

INFRARED GAS SENSOR/ TRANSMITTER



**PLANT SAFETY
PROTECTION for
methane & carbon dioxide
in hazardous areas**



**ATEX
M1
GROUP I & II
INTRINSICALLY
SAFE**

BREWING INDUSTRY

• **PETROCHEMICAL
PROCESSING**

• **MINING &
TUNNELLING**

• **OFFSHORE
PLATFORMS**

**MANUFACTURING &
PROCESS PLANTS**

• **STORAGE AREAS &
WAREHOUSING**

• **WATER
MANAGEMENT &
SEWAGE TREATMENT**

POWERGENERATION

• **GAS STORAGE &
DISTRIBUTION**

**MARINE & SHIPPING
APPLICATIONS**

• **MARINE & CARGO
HANDLING**

• **TELECOMS**



**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.
- Safety protection for gas risks occurring in hazardous areas and general industrial applications.
- Infrared gas sensing element with long term stability.
- Choice of analogue output signal:-
4 to 20 mA • 0.4 to 2V • 5 to 15 Hz.

• Special versions with weatherproof plug and socket connectors available.



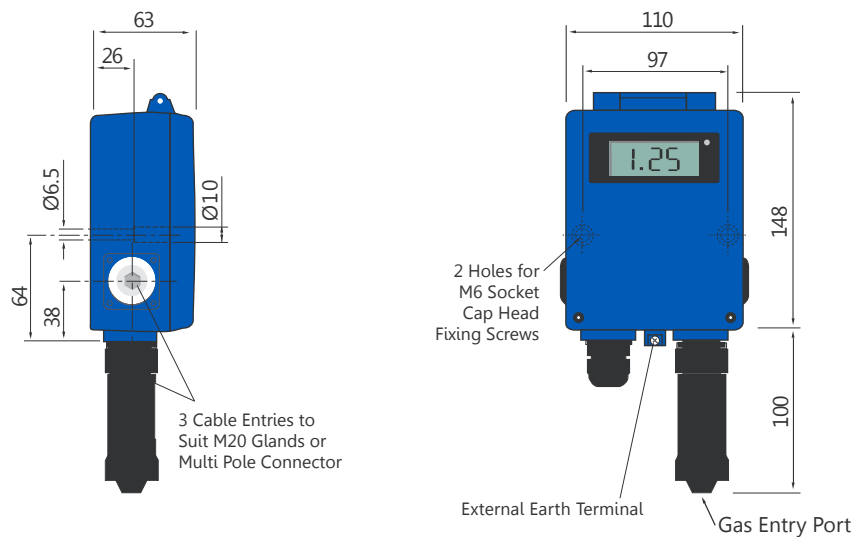


A T E X
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technical details...

Ambient Temperature Limits:	-10 to +44°C.	
Storage Temperature Limits:	-20 to +60°C.	
Ambient Pressure Limits:	1 bar ± 100 mbar absolute.	
Humidity:	95% RH non-condensing.	
Protection Classification:	Dust and waterproof to IP66. Gas inlet port to IP52.	
Housing Material:	Reinforced Polymer - EMC protected and proof against electrostatic charge.	
Nett Weight:	450 g.	
Cable Entries:	M20 x 1.5.	
Electrical Connections:	4 mm Barrier/clamp terminals.	
Information Display:	3 1/2 Digit LCD.	
Vibration Limits:	10 to 100 Hz, 0.25 mm pk.	
(BS2011)	100 to 600 Hz, 2 g pk.	
Impact Limits:	20 joules (Housing).	
Measuring Range:	Methane:	0 to 5% v/v.
	Methane:	0 to 100% v/v.
	Methane:	0 to 100% LEL.
	Carbon Dioxide:	0 to 2% v/v.
	Carbon Dioxide:	0 to 5% v/v.
Linearity:	±2.5% FSD.	0 to 5% v/v.
Maximum Drift:	Methane:	±0.05%/month.
	Carbon Dioxide:	±100ppm/month.
Repeatability:	Methane:	±0.1%.
	Carbon Dioxide:	±0.05%.
Response Time(T90):	20 secs.	
Sensing Element Life:	>2 years.	
Warm Up Time:	<20 secs.	

Dimensions:

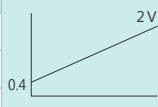


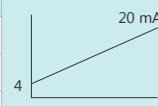
ALL DIMENSIONS IN MM

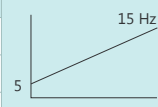


electrical details...

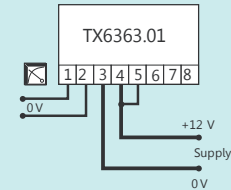
TX6363.01 GROUP I APPLICATIONS (12 V dc)


Output:	0.4 to 2 V	
Min Load @ 12 V dc	1 K ohms	
Supply	9 to 16.5 V dc	
Nominal Supply Current	100 mA	

Output:	4 to 20 mA	
Max Load @ 12 V dc	160 ohms	
Supply	9 to 16.5 V dc	
Nominal Supply Current	120 mA	

Output:	5 to 15 Hz	
Max Load	Opto isolated. 2 mA max	
Supply	9 to 16.5 V dc	
Max Supply Current	100 mA	

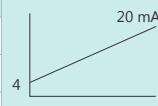
Connections:



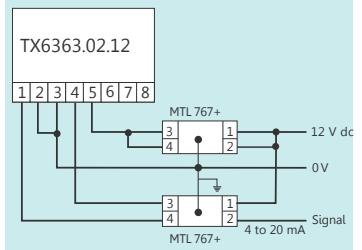
 Gas sensors located in a Group I hazardous area must be powered from an approved intrinsically safe source. Please see Trolex Installation and Operating Data for recommendations.


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ATEX
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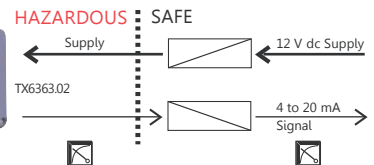
TX6363.02 GROUP II APPLICATIONS (12 V dc)

Output:	4 to 20 mA	
Max Load @ 12 V dc	160 ohms	
Supply	10.5 to 13.5 V dc	
Nominal Supply Current	120 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.

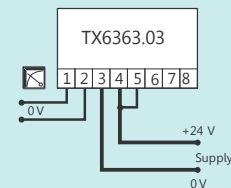


TX6363.03 GENERAL PURPOSE APPLICATIONS (24 V dc)

NOT FOR USE IN CLASSIFIED HAZARDOUS AREAS.

Output:	4 to 20 mA	
Max Load @ 24 V dc	160 ohms	
Supply	20 to 30 V dc	
Nominal Supply Current	100 mA	

Connections:





order reference...

TX6363.01	INFRARED GAS SENSOR/TRANSMITTER	Group I	
TX6363.02	INFRARED GAS SENSOR/TRANSMITTER	Group II	
TX6363.03	INFRARED GAS SENSOR/TRANSMITTER	General Purpose	CO₂ ONLY

Please specify: OUTPUT

• 0.4 to 2 V output	(11)
• 4 to 20 mA output	(12)
• 5 to 15 Hz output	(13)

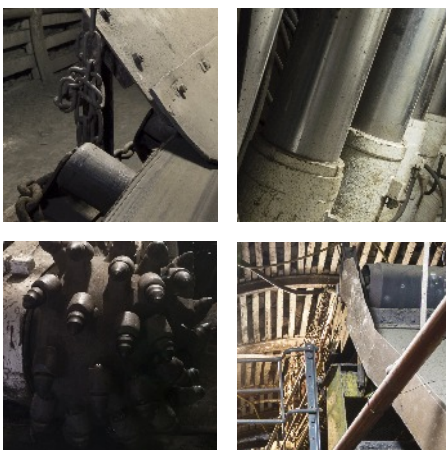
TYPE OF GAS

• CH ₄ 0 to 100% v/v	(242)	GROUP I & GROUP II ONLY
• CH ₄ 0 to 5% v/v	(243)	
• CH ₄ 0 to 100% LEL	(245)	
• CO ₂ 0 to 2% v/v	(253)	
• CO ₂ 0 to 5% v/v	(278)	



certification & approval...

	Group I TX6363 INFRA RED GAS SENSOR/TRANSMITTER: I M1 EEx ia I	SIRA 02 ATEX 2167X
	Group II TX6363 INFRA RED GAS SENSOR/TRANSMITTER: II 2G EEx iad IIB T4	SIRA 00 ATEX 2061X
	Designed to comply with the requirements of the EC directive: <ul style="list-style-type: none"> • 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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