

DrägerSensor® XXS CO LC

Order no. 68 13 210

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life
Dräger Pac 3500/5500	no	yes	3 years	> 5 years
Dräger Pac 6000/6500	no	yes	3 years	> 5 years
Dräger Pac 7000	no	yes	3 years	> 5 years
Dräger X-am 2500	no	yes	3 years	> 5 years
Dräger X-am 5000	no	yes	3 years	> 5 years
Dräger X-am 5600	no	yes	3 years	> 5 years
Dräger X-am 8000	no	yes	3 years	> 5 years
X-am 3500	no	yes	3 years	> 5 years

Selective filter

Internal selective filter.

Cross sensitivities to alcohol and acid gases (H₂S, SO₂) are eliminated.

The filter's service life can be calculated as follows: 10,000 ppm x hours of contaminant gas. Example: Given constant concentration of 10 ppm H₂S will be: Service life = 10,000 ppm x hours/10 ppm = 1,000 hours.

MARKET SEGMENTS

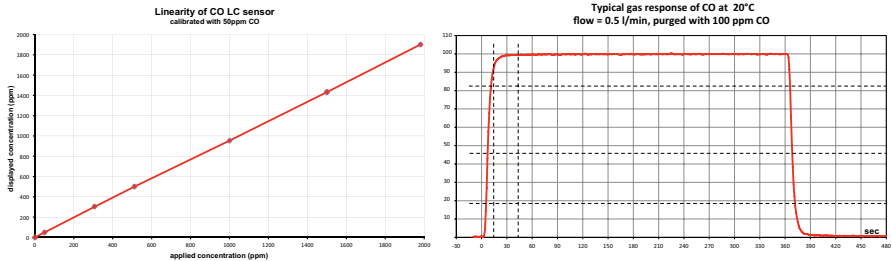
Waste disposal industry, metal processing, petrochemical, fertilizer production, mining and tunneling, shipping, inorganic chemicals, steel, organic chemicals, oil and gas, measuring dangerous substances, biogas.

TECHNICAL SPECIFICATIONS

Detection limit:	1 ppm
Resolution:	1 ppm
Measurement range:	0 to 2,000 ppm CO (carbon monoxide)
Response time:	≤ 15 seconds (t ₉₀)
Precision	
Sensitivity:	≤ ± 2% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 2 ppm/year
Sensitivity:	≤ ± 3% of measured value/year
Warm-up time:	≤ 15 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:	≤ ± 5 ppm
Sensitivity:	≤ ± 0.3% of measured value/K
Influence of humidity	
Zero point:	No effect
Sensitivity:	≤ ± 0.02% of measured value/% RH
Test gas:	approx. 20 to 1800 ppm CO

SPECIAL CHARACTERISTICS

In addition to an outstanding linearity and a quick response time, these CO sensors are highly selective. An internal selective filter, which is fitted to the sensor as standard, filters out most associated gases such as alcohol and acid gases H_2S , SO_2 .



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

RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in ppm CO
Acetylene	C_2H_2	100 ppm	≤ 200
Ammonia	NH_3	100 ppm	No effect
Carbon dioxide	CO_2	30 Vol.-%	≤ 2
Chlorine	Cl_2	20 ppm	No effect
Ethene	C_2H_4	100 ppm	≤ 300
Ethanol	$\text{C}_2\text{H}_5\text{OH}$	250 ppm	No effect
Hydrogen	H_2	0.1 Vol.-%	≤ 200
Hydrogen chloride	HCl	40 ppm	No effect
Hydrogen cyanide	HCN	50 ppm	No effect
Hydrogen sulfide	H_2S	30 ppm	No effect*
Isobutylene	$(\text{CH}_3)_2\text{CCH}_2$	100 ppm	No effect
Nitrogen dioxide	NO_2	20 ppm	No effect
Nitrogen monoxide	NO	30 ppm	≤ 5
Methane	CH_4	5 Vol.-%	No effect
Propane	C_3H_8	1 Vol.-%	No effect
Sulfur dioxide	SO_2	25 ppm	No effect

* Concentrations significantly above 200 ppm H_2S can lead to an influence (filter breakthrough) on the sensor in case of continuous exposure to H_2S .