DrägerSensor® XS EC THT

Order no. 68 09 195

Used in	Plug & Play	Replaceable	Guaranty	Selective filter
Dräger Pac III S / E*	yes	yes	1 year	B2T, 68 09 198 – replaceable Cross sensitivities from acidic gases (H_2S, SO_2) are largely eliminated

MARKET SEGMENTS

Gas supply companies

TECHNICAL SPECIFICATIONS

Detection limit:	3 mg/m³
Resolution:	1 mg/m³
Measurement range:	0 to 100 mg/m³ THT (tetrahydrothiophene)
Response time:	≤ 90 seconds at 20 °C or 68 °F (T_{90})
Measurement accuracy	
Zero point:	≤ ± 3 mg/m³
Sensitivity:	≤ ± 5% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 3 mg/m³/month
Sensitivity:	≤ ± 3% of measured value/month
Warm-up time:	≤ 12 hours
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:	≤ ± 3 mg/m³
Sensitivity:	≤ ± 5% of measured value
Influence of humidity	
Zero point:	≤ ± 0.04 mg/m³/% RH
Sensitivity:	≤ ± 0.01% of measured value/% RH
Test gas:	THT test gas between 40% and 100% of the highest figure within the set measurement range.

The DrägerSensor XS EC THT 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 Odorant used in combination with the Dräger X-am 5000/5600 can then be used to monitor THT concentrations.

SPECIAL CHARACTERISTICS

THT (tetrahydrothiophene) is one of the most common odorants. This sensor is suitable for measuring THT concentrations in the ambient air. Using an internal, replaceable selective filter, the sensor is able to distinguish THT effectively from SO_2 and H_2S.

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

RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in mg/m³ THT without selective filter	Display in mg/m³ THT with selective filter
Acetone	CH_3COCH_3	1,000 ppm	≤ 10	≤ 10
Ammonia	NH_3	200 ppm	No effect	No effect
Carbon dioxide	CO_2	1.5 Vol. %	No effect	No effect
Carbon monoxide	CO	125 ppm	≤ 10	≤ 10
Chlorine	Cl_2	8 ppm	≤ 10(–)	≤ 3(–)
Ethene	C_2H_4	50 ppm	No effect	No effect
Hydrogen	H_2	1,000 ppm	≤ 5	≤ 5
Hydrogen cyanide	HCN	50 ppm	No effect	No effect
Hydrogen sulfide	H_2S	10 ppm	≤ 100	No effect
Methane	CH_4	100 Vol. %	No effect	No effect
Methanol	CH_3OH	175 ppm	≤ 25	≤ 25
Nitrogen dioxide	NO_2	20 ppm	≤ 7	≤ 7
Nitrogen monoxide	NO	20 ppm	≤ 90	≤ 90
Phosphine	PH_3	5 ppm	≤ 50	≤ 50
Sulfur dioxide	SO_2	20 ppm	≤ 45	No effect

(–) Indicates negative deviation