# Ribble Enviro

*…everything gas detection*

# Data Sheet

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# TROLEX

# TX6373

# TOXIC GAS DETECTOR

## DATA SHEET

# TROLEX

## Toxic Gas Detector
**Fixed gas concentration monitoring of toxic gas
in heavy duty point-source hazards and area protection.**

**Environments:**    Mining • Tunnelling • Process Plants • Machine Monitoring
Storage Areas • Confined Spaces

### Features

❯ High-accuracy electrochemical gas sensing elements for
a wide range of toxic gases.

❯ Plug-in precalibrated gas sensing module for ease
of maintenance

❯ Convenient push button calibration

❯ 4 to 20 mA or 0.4 to 2 V output signal

❯ Graphic LCD readout of gas concentration and
setup display

❯ SIL1 and SIL2 accreditations

❯ ATEX, ANZEx, EAC & MASC certification for use in Group
I and Group II hazardous areas.

❯ Optional heavy duty remote mounted sensor for machine
monitoring applications

### TX6373.84
### With Remote Gas Sensor

❯ Fitted with flexible cable in flexible armoured conduit

❯ Up to 10 m cable length in 0.5 m increments

❯ Machined brass for use on machinery and in heavy duty
working environments

# TROLEX

## Technical Details - TX6373

| | |
|---|---|
| Operating temperature: | -10 °C to +50 °C |
| Storage temperature: | -20 °C to +60°C |
| Ambient pressure: | 1013 mbar ± 100 mbar absolute |
| Humidity: | 90 % RH non-condensing |
| Protection classification: | IP65 (Gas inlet port: IP54) |
| Housing Material: | Electrically dissipative polymer |
| Nett Weight: | 450 g |
| Cable entries: | 3 X M20 |
| Electrical connections: | 4mm barrier terminals |
| Information display: | Graphic LCD display with backlight |
| Housing Impact limit: | 20 Joules |
| Signal fix: | Output signal is fixed during calibration |
| Over range: | Auto signal clamping and sensor protection above 5 % v/v CH4 |

| | |
|---|---|
| Certification (refer to User Manual for full details): | ATEX/ANZEx/EAC/MASC Group I and Group II |

## Technical Details - Gas Sensor



| Electrochemical Sensor | Sensing Range | Linearity | Drift | Repeatability | Response Time T63 % | Operating Life (Clean Air) |
|---|---|---|---|---|---|---|
| Carbon Monoxide | 0 to 50 ppm | ± 2 % FS | 2 % / month | ± 2 % | 9 seconds | > 2 years |
| | 0 to 250 ppm | ± 2 % FS | 2 % / month | ± 2 % | | |
| | 0 to 500 ppm | ± 2 % FS | 2 % / month | ± 2 % | | |
| Hydrogen Sulphide | 0 to 50 ppm | ± 2 % | 2 % / month | ± 2 % | 14 seconds | > 2 years |
| Sulphur Dioxide | 0 to 20 ppm | ± 2 % | 2 % / month | ± 2 % | 7 seconds | > 2 years |
| Nitrogen Dioxide | 0 to 20 ppm | ± 2 % | 2 % / month | ± 2 % | 15 seconds | > 2 years |
| Chlorine | 0 to 10 ppm | ± 2 % | 2 % / month | ± 2 % | 37 seconds | > 2 years |
| Oxygen | 0 to 25% | ± 5 % | 10 % / year | ± 2 % | 5 seconds | > 1 year |
| Nitric Oxide | 0 to 100 ppm | ± 5 % | 2 % / month | ± 2 % | 9 seconds | > 2 years |
| Hydrogen | 0 to 1000 ppm | ± 1 % | 2 % / month | ± 2 % | 13 seconds | > 2 years |

## Electrical Details - TX6373.01

GROUP I APPLICATIONS (12 V)

When used in conjunction with an approved power source

| Output signal: | 4 to 20 mA | 0.4 to 2 V |
|---|---|---|
| Maximum load: | 275 Ω at 12 V dc | 10k Ω |
| Supply: | 6.5 to 16.5V dc | 6.5 to 16.5 V dc |
| Current Max: | 24 mA | 10 mA |

## Electrical Details - TX6373.02
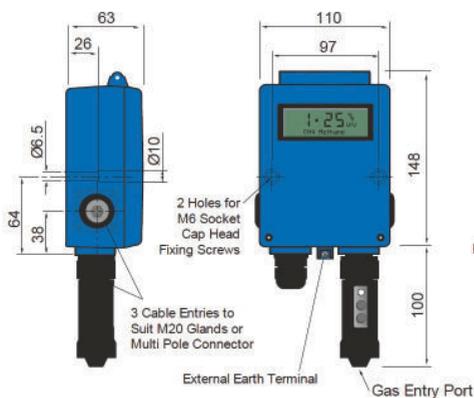
GROUP II APPLICATIONS (24 V)

When used with safety barriers or approved apparatus

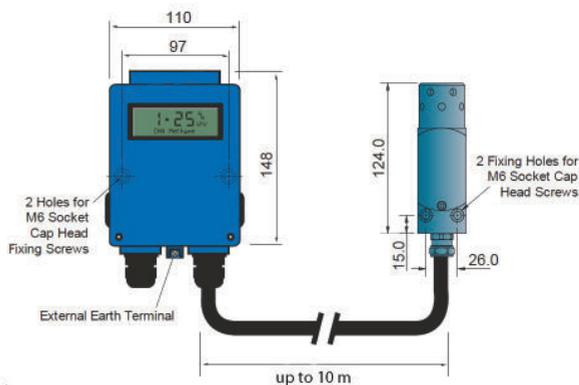| Output signal: | 4 to 20 mA |
|---|---|
| Maximum load: | 875 Ω at 24 V dc |
| Supply: | 6.5 to 30V dc |
| Current Max: | 24 mA (2 wire line - powered) |

## Dimensions - TX6373

Toxic Gas Detector with
Integral Sensor



## Dimensions - TX6373.84

Toxic Gas Detector
with Remote Sensor



All dimensions in mm

## Order Reference - TX6373.01.

Toxic Gas Detector with Integral Sensor **Group I**

| Output | | Gas Range | | Format | | Certification | |
|---|---|---|---|---|---|---|---|
| 4 - 20 mA | **12** | CO 0 - 50 ppm | **250.50** | transmitter only | **00** | ATEX GrpI | **01** |
| | | CO 0 - 250 ppm | **250.250** | transmitter & sensor | **01** | MASC GrpI | **05** |
| | | CO 0 - 500 ppm | **250.500** | | | ANZEx GrpI | **10** |
| | | CO 0 - 1000 ppm | **250.1k** | | | EAC GrpI | **14** |
| | | CO 0 - 2000 ppm | **250.2k** | | | | |
| | | $H_2S$ 0 -20 ppm | **251.20** | | | | |
| | | $H_2S$ 0 - 50 ppm | **251.50** | | | | |
| | | $H_2S$ 0 - 100 ppm | **251.100** | | | | |
| | | $SO_2$ 0 - 20 ppm | **252.20** | | | | |
| | | $CL_2$ 0 to 10 ppm | **255.10** | | | | |
| | | $O_2$ 0 to 25 ppm | **257.25** | | | | |
| | | NO 0 - 50 ppm | **259.50** | | | | |

| Output | | Gas Range | | Format | | Certification | | |
|---|---|---|---|---|---|---|---|---|
| 4 - 20 mA | **12** | CO 0 - 50 ppm | **250.50** | transmitter only | **00** | ATEX GrpI | **01** | trans |
| | | $H_2S$ 0 to 20 ppm | **251.20** | transmitter & sensor | **01** | MASC GrpI | **05** | 1 m |
| | | $NO_2$ 0 to 20 ppm | **254.20** | | | ANZEx GrpI | **10** | 1.5 m |
| | | $CL_2$ 0 to 10 ppm | **255.10** | | | EAC GrpI | **14** | 2 m |
| | | $O_2$ 0 to 25 ppm | **257.25** | | | | | 2.5 m |
| | | | | | | | | 3 m |
| | | | | | | | | 3.5 m |
| | | | | | | | | 4 m |

| | |
|---|---|
| CL$_2$ 0 to 10 ppm | **255.10** |
| O$_2$ 0 to 25 ppm | **257.25** |
| NO 0  50 ppm | **259.50** |

## Order Reference - TX6373.84.01.

Toxic Gas Detector with Remote Sensor **Group I**

| Output | | Gas Range | | Format | | Certification | | Cable Length | |
|---|---|---|---|---|---|---|---|---|---|
| 4 - 20 mA | 12 | CO 0 - 50 ppm | 250.50 | transmitter only | 00 | ATEX Grpl | 01 | transmitter only | 00 |
| | | H$_2$S 0 to 20 ppm | 251.20 | transmitter & sensor | 01 | MASC Grpl | 05 | 1 m | 01 |
| | | NO$_2$ 0 to 20 ppm | 254.20 | | | ANZEx Grpl | 10 | 1.5 m | 02 |
| | | CL$_2$ 0 to 10 ppm | 255.10 | | | EAC Grpl | 14 | 2 m | 03 |
| | | O$_2$ 0 to 25 ppm | 257.25 | | | | | 2.5 m | 04 |
| | | | | | | | | 3 m | 05 |
| | | | | | | | | 3.5 m | 06 |
| | | | | | | | | 4 m | 07 |
| | | | | | | | | 4.5 m | 08 |
| | | | | | | | | 5 m | 09 |
| | | | | | | | | 5.5 m | 10 |
| | | | | | | | | 6 m | 11 |
| | | | | | | | | 6.5 m | 12 |
| | | | | | | | | 7 m | 13 |
| | | | | | | | | 7.5 m | 14 |
| | | | | | | | | 8 m | 15 |
| | | | | | | | | 8.5 m | 16 |
| | | | | | | | | 9 m | 17 |
| | | | | | | | | 9.5 m | 18 |
| | | | | | | | | 10 m | 19 |

| | | | |
|---|---|---|---|
| CL₂ 0 to 10 ppm | **255.10** | | |
| O₂ 0 to 25 ppm | **257.25** | | |
| NO 0 - 50 ppm | **259.50** | | |

## Order Reference - TX6373.84.02.

**Toxic Gas Detector with Remote Sensor Group II**

| Output | | Gas Range | | Format | | Certification | | Cable Length | |
|---|---|---|---|---|---|---|---|---|---|
| 4 - 20 mA | **12** | CO 0 - 50 ppm | **250.50** | transmitter only | **00** | ATEX GrpII | **02** | transmitter only | **00** |
| | | $H_2S$ 0 to 20 ppm | **251.20** | transmitter & sensor | **01** | ANZEx GrpII | **11** | 1 m | **01** |
| | | $NO_2$ 0 to 20 ppm | **254.20** | | | EAC GrpII | **15** | 1.5 m | **02** |
| | | $CL_2$ 0 to 10 ppm | **255.10** | | | MASC GrpII | **16** | 2 m | **03** |
| | | $O_2$ 0 to 25 ppm | **257.25** | | | | | 2.5 m | **04** |
| | | | | | | | | 3 m | **05** |
| | | | | | | | | 3.5 m | **06** |
| | | | | | | | | 4 m | **07** |
| | | | | | | | | 4.5 m | **08** |
| | | | | | | | | 5 m | **09** |
| | | | | | | | | 5.5 m | **10** |
| | | | | | | | | 6 m | **11** |
| | | | | | | | | 6.5 m | **12** |
| | | | | | | | | 7 m | **13** |
| | | | | | | | | 7.5 m | **14** |
| | | | | | | | | 8 m | **15** |
| | | | | | | | | 8.5 m | **16** |
| | | | | | | | | 9 m | **17** |
| | | | | | | | | 9.5 m | **18** |
| | | | | | | | | 10 m | **19** |

# TROLEX

## Order Reference - Replacement Gas Sensors

### P5487.121

**Integral Gas Sensor**

| Gas Range | | Certification | | Cable Length | |
|---|---|---|---|---|---|
| CO 0 - 50 ppm | **250.50** | ATEX GrpI | **01** | No Cable | **00** |
| CO 0 - 250 ppm | **250.250** | MASC GrpI | **05** | | |
| CO 0 - 500 ppm | **250.500** | ANZEx GrpI | **10** | | |
| CO 0 - 1000 ppm | **250.1k** | EAC GrpI | **14** | | |
| CO 0 - 2000 ppm | **250.2k** | ATEX GrpII | **02** | | |
| $H_2S$ 0 -20 ppm | **251.20** | ANZEx GrpII | **11** | | |
| $H_2S$ 0 - 50 ppm | **251.50** | EAC GrpII | **15** | | |
| $H_2S$ 0 - 100 ppm | **251.100** | MASC GrpII | **16** | | |
| $SO_2$ 0 - 20 ppm | **252.20** | | | | |
| $CL_2$ 0 to 10 ppm | **255.10** | | | | |
| $O_2$ 0 to 25 ppm | **257.25** | | | | |
| NO 0 - 50 ppm | **259.50** | | | | |

### P5487.122

| Gas Range | | Certification | | Cable Length | |
|---|---|---|---|---|---|
| CO 0 - 50 ppm | **250.50** | ATEX GrpI | **01** | 1 m | **01** |
| $H_2S$ 0 to 20 ppm | **251.20** | MASC GrpI | **05** | 1.5 m | **02** |
| $NO_2$ 0 to 20 ppm | **254.20** | ANZEx GrpI | **10** | 2 m | **03** |
| $CL_2$ 0 to 10 ppm | **255.10** | EAC GrpI | **14** | 2.5 m | **04** |
| $O_2$ 0 to 25 ppm | **257.25** | ATEX GrpII | **02** | 3 m | **05** |
| | | ANZEx GrpII | **11** | 3.5 m | **06** |
| | | EAC GrpII | **15** | 4 m | **07** |
| | | MASC GrpII | **16** | 4.5 m | **08** |

| | |
|---|---|
| SO$_2$ 0 - 20 ppm | 252.20 |
| CL$_2$ 0 to 10 ppm | 255.10 |
| O$_2$ 0 to 25 ppm | 257.25 |
| NO 0 - 50 ppm | 259.50 |

) Data Sheet

## Order Reference - TX6373.84.02.

Toxic Gas Detector with Remote Sensor **Group II**

| Output | | Gas Range | | Format | | Certification | | Cable Length | |
|---|---|---|---|---|---|---|---|---|---|
| 4 - 20 mA | 12 | CO 0 - 50 ppm | 250.50 | transmitter only | 00 | ATEX GrpII | 02 | transmitter only | 00 |
| | | H$_2$S 0 to 20 ppm | 251.20 | transmitter & sensor | 01 | ANZEx GrpII | 11 | 1 m | 01 |
| | | NO$_2$ 0 to 20 ppm | 254.20 | | | EAC GrpII | 15 | 1.5 m | 02 |
| | | CL$_2$ 0 to 10 ppm | 255.10 | | | MASC GrpII | 16 | 2 m | 03 |
| | | O$_2$ 0 to 25 ppm | 257.25 | | | | | 2.5 m | 04 |
| | | | | | | | | 3 m | 05 |
| | | | | | | | | 3.5 m | 06 |
| | | | | | | | | 4 m | 07 |
| | | | | | | | | 4.5 m | 08 |
| | | | | | | | | 5 m | 09 |
| | | | | | | | | 5.5 m | 10 |
| | | | | | | | | 6 m | 11 |
| | | | | | | | | 6.5 m | 12 |
| | | | | | | | | 7 m | 13 |
| | | | | | | | | 7.5 m | 14 |
| | | | | | | | | 8 m | 15 |
| | | | | | | | | 8.5 m | 16 |
| | | | | | | | | 9 m | 17 |
| | | | | | | | | 9.5 m | 18 |
| | | | | | | | | 10 m | 19 |

P5487.1600 Rev B •

At Trolex, we save lives.

We believe that no person should risk their life to earn a living.

We aim to become the world's leading name in health and safety technology through pioneering products that provide real-world benefits to our customers whenever workers operate in hazardous environments.