

DrägerSensor® PID HC

Order no. 68 13 475

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

MARKET SEGMENTS

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

TECHNICAL SPECIFICATIONS

Detection limit:*	0.3 ppm isobutylene
Resolution:*	0-20 ppm 100 ppb
(valid for isobutylene)	> 20-50 ppm 200 ppb
	> 50-100 ppm 500 ppb
	> 100-200 ppm 1 ppm
	> 200-500 ppm 2 ppm
	> 500-1.000 ppm 5 ppm
	> 1,000-2,000 ppm 10 ppm
Measurement range:	0 to 2,000 ppm isobutylene
General technical specifications	
Ambient conditions	
Temperature: ²⁾	(-20 to 60)°C (-4 to 140)°F
Humidity: ²⁾	(10 to 95)% RH
Pressure:	(700 to 1,300) hPa
Warm-up time:	2 minutes ready for measurement (warm-up 1)
	2 minutes ready for calibration (warm-up 2)

FOR THE MEASUREMENT RANGE 0 TO 2,000 PPM WHEN CALIBRATED WITH ISOBUTYLENE IN AIR:

Response time:	Diffusion mode ≤ 5 seconds (T ₂₀)
	Diffusion mode ≤ 10 seconds (T ₉₀)
	Pump mode ≤ 5 seconds (T ₂₀)
	Pump mode ≤ 10 seconds (T ₉₀)
Repeatability	
at 100 ppm isobutylene:	≤ ± 2% of measured value; at zero point ≤ ± 0.3 ppm isobutylene
Linearity error, typical:	≤ ± 5% of measured value; A calibration in the range of the expected concentration will give a higher accuracy at the measuring point.
Pressure effect	compensated
Effect of humidity, at 20 °C (68 °F) (0 to 90% RH, non-condensing)	
Zero point:	≤ ± 0,05 ppm isobutylene/% RH
at 100 ppm isobutylene:	≤ ± 0,15 ppm isobutylene/% RH
Test gas:	approx. 100 ppm i-C ₄ H ₈ (isobutylene)

* Depends on the response factor of the measured gas

¹⁾ At a run time of max. 2,500 hours

²⁾ 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

The PID can be used to detect numerous volatile organic compounds (VOCs). More than 20 of the VOCs most commonly used in industry are stored in its data memory. Other gases can be added to the memory on the customer's request.

GASES STORED IN THE MEMORY

Gas/vapor	CAS no.	Data set name	Measurement range
1,3-Butadiene	106-99-0	BTD1	0 - 1400 ppm
Acetone	67-64-1	Acet	0 - 2000 ppm
alpha-pinene	2437-95-8	aPIN	0 - 800 ppm
Benzene	71-43-2	C ₆ H ₆	0 - 1000 ppm
Chlorobenzene	108-90-7	ClBz	0 - 1000 ppm
Cyclohexane	110-82-7	Chex	0 - 2500 ppm
Diesel	68476-34-6	Desl	0 - 2000 ppm
Ethyl acetate	141-78-6	Etat	0 - 8000 ppm
Ethylbenzene	100-41-4	EtBz	0 - 1000 ppm
Gasoline	8006-61-9	Gaso	0 - 2000 ppm
Isobutylene	115-11-7	iBut	0 - 2000 ppm
Jet fuel	8008-20-6	JetF	0 - 2000 ppm
Methyl ethyl ketone	78-93-3	MEK	0 - 2000 ppm
Methylbromide	74-83-9	MeBr	0 - 4000 ppm
Methyl-tert-Butylether	1634-04-4	MTBE	0 - 2000 ppm
n-Nonane	111-84-2	Nona	0 - 3000 ppm
n-Octane	111-65-9	Octa	0 - 4000 ppm
o-Xylene	95-47-6	Xyol	0 - 1000 ppm
Styrene	100-42-5	Styr	0 - 800 ppm
Toluene	108-88-3	Tolu	0 - 1000 ppm
Trichloroethylene	79-01-6	TCE	0 - 1000 ppm
Vinyl chloride	75-01-4	VC	0 - 4000 ppm

The standard gas is: Isobutylene