



► **Unparalleled Versatility**

2 Independent 4-20mA outputs.  
2-Wire Sentinel+™ digital communication.  
1 Fault and 2 alarm relays.

► **Fully Certified**

UKCA, ATEX and IECEx certified.  
Built to withstand Zone 1 and 2 hazardous areas.

► **Easy to Use**

Intuitive digital display, concentration, alarms  
and fault status.  
Plug-and-Play sensors.

► **Peace of Mind**

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



Advanced Gas Detector Transmitter

## Introducing the TOC-903-X5

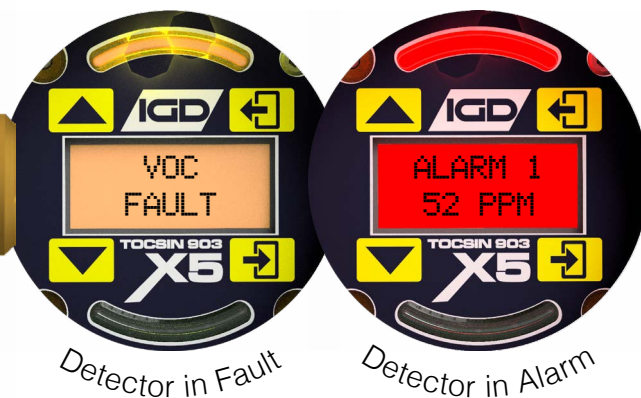
This is the TOC-903-X5 – a detector transmitter approved for ATEX Zone 1 and 2 flammable environments and Zone 21 and 22 dust environments, that can be easily integrated into our 2-Wire Addressable system, or used as a standalone 4-20mA transmitter.

The TOC-903-X5 brings a variety of new tools to the table featuring non-intrusive one-person calibration, and accommodating up to 2 independent sensors, 2 analogue outputs, relays and 2-Wire digital communication. Its ability to monitor for over 400 flammable, toxic or asphyxiant gases ensures suitability for a huge variety of applications cementing the TOC-903-X5 as the most versatile detector on the market. Simple to install, easy to use, and backed by more than a century of innovation.

# TOC-903-X5

## Magnetic Wand

Our Magnetic Wand operates as a stylus allowing you to access the controls without removing the ATEX housing. With the Magnetic Wand, personnel can perform a one-person calibration in ATEX-zoned areas without a hot works permits.



Detector in Fault

Detector in Alarm

## At-a-Glance Status Checks

Our At-a-Glance LED status indicator is bright enough to be visible even in dim and dusty conditions and offers an immediate indication of the status of the environment. A green smile means all is well, a red frown indicates a hazard, and an orange frown indicates a fault.

## ATEX Stopping Plug

For unused ports on the X5 to keep ATEX rating. For example, if the sensor isn't installed in the port.

## Plug-and-Play Sensors

The TOC-903-X5 automatically updates itself when one of our plug-and-play sensors is fitted. Our industry-leading long-life sensors do the work for you, removing the need for setup. With sensors for over 400 flammable gases, the TOC-903-X5 maximises safety and minimises ongoing costs.

(Cables not shown for illustration purposes )

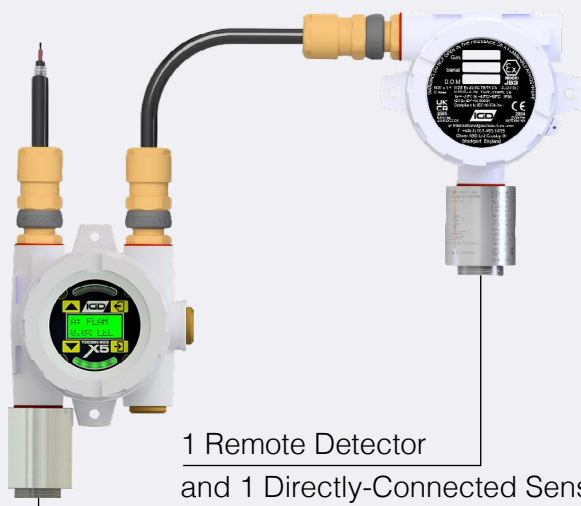
# TOC-903-X5 Configurations



1 Directly-Connected Sensor



2 Directly-Connected Sensors

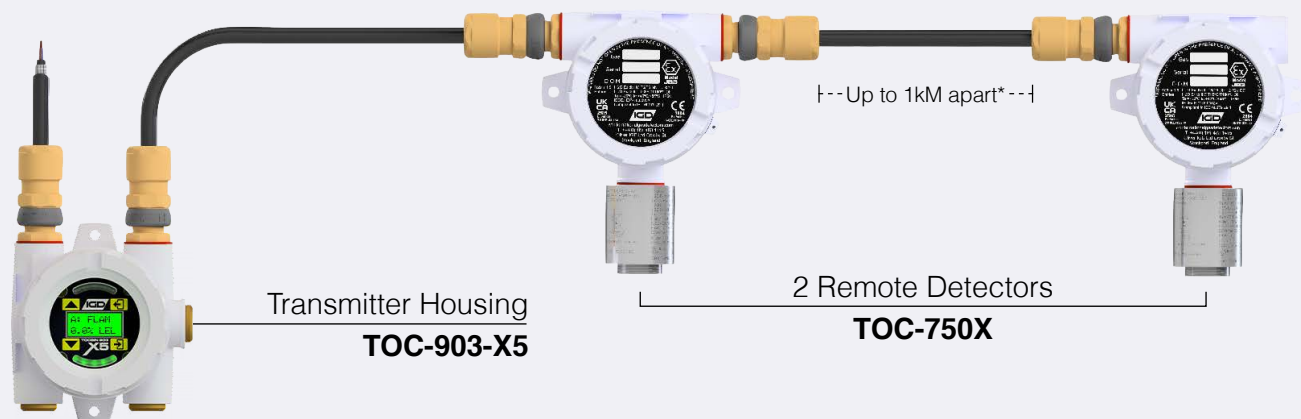


1 Remote Detector  
and 1 Directly-Connected Sensor



Control Panel  
**TOC-635-PLUS**

1 Directly-Connected Sensor  
on an Addressable System

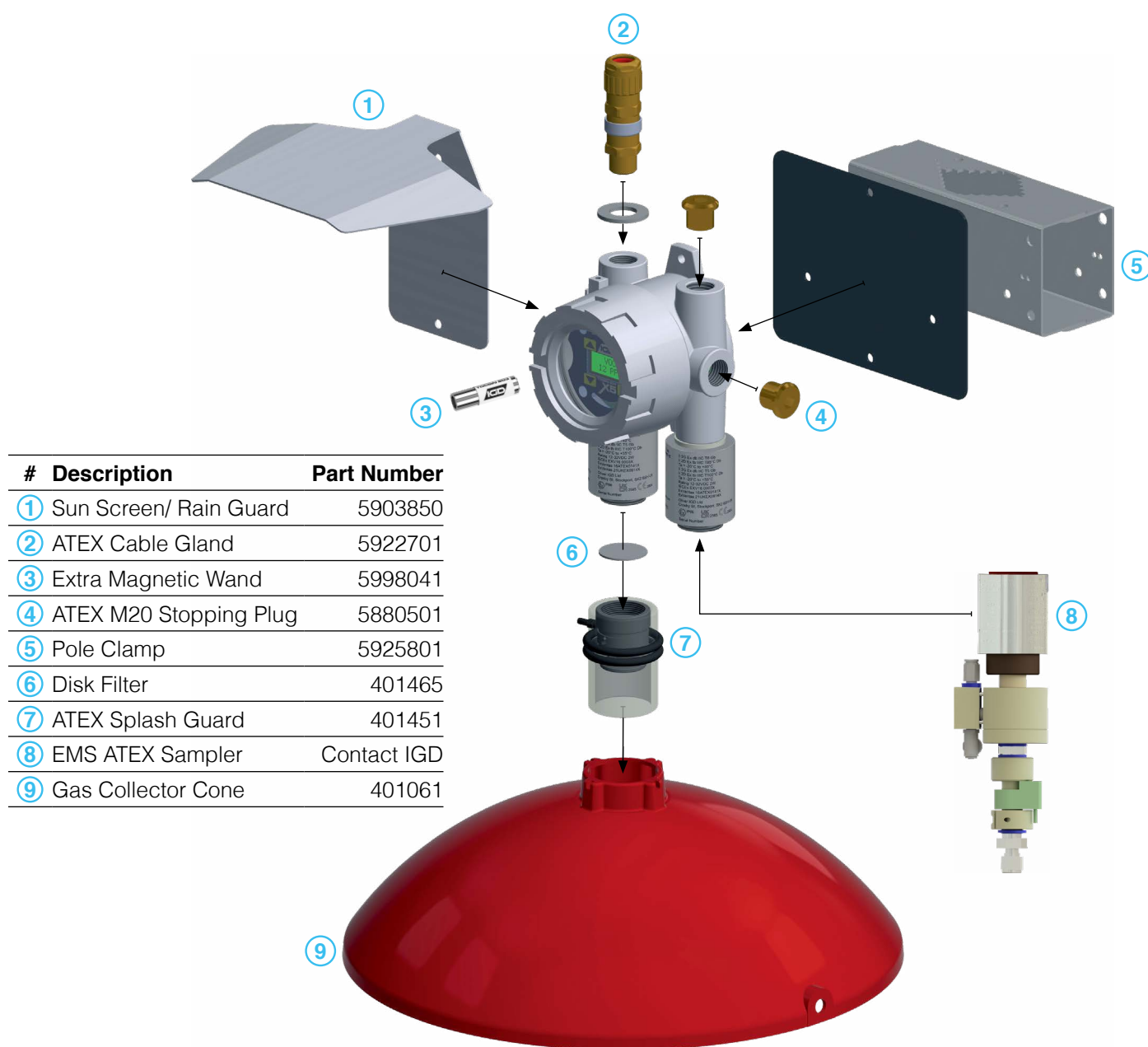


Transmitter Housing  
**TOC-903-X5**

2 Remote Detectors  
**TOC-750X**

---Up to 1km apart\*---

## TOC-903-X5 Accessories



## Response Times

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.

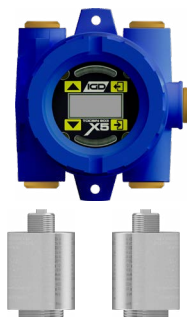
Type	T90 Response	Accuracy
Pellistors	<10s	+/-2% LEL
Semiconductor	<15s	+/-5% of Range
Infrared	<15s	+/-2% of Range
Electrochemical as O <sub>2</sub>	<15s	+/-2% of Range
as CO, H <sub>2</sub> S, SO <sub>2</sub>	<30s	
as NO <sub>2</sub> , CL <sub>2</sub> , NH <sub>3</sub>	<50s	

# Order Codes

**Order Code:** TOC-903-X5

 Transmitter Module with Display with  
Copper Free Aluminium Alloy Housing

**Order Code:** TOC-903-X5-M

 Transmitter Module with Display with  
Marine Blue Epoxy Coated Housing

 Choose directly-connected sensor  
codes below, contact IGD for remote  
detector (page 3) configurations.

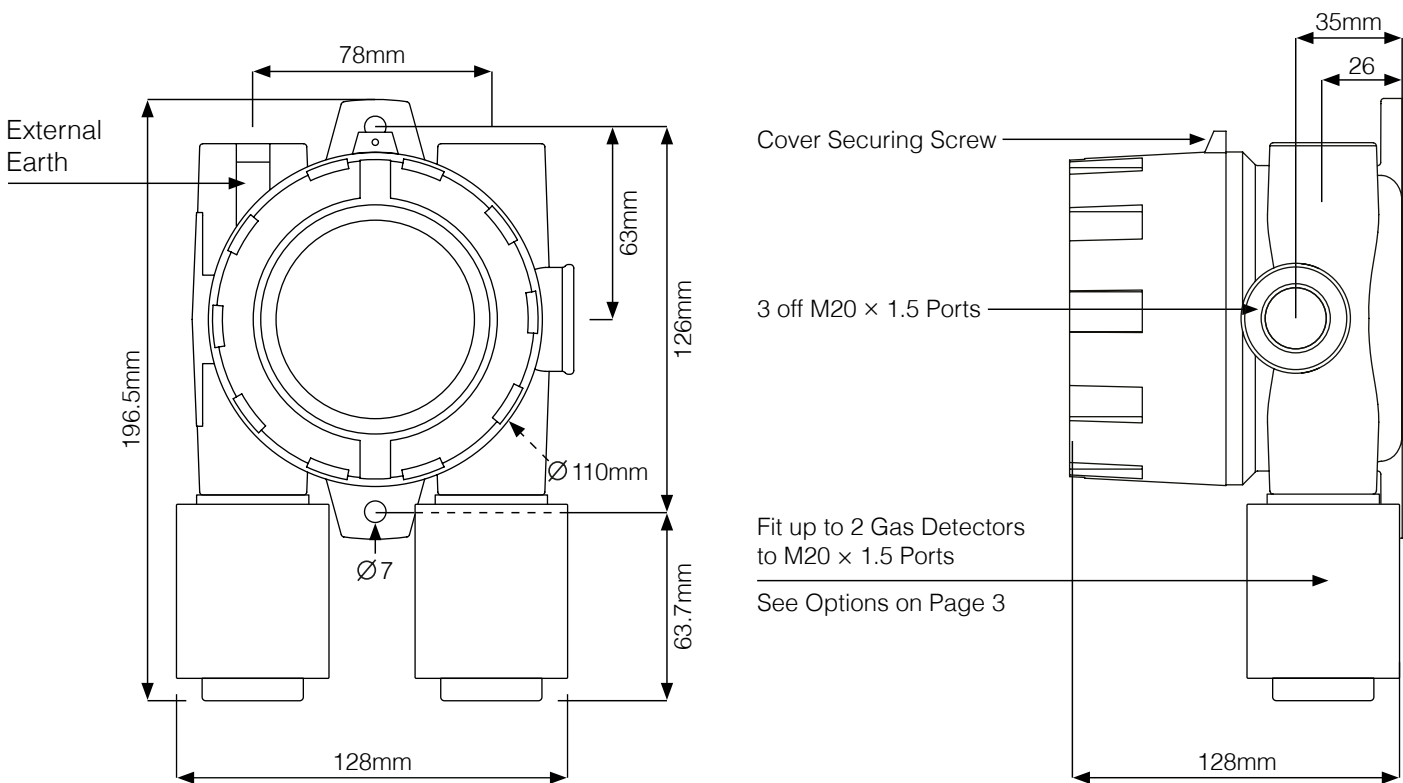
Gas	Range	Order Code
<b>PID Based VOC Detectors</b>		
VOC	0-10ppm	TOC-102-PID01
VOC	0-100ppm	TOC-102-PID1
VOC	0-200ppm	TOC-102-PID2
VOC	0-1,000ppm	TOC-102-PID10
VOC	0-2,000ppm	TOC-102-PID20
VOC	0-5,000ppm	TOC-102-PID50
<b>Refrigerant Gas Detectors</b> (Contact IGD for full list)		
IR Based Refrigerant Gases	0-2,000ppm	TOC-102-IRR
R-407C, R-22, R-134A, R-404A, R-410A	0-1,000ppm	TOC-102-R1
R-32, R-22, R-1234yf, R-410A, R-1234ze, R-290, R-454B, R-404A	1,000 to 10,000ppm	TOC-102-R2
<b>Oxygen Gas Detectors</b>		
Oxygen	0-25% VOL	TOC-102-O2
Ozone (non-ATEX)	0-1ppm	TOC-102-O3

Gas	Range	Order Code
<b>Flammable Gas Detectors</b>		
Hydrogen	0-1,000ppm	TOC-102-H2
Hydrogen	0-2,000ppm	TOC-102-HH2
Hydrogen	0-40,000ppm	TOC-102-VHH2
Infrared Flammables	0-100% LEL	TOC-102-IRF
Methane	0-100% VOL	TOC-102-HIRF
Flammables	0-100% LEL	TOC-102-MK8
Acetylene	0-200ppm	TOC-102-C2H2
Ethylene	0-200ppm	TOC-102-C2H4
IR Solvent Detector	0-100% LEL	TOC-102-SLV
<b>Ammonia Gas Detectors</b>		
Ionic Ammonia	0-100ppm	TOC-102-NH3-1
Ionic Ammonia	0-500ppm	TOC-102-NH3-5
Ionic Ammonia	0-5,000ppm	TOC-102-NH3-50
<b>Exotics</b>		
Carbon Monoxide	0-100ppm	TOC-102-CO
Carbon Dioxide	0-5,000ppm	TOC-102-CO2-05
Carbon Dioxide	0-5% VOL	TOC-102-CO2-5
Hydrogen Sulphide	0-50ppm	TOC-102-H2S-5
Hydrogen Sulphide	0-100ppm	TOC-102-H2S-10
Hydrogen Sulphide	0-5,000ppm	TOC-102-H2S-50
Hydrogen Cyanide	0-10ppm	TOC-102-HCN
Nitrogen Monoxide	0-5ppm	TOC-102-NO
Nitrogen Dioxide	0-5ppm	TOC-102-NO2
Silane	0-20ppm	TOC-102-SIH4
Sulphur Dioxide	0-5ppm	TOC-102-SO2
Formaldehyde	0-5ppm	TOC-102-CH2O
Carbon Disulphide	0-100ppm	TOC-102-CS2
Ethylene Oxide	0-10ppm	TOC-102-ETO
Ethylene Oxide	0-100ppm	TOC-102-ETO-10
Sulphur Hexafluoride	0-1,000ppm	TOC-102-SF6

# TOC-903-X5 Specifications

<b>Power</b>  18 to 30V DC	<b>Weight</b>  1.1Kg (Plus Fitted Detectors)	<b>Dimensions (wxdxh)</b>  See Diagram	<b>Temperature Range</b>  -20° to 55°C (-4° to 131°F)
<b>Sensor Housing Material</b>  Sensor, Stainless Steel 316 S16	<b>Ingress Protection</b>  IP66	<b>Humidity</b>  20% to 90% RH Non-Condensing	<b>Mounting</b>  Wall Mount
<b>Junction Box Housing Material</b>  Copper Free Aluminium Alloy  Epoxy Coated Option for Marine Paint Finishes	<b>Explosion Protection</b>  EEx d IIC T6 I I2 D G  <b>Cable Entry</b>  5 × M20 × 1.5 See Drawing	<b>Electrical Outputs</b>  2 off independent 4-20mA outputs auto ranged to suit fitted detector(s) 2-Wire Sentinel+™ Addressable input/output(s) 1 Single Pole Fault Relay 2 SPCO Alarm Relays Relays 4A at 24V DC Non Inductive Aux Power Connection 0.5A Max	

## Dimensions





# EC Declaration of Conformity

Declares the product listed as:  
**TOCSIN 903-X5**

Single/dual channel gas detector controller with display certified for use in potentially explosive atmospheres Can be combined with 102 series detectors. Interfaces for alarm relay outputs, 4-20mA signal, Sentinel+ Addressable.

## 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.

**2004/30/EC**  
**2014/34/EU**  
**2011/65/EU**

**EMC Directive**  
**ATEX Directive**  
**RoHS Directive**

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

**IEC/EN 60079-0:2017**

Explosive Atmospheres Equipment General Requirements

**IEC/EN 60079-29-1:2016 2nd Ed**

Explosive Atmospheres. Gas Detectors. Performance Requirements of Defectors for Flammable Gases.

**IEC/EN 60079-1:2014**

Equipment protection by flameproof enclosures 'd'

**IEC/EN 60079-31:20**

Equipment dust ignition protection

**EN 50270**

Electromagnetic compatibility - Electrical Equipment for the Detection and Measurement of Combustible Gases, toxic Gases or Oxygen  
Degree of Protection to IP66

**IEC 60529**

**EN 60068-2-6**

**EN 50271**

Vibration

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  
Electrical Safety

**Technical File Reference**

T903-X5-TF9

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

Quality Assurance Certificate  
Number: **16PQAN0014**  
Quality Assurance Notification  
Number: **2585**

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

Oliver IGD Limited operate  
an independently assessed  
ISO9001:2015 Quality Management  
and ISO14001:2015 Environmental  
Management System

Certificate Numbers  
**FS0646773 & EMS696504**

BSI Assurance UK LTD,  
London, W4 4AL  
United Kingdom



**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:** 1 December 2022  
**Declaration Ref:** T903-X5-DEC-14