

DrägerSensor® XS EC H₂

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)
Measurement accuracy	
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 H₂ (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 $\pm 30\%$. 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 H₂. 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 ₃ COCH ₃	1,000 ppm	≤ 10
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 ₂ H ₄	1,000 ppm	≤ 1800
Ethine	C ₂ H ₂	200 ppm	≤ 700
Hydrogen chloride	HCl	40 ppm	No effect
Hydrogen cyanide	HCN	20 ppm	≤ 20
Methane	CH ₄	50 Vol. %	No effect
Methanol	CH ₃ OH	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 ₄ H ₈ S	20 ppm	≤ 10