

## DrägerSensor® XS EC Hydrazine D

Order no. 68 10 295

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Pac III S / E*	yes	yes	6 months	6 months	–

### MARKET SEGMENTS

Rocket fuel, aircraft fuel (e.g. F-16), fuel for emergency power generators, for electrochemical power generation in secondary cells or in alkaline fuel cells, especially in space travel, submarines, and other military equipment.

### TECHNICAL SPECIFICATIONS

<b>Detection limit:</b>	0.01 ppm
<b>Resolution:</b>	0.01 ppm
<b>Measurement range:</b>	0 to 5 ppm N <sub>2</sub> H <sub>4</sub> (hydrazine) 0 to 5 ppm CH <sub>3</sub> NH-NH <sub>2</sub> (methyl hydrazine) 0 to 5 ppm (CH <sub>3</sub> ) <sub>2</sub> N-NH <sub>2</sub> (dimethylhydrazine)
<b>Response time:</b>	≤ 180 seconds (T <sub>90</sub> )
<b>Measurement accuracy</b>	
Sensitivity:	≤ ± 20% of measured value
<b>Long-term drift, at 20°C (68°F)</b>	
Zero point:	≤ ± 0.01 ppm/month
Sensitivity:	≤ ± 20% of measured value/6 months
<b>Warm-up time:</b>	≤ 1 hour
<b>Ambient conditions</b>	
Temperature:	(–20 to 50)°C (–4 to 122)°F
Humidity:	(15 to 95)% RH
Pressure:	(700 to 1,300) hPa
<b>Influence of temperature</b>	
Zero point:	No effect
Sensitivity:	≤ ± 5% of measured value
<b>Influence of humidity</b>	
Zero point:	No effect
Sensitivity:	≤ ± 0.1% of measured value/% RH
<b>Test gas:</b>	0.1 to 3 ppm N <sub>2</sub> H <sub>4</sub> , CH <sub>3</sub> NH-NH <sub>2</sub> , (CH <sub>3</sub> ) <sub>2</sub> N-NH <sub>2</sub>

\*The DrägerSensor XS EC Hydrazine D can be ordered as a replacement sensor for the Dräger Pac III S/E.

The Dräger Pac III will no longer be sold at the end of 2011. The DrägerSensor XS EC Hydrazine used in combination with the Dräger X-am 5100 can then be used to monitor hydrazine concentrations.

## SPECIAL CHARACTERISTICS

This sensor is used exclusively in the Dräger Pac III for monitoring concentrations of hydrazine (N<sub>2</sub>H<sub>4</sub>), methyl hydrazine (CH<sub>3</sub>NH-NH<sub>2</sub>), and dimethylhydrazine ((CH<sub>3</sub>)<sub>2</sub>N-NH<sub>2</sub>). Hydrazines tend to be adsorbed by surfaces, which means a special sensor cap should be used (order no. 68 09 541). This sensor does not have to be recalibrated during its limited life span.

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

## RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in ppm N <sub>2</sub> H <sub>4</sub>
Acetone	CH <sub>3</sub> COCH <sub>3</sub>	1,000 ppm	No effect
Ammonia	NH <sub>3</sub>	250 ppm	≤ 2.5
Carbon dioxide	CO <sub>2</sub>	100 Vol. %	No effect
Carbon monoxide	CO	1,000 ppm	No effect
Chlorine	Cl <sub>2</sub>	10 ppm	≤ 0.1 <sup>(-)</sup>
Ethanol	C <sub>2</sub> H <sub>5</sub> OH	130 ppm	No effect
Ethene	C <sub>2</sub> H <sub>4</sub>	20 ppm	No effect
Hydrogen	H <sub>2</sub>	1,000 ppm	No effect
Hydrogen sulfide	H <sub>2</sub> S	20 ppm	≤ 0.25
i-propanol	(CH <sub>3</sub> ) <sub>2</sub> CHOH	1,000 ppm	No effect
Methane	CH <sub>4</sub>	3 Vol. %	No effect
Nitrogen dioxide	NO <sub>2</sub>	20 ppm	≤ 0.05
Nitrogen monoxide	NO	25 ppm	≤ 0.05
Propane	C <sub>3</sub> H <sub>8</sub>	1.5 Vol. %	No effect
Sulfur dioxide	SO <sub>2</sub>	10 ppm	No effect