

DrägerSensor® XXS H₂S HC

Order no. 68 12 015

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger X-am 5000	no	yes	1 year	> 3 years	no
Dräger X-am 5600	no	yes	1 year	> 3 years	no
Dräger X-am 8000	no	yes	1 year	> 3 years	no

MARKET SEGMENTS

Waste disposal industry, petrochemical, fertilizer production, sewage, mining and tunneling, shipping, inorganic chemicals, steel industry, pulp and paper, organic chemicals, oil and gas, measuring hazardous material, biogas.

TECHNICAL SPECIFICATIONS

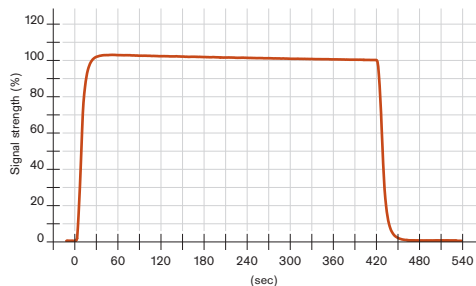
Detection limit:	4 ppm
Resolution:	2 ppm
Measurement range:	0 to 1,000 ppm H ₂ S (hydrogen sulfide)
Response time:	≤ 15 seconds (T ₉₀)
Measurement accuracy	
Sensitivity:	≤ ± 2% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 2 ppm/year
Sensitivity:	≤ ± 1% of measured value/month
Warm-up time:	≤ 5 minutes
Ambient conditions	
Temperature*:	(-40 to 50)°C (-40 to 122)°F
Humidity*:	(10 to 90)% RH
Pressure:	(700 to 1,300) hPa
Influence of temperature	
Zero point:	No effect
Sensitivity:	≤ ± 5% of measured value
Influence of humidity	
Zero point:	No effect
Sensitivity:	≤ ± 0.03% of measured value/% RH
Test gas:	approx. 40 to 900 ppm H ₂ S

*Sudden temperature or humidity changes lead to dynamic effects (fluctuations).
These dynamic effects decrease within 2 to 3 minutes.

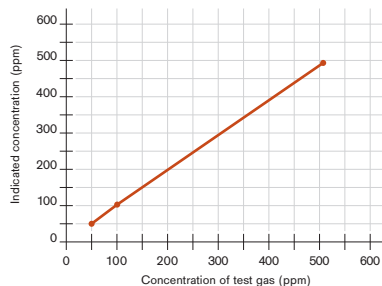
SPECIAL CHARACTERISTICS

Because of its excellent linearity, this sensor can be calibrated in its lower measurement range using a hydrogen sulfide test gas without compromising on accuracy in its upper measurement range. It also offers a fast response time and good selectivity.

Sensor reaction to H₂S HC at 20 °C/68 °F
Flow = 0.5 l/min, with 505 ppm H₂S



Linearity of H₂S HC sensor
calibrated with 50 ppm H₂S



D-27853-2009

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 H₂S. To be sure, please check if gas mixtures are present.

RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in ppm H ₂ S
Acetylene	C ₂ H ₂	100 ppm	No effect
Ammonia	NH ₃	200 ppm	No effect
Carbon dioxide	CO ₂	5 Vol.-%	No effect
Carbon monoxide	CO	500 ppm	No effect
Chlorine	Cl ₂	10 ppm	No effect
Ethanol	C ₂ H ₅ OH	250 ppm	No effect
Hydrogen	H ₂	0.1 Vol.-%	No effect
Hydrogen chloride	HCl	40 ppm	No effect
Hydrogen cyanide	HCN	50 ppm	No effect
Hydrogen phosphide	PH ₃	5 ppm	≤ 4
Isobutylene	(CH ₃) ₂ CCH ₂	100 ppm	No effect
Methane	CH ₄	5 Vol.-%	No effect
Nitrogen dioxide	NO ₂	20 ppm	≤ 5 ⁽⁻⁾
Nitrogen monoxide	NO	30 ppm	No effect
Propane	C ₃ H ₈	1 Vol.-%	No effect
Sulfur dioxide	SO ₂	20 ppm	≤ 2

(-) Indicates negative deviation