

### TOCSIN 903-X5 SERIES

#### Advanced Gas Detection Transmitter

Our TOCSIN 903 X5 gas detector transmitter is a standalone detector approved for zone 1 and 2 ATEX environments that can also be integrated onto our 2-Wire addressable gas detection systems or used as a stand alone 4-20mA transmitter.

TOCSIN 903-X5 is approved to both European, UK ATEX and international IECEx standards.

The transmitter features a non-intrusive calibration, 1 or two independent detectors, 2 analogue outputs, relays and 2-Wire digital communication. There are sensor options for over 400 gases and vapours covering: flammable, toxic, oxygen, VOC's and refrigerants.

TOCSIN 903-X5 is truly one of the most versatile gas detector transmitters on the market. Simple to Install, Simple to use and reliable in operation



#### ▶ ONE OR TWO DETECTORS

- 2 Independent 4-20mA outputs
- 2-Wire Sentinel+ Digital Communication
- 1 Fault and 2 Alarm Relays

#### ▶ CERTIFIED

UKCA, ATEX and IECEx Certified. Built to withstand zone 1 and 2 hazardous areas.

#### ▶ EASY TO NAVIGATE

Digital Display, Concentration, Alarms and Fault Status.

#### ▶ REASSURINGLY COMPETENT

Designed and manufactured in the UK by IGD  
Backup by 10-year Warranty\*  
All compliance supported by a third-party certification



\* Terms and Conditions Apply



1 Select Transmitter Option

TRANSMITTER ORDER CODES

TOC-903-X5	Transmitter Module With Display 1 or 2 detectors 2 off 4-20ma Outputs 3 off Relays Sentinel+ Addressable in/out Ports
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2 Select up to 2 Gas Detectors

DETECTOR ORDER CODES

PID BASED VOC DETECTORS

TOC-102-PID01	VOC 0-10ppm
TOC-102-PID1	VOC 0-100ppm
TOC-102-PID2	VOC 0-200ppm
TOC-102-PID10	VOC 0-1000ppm
TOC-102-PID20	VOC 0-2000ppm
TOC-102-PID50	VOC 0-5000ppm

REFRIGERANT GAS DETECTORS

TOC-102-IRR*	IR Based Refrigerants (see list) 0-2000ppm
TOC-102-R1*	This Group 0-1000ppm R-407C, R-22, R-134A, R-404A, R-410A
TOC-102-R2*	This Group 1000 to 10000ppm R-32, R-22, R-1234yf, R-410A, R-1234ze, R-290, R-454B, R-404A

Normal Display

Detector in Alarm

Detector in Fault

\* See refrigerant gas detector data sheet for further information

Enclosed list is being increased all the time as we continually develop. If you don't see the gas you interested in please contact IGD directly.

For marine and 316 SS versions, contact IGD for part numbers and pricing

DETECTOR ORDER CODES

Part Number	Description
<b>FLAMMABLE GAS DETECTORS</b>	
TOC-102-H2	Hydrogen 0-1000ppm
TOC-102-IRF	Flammables (IR) 0-100% LEL
TOC-102-HIRF	Methane 0-100% VOL
TOC-102-MK8	Flammables (PEL) 0-100% LEL
TOC-102-C2H2	Acetylene 0-200ppm
<b>OXYGEN GAS DETECTORS</b>	
TOC-102-O2	Oxygen 0-25% VOL
<b>AMMONIA GAS DETECTORS</b>	
TOC-102-NH3-1	Ammonia (Ionic) 0-100ppm
TOC-102-NH3-5	Ammonia (Ionic) 0-500ppm
TOC-102-NH3-50	Ammonia (Ionic) 0-5000ppm
<b>EXOTICS</b>	
TOC-102-CO-01	Carbon Monoxide 0-100ppm
TOC-102-CO-2	Carbon Monoxide 0-2000ppm
TOC-102-CO2-05	Carbon Dioxide 0-5000ppm
TOC-102-CO2-5	Carbon Dioxide 0-5% VOL
TOC-102-CO2-10	Cardon Dioxide 0-100% VOL
TOC-102-H2S-5	Hydrogen Sulphide 0-50ppm
TOC-102-H2S-50	Hydrogen Sulphide 0-5000ppm
TOC-102-NO	Nitrogen monoxide 0-100ppm
TOC-102-NO2	Nitrogen Dioxide 0-20ppm
TOC-102-SIH4	Silane 0-10ppm
TOC-102-SO2	Sulphur Dioxide 0-5ppm
TOC-102-CH2O	Formaldehyde 0-5ppm
TOC-102-CS2	Carbon Disulfide 0-100ppm
TOC-102-ETO-1	Ethylene Oxide 0-10ppm
TOC-102-ETO-10	Ethylene Oxide 0-100ppm
TOC-102-SF6	Sulphurhexafluoride 0-1000ppm







Accessories

TOCSIN 903 SERIES  
Advanced Gas Detection Transmitter

TOCSIN 903-X5 series ATEX rated gas detectors are one of the most versatile on the market. The detector features our non-intrusive calibration method using our magnetic “wand” to perform one-man calibrations while in an ATEX zoned area, no need for expensive complicated ATEX rated interfaces. Simple and efficient whilst reducing downtime.

The 903-X5 series is approved to both ATEX, UKCA and IECEx standards for zone 1 and 2 flammable environments and zone 21 and 22 dust environments.

903-X5 gas detectors are incredibly flexible, versatile and easy to deploy. 903-X5 comes as standard with interfaces to suit any application. 903-X5 has our Sentinel+ addressable interface if you intend to use as part of an addressable gas detection system. It also comes fitted with analogue 4-20mA outputs and programmable relays making it truly universal.

The 903-X5 updates itself when detectors are fitted for gas type, range, measurement type and alarm levels. No need to spend time setting the unit up, 903-X5 does this for you. In addition detectors utilise our industry leading long-life sensor technology. With sensor options for a wide variety of gases including toxic gases, 5-year Oxygen and Ammonia sensors, leading PID technology, 5-year IR sensors and our patented, long life poison resistant Pellistor sensors for flammable gases. When you install an IGD 903-X5 gas detector you are maximising safety and minimising on-going costs using IGD’s extended sensor life.

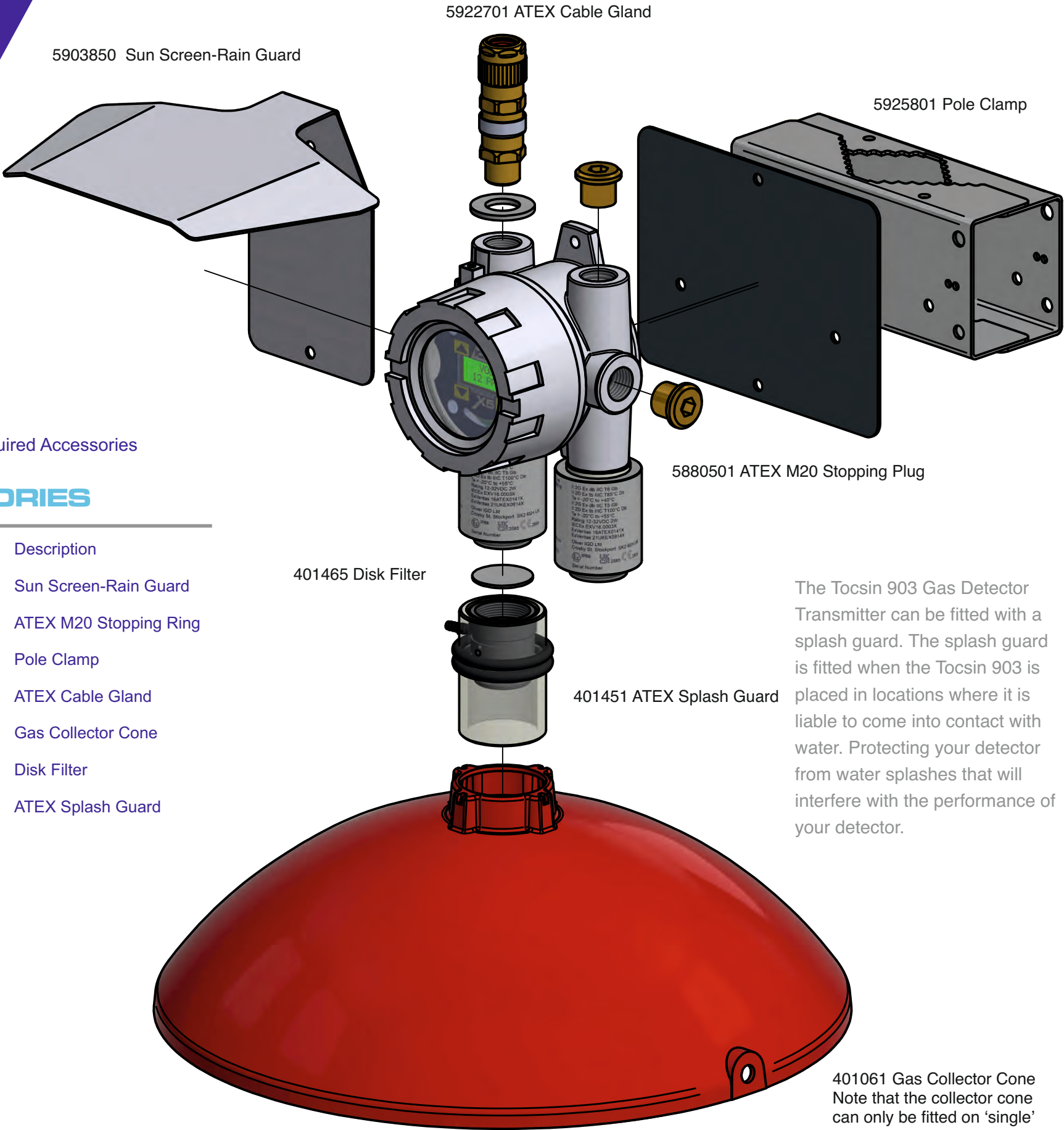
Key Features

- ▶ Zone 1 and 2 ATEX/IECEx/UKCA approval
- ▶ Non-Intrusive calibration via magnetic wand
- ▶ IGD leading long-life sensor technology
- ▶ One-man calibration
- ▶ 4-20mA output and relay outputs
- ▶ Sensor options for over 400 gases including: toxic, oxygen, flammable, refrigerant, VOC.
- ▶ Illuminated display for at a glance status
- ▶ Simple operation and easy maintenance
- ▶ Easy to use sensor replacements – plug replaceable
- ▶ IP 66
- ▶ At a glance display showing live gas concentration, alarm and fault status.
- ▶ 1 or 2 gas detectors on one housing.

2 Select Required Accessories

ACCESSORIES

Part Number	Description
5903850	Sun Screen-Rain Guard
5880501	ATEX M20 Stopping Ring
5925801	Pole Clamp
5922701	ATEX Cable Gland
401061	Gas Collector Cone
401465	Disk Filter
401451	ATEX Splash Guard



The Tocsin 903 Gas Detector Transmitter can be fitted with a splash guard. The splash guard is placed in locations where it is liable to come into contact with water. Protecting your detector from water splashes that will interfere with the performance of your detector.

401061 Gas Collector Cone  
Note that the collector cone can only be fitted on ‘single’ detector versions of the 903X5

SPECIFICATIONS

Power	18 TO 30V DC.	Temperature	-20 Deg Celsius to +55 Deg Celsius
Electrical Outputs	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	Humidity	20-90% RH Non-Condensing
		Sealing	IP66
		Mounting	Wall Mount
		Weight	1.1Kg (Plus Fitted Detectors)
JB Housing Material	Junction Box, Copper Free Aluminium Alloy Epoxy Coated Option for Marine Paint Finishes		
Sensor Housing Material	Sensor, Stainless Steel 316 S16		
Explosion Protection	Junction Box, EEx d IIC T6 I I2 D G		
Housing Dimensions (mm)	See Drawing		
Cable Entry	5 x M20 x 1.5 See Drawing		

APPROVALS

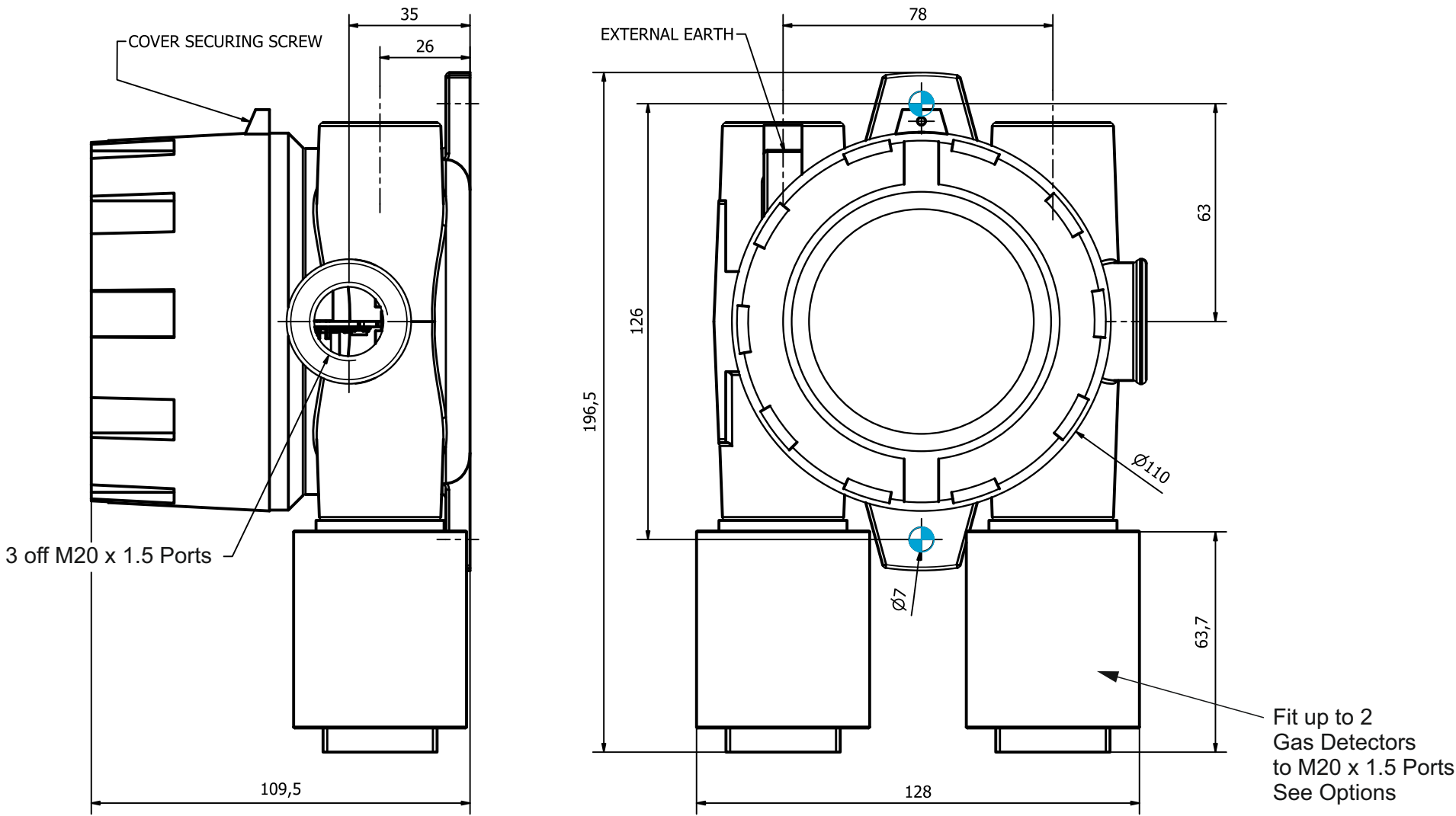


**JB3/903**  
II 2G Ex db IIC T6/T5 Gb  
II 2D Ex tb IIIC T85°C/ T100°C Db  
Ta = -20°C to +40°C/+55°C  
IECEX EXV 16.0002X  
ExVeritas 16 ATEX 0140X  
ExVeritas 21UKEX0913X  
IP66 M20 x 1.5 Entries 12-32V DC  
Compliant to IEC 60079-29-1



**102 Series Detector**  
II 2G Ex db IIC T6 Gb  
II 2D Ex tb IIIC T85°C Db  
Ta = -20°C to +40°C  
II 2G Ex db IIC T5 Gb  
II 2D Ex tb IIIC T100°C Db  
Ta = -20°C to +55°C  
Rating 12-32VDC 2W  
IECEX EXV16.0003X  
ExVeritas 16ATEX0141X  
ExVeritas 21UKEX0914X

DIMENSIONS







Document Ref: SL-008 V21



International Gas Detectors

# EC Declaration of Conformity

Declares that 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.

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.

**2014/30/EC**  
**2014/34/EU**

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

Issuers name and address:

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

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

IEC 60079-0:2017 7th Ed	Explosive Atmospheres Equipment General Requirements
IEC 60079-29-1:2016 2nd Ed	Explosive Atmospheres. Gas Detectors. Performance Requirements of Defectors for Flammable Gases.
IEC 60079-1	Equipment protection by flameproof enclosures 'd'
EN 50270	Electromagnetic compatibility - Electrical Equipment for the Detection and Measurement of Combustible Gases, toxic Gases or Oxygen
IEC 60529	Degree of Protection to IP66
EN 60068-2-6	Vibration
EN 50271	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
IEC 61010-1:2010 +A1:2016	Electrical Safety
EN 61010-1: 2010 +A1:2019	Safety requirements for electrical equipment for measurement, control, and laboratory use
Technical File Reference	T903-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  
United Kingdom

IECEX Certificate can be checked on-line at

<http://iecex.iec.ch/iecex/iecexweb.nsf/421ce8815c53a3afc1257a1e00576486/edf48860d8d8c16fc1257f480050cb78?OpenDocument>



FS646773

EMS696504

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: 15 Aug 2023

Declaration Ref: T903-X5-DEC-15



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