## Technical specifications: G460

### Measuring principle
- **Electrochemical (EC):** for toxic gases and oxygen
- **Photoionisation (EC):** for toxic combustible vapours (in ppm range)
- **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
- 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>
<thead>
<tr>
<th></th>
<th>NiMH-II A21:</th>
<th>NiMH F25:</th>
<th>Alkaline:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>approx. 9h (EC+CC);</td>
<td>approx. 17h (EC+CC&lt;sub&gt;max&lt;/sub&gt;);</td>
<td>approx. 11h (EC+IR+CC);</td>
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<tr>
<td></td>
<td>approx. 11h (EC+IR+CC);</td>
<td>approx. 19h (EC+PID+CC);</td>
<td>approx. 12h (EC+IR+CC);</td>
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<tr>
<td></td>
<td>approx. 6h (EC+PID+IR+CC);</td>
<td>approx. 20h (EC+CC);</td>
<td>approx. 14h (EC+PID+IR);</td>
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<tr>
<td></td>
<td>approx. 11h (EC+CC);</td>
<td>approx. 12h (EC+IR+CC);</td>
<td>approx. 13h (EC);</td>
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<td></td>
<td>approx. 8h (EC+PID+CC);</td>
<td>approx. 14h (EC+PID+CC&lt;sub&gt;max&lt;/sub&gt;);</td>
<td>approx. 14h (EC+PID+IR);</td>
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<tr>
<td></td>
<td>approx. 9h (EC+PID+CC);</td>
<td>approx. 10h (EC+PID+IR+CC&lt;sub&gt;max&lt;/sub&gt;);</td>
<td>approx. 17h (EC+PID+IR);</td>
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<tr>
<td></td>
<td>approx. 7h (EC+PID+IR+CC);</td>
<td>approx. 14h (EC+CC&lt;sub&gt;max&lt;/sub&gt;);</td>
<td>approx. 17h (EC+PID);</td>
</tr>
<tr>
<td></td>
<td>approx. 5h (EC+IR+CC);</td>
<td>approx. 6h (EC+IR+CC&lt;sub&gt;max&lt;/sub&gt;);</td>
<td>approx. 14h (EC+PID);</td>
</tr>
<tr>
<td></td>
<td>approx. 6h (EC+PID+CC);</td>
<td>approx. 6h (EC+IR+CC);</td>
<td>approx. 28h (EC+IR);</td>
</tr>
<tr>
<td></td>
<td>approx. 7h (EC+CC);</td>
<td>approx. 9h (EC+IR+CC&lt;sub&gt;max&lt;/sub&gt;);</td>
<td>approx. 40h (EC+PID);</td>
</tr>
</tbody>
</table>

### Climatic conditions
- **For operation:** -20...+50°C | 5...95%r.h. | 70...130kPa
- **For storage:** -25...+60°C | 5...95%r.h. | 70...130kPa (recommended 0...+30°C)

### Housing
- **Material:** rubberized plastic
- **Dimensions:** 75 x 110 x 55 mm (W x H x D)
- **Weight:** up to 350 g (depending on sensor configuration)
- **Protection class:** IP67

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Approvals / Tests

Markings and ignition protection types:
- 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 ≤ +5°C
- for Alkaline (grey)
- Ex ia d IMb
- Interference immunity: Type class II
- DIN EN 50270:2006
- Interference emission: Type class I
- PFG 09 G 001
- (for measuring function)
- BVS 06 ATEX E 017 X
- (for measuring function and electronic Ex-protection)

EU Type Examination Certificate:
- PFG 09 G 001
- (for measuring function)
- BVS 06 ATEX E 017 X
- (for measuring function and electronic Ex-protection)

Electromagnetic compatibility:
- DIN EN 50270:2006

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_{\text{ch}}=\text{with energy-saving operation at measuring range 0-100\%LEL CH}_4