GASTRONICS
The Pioneer in Wireless Gas Detection

TW-XP WIRELESS DUAL GAS TRANSMITTER
TOXIC, COMBUSTIBLE & VOC GASES

PERFORMANCE

TW-XP transmitters by Gastronics, Inc. sense toxic, combustible, and VOC gases in a variety of environments. TW-XP transmitters utilize sensor elements from a variety of industry leading manufacturers to ensure versatility, quality, and performance.

Sensor elements in TW-XP transmitters offer stability, longevity, response and recovery speed, resistance to fluctuations in temperature and humidity, chemical selectivity, poison resistance, linearity, repeatability, warm-up time, and alertness.

FEATURES & BENEFITS

- Durable Stainless Housing
- Non-Intrusive Calibration
- Fast Warm Up Time
- STEL Alarm Calculation
- Independent Zero & Span
- Data Logging & RT Clock
- Hazardous Locations
- Independent Dual Sensors
- Manual Loop/Alarm Test
- Dual Relay Alarm Outputs
- Optional 5 Relay Board
- Dual Aux Analog Inputs
- Digital Input
- IRDA Data Download
- 900 MHz, 2.4 GHz, UHF or UHV Radio Option

VERSATILITY

- TW-XP common board featuring various configurations
- Multiple radio options
- Auxiliary inputs
- Accepts slave board to enable up to 5 relays and 24V power supply board

DURABILITY

- All transmitters are housed in electropolished 316 stainless steel enclosures designed to withstand the harshest environments
- Housing Certifications: UL/CSA approved for Class I, Div. 1, Groups A, B, C, D and are rated NEMA-4X
- Five evenly spaced 3/4”NPT entry ports allow for a variety of installation configurations

SERVICE & DELIVERY

- Gastronics maintains a large inventory of boards, sensors and housings.
- Replacement sensors generally ship in 1-2 days.
- In the event of an emergency, packages will be hand delivered to the FedEx office (which closes at 8:00 PM).

23660 Miles Road Suite 110, Bedford Heights, Ohio 44128 | info@gastronics.com | www.gastronics.com | 216-662-4899

GASTRONICS
The Pioneer in Wireless Gas Detection

TW-XP WIRELESS DUAL GAS TRANSMITTER
TOXIC, COMBUSTIBLE & VOC GASES

WIRELESS DUAL GAS TRANSMITTER SPECIFICATIONS

MAIN ENCLOSURE:	316 Stainless Steel, Electropolished, NEMA-4X, UL/CSA Class I, Div. 1, Groups A, B, C, D
ENCLOSURE DIMENSIONS:	5.35"W x 5.25"L x 5.5"T DC Version; 7.5"T AC Version
MOUNTING OPTIONS:	Bracket Mount or Magnet Mount, Optional Deployable Tripod Available
DISPLAY:	16 character by 2 line, backlit display, Operating Temp: -20C to +70C
MENU:	Non-Intrusive, Magnet Tool, Menu Driven Backlit Display. Four (4) Green/Red LED's with Hallaffect Switch; 5 Second Green LED Heartbeat & Cold Weather Communications Indicator
INPUT VOLTAGE:	11-28 VDC; Option for 110/220VAC with Use of AC Board and Tall Dome Enclosure; Option for Internal 3.6V "D" Size Dual Lithum Batteries for Use with Digi Radio Version
BATTERY LIFE (LITHIUM BATTERY VERSION):	Up to 26 months with Electrochemical Sensor; Up to 18 months with MIPEX Infrared or both
SENSORS INPUT OPTION:	Voltage Output or Bridge Type Sensors; 3 Electrode Electrochemical Sensors
SAMPLING METHOD:	Diffusion
CALIBRATION:	Non-Intrusive with Magnet Tool
STANDARD ON BOARD I/O:	Dual Sensor Option, 2 Auxiliary Analog Inputs, 1 Auxiliary Digital Input, 2 Relay Outputs
SLAVE RELAY BOARD OPTION:	5 Channel Relay Board; Designed to Operate 1 Horn and 4 Strobes with On-Board 12 to 24VDC Converter; Not for Use with UHF/VHF Radio Due to Space Constraints

NOMINAL CURRENT DRAW: (detector transmitter with no slave boards or auxiliary I/O active)	**USING SENSOR TYPE**	**DIGI RADIO 12V**	**UHF RADIO 12V**
	Toxic Gases or Oxygen or No Sensors	<35mA	<140mA
	Combustible Gases (catalytic-DD Scientific)	<55mA	<160mA
	Combustible Gases (infrared-MIPEX)	<35mA	<140mA
	VOC (Photo Ionization Detector)	<45mA	<150mA
	CO2 (Dynament IR)	<65mA	<170mA

SENSOR SPECIFICATIONS

STANDARD MEASURING RANGES:	**SENSOR LIST**	**T90 SECONDS**	**OP. TEMP.**	**OP REL. HUM.**	**EXPECTED LIFE**	**WARRANTY**
	Combustible Catalytic - 0-100% LEL in 1% increments	<20	-40 to 50C	0 to 90 NC	24 Months	12
	Combustible Infrared - 0-100% LEL in 1% increments	<20	-40 to 60C	0 to 98 NC	60 Months	12
	PID - 0.0-25.0 ppm in 0.1 ppm increments	<2	-40 to 60C	0 to 99 NC	60 Months	12
	Oxygen - 0.0-25.0% by volume in 0.1% increments	<15	-40 to 60C	15 to 90 NC	60 Months	24
	Ammonia - 0-100 ppm in 1 ppm increments	<60	-40 to 40C	15 to 90 NC	>24 Months	12
	Carbon Monoxide - 0-300 ppm in 1 ppm increments	<30	-40 to 50C	15 to 90 NC	>48 Months	24
	Hydrogen Sulfide - 0-100 ppm in 1 ppm increments	<30	-40 to 65C	10 to 95 NC	>48 Months	24
	Hydrogen Sulfide - 0.0-10.0 ppm in 0.1 ppm increments	<30	-40 to 40C	15 to 90 NC	>48 Months	24
	Sulfur Dioxide - 0.0-20.0 ppm in 0.1 ppm increments	<25	-20 to 50C	15 to 90 NC	24 Months	12
	Hydrogen Cyanide - 0.0-10.0 ppm in 0.1 ppm increments	<50	-40 to 40C	15 to 95 NC	>18 Months	12
	Hydrogen Chloride - 0.0-20.0 ppm in 0.1 ppm increments	<70	-20 to 40C	15 to 90 NC	>24 Months	12
	Hydrogen Fluoride - 0.0-10.0 ppm in 0.1 ppm increments	<90	-20 to 40C	15 to 90 NC	>18 Months	12
	Phosgene - 0.00 - 1.00 ppm in 0.01 ppm increments	<120	-20 to 40C	15 to 90 NC	>12 Months	7
	Phosphine - 0.00 - 1.00 ppm in 0.01 ppm increments	<30	-20 to 40C	10 to 95 NC	24 Months	12
	Nitrogen Dioxide - 0.0 to 20.0 ppm in 0.1 ppm increments	<30	-20 to 40C	15 to 90 NC	>24 Months	12
	Nitric Oxide - 0-100 ppm in 1 ppm increments	<20	-15 to 40C	20 to 90 NC	>24 Months	12
	Chlorine - 0.0-20.0 ppm in 0.1 ppm increments	<60	-20 to 40C	15 to 90 NC	>24 Months	12
	Chlorine Dioxide - 0.00-5.00 in 0.01 increments	<60	-20 to 40C	15 to 90 NC	>18 Months	12

RADIO SPECIFICATIONS

	Digi XBee Pro	**Digi XBee Pro**
FREQUENCY:	902 - 928 MHz	2.4 GHz
APPROVALS:	FCC/IC (N. Am.), C-TICK (Australia), ANATEL (Brazil), IDA (Sing)	FCC/IC (N.Am.), ETSI (EU), RCM (Australia/NZ), TELEC (Japan)
DATA RATE:	10 Kpbs or 200 Kbps	10 Kpbs or 200 Kbps
RF OUTPUT POWER:	Up to 250mW	Up to 250mW
SUPPLY VOLTAGE:	2.1 to 3.6 VDC	2.7 to 3.6 VDC
CURRENT DRAIN ON TX:	229 Milliamps	120 Milliamps
CURRENT DRAIN ON RX:	44 Milliamps	31 Milliamps
CURRENT DRAIN SLEEP:	3 Microamps	1 Microamps
RANGE:	Up to 4 Miles LOS (with High Gain Antenna)	Up to 2 Miles LOS (with High Gain Antenna)
OPERATING TEMPERATURE:	-40 to 85C	-40 to 85C
MESHING OPTION:	Yes	Yes
	Ritron DTXM UHF	**Ritron DTXM VHF**
FREQUENCY:	450-470MHz	136-174MHz
APPROVALS:	FCC/IC (N. American)	FCC/IC (N. American)
DATA RATE:	9600 Narrow Band, 12.5 kHz Channel Operation	9600 Narrow Band, 12.5 kHz Channel Operation
RF OUTPUT POWER:	1-6 Watts	1-6 Watts
SUPPLY VOLTAGE:	11-16 VDC	11-16 VDC
CURRENT DRAIN ON TX:	<1.0A at 1 Watt; <2.4A at 6 Watt	<1.0A at 1 Watt; <2.4A at 6 Watt
CURRENT DRAIN ON RX:	<120mA	<120mA
CURRENT DRAIN SLEEP:	N/A	N/A
RANGE:	Up to 5 Miles LOS (with High Gain Antenna)	Up to 10 Miles LOS (with High Gain Antenna)
OPERATING TEMPERATURE:	-30 to 50C	-30 to 50C
MESHING OPTION:	No	No

APPROVALS:	Class I & II, Division 1, Groups B, C, D, F, G Conforms to UL Std. 1203 and 913, Cert. to CAN/CSA Std. C22.2 No. 30 & 157, T5, Type 4X
PENDING APPROVALS:	Class I, Division 2, Groups A, B, C, D Conforms to ANSI/ISA 12.12.01, UL Std. 61010-1, T4 ATEX - Ex d IIB II 2 G IEC Ex db IIB+H2 T5 Gb Tamb: -40°C to 65°C
FACTORY WARRANTY:	One Year; See details on Gastronics Warranty Certificate
PART NUMBER FORMULA:	TW-WP-[Transmitter Description]-[Power Method]-[First Sensor Type]-[Second Sensor Type]-[Flame Arrestor/Guards]-[Mounting Type]

23660 Miles Road Suite 110, Bedford Heights, Ohio 44128 | info@gastronics.com | www.gastronics.com | 216-662-4899