

GASMAX ECx *Wireless* Monitor

Battery-Powered, Stand-Alone Wireless Gas Monitor for Oxygen, Toxic or Combustible Hydrocarbon Gases

- * Built-in D-cell lithium battery and integrated wireless modem
- * Monitor toxic or combustible gases in remote locations without wires
- * Graphic display shows values, units, trend graph, alarm levels
- * Supports both local and remote sensors for easy installation
- * Non-intrusive, prompted calibration with programmable cal gas
- * Power-up and post-calibration delays eliminate false alarms
- * 900Mhz (US) or 2.4Ghz (world-wide) wireless modems available
- * Security settings to lock critical parameters
- * Auto-recognition of Smart Sensors uploads calibration data & more
- * Fault supervision circuitry detects failed sensor & transmits warning
- * Setup in hazardous area requires only simple magnetic wand
- * Typical > 1 mile range with local 'whip' antenna (900Mhz)
- * For combustible applications, see the GASMAX IIX gas monitor
- * Manufactured in USA

The GASMAX ECx wireless gas monitor delivers the latest in toxic and combustible gas detection technology, reliability and ease of use. The GASMAX / ECx is designed for use in hazardous or explosion proof installations.

Battery Powered Toxic & Combustible

The GASMAX ECx support all GDS Corp toxic sensors, including those for hydrogen sulfide

and more. In addition, the GASMAX ECx now supports our new, extremely low power infrared sensor for hydrocarbon combustibles with no decrease in battery life.

Advanced User Interface

The highly visible display and alarm LEDs constantly show status, calibrated engineering values and a programmable tag name; a trend screen shows alarm levels and the most recent 30 minute data values. An internal real-time clock and event log time-stamp calibration and alarm events for later review. A menu-driven operator interface using magnetic keys eliminates all analog potentiometers and allows complete setup and calibration without hazardous area declassification

Fully Integrated Wireless Solution

An internal D-cell lithium battery and 900Mhz or 2.4Ghz license-free spread-spectrum wireless modem provide up to six months of continuous operation in typical applications. Every 6 seconds, the GASMAX ECx samples the atmosphere and transmits a warning signal if the



Shown with local stainless steel sensor head and 900Mhz whip antenna

pre-programmed alarm level is exceeded. Under normal conditions the GASMAX ECx transmits a 'keep-alive' signal periodically to verify communications and advise the controller if the battery is low.

Host Controllers

The GASMAX ECx is designed to operate with the C1 *Protector* 8/16 channel controller / receiver, the C2 *Quad Protector* 4 channel controller / receiver or the C64 *Protector* multi-channel controller. Controllers are available with integrated 900Mhz or 2.4Ghz wireless modems.



AUTHORIZED DISTRIBUTOR: GasDetectorsUSA.com
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832-615-3588

GASMAX ECx SPECIFICATIONS	
Power Input	Replaceable internal D-cell lithium battery; six-month operation (typical)
Display	64 x 128 pixel LCD with 30-minute trend, bargraph and engineering units display.
Input	Accepts microamp-level signals from local or remote toxic sensors or digital inputs from local infrared combustible sensors
Standard Output	License-free 900Mhz or 2.4Ghz frequency-hopping spread spectrum wireless modem with data encryption 900MHz power adjustable from 10mW to 1.0 watt 2.4GHz output set at 50mW or 125mW (US only) Receiver sensitivity typically -98dBm
Temp	-25°C to +65°C (see sensor limitations)
Housing	Aluminum housing with epoxy paint standard; #316 stainless steel optional
Dimensions	Width 5.4" (137 mm), Height 8" (203 mm), Depth 5" (127 mm) Shipping weight 6.5 pounds (3 kg)
Approvals	FCC 15.247 & Industry Canada (IC)
Warranty	Two years on electronics and one year on sensors from date of purchase

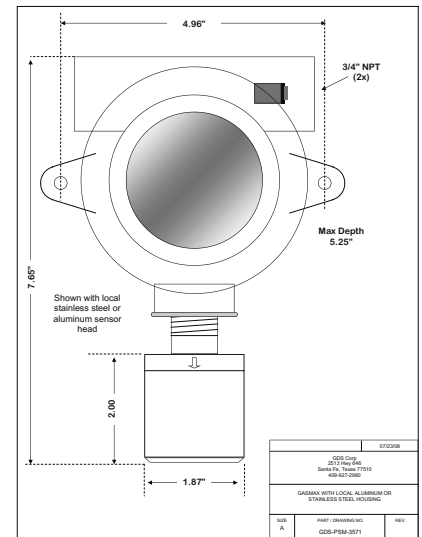
SENSOR TYPES					
10	Oxygen (0-25%)	-30 to +55C	21	Ozone ⁶ (0-1)	-20 to +40C
11	Carbon Monoxide (0-300)	-30 to +50C	22	Ethylene Oxide (0-20)	-20 to +50C
12	Chlorine ⁶ (0-5) ⁶	-20 to +50C	23	Arsine (0-1)	-20 to +40C
13	Chlorine Dioxide ⁶ (0-1)	-20 to +40C	24	Silane (0-50)	-20 to +40C
14	Hydrogen (0-2000)	-20 to +50C	25	Fluorine ⁶ (0-1)	-10 to +40C
15	Hydrogen Sulfide (0-100)	-30 to +50C	26	Phosgene ⁶ (0-1)	-20 to +40C
16	Hydrogen Cyanide (0-50)	-20 to +50C	27	Hydrazine (0-1)	-10 to +40C
17	Hydrogen Chloride ⁶ (0-30)	-20 to +50C	28	Nitric Oxide (0-50)	-20 to +50C
18	Hydrogen Fluoride ⁶ (0-10)	-20 to +50C	29	Nitrogen Dioxide (0-100)	-20 to +50C
19	Sulfur Dioxide (0-25)	-30 to +50C	30	Mercaptan TBM (0-15)	-10 to +40C
20	Ammonia ⁶ (0-100)	-20 to +40C	31	Tetrahydrothiophene (0-100)	-10 to +40C
50	Methane (0-100% LEL)	-40 to +60C	51	Propane (0-100% LEL)	-40 to +60C
53	Carbon Dioxide	-40 to +60C			

Determining Wireless Communications Range

The distance at which any wireless connection will operate reliably is dependent on many factors, including terrain, frequency, path length, interference from existing radio sources, combined antenna height, transmitter power and receiver sensitivity. For reliable communication, the system power margin (TX power + RX gain + Antenna gain - Path Loss) must exceed 20 dB. Range can be improved by increasing antenna height, using directional antennas or increasing transmitter power. Contact GDS Corp for more information.



GASMAX ECx Order Guide	
GM ECx A - B - C - D	
"A"	SENSOR HEAD ^{1, 2, 4, 6, 7} 1 = Local sensor 2 = Local sensor with splash guard 3 = Local sensor for reactive gases 4 = Local sensor / reactive gas / splash guard 5 = Remote sensor 6 = Remote sensor with splash guard 7 = Remote sensor for reactive gases 8 = Rmt sensor / reactive gas / splash guard
"B"	SENSOR TYPE (see chart) ⁵
"C"	DETECTION RANGE ⁵ 1 = 0 - 1 5 = 0 - 50 2 = 0 - 5 6 = 0 - 100 3 = 0 - 10 7 = 0 - 500 4 = 0 - 25 8 = 0 - 1000 Custom RXXXX (0-9999)
"D"	ANTENNA 1 = Standard omnidirectional 2 = Flexible omnidirectional 3 = Remote omni with 10' cable 4 = Remote YAGI directional with 10' cable 5 = Explosion proof suitable for CID1 area



NOTES
Note 1: Remote sensor installations do not utilize Smart Sensor interface
Note 2: Maximum distance for remote e-chem sensor connection is 25ft (3m).
Note 4: ATEX certifi
Note 5: Standard ranges shown; contact factory for additional ranges
Note 6: Certain highly reactive gases require type 3,4 or type 7,8 sensor head
Note 7: Infrared sensors for combustibles or carbon dioxide must be local mount