

# DrägerSensor® PID LC ppb

Order no. 68 13 500

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	UV lamp
Dräger X-am 8000	no	yes	1 year <sup>1)</sup>	2 years	10.6 eV

## MARKET SEGMENTS

Chemical industry, painters, storage and use of fuels (e.g. gas stations), benzene specific measurements

## TECHNICAL SPECIFICATIONS

<b>Detection limit:*</b>	0.03 ppm / benzene	
<b>Resolution:*</b>	0-2 ppm	10 ppb
<b>(valid for isobutylene and benzene)</b>	> 2-5 ppm	20 ppb
	> 5-10 ppm	50 ppb
<b>Measurement range:</b>	0 to 10 ppm isobutylene / 0 to 5 ppm benzene	
<b>General technical specifications</b>		
<b>Ambient conditions</b>		
Temperature: <sup>2)</sup>	(-20 to 60)°C (-4 to 140)°F	
Humidity: <sup>2)</sup>	(10 to 95)% RH	
Pressure:	(700 to 1,300) hPa	
<b>Warm-up time:</b>	1 minute ready for measurement (warm-up 1)	
	5 minutes ready for calibration (warm-up 2)	

## FOR THE MEASUREMENT RANGE 0 TO 10 PPM WHEN CALIBRATED WITH ISOBUTYLENE IN AIR:

<b>Response time:</b>	Diffusion mode ≤ 5 seconds (T <sub>20</sub> ) Diffusion mode ≤ 15 seconds (T <sub>90</sub> ) Pump mode ≤ 5 seconds (T <sub>20</sub> ) Pump mode ≤ 15 seconds (T <sub>90</sub> )
<b>Repeatability</b>	
at 5 ppm isobutylene:	≤ ± 2% of measured value; at zero point ≤ ± 0.05 ppm isobutylene
<b>Linearity error, typical:</b>	≤ ± 5% of measured value; A calibration in the range of the expected concentration will give a higher accuracy at the measuring point.
<b>Pressure effect</b>	compensated
<b>Effect of humidity, at 20 °C (68 °F) (0 to 90% RH, non-condensing)</b>	
Zero point:	≤ ± 0,005 ppm isobutylene/% RH
at 5 ppm isobutylene:	≤ ± 0,02 ppm isobutylene/% RH
<b>Test gas:</b>	approx. 5 ppm i-C <sub>4</sub> H <sub>8</sub> (isobutylene)

\* Depends on the response factor of the measured gas

<sup>1)</sup> At a run time of max. 2,500 hours

<sup>2)</sup> Sudden temperature and humidity changes influence the measurement signal. When sudden temperature and humidity changes are expected, it is recommended to use a humidity pre-tube (81 03 531) for the measurement.

## SPECIAL CHARACTERISTICS

Apart from the detection of a variety of volatile organic compounds (VOC) this sensor is suitable for a benzene specific measurement in the ppb range. Using the prefilter benzene (81 03 511) tube concurrent hydrocarbons will be filtered.

## GASES STORED IN THE MEMORY

Gas/vapor	CAS no.	Data set name	Measurement range
1,3-Butadiene	106-99-0	BTD1	0 - 10 ppm
Acetone	67-64-1	Acet	0 - 18 ppm
alpha-pinene	2437-95-8	aPIN	0 - 8 ppm
Benzene	71-43-2	C <sub>6</sub> H <sub>6</sub>	0 - 5 ppm
Chlorobenzene	108-90-7	ClBz	0 - 12 ppm
Cyclohexane	110-82-7	Chex	0 - 24 ppm
Diesel	68476-34-6	Desl	0 - 15 ppm
Ethyl acetate	141-78-6	Etat	0 - 75 ppm
Ethylbenzene	100-41-4	EtBz	0 - 14 ppm
Gasoline	8006-61-9	Gaso	0 - 15 ppm
Isobutylene	115-11-7	iBut	0 - 10 ppm
Jet fuel	8008-20-6	JetF	0 - 15 ppm
Methyl ethyl ketone	78-93-3	MEK	0 - 16 ppm
Methylbromide	74-83-9	MeBr	0 - 32 ppm
Methyl-tert-Butylether	1634-04-4	MTBE	0 - 16 ppm
n-Nonane	111-84-2	Nona	0 - 32 ppm
n-Octane	111-65-9	Octa	0 - 32 ppm
o-Xylene	95-47-6	Xyol	0 - 12 ppm
Styrene	100-42-5	Styr	0 - 12 ppm
Toluene	108-88-3	Tolu	0 - 15 ppm
Trichloroethylene	79-01-6	TCE	0 - 14 ppm
Vinyl chloride	75-01-4	VC	0 - 32 ppm

The standard gas is: Isobutylene

Other gases can be added to the memory on the customer's request.