

Performance Characteristics

MEASUREMENT

Operating Principle	Constant Current
Gases Detected	Most combustible gases and vapours
Measurement Range	0-100% LEL
Maximum Methane Concentration	5% v/v
Sensitivity	>12 mV/%methane
T90 Response Time	<10 seconds (methane)
Poison Resistance	
Hexamethyl-Disiloxane	Very high
Hydrogen Sulfide	Very High
Linearity	± 10% LEL up to 100%LEL

ELECTRICAL

Operating Voltage	2.7 ± 0.2 VDC
Detector Operating Current	200 mA
Maximum Power Consumption	580 mW

MECHANICAL

Can Type	Restricted
Casing Material	Nickel Silver
Pin Material	Ferrous alloy with plating of gold over nickel
Orientation Sensitivity	None

ENVIRONMENTAL

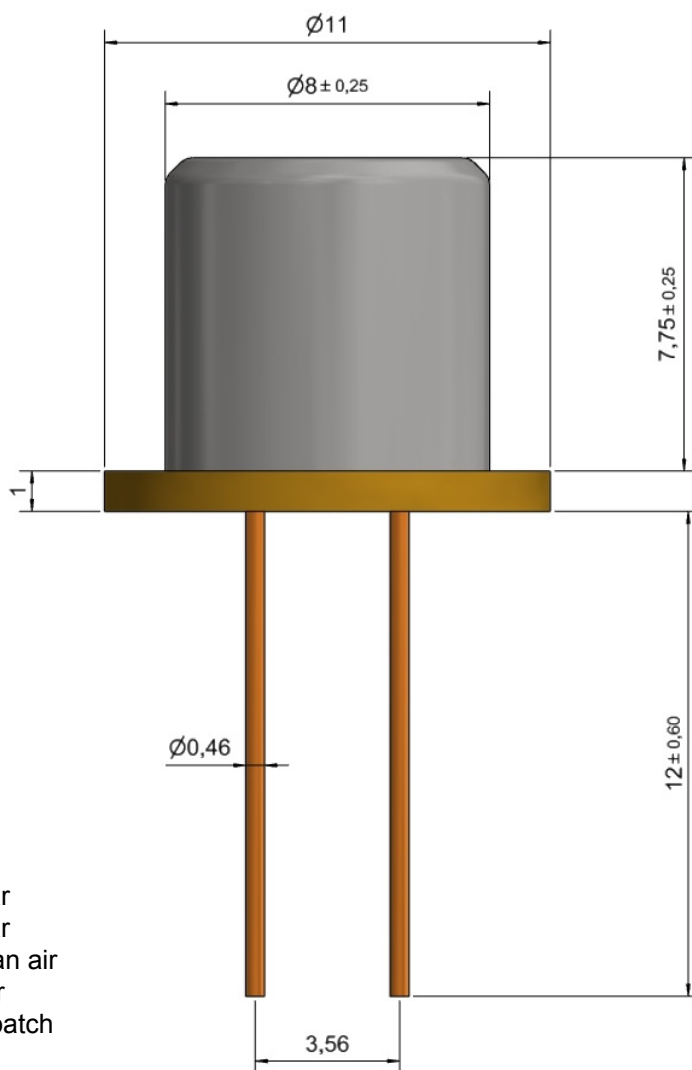
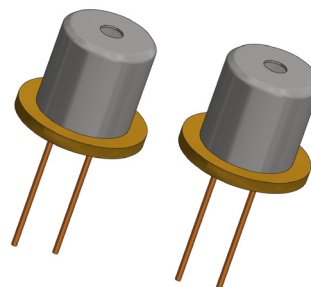
Operating Temperature Range	-40°C to +50°C
Operating Pressure Range	1 atm ± 10%
Operating Humidity Range	0 - 90% RH non-condensing

LIFETIME

Expected Operating Life	Greater than 5 years
Long Term Span Drift	< ±3% LEL methane per year
Long Term Zero Drift	< ±3% LEL methane per year
Storage Conditions	0 - 20°C, 45 - 75%RH in clean air
Storage Life	6 months in sealed container
Warranty Period	12 months from date of despatch

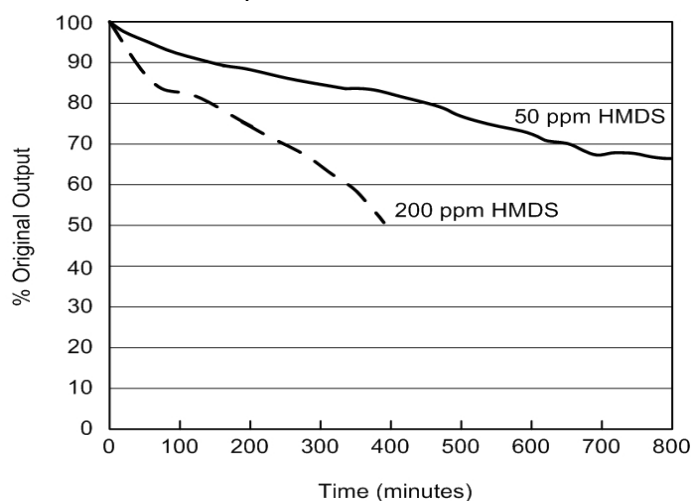
NOTE : Product includes both active and compensating beads

Product Dimensions

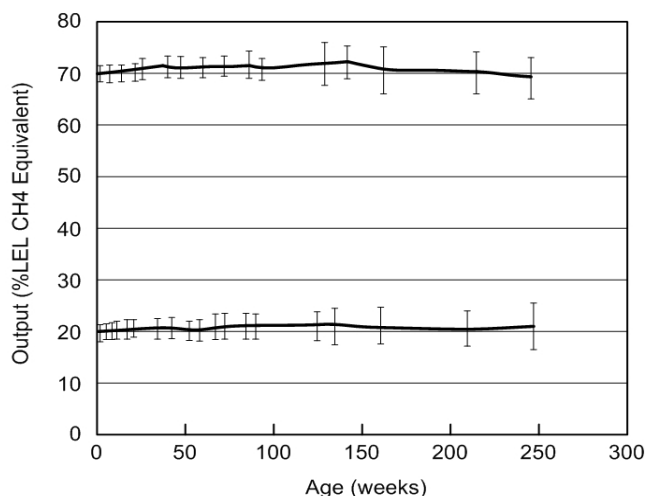


All dimensions in mm
All tolerances ±0.15 mm unless otherwise stated

CAT 16 Poison Resistance (2.5% v/v CH₄, 50 ppm & 200 ppm HMDS)



CAT 16 Lifetime



Note: Poison resistance and lifetime data is supplied for guidance only.

Relative Sensitivity

The table below shows the variation in response of the 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.

Gas / Vapour	Relative Sensitivity	Gas / Vapour	Relative Sensitivity	Gas / Vapour	Relative Sensitivity
Methane	100	Octane	32	Cyclohexane	37
Hydrogen	121	Ethylene	70	Di ethyl ether	39
Ethane	70	Methanol	72	Ethyl Acetate	37
Propane	61	Ethanol	54	Toluene	35
Butane	49	Propan-2-ol	40	Xylene	26
Pentane	42	Acetone	42	Acetylene	39
Hexane	39	Butan-2-one (MEK)	40		
Heptane	35	MBK	30		

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 jeopardise the safety of people and property.

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