-response thermometer, 2 channel, logger

TECHNICAL SPECIFICATIONS:	GMH 3201	GMH 3211	GMH 3221	GMH 3231	GMH 3251
Thermocouples:		K, J, T, N, S, E, B		K, J, T, N, S, E, B	K, J, T, N, S, E, B
Measurement channels:	1 thermocouple input (type K compensation material)		2 thermocouple inputs (type K compensation material)		
Measuring ranges					
Type K:	-220.0 .. + 1372.0 °C	-220.0 .. + 1372.0 °C	-220.0 .. + 1372.0 °C	-220.0 .. + 1372.0 °C	-220.0 .. + 1372.0 °C
Type J:	-	-200.0 .. + 1100.0 °C	-	-200.0 .. + 1100.0 °C	-200.0 .. + 1100.0 °C
Type T:	-	-200.0 .. + 400.0 °C	-	-200.0 .. + 400.0 °C	-200.0 .. + 400.0 °C
Type N:	-	-200.0 .. + 1300.0 °C	-	-200.0 .. + 1300.0 °C	-200.0 .. + 1300.0 °C
Type S:	-	-50.0 .. + 1768.0 °C	-	-50.0 .. + 1768.0 °C	-50.0 .. + 1768.0 °C
Type E:	-	-60.0 .. + 850.0 °C	-	-60.0 .. + 850.0 °C	-60.0 .. + 850.0 °C
Type B:	-	+300 .. + 1750 °C	-	+300 .. + 1750 °C	+300 .. + 1750 °C
Accuracy: (at nominal temperature)	± (0.5 °C + 0.2 % of mv.)	± (0.5 °C + 0.2 % of mv.) (J, K, N, T, E) ± (0.8 °C + 0.4 % of mv.) (S, B)	± (0.5 °C + 0.2 % of mv.)	± (0.5 °C + 0.2 % of mv.) (J, K, N, T, E) ± (0.8 °C + 0.4 % of mv.) (S, B)	
Analog output:	No	No	No	No	0..1 V
Alarm:	No	No	No	No	CH1, CH2, CH1 + 2, DIF
Data logger:	No	No	No	No	manually: 1,000 data records automatically: 10,000 data records
Sensor connections (mini flat plug):	1	1	2	2	2
Serial interface:	-	3-pole jack socket Ø 3.5 mm	-	3-pole jack socket Ø 3.5 mm	3-pole jack socket Ø 3.5 mm
Differential measurement:			If 2 sensors are connected, the temperature difference sensor 1 – sensor 2 can be displayed.		
Correction value for surface measurement:	-	adjustable	-	adjustable	adjustable
Power supply:	9V battery	9V battery, mains socket	9V battery	9V battery, mains socket	9V battery, mains socket
Battery life:	approx. 500 h	approx. 500 h	approx. 300 h	approx. 300 h	approx. 300 h

PRECISION QUICK-RESPONSE THERMOMETER FOR THERMOCOUPLES

GENERAL TECHNICAL DATA:	
Resolution:	0.1 °C or 1 °C
Working temperature:	-25 .. + 50 °C
Display:	two 4½-digit LCD displays (12.4 mm or 7 mm high)
Serial interface (except GMH 3201 and GMH 3221):	3-pole jack socket Ø 3.5 mm, can be connected directly to the RS232 or USB interface of a PC via an electrically isolated interface converter GRS 3100/GRS 3105 or USB 3100 N (accessory).
Data logger (only GMH 3251):	manually: 1,000 data records (retrieval of data via keyboard or interface) cyclical: 10,000 data records (data retrieval via interface) adjustable cycle time: 1 s..1 h The logger is started and stopped via the keyboard or interface. A convenient software GSOFT 3050 (accessory) is available for reading out the logger data.
Housing	Made of impact-resistant ABS, membrane keyboard, transparent panel, integrated pop-up clip
Dimensions:	142 x 71 x 26 mm (H x W x D)
Nominal temperature:	25 °C ± 5 K
Weight:	approx. 155 g
Scope of delivery:	Device, battery, test report, operating instructions

SPECIAL FEATURE (EXCEPT GMH3201 AND -21):
For each probe connection, a correction factor can be entered for surface measurements... This corrects the temperature difference of the measuring surface relative to the ambient temperature optimally in order to obtain the most precise surface measurements possible. Such as in applications where infrared thermometers have their weaknesses, for example on shiny metallic surfaces!

ACCESSORIES OR SPARE PARTS:	
GB 9 V Item No. 601115 Spare battery 9 V, type IEC 6F22	
GNG 10/3000 Item No. 600273 Plug power supply for GMH 3XXX series, (220/240 V, 50/60 Hz), output voltage 10.5 V / 10 mA, suitable for devices with a power supply socket	
ST-RN Item No. 601074 GMH 3000 protective bag made of Nappa leather, 2 connections (1 x round, 1 x rectangular)	
ST-N2 Item No. 601072 GMH 3000 protective bag made of Nappa leather, 2 rectangular connections	
GKK 1100 Item No. 601060 Case with knob foam for universal use, 340 x 275 x 83 mm (W x H x D)	

16-CHANNEL PRECISION QUICK-RESPONSE THERMOMETER FOR THERMOCOUPLES

- AUTOOFF
- HOLD
- ISO
- LOGG
- MIN MAX
- 0-CORR



- HIGHLIGHTS:**
- Simultaneous display of 4 inputs
 - 800,000 measurement data can be saved
 - For thermocouples type K, J, T, N, R, S, B, E

16 INTERCHANGEABLE SENSORS CAN BE CONNECTED AT THE SAME TIME



HD32-8-16
Item No. 700077
Precision thermocouple thermometer with 16 inputs and logger

GENERAL:
Ideal for complex temperature measurement tasks in which many temperature values are to be recorded, measured, saved and displayed at the same time.

APPLICATION:
Testing and experimental systems, drying and baking ovens, air conditioning centers, production and manufacturing processes, monitoring of the temperature in concrete or asphalt of streets and buildings

TECHNICAL SPECIFICATIONS:	
Thermocouples:	K, J, T, N, R, S, B, E
Resolution:	0.05 °C or 0.1 °C
Measuring range: (depending on the thermocouple)	Type K: -200 °C .. + 1370 °C Type R: +200 °C .. + 1480 °C Type J: -100 °C .. + 750 °C Type S: +200 °C .. + 1480 °C Type T: -200 °C .. + 400 °C Type B: +200 °C .. + 1800 °C Type N: -200 °C .. + 1300 °C Type E: -200 °C .. + 750 °C
Accuracy: (depending on thermocouple)	± 0.1 .. ± 0.4 °C
Sensor connections:	16
Working conditions:	-5..+50 °C working temperature, -25..+65 °C storage temperature, 0..90 % relative humidity
Logger function:	800,000 records
Display:	Backlit LCD display, 128 x 64 pixels, enables 4 measured values to be displayed at the same time
Serial interface:	Communication via galvanically isolated 9-pin USB connecting cable
Power supply:	4 x 1.5 V alkaline batteries, via external 12 V DC power supply or via the interface on the PC
Housing:	ABS, IP64
Dimensions:	180 x 220 x 50 mm (H x W x D)
Weight:	1100 g
Scope of delivery:	Device, DeltaLog9 software, lanyard, batteries, manual

ACCESSORIES OR SPARE PARTS:	
SWD-10 Item No. 700039 Power supply plug for HD portable instruments, 100 .. 240 V AC	
CP22 Item No. 700078 Interface converter HD32-8 <=> PC, USB	

Note: Connection cables for the PC and temperature sensors must be ordered separately.

PORTABLE INSTRUMENTS

SOFTWARE

ACCESSORIES

ALARM / PROTECTION, LEVEL