Control Panel

Product Data

Document Ref: SL-010

International Gas Detectors

TOCSIN 650 & 750 SERIES

Advanced Addressable 2-Wire Gas Detection System

Introducing Tocsin 650 and 750 Series gas detection systems from IGD. These systems utilise ground-breaking Sentinel+™ intelligent addressable technology. More flexible than existing systems with better reporting and connectivity this technology ensures safety without compromise at reduced cost. Enhanced detector nodes with their own I/O capability provide distributed control and data just where needed.

TOCSIN 650

TOCSIN 750

EASY TO INSTALL
Typical system is 40% faster to install with fewer connections

ALARM REPORTING & RECORDING
Full event monitoring, time & date stamped with email and SMS alerts available.
Cloud based data acquisition, see your data anywhere!

FLEXIBLE
Only uses 2-Core cable for power and communication.
Allows up to 128 Detector Nodes and 350 Devices.

COST EFFECTIVE
New installs only use 2-Core cable minimising install costs.

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

Always use latest version data sheets from IGD website

INVESTORS IN PEOPLE

bsi. ISO 9001 Quality Management FS646773 ISO 14001 Environmental Management EMS696504

internationalgasdetectors.com
+44 (0)161 483 1415
sales@internationalgasdetectors.com
/international-gas-detectors-ltd

Triton House
Crosby Street
Stockport
SK2 6SH

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THE POWER OF 2

One 2-Core Cable - Everything Connected

TOCSIN 750 Shown

4 Detector Highways with up to 32 Detectors per a Highway

One 2-Core Cable Run
Many Possibilities

Modbus

OPTIONS

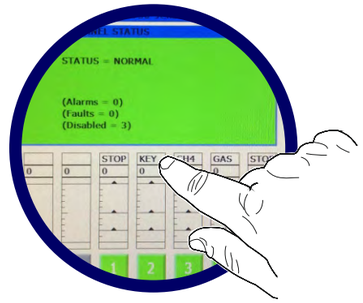
ATEX Detectors
Safe Area (Non ATEX) Detectors
I/O Cards
Room Status Indicators
Sampling Gas Detectors
Audible Visual Alarms
Illuminated Signs

TOCSIN 650 & 750 SERIES

Advanced Addressable 2-Wire Gas Detection System

The Sentinel +™ 2-Wire technology is an advanced digitally communicating gas detection system from IGD. The system provides fast efficient error free performance specifically designed to meet the unique requirements posed by gas detection hazards. The system provides ultimate flexibility to link your gas detection system to provide alarms, interface to plant shut down hardware and communicate clearly to BMS and similar systems. 2 Core cabling for both power and communication with no polarity requirement means cabling is minimised, reducing system costs with no compromise.

FEATURES



Full 7" Colour Touch Screen Interface. Or 2x8 Colour RGB Display and Jog Wheel

Clear Audible and Visual Alarms

Assignable LED's Clearly Show Where the Alarm is.

Flush or Rear Mount

Top or Bottom or Rear Cable entries

Cloud and GSM Options

Control Panel

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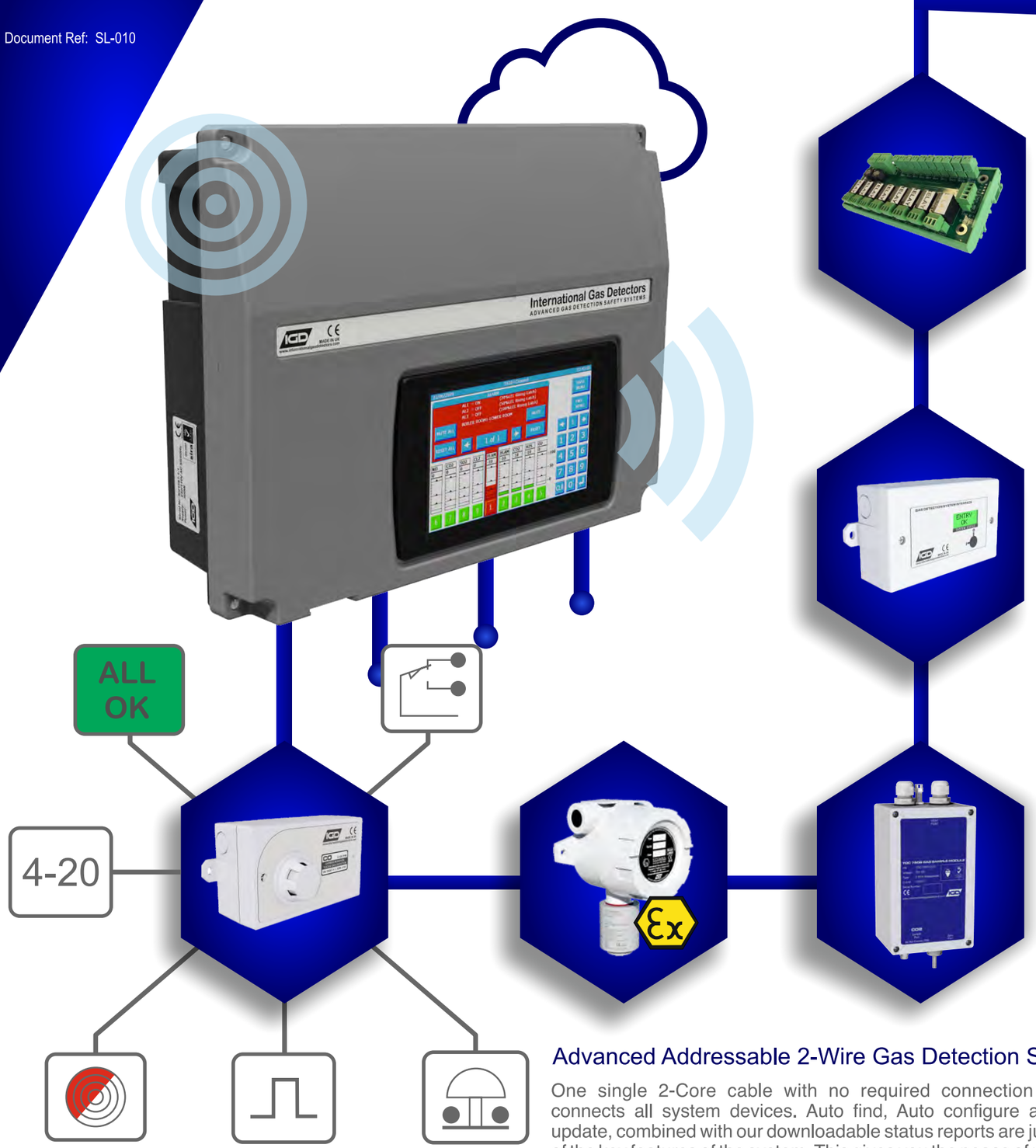

Advanced Addressable 2-Wire Gas Detection System

One single 2-Core cable with no required connection polarity connects all system devices. Auto find, Auto configure and Auto update, combined with our downloadable status reports are just some of the key features of the system. This gives you the peace of mind that you have the right gas detection system doing the right job. Protecting both your plant and personnel.

THE POWER OF 2

One 2-Core Cable - Everything Connected

OPTIONS	SAFE AREA	ATEX	SAMPLER	RSI
Sensor I/P Toxic, IR, PID	1	1	2	N
Sensor I/P Pellistor	1	1	1	1
4-20mA I/P *	2	2†	N	2
Digital I/P *	2	2†	N	2
Counter I/P *	2	2†	N	2
Relay O/P *	2	2†	N	1
Digital O/P *	2	2†	4	2
2 x 8 Display	N	1	N	1
Sounder	1††	N	N	1
Estop	N	N	N	1
Key Switch	N	N	1	1

KEY

- ALL OK — Room Status Indicator
- Control Relay
- 4-20 — mA Input Signal
- Beacon - Sounder
- Digital Input
- E-Stop / Break Glass / Call Point

† In order to utilise this option a break out junction box is required.

* 2 Multi-Function I/O Ports. Option Selectable in Any Combination

†† 750B Version With Audible and Visual Alarms

1 Number available per a detector.

Control Panel

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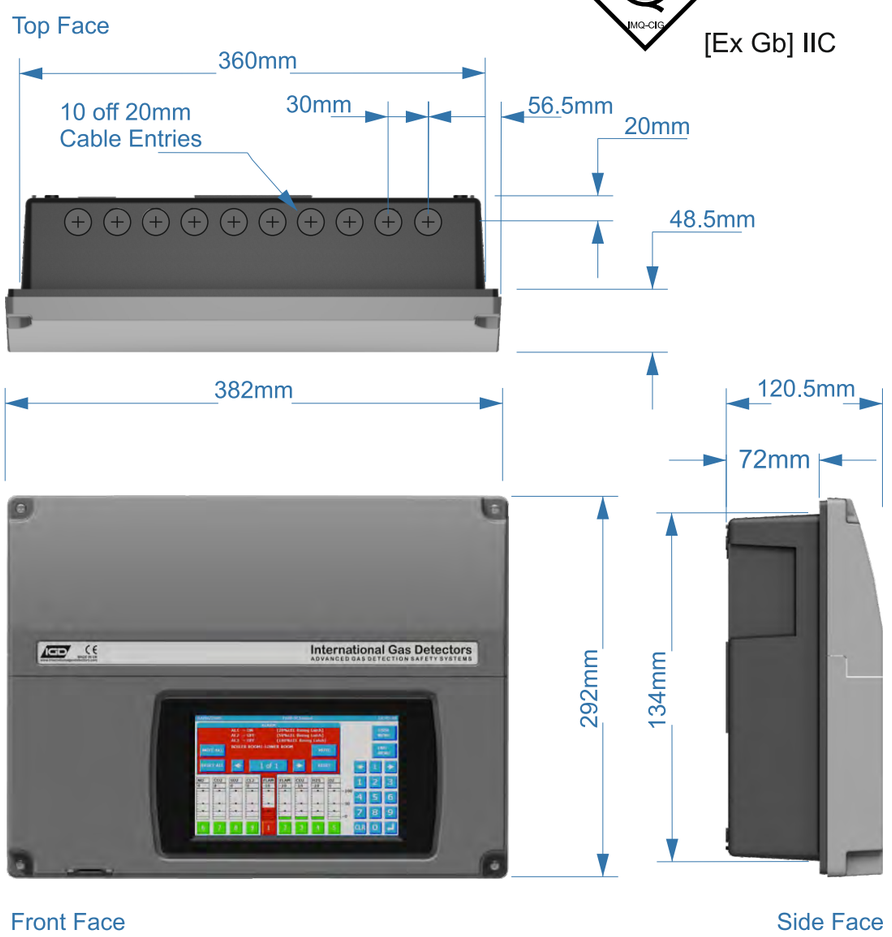
SPECIFICATIONS

Power	175W PSU @ 110V AC Nominal (88 to 127 V AC 50/60Hz by selection) 175W PSU @ 230VAC Nominal (190 to 260V AC 50/60Hz by selection) 340W PSU (88 to 260V AC 50/60Hz by selection)
Construction	ABS
Display	2 Lines x 8 Digit LCD Display Multi-Colour Backlight (Red-Alarm, Yellow-Fault, Blue-Normal) or 7" Touch Screen
User	T650 - IGD Jog Wheel Option Select T750 - Full Touch Interface
Outputs (see table for version differences)	3 off SPCO Relays 4A Non-Inductive User Configurable 1 off Fault Relay SPCO Relays 4A Non-Inductive 1 off Solid State Beacon Sounder Output *Additional Digital Inputs/Relay Outputs Can Be Added To Highways if Required*
Other I/O	Sounder 85dB @ 100mm (Mutable) 2 off RS485 Ports Modbus Dedicated E-Stop/Slam Switch Input Dedicated Fire System Interlock
Inputs	Up to 128 off Addressable Series Detectors or I/O Modules Over 4 Addressable Highways *Additional Highways Possible With Additional Hub Cards* *Note external Booster PSU may be required*
Temperature	-5 to 40 Deg C Full Specification. To 55 Deg C De-Rate PSU Output by 30%
Humidity	0-95% RH Non-Condensing
Sealing	IP54
Mounting	Wall Mount
Weight	1.75Kg

DIMENSIONS

Please Note: These dimensions apply to both the T650 Controller and T750 Controller.



[Ex Gb] IIC

FEATURES

Full Colour HMI Touch Screen or
Jog Wheel & LCD Display
HMI Touch Screen can be Remote Mounted
Top, Bottom or Rear Cable Entries
Alarms and Events recorded Time and Date Stamped, easily downloaded as a report
Intelligent Sensor Check Function
Independently Tested to IEC 60079-29-1
Automatically detects sensor changes and updates channels, no need to manually update when changing gas types and or ranges.
Available with built in battery backup module
GSM module available to text/email alarms and system reports
Cloud link enables view of controller from any cloud connected device, PC, tablet, phone.

Modbus

ORDER CODES

Part Number	Description
TOC-650-24	24V DC Control Panel No Internal PSU Standard Features including 2 x 8 RGB Display and Jog Wheel 4 Relays, 4 Highways
TOC-650-150	110/230V AC Control Panel 150W PSU Standard Features including 2 x 8 RGB Display and Jog Wheel 4 Relays, 4 Highways
TOC-650-150BB	110/230V AC Control Panel 150W PSU Standard Features inluding 2 x 8 RGB Display and Jog Wheel 4 Relays, 4 Highways Built in 1.2AH Battery Backup
TOC-650-150B1	110/230V AC Control Panel 150W PSU Standard Features inluding 2 x 8 RGB Display and Jog Wheel 4 Relays, 4 Highways Built in 5AH Battery Backup
TOC-650-300	110/230V AC Control Panel 300W PSU Standard Features inluding 2 x 8 RGB Display and Jog Wheel 4 Relays, 4 Highways
TOC-650-300B1	110/230V AC Control Panel 300W PSU Standard Features inluding 2 x 8 RGB Display and Jog Wheel 4 Relays, 4 Highways Built in 5AH Battery Backup
TOC-750-BAT1	110/230V AC Power Module 300W PSU 5AH Battery Backup NOTE: Use with 24V DC Version Tocsin 650/750
TOC-750-BAT2	110/230V AC Power Module 300W PSU 17AH Battery Backup NOTE: Use with 24V DC Version Tocsin 650/750
TOC-750-BAT3	Booster Module With Battery Backup 5AH Battery Capacity 24V DC PSU at 150W
TOC-750-BAT4	Booster Module 24V DC PSU at 150W

CABLES

Installation Cables

Supported Installation Cables 2 Core 1.5mmSQ or 2.5mmSQ See IGD Cable System Calculator

Typically SWA, FP200, CY Screened

CE

International Gas Detectors

EC Declaration of Conformity

Declares that the product listed as:

TOC-650

TOC-750

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.

Issuers name and address:

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

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.

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 Detectors for Flammable Gases.
EN 50270	Electromagnetic compatibility - Electrical Equipment for the Detection and Measurement of Combustible Gases, toxic Gases or Oxygen
IEC 60529	Degree of Protection to IP54
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
EN 60335:2012+A11:2014	Electrical Safety
Technical File Reference	T750-TF9/T650-TF9

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

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

ExVeritas

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

bsi. ISO 9001 Quality Management ISO 14001 Environmental Management
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

IMQ

IMQ S.p.A con Socio Unico
Via Quintiliano 43
Italia 20138 Milano
www.imq.it

[Ex Gb] IIC

Report Ref AT19-0036585-01

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: 17 Feb 2020

Declaration Ref: T750-DEC-8