

PRODUCT DATA SHEET

www.internationalgasdetectors.com

OLIVER IGD

Control Systems

Transmitters

Sensors

Accessories



TOCSIN 920 Detector Control Panel

Wall, 19" Rack or Panel Mounting Units

110/230V 50/60Hz AC operation

250 Addressable devices as: Relays, Analogue Inputs or Gas Detectors

Latest Colour Touch Screen HMI Interface

Integrate Other Signal Inputs

One Man calibration Function

Fully Accessible Modbus Interface

Use as a Host Unit In Conjunction With Tocsin 640 or i700 Controllers

WAV File Audible Alarms

Flexible Alarm Options

Attractive ABS Wall Mount Enclosure

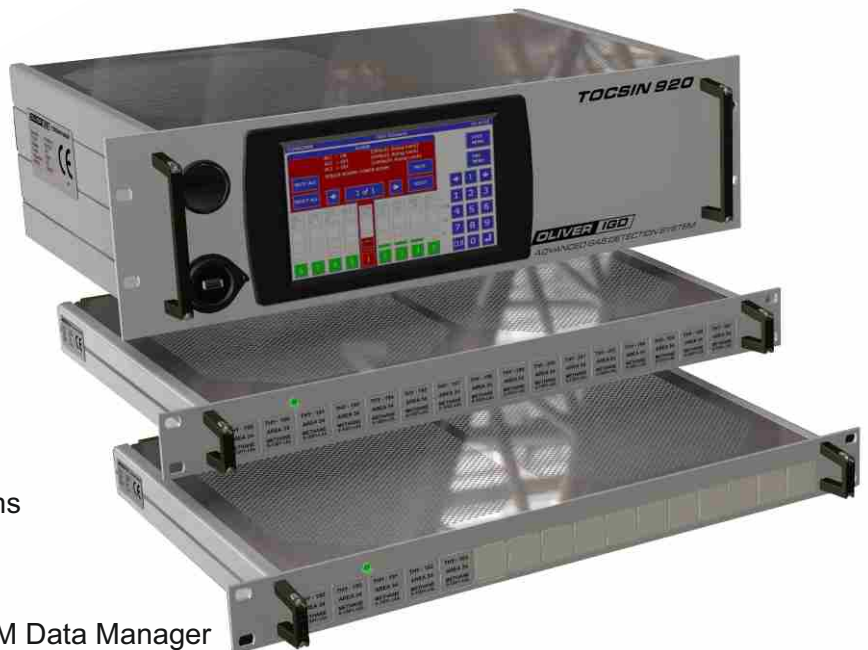
Control up to 250 Addressable Gas Detectors

The TOCSIN 920 offers the user the ability to control up to 250 addressable gas detectors or other devices. The TOCSIN 920 control panel is compatible with the IGD TOCSIN 102, 103, TOC-30, TOC-20 and 903 Series of Toxic Flammable and Oxygen detectors and transmitters. The TOCSIN 920 can also be used as a host unit in conjunction with TOCSIN 640 and i700 series control panels. The system can control any IGD addressable detectors or device. To compliment the system a range of accessories, calibration sets and audio visual alarms are available.

Simple Integration to BMS or DCS Systems

Single Man Calibration Functions

Modbus Template for Integration With RDM Data Manager



International Gas Detectors
CH₄ H₂S CO₂
NO NO₂ SO₂



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FS646773
Ref: OIGD 920-9

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OLIVER IGD

Control Systems

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EC Declaration of Conformity

Issuers name and address:

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



Declares that the product listed as:

TOCSIN 920

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.

2004/108/EC **EMC Directive**
2006/95/EC **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.

EN 61779-1:2000	Electrical apparatus for the detection and measurement of flammable gases, general requirements and test methods.
EN 50271:2010	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. <i>Excluding requirements for SIL</i>
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 T920-TF9

Product Markings **CE** **TOCSIN-920** *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 on: 20th Feb 2016

At 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: 20th Feb 2016

Declaration Ref: T920-DEC-6



International Gas Detectors

CH₄ H₂S CO₂
NO NO₂ SO₂



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TOCSIN 920

Detector Control Panel

Specification

Power Source	110/230V AC 50/60Hz
Power Consumption	150 Watts Base Unit (system dependant)
Display	Colour HMI 800x480
Operating Temperature	0°c to 55°c
Operating Humidity	5 to 95% non-condensing
Accuracy	Sensor dependant
Resolution	0.00% 0.00ppm Dependant on Sensor Type
Update Rate	1 Second
Size (mm)	365 (H) x 533 (W) x 110 (D) Wall Mounting Version 3U High Rack Mounting Version
Inputs	Up to 8 x RS485 loops (Expandable Using Additional Hubs)
Outputs (Standard)	8 x configurable SPCO relays (7A non conductive load Expandable using Additional relay Cards) 1 x RS232/485 Comms Link (Modbus)

Construction Injection Moulded ABS

Enclosure IP54

Order Codes

TOC-920-230	Tocsin 920 Wall Mount Base Unit 110/230V AC 50/60Hz
TOC-920-24	Tocsin 920 Wall Mount Base Unit 24V DC
TOC-920-KIT	Tocsin 920 Kit (For OEM Integration) Comprises Panel Mount Display, Din Rail Hub and Din Rail Mount Relay Card With Cables 24V DC Operation
TOC-920-3U	Tocsin 920 19" Rack Mount Base Unit 110/230V AC 50/60Hz
5920301	Modbus Option
5920501	Addressable Relay Card 8 SPCO Relays For Use in Base Units
5920601	Addressable RS485 Hub 8 RS485 Ports For Use in Base Units
5920701	Addressable Relay Card 8 SPCO Relays DIN Rail Mounting
5920801	Addressable RS485 Hub 8 RS485 Ports DIN Rail Mounting
5920901	Field Box. Field wall mounting enclosure to accommodate two cards, as either relays or hubs
TOC-750-BAT1	Battery Backup Module 7AH (Use with 24V DC Panel TOC-920-24)
TOC-750-BAT2	Battery Backup Module 17AH (Use with 24V DC Panel TOC-920-24)
5921101	DIN Rail Mount 24V DC PSU Module 110/230V AC 50/60Hz

TOCSIN 920

Detector Control Panel

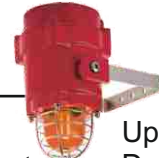


RDM Interface, LAN

RS232/485 Comms Link To Host Systems, SCADA, BMS etc via MODBUS or similar

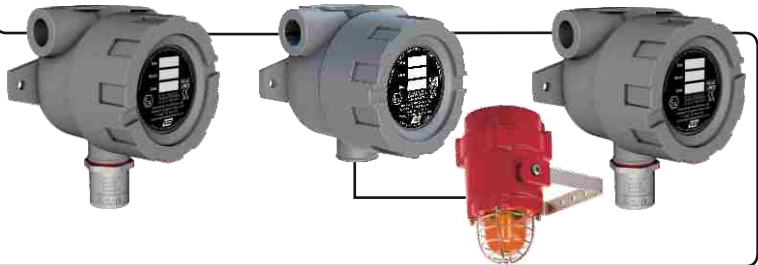
8 Volt Free Relay Contact Outputs As Standard Expandable

Audio Visual Units Available



Relay Output Nodes For Local Alarm or Control

Up to 32 Detectors Flammable or Toxic Gases Per Loop



110/230 VAC

Or

24V DC Power Options

Battery Back Up Units Available

Connect RS485 Ports to Act as a Host For Tocsin 640 or i700 Series Control Panels. See the Same Detectors Connected to The Tocsin 640 or i700 on The Tocsin 920

Compatible With IGD Tocsin 103, 102, TOC-30 or 903 Series Detectors.



8 off RS485 Ports. Use as Either Double Ended (Looped Back) or Single Ended Cable Runs



Power Boosters To Cater For Long Cable Runs

Any Mix of Detectors, Flammable, Toxic, Oxygen and Relay Outputs



ATEX or Safe Area Detectors



TOCSIN 920

Detector Control Panel

Typical system Block Diagram



Typical Screen Shot, Tocsin 920 Series HMI Display. Touch Screen 260,000 Colours, 800 x 480, 7" Display.

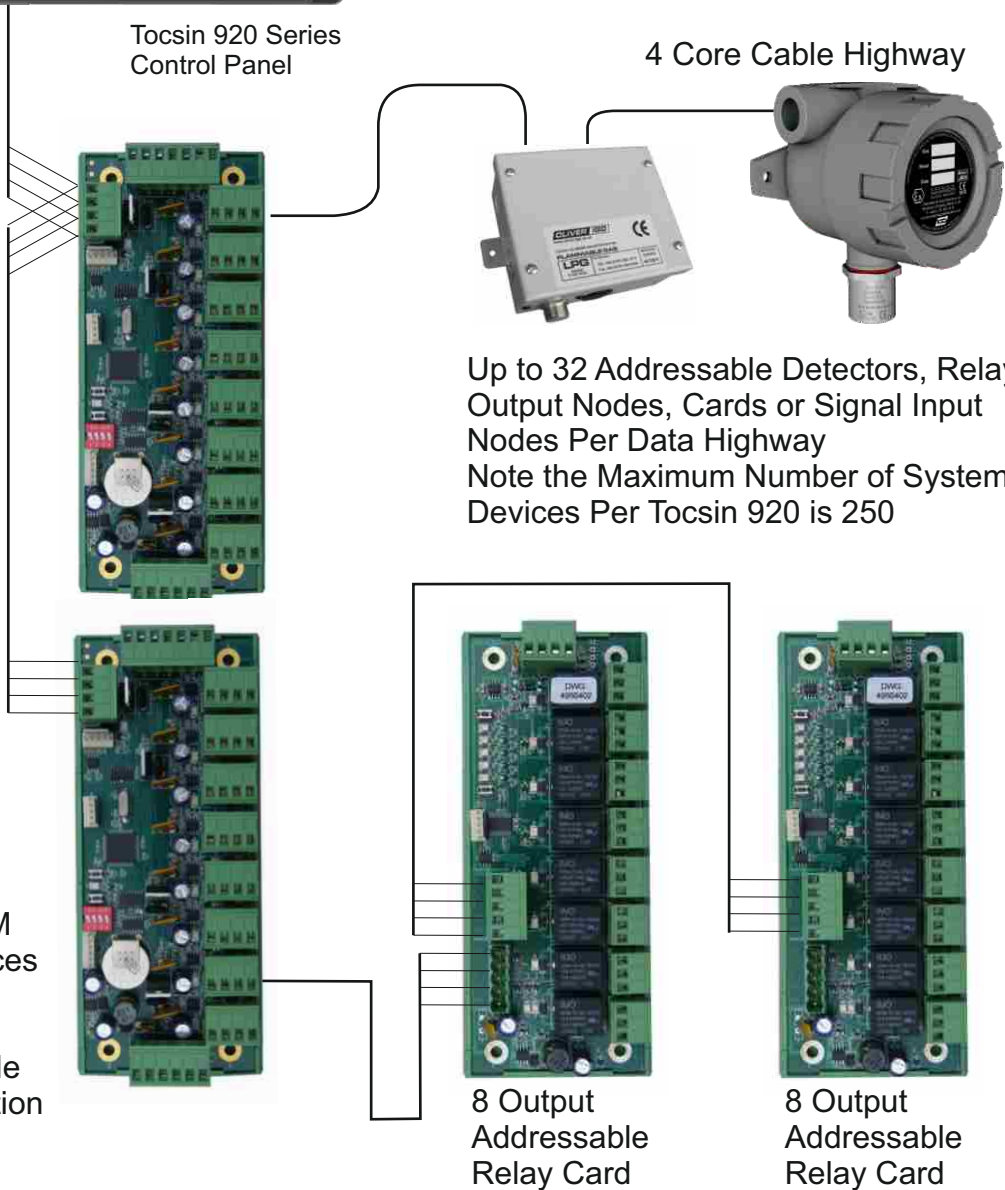
Base Systems Comprise:

- Touch Screen HMI Panel
- 150W PSU
- One Data Highway Hub
- One Addressable Relay Output Card.

Tocsin 920 Series Control Panel

4 Core Cable Highway

Data Highway Hub. 8 Ports Serving Up To 32 Devices



Up to 32 Addressable Detectors, Relay Output Nodes, Cards or Signal Input Nodes Per Data Highway
Note the Maximum Number of System Devices Per Tocsin 920 is 250

8 Port Hubs and Relay Cards can be chassis or DIN Rail Mounting for inclusion into OEM cabinets. All Devices are 24V DC Powered. Field boxes are available for in field installation of Hubs and relay cards if required.

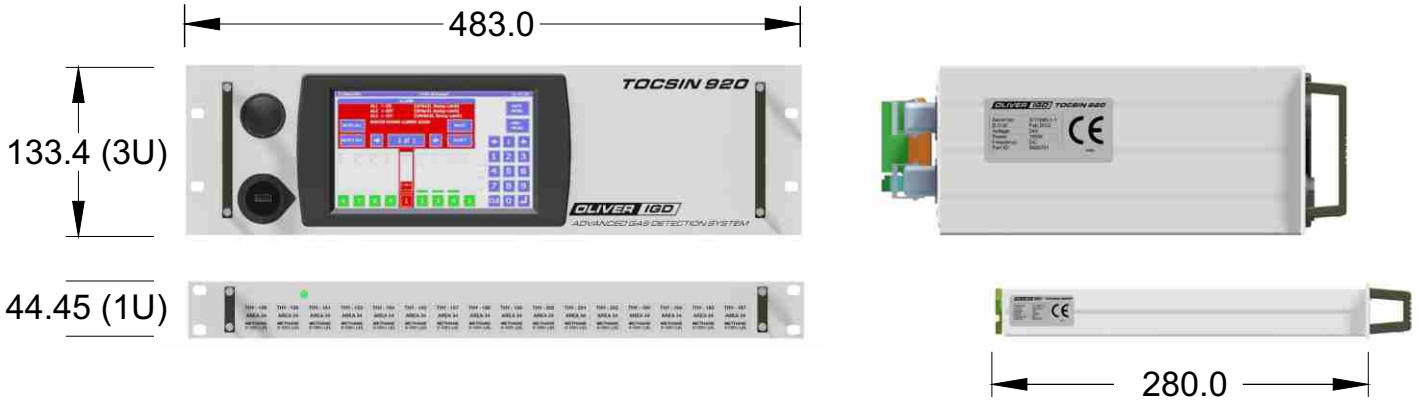
8 Output Addressable Relay Card

8 Output Addressable Relay Card

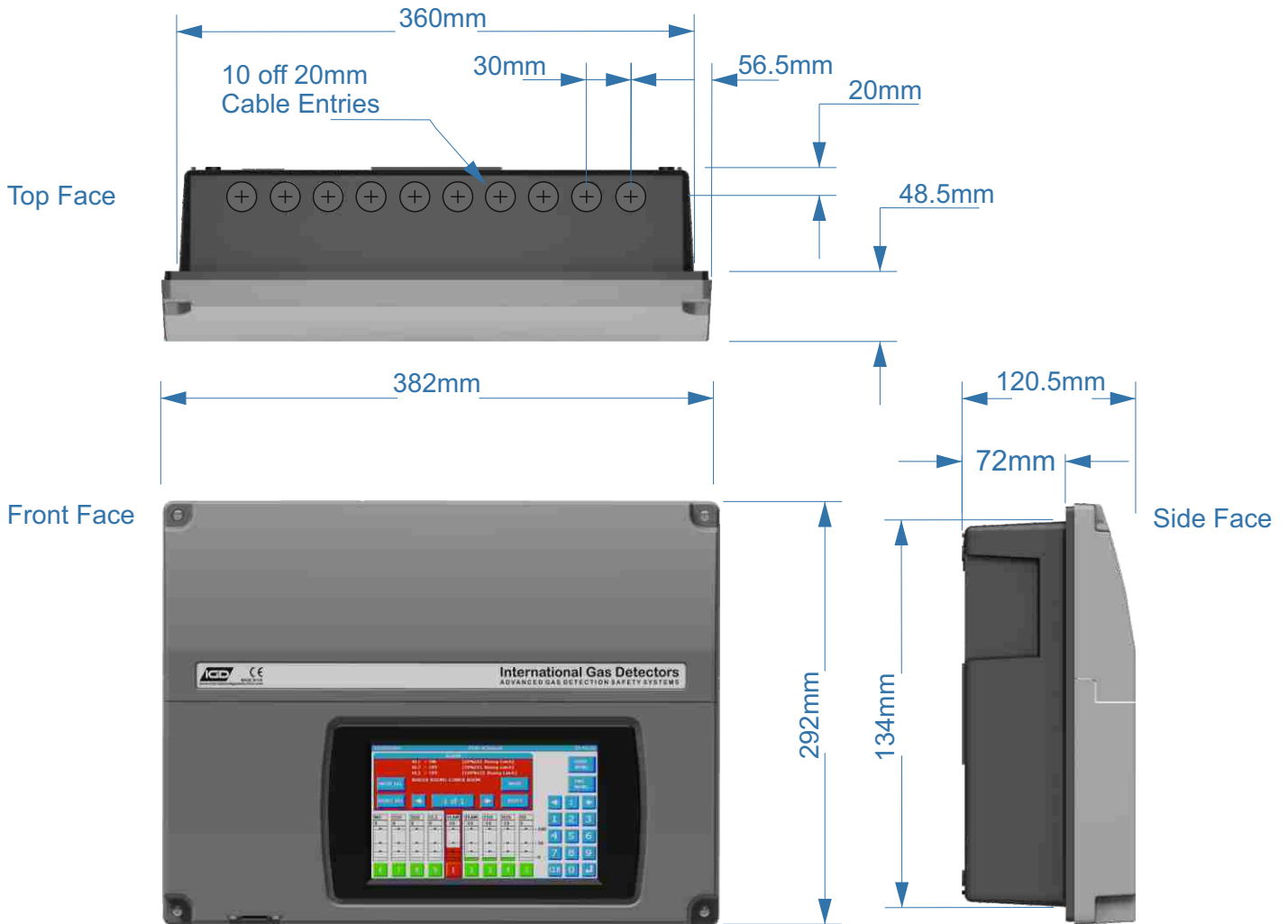
TOCSIN 920

Detector Control Panel

19" Rack Mount Option



Wall Mount Option



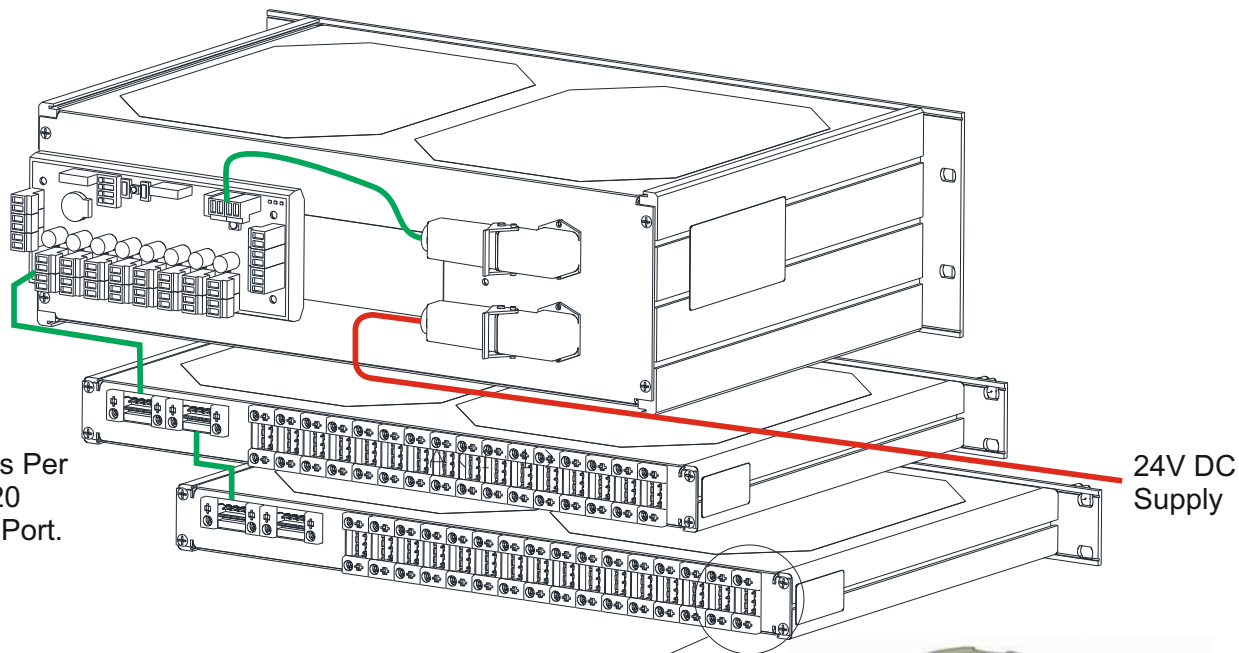
Installation Cables

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

Typically SWA, MICC, FP200, SY, CY, or Similar screened cable

TOCSIN 920

Detector Control Upgrade System for Existing Users



Two Trays Per Tocsin 920 Highway Port.

24V DC Supply

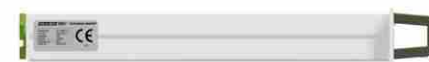
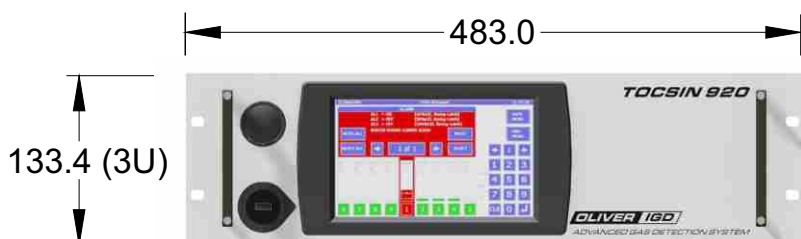
16 Pellistor Flammable Gas Detection Channels Per Rack Tray

— Active — P
— Common — Y
— Compensator — W

Interfaces to Existing mV IGD Mk3 Pellistors Using Existing Wiring



19" Rack Mount Controller



Tocsin 920 Rack mount Units Are Standard 19" Rack Modules 3U High (133.35mm)

All electrical Terminations are to the Rear of the Rack



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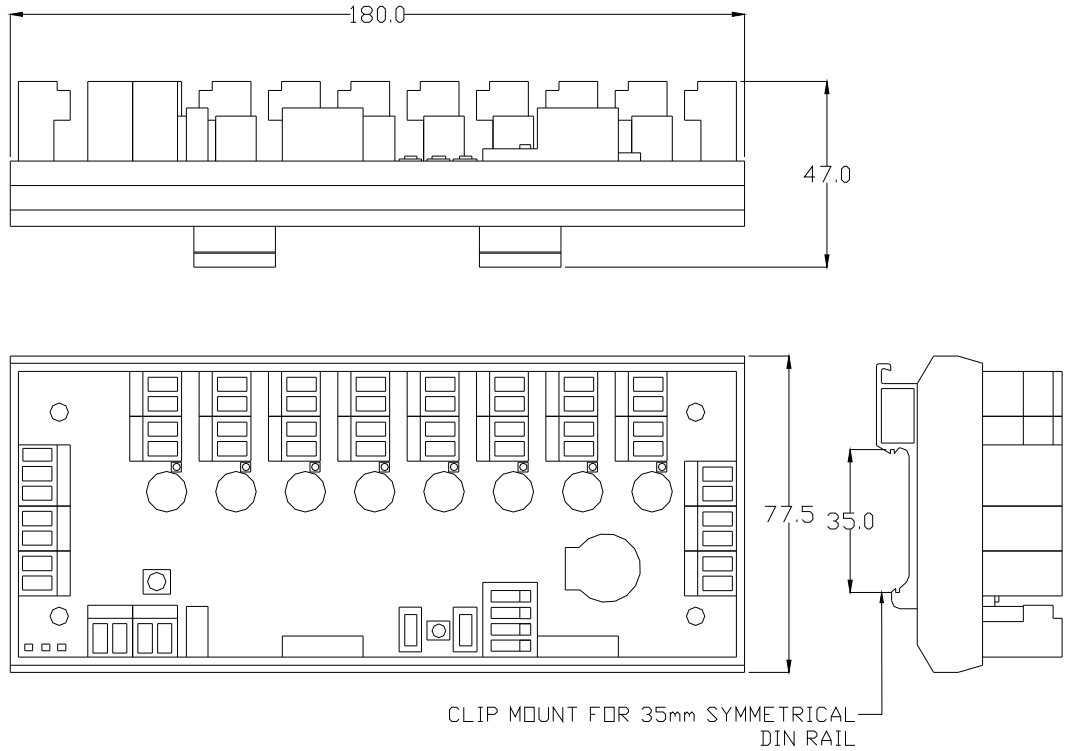
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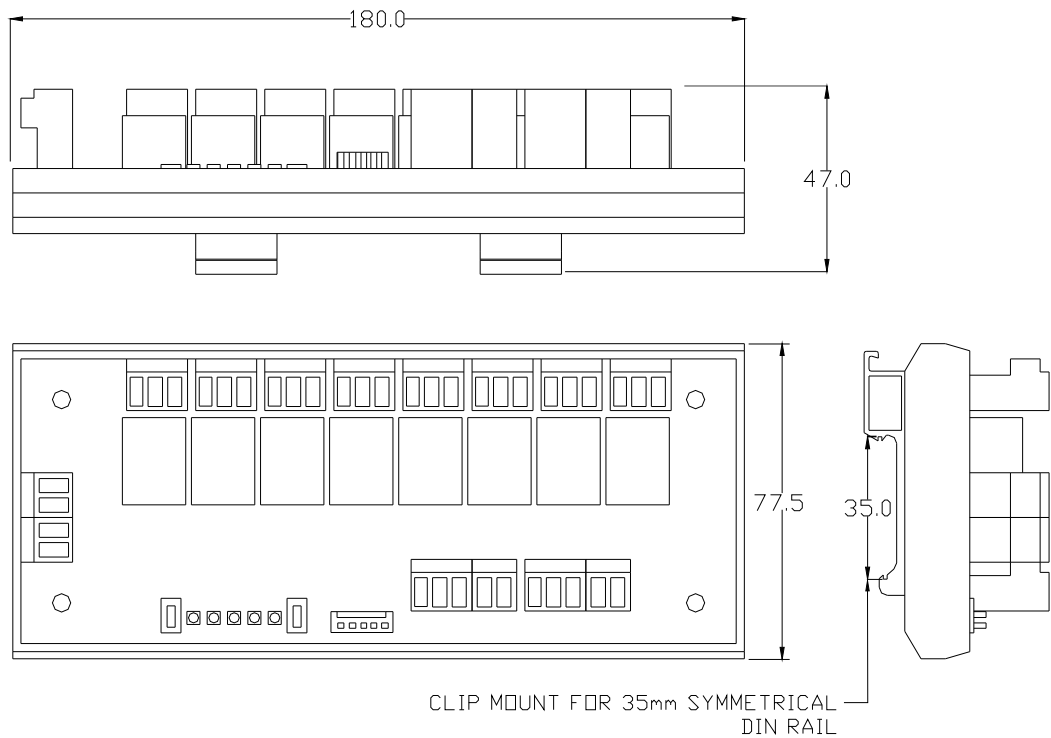
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TOCSIN 920

DIN Rail Mounted Highway Hub Dimensions



DIN Rail Mounted Relay Card Dimensions



TOCSIN 920

System Example



Controller in Supervisors Office

Use Annunciators For Door Entry Control.



Use Annunciators with Gas Detector Interfaces to Detect & Alarm in Specific Areas

Laboratory

Mix Annunciators With Other Addressable Devices Such as 102 or TOC-30 Series Detectors. Use ATEX Rated detectors where required



ATEX Zoned Area

4 Core Highway as:
24V ,A ,B, 0V
Typically 1.5mmSQ
Screened Cable

Gas Bottle Store



Use the Annunciator I/O Capability combined with a MK7 Pellistor to Control Gas Supply Valves, Beacon-Sounders or other devices