TOCSIN 750 SERIES
Advanced Addressable 2-Wire Gas Detection System

The latest addressable technology from International Gas Detectors.
Communication over Power
Only uses 2 Core Cable for Power and Communication.
Polarity Independent.
Typical System is 40% Faster to Install with Fewer Connections
Improved Reliability
Improved Connectivity to External systems
Re-use Existing Cabling When Updating
ATEX and Safe Area Gas Detectors
USB For Backup and Data Collection
Ethernet Connectivity
Full Event Monitoring, Time & Date Stamped
Rs485 BMS Connectivity

2-Wire Addressable I/O Cards
Control Where its Needed

4 Data Highways Each Supporting up to 32 Gas Detectors/Devices Using 2 Core Cable

2 Wire Local Displays With Options for Slam Switches, Sounders Detectors and I/O

2 Wire Addressable Gas Detectors. Flammables, Toxic's, Oxygen

2 Wire Addressable ATEX Gas Detectors. Flammables, Toxic's, Oxygen

Triton House
Crosby Street
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Email: sales@internationalgasdetectors.co.uk
Website: www.internationalgasdetectors.co.uk

Document Ref: T750 V8.2 Page 1
### Standard Specifications

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power</strong></td>
<td>150W PSU @ 110V AC Nominal (88 to 127 V AC 50/60Hz by selection) 150W PSU @ 230VAC Nominal (190 to 260V AC 50/60Hz by selection) 300W PSU (88 to 260V AC 50/60Hz by selection) 24V DC Option</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td>Wall Mount Units ABS, Rack Units Al Alloy</td>
</tr>
<tr>
<td><strong>Display</strong></td>
<td>260K Colour 7” 800x480 Touch with LED backlight</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td>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</td>
</tr>
<tr>
<td><strong>Other I/O</strong></td>
<td>Sounder 80dB @ 100mm (Mutable) 2 off RS485 Ports Modbus Dedicated E-Stop/Slam Switch Input Dedicated Fire System Interlock Ethernet Port USB</td>
</tr>
<tr>
<td><strong>Inputs</strong></td>
<td>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</td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
<td>-5 to 40 Deg C Full Specification. To 55 Deg C De-Rate PSU by 15%</td>
</tr>
<tr>
<td><strong>Humidity</strong></td>
<td>0-95% RH Non-Condensing</td>
</tr>
<tr>
<td><strong>Sealing</strong></td>
<td>Ip54</td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
<td>Wall Mount and Rack Mount Options</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>1.75Kg</td>
</tr>
</tbody>
</table>

### Standard Features

- 3 Alarms Levels Programmable Per Detector
- Alarms Configurable as Rising, Rising Latching, Falling, Falling Latching
- Full Interface Capability With Two RS485 Interfaces For Modbus / HMI
- Full Modbus Memory Map, Read from All Connected Devices to External BMS/SCADA/DCS Systems.
- Set up From Control Panel or Android APP Interface
- Optional Internal Battery Backup or External Battery Backup
- If Fitted, Battery Backup status Indicated From On Screen Display
- 1 Second Update For All Connected Devices
- Sensor Check Function Automatically checks For Correct and Timely Calibration and Operation
- Continuous Error Checking
- Calibration Possible At Sensor or From Controller
- Events Logging For up to 1000 Events Time and Date Stamped
- Extensive Service and Calibration Features
- Meets the Requirements of EN 60079 Series of Standards For Gas Detection.
EC Declaration of Conformity

Declares that the product listed as:

**TOCSIN 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.

<table>
<thead>
<tr>
<th>Directive/Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004/108/EC</td>
<td><strong>EMC Directive</strong></td>
</tr>
<tr>
<td>2014/35/EU (note not applicable to 24V DC Powered Versions)</td>
<td><strong>Low Voltage Equipment Directive</strong></td>
</tr>
</tbody>
</table>

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 standard for industrial environments
- EN 61000-3-2: 2014 EMC Limits. Limits for harmonic current emissions (equipment input current ≤ 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 ≤ 16 A per phase

Technical File Reference T750-TF9

Issuers name and address:

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

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

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

Emc Tested by:

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

Certificate Number E8N 15 05 91327 004

TUV Certificates and reports can be checked on-line at https://www.tuev-sued.de/industry_and_consumer_products/certificates
Select Oliver IGD when prompted on the website to view certificates

Issued by: Oliver IGD Limited, Stockport, SK2 6SH , United Kingdom

Signature: Oliver IGD Limited, Stockport, SK2 6SH , United Kingdom

Date: 17 May 2019

Declaration of Conformity in accordance with EN ISO/IEC 17050-1:2010

Declaration Ref: T750-DEC-3

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FS646773 EMS696504
### Tocsin 750 Physical

**Front View**
- 382mm
- 292mm
- 72mm
- 120.5mm

**Top Face**
- 360mm
- 30mm
- 56.5mm
- 20mm

**Side Face**
- 292mm
- 134mm

**Installation Cables**

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

Typically SWA, MICC, FP200, SY, CY, Screened
Tocsin 750 Series 19" Rack Mount Controller

Tocsin 750 Rack mount Units Are Standard 19" Rack Modules 3U High (133.35mm)

All electrical Terminations are to the Rear of the Rack

Hub Cards Can be Remote From the Rack Module and DIN Rail Mount

General Specifications as standard wall Mount Units

Local I/O Cards

Safe Area Detectors

Status Indicators

ATEX Detectors

All Detectors & Status Indicators Have I/O Points
Order Codes

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>TOC-750-24</td>
<td>24V DC Control Panel No Internal PSU</td>
</tr>
<tr>
<td>TOC-750-150B</td>
<td>110/230V AC Control Panel 150W PSU 4AH Internal Battery Backup</td>
</tr>
<tr>
<td>TOC-750-150</td>
<td>110/230V AC Control Panel 150W PSU</td>
</tr>
<tr>
<td>TOC-750-300B</td>
<td>110/230V AC Control Panel 300W PSU 4AH Internal Battery Backup</td>
</tr>
<tr>
<td>TOC-750-300</td>
<td>110/230V AC Control Panel 300W PSU</td>
</tr>
<tr>
<td>TOC-750R-24</td>
<td>24V DC 19” Control Panel No Internal PSU</td>
</tr>
<tr>
<td>TOC-750R-300</td>
<td>110/230V AC Control Panel 150W PSU 19” Control Panel</td>
</tr>
</tbody>
</table>
| TOC-750-BAT1 | TOC-750-BAT1 7AH Battery Backup 24V DC PSU at 150W  
NOTE: Use with 24V DC Version Tocsin 650/750 |
| TOC-750-BAT2 | TOC-750-BAT2 17AH Battery Backup 24V DC PSU at 300W  
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 |

General Specification all Controllers

HMI Display 4 Relays, 4 Highways  
Modbus  
Bluetooth  

Full Specification Refer to Earlier Table
System Example

Controller in Supervisors Office
Where Required For Longer Cable Runs or Where Device and Accessory Density is High add Power Boosters or Cascade Hubs to Increase Distance Capability to up to 3KM

2 Core Highway as: 24V L1,L2
Typically 1.5mmSQ screened Cable
Refer to Installers Guide

Use Room Status Indicators For Door Entry Control.

Use Room Status Indicators with Gas Detector Interfaces to Detect & Alarm in Specific Areas Laboratory

Use the Detector or Annunciator I/O Capability to Control Gas Supply Valves, Beacon-Sounders or other devices

Mix Annunciators With Other Addressable Devices Such as TOC-750 Series Detectors. Use ATEX Rated detectors where required

ATEX Zoned Area

Each Detector Node Has Multiple I/O

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