

Key Features & Benefits:

- Robust 3-Series packaging
- Factory calibrated mV output
- On-board hydrogen and temperature compensation

Technical Specifications

MEASUREMENT

Sensor Type Used	A3E/D
Maximum Range	4000 ppm CO
Sensitivity	1 mV/ppm ± 5%
Filter	To remove acid gases (high capacity)
Baseline Offset (Clean Air)	±1 mV
Auxiliary Electrode	To compensate for hydrogen cross-interference (to < 1%)
Response Time (T₉₀)	<38 Seconds at 20°C
Resolution	1 ppm
Zero Shift (-20°C to +40°C)	<3 ppm equivalent
Repeatability	1% of signal
Linearity	Linear

ELECTRICAL

Power Supply Required	Recommended 9 VDC Limits 3-10 VDC
Power Consumption	500 µA quiescent
Calibration	Via built-in span and zero potentiometers (Refer to OP15)

MECHANICAL

Weight	34 g (including leads)
Body Material	Polycarbonate
Position Sensitivity	None

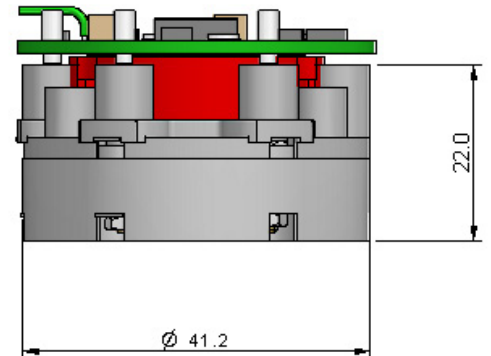
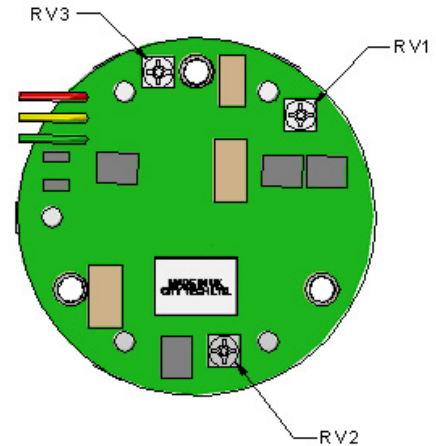
ENVIRONMENTAL

Operating Temperature Range	-20°C to +50°C
Recommended Storage Temp	0°C to 20°C
Temperature Compensation	Yes - refer to OP15
Operating Pressure Range	Atmospheric ± 10%
Pressure Coefficient	0.02% signal/mBar
Operating Humidity Range	15 to 90% RH non-condensing

LIFETIME

Long Term Sensitivity Drift	<2% signal loss/month
Expected Operating Life	Two years in air
Storage Life	6 months in CTL container
Standard Warranty	12 months from date of despatch

Product Dimensions



All dimensions in mm

All tolerances ±0.15 mm unless otherwise stated

IMPORTANT NOTE:

All performance data is based on conditions at 20°C, 50% RH and 1013 mBar. For further information on the operation and calibration of the A3ME/D mV output sensor, please refer to OP15.

Poisoning

CiTiceLs are designed for operation in a wide range of environments and harsh conditions. However, it is important that exposure to high concentrations of solvent vapours is avoided, both during storage, fitting into instruments and operation.

When using sensors with printed circuit boards (PCBs), degreasing agents should be used before the sensor is fitted. Do not glue directly on or near the CiTiceL as the solvent may cause crazing of the plastic.

Cross Sensitivity Table

Whilst CiTiceLs are designed to be highly specific to the gas they are intended to measure, they will still respond to some degree to various other gases. The table below is not exclusive and other gases not included in the table may still cause a sensor to react. The figures are expressed as a percentage of the primary sensitivity (i.e. CO = 100%).

Gas	A3ME/D (%)
Hydrogen Sulfide, H ₂ S	0
Sulfur Dioxide, SO ₂	0
Nitric Oxide, NO	0
Nitrogen Dioxide, NO ₂	0
Hydrogen, H ₂	<1 (see note)
Hydrogen Chloride, HCl	0
Ethylene, C ₂ H ₄	~ 35

Note: Cross sensitivity to H₂ <1% after compensation

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