

Combustible Gas
Transmitter Model CTX10 with
Combustible Gas Sensor Model CGS


DESCRIPTION

The Model CTX10 Transmitter (CTX10) is used with one constant current catalytic gas sensor to provide a linear 0 - 20 mA output signal corresponding to a 0 to 100% LFL gas concentration. Non-intrusive calibration and sensor sensitivity checks are performed using the Det-Tronics Magnetic Tool (part number: 009700-001).

An explosion-proof junction box with removable cover is included with all CTX10. Options include junction box material (aluminum or stainless steel), conduit entry threads (NPT or Metric) and approval markings.

FEATURES AND BENEFITS

- Linear 0 - 20 mA output
- Gas Detection: 4 - 20 mA (0 - 100% LFL)
- Current level indicates fault condition and calibrate mode
- Sensor sensitivity check
- Suitable for use in a wide variety of combustible gas detection applications
- Compatible with constant current Det-Tronics catalytic sensors
- Direct field replacement for Det-Tronics Model 505 Transmitters
- Explosion-proof junction box available in aluminum or stainless steel
- SIL2, FM, CSA, ATEX and IECEx Certified
- Accessories Include:
 - Sensor Separation Junction Box (STB)
 - Sensor Rain Shield and Dust Cover for sensor protection
 - Duct Mount Assembly for sensor mounting to duct
 - Calibration Kits in various gas types and concentrations

SPECIFICATIONS

| | |
|---|--|
| Input Voltage | 24 Vdc Nominal, Operating range of 18 - 30 Vdc Ripple cannot exceed 0.5 Volts P-P |
| Power Consumption | 4.0 watts maximum |
| Peak Startup Current | Less than 0.5 ampere for < 0.2 second at 10 Vdc input, and less than 0.2 ampere for < 0.2 second at 24 Vdc input |
| Output Current | Linear 0 - 20 mA |
| Current Level | Fault: < 2.0 mA Calibration Mode: 2.0/2.2 mA in Infiniti mode 3.4 mA in Model 505 mode Mode selected via DIP switch |
| Load Resistance | 600 ohms maximum |
| Temperature Range | Operating: -40°F to +167°F / -40°C to +75°C Storage: -67°F to +185°F / -55°C to +85°C |
| Humidity Range (Non-condensing) | 5% to 95% RH (Det-Tronics verified) 20% to 90% RH (Performance verified) |
| Enclosure Material | Epoxy coated aluminum or 316 stainless steel. |
| Electro-Magnetic Compatibility (EMC) | Tested for compliance with EN50270 and IEC61326-1 EMC standards |
| Shipping Weight | Aluminum: 3.8 lbs. (1.7 kg) Stainless Steel: 8.7 lbs. (4.0 kg) |
| Dimensions | See Figure 1 |
| Certification | FM: Class I, Div. 1, Groups B, C & D (T5) Class I, Div. 2, Groups A, B, C & D (T4) Tamb -40°C to +75°C Type 3R Conduit seal not required |

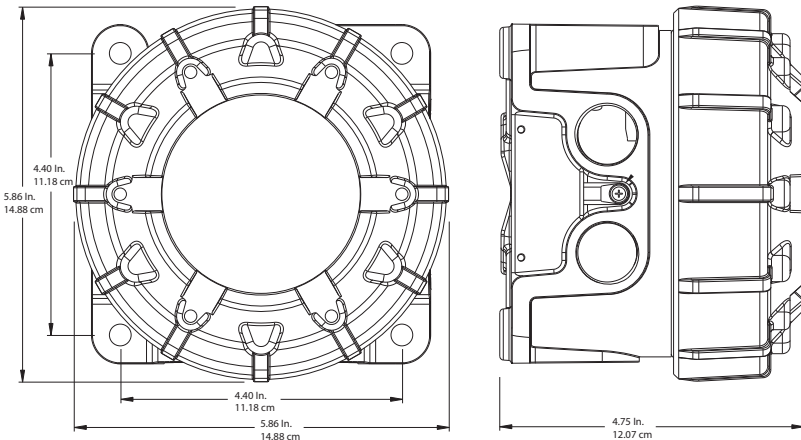


Figure 1—Dimensions of MODEL CTX10 Transmitter Junction box in Inches (cm)

CSA: CSA C22.2 No. 30
Class I, Div. 1, Groups B, C & D (T5)
Class I, Div. 2, Groups A, B, C & D (T4)
(Tamb = -40°C to +75°C)
Type 3R

Performance verified in accordance with:
CSA No. 60079-29-1: 2017

ATEX/CE: CTX10
Ex db IIC T5 Gb EN60079-29-1
DEMKO 18 ATEX 2008X
T5 (Tamb = -40°C to +75°C)
IP53

Performance verified in accordance with:
EN 60079-29-1: 2016
Compliance with:
EN 60079-0: 2012+A11:2013
EN 60079-1: 2014

CGS
Ex db IIC T3, T5 Gb EN60079-29-1
DEMKO 02 ATEX 131323X
T5 (Tamb = -40°C to +75°C)
T3 (Tamb = -55°C to +125°C)

EN Standards:
EN 60079-0: 2012+A11: 2013
EN 60079-1: 2014
EN 60079-29 -1: 2007

IECEx: CTX10
Ex db IIC T5 Gb
T5 (Tamb = -40°C to +75°C)
IP53

Performance verified in accordance with:
IEC 60079-29-1: 2016

Compliance with:
IEC 60079-0: 2011-16
IEC 60079-1: 2014
IEC 60529, 2.1 ed + Corr. 1: 2003 + 2: 2007

CGS
Ex db IIC T3, T5 Gb
T5 (Tamb = -40°C to +75°C)
T3 (Tamb = -55°C to +125°C)

IEC Standards: IEC 60079-0: 2011
IEC 60079-1: 2014

SIL2: IEC61508: 2010
Type B Device
Low Demand Mode



Specifications subject to change without notice.

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Det-Tronics manufacturing system is certified to ISO 9001—
the world's most recognized quality management standard.



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