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 MountEnclosure

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

EC Declaration of Conformity

Issuers name and address:

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

CE

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. *Excluding requirements for SIL*

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**   S/-*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 6SH , United Kingdom

Signature:

Name   Andrew J Collier M.I.O.D

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

Position: Managing Director   Date: 20th Feb 2016   Declaration Ref: T920-DEC-6

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

International Gas Detectors
ADVANCED GAS DETECTION SAFETY SYSTEMS

RDM Interface, LAN

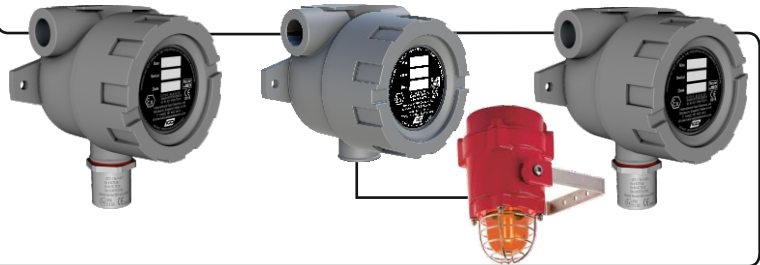RS232/485 Comms Link To Host Systems, SCADA, BMS etc via MODBUS or similar

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

0r

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

C01 25.0 %LEL
LAB 3

ALARM 1
ALARM 2
ALARM 3
FAULT
POWER
MAINS
BATTERY

TOCSIN-i700
ADVANCED GAS DETECTION

International Gas Detectors
ADVANCED GAS DETECTION SAFETY SYSTEMS

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

Power Boosters To Cater For Long Cable Runs
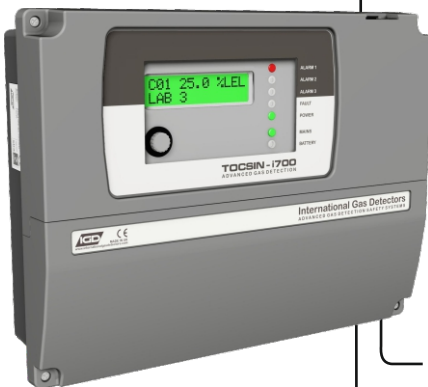
ATEX or Safe Area Detectors

ENTRY OK

TOCSIN 920
Detector Control Panel
Typical system Block Diagram

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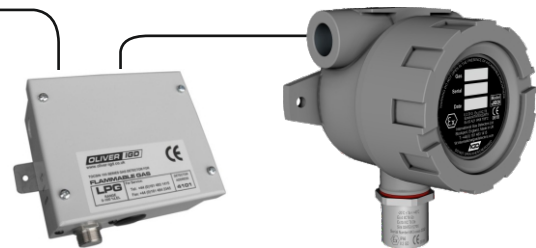Touch Screen 260,000 Colours, 800 x 480, 7" Display.

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
bechassis 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.
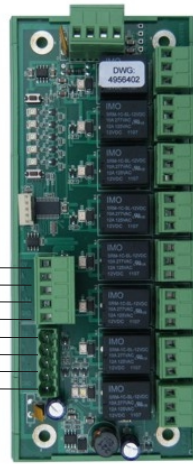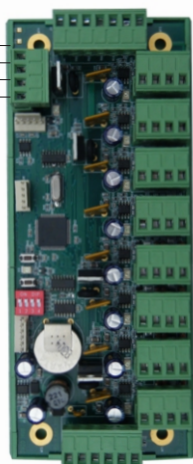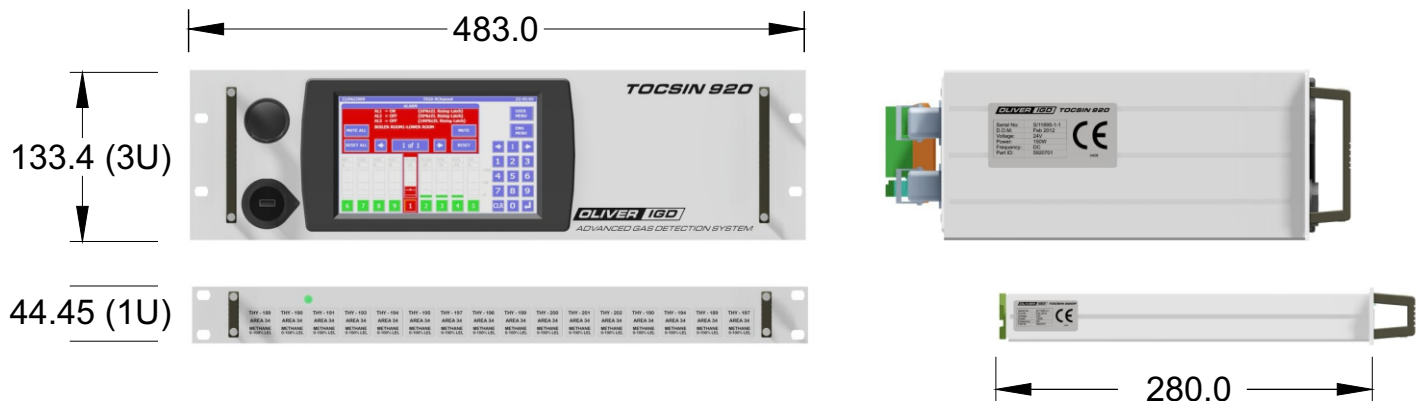
8 Output
Addressable
Relay Card
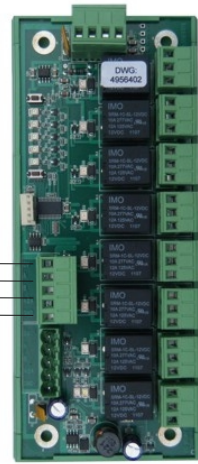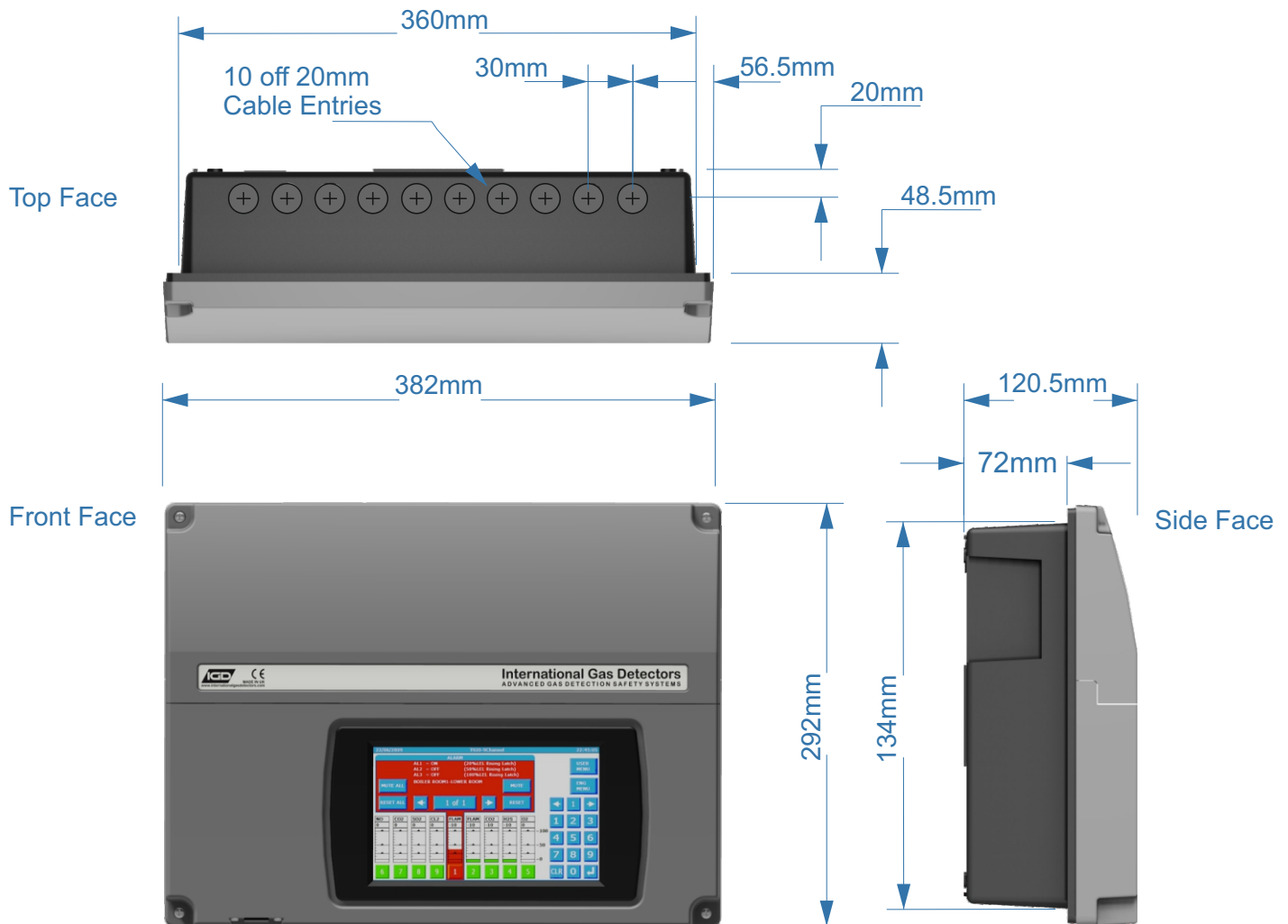
8 Output
Addressable
Relay Card

TOCSIN 920
Detector Control Panel

19" Rack Mount Option

483.0

133.4 (3U)

44.45 (1U)

280.0

Wall Mount Option

Top Face

360mm

10 off 20mm Cable Entries

30mm

56.5mm

20mm

48.5mm

Front Face

382mm

292mm

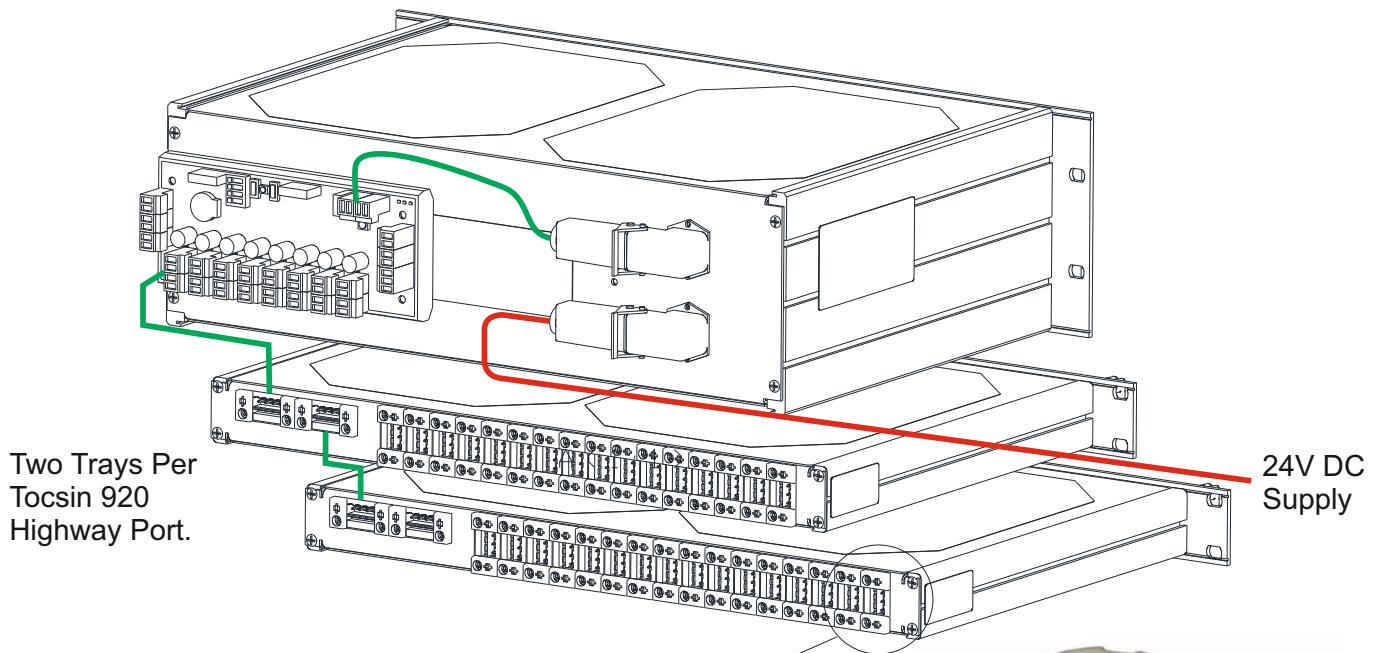120.5mm

72mm

134mm

Side Face

Installation Cables

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

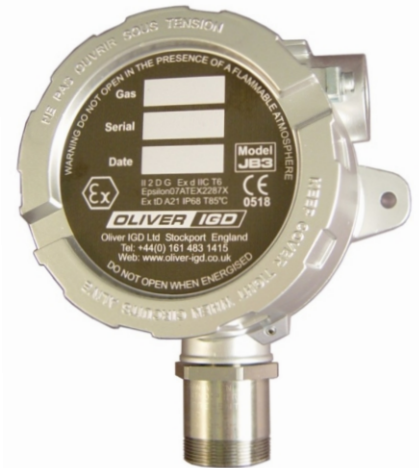Typically SWA, MICC, FP200, SY, CY, or Similar screened cable

TOCSIN 920
Detector Control Upgrade
System for Existing Users

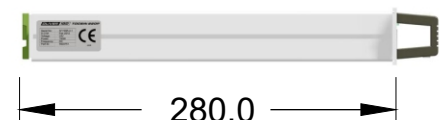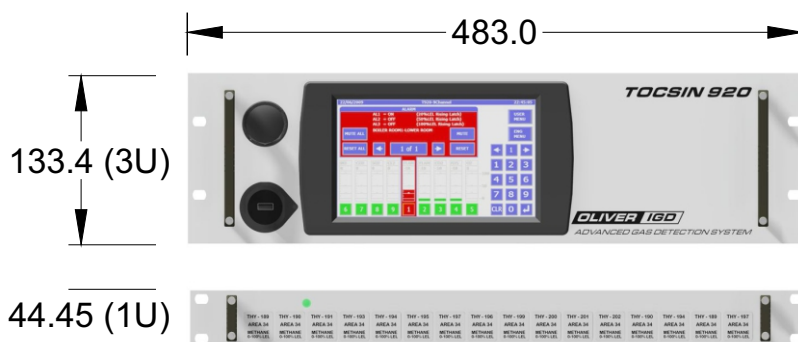Two Trays Per Tocsin 920 Highway Port.

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

483.0

133.4 (3U)

44.45 (1U)

280.0
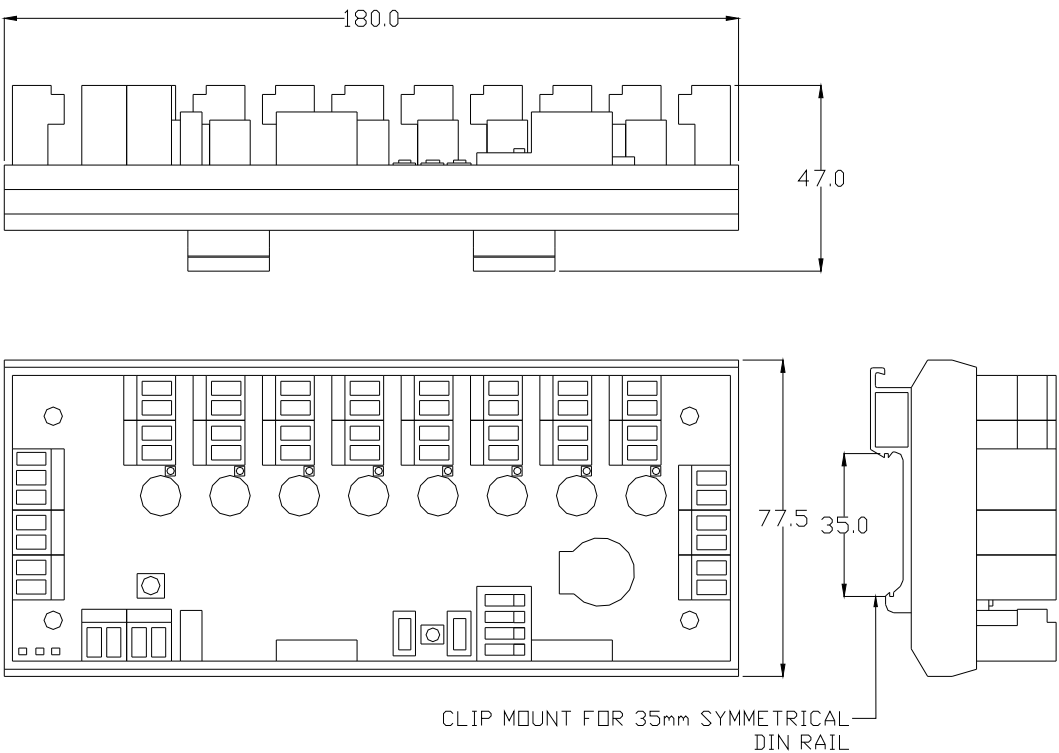
Tocsin 920 Rack mount Units Are Standard 19" Rack Modules 3U High (133.35mm)

All electrical Terminations are to the Rear of the Rack

TOCSIN 920

DIN Rail Mounted Highway Hub Dimensions

180.0

47.0

77.5   35.0

CLIP MOUNT FOR 35mm SYMMETRICAL
DIN RAIL

DIN Rail Mounted Relay Card Dimensions

180.0

47.0

77.5   35.0

CLIP MOUNT FOR 35mm SYMMETRICAL
DIN RAIL

TOCSIN 920

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