DrägerSensor® XS EC H_2 HC

Order no. 68 11 365

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger X-am 7000	yes	yes	1 year	> 2 years	–

MARKET SEGMENTS

Ammonia synthesis, fuel refinement (hydrocracking), sulfur elimination, chemical, rocket fuel, leakage inspection, metal processing, industrial gases, fertilizer production, battery chargers, fuel cells.

TECHNICAL SPECIFICATIONS

Detection limit:	0.02 Vol. %
Resolution:	0.01 Vol. %
Measurement range:	0 to 4 Vol. % H_2 (hydrogen)
Response time:	≤ 20 seconds (t_{50})
Precision	
Sensitivity:	≤ ± 2% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 0.05 Vol. %/year
Sensitivity:	≤ ± 3% of measured value/month
Warm-up time:	≤ 1 hour
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:	≤ ± 0.05 Vol. %
Sensitivity:	≤ ± 5% of measured value
Influence of humidity	
Zero point:	No effect
Sensitivity:	≤ ± 0.1% of measured value/% RH
Test gas:	0.2 to 4 Vol. % H_2 test gas

SPECIAL CHARACTERISTICS

This sensor covers the entire range of LELs up to 4 Vol. % H_2, and is therefore the ideal addition when using IR technology in the Dräger X-am 7000 to measure for explosion risks. The sensor also offers high selectivity (see cross-sensitivity specifications) and linearity.

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 H_2. To be sure, please check if gas mixtures are present.

RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in Vol. % H_2
Acetylene	C_2H_2	200 ppm	≤ 0.02
Ammonia	NH_3	500 ppm	No effect
Carbon dioxide	CO_2	1.5 Vol. %	No effect
Carbon monoxide	CO	1,000 ppm	≤ 0.1
Chlorine	Cl_2	50 ppm	No effect
Ethanol	C_2H_5OH	250 ppm	No effect
Ethylene	C_2H_4	1,000 ppm	≤ 0.1
Hydrogen cyanide	HCN	50 ppm	No effect
Hydrogen sulfide	H_2S	20 ppm	≤ 0.1
Methane	CH_4	1 Vol. %	No effect
Nitrogen dioxide	NO_2	20 ppm	No effect
Nitrogen monoxide	NO	20 ppm	≤ 0.05
Phosphine	PH_3	5 ppm	≤ 0.02
Sulfur dioxide	SO_2	20 ppm	No effect