ANALOG OR DIGITAL GAS DETECTORS DATASHEET
CXT Explosion Proof Transmitter

The CXT Explosion Proof transmitter delivers reliable, accurate monitoring of toxic or combustible gases in potentially explosive and harsh environments, including hazardous-rated areas. The explosion proof housing is a rugged design that offers greater protection from being damaged by impact type incidents. The Arctic smart sensor package adds programmable heaters for both the sensor (1-watt) and electronics (4-watt) which are automatically activated when temperatures drop below a user selectable level.

The large LCD display shows gas concentrations and engineering units as well as historical data for the last 30 minutes. Navigation through the menu is driven by a magnetic keypad and the user can change alarm set points, instrument configurations and enter into maintenance mode for non-intrusive calibration without opening the enclosure.

Accompanying the LCD display are standard LED alarm indicators that show when low and high alarm conditions are met. The digital model comes with Modbus® RTU output and three 5A relays that can be used to drive audible/visual alarms, or activate exhaust fans. The CXT's security menu allows entry of an authorization code to lock critical parameters.
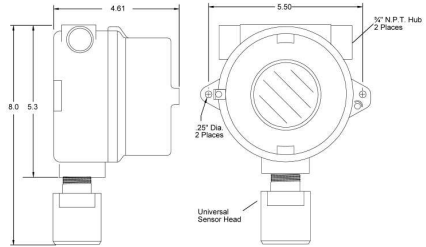
KEY FEATURES

» Large graphic LCD display for real time monitoring
» Menu driven magnetic keypad for user configurations
» Displays values in bar graphs or 30 minute onboard data trends
» Security menu with authorization code access to lock critical parameters
» Rugged construction to withstand impact damage
» Three 5A relays (digital model only)
» 4 - 20 mA analog or Modbus® digital outputs
» Optional heated sensors and electronics for low temperature operation

APPLICATIONS

» Industrial and Commercial Buildings
» Oil and Gas Industry
» Deep Freezers
» Chillers
» Production Facilities
» ... and many more

TECHNICAL DRAWING

TECHNICAL SPECIFICATIONS

GAS TYPE

Electrochemical	Ammonia (NH_3), Carbon Monoxide (CO), Hydrogen (H_2), Hydrogen Sulphide (H_2S), Nitrogen Dioxide (NO_2), Oxygen (O_2), Sulphur Dioxide (SO_2)
Infrared	Carbon Dioxide (CO_2), Butane (C_4H_{10}), Ethanol (C_2H_6O), Hexane (C_6H_{14}), Methane (CH_4), Propane (C_3H_8), Toluene (C_7H_8)
Catalytic	Butane (C_4H_{10}), Ethylene (C_2H_4), Hydrogen (H_2), Methane (CH_4), Propane (C_3H_8), Pentane (C_5H_{12})

MECHANICAL

Enclosure	Durable cast aluminum suitable for Class 1, Division 1 & 2, Groups A, B, C, D
Size	203 mm x 140 mm x 117 mm (8.0" x 5.5" x 4.6")

ELECTRICAL

Power Requirement	10 - 30 VDC, 250 mA @ 24 VDC
Power Safety Mode	Fully automatic system reset - all programmed parameters retained

INPUT / OUTPUT

Outputs	4 - 20 mA or Modbus® RTU
Relay (digital model only)	Three SPDT dry contact relays, rated 5 amps @ 30 VDC or 240 VAC resistive

USER INTERFACE

Display	LCD graphic display for gas readings, 30 minute trend, bar graphing, engineering units, and backlight. 64 x 128 pixel.
Front Panel	Five indicator lights: AL1, AL2, Fail, In Cal and RS-485

ENVIRONMENTAL *(sensor dependant)*

Operating Temperature	-40°C to 60°C (-40°F to 140°F) Arctic heater smart sensors operate down to -55°C (-67°F)
Humidity	5 - 90% RH non-condensing

FIXED SYSTEMS

TECHNICAL SPECIFICATIONS

CERTIFICATION

NRTL CSA Approvals (File # 219995): Class 1, Division 1 & 2, Groups A, B, C, D. Suitable for explosion proof and intrinsically safe installatations. Housing enclosure suitable for Class 1, Division 1 & 2, Groups A, B, C, D

Models with electrochemical sensor types NH_3 and NO_2 are Division 2 and come with a splash guard. All other models are Division 1.

PRODUCT CODES

Single Channel Analog Transmitter

Internal Electrochemical Sensor

CXT-A-NH3-S	Ammonia (NH_3) sensor (0 - 500 ppm)
CXT-A-C0	Carbon monoxide (CO) sensor (0 - 1,000 ppm)
CXT-A-H2	Hydrogen (H_2) sensor (0 - 2,000 ppm)
CXT-A-H2S	Hydrogen sulphide (H_2S) sensor (0 - 500 ppm)
CXT-A-NO2-S	Nitrogen dioxide (NO_2) sensor (0 - 99.9 ppm)
CXT-A-02	Oxygen (O_2) sensor (0 - 25% volume)
CXT-A-S02	Sulphur dioxide (SO_2) sensor (0 - 99.9 ppm)

Internal Infrared Sensor

CXT-A-IC4H10	Butane (C_4H_{10}) sensor (0 - 100% LEL)
CXT-A-IC02	Carbon dioxide (CO_2) sensor (0 - 5% volume)
CXT-A-IC2H60	Ethanol (C_2H_6O) sensor (0 - 100% LEL)
CXT-A-IC6H14	Hexane (C_6H_{14}) sensor (0 - 100% LEL)
CXT-A-ICH4	Methane (CH_4) sensor (0 - 100% LEL)
CXT-A-IC3H8	Propane (C_3H_8) sensor (0 - 100% LEL)
CXT-A-IC7H8	Toluene (C_7H_8) sensor (0 - 100% LEL)

Internal Catalytic Sensor

CXT-A-CC4H10	Butane (C_4H_{10}) sensor (0 - 100% LEL)
CXT-A-CC2H4	Ethylene (C_2H_4) sensor (0 - 100% LEL)
CXT-A-CH2	Hydrogen (H_2) sensor (0 - 100% LEL)
CXT-A-CCH4	Methane (CH_4) sensor (0 - 100% LEL)
CXT-A-CC3H8	Propane (C_3H_8) sensor (0 - 100% LEL)
CXT-A-CC5H12	Pentane (C_5H_{12}) sensor (0 - 100% LEL)

Single Channel Digital (Modbus®) Transmitter

Internal Electrochemical Sensor

CXT-D-NH3-S	Ammonia (NH_3) sensor (0 - 500 ppm)
CXT-D-C0	Carbon monoxide (CO) sensor (0 - 1,000 ppm)
CXT-D-H2	Hydrogen (H_2) sensor (0 - 2,000 ppm)
CXT-D-H2S	Hydrogen sulphide (H_2S) sensor (0 - 500 ppm)
CXT-D-NO2-S	Nitrogen dioxide (NO_2) sensor (0 - 99.9 ppm)
CXT-D-02	Oxygen (O_2) sensor (0 - 25% volume)
CXT-D-S02	Sulphur dioxide (SO_2) sensor (0 - 99.9 ppm)

PRODUCT CODES

Internal Infrared Sensor

CXT-D-IC4H10	Butane (C_4H_{10}) sensor (0 - 100% LEL)
CXT-D-IC02	Carbon dioxide (CO_2) sensor (0 - 5% volume)
CXT-D-IC2H60	Ethanol (C_2H_6O) sensor (0 - 100% LEL)
CXT-D-IC6H14	Hexane (C_6H_{14}) sensor (0 - 100% LEL)
CXT-D-ICH4	Methane (CH_4) sensor (0 - 100% LEL)
CXT-D-IC3H8	Propane (C_3H_8) sensor (0 - 100% LEL)
CXT-D-IC7H8	Toluene (C_7H_8) sensor (0 - 100% LEL)

Internal Catalytic Sensor

CXT-D-CC4H10	Butane (C_4H_{10}) sensor (0 - 100% LEL)
CXT-D-CC2H4	Ethylene (C_2H_4) sensor (0 - 100% LEL)
CXT-D-CH2	Hydrogen (H_2) sensor (0 - 100% LEL)
CXT-D-CCH4	Methane (CH_4) sensor (0 - 100% LEL)
CXT-D-CC3H8	Propane (C_3H_8) sensor (0 - 100% LEL)
CXT-D-CC5H12	Pentane (C_5H_{12}) sensor (0 - 100% LEL)

Single Channel Analog Transmitter and Remote Sensor

Remote Catalytic Sensor

CXT-A-R-CH2	Hydrogen (H_2) sensor (0 - 100% LEL)
CXT-A-R-CCH4	Methane (CH_4) sensor (0 - 100% LEL)

Single Channel Digital (Modbus®) Transmitter and Remote Sensor

Remote Catalytic Sensor

CXT-D-R-CH2	Hydrogen (H_2) sensor (0 - 100% LEL)
CXT-D-R-CCH4	Methane (CH_4) sensor (0 - 100% LEL)

OPTIONS

S	Splash guard (p/n: CXP-SPG)

ACCESSORIES

CET-715A-CK1	Calibration Kit for 17, 34, 58, 74, 100 L cylinders, 0.5 LPM flow regulator & adapter to fit 17 L cylinder
CET-MW	Calibration magnetic wand
CXP-CAL	Calibration adapter