

DrägerSensor® XXS CO₂

Order no. 68 10 889

| Used in | Plug & Play | Replaceable | Guaranty | Expected sensor life | Selective filter |
|------------------|-------------|-------------|----------|----------------------|------------------|
| Dräger Pac 7000 | no | yes | 1 year | > 1.25 years | no |
| Dräger Pac 8000 | no | yes | 1 year | > 1.25 years | no |
| Dräger X-am 5000 | no | yes | 1 year | > 1.25 years | no |
| Dräger X-am 5600 | no | yes | 1 year | > 1.25 years | no |
| Dräger X-am 8000 | no | yes | 1 year | > 1.25 years | no |

MARKET SEGMENTS

Waste disposal, Food and beverage (breweries), metal processing, petrochemical, fertilizer production, sewage, police, customs and rescue services, mining and tunneling, shipping and transport, power generation.

TECHNICAL SPECIFICATIONS

| | |
|--|--|
| Detection limit: | 0.3 Vol.-% |
| Resolution: | 0.1 Vol.-% |
| Measurement range: | 0 to 5 Vol.-% CO ₂ (carbon dioxide) |
| Response time: | ≤ 30 seconds (T ₅₀) |
| Measurement accuracy | |
| Sensitivity: | ≤ ± 20% of measured value |
| Long-term drift, at 20°C (68°F) | |
| Zero point: | ≤ ± 0.2 Vol.-%/year |
| Sensitivity: | ≤ ± 15% of measured value/month |
| Warm-up time: | ≤ 12 hours |
| Ambient conditions | |
| Temperature: | (-20 to 40)°C (-4 to 104)°F |
| Humidity: | (10 to 90)% RH |
| Pressure: | (700 to 1,300) hPa |
| Influence of temperature | |
| Zero point: | ≤ ± 0.01 Vol.-%/K |
| Sensitivity: | ≤ ± 2% of measured value/K |
| Influence of humidity | |
| Zero point: | No effect |
| Sensitivity: | ≤ ± 0.1% of measured value/% RH |
| Test gas: | 1 to 4 Vol.-% CO ₂ |

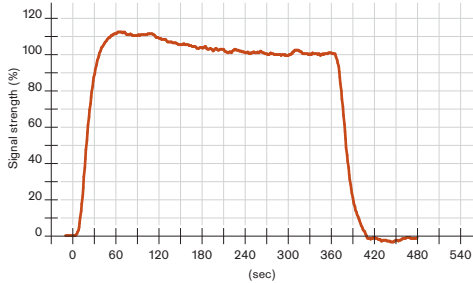


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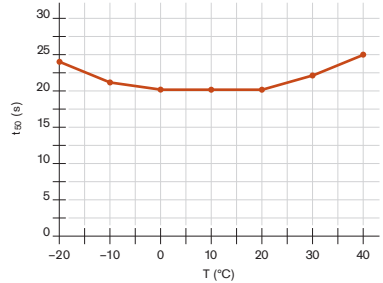
SPECIAL CHARACTERISTICS

This sensor is highly sensitive (see cross-sensitivity list) and offers an economical alternative to infrared sensors if you need to warn against CO₂ concentrations in the ambient air.

Sensor reaction to CO₂ at 20 °C/68 °F
Flow = 0.5 l/min, with 5000 ppm CO₂



Response time (t₅₀) vs. temperature
with 5000 ppm CO₂



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The values shown in the following table are standard and apply to new sensors. The values maybe fluctuate by ± 30%. The sensor may also be sensitive to additional gases (for more information, please contact Dräger). Gas mixtures may be displayed as the sum of all components. Gases with a negative cross sensitivity may displace an existing concentration of CO₂. To be sure, please check if gas mixtures are present.

RELEVANT CROSS-SENSITIVITIES

| Gas/vapor | Chem. symbol | Concentration | Display in ppm CO ₂ |
|-------------------|--|---------------|--------------------------------|
| Acetylene | C ₂ H ₂ | 100 ppm | No effect |
| Ammonia | NH ₃ | 50 ppm | No effect |
| Carbon monoxide | CO | 1,000 ppm | No effect |
| Chlorine | Cl ₂ | 10 ppm | No effect |
| Ethanol | C ₂ H ₅ OH | 250 ppm | No effect |
| Hydrogen | H ₂ | 1.6 Vol.-% | No effect |
| Hydrogen chloride | HCl | 20 ppm | No effect |
| Hydrogen cyanide | HCN | 60 ppm | No effect |
| Hydrogen sulfide | H ₂ S | 20 ppm | No effect |
| Isobutylene | (CH ₃) ₂ CCH ₂ | 100 ppm | No effect |
| Nitrogen dioxide | NO ₂ | 20 ppm | No effect |
| Nitrogen monoxide | NO | 20 ppm | No effect |
| Methane | CH ₄ | 0.9 Vol.-% | No effect |
| Ozone | O ₃ | 1.5 ppm | No effect |
| Phosphine | PH ₃ | 5 ppm | No effect |
| Sulfur dioxide | SO ₂ | 20 ppm | No effect |

(-) Indicates negative deviation