

PRODUCT DATA SHEET

www.internationalgasdetectors.com

OLIVER IGD

Control Systems

Transmitters

Sensors

Accessories

TOCSIN 103 Series Gas Detectors

4-20mA Device 2 and 3 Wire

Addressable Versions

Compact Size

Ingress Protection IP66

Safe Area Use

Available as:

2 Wire Toxic Gas Detector

2 Wire Oxygen Sensor

3 Wire 'Pellistor' Flammable Gas Detector.

3 Wire 'Infra Red' Flammable Gas Detector

3 Wire 'Infra Red' CO₂ Gas Detector

4 Wire Addressable



The Tocsin 103 series of gas detectors are designed for cost effective safe area gas detection solutions. They incorporate micro processor technology to give a stable 4-20mA process signal output. The addressable option allows extensive reductions in cost of installation through material and labour savings. The in built processor can be used to pre-calibrate the sensor prior to installation. Alternatively calibration can be achieved on site via the Oliver IGD control panel or locally using a handheld PC device or laptop. A range of sensing technologies can be incorporated into the housing to provide the most appropriate detection method. Available sensor types include IGD's own MKIII, MK6 and Type B Pellistors, Infra Red and Electrochemical devices.

General Specification

Power supply	12 to 30V DC
Electrical Outputs	2 and 3 Wire 4-20mA, 4 Wire Addressable
Temperature	Toxic Gases 0°C to +55°C
Pellistors	-20°C to +85°C
Humidity	15 to 90% RH non-condensing
Ingress Protection	Enclosure IP66 With Correct Glands Fitted (NA to Sensor)
Housing Material	Powder Coated Mild Steel, Colour RAL 7035 Mounting Plate 304/316 Stainless Steel
Protection Concept	Safe Area
Dimensions (mm)	See Diagrams
Cable Entry	25mm, Top, Bottom and Rear
Weight	Detector Dependant Nominal 1.2Kg

Flammable Gases
Carbon Dioxide
Carbon Monoxide
Nitric Oxide
Nitrogen Dioxide
Ammonia
Oxygen
and many more

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EC Declaration of Conformity

Issuers name and address:

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



TOCSIN 103

Toxic, flammable or Oxygen point gas detector
dependant on fitted measurement cell for use in 'safe'
non-zoned areas only.

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
94/9/EC

EMC Directive
ATEX Directive

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

EN 61779-1:2000
EN 50271:2010

Electrical apparatus for the detection and measurement of flammable gases
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.
Excluding requirements for SIL

EN 61000-6-2: 2005
EN 61000-6-4:2007
EN 61000-3-2/A2:2009
EN 61000-3-3: 2008

EMC Generic standards. Immunity for industrial environments
EMC Generic standards. Emission standard for industrial environments
EMC Limits. Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)
EMC Limits. Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase
T103-TF9 Technical construction File Toxic gases, Oxygen and Infra Red
T106-TF9 Technical construction File Flammable Gases Pellistors

Technical File
references

Product Markings



TOCSIN 103

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:

Quality Assurance Certificate Number
ExVeritas 16PQAN0014

Quality Management Certificate Number
FS 646773

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



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

Issued by: 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: 10.June 2016

Declaration Ref: 103-DEC-4



International Gas Detectors

CH₄ H₂S CO₂
NO₂ SO₂



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Website: www.internationalgasdetectors.com



FS646773
Ref ROS265S

TOCSIN 103

Toxic, Flammable & Oxygen Gas Detectors

Sensor type	Number Basic Part	Suffix 'A' For Addressable Sensor	Min Range	Max Range	Housing Style
Flammable Gas MK6 Sensor 4-20mA All Flammable Gases Typically: Methane Ethanol Propane Iso Propyl Alcohol n-Butane Acetone n-Pentane Methyl Ethyl Ketone n-Hexane Benzene N-Heptane Toluene n-Octane Cyclohexane Hydrogen Ammonia Methanol	5137001 Note pellistors have both analogue and addressable interfaces.			0-100%LEL	1
Flammable Gases Infra-Red Point Methane Propane n-Butane n-Pentane n-Hexane	5130001	A		0-100%LEL	2
Carbon Dioxide Infra-Red Point	5130101	A	0-3000ppm 0-5000ppm	0-2% 0-5% 0-100%	2
Carbon Monoxide	5130201	A	0-100ppm	0-1000ppm	3
Nitric Oxide	5130301	A	0-50ppm	0-500ppm	3
Nitrogen Dioxide	5130401	A	0-20ppm	0-50ppm	3
Chlorine	5130501	A	0-5ppm	0-50ppm	3
Hydrogen	5224601	A	0-100ppm	0-2000ppm	3
Hydrogen Sulphide	5130601	A	0-50ppm	0-200ppm	3
Ammonia	5130701	A	0-100ppm	0-500ppm	3
Oxygen	5130902***	A	0-5%	0-25%	3
Ozone	5137401	A	0-5ppm	NA	3
Sulphur Dioxide	5131001	A	0-5ppm	0-100ppm	3
Sulphur Hexafluoride **	5132001	A	0-5000ppm	NA	NA
Hydrogen Cyanide	5132501	A	0-10ppm	0-20ppm	3
Formaldehyde	5137301	A	0-5ppm	0-25ppm	3
Ethanol	5224701	A	0-500ppm	0-2000ppm	3
Hydrogen Fluoride	5101601	A	0-10ppm		3
Hydrogen Chloride	5131201	A	0-30ppm		3
Silane	5880701	A	0-2ppm		3
Methanol	5112901	A	0-200ppm	0-200ppm	3



IGD Manufactured Pellistors

MKIII & Type B

Poison Resistant

High Reliability

Field Proven



Infra Red Gas Detectors

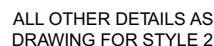


Electrochemical Gas Detectors

** Note SF6 detectors are built to special order and are application specific. Contact Oliver IGD Ltd for specific details.

Oxygen detection, typical life when used inside rated limits in excess of 3 years.

Toxic, Flammable & Oxygen Gas Detectors Outline Drawing Styles 2 and 3



TOCSIN 103

Toxic, Flammable & Oxygen Gas Detectors

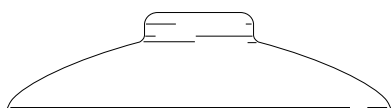
Accessories



Splash Guards

Use to protect detectors from liquid splashes

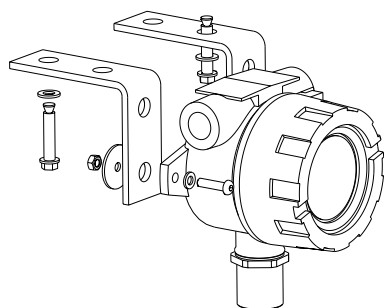
P/N 401452 (TOXICS & IR)
P/N 401455 (PELLISTORS)



Collector Cones

Typically used with natural gas (methane) detectors when mounting over boilers or valve assemblies

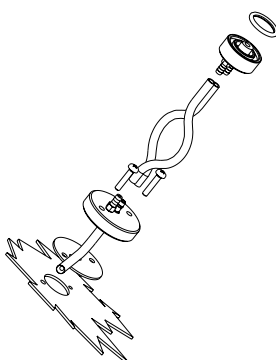
P/N 5138801



Ceiling Mount Adaptor Kit

Use to adapt for ceiling mounting of detectors and allow the detector to face down. Note this kit can be used with all series of detectors (102 Series Indicated)

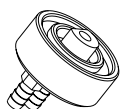
P/N 5138901



Duct Adaptor

Use this kit in conjunction with a 103 series detector to sample gas to the detector from a gas flow. Typically used in ventilation ducting.

P/N 5139001



Calibration Gas Adaptors

Use in conjunction with calibration gas when zeroing and calibrating detectors.

Toxic Gases P/N 401101B
Pellistors P/N 401101E