Technical data sheet

EX-TEC® GM 4

Device data	
Dimensions (W x D x H)	approx. 60 x 144 x 35 mm
Weight	approx. 300 g

Certificates	
Certificate	TÜV 01 ATEX 1657 II2G Ex e ib IIB T4 Gb basic device without leather bag for: every gas except hydrogen II2G Ex e ib IIC T4 Gb basic device with leather bag for: every gas including hydrogen

Device elements	
Display	monochromatic graphic display, 65 x 132 pixels
Buzzer	frequency 2.4 kHz, volume 75 dB (A) / 1m
Signal light	red
Pump capacity	vacuum > 150 mbar, volume flow approx. 5 – 15 l/h
Interface	via HG 4 docking station with interface
Operation	three keys, menu guided

Operating conditions	
Operating temperature	-10 °C – +40 °C (basic device, for more information see sensor data)
Storage temperature	-25 °C – +55 °C (temperatures above 40 °C reduce the lifetime of the sensor)
Humidity	10 – 90 % r.h., non-condensing (basic device, for more information see sensor data)
Atmospheric pressure	800 – 1200 hPa
Protection rating	IP54

Power supply	
Power supply	NiMH rechargeable or disposable alkaline batteries, type Mignon (AA)
Operating time, typical	20 h (pump device) 50 h (diffusion device)
Charging time	approx. 12 h (fully charged) depends on capacity
Charging voltage	12 V DC
Charging current	360 mA (synchronised)

Electrochemical sensor carbon monoxide CO	
Measuring range	0 – 500 ppm
Resolution	1 ppm
Response times	t50 < 10 s, t90 < 30 s
Warm-up time	approx. 1 min
Measuring error	±10 % or ±3 ppm (±3 digits)
Interference	– 1000 ppm H2: 250 ppm – 100 ppm NO: 25 ppm
Operating temperature	-10 °C – +40 °C
Humidity	10 – 95 % r.h., non-condensing
Lifetime, expected	36 months

Electrochemical sensor hydrogen H2	
Measuring range	0 – 1.0 % vol.
Resolution	1 ppm
Response times	t50 < 40 s, t90 < 70 s
Warm-up time	approx. 1 min
Measuring error	±10 % or ±3 ppm (±3 digits)
Interference	– 5 ppm Cl: 40 ppm – 50 ppm CO: 6 ppm – C2H4 (yes, not defined)
Operating temperature	-10 °C – +40 °C
Humidity	10 – 95 % r.h., non-condensing
Lifetime, expected	24 months

Electrochemical sensor hydrogen sulphide H2S (100 ppm)	
Measuring range	0 – 100 ppm
Resolution	1 ppm
Response times	t50 < 15 s, t90 < 30 s
Warm-up time	approx. 1 min
Measuring error	±10 % or ±3 ppm (±3 digits)
Interference	– 20 ppm Cl: -1 ppm – 100 ppm CO: 6 ppm – 500 ppm C2H4: 2 ppm – 1 % vol. H2: 200 ppm – 10 ppm hydrocyanic acid: 1 ppm – SO2: yes, not defined
Operating temperature	-20 °C – +40 °C
Humidity	15 – 90 % r.h., non-condensing
Lifetime, expected	36 months

Electrochemical sensor hydrogen sulphide H2S (2000 ppm)	
Measuring range	0 – 2000 ppm
Resolution	2 ppm
Response times	t50 < 30 s, t90 < 90 s
Warm-up time	approx. 1 min
Measuring error	±10 % or ±3 ppm (±3 digits)
Interference	– 20 ppm Cl: -1 ppm – 100 ppm CO: 6 ppm – 500 ppm C2H4: 2 ppm – 1 % vol. H2: 200 ppm – 10 ppm hydrocyanic acid: 1 ppm – SO2: yes, not defined
Operating temperature	-20 °C – +40 °C
Humidity	15 – 90 % r.h., non-condensing
Lifetime, expected	36 months

Electrochemical sensor ammonia NH3	
Measuring range	0 – 100 ppm
Resolution	1 ppm
Response times	t50 < 20 s, t90 < 60 s
Warm-up time	approx. 1 min
Measuring error	±10 % or ±3 ppm (±3 digits)
Interference	H2: yes, not defined
Operating temperature	-20 °C – +40 °C
Humidity	10 – 95 % r.h., non-condensing
Lifetime, expected	24 months

Electrochemical sensor oxygen O2	
Measuring range	0 – 25 % vol.
Resolution	0.1 % vol.
Response times	t90 < 30 s
Warm-up time	approx. 1 min
Measuring error	±10 % or ±0.3 % vol. (±3 digits)
Interference	H2: yes, not defined
Operating temperature	-20 °C – +40 °C
Humidity	5 – 95 % r.h., non-condensing
Lifetime, expected	24 months

106644 – 06-06-2012 – Subject to technical changes.