

TOC-750S

Advanced 2-Wire Sampling Gas Detector

IGD



▶ Easy to Install

Save up to 70% on installation with our 2-Core polarity-independent cable.
Ready to use with 1-click auto setup & self-check.
Repurpose your existing wiring.
Accommodates integration into 3rd party systems.

▶ Piezo Pump Tech

Sample up to 20m away at up to 1.5L/min for targeted gas detection in hard-to-reach areas.
Field-proven Piezo pump technology draws gases from the gas hazard area to the detector.
Compatibility with our huge range of collector cones, filters and end-of-line units.
Our pumps feature no moving parts, ensuring longer service life, and virtually silent operation.

▶ Unparalleled Versatility

2-Wire Addressable technology supported by Sentinel+™ digital communication.
Continuous sampling & monitoring means round-the-clock protection.
Samples for a wide range of gases.
The only low-level N₂O detector on the market

▶ Peace of Mind

Designed and manufactured in the UK.
Backed up by more than a century of innovation and our 10-year guarantee.
All compliance is supported by 3rd party certification.



Response Times

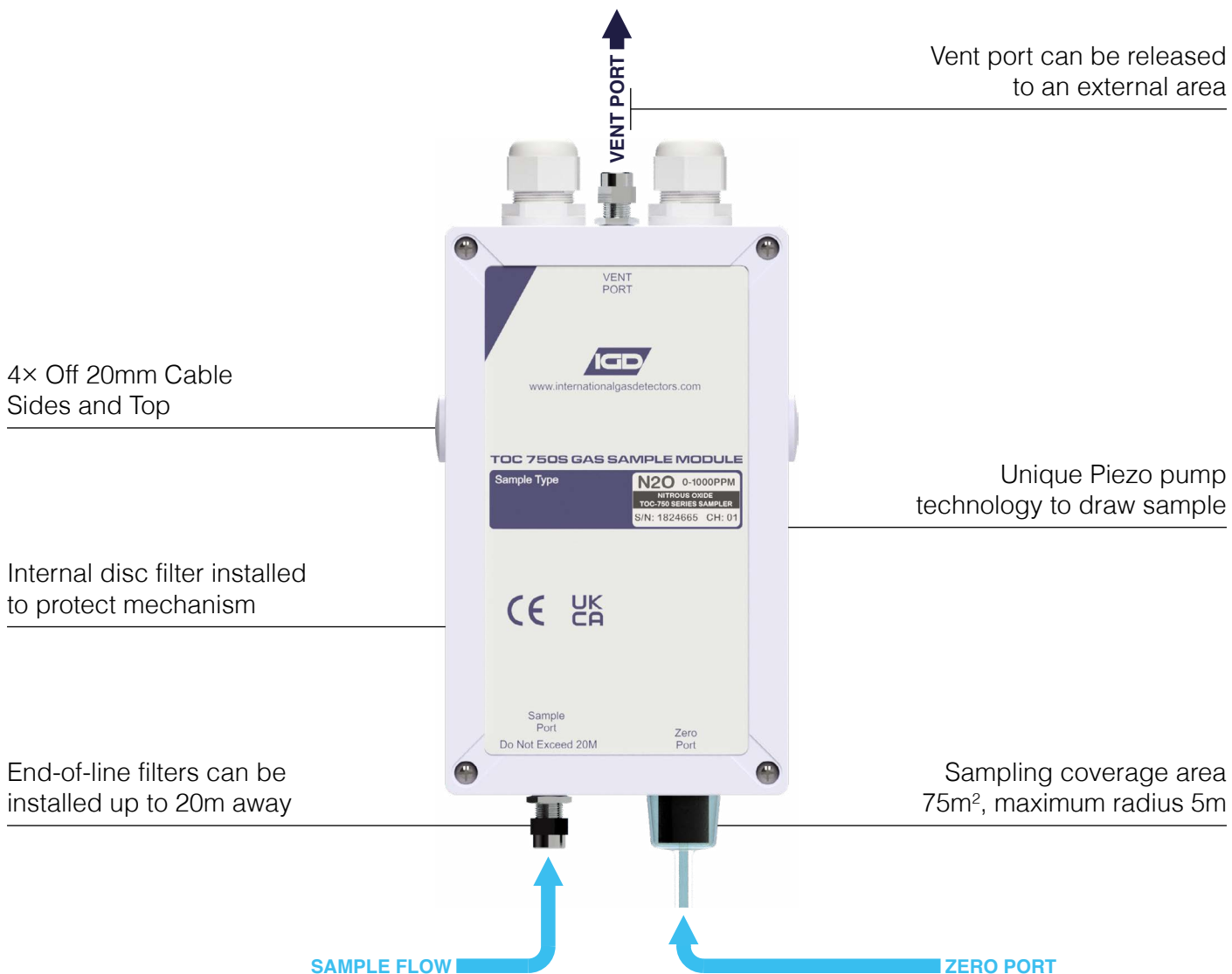
Sensor Technology

Sensor response times and accuracies are determined by the type of sensor used. The following table provides general guidance for tests carried out by IGD at standard conditions.

Type	T90 Response	Accuracy
Pellistors	<10s	+/-2% LEL
Semiconductor	<15s	+/-5% of Range
Infrared	<15s	+/-2% of Range
Electrochemical as O ₂	<15s	+/-2% of Range
as CO, H ₂ S, SO ₂	<30s	
as NO ₂ , CL ₂ , NH ₃	<50s	

Sampling Technology

Advanced 2-Wire Addressable Gas Detector



Unlike standard diffusion detectors, sampling detectors use a Piezo pump, to draw gas samples into the detector. This enables you to draw gases, from a space that contains a gas hazard to the detector which might be placed in an easier-to-reach area, a safe area, or a clean room. This feature along with our huge range of compatible end-of-line units, filters, sample tubes and collector cones, makes the TOC-750S the ultimate problem solver for a huge range of applications.

Our unique Piezo pump technology features virtually no moving parts to provide a long service life and near-silent operation. The additional zeroing port means that our samplers can be set up to periodically, automatically zero themselves, providing unparalleled zero stability, which allows for wider ranges, lower alarm points and complete, accurate protection. Unlike conventional sequential samplers, The 750S continuously samples and monitors the hazard, only pausing for occasional auto-zero and auto-calibration.

2-Wire Addressable Technology

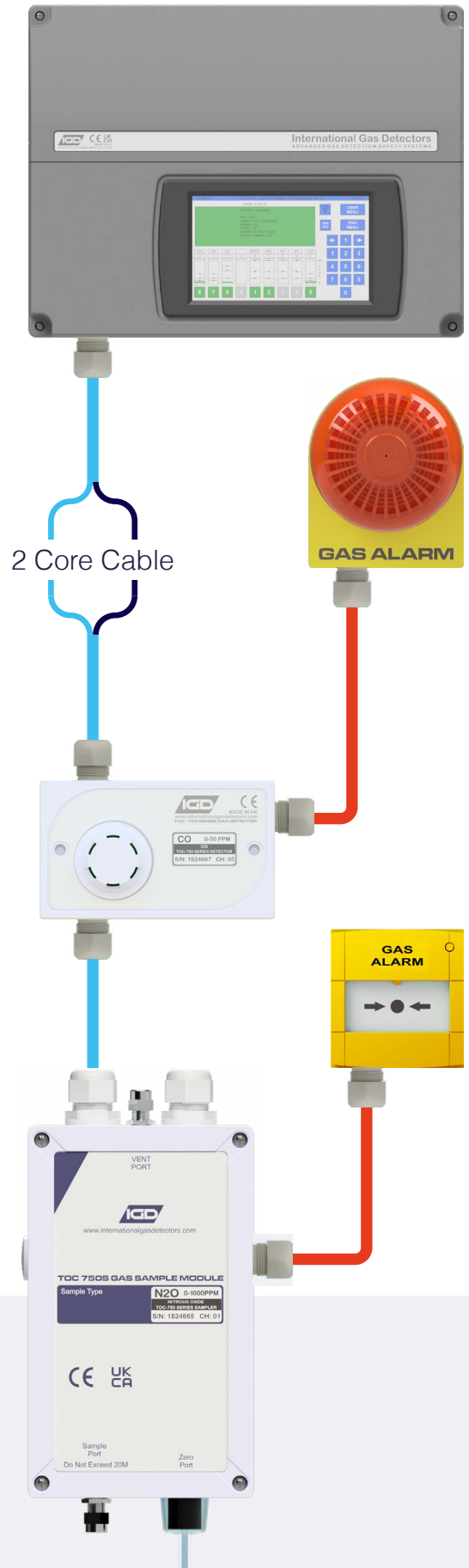
The Future of Gas Detection. Now.

The TOC-750S is available on our 2-Wire Addressable gas detection system, which is supported by our Sentinel+™ software. This means that the sampler can be placed anywhere on an addressable cable and run along with Safe Area and ATEX detectors, and other accessories such as beacon sounders and collector hoods and cones.

Key features include:

- Auto-find
- Auto-configure
- Auto-update
- Downloadable status reports

The system provides fast, efficient, error-free performance and ultimate flexibility, accommodating alarms and the ability to interface with plant shut-down hardware and communicate clearly to BMS and similar systems. 2-core, polarity-independent cabling for both power and communication minimises cabling costs without compromising on safety.



Installation Cables

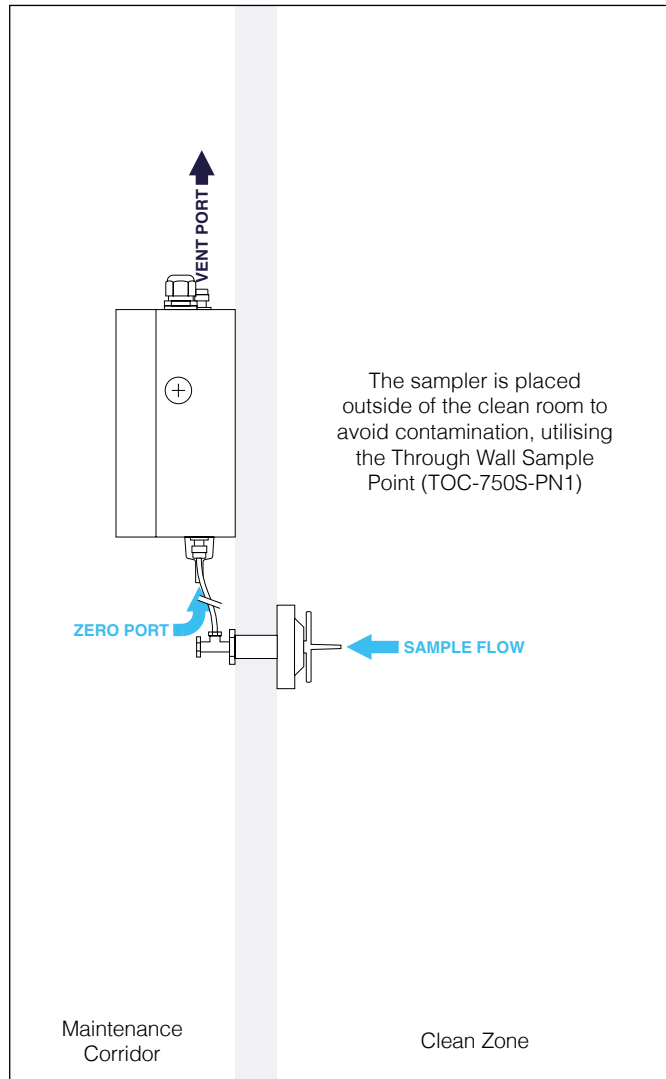
Advanced 2-Wire Addressable Control Panel

- Supported installation cables 2 core 1.5mmSQ or 2.5mmSQ
- Typically SWA, MICC, SY, CY Screened or similar

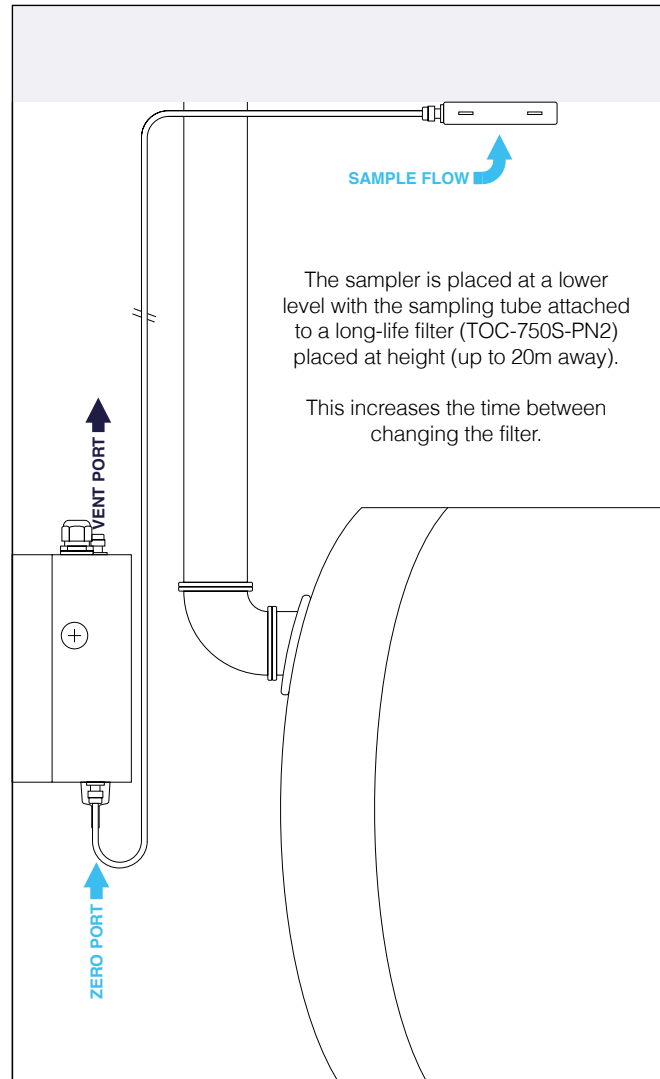
See the IGD cable system calculator

Example Usage

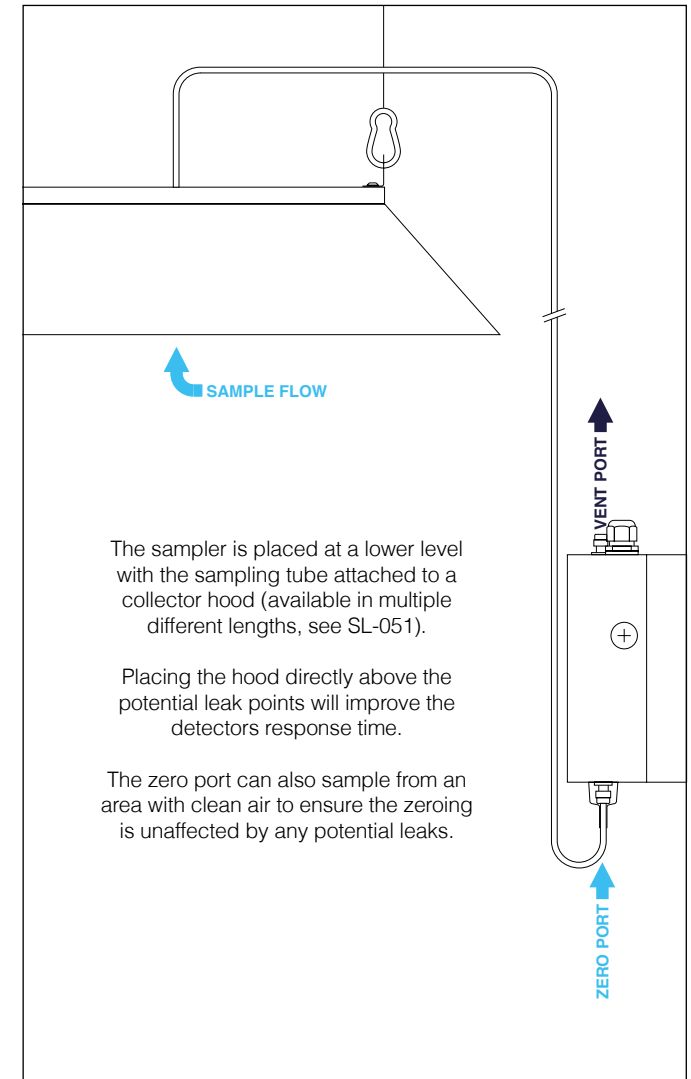
Versatility for Multiple Applications



Clean Room



Boiler Plant Room



Refrigeration Plant

Order Codes

TOC-750S Sampling Gas Detector

Gas	Range	Order Code
Long-Life Pellistors (Refer to Data Sheet SL-034)		
General Flammable Gases	0-100% LEL	TOC-750S-MK8
Infrared		
Carbon Dioxide	0-5% VOL	TOC-750S-HCO2
Carbon Dioxide	0-100% VOL	TOC-750S-HHCO2
Carbon Dioxide	0-5,000ppm	TOC-750S-CO2
General Flammable Gases	0-100% LEL	TOC-750S-IRF
Nitrous Oxide	0-1,000ppm	TOC-750S-N2O
Refrigerant Gases (Contact IGD for full list)	0-2,000ppm	TOC-750S-IRR
Sulphur Hexafluoride	0-1,000ppm	TOC-750S-SF6
Electrochemical (Refer to Data Sheet SL-029)		
Carbon Monoxide	0-100ppm	TOC-750S-CO
Dichloroethane	0-600ppm	TOC-750S-DCE
Ethylene	0-200ppm	TOC-750S-C2H4
Ethylene Oxide	0-100ppm	TOC-750S-HETO
Formaldehyde	0-5ppm	TOC-750S-CH2O
Formaldehyde	0-50ppm	TOC-750S-CH2O-5
Hydrogen	0-1,000ppm	TOC-750S-H2
Hydrogen Chloride	0-10ppm	TOC-750S-HCL
Hydrogen Cyanide	0-10ppm	TOC-750S-HCN
Hydrogen Fluoride	0-10ppm	TOC-750S-HF
Hydrogen Peroxide	0-10ppm	TOC-750S-H2O2
Hydrogen Sulfide	0-50ppm	TOC-750S-H2S
Nitric Acid	0-5,000ppm	TOC-750S-HNH3-L
Nitric Oxide	0-5ppm	TOC-750S-NO
Nitrogen Dioxide	0-5ppm	TOC-750S-NO2

Gas	Range	Order Code
Phosphine	0-5ppm	TOC-750S-PH3
Silane	0-10ppm	TOC-750S-SIH4
Sulfur Dioxide	0-5ppm	TOC-750S-SO2
Photolonisation (Refer to Data Sheet SL-029)		
VOCs	0-50ppm	TOC-750S-PID05
VOCs	0-100ppm	TOC-750S-PID01
VOCs	0-200ppm	TOC-750S-PID02
VOCs	0-2,000ppm	TOC-750S-PID20
VOCs	0-5,000ppm	TOC-750S-PID50
Ionic Ammonia (Refer to Data Sheet SL-029)		
Ammonia	0-1,000ppm	TOC-750S-NH3-L
Long-Life Oxygen		
Oxygen (Lead Free)	0-25% VOL	TOC-750S-O2
Sampler with Long-Life Zero-Port Filter		
Flammable Gases	0-100% LEL	TOC-750SL-MK8
Nitrous Oxide	0-1,000ppm	TOC-750SL-N2O

End-of-Line Probes & Filters

TOC-750S Sampling Gas Detector

Our range of end-of-line probes and filters grants the TOC-750S unparalleled flexibility and makes it the perfect solution for applications as varied as pharmaceuticals, freezers, cold stores, valve stations, sumps and more.

They can all be fitted to the end of a sampling tube (Table D) for targeted detection, and many can be attached directly to the sampler.

All end-of-line options require a particulate cover or a filter (Table A). Spare particulate filters are available (Table B), and a range of spare, gas-specific filters are available for the zero port (Table C).

(A) Sample Port Filters

#	Type	Application	Order Code
1	Spare Internal Disc Filter (pack of 5)	Everything	TOC-750S-INF
	Standard End-of-Line Filter	Everything	TOC-750S-FIL
	Spare Particulate Filter for O2	Everything	TOC-750S-PCF
2	Long Life, End-of-Line Filter	Hard to Reach Areas	TOC-750S-PN2

(B) Sample Port Adaptors

#	Type	Application	Order Code
3	Through Ceiling/ Wall Filter with Luer Lock Requires TOC-750S-INF	Clean Rooms	TOC-750S-PN1
4	End-of-Line Sample Probe Requires TOC-750S-FIL or PCF	Cold or Wet Areas	TOC-750S-PN3
5	End-of-Line Stainless Steel Filter Holder Requires TOC-750S-FIL or PCF	Industrial Environments	TOC-750S-PN4

(C) Zero Port Filters

Various zero port filters are available, contact IGD for your specific application

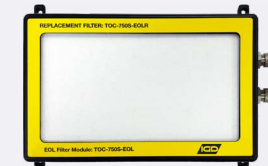
(D) Tubing

Type	Measurement	Order Code
20m Reel Polyurethane Sample Tube	6mm x 4mm	TOC-750S-TBE
5m TFE Lined Sample Probe (for VOCs)		NEO-PRB-5M

1 Internal Disc Filter



2 Long-Life End-of-Line Filter



3 Through Wall/ Ceiling Sample Point



4 Sample Line Probe



5 End-of-Line Stainless Steel Filter Holder



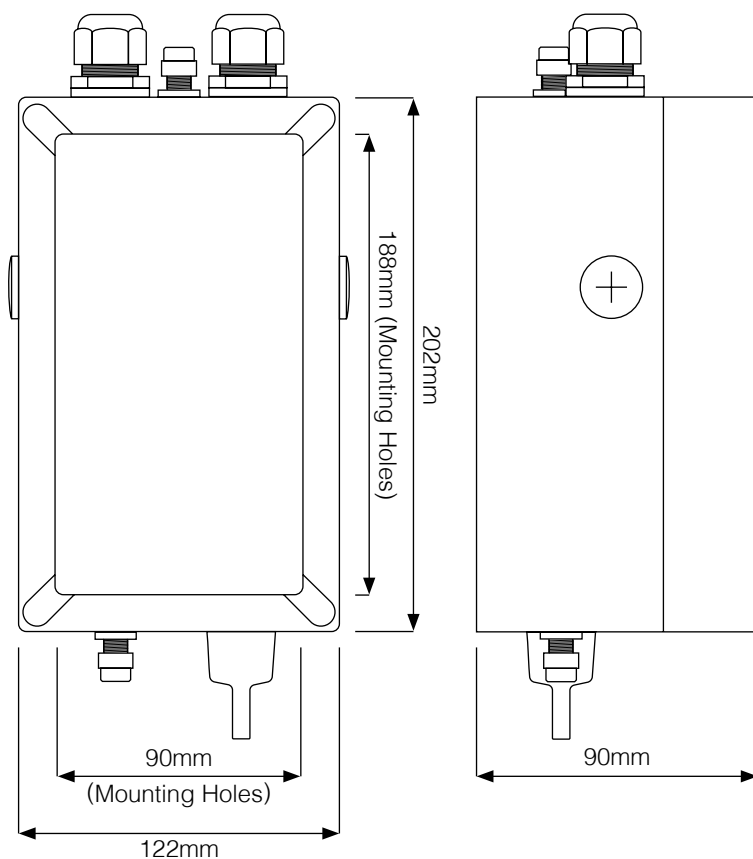
Specifications

TOC-750S Sampling Gas Detector

Power 24V DC	Weight 0.85Kg	Dimensions (wxdxh) See Diagram	Communication IGD Sentinel+™ Protocol, 2-Wire Connection L1,L2
Temperature Range -5° to 55°C (23° to 131°F)	Humidity 20% to 90% RH Non-Condensing	Ingress Protection IP54	Housing Material ABS
Mounting Wall Mount	Sensors Semi-Conductor, Pellistor, Toxic, PID, Oxygen, Infrared	Outputs 14 off SSR Outputs (Switched Neg 24V DC, Common 200mA load shared across all O/P's) Op1 Dedicated to Low Flow	

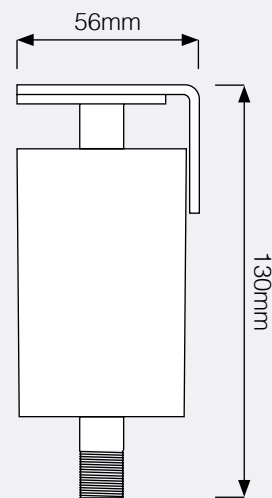
Dimensions

TOC-750S Sampling Gas Detector



Long-Life Zero-Port Filter & Bracket

Attaches to the bottom of the sampler to allow the long-life filter to be attached to the Zero Port (TOC-750SL-MK8 + N2O).



130mm Is added to the overall height of the sampler (total 332mm).

EC Declaration of Conformity

Declares the product listed as:

TOC-750S

Gas Detection
Sampling Modules

Issuers name and address:

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

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**
2014/35/EU **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 61000-6-2: 2005	EMC Generic standards. Immunity for industrial environments
EN 61000-6-4/A1: 2011	EMC Generic standards. Emission stand for industrial environments
EN 61000-3-2: 2014	EMC Limits. Limits for harmonic current emissions (equipment input current \leq 16 A per phase)
EN 61000-3-3: 2013	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 T750-TF9

Quality Management
Certificate Number
FS0646773
EMS696504

Oliver IGD Limited operate an
independently assessed ISO 9001:2015
Quality Management System & ISO 14001
Environmental Management

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



Issued by: Oliver IGD Limited, Stockport, SK2 6SH , 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: 16 May 2024

Declaration Ref: DEC-11