Critical Environment Technologies™

Transmitters - GAS DETECTION DATASHEET

CXT Explosion Proof Transmitter

The CXT Explosion Proof transmitter delivers reliable, accurate monitoring of toxic and 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. Programmable heaters for both the sensor and electronics 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 or enter into maintenance mode for non-intrusive sensor calibration.

Accompanying the LCD display are standard LED alarm indicators that show when low and high alarm conditions are met. An optional relay board is available to provide three, 5-amp 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.

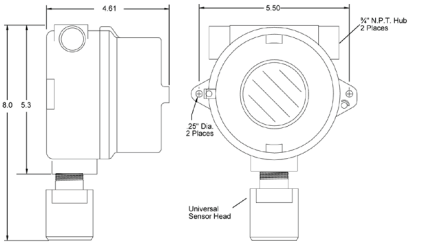
KEY FEATURES

» Large graphic LCD display for real time monitoring
» Heated sensors and electronics for low temperature operation
» 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 5 amp relays
» 4 - 20 mA analog or ModBUS® digital outputs
» CSA & ATEX certified

APPLICATIONS

» Industrial Buildings
» Commercial Buildings
» Deep Freezers
» Chillers
» ... and many more

TECHNICAL DRAWING



PRODUCT CODES

CXT - □ - □□□□□□ - □

Output:

A	4 - 20 mA Analog Output
D	ModBUS® Digital Output

Single Channel Sensor:

	Electrochemical
NH3	Ammonia (NH_3) sensor (0 - 500 ppm)
CO	Carbon monoxide (CO) sensor (0 - 1,000 ppm)
H2	Hydrogen (H_2) sensor (0 - 1,000 ppm)
H2S	Hydrogen sulphide (H_2S) sensor (0 - 500 ppm)
NO2	Nitrogen dioxide (NO_2) sensor (0 - 99.9 ppm)
O2	Oxygen (O_2) sensor (0 - 25% volume)
PH3	Phosphine (PH_3) sensor (0 - 5 ppm)
SO2	Sulphur dioxide (SO_2) sensor (0 - 99.9 ppm)
	Infrared
ICO2	Carbon dioxide (CO_2) sensor (0 - 5% volume)
ICH4	Methane (CH_4) sensor (0 - 100% LEL)
IC3H8	Propane (C_3H_8) sensor (0 - 100% LEL)
	Catalytic
CCH4	Methane (CH_4) sensor (0 - 100% LEL)

Option:

-	None
S	Splash Guard

ACCESSORIES

Calibration kit for 17, 34, 58, 74, 103 L cylinders, 0.5 LPM flow regulator & adapter to fit 17 L cylinder	CET-715A-CK1

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FIXED SYSTEM DATASHEET

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), Phosphine (PH_3), Sulphur Dioxide (SO_2)
Infrared	Carbon Dioxide (CO_2), Methane (CH_4), Propane (C_3H_8)
Catalytic	Methane (CH_4)

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

ELECTRICAL	
Power Requirement	10 - 30 VDC, 250 mA @ 24 VDC
Communications	RS485, ModBUS®
Power Safety Mode	Fully automatic system reset - all programmed parameters retained

INPUT / OUTPUT	
Outputs	4 - 20 mA or ModBUS® RTU Interface
Alarm Relay	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 RS485

ENVIRONMENTAL *(sensor dependant)*	
Operating Temperature	-40°C to 60°C (-40°F to 140°F)
Humidity	5 - 90% RH non-condensing

CERTIFICATION	
CSA Certified	Class 1, Division 1 & 2, Groups B, C, D
ATEX Certified	CE Mark, EExd IIB + H_2, T5

SENSOR SPECIFICATIONS

GAS TYPE	RANGE	SENSOR TYPE	ACCURACY[1]	DISPLAY INCREMENT	DEFAULT SPAN POINT	DEFAULT LOW ALARM	DEFAULT HIGH ALARM	RESPONSE TIME (T_{90})
Ammonia (NH_3)	0 - 500 ppm	EC	±5 ppm or ±10% of reading, whichever is greater	1 ppm	25 ppm	25 ppm	50 ppm	< 75 s
Carbon Dioxide (CO_2)	0 - 5% vol	IR	±0.2%	0.1%	2.5%	1.5%	2.5%	< 50 s
Carbon Monoxide (CO)	0 - 1,000 ppm	EC	±5 ppm or ±5% of reading, whichever is greater	1 ppm	100 pm	35 pm	70 pm	< 50 s
Hydrogen (H_2)	0 - 1,000 ppm	EC	±10 ppm or ±10% of reading, whichever is greater	1 ppm	100 ppm	50 ppm	100 ppm	< 180 s
Hydrogen Sulphide (H_2S)	0 - 500 ppm	EC	±2 ppm fr 0 - 50 ppm	1 ppm	25 ppm	10 ppm	20 ppm	< 75 s
Methane (CH_4)	0 - 100% LEL	IR	±2% or ±10% of reading, whichever is greater	1%	25% LEL	10% LEL	20% LEL	< 60 s
Methane (CH_4)	0 - 100% LEL	CAT	±2% or ±10% of reading, whichever is greater	1%	25% LEL	10% LEL	20% LEL	< 45 s
Nitrogen Dioxide (NO_2)	0 - 99.9 ppm	EC	±2.5 ppm fr 0 - 20 ppm	0.1 ppm	5 ppm	1 ppm	2 ppm	< 75 s
Oxygen (O_2)	0 - 25% vol	EC	±1%	0.1%	20.9%	19.5%	18.5%	< 30 s
Phosphine (PH_3)	0 - 5 ppm	EC	±0.05 ppm fr 0 - 1 ppm, ±0.10 ppm fr 1.01 - 5 ppm	0.01 ppm	1 ppm	0.3 ppm	0.6 ppm	< 60 s
Propane (C_3H_8)	0 - 100% LEL	IR	±2% or ±10% of reading, whichever is greater	1%	25% LEL	10% LEL	20% LEL	< 60 s
Sulphur Dioxide (SO_2)	0 - 99.9 ppm	EC	±1.5 ppm fr 0 - 20ppm	0.1 ppm	5 ppm	2 ppm	4 ppm	< 45 s

[1] At reference evironmental conditions (25 ± 2 degC, 45% ± 10% RH (non-condensing), 1 ATM)