

Key Features & Benefits:

- Robust 3-Series packaging
- Industry standard 4-20 mA output

Technical Specifications

MEASUREMENT

Sensor Type Used	7OXV
Measurement Range	0-25%vol. O ₂
Filter	None
Output	4-20 mA d.c.
Response Time (T₉₅)	<15 Seconds at 20°C
Resolution	0.1%vol O ₂
Linearity	Can be considered linear in many cases. Refer to OP-05 for further details

ELECTRICAL

Power Supply Required	10 - 35 VDC
Output Impedance	15 MΩ
Calibration	Via built-in span potentiometer

MECHANICAL

Mounting	Via mounting nose supplied
Weight	Approx. 120 g including mounting accessory
Position Sensitivity	None

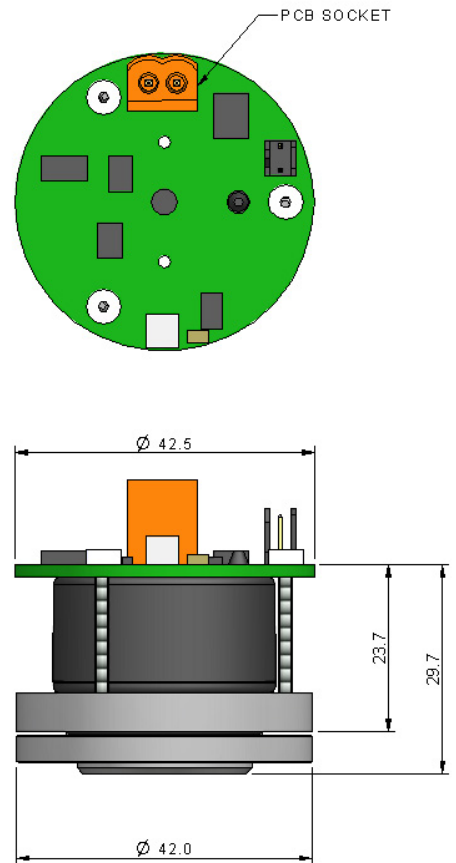
ENVIRONMENTAL

Operating Temperature Range	-20°C to +50°C
Recommended Storage Temp	0°C to 20°C
Temperature Compensation	Refer to OP-05
Operating Pressure Range	Atmospheric ± 10%
Pressure Coefficient	0.02% signal/mbar
Operating Humidity Range	0 - 99% RH non-condensing

LIFETIME

Long Term Sensitivity Drift	<5% signal loss/year
Expected Operating Life	Two years in air
Storage Life	6 months in CTL container
Standard Warranty	24 months from date of despatch (This amounts to a variation of condition 6 of our standard terms and conditions which otherwise apply)

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 T70X/V 4-20mA transmitter, please refer to OP-05.

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

Toxic gases at TLV levels will have no cross-sensitivity effect on Oxygen CiTiceLs. At very high levels (i.e. percent levels), highly oxidising gases (e.g. ozone and chlorine) will interfere to the extent of their oxygen equivalent, but most other commonly occurring gases will have no effect.

For example:	Methane 100%	0
	Hydrocarbons 100%	0
	Hydrogen 100%	< -2%
	Carbon monoxide 20%	< -0.5%

Acid gases such as CO₂ and SO₂ will be slightly absorbed by the electrolyte and tend to increase the flux of oxygen to the electrode. This gives an enhanced oxygen signal of about 0.3% of signal per 1% CO₂. Capillary controlled CiTiceLs (such as the 7OX/IV) are not suitable for continuous operation in concentrations of CO₂ above 25%. In applications where high concentrations of CO₂ are present, the AO2 CiTiceL is recommended.

The cross-sensitivity values quoted are based on tests conducted on a small number of sensors. They are intended to indicate sensor response to gases other than the target gas. Sensors may behave differently with changes in ambient conditions and any batch may show significant variation from the values quoted.

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.

Every effort has been made to ensure the accuracy of this document at the time of printing. In accordance with the company's policy of continued product improvement City Technology Limited reserves the right to make product changes without notice. No liability is accepted for any consequential losses, injury or damage resulting from the use of this document or from any omissions or errors herein. The data is given for guidance only. It does not constitute a specification or an offer for sale. The products are always subject to a programme of improvement and testing which may result in some changes in the characteristics quoted. As the products may be used by the client in circumstances beyond the knowledge and control of City Technology Limited, we cannot give any warranty as to the relevance of these particulars to an application. It is the clients' responsibility to carry out the necessary tests to determine the usefulness of the products and to ensure their safety of operation in a particular application.

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

