12 Specification

Measuring principle electrochemical CO measuring cell

Measuring range 0 ... 1000 ppm CO-concentration

Display ranges 0 ... 1000 ppm CO-concentration
0 ... 1250 mg/m³ CO- concentration *(conversion of the ppm value with factor at norm-conditions)*
0 ... 60.0 % COHb (estimation of the carboxy-haemoglobin of blood via exhaled breath gas)

Resolution 1 ppm, 1 mg/m³ or 0.1 % COHb

Reaction time in ambient: diffusion < 50 sec
T90 at 0,5l/min gas flow: < 20sec

Life time meas. cell >5 years at proper usage at air
suggested test interval: every 6months (depending on precision requirements)

Accuracy linearity **<**±5 % of measured value ±1 digit, repeatability **<**±5 % of measured value
(at range 0 ... 500 ppm). Calibration protocol in scope of supply

Interference

gas	concentration (ppm)	residence time (minutes)	display (ppm CO)
hydrogen sulphide	25	5	0
sulphur dioxide	50	600	<1
nitrogen dioxide	50	900	-1
nitric oxide	50	5	8
chlorine	2	5	0
hydrogen	100	5	20
Carbon dioxide	5000	5	0
ammonia	100	5	0
ethanol	2000	30	5
iso-propanol	200	120	0
acetone	1000	5	0
acetylene	40	5	80

Nominal temperature 25°C

Ambient condition temperature -10 ... +50 °C , for short time -20 ... +50 °C
humidity 15 ... 90 %RH (non-condensing), for short time 0 ... 90 %RH

Storage temperature -10 ... +50 °C

Housing impact-resistant ABS, membrane keyboard, transparent panel,
Front side IP65, integrated pop-up clip for table top or suspended use.

Dimensions 142 x 71 x 26 mm (L x W x D)

Wight approx. 155 g

Power supply 9V-battery (in scope of supply),
as well as additional d.c. connector (diameter of internal pin 1.9 mm) for external 10.5-12V direct voltage supply. (suitable power supply: GNG10/3000)

Power consumption < 0,20mA (with standard battery > 1500 operating hours)

Display approx. 11 mm high, 4½-digit LC-display with additional elements

Pushbuttons 3 membrane keys for on/off, menu handling, MAX/Hold-function, etc.

Hold-/Maxfunction by keypress the current measuring will be “frozen” (HLD), max. measured value will be stored (MAX)

Alerting adjustable alarm rail, value depending alarm sound, display alarm: flashing „AL.Hi“
additionally signalling of exceeding of the MAK-value („>MAK“-arrow)

Power-Off-function the device will be automatically switched of if no key is pressed or no interface communication takes place for the time of the power-off delay.
The power-off delay can be set to values between 1 and 120 minutes or can be completely deactivated

Directives / standards The instruments confirm to following European Directives:
2014/30/EU EMC Directive
2011/65/EU RoHS
Applied harmonized standards:
EN 61326-1 : 2013 emissions level: class B,
emi immunity acc. to table A.1
Additional fault: <1%
EN 50581 : 2012.