DrägerSensor® Smart PID

Order no. 83 19 100

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	UV lamp
Dräger X-am 7000	yes	yes	1 years	> 1 year	10.6 eV

MARKET SEGMENTS

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

TECHNICAL SPECIFICATIONS

Detection limit:	2 ppm isobutylene
Resolution:	1 ppm up to 100 ppm
	2 ppm from 100 to 250 ppm
	5 ppm from 250 ppm upwards
Measurement range:	0 to 2,000 ppm isobutylene
General technical specifications	
Ambient conditions	
Temperature:	(–20 to 60)°C (–4 to 140)°F
Humidity:	(10 to 95)% RH
Pressure:	(700 to 1,300) hPa
Warm-up time:	4 minutes

FOR THE MEASUREMENT RANGE 1 TO 2,000 PPM WHEN CALIBRATED WITH ISOBUTYLENE IN AIR:

Response time:	Diffusion mode ≤ 15 seconds (t_{20})
	Diffusion mode ≤ 50 seconds (t_{90})
	Pump mode ≤ 10 seconds (t_{20})
	Pump mode ≤ 25 seconds (t_{90})
Precision	
at 100 ppm isobutylene:	≤ ± 2 ppm isobutylene
Linearity error, typical:	≤ ± 5% of measured value
Pressure effect	≤ ± 0.1% of measured value/hPa
Effect of humidity, at 40°C (104 °F) (0 to 90% RH, non-condensing)	
Zero point:	≤ ± 0.06 ppm isobutylene/% RH
at 100 ppm isobutylene:	≤ ± 0.15 ppm isobutylene/% RH
Test gas:	approx. 100 ppm i-C_4H_8 (isobutylene)

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
Acetone	67-64-1	ACTO	0–2,000 ppm
alpha-pinene	2437-95-8	aPIN	0–1,000 ppm
Benzene	71-43-2	BENZ	0–1,000 ppm
Chlorobenzene	108-90-7	CLBZ	0–1,500 ppm
Cyclohexane	110-82-7	CYHE	0–3,000 ppm
Ethyl acetate	141-78-6	ETAC	0–7,000 ppm
Ethylbenzene	100-41-4	ETBZ	0–1,500 ppm
Isobutylene	115-11-7	IBUT	0–2,000 ppm
Methyl bromide	74-83-9	MEBR	0–4,000 ppm
Methyl ethyl ketone	78-93-3	MEK	0–1,000 ppm
Methyl tert-butyl ether (MTBE)	1634-04-4	MTBE	0–2,000 ppm
n-nonane	111-84-2	NONA	0–3,000 ppm
n-octane	111-65-9	OCTA	0–5,000 ppm
Styrene	100-42-5	STYR	0–1,500 ppm
Toluene	108-88-3	TOLU	0–1,500 ppm
Trichloroethylene	79-01-6	TCE	0–1,500 ppm
Vinyl chloride	75-01-4	VC	0–3,000 ppm
o-Xylene	95-47-6	XYLE	0–1,500 ppm
Diesel		DESL	0–2,000 ppm
Gasoline		GASO	0–2,000 ppm
Jet fuel		JP_8	0–2,000 ppm

The standard gas is: Isobutylene