CONDUCTIVITY MEASURING DEVICE

STANDARD-FUNCTIONS:

AUTO OFF · AUTO RANGE · BAT · HOLD · MIN MAX



DISPLAY OF RESISTIVITY, SALINITY OR TDSTDS

CONFORM TO THE REGULATIONS OF THE DRINKING WATER ORDINANCE (TRINKWV 2001) AND DIN EN 27888

ADDITIONAL FUNCTIONS GMH 3451:

ALARM · LOGG

GMH 3431

Product-ID: 601917

Conductivity measuring device incl. 2-pole measuring cell

GMH 3451

Product-ID: 601919

Conductivity measuring device incl. 4-pole measuring cell, with data logger

Specifications:	
Measuring range:	
Conductivity:	0.0 ... 200.0 µS/cm 0 ... 2000 µS/cm 0.00 ... 20.00 mS/cm 0.0 ... 200.0 mS/cm 0 ... 400 mS/cm **(only GMH 3451)** manually selectable or AutoRange
Temperature:	-5.0 ... +100.0 °C
Resistivity:	0.005 ... 100.0 kOhm * cm
Salinity:	0.0 ... 70.0 g / kg water
TDS:	0 ... 1999 mg/l
Accuracy: (±1 digit) (at nominal temperature = 25 °C)	
Conductivity:	±0.5% of m.v ±0.3 % FS or ±2 µS/cm
Temperature:	±0.2% of m.v ±0.3 K
Cell correction:	adjustable 0.800 ... 1.200 cm^{-1}, manually or automatically with selectable reference solution
Temperature compensation:	off or automatically (by temperature sensor integrated to electrode)
Type of compensation:	-nLF: Non-linear function of natural waters acc. to DIN EN 27888 (ISO 7888) (Reference temperature selectable: 20 °C or 25 °C) -Lin: linear compensation from 0.3 ... 3.0 % / K (Reference temperature selectable: 20 °C or 25 °C) -off: no compensation.
Display:	two 4-digit LCD displays (12.4 and 7 mm high) for current conductivity (resistivity, salinity, TDS) and temperature, or for min-, max- value, hold function, etc. and additional indicator arrows.
Measuring cell:	Conductivity measuing cell with integrated temperature sensor in shaft. Electrode material: graphite. Shaft material: PPE, PS (GMH 3431), Epoxide (GMH 3451). The graphite electrodes are the optimum solution for sewage and can be cleaned easily.
Warranty for sensor element:	12 months
Working conditions:	device: -25 ... +50 °C, 0 ... 95 % RH; measuring cell: -5 ... +80 °C (permanent), up to +100 °C (short-term)
Relative humidity:	0 ... +95 % RH (non condensing)
Interface:	serial interface; connectable to RS232 or USB interface of PCs via electrically isolated interface converter GRS 3100, GRS 3105 or USB 3100 N (accessories).
Operation buttons:	6 membrane keys for ON/OFF-switch, selection of meas. range, min- and max-value memory, hold-function, etc.
Power supply:	9 V-battery as well as additional PSU connector (internal pin Ø 1.9 mm) for external 10.5-12 V DC supply. (suitable power supply: GNG10/3000)
Power consumption:	approx. 2 mA
Dimensions (device):	142 x 71 x 26 mm (L x W x D) impact-resistant ABS housing, membrane keyboard, transparent panel. Front side IP65, integrated pop-up clip for table top or suspended use.
Dimensions (electrode shaft):	approx. 120 mm long, Ø approx. 12 mm, 1 m of fixed connection cable between electrode and device
Weight:	approx. 230 g (incl. battery and measuring cell)
Scope of supply:	Device incl. measuring cell, battery, manual

Additional functions:

Salinity determination:
Salinity is understood to be the sum of concentrations of all salts dissolved in water. Displayed in g/kg.
TDS-determination (total dissolved solids):
The dry residue of filtrate is understood to be the concentration of substances dissolved in a liquid. Displayed in mg/l

Additional functions GMH 3451:

Analog output:
0 - 1 V, freely scalable, connection via 3-pole jack socket
Ø 3.5 mm, resolution 13 bit, accuracy 0.05 % at nominal temperature
4-pole measuring cell:
Better long-term stability at high conductivity values (>20 mS / cm) and for harsh environments, stable measuring values even in polluted media (e.g. sewage, salt water)
data logger:
cyclic 10,000 data sets, manual: 1,000 data sets (with measuring point input, 40 adjustable measuring point texts or measuring point numbers)

Option:

LTG
for organic matter (alcohol, petrol, diesel)
up to 1000 µS/cm with glass shaft, platinum electrodes,
1.35 m PUR-cable permanently connected to device



Accessories and spare parts:

GKL 100
Product-ID: 601396
100 ml conductivity test solution
(100 ml bottle with 1413 µS/cm, acc. to DIN EN 27888)