

Technical specifications: G999C / G999M / G999E / G999P



Type designations	G999C (with slot for a catalytic combustion sensor CC) G999M (with slot for a catalytic combustion sensor CC) G999E (with slot for a fourth electrochemical sensor EC) G999P (with slot for a photoionization sensor PID)								
Measuring principle	Electrochemical (EC): for toxic gases and oxygen Photoionization (PID): for toxic flammable gases and vapors Catalytic combustion (CC): for flammable gases and vapors (up to 100%LEL) Infrared (IR): for flammable gases and vapors and carbon dioxide								
Measuring ranges	sensor dependent								
Response time	sensor dependent								
Expected average life of the sensor	sensor dependent								
Measuring gas supply	via the diffusion opening while the pump is switched off or via the suction opening during the pump operation (sensor cover closed)								
Pump capacity	0,5...0,6slpm @0kPa / 0,30slpm @-4kPa / 0,0slpm@-10kPa max. 100 m hose length (depending on the measuring gas and hose)								
Display	illuminated LCD full graphics display, automatic size setting for optimum reading, displays the battery capacity, gas concentration as current value and peak value								
Alerting	depending on the gas type 3 or 2 momentary value and 2 exposure level alarms, battery alarm with visual and acoustical signaling as well as display on the screen, color of the display depending on the alarm state (orange/red). Horn: 103 dB(A) (can be reduced to 90 dB(A))								
Zero point and sensitivity adjustment	manual or automatic with an adjustment program, if necessary, test gas supply via the "SMART CAP" with 0.5...0.6slpm								
Radio	optional 868MHz for EU; range approx. 700 m (free field) optional 915MHz for USA; range approx. 300 m (free field)								
Power supply	NiMH battery module; 5,2V 2100mAh; rechargeable								
Operating time (*1)	<table border="0"> <tr> <td>without radio:</td> <td>approx. 26h (EC+CC_{PS}+IR) approx. 42h (EC+CC_{PS}) approx. 52h (EC+PID) approx. 130h (EC)</td> <td>approx. 18h (EC+CC+IR) approx. 25h (EC+CC) approx. 30h (EC+PID+IR) approx. 47h (EC+IR)</td> <td>approx. 11h (EC+CC+IR+Pmp) approx. 13h (EC+CC+Pmp) approx. 14h (EC+PID+IR+Pmp) approx. 17h (EC+IR+Pmp)</td> </tr> <tr> <td>with radio:</td> <td>approx. 20h (EC+CC_{PS}+IR) approx. 28h (EC+CC_{PS}) approx. 33h (EC+PID) approx. 52h (EC)</td> <td>approx. 15h (EC+CC+IR) approx. 19h (EC+CC) approx. 22h (EC+PID+IR) approx. 30h (EC+IR)</td> <td>approx. 10h (EC+CC+IR+Pmp) approx. 11h (EC+CC+Pmp) approx. 12h (EC+PID+IR+Pmp) approx. 14h (EC+IR+Pmp)</td> </tr> </table>	without radio:	approx. 26h (EC+CC _{PS} +IR) approx. 42h (EC+CC _{PS}) approx. 52h (EC+PID) approx. 130h (EC)	approx. 18h (EC+CC+IR) approx. 25h (EC+CC) approx. 30h (EC+PID+IR) approx. 47h (EC+IR)	approx. 11h (EC+CC+IR+Pmp) approx. 13h (EC+CC+Pmp) approx. 14h (EC+PID+IR+Pmp) approx. 17h (EC+IR+Pmp)	with radio:	approx. 20h (EC+CC _{PS} +IR) approx. 28h (EC+CC _{PS}) approx. 33h (EC+PID) approx. 52h (EC)	approx. 15h (EC+CC+IR) approx. 19h (EC+CC) approx. 22h (EC+PID+IR) approx. 30h (EC+IR)	approx. 10h (EC+CC+IR+Pmp) approx. 11h (EC+CC+Pmp) approx. 12h (EC+PID+IR+Pmp) approx. 14h (EC+IR+Pmp)
without radio:	approx. 26h (EC+CC _{PS} +IR) approx. 42h (EC+CC _{PS}) approx. 52h (EC+PID) approx. 130h (EC)	approx. 18h (EC+CC+IR) approx. 25h (EC+CC) approx. 30h (EC+PID+IR) approx. 47h (EC+IR)	approx. 11h (EC+CC+IR+Pmp) approx. 13h (EC+CC+Pmp) approx. 14h (EC+PID+IR+Pmp) approx. 17h (EC+IR+Pmp)						
with radio:	approx. 20h (EC+CC _{PS} +IR) approx. 28h (EC+CC _{PS}) approx. 33h (EC+PID) approx. 52h (EC)	approx. 15h (EC+CC+IR) approx. 19h (EC+CC) approx. 22h (EC+PID+IR) approx. 30h (EC+IR)	approx. 10h (EC+CC+IR+Pmp) approx. 11h (EC+CC+Pmp) approx. 12h (EC+PID+IR+Pmp) approx. 14h (EC+IR+Pmp)						
Climatic conditions	for operation: -20...+50°C 5...95%r.h. 70...130kPa for storage: -25...+55°C 5...95%r.h. 70...130kPa (recommended 0...+30°C)								
Housing	Material: rubberized polycarbonate Dimensions: 68 x 136 x 39 mm (W x H x D) Weight: up to 395 g (depending on sensor configuration) Protection class: IP67								

Technical specifications: G999C / G999M / G999E / G999P



Approvals / Tests

Markings and ignition protection types:	G999C	⊕ I M2 Ex ia db I Mb	⊕ II 2G Ex ia db IIC T4 Gb	-20°C ≤ Ta ≤ +50°C
	G999M	⊕ I M2 Ex ia db I Mb	⊕ II 2G Ex ia db IIC T4 Gb	-20°C ≤ Ta ≤ +50°C
		⊕ I M1 Ex ia da I Ma	⊕ II 1G Ex ia da IIC T4 Ga	-20°C ≤ Ta ≤ +40°C
	G999E	⊕ I M1 Ex ia I Ma	⊕ II 1G Ex ia IIC T4 Ga	-20°C ≤ Ta ≤ +50°C
	G999P	⊕ I M1 Ex ia I Ma	⊕ II 1G Ex ia IIC T4 Ga	-20°C ≤ Ta ≤ +50°C
EU Type Examination Certificate:	BVS 15 ATEX E 064 X			
IECEX Certificate of Conformity:	IECEX BVS 15.0056 X			
Electromagnetic compability:	DIN EN 50270:2015		Interference emission: Type class I	Interference immunity: Type class II

to (*1): The service life is indicated for new battery modules at operating temperatures of +20°C. It will be reduced by pressing buttons (display lighting & lamp), by using the pump and by gas alarms. It is reduced with the age of the battery module, with the number of the charging / discharging cycles, by longer storage of the gas measurement device in the charging tray and the lazy battery effect.
CC_{ps} = Catalytic sensor with activated PowerSave mode if a reading of 0%LEL is detected.
This energy saving mode can only be activated for certain measuring ranges.