Technical Data Sheet

Multitec® 540

Device data	
Dimensions (W x D x H)	approx. 148 x 57 x 205 mm approx. 148 x 57 x 253 mm with supporting bracket
Weight	approx. 1000 g, depending on equipment

Certificates	
Certificate	TÜV 07 ATEX 553353 X II2G Ex d e ib IIB T4 Gb Basic device without leather bag for: CH4, C3H8, C4H10, C9H20, H2S, CO II2G Ex d e ib IIC T4 Gb Basic device with leather bag for: CH4, C3H8, C4H10, C9H20, H2S, CO, H2

Device elements	
Display	monochromatic graphic display, 320 x 240 pixels
Buzzer	frequency 2.4 kHz, volume 80 dB (A) / 1 m
Signal light	red
Pump	vacuum: > 250 mbar volume flow: typically 50 l/h ±20 l/h
Port	USB 2.0
Data memory	8 MB
Operation	ON/OFF key, 3 function keys, jog dial

Operating conditions	
Operating temperature	-20 °C – +40 °C
Storage temperature	-25 °C – +60 °C (temperatures above 40 °C reduce the service life of the sensors)
Humidity	5 – 90 % r.h., non-condensing
Atmospheric pressure	800 – 1100 hPa
Pressure at gas inlet	-175 – +65 hPa
Protection rating	IP54

Power supply	
Power supply	NiMH rechargeable or disposable alkaline batteries, size AA
Operating time, typical	at least 8 h
Battery capacity	2500 mAh
Battery voltage	rechargeable batteries: 4 x 1.2 V disposable batteries: 4 x 1.5 V
Charging time	approx. 3 h (complete charge), depending on capacity
Charging temperature	0 °C – +30 °C
Charging voltage	12 V DC
Charging current	max. 1 A

Infrared sensor CH4 % vol. range	
Measuring range	0 – 100 % vol.
Resolution	0.1 % vol. (0 – 79.9 % vol.) 1 % vol. (80 – 100 % vol.)
Response times	t50 < 9 s, t90 < 17 s
Temperature range	-20 °C – +40 °C
Measuring error	±1.5 % from upper range value
Interference	all hydrocarbons
Lifetime, expected	5 years

Infrared sensor CO2 % vol. range	
Measuring range	0 – 100 % vol.
Resolution	1 % vol.
Response times	t90 < 20 s
Temperature range	-20 °C – +40 °C
Measuring error	±1.5 % from upper range value
Interference	none
Lifetime, expected	5 years

Electrochemical sensor oxygen O2	
Measuring range	0 – 25 % vol.
Resolution	0.1 % vol.
Response times	t90 < 15 s
Warm-up time	approx. 1 min
Temperature range	-20 °C – +40 °C
Measuring error	±3 % or ±0.3 % vol. (±3 digits)
Interference	none
Lifetime, expected	24 months

Electrochemical sensor carbon monoxide CO	
Measuring range	0 – 500 ppm
Resolution	1 ppm
Response times	t90 < 30 s
Warm-up time	approx. 1 min
Temperature range	-20 °C – +40 °C
Measuring error	±10 % or ±3 ppm (±3 digits) ±5 ppm (long-term stability as per EN 45544)
Interference	at 20 °C – 3000 ppm H2: approx. 1000 ppm CO – 100 ppm NO; approx. 25 ppm CO
Lifetime, expected	36 months

Electrochemical sensor Hydrogen sulphide H2S	
Measuring range	0 – 2000 ppm
Resolution	1 ppm (0 – 100 ppm) 2 ppm (100 – 998 ppm) 0.02 % vol. / 200 ppm (0.10 – 0.2 % vol.)
Response times	t90 < 30 s
Warm-up time	approx. 1 min
Temperature range	-20 °C – +40 °C
Measuring error	±3% or ±3ppm (±3 digits) ±3 ppm (long-term stability)
Interference	at 20 °C – 100 ppm CO: approx. 1 ppm H2S – 1 % vol. H2: approx. 10 ppm H2S – 100 ppm NO2: approx. 3 ppm H2S
Lifetime, expected	24 months

106660 – 26-01-2015 – Subject to technical changes.