

Key Features & Benefits:

- Compact, open can design
- High poison resistance
- Superior shock and orientation insensitivity

Performance Characteristics

MEASUREMENT

Operating Principle	Catalytic Oxidation
Gases Detected	Most combustible gases and vapours
Range	0-100% LEL
Sensitivity	28 ± 5 mV/%methane
T90 Response Time	<20 seconds (methane)
Poison Resistance	Increased silicone and chlorine poison resistance
Linearity	Linear up to 3% methane

ELECTRICAL

Operating Voltage	3.5 ± 0.1 VDC
Detector Operating Current	75 mA in recommended circuit
Resolution	Electronics dependant

MECHANICAL

Casing Material	Stainless steel 304
Pin Material	KOVAR alloy
Orientation Sensitivity	None

ENVIRONMENTAL

Operating Temperature Range	-5°C to +60°C
Operating Pressure Range	1 atm ± 10%
Operating Humidity Range	0-100% RH non-condensing

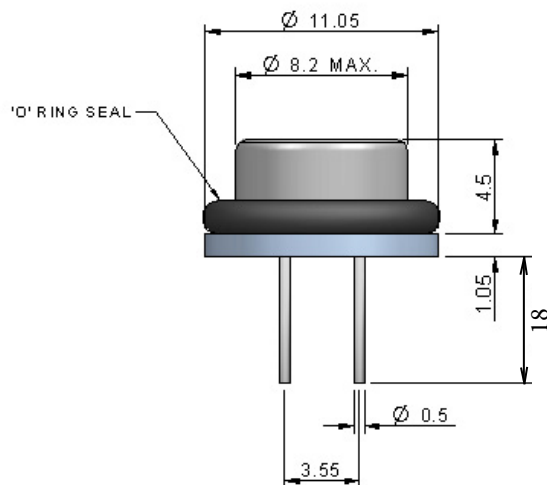
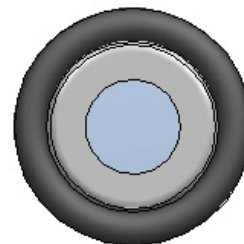
LIFETIME

Long Term Span Drift*	<5% signal/month
Long Term Zero Drift*	<5% LEL _{methane} /month
Recommended Storage Temp	0°C to 20°C
Shelf life	6 months in sealed container
Expected Operating Life	2 years in clean air
Warranty	12 months from date of despatch

* Measured over a 6 month period

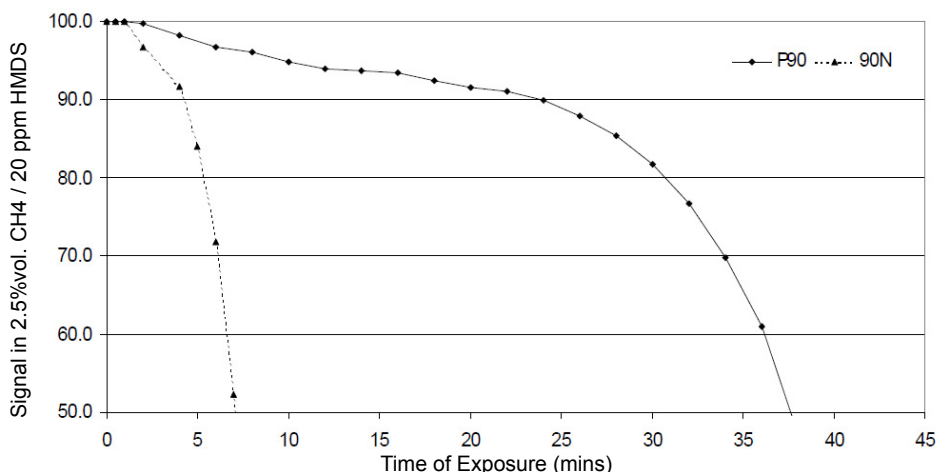
N.B. Flow rate of 300 ml/min. Conditions at 20°C, 50% RH, and 1013 mbar unless otherwise noted.

Product Dimensions



All tolerances ± 0.15 mm

Accelerated Life Tests - 90N vs. P90 HMDS Poison Resistance



Relative Sensitivity

The table below shows the variation in response of a P90-E CiTipeL[®] on exposure to a range of gases and vapours at the same %LEL concentration. The figures are experimentally derived and expressed relative to the methane signal (=100).

Note: The results are intended for guidance only. For the most accurate measurements an instrument should be calibrated using the gas under investigation.

Combustible Gas/Vapour	Relative Sensitivity	Combustible Gas/Vapour	Relative Sensitivity
Methane	100	Carbon Monoxide	105
Propane	60	Acetone	60
n - Butane	60	Methyl Ethyl Ketone	50
n - Pentane	50	Toluene	45
n - Hexane	45	Ethyl Acetate	55
n - Heptane	45	Hydrogen	105
n - Octane	40	Ammonia	135
Methanol	80	Cyclohexane	55
Ethanol	70	Leaded Petrol	55
Iso - Propyl Alcohol	55	Unleaded Petrol	55
Acetylene	80	Ethylene	85

*Each sensitivity has been rounded to the nearest 5%

SAFETY NOTE

This sensor is designed to be used in safety critical applications. To ensure that the sensor and/or instrument in which it is used, are operating properly, it is a requirement that the function of the device is confirmed by exposure to target gas (bump check) before each use of the sensor and/or instrument. Failure to carry out such tests may jeopardize the safety of people and property.

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Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time.

