DrägerSensor® XS EC H_2

Order no. 68 09 185

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

MARKET SEGMENTS

Chemical, petrochemical, rocket fuel, leakages, production of plastics, metal processing, industrial gases, fertilizer production

TECHNICAL SPECIFICATIONS

Detection limit:	10 ppm
Resolution:	5 ppm
Measurement range:	0 to 2,000 ppm H_2 (hydrogen)
Response time:	≤ 20 seconds (t_{90})
Precision	
Sensitivity:	≤ ± 1% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 4 ppm/month
Sensitivity:	≤ ± 4% 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:	≤ ± 10 ppm
Sensitivity:	≤ ± 1 ppm/K
Influence of humidity	
Zero point:	No effect
Sensitivity:	≤ ± 0.15% of measured value/% RH
Test gas:	approx. 200 to 1,800 ppm H_2 test gas

SPECIAL CHARACTERISTICS

This sensor enables ppm concentrations of H_2 (hydrogen) to be measured in the ambient air. It has a very fast response time and is therefore especially suited to detect leakages.

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 ppm H_2
Acetone	CH_3COCH_3	1,000 ppm	≤ 10
Acetylene	C_2H_2	200 ppm	≤ 700
Ammonia	NH_3	100 ppm	No effect
Carbon dioxide	CO_2	1.5 Vol. %	No effect
Carbon monoxide	CO	100 ppm	≤ 130
Chlorine	Cl_2	5 ppm	≤ 5(–)
Ethene	C_2H_4	1,000 ppm	≤ 1800
Hydrogen chloride	HCl	40 ppm	No effect
Hydrogen cyanide	HCN	20 ppm	≤ 20
Methane	CH_4	50 Vol. %	No effect
Methanol	CH_3OH	500 ppm	≤ 750
Nitrogen dioxide	NO_2	20 ppm	≤ 15(–)
Nitrogen monoxide	NO	20 ppm	≤ 10
Phosgene	$COCl_2$	50 ppm	No effect
Phosphine	PH_3	10 ppm	≤ 40
Sulfur dioxide	SO_2	20 ppm	≤ 15
Tetrahydrothiophene	C_4H_8S	20 ppm	≤ 10

(–) Indicates negative deviation