CONDUCTIVITY MEASURING DEVICE

ISO
AUTOOFF
AUTORANGE
HOLD
MIN MAX





HIGHLIGHTS:

- Display of resistivity, salinity or TDS (total dissolved solids)
- Conform to the regulations of the drinking water ordinance (TrinkwV 2001) and DIN EN 27888

ADDITIONAL FUNCTIONS GMH 3451:

ALARM LOGG

GMH 3431

Art. no. 601917

Conductivity measuring device incl. 2-pole measuring cell

GMH 3451

Art. no. 601919

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

General:

Intelligent set with 2-pole measuring cell for tap water, etc., 4-pole worry-free package also suitable for continuous measurement in high conductivity ranges (e.g. salt water)

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 **(GMH 3451 only)** 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:	automatically or off, 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. GMH 3431: 2-pole; GMH 3451: 4-pole
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).
Pushbuttons:	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)
Battery life:	approx. 150 h
Housing:	Impact-resistant ABS plastic housing, membrane keyboard, transparent panel, integrated pop-up clip
Dimensions:	Device: 142 x 71 x 26 mm (H x W x D) 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, calibration protocol,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)

Variants:

GMH 3431-LTG
Art. no. 608399
GMH 3451-LTG
Art. no. 610028



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
Art. no. 601396
100 ml conductivity test solution (100 ml bottle with 1413 µS / cm, acc. to DIN EN 27888)