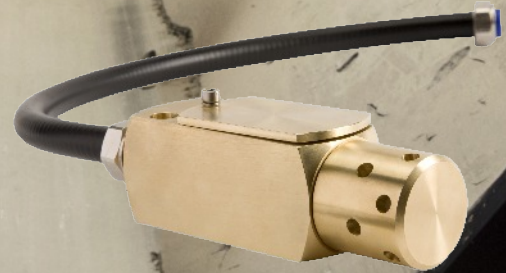


# TOXIC GAS SENSOR/ TRANSMITTER

Suitable for use in SIL 1 and SIL 2 applications, in accordance with any conditions or restrictions

With the option of using a remote mounted gas sensing module in a robust metal housing

PLANT SAFETY PROTECTION of toxic gases in heavy duty applications and general industrial applications



**ATEX  
Ex ia  
GROUP I M1  
GROUP II 2G  
INTRINSICALLY  
SAFE**

**PETROCHEMICAL  
PROCESSING**

**MINING &  
TUNNELLING**

**OFFSHORE  
PLATFORMS**

**MANUFACTURING  
& PROCESS  
PLANTS**

**STORAGE AREAS &  
WAREHOUSING**

**WATER  
MANAGEMENT  
& SEWAGE  
TREATMENT**

**POWER  
GENERATION**

**GAS STORAGE &  
DISTRIBUTION**



**pre-calibrated, plug-in  
gas sensing modules**

*with standardised output signal  
for convenient replacement  
and servicing.*

- Fixed gas monitoring for point source hazards and perimeter protection in arduous duty and exposed locations.
- High accuracy electrochemical gas sensing elements.
- Choice of analogue output signal:-  
4 to 20 mA • 0.4 to 2 V • 5 to 15 Hz.
- Signal fix during calibration to prevent false alarms - 4 wire systems only.
- The main circuit module inside the sensor housing can be removed from the housing for maintenance purposes.
- Special versions with weatherproof plug & socket connectors available.





**technical details...**

Ambient Temp. Limits:	-10 to +50°C.
Storage Temp. Limits:	-20 to +60°C.
Ambient Pressure Limits:	Atmospheric ± 10%.
Humidity:	90% RH non-condensing.
Protection Classification:	Dust and waterproof to IP66. Gas inlet port to IP54.
Housing Material:	Stainless steel filled polyamide 6.
Nett Weight:	450 g.
Cable Entries:	M20 x 1.5.
Electrical Connections:	4 mm Barrier/clamp terminals.
Information Display:	Graphic LCD.
Vibration Limits:	10 to 100 Hz, 0.25 mm pk. (BS2011) 100 to 600 Hz, 2 g pk.
Impact Limits:	20 joules (Housing).

**GAS SENSING MODULE**

Plug in module with retaining lock. Standardised interface signal to enable easy interchange of modules.



- Pushbutton calibration of ZERO and SPAN without the need to open the main housing.
- Security protected.
- Digitally controlled programming for accuracy and stability.
- The output process signal is FIXED during calibration to prevent the initiation of false alarms.

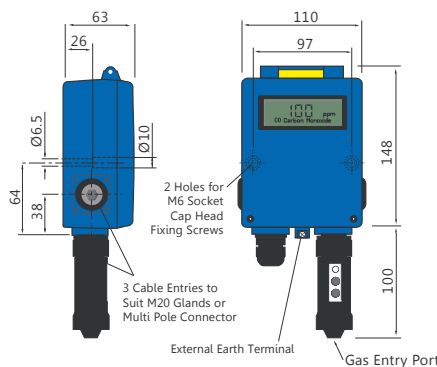
**METHANE CATALYTIC COMBUSTION**

ELECTROCHEMICAL SENSOR	SENSING RANGE	LINEARITY	DRIFT	REPEATABILITY	RESPONSE TIME T63%	OPERATING LIFE*	ORDER REF
<b>Carbon Monoxide</b>	0 to 50 ppm 0 to 250 ppm 0 to 500 ppm	±2% FS	2% month	±2%	9 secs	>2 years	(250.50) (250.250) (250.500)
<b>Hydrogen Sulphide</b>	0 to 50 ppm	±2%	2% month	±2%	14 secs	>2 years	(251)
<b>Sulphur Dioxide</b>	0 to 20 ppm	±2%	2% month	±2%	7 secs	>2 years	(252)
<b>Nitrogen Dioxide</b>	0 to 20 pm	±2%	2% month	±2%	15 secs	>2 years	(254)
<b>Chlorine</b>	0 to 10 ppm	±2%	2% month	±2%	37 secs	>2 years	(255)
<b>Oxygen</b>	0 to 25%	±5%	10% year	±2%	5 secs	>1 year	(257)
<b>Nitric Oxide</b>	0 to 100 ppm	±5%	2% month	±2%	9 secs	>2 years	(259)
<b>Hydrogen</b>	0 to 1000 ppm	±1%	2% month	±2%	13 secs	>2 years	(261)

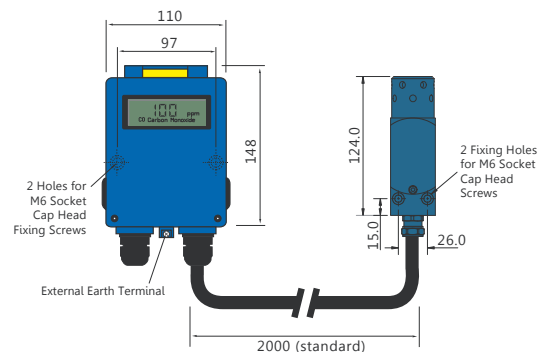
\*IN CLEAN AIR

**dimensions...**

**TX6373 Toxic Gas Sensor/Transmitter**



**TX6373.84 Toxic Gas Sensor/Transmitter with Remote Gas Sensing Module**



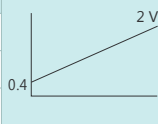
ALL DIMENSIONS IN MM

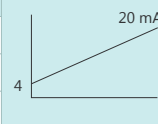
**Ex**  
ATEX  
Ex ia  
GROUP I M1  
GROUP II 2G  
INTRINSICALLY  
SAFE

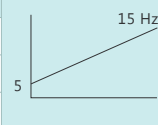


## electrical details...

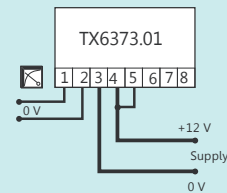
### TX6373.01 GROUP I APPLICATIONS (12 V dc)


Output:	0.4 to 2 V	
Min Load @ 12 V dc	10 k ohms	
Supply	6.5 to 16.5 V dc	
Nominal Current	<10 mA	

Output:	4 to 20 mA	
Max Load @ 12 V dc	257 ohms	
Supply	6.5 to 16.5 dc	
Max Current	24 mA	

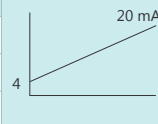
Output:	5 to 15 Hz	
Max Load	Opto isolated 2 mA max	
Supply	6.5 to 16.5 V dc	
Max Current	<20 mA	

Connections:

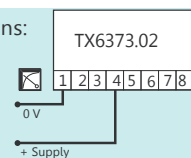



 Gas sensors located in a Group I hazardous area must be powered from an approved intrinsically safe source. Please see Trolex Installation and Operating Data for recommendations.

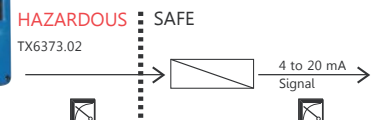
### TX6373.02 GROUP II APPLICATIONS (24 V dc)

Output:	4 to 20 mA	
Max Load @ 24 V dc	875 ohms	
Supply	6.5 to 30 V dc	
Max Current	24 mA	

Connections:

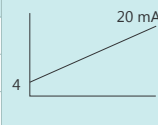


 Gas sensors located in Group II hazardous area must be used in conjunction with approved safety barriers. Zener barriers or isolation barriers may be used. Please see Trolex Installation and Operating Data for recommendations.

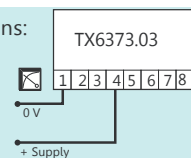


### TX6373.03 GENERAL PURPOSE APPLICATIONS (24 V dc)

**NOT FOR USE IN CLASSIFIED HAZARDOUS AREAS.**

Output:	4 to 20 mA	
Min Load @ 24 V dc	875 ohms	
Supply	6.5 to 30 V dc	
Max Current	24 mA	

Connections:



## certification & approval...



**Group I TX6373.01 TOXIC GAS SENSOR/TRANSMITTER:** I M1 Ex ia I Ma (Ta = -20 to +60°C)

**Group II TX6373.02 TOXIC GAS SENSOR/TRANSMITTER:** II 1G Ex ia IIC T4 Ga (Ta = -20 to +60°C)



Designed to comply with the requirements of the EC directive: ATEX directive 94/9/EEC  
EMC directive 2004/108/EC

**A T E X**  
**Ex ia**  
**GROUP I M1**  
**GROUP II 2G**  
**INTRINSICALLY**  
**SAFE**



**A T E X  
E x i a  
GROUP I M1  
GROUP II 2G  
INTRINSICALLY  
SAFE**

## order reference...

<b>TX6373.01</b>	<b>TOXIC GAS SENSOR/TRANSMITTER - SIL 1 &amp; 2</b>	<b>Group I</b>
<b>TX6373.02</b>	<b>TOXIC GAS SENSOR/TRANSMITTER - SIL 1 &amp; 2</b>	<b>Group II</b>
<b>TX6373.03</b>	<b>TOXIC GAS SENSOR/TRANSMITTER</b>	<b>General Purpose</b>

**Please specify:**

OUTPUT	0.4 to 2 V output	(11)
	4 to 20 mA output - SIL 1 & 2	(12)
	5 to 15 Hz output	(13)
TYPE OF GAS	Carbon Monoxide	0 to 50 ppm (250.50)
		0 to 250 ppm (250.250)
		0 to 500 ppm (250.500)
	Hydrogen Sulphide	0 to 50 ppm (251)
	Sulphur Dioxide	0 to 20 ppm (252)
	Nitrogen Dioxide	0 to 20 ppm (254)
	Chlorine	0 to 10 ppm (255)
	Oxygen	0 to 25% (257)
	Nitric Oxide	0 to 100 ppm (259)
	Hydrogen	0 to 1000 ppm (261)

**TX6373.84 TOXIC GAS SENSOR/TRANSMITTER with Remote Gas Sensing Module.**

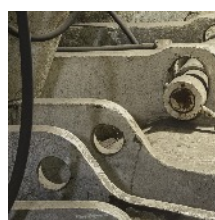
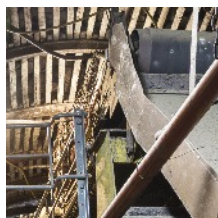


<b>TX6373.84.01 - SIL 1 &amp; 2</b>	<b>Group I</b>
<b>TX6373.84.02 - SIL 1 &amp; 2</b>	<b>Group II</b>
<b>TX6373.84.03</b>	<b>General Purpose</b>

Fitted with 2 metre flexible cable in a flexible armoured conduit.

Maximum total cable length: 10 metres

**Please specify non-standard cable length, output signal and gas type.**



## trouble-free servicing...

Our 24 hour replacement and exchange service for gas sensing modules simplifies periodic plant maintenance.

Trox service contracts for gas sensors have been specifically structured to encompass complete after-care responsibility of installed sensors ensuring peace-of-mind and operational security.

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