SEWERIN
Technologies for leak detection.

EX-TEC® HS 680

EX-TEC® HS 680 · 660 · 650 · 610

Combination measuring devices
for gas supply with integrated ethane detector

Cutting edge technology for gas supply

Products from the ***EX-TEC® HS*** family combine ergonomics with cutting edge technology.

Thanks to its innovative design this range offers the user the right instrument for different applications. You can find more details about the appliance configuration opposite.

All appliances from the ***EX-TEC® HS*** family meet the requirements of DVGW worksheet 465-4 (German Association of Gas and Water Specialists).

Notes

Ergonomics / operation

- Operated by jog dial, function keys and menu navigation
- Large matrix display with backlight
- Power supply via 4 changeable AA-size rechargeable batteries or disposable batteries
- Quick charging in 4 hrs, can also be charged without docking station
- PC communication via USB

Safety

- Explosion protection: TÜV 07 ATEX 553353 X ⟨Ex⟩ II2G Ex d e ib IIB T4, IIC when used with carrying bag TG8
- Measuring function: BVS 09 ATEX G 001 X, PFG 08 G 002 X (measuring function ***EX-TEC® HS 680***, ***650*** only)

Measuring technology

- Selective infrared sensors for hydrocarbons and carbon dioxide
- Fast and highly-sensitive semiconductive sensor
- Three optional electro-chemical sensors for oxygen and toxic gases
- Gas type setting: methane (standard), propane and butane (optional)
- Optional: ethane analysis to distinguish natural gas/swamp gas without any other accessories

Applications

Application	Measurement ranges	Active principle
Inspection above ground	0 ppm – 10 % vol. CH_4	Gas-sensitive semiconductor Infrared sensor
Measuring in bar holes	0.0 – 100 % vol. CH_4 0 – 30 % vol. CO_2	Infrared sensor Infrared sensor
Enclosed spaces	0 ppm – 100 % vol. CH_4	Gas-sensitive semiconductor Infrared sensor
House	0 ppm – 100 % vol. CH_4	Gas-sensitive semiconductor Infrared sensor
Explosion warning	0 – 100 % lower explosive limit CH_4	Infrared sensor
Warning ExTox	0 – 100 % lower explosive limit CH_4 0 – 5 % vol. CO_2 0 – 25 % vol. O_2 (optional) 0 – 100 ppm H_2S (optional) 0 – 500 ppm CO (optional)	Infrared sensor Infrared sensor Electro-chemical sensor Electro-chemical sensor Electro-chemical sensor
Measuring, gas purity	0.0 – 100 % vol. CH_4	Infrared sensor
Ethane analysis	CH, CH_4, C_2H_6, C_3H_8 (optional)	Gas-sensitive semiconductor / gas chromatograph

Ethane analysis

Increased safety and efficiency with innovative technology

The ***EX-TEC® HS*** product family helps the user clearly detect leaks in underground pipes.

To avoid costly and time-consuming pointless excavations, it must be absolutely certain that the gas is actually leaking from a natural gas pipeline. Locating the exact position of the leak also keeps shaft work to a minimum. ***EX-TEC® HS*** appliances offer new possibilities in this respect.

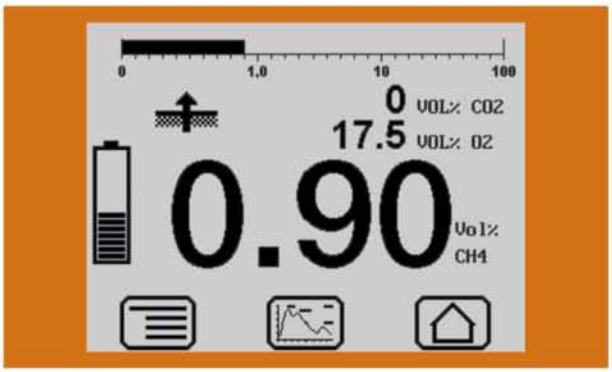
If the gas has dispersed over a wide area, it is often difficult to pinpoint the leak exactly. In many cases the gas gathers under fixed surfaces and spreads over long distances.

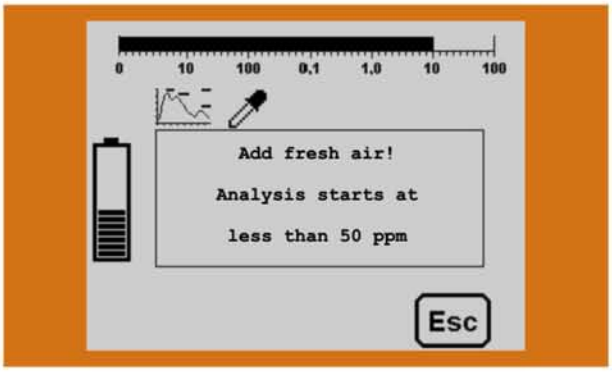
The optional oxygen sensor can also display the oxygen minimum at the same time as the methane maximum. This minimum, with its smaller diffusion area, is used to locate complex leaks more precisely.

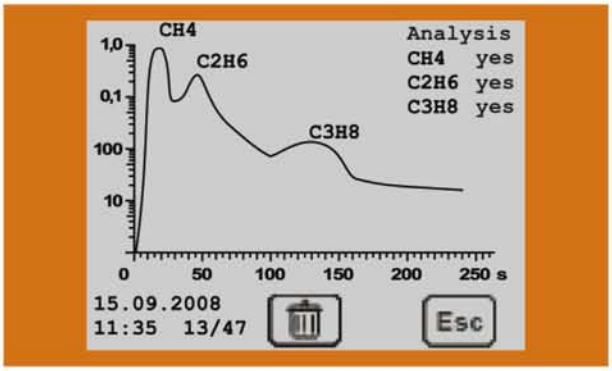
The integrated ethane detector easily picks up whether the gas is natural gas or swamp gas. The user does not need any extra accessories or specialist knowledge.

The ***EX-TEC® HS 680/660*** guides the user through the ethane analysis with prompts.

The definitive result can be saved and further processed on the PC using the integrated USB port.







Methane applications

Choosing a model

Model	Inspection above ground	House	Explosion warning	Warning ExTox	Enclosed spaces	Measuring in bar holes	Measuring gas purity
EX-TEC® HS 680	X	X	X	X	X	X	X
EX-TEC® HS 660	X	X			X	X	X
EX-TEC® HS 650			X	X		X	X
EX-TEC® HS 610						X	X

X = integrated

Additional equipment

Model	Ethane detector	XT O_2 sensor	XT CO sensor	XT H_2S sensor 100 ppm
EX-TEC® HS 680	O	O	O	O
EX-TEC® HS 660	O	O		
EX-TEC® HS 650		O	O	O
EX-TEC® HS 610		O		

O = optional

Technical information

Detectable gases:	Gas database with calibration for methane, carbon dioxide and other gases, e.g. propane, butane
Operating time:	min. 8.0 hrs
Power supply:	4 NiMH batteries, rechargeable or 4 AA-size alkaline batteries
Protection rating:	IP54
Operating temperature:	-10 °C – +40 °C
Storage temperature:	-25 °C – +50 °C
Pressure:	950 hPa to 1100 hPa
Humidity:	15% r.h. to 90% r.h., non-condensing
Dimensions (W x D x H):	148 x 57 x 205 mm 253 mm (incl. supporting bracket)
Weight:	approx. 1000 g

Accessories

- Charging equipment for 12 V=, 24 V= and 230 V~
- Docking station/wall mount
- System case
- Gas detection probes/localisation probes
- Test sets and test gases

System case for network survey

- ***EX-TEC® HS 680***
- Docking station TG 8
- AC/DC adapter
- Floating probe
- Flexible hand probe with probe hose
- Localisation probe
- Bell probe

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