

Technical specifications: G450



Measuring principle	Electrochemical (EC): for toxic gases and oxygen Catalytic combustion (CC): for flammable gases and vapors (up to 100%LEL)																								
Measuring ranges	sensor dependent																								
Response time	sensor dependent																								
Expected average life of the sensor	sensor dependent																								
Measuring gas supply	Diffusion with flow velocity of 0...6 m/s or pump by means of attachable electrical sampling pump G400-MP2																								
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" or the „SMART CHARGER CAP" with 0.5...0.6slpm																								
Power supply	1. NiMH battery module A21 (colour: black), 2100mAh rechargeable 2. NiMH battery module F25 (colour: black), 2500mAh rechargeable Im=600mA (max. charging current) Um=6V DC (max. voltage) or 3. Alkaline battery module (colour grey), non-rechargeable with 2x Mignon 1,5V Type: DURACELL PROCELL MN1500 LR6 AA or INDUSTRIAL BY DURACELL ID1500 AA (LR6)																								
Operating time (*1)	<table border="0"> <tr> <td>NiMH-II A21:</td> <td>approx. 13h (EC+CC);</td> <td>approx. 25h (EC+CC_{CH4});</td> <td>approx. 120h (EC)</td> </tr> <tr> <td>NiMH F25:</td> <td>approx. 15h (EC+CC);</td> <td>approx. 30h (EC+CC_{CH4});</td> <td>approx. 130h (EC)</td> </tr> <tr> <td>Alkaline:</td> <td>approx. 14h (EC+CC);</td> <td>approx. 25h (EC+CC_{CH4});</td> <td>approx. 170h (EC)</td> </tr> </table>	NiMH-II A21:	approx. 13h (EC+CC);	approx. 25h (EC+CC _{CH4});	approx. 120h (EC)	NiMH F25:	approx. 15h (EC+CC);	approx. 30h (EC+CC _{CH4});	approx. 130h (EC)	Alkaline:	approx. 14h (EC+CC);	approx. 25h (EC+CC _{CH4});	approx. 170h (EC)												
NiMH-II A21:	approx. 13h (EC+CC);	approx. 25h (EC+CC _{CH4});	approx. 120h (EC)																						
NiMH F25:	approx. 15h (EC+CC);	approx. 30h (EC+CC _{CH4});	approx. 130h (EC)																						
Alkaline:	approx. 14h (EC+CC);	approx. 25h (EC+CC _{CH4});	approx. 170h (EC)																						
Climatic conditions	<table border="0"> <tr> <td>for operation:</td> <td>-20...+55°C 5...95%r.h. 70...130kPa</td> </tr> <tr> <td>for storage:</td> <td>-25...+60°C 5...95%r.h. 70...130kPa (recommended 0...+30°C)</td> </tr> </table>	for operation:	-20...+55°C 5...95%r.h. 70...130kPa	for storage:	-25...+60°C 5...95%r.h. 70...130kPa (recommended 0...+30°C)																				
for operation:	-20...+55°C 5...95%r.h. 70...130kPa																								
for storage:	-25...+60°C 5...95%r.h. 70...130kPa (recommended 0...+30°C)																								
Housing	<table border="0"> <tr> <td>Material:</td> <td>rubberized plastic</td> </tr> <tr> <td>Dimensions:</td> <td>75 x 110 x 55 mm (W x H x D)</td> </tr> <tr> <td>Weight:</td> <td>up to 290 g (depending on sensor configuration)</td> </tr> <tr> <td>Protection class:</td> <td>IP67</td> </tr> </table>	Material:	rubberized plastic	Dimensions:	75 x 110 x 55 mm (W x H x D)	Weight:	up to 290 g (depending on sensor configuration)	Protection class:	IP67																
Material:	rubberized plastic																								
Dimensions:	75 x 110 x 55 mm (W x H x D)																								
Weight:	up to 290 g (depending on sensor configuration)																								
Protection class:	IP67																								
Approvals / Tests	<table border="0"> <tr> <td>Markings and ignition protection types:</td> <td> <table border="0"> <tr> <td>⊕ II 2G</td> <td>Ex ia d IIC T4 Gb</td> <td>-20°C ≤ Ta ≤ +55°C</td> <td>for NiMH-II (black)</td> </tr> <tr> <td></td> <td>Ex ia d IIC T3 Gb</td> <td>-20°C ≤ Ta ≤ +55°C</td> <td>for NiMH (black)</td> </tr> <tr> <td></td> <td>Ex ia d IIC T4/T3 Gb</td> <td>-20°C ≤ Ta ≤ +45°C/+55°C</td> <td>for Alkaline (grey)</td> </tr> <tr> <td></td> <td>⊕ I M2</td> <td>Ex ia d I Mb</td> <td>-20°C ≤ Ta ≤ +55°C</td> </tr> </table> </td> </tr> <tr> <td>EU Type Examination Certificate:</td> <td>BVS 06 ATEX E 017 X (for measuring function and electronic Ex-protection)</td> </tr> <tr> <td>EU Type Examination Certificate:</td> <td>PFG 09 G 001 (for measuring function)</td> </tr> <tr> <td>Electromagnetic compatibility:</td> <td>DIN EN 50270:2006 Interference emission: Type class I Interference immunity: Type class II</td> </tr> </table>	Markings and ignition protection types:	<table border="0"> <tr> <td>⊕ II 2G</td> <td>Ex ia d IIC T4 Gb</td> <td>-20°C ≤ Ta ≤ +55°C</td> <td>for NiMH-II (black)</td> </tr> <tr> <td></td> <td>Ex ia d IIC T3 Gb</td> <td>-20°C ≤ Ta ≤ +55°C</td> <td>for NiMH (black)</td> </tr> <tr> <td></td> <td>Ex ia d IIC T4/T3 Gb</td> <td>-20°C ≤ Ta ≤ +45°C/+55°C</td> <td>for Alkaline (grey)</td> </tr> <tr> <td></td> <td>⊕ I M2</td> <td>Ex ia d I Mb</td> <td>-20°C ≤ Ta ≤ +55°C</td> </tr> </table>	⊕ II 2G	Ex ia d IIC T4 Gb	-20°C ≤ Ta ≤ +55°C	for NiMH-II (black)		Ex ia d IIC T3 Gb	-20°C ≤ Ta ≤ +55°C	for NiMH (black)		Ex ia d IIC T4/T3 Gb	-20°C ≤ Ta ≤ +45°C/+55°C	for Alkaline (grey)		⊕ I M2	Ex ia d I Mb	-20°C ≤ Ta ≤ +55°C	EU Type Examination Certificate:	BVS 06 ATEX E 017 X (for measuring function and electronic Ex-protection)	EU Type Examination Certificate:	PFG 09 G 001 (for measuring function)	Electromagnetic compatibility:	DIN EN 50270:2006 Interference emission: Type class I Interference immunity: Type class II
Markings and ignition protection types:	<table border="0"> <tr> <td>⊕ II 2G</td> <td>Ex ia d IIC T4 Gb</td> <td>-20°C ≤ Ta ≤ +55°C</td> <td>for NiMH-II (black)</td> </tr> <tr> <td></td> <td>Ex ia d IIC T3 Gb</td> <td>-20°C ≤ Ta ≤ +55°C</td> <td>for NiMH (black)</td> </tr> <tr> <td></td> <td>Ex ia d IIC T4/T3 Gb</td> <td>-20°C ≤ Ta ≤ +45°C/+55°C</td> <td>for Alkaline (grey)</td> </tr> <tr> <td></td> <td>⊕ I M2</td> <td>Ex ia d I Mb</td> <td>-20°C ≤ Ta ≤ +55°C</td> </tr> </table>	⊕ II 2G	Ex ia d IIC T4 Gb	-20°C ≤ Ta ≤ +55°C	for NiMH-II (black)		Ex ia d IIC T3 Gb	-20°C ≤ Ta ≤ +55°C	for NiMH (black)		Ex ia d IIC T4/T3 Gb	-20°C ≤ Ta ≤ +45°C/+55°C	for Alkaline (grey)		⊕ I M2	Ex ia d I Mb	-20°C ≤ Ta ≤ +55°C								
⊕ II 2G	Ex ia d IIC T4 Gb	-20°C ≤ Ta ≤ +55°C	for NiMH-II (black)																						
	Ex ia d IIC T3 Gb	-20°C ≤ Ta ≤ +55°C	for NiMH (black)																						
	Ex ia d IIC T4/T3 Gb	-20°C ≤ Ta ≤ +45°C/+55°C	for Alkaline (grey)																						
	⊕ I M2	Ex ia d I Mb	-20°C ≤ Ta ≤ +55°C																						
EU Type Examination Certificate:	BVS 06 ATEX E 017 X (for measuring function and electronic Ex-protection)																								
EU Type Examination Certificate:	PFG 09 G 001 (for measuring function)																								
Electromagnetic compatibility:	DIN EN 50270:2006 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) 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_{CH4}=with energy-saving operation at measuring range 0-100%LEL CH₄