

DrägerSensor® XXS HCN

Order no. 68 10 887

| Used in | Plug & Play | Replaceable | Guaranty | Expected sensor life |
|------------------|-------------|-------------|----------|----------------------|
| Dräger Pac 7000 | no | yes | 1 year | > 1.5 years |
| Dräger Pac 8000 | no | yes | 1 year | > 1.5 years |
| Dräger X-am 5000 | no | yes | 1 year | > 1.5 years |
| Dräger X-am 5600 | no | yes | 1 year | > 1.5 years |
| Dräger X-am 8000 | no | yes | 1 year | > 1.5 years |

Selective filter

B2X (6812424) – replaceable.

Cross sensitivities to hydrogen sulfide (H₂S) and sulfur dioxide (SO₂) are eliminated.

The filter's service life can be calculated as follows: 1,000 ppm x hours of contaminant gas. Example: Given constant concentration of 10 ppm H₂S will be: Service life = 1,000 ppm x hours / 10 ppm = 100 hours. Due to the change of sensitivity, a calibration is necessary after installation. The measurement value response time increases after the installation of the filter.

MARKET SEGMENTS

Metal processing, mining, fumigation and pest control, chemical warfare agent (blood agents).

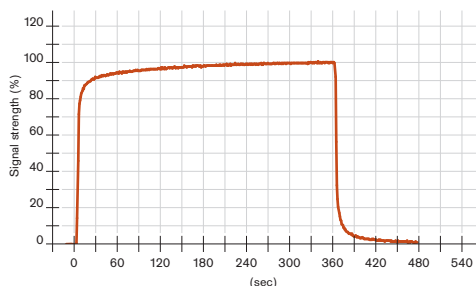
TECHNICAL SPECIFICATIONS

| | |
|--|------------------------------------|
| Detection limit: | 0.5 ppm |
| Resolution: | 0.1 ppm |
| Measurement range | 0 to 50 ppm HCN (hydrogen cyanide) |
| Response time: | ≤ 10 seconds (T ₅₀) |
| Measurement accuracy | |
| Sensitivity: | ≤ ± 5% of measured value |
| Long-term drift, at 20°C (68°F) | |
| Zero point: | ≤ ± 2 ppm/year |
| Sensitivity: | ≤ ± 5% of measured value/month |
| Warm-up time: | ≤ 15 minutes |
| Ambient conditions | |
| Temperature: | (-20 to 50)°C (-4 to 122)°F |
| Humidity: | (10 to 90)% RH |
| Pressure: | (700 to 1,300) hPa |
| Influence of temperature | |
| Zero point: | ≤ ± 1 ppm |
| Sensitivity: | ≤ ± 5% of measured value |
| Influence of humidity | |
| Zero point: | No effect |
| Sensitivity: | ≤ ± 0.1% of measured value/% RH |
| Test gas: | approx. 1 to 45 ppm HCN |

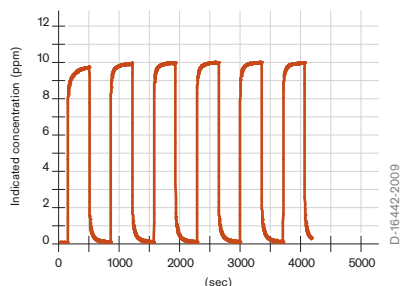
SPECIAL CHARACTERISTICS

This sensor's extremely quick response time and excellent repeatability provides a fast and reliable warning against Prussic acid (hydrogen cyanide).

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



Repeatability of HCN sensors with mit 10 ppm HCN



The values shown in the following table are standard and apply to new sensors. The values may fluctuate by $\pm 30\%$. 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 HCN. To be sure, please check if gas mixtures are present.

RELEVANT CROSS-SENSITIVITIES

| Gas/vapor | Chem. symbol | Concentration | Display in ppm HCN |
|-------------------|-----------------|---------------|--------------------|
| Acetylene | C_2H_2 | 100 ppm | ≤ 10 |
| Ammonia | NH_3 | 50 ppm | No effect |
| Carbon dioxide | CO_2 | 10 Vol.-% | No effect |
| Carbon monoxide | CO | 200 ppm | No effect |
| Chlorine | Cl_2 | 10 ppm | ≤ 20 (-) |
| Ethanol | C_2H_5OH | 250 ppm | No effect |
| Hydrogen | H_2 | 1.5 Vol.-% | ≤ 10 |
| Hydrogen chloride | HCl | 20 ppm | ≤ 1 |
| Hydrogen sulfide | H_2S | 20 ppm | ≤ 50 |
| Isobutylene | $(CH_3)_2CCH_2$ | 100 ppm | ≤ 1.5 |
| Methane | CH_4 | 1 Vol.-% | No effect |
| Nitrogen dioxide | NO_2 | 10 ppm | ≤ 20 (-) |
| Nitrogen monoxide | NO | 20 ppm | No effect |
| Ozone | O_3 | 0.5 ppm | No effect |
| Phosphine | PH_3 | 1 ppm | ≤ 8 |
| Sulfur dioxide | SO_2 | 20 ppm | ≤ 10 |

(-) Indicates negative deviation