

DrägerSensor® XS EC H₂O₂

Order no. 68 09 170

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger X-am 5100	no	yes	1 year	> 2 years	–

MARKET SEGMENTS

Disinfection and sterilization, bleaching, decontaminating interior spaces.

TECHNICAL SPECIFICATIONS

Detection limit:	0.1 ppm
Resolution:	0.1 ppm
Measurement range:	0 to 20 ppm H ₂ O ₂ (hydrogen peroxide)
Response time:	≤ 60 seconds (T ₉₀)
Measurement accuracy	
Sensitivity:	≤ ± 10% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 1 ppm/year
Sensitivity:	≤ ± 2% of measured value/month
Warm-up time:	≤ 12 hours
Ambient conditions	
Temperature:	(0 to 50)°C (32 to 122)°F
Humidity:	(10 to 90)% RH
Pressure:	(700 to 1,300) hPa
Influence of temperature	
Zero point:	≤ ± 1 ppm
Sensitivity:	≤ ± 0.5% of measured value/K
Influence of humidity	
Zero point:	≤ ± 0.01 ppm/% RH
Sensitivity:	≤ ± 0.1% of measured value/% RH
Test gas:	H ₂ O ₂ test gas between 1 to 10 ppm Alternatively, the sensor can be calibrated using SO ₂ test gas (10 ppm). But a higher measurement uncertainty must be expected.

SPECIAL CHARACTERISTICS

This sensor is used in the Dräger X-am 5100 to monitor the H₂O₂ (hydrogen peroxide) concentration in the ambient air. It offers high sensitivity (see cross-sensitivity table).

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 H₂O₂. To be sure, please check if gas mixtures are present.

RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in ppm H ₂ O ₂
Acetone	CH ₃ COCH ₃	1,000 ppm	No effect
Acetylene	C ₂ H ₂	200 ppm	≤ 35
Ammonia	NH ₃	100 ppm	No effect
Carbon dioxide	CO ₂	1.5 Vol. %	No effect
Carbon monoxide	CO	125 ppm	No effect
Chlorine	Cl ₂	5 ppm	≤ 1 ⁽⁻⁾
Ethene	C ₂ H ₄	50 ppm	No effect
Hydrogen	H ₂	1.5 Vol. %	≤ 5
Hydrogen chloride	HCl	15 ppm	≤ 3
Hydrogen cyanide	HCN	25 ppm	≤ 7
Hydrogen sulfide	H ₂ S	20 ppm	≤ 80
i-propanol	(CH ₃)CHOH	500 ppm	No effect
Methane	CH ₄	5 Vol. %	No effect
Methanol	CH ₃ OH	200 ppm	No effect
Nitrogen dioxide	NO ₂	20 ppm	≤ 15 ⁽⁻⁾
Nitrogen monoxide	NO	20 ppm	No effect
Phosphine	PH ₃	5 ppm	≤ 15
Sulfur dioxide	SO ₂	20 ppm	≤ 12
Tetrahydrothiophene	C ₄ H ₈ S	10 ppm	≤ 5

(-) Indicates negative deviation