200N-E CiTipeL®

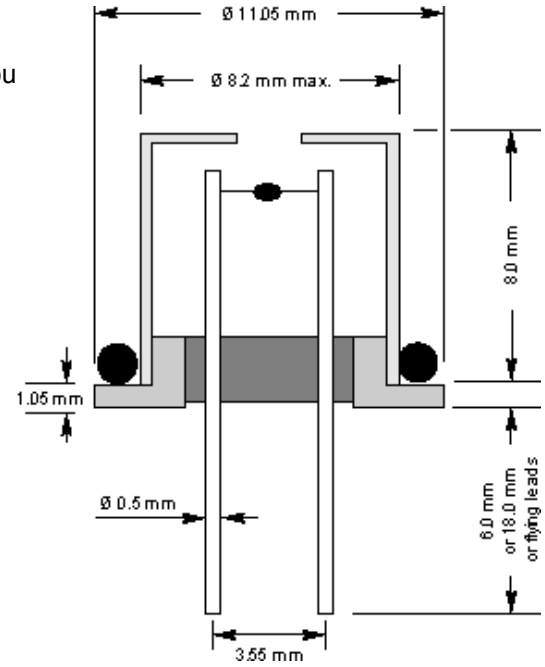
Combustuble Gas Sensor
Part Number: PM012-000

Technical Specifications

MEASUREMENT	
Operating Principle	Catalytic Bead
Gases Detected	Most combustible gases and vapou
Poison Resistance	Some
Measurement Range	0 - 100%LEL
Output Sensitivity	12 - 18 mV/%methane
Response Time (T_{90})	<15 Seconds (methane)
Linearity	Linear in range 0-5% methane
Resolution	Dependant on electronics
ELECTRICAL	
Operating Voltage	2.0 ± 0.1 VDC
Detector Operating Current	180 mA in recommended circuit
Maximum Power Consumption	422 mW
MECHANICAL	
Connection	18 mm pins
Housing Material	Stainless Steel 316
Pin Material	High temperature alloy
Orientation	Any
LIFETIME	
Long Term Sensitivity Drift	<5% signal / month
Long Term Zero Drift	<2%$LEL_{methane}$ / month
Standard Warranty	12 months from date of despatch

N.B. All performance data is based on conditions at 20°C, 50%RH and 1013 mBar unless otherwise stated.

Product Dimensions



All dimensions in mm
All tolerances ±0.15 mm
unless othewise stated

Relative Sensitivity

The table below shows the variation in response of a 200N-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, and for the most accurate measurements an instrument should be calibrated using the gas under investigation.

Gas / Vapour	Relative Sensitivity	Gas / Vapour	Relative Sensitivity	Gas / Vapour	Relative Sensitivity
Methane	100	Methane	100	Methane	100
Propane	55	Methanol	85	Ethyl Acetate	45
n-Butane	55	Ethanol	65	Hydrogen	90
n-Pentane	45	iso - Propyl Alcohol	50	Ammonia	120
n-Hexane	45	Acetone	55	Cyclohexane	50
n-Heptane	45	Methyl Ethyl Ketone	45	Leaded Petrol	55
n-Octane	40	Toluene	35	Unleaded Petrol	65

Each sensitivity has been rounded to the nearest 5%.

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It is recommended that confirmation of adequate sensor performance be conducted on a regular basis by means of a defined, sensor calibration procedure. The calibration frequency will depend upon the environment in which the sensor is operated and on the perceived level of risk from the build up of flammable atmospheres.

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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