DrägerSensor® XS EC HCN

Order no. 68 09 150

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger X-am 7000	yes	yes	1 year	> 1.5 years	–

MARKET SEGMENTS

Metal processing, mining, fumigation and pest control, chemical war 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})
Precision	
Sensitivity:	≤ ± 5% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 1 ppm/month
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:	3 to 50 ppm HCN After long periods of exposure > 10 ppm HCN/hour, the sensor should be recalibrated.

SPECIAL CHARACTERISTICS

The extremely quick response time of this sensor provides a fast and reliable warning against prussic acid (hydrogen cyanide).

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 hydrogen cyanide. To be sure, please check if gas mixtures are present.

RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in ppm HCN
Acetone	CH_3COCH_3	1,000 ppm	No effect
Acetylene	C_2H_2	200 ppm	≤ 20
Ammonia	NH_3	200 ppm	No effect
Carbon dioxide	CO_2	1.5 Vol. %	No effect
Carbon monoxide	CO	1,000 ppm	≤ 0.5
Chlorine	Cl_2	10 ppm	≤ $10^{(-)}$
Ethene	C_2H_4	1,000 ppm	No effect
Ethylene oxide	C_2H_4O	30 ppm	No effect
Formaldehyde	HCHO	50 ppm	≤ 2
Hydrogen	H_2	1.6 Vol. %	≤ 10
Hydrogen sulfide	H_2S	20 ppm	≤ 5
i-propanol	$(CH_3)_2CHOH$	500 ppm	No effect
Methane	CH_4	20 Vol. %	No effect
Methanol	CH_3OH	175 ppm	No effect
Nitrogen dioxide	NO_2	10 ppm	≤ $10^{(-)}$
Nitrogen monoxide	NO	20 ppm	≤ 0.5
Phosphine	PH_3	5 ppm	≤ 25
Propane	C_3H_8	1 Vol. %	No effect
Sulfur dioxide	SO_2	20 ppm	≤ 10
Tetrahydrothiophene	C_4H_8S	10 ppm	≤ 0.5

(–) Indicates negative deviation