



Gas & Flame Detection

3M™ Oldham™ CTX 300

Transmitter



Presentation

The CTX 300 can detect O₂, CO₂, toxic and refrigerant gases. 3M Gas & Flame Detection offers a detector version with a wide range of sensors (infrared, electrochemical, semiconductor) according to your application needs. It is also available with or without display.

Features

- Detection of toxic gases or oxygen
- Interchangeable and pre-calibrated sensor modules
- Local display (optional)
- Durable in harsh environments
- Up to 5 years of life for O₂ sensor

Simplicity

Sensor replacement does not require any special menu access. Just replace the sensor without even powering down the transmitter!

Reduced maintenance

As the only consumable element, the CTX 300 sensor is easily replaceable. New sensors come pre-calibrated from the factory. So during the sensor ex-change, no calibration gas is required, nor adjustments to the detector, or remote central controller are required.



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| Gas | Part Number | Type of sensor | Range (ppm) | Operating temperature | Relative humidity uncondensed |
|--------------------|-------------|-----------------|-------------|-----------------------|-------------------------------|
| O ₂ | WC3oO2F | Electrochemical | 30.0 % | -20 °C to +50 °C | 10 % to 95 % RH |
| | WC30O2G | | 30.0 % ❄️ | -40 °C to +50 °C | 10 % to 95 % RH |
| | WC3AO2G | | 30.0 % | --20 °C to +50 °C | 10 % to 95 % RH |
| | WC3oO2S | | 100 % | +5 °C to +40 °C | 10 % to 95 % RH |
| CO | WC3oCOA | Electrochemical | 100 | -20 °C to +50 °C | 10 % to 95 % RH |
| | WC3oCOB | | 300 | -20 °C to +50 °C | 10 % to 95 % RH |
| | WC3oCOC | | 1000 | -20 °C to +50 °C | 10 % to 95 % RH |
| | WC3oCOD | | 1.00 % | -20 °C to +50 °C | 10 % to 95 % RH |
| CO ₂ | WC3oCOE | Infrared | 10.0 % | -20 °C to +50 °C | 10 % to 95 % RH |
| | WC3oCO2A | | 0.50% | -40°C to +50°C | 0 % to 95 % RH |
| | WC3oCO2B | | 5.00 % ❄️ | -40°C to +50°C | 0 % to 95 % RH |
| | WC3oCO2C | | 100 % | -40 °C to +50 °C | 0 % to 95 % RH |
| H ₂ S | WC3oHSA | Electrochemical | 30.0 | -20 °C to +50 °C | 10 % to 95 % RH |
| | WC3oHSB | | 100 | -20 °C to +50 °C | 10 % to 95 % RH |
| | WC3oHSC | | 1000 | -20 °C to +50 °C | 10 % to 95 % RH |
| NO | WC3oNOA | Electrochemical | 100 | -20 °C to +50 °C | 10 % to 95 % RH |
| | WC3oNOB | | 300 | -20 °C to +50 °C | 10 % to 95 % RH |
| | WC3oNOC | | 1000 | -20 °C to +50 °C | 10 % to 95 % RH |
| NO ₂ | WC3oN2A | Electrochemical | 10.0 | -20 °C to +50 °C | 10 % to 95 % RH |
| | WC3oN2B | | 30.0 | -20 °C to +50 °C | 10 % to 95 % RH |
| SO ₂ | WC3oSOA | Electrochemical | 10.0 | -20 °C to +50 °C | 10 % to 95 % RH |
| | WC3oSOB | | 30.0 | -20 °C to +50 °C | 10 % to 95 % RH |
| | WC3oSOC | | 100 | -20 °C to +50 °C | 10 % to 95 % RH |
| Cl ₂ | WC3oCL2 | Electrochemical | 10.0 | -20 °C to +50 °C | 10 % to 95 % RH |
| H ₂ | WC3oH2A | Electrochemical | 2000 | -20 °C to +50 °C | 10 % to 95 % RH |
| | WC3oH2B | | 2 % | -20 °C to +50 °C | 10 % to 95 % RH |
| HCl | WC3oHLA | Electrochemical | 30.0 | -20 °C to +50 °C | 10 % to 95 % RH |
| | WC3oHLB | | 100 | -20 °C to +50 °C | 10 % to 95 % RH |
| HCN | WC3oHNA | Electrochemical | 10.0 | -20 °C to +50 °C | 10 % to 95 % RH |
| | WC3oHNB | | 30.0 | -20 °C to +50 °C | 10 % to 95 % RH |
| NH ₃ | WC3oNH3 | Electrochemical | 100 | -20 °C to +40 °C | 10 % to 95 % RH |
| | WC30NH3F | | 100 ❄️ | -40 °C to +40 °C | 10 % to 95 % RH |
| | WC3oNH1 | | 1000 | -20 °C to +40 °C | 10 % to 95 % RH |
| | WC30NH2 | | 5000 | -20 °C to +40 °C | 10 % to 95 % RH |
| ETO/PO | WC3oOET | Electrochemical | 30.0 | -20 °C to +50 °C | 10 % to 95 % RH |
| HF | WC3oHFA | Electrochemical | 10.0 | -10 °C to +30 °C | 10 % to 95 % RH |
| O ₃ | WC3oO3A | Electrochemical | 1.00 | -20 °C to +50 °C | 10 % to 95 % RH |
| PH ₃ | WC3oPH3 | Electrochemical | 1.00 | -20 °C to +50 °C | 10 % to 95 % RH |
| ClO ₂ | WC3oCLO | Electrochemical | 3.00 | -20 °C to +50 °C | 10 % to 95 % RH |
| COCl ₂ | WC3oCCL | Electrochemical | 3.00 | -20 °C to +40 °C | 10 % to 95 % RH |
| Methylene chloride | CTX300-507 | Semiconductor | 500 | -20 °C to +55 °C | 10 % to 95 % RH |
| Methyl chloride | CTX300-508 | Semiconductor | 500 | -20 °C to +60 °C | 10 % to 95 % RH |
| Toluene | CTX300-652 | Semiconductor | 2000 | -20 °C to +50 °C | 10 % to 95 % RH |
| | CTX300-657 | | 500 | -20 °C to +50 °C | 10 % to 95 % RH |
| Trichlorethylene | CTX300-655 | Semiconductor | 500 | -20 °C to +60 °C | 10 % to 95 % RH |
| Xylene | CTX300-653 | Semiconductor | 2000 | -20 °C to +50 °C | 10 % to 95 % RH |
| | CTX300-660 | | 500 | -20 °C to +55 °C | 10 % to 95 % RH |
| Ethanol | CTX300-654 | Semiconductor | 5000 | -20 °C to +60 °C | 10 % to 95 % RH |
| | CTX300-656 | | 500 | -20 °C to +50 °C | 10 % to 95 % RH |
| R12 | CTX300-500 | Semiconductor | 10000 | -20 °C to +55 °C | 10 % to 95 % RH |
| R22 | CTX300-501 | Semiconductor | 2000 | -20 °C to +55 °C | 10 % to 95 % RH |
| R123 | CTX300-509 | Semiconductor | 2000 | -20 °C to +55 °C | 10 % to 95 % RH |
| R134a | CTX300-502 | Semiconductor | 2000 | -20 °C to +55 °C | 10 % to 95 % RH |
| R11 | CTX300-505 | Semiconductor | 10000 | -20 °C to +55 °C | 10 % to 95 % RH |
| R23 | CTX300-506 | Semiconductor | 10000 | -20 °C to +55 °C | 10 % to 95 % RH |
| R143a | CTX300-511 | Semiconductor | 2000 | -20 °C to +55 °C | 10 % to 95 % RH |
| R245fa | CTX300-521 | Semiconductor | 1000 | -20 °C to +55 °C | 10 % to 95 % RH |
| R404a | CTX300-512 | Semiconductor | 2000 | -20 °C to +55 °C | 10 % to 95 % RH |
| R507 | CTX300-513 | Semiconductor | 2000 | -20 °C to +55 °C | 10 % to 95 % RH |
| R410a | CTX300-514 | Semiconductor | 1000 | -20 °C to +55 °C | 10 % to 95 % RH |
| R32 | CTX300-515 | Semiconductor | 1000 | -20 °C to +55 °C | 10 % to 95 % RH |
| HFO-1234ze | CTX300-525 | Semiconductor | 1000 | -20 °C to +55 °C | 10 % to 95 % RH |
| HFO-1234yf | CTX300-662 | Semiconductor | 1000 | -20 °C to +55 °C | 10 % to 95 % RH |

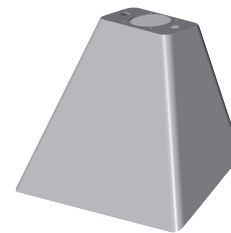
3M™ Oldham™ CTX 300 Transmitter

| Part Number | Accuracy (% at PA full scale) | Life span (in months) | T(50) (seconds) |
|-------------|--------------------------------------|-----------------------|-----------------|
| WC3oO2F | +/- 1.5 % | 28 | 10 |
| WC30O2G | +/- 1.5 % | 60 | 10 |
| WC3AO2G | +/- 1.5 % | 60 | 10 |
| WC3oO2S | +/- 1.5 % | 36 | < 20 |
| WC3oCOA | +/- 1.5 % | 48 | 15 |
| WC3oCOB | +/- 1.5 % | 48 | 15 |
| WC3oCOC | +/- 1.5 % | 48 | 15 |
| WC3oCOD | +/- 1.5 % | 48 | < 20 |
| WC3oCOE | +/- 1.5 % | 48 | < 20 |
| WC3oCO2A | +/- 2 % | 60 | <20 |
| WC3oCO2B | +/- 2 % | 60 | <20 |
| WC3oCO2C | +/- 2 % | 60 | <20 |
| WC3oHSA | +/- 1.5 % | 36 | 15 |
| WC3oHSB | +/- 1.5 % | 36 | 15 |
| WC3oHSC | +/- 1.5 % | 36 | 15 |
| WC3oNOA | +/- 1.5 % | 36 | 15 |
| WC3oNOB | +/- 1.5 % | 36 | 15 |
| WC3oNOC | +/- 1.5 % | 36 | 15 |
| WC3oN2A | +/- 1.5 % | 24 | 20 |
| WC3oN2B | +/- 1.5 % | 24 | 20 |
| WC3oSOA | +/- 1.5 % | 36 | 15 |
| WC3oSOB | +/- 1.5 % | 36 | 15 |
| WC3oSOC | +/- 1.5 % | 36 | 15 |
| WC3oCL2 | +/- 1.5 % | 24 | 50 |
| WC3oH2A | +/- 1.5 % | 24 | 50 |
| WC3oH2B | +/- 1.5 % | 24 | 50 |
| WC3oHLA | +/- 1.5 % | 18 | 50 |
| WC3oHLB | +/- 1.5 % | 18 | 50 |
| WC3oHNA | +/- 2 % | 24 | 30 |
| WC3oHNB | +/- 2 % | 24 | 30 |
| WC3oNH3 | +/- 3 % | 24 | <20 |
| WC30NH3F | +/- 3 % | 24 | <20 |
| WC3oNH1 | +/- 3 % | 24 | <20 |
| WC30NH2 | +/- 3 % | 24 | <20 |
| WC3oOET | +/- 3 % | 36 | 50 |
| WC3oHFA | +/- 3 % | 12 | 50 |
| WC3oO3A | +/- 3 % | 18 | 40 |
| WC3oPH3 | +/- 3 % | 12 | 40 |
| WC3oCLO | +/- 2 % | 24 | 50 |
| WC3oCCL | +/- 1.5 % | 18 | 50 |
| CTX300-507 | | 36 | 40 |
| CTX300-508 | | 36 | 40 |
| CTX300-652 | | 36 | 20 |
| CTX300-657 | | | |
| CTX300-655 | | 36 | 40 |
| CTX300-653 | | 36 | 20 |
| CTX300-660 | | 36 | 20 |
| CTX300-654 | | 36 | 20 |
| CTX300-656 | | 36 | 20 |
| CTX300-500 | | 36 | 30 |
| CTX300-501 | | 36 | 30 |
| CTX300-509 | | 36 | 30 |
| CTX300-502 | +/- 15 % relative to alarm threshold | 36 | 30 |
| CTX300-505 | | 36 | 30 |
| CTX300-506 | | 36 | 30 |
| CTX300-511 | | 36 | 30 |
| CTX300-521 | | 36 | 30 |
| CTX300-512 | | 36 | 30 |
| CTX300-513 | | 36 | 30 |
| CTX300-514 | | 36 | 20 |
| CTX300-515 | | 36 | 20 |
| CTX300-525 | | 36 | 30 |
| CTX300-662 | | 36 | 30 |

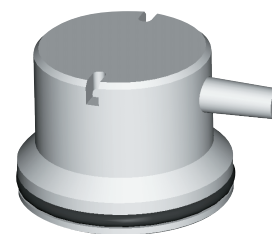


Pre-calibrated sensors ease maintenance

Accessories



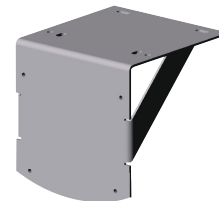
Gas collector



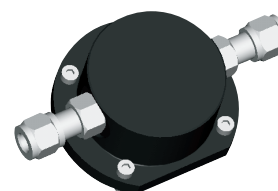
Calibration cup



Remote calibration cup



Mounting bracket



Bypass adapter

Ordering example for CTX 300:

WC3□O2F: - without display Order WC3ØO2F
 - with display Order WC3AO2F

*measures in ppm unless stated otherwise, If you have any questions about other gases or ranges, please consult us at gasandflamedetection@scottsafety.com

Pressure : Atm +/- 10 %, IP 54

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Transmitter

Clear readability

- Highly sensitive, lighted display allows local reading
- Effective power-up indication by indicator lights
- Indication of maintenance or fault function by LED

High-Level technology

- Pre-calibrated sensor avoiding the need to use unstable gases on site for calibration purposes
- High-performance semiconductor type detector (detection of freon gas, etc.)
- Available in an infrared version for CO₂

Advanced design


- Highly resistant to environmental elements
- Avoids having to use protective covers

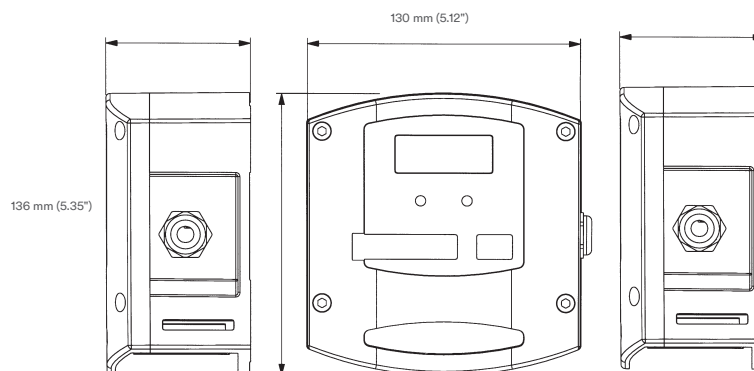
Heavy-duty

- Use of polycarbonate and stainless steel mounting hardware
- Resistant to corrosive agents (H₂S, HCl, sea spray,...)
- Durable housing

Specifically adapted options

- Removable filters, interchangeable without opening the housing (which is dust-proof, condensation-proof and water-resistant)
- Splash guard
- Gas collector cone
- Mounting brackets
- Pitot tubes, floats, heating protective device, etc.
- Remote calibration cup

| | |
|--|--|
| Enclosure | Polycarbonate housing |
| Function | 4-20 mA output analog transmitter |
| Display | Highly visible backlight LCD display unit (optional, gas dependent) |
| Indicator lights (3-wire version only) | In operation: green color Failure / maintenance: orange color |
| Wiring | 2 wires shielded cable for CTX300 without display 3 wires shielded cable for CTX300 with display |
| Cable entry | PG9 cable gland (outer diameter 6 to 11 mm) |
| Power supply | 15 to 32 V DC |
| Maximum Power Consumption | CTX 300 without display unit: 60 mA CTX 300 with display unit: 110 mA CTX 300 without display semiconductor versions: 100mA |
| Operating temperature | without display: -40°C to +50°C (-40°F to +122°F), sensor dependent with display: -20°C to +50°C (-4°F to +122°F), sensor dependent |
| Sealing | IP 54, NEMA 3 & 3R |
| Weight | 520 g (18.2 oz) |
| Certification | EMC according to EN 50270:06 CSA  CLASS 812 86, CLASS 4812 06 (SIGNAL APPLIANCES) all versions except CO ₂ versions |
| Impedance | 32 ohms max loop for CTX 300 with display unit and for semiconductor sensor versions 64 ohms max loop for CTX 300 without display unit |



As an ISO 9001 & ISO 14001 approved company, OLDHAM quality assurance programmes demand the continuous assessment and improvement of all OLDHAM products. Information in this leaflet could thus change without notification and does not constitute a product specification.

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