



TOXIC GAS SENSOR/ TRANSMITTER

Plant safety protection for toxic gases.

FEATURES

- Fixed gas monitoring for point source hazards and perimeter protection in arduous duty and exposed locations.
- Safety protection for toxic gas risk occurring in hazardous areas and general industrial applications.
- High accuracy electrochemical gas sensing elements.
- Convenient push button calibration of ZERO and SPAN with drift free digital programming.
- Choice of analogue output signal:-
4...20mA • 0.4...2V • 5...15Hz.
- Signal fix during calibration to prevent false alarms.
- Intrinsically safe for use in Group I and Group II hazardous areas.



- Special versions with weatherproof plug and socket connectors available.



- Option with remote mounted gas sensing module in robust metal housing for arduous working situations.



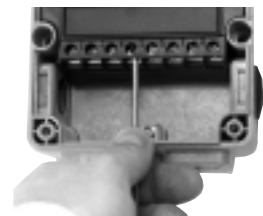
PRE-CALIBRATED GAS SENSING MODULES

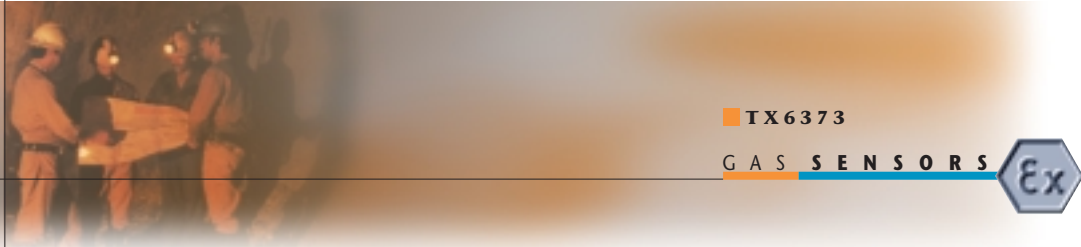
Pre-calibrated plug-in gas sensing module with a standardised output signal for convenient replacement and servicing.



REMOVABLE ELECTRONIC MODULE

The main circuit module inside the sensor housing can be removed from the housing for maintenance purposes.





TECHNICAL details

Ambient Temperature Limits:	-10°C...50°C.
Storage Temperature Limits:	-20°C...60°C.
Ambient Pressure Limits:	1 bar ± 100 mbar absolute.
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:	450g.
Cable Entries:	M20 x 1.5.
Electrical Connections:	4mm Barrier/clamp terminals.
Information Display:	Graphic LCD.
Vibration Limits: (BS2011)	10...100Hz, 0.25mm pk. 100...600Hz, 2g 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.

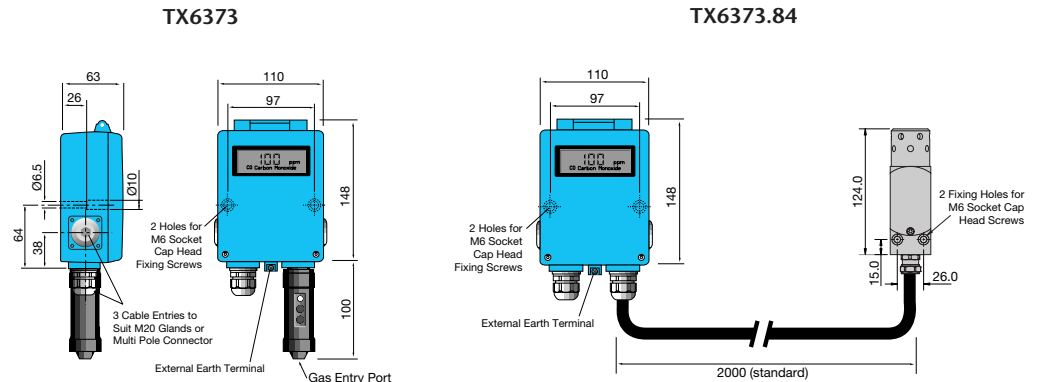
GAS SENSING RANGES

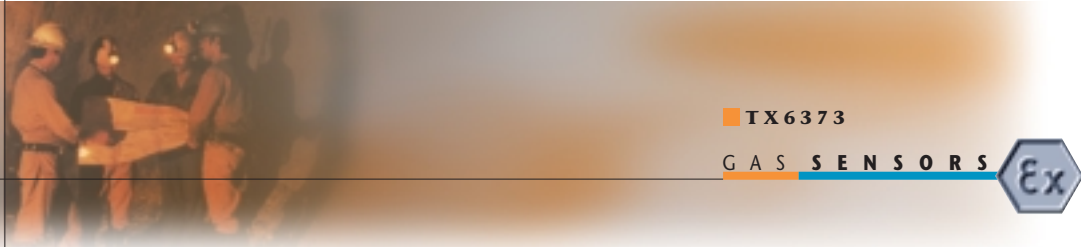
Plug-in gas sensing module with signal conditioning. Precalibrated and standardised output signal.

	Electrochemical Sensor	Sensing Range	Linearity	Drift	Repeatability	Response Time T63%	Operating* Life	Order Ref
CO	Carbon Monoxide:	0...50ppm 0...250ppm 0...500ppm	±2% FS	2% month	±2%	9 secs	>2 Years	(250.50) (250.250) (250.500)
H ₂ S	Hydrogen Sulphide:	0...50ppm	±2%	2% month	±2%	14 secs	>2 Years	(251)
SO ₂	Sulphur Dioxide:	0...20ppm	±2%	2% month	±2%	7 secs	>2 Years	(252)
NO ₂	Nitrogen Dioxide:	0...20ppm	±2%	2% month	±2%	15 secs	>2 Years	(254)
Cl ₂	Chlorine:	0...10ppm	±2%	2% month	±2%	37 secs	>2 Years	(255)
O ₂	Oxygen:	0...25%	±5%	10% year	±2%	5 secs	>1 Year	(257)
NO	Nitric Oxide:	0...100ppm	±5%	2% month	±2%	9 secs	>2 Years	(259)
H ₂	Hydrogen:	0...1000ppm	±1%	2% month	±2%	13 secs	>2 Years	(261)

*In clean air.

DIMENSIONS in mm.

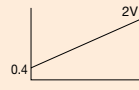
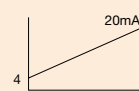
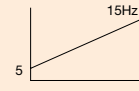




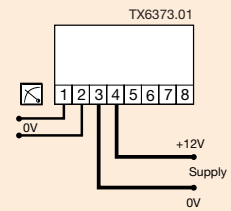
ELECTRICAL details

TX6373.01 Group I Applications (12V dc).



Output	0.4...2V	
Min Load @ 12V dc	10 K ohms	
Supply	6.5...16.5V dc	
Nominal Current	<10mA	
Output	4...20mA	
Max Load @ 12V dc	257 ohms	
Supply	6.5...16.5V dc	
Max Current	24mA	
Output	5...15Hz	
Max Load	Opto isolated. 2mA max	
Supply	6.5...16.5V dc	
Max Current	<20mA	


Connections:



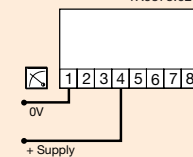
Gas sensors located in a Group I hazardous area must be powered from an approved intrinsically safe source. Please see Trolex Installation and Operating Data for recommendations.

TX6373.02 Group II Applications (24V dc).

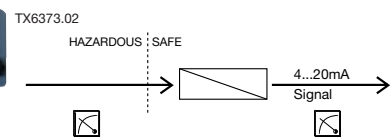


Output	4...20mA	
Min Load @ 24V dc	875 ohms	
Supply	6.5...30V dc	
Max Current	24mA	

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.

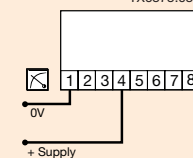


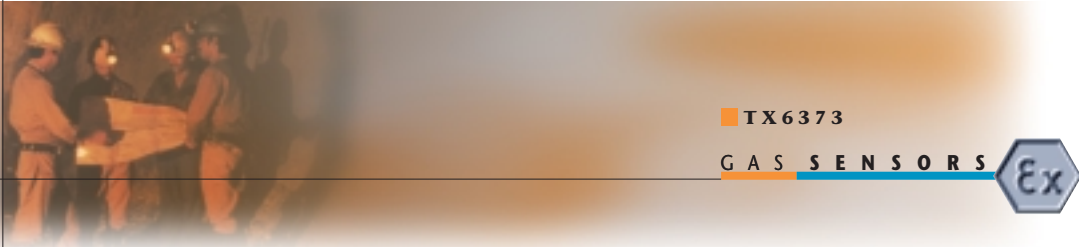
TX6373.03 General Purpose Applications (24V dc).

NOT FOR USE IN CLASSIFIED HAZARDOUS AREAS.

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

Connections:





ORDER REFERENCE

TX6373.01 TOXIC GAS SENSOR/TRANSMITTER. (Group I)

- Please specify additional information:**
- | | |
|-----------------------|------|
| OUTPUT SIGNAL: | |
| • 0.4...2V | (11) |
| • 4...20mA | (12) |
| • 5...15Hz | (13) |



TX6373.02 TOXIC GAS SENSOR/TRANSMITTER. (Group II)

- Please specify additional information:**
- | | |
|-----------------------|------|
| OUTPUT SIGNAL: | |
| • 0.4...2V | (11) |
| • 4...20mA | (12) |
| • 5...15Hz | (13) |



TX6373.03 TOXIC GAS SENSOR/TRANSMITTER. (General Purpose)

- Please specify additional information:**
- | | |
|-----------------------|------|
| OUTPUT SIGNAL: | |
| • 0.4...2V | (11) |
| • 4...20mA | (12) |
| • 5...15Hz | (13) |



- TX6373.84.01 (Group I)
- TX6373.84.02 (Group II)
- TX6373.84.03 (General Purpose)

TOXIC GAS SENSOR/TRANSMITTER with Remote Gas Sensing Module.

- Fitted with 2 metre flexible cable in a flexible armoured conduit
- Maximum total cable length: 5 metres

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



CERTIFICATION & APPROVAL



Group I TX6373 Toxic Gas Sensor/Transmitter: I M1 EEx ia I Ta -20°C...+60°C

Group II TX6373 Toxic Gas Sensor/Transmitter: II 2G EEx ia IIC T4 Ta -20°C...+60°C



Designed to comply with the requirements of the EC directive:

- ATEX directive 94/9/EEC
- EMC directive 89/336/EEC

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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