TOCSIN 903
EEXd Local Gas Detector Control and Display Unit

4-20mA Output
Alarm Relay Output Option
Digital Addressable I/O Option
Exd Certified
ATEX Certified
Ingress Protection IP66
Digital Display, Concentration, Alarms and Fault Status
Easy Calibration One Man Calibration

The Tocsin 903 provides a local display and control facility for the Tocsin 102 series or pellistor gas detectors in Zone 1 and 2 hazardous areas .In addition to being equipped as a 4 20mA process transmitter the Tocsin 903 can also be fitted with serial addressable capability either using the Oliver IGD data highway to integrate to 700 or 920 series controllers.The unit is fully compatible with Tocsin 700 and Tocsin 920 Control Panels which offer both addressable and analogue inputs as well as Modbus serial. outputs
More conventionally the Tocsin 903 can be interfaced directly into DCS/BMS systems using its 4-20mA Process output. An alarm relay output card is available.

General Specification

Power supply	18 to 32V DC With Relay Option Typically 4 W
	12 to 32V DC Without Relay Option (Catalytic Only)
Electrical Outputs	3 Wire 4-20mA (4 Wire Addressable Capability)
Temperature	-10°c to +55°c
Humidity	15 to 90% RH non-condensing
Ingress Protection	IP66
JB Housing Material	Junction Box, Copper Free Aluminium Alloy Epoxy Coated
	Option for 316 Stainless Steel and Marine Paint Finishes
Sensor Housing Material	Sensor ,Stainless Steel 316 S16
Explosion Protection	Junction Box, EExd IIC T6 II 2 D G
Explosion Protection Sensor	EEx d IIC T6 II 2 D G
Housing Dimensions (mm)	110 Diameter x 127 High Plus detector option
Cable Entry	2 x M20, NPT Options
	1 x M20 Detector Entry
Weight (Std Al Housing)	1.5Kg

See Tocsin 102 series Gas Detector data sheet for sensor specification and type

Ex d IIC T6

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⟨Ex⟩ II 2 D G

Epsilon07ATEX2287x

TOCSIN 903
SENSOR OPTIONS & ACCESSORIES

Standard Tocsin 903	*Combine with 102 Series Gas Detector and Accessories.*	PN 5104501
Marine Version Tocsin 903 (Additional Polyester Coating)	*Gas Detector Option NOT Supplied*	PN 5131302
316 SS Version Tocsin 903		PN 5104502
Std Tocsin 903 Supplied Pre-Calibrated with MKIII Pellistor	*Combine with Accessories*	PN 5104401

Ceiling Adaptor Kit PN 5138901

102 or MKIII Series Gas Detector.

For full information please refer to Tocsin 102 Series or MKIII data sheets.

Tocsin 903 Can be fitted with either:

Addressable Interface Card
PN 5114401
or
Relay Card (3 off SPCO)
PN 5114301

Weather Protection Assembly And Test Gas Applicator   P/N 401451

Collector Cone P/N 401061
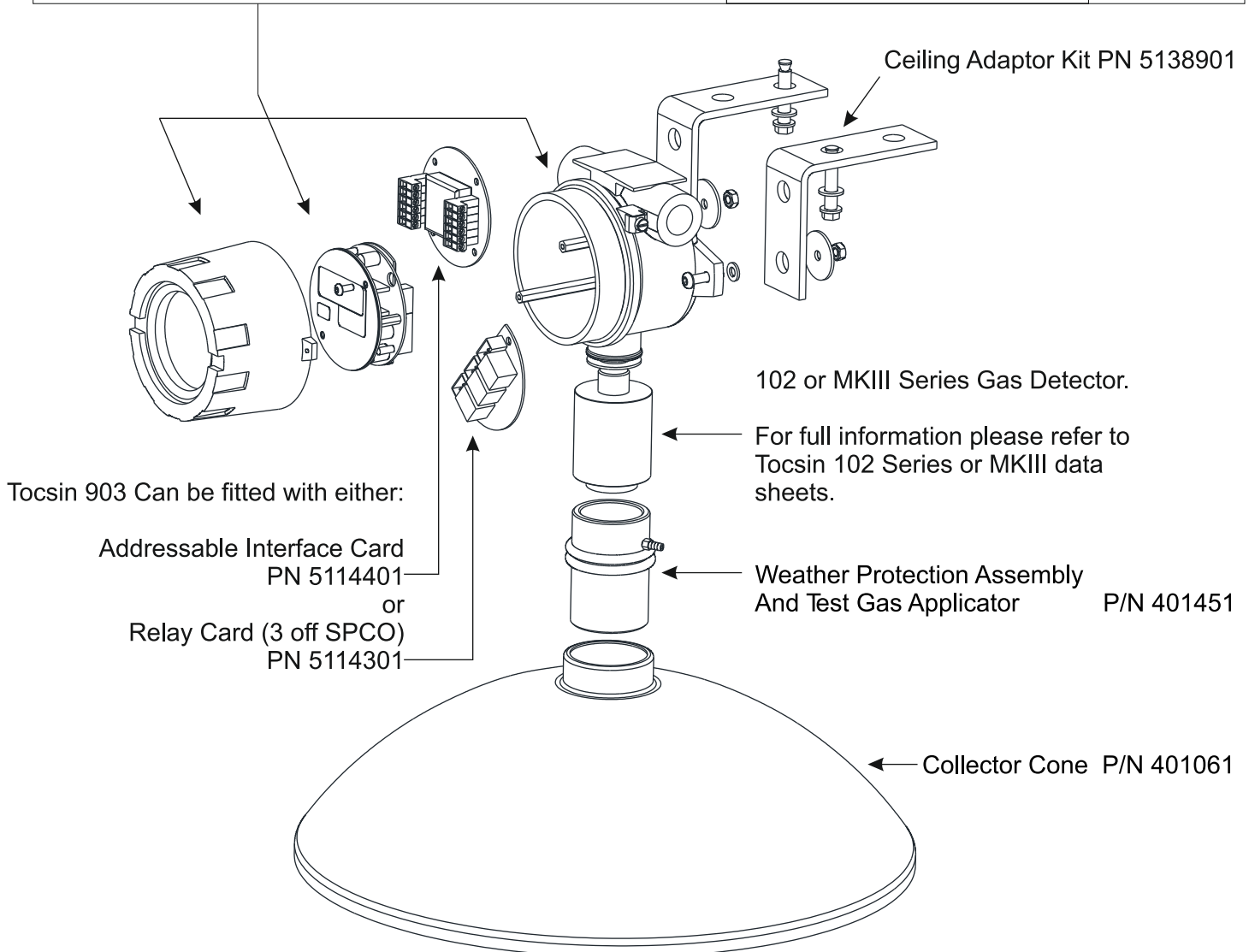
Test Gas Applicator 401101A

Note this can be used as a flow cell in which case combine with locking ring
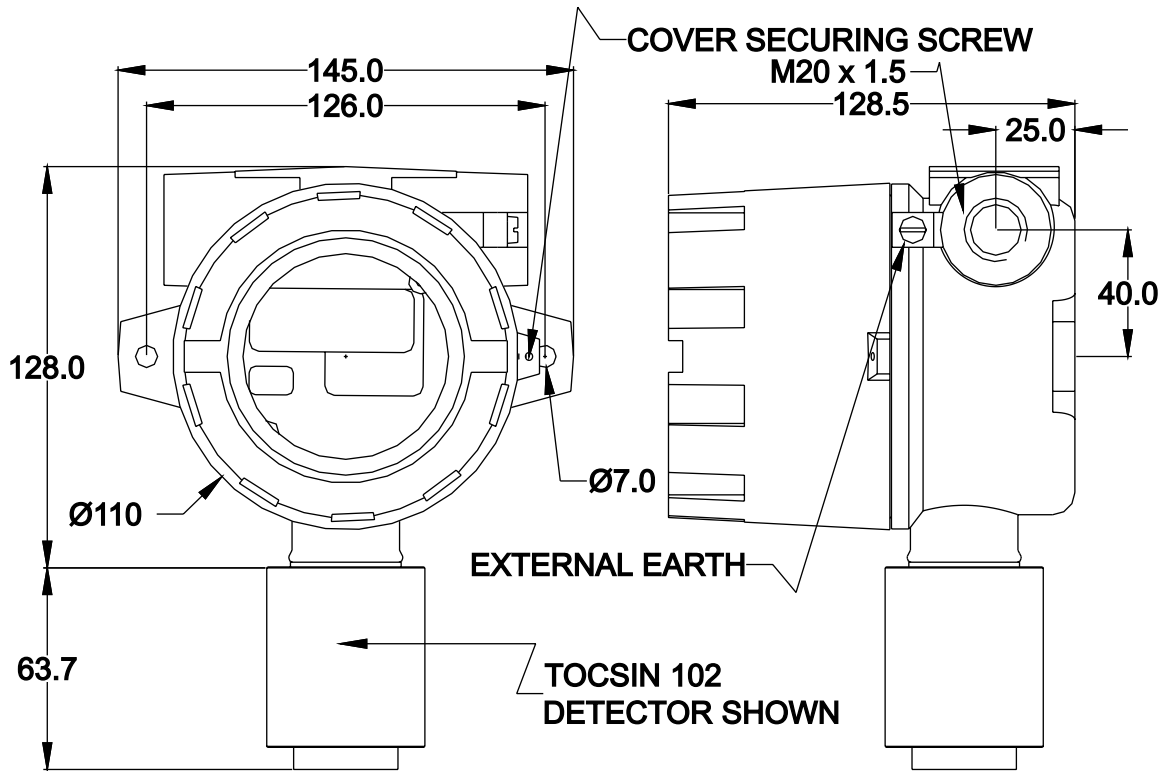
For Compatible Controllers Refer To:

Tocsin 625   1 to 8   Channel Controller
Tocsin 700   1 to 64   Channel Controller
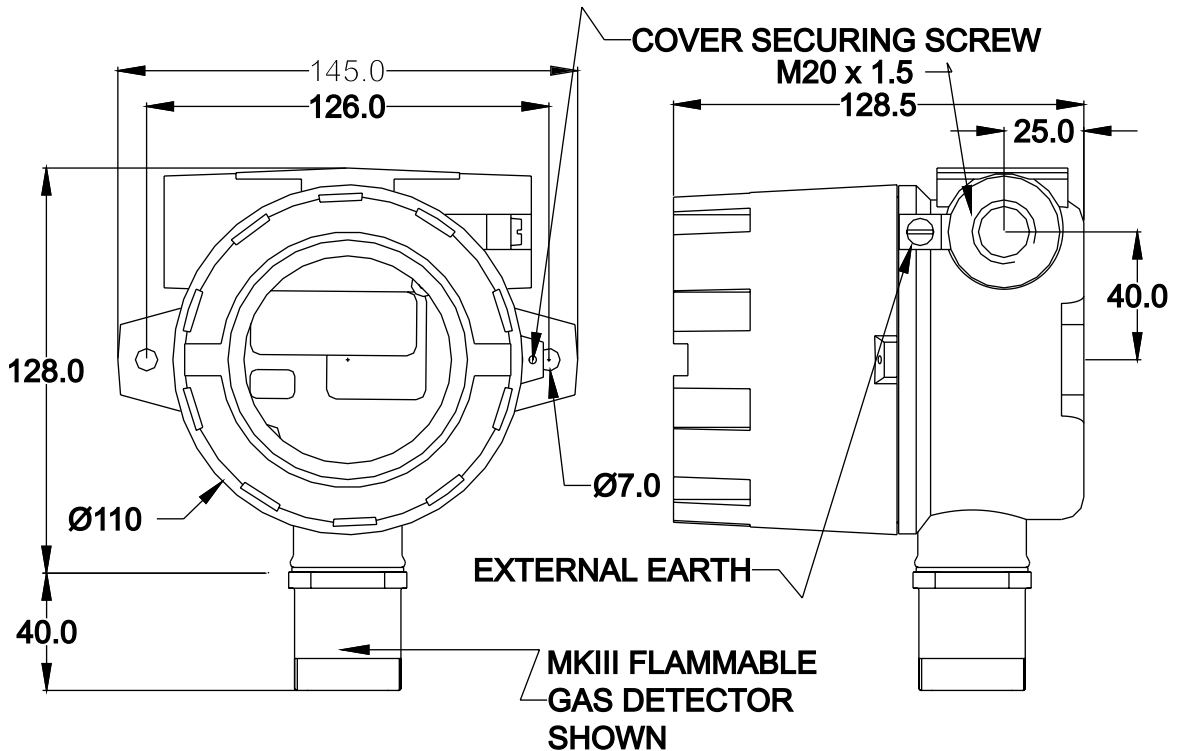Tocsin 920   1 to 250 Channel Controller

TOCSIN 903
OUTLINE DRAWINGS

MOUNTING DETAILS AND DIMENSIONS FOR COMBINED TOCSIN 903 AND TOCSIN 102 DETECTOR

COVER SECURING SCREW
M20 x 1.5

145.0
126.0
128.5
25.0
128.0
40.0
Ø110
Ø7.0
63.7

EXTERNAL EARTH

TOCSIN 102
DETECTOR SHOWN

MOUNTING DETAILS AND DIMENSIONS FOR COMBINED TOCSIN 903 AND MKIII DETECTOR

COVER SECURING SCREW
M20 x 1.5

145.0
126.0
128.5
25.0
128.0
40.0
Ø110
Ø7.0
40.0

EXTERNAL EARTH

MKIII FLAMMABLE
GAS DETECTOR
SHOWN

TOCSIN 903
FLEXIBLE CONFIGURATION OPTIONS

Note in all cases the detector can be remoted from the Tocsin 903 controlled.

This can be up to 5M for a pellistor flammable detector or up to 25M for a Tocsin 102 series detector.

Standard Version

3 Wire 4-20mA

Options for Monitoring Oxygen, Toxic or Flammable gases

Alarm 1 SPCO

Alarm 2 SPCO

Fault Detected SPCO

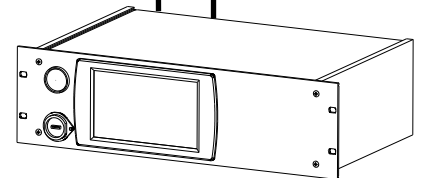*Note alarm outputs can be set as Rising Alarms, Falling Alarms Latching or Non Latching.*

With Relay Alarm Output Option

3 Wire 4-20mA

Digital Addressable Option

Up to 32 Detectors Per Loop Serially Addressed With Full Data Access For Gas Levels, Diagnostics, Calibration etc

Control Panel
(Tocsin 920 Rack Mount Shown)

TOCSIN 903
Direct Pellistor Connection

The Tocsin 903 series controller has, as standard an in-built interface to drive an Oliver IGD MK3 or Type B series pellistor.

In this configuration all set up and on-going calibration and maintenance can be undertaken from the Tocsin 903 software menu system.

All system configurations are still available as:

4-20mA Output (as standard)

Relay Output (option)

Addressable Highway Interface (option)

EXCELLENT STABILITY AND POISON RESISTANCE

ALL STAINLESS STEEL CONSTRUCTION

ADDRESSABLE SERIAL PORT

CAN BE FIELD CALIBRATED

LINEAR 4-20mA OUTPUT

AVAILABLE FOR A WIDE RANGE OF FLAMMABLE GASES.

Performance	
Accuracy	+/-2% FSD
Linearity	Better Than 3%FSD
Warm up time to final zero	< 10 minutes
Warm up time to specification	< 30 minutes
Response time to target gas T90	Typically < 7 s (CH4)
MTBF	> 5 years
Long Term Zero Drift Per Year	< +/-4% LEL
Zero Repeatability During Operation	+/-0.2% LEL
Span (5%) Repeatability During Operation	+/- 2% LEL
Environmental:	
Operating Temperature	-10 to +55 Deg C
Storage Temperature	-20 to +60 Deg C
Relative humidity (non-condensing)	0 to100%
Connections	
Outputs	3 Wire 4-20mA
Power Input	18 to 32V DC
Power Consumption (with Tocsin 903)	6W
Physical	
Ingress Protection	IP66
Housing Material	Stainless Steel 316 S16
Protection Concept	Flameproof
Dimensions (mm)	33 Diameter x 52 Length
Mounting Thread	M20 x 1.75
Weight	550 grams

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