

# PRODUCT DATA SHEET

www.internationalgasdetectors.com

**OLIVER IGD**

**Control Systems**

Transmitters

Sensors

Accessories

## TOCSIN 950 Oxygen Monitoring

- Wall mounting controller
- 24V DC or 110/230vAC operation
- 24V Independent Audio/Visual Alarm driver
- Volt free contact outputs
- 4-20mA signal outputs
- Digital display showing gas concentration
- Battery backup options
- Optional additional input/output cards
- Easy installation
- Duct mounting Oxygen sensor



The Tocsin 950 is a simple to use oxygen analyser. It uses a Zirconia oxygen sensor which is a reliable device used in many industrial and aviation applications.

The product is not susceptible to interference from any other gasses and can tell the relative amount of oxygen in any atmosphere.

The device gives a direct output and a direct reading so you can instantly see the oxygen content on a clear LCD screen.

The product can be used to provide control of the oxygen content or give alarms and trigger external devices.

A wide range of options are available. Additional probes can be added to provide measurement of Carbon Monoxide, Nitric Oxide or Nitrogen Dioxide.

## Oxygen Probe Specification

Supply Voltage, V	24Vdc $\pm$ 5%
Supply Current, A	500mA
Output Signal	0-10Vdc or 4-20mA
Oxygen Range	0.1 - 25% v/v
Ambient temperature	-10°C to 50°C
Resolution	12 bit
Sensitivity	1.05ms/mbar
Accuracy	$\pm$ 2%
Reproducibility	$\pm$ 1%
Warm up time	10min (approx.)
Permissible gas temperature	-100 +250°C
Gas flow rate	0-10m/s
Repetitive permissible acceleration	5g
Incidental permissible acceleration	30g
Protection level, housing	IP65
Weight	4.5 KG (excluding probes)

### OPTIONS FOR:

FLUE TEMPERATURE  
COMBUSTION EFFICIENCY  
CARBON MONOXIDE  
NITRIC OXIDE  
NITROGEN DIOXIDE



**IGD**

International Gas Detectors

CH<sub>4</sub> H<sub>2</sub>S CO<sub>2</sub>  
NO NO<sub>2</sub> SO<sub>2</sub>

**OLIVER IGD**

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FS646773  
Ref: ROS67B

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## EC Declaration of Conformity

Issuers name and address:

Oliver IGD Limited of  
Triton House  
Crosby St  
Stockport, SK2 6TS  
United Kingdom



Declares that the product listed as:

**TOCSIN 950**

Addressable Gas Detection Control Panel

Are in conformity with the provisions of the following European Directive(s) when installed, operated, serviced and maintained in accordance with the installation and operating instructions contained in the product documentation.

**2004/108/EC**      **EMC Directive**  
**2006/95/EC**      **Low Voltage Equipment Directive** (note not applicable to 24V DC Powered Versions)

And that the standards and/or technical specifications referenced below have been applied or considered.

EN 61779-1:2000	Electrical apparatus for the detection and measurement of flammable gases, general requirements and test methods.
EN 50271:2010	Electrical apparatus for the detection and measurement of combustible gases, toxic gases or Oxygen: requirements and tests for apparatus using software and or digital technologies. <i>Excluding requirements for SIL</i>
EN 61000-6-2: 2005	EMC Generic standards. Immunity for industrial environments
EN 61000-6-4: 2007	EMC Generic standards. Emission standard for industrial environments
EN 61000-3-2/A2:2009	EMC Limits. Limits for harmonic current emissions (equipment input current $\leq 16$ A per phase)
EN 61000-3-3: 2008	EMC Limits. Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current $\leq 16$ A per phase

Technical File Reference      T950-TF9

Product Markings      **CE**      **TOCSIN i700**      *SI*-serial number

Oliver IGD Limited Operate and Independently assessed ATEX/IECEX QAN.

Oliver IGD Limited operate an independently assessed ISO9001:2008 Quality Management System.

Testing Agency:

TUV - SUD  
Octagon House  
Concorde Way  
PO 15 5RL  
Fareham

Quality Assurance Certificate Number  
**ExVeritas 16PQAN0014**

Quality Management Certificate Number  
**FS 646773**

Quality Assurance Notification Number:  
**2585**

ExVeritas,  
Units 16-18,  
Abenbury Way,  
Wrexham Industrial Estate,  
Wrexham, UK, LL13 9UZ

BSI Assurance UK LTD,  
Chiswick High Road,  
London  
W4 4AL  
UK



Mehr Sicherheit.  
Mehr Wert.

TUV Certificates and reports can be checked on-line at [https://www.tuev-sued.de/industry\\_and\\_consumer\\_products/certificates](https://www.tuev-sued.de/industry_and_consumer_products/certificates)

Issued on:      20th Feb 2016

At Oliver IGD Limited, Stockport, SK2 6TS , United Kingdom

Signature:

Declaration of Conformity in accordance with EN ISO/IEC 17050-1:2010

Name

Andrew J Collier M.I.O.D

Position:      Managing Director

Date:      20th Feb 2016

Declaration Ref: T950-DEC-4



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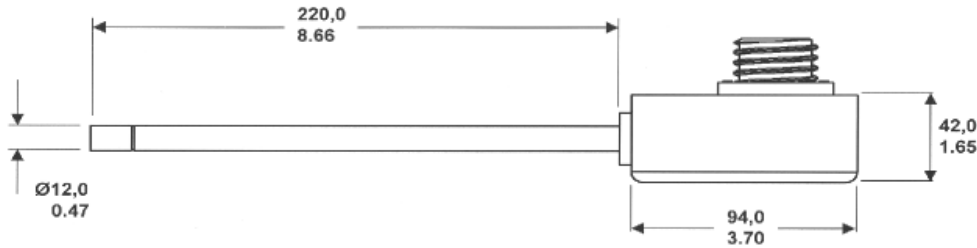
Control Systems

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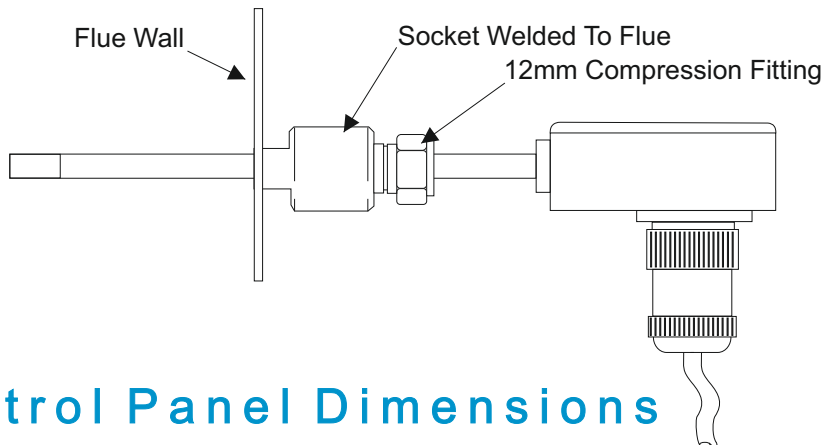
Sensors

Accessories

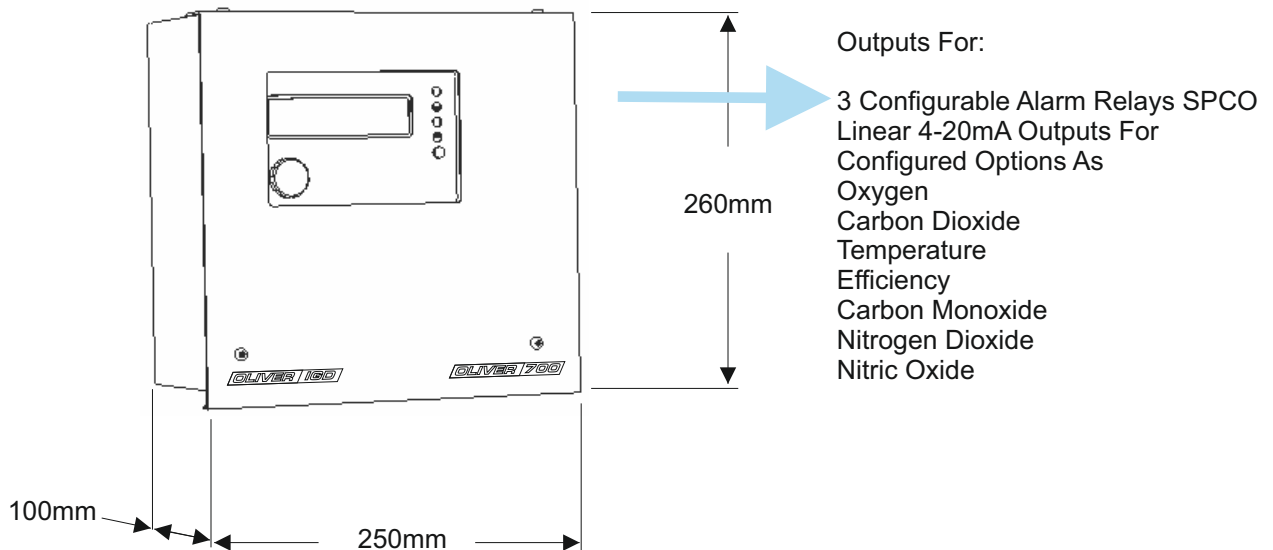
## Basic Probe Dimensions



## Recommended Probe Mounting



## Basic Control Panel Dimensions



**IGD**

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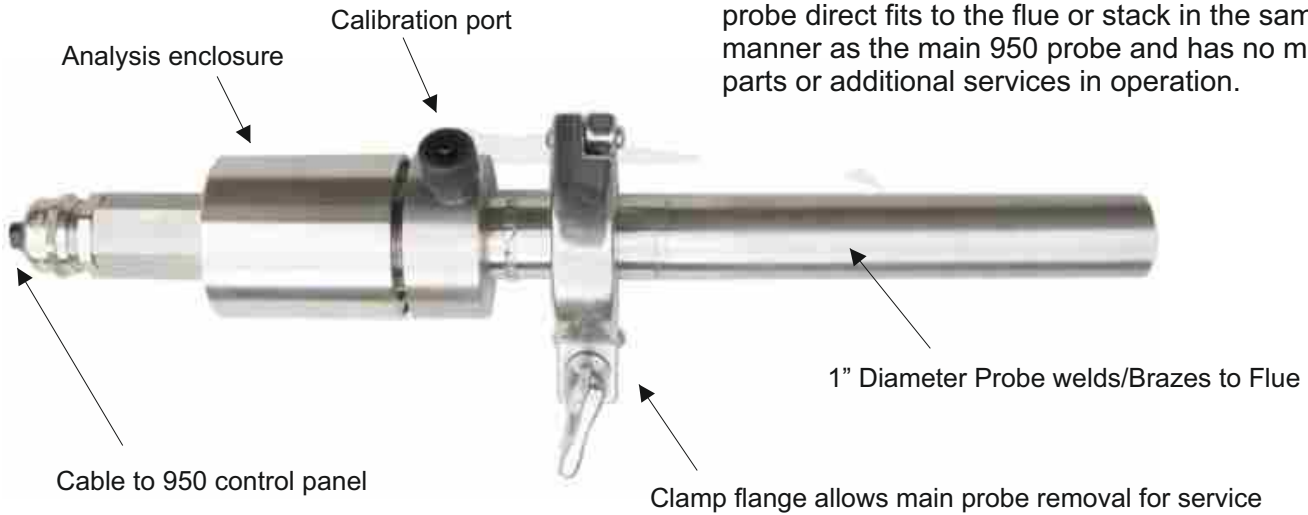
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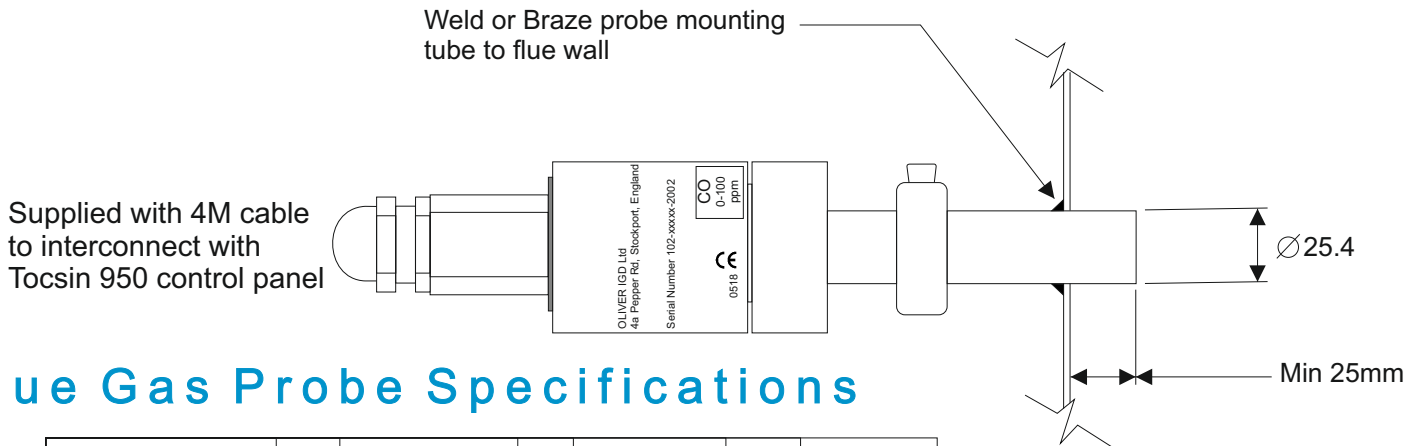
Accessories

## Flue Gas Probes

An additional probe can be fitted to the Tocsin 950 to provide Carbon Monoxide measurement. The probe direct fits to the flue or stack in the same manner as the main 950 probe and has no moving parts or additional services in operation.



## Flue Gas Probe Mounting Details



## Flue Gas Probe Specifications

Gas - Range	CO	0-1000ppm	NO	0-1000ppm	NO2	0-200ppm
Power	24V DC					
Temperature	-10 to 50 Deg C Ambient 100 Deg C Flue Temp					
RH	5 to 95% RH					
Accuracy	+/- 3%					
Output	Linear 4-20mA output from Tocsin 950 control panel					



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## Control Panel Specifications

Power Source	85 to 260 VAC ( 18 to 30 VDC Option)
Power Consumption	40 Watts
Display	2 x 16 backlight LCD
Operating Temperature	0°C to 50°C
Operating Humidity	Up to 95% non-condensing
Resolution	2 Decimal Places O2 and CO2
	Temp Displayed as Whole Numbers (Temp is optional)
	1 Decimal Place Efficiency 0-100% (Option)
Update Rate	1 Second
Size (mm)	255 (H) x 265 (W) x 100 (D)
Inputs	O2 sensor (4-20mA)
	Temp Sensor Option (4-20mA 0-500 Deg C)
Available Outputs	3 x configurable SPCO relays (7 Amp non conductive load)
	1 x fault SPCO relays (7 Amp non conductive load)
	1 x solid state audio/sounder 24VDC
	1 x solid state visual/flasher 24VDC
	4-20mA Output For Oxygen Reading
	4-20mA Output For Calculated CO2
	4-20mA Output For Temperature (Optional)
	4-20mA Output For Efficiency (Optional Requires Temp Probe Option)
Optional Equipment	Battery backup module 7AH 255 (H) x 265 (W) x 100 (D)
CE Declaration	EN50081-2: 1994, EN50082-2: 1995 EN61010-1: 2001

## Order Codes

Part Number	Description
5135501	Tocsin 950 base unit Includes: Control Panel Duct Mounted Probe 3M Interface Cable
5135601	Tocsin 950 Temperature Probe Option
5135701	Tocsin 950 Efficiency Output Option
5880901	Tocsin 950 Carbon Monoxide Probe 0-1000ppm
5881001	Tocsin 950 Nitric Oxide Probe 0-1000ppm
5881101	Tocsin 950 Nitrogen Dioxide Probe 0-200ppm



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