

Vertex[®] Gas Monitor System

in the Zone™

Vertex is the next generation continuous multipoint toxic gas monitoring system. Vertex is a very cost-effective, hazardous gas monitor, capable of monitoring up to 72 points with 9 analyzers in a small footprint.

Vertex, with its modern industrial design is a highly reliable system, offering built-in system redundancy as standard equipment. Sampling points can be up to 400 feet (120 meters) from the monitor. The system rack comes completely ready for easy in-field expansion up to the 72 points. Analyzers are universal and are configurable on site. The pyrolyzler analyzer for NF₃ requires the space of two universal analyzers and limits the number of points possible in the system. The maximum number of pyrolyzers in one rack is three (3). Vertex easily interfaces into factory monitoring systems using the optional relay outputs. Additional communication capabilities include Ethernet, LONWORKS[®], DeviceNet™, PROFIBUS, Modbus Plus, ControlNet, DF1 Interface, isolated 4-20mA current loops and high speed modem. Vertex is capable of detecting more than 40 different gases.

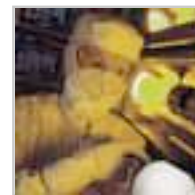


Detectable Gases

Gas	Range
Ammonia	3-75 ppm
Chlorine	0.05-5 ppm
Chlorine-LL	7-2000 ppb
Chlorine Dioxide	30-1000 ppb
Fluorine	0.06-10 ppm
Hydrides	
Arsine	2.5-500 ppb
Arsine-LL	0.3-25 ppb
Diborane	10-1000 ppb
Germane	100-2000 ppb
Hydrogen Selenide	6-500 ppb
Phosphine	5-3000 ppb
Silane	0.3-50 ppm
Tertiarybutylarsine	12-500 ppb
Tertiarybutylphosphine	75-2000 ppb
Hydrogen Cyanide	0.5-30 ppm
Hydrogen Sulfide	0.5-100 ppm
Hydrogen Sulfide-LL	8-2000 ppb
Mineral Acids	
Boron Trifluoride-LL	100-1500 ppb
Hydrogen Bromide	0.3-30 ppm
Hydrogen Bromide-LL	50-2000 ppb
Hydrogen Chloride	0.5-15 ppm
Hydrogen Chloride-LL	80-8000 ppb
Hydrogen Fluoride	0.3-30 ppm
Hydrogen Iodide	0.1-25 ppm
Nitrogen Trifluoride	1-50 ppm
Nitrogen Dioxide	0.3-30 ppm
Phosgene	7-1000 ppb
Phosgene-high	7-4000 ppb

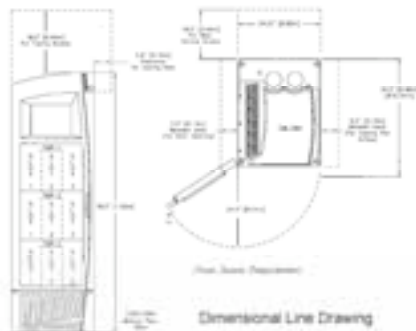
Features

- Reduced footprint
- Continuous monitoring
- Chemcassette[®] technology
- 400' (120m) sampling distance
- Touch-screen display
- Redundant pump & power supply
- User-configurable analyzers
- Web browser help system
- TCP/IP protocol
- OPC interface
- Analog and digital outputs
- Positive Chemcassette identification via RFID tag
- Automatic optics verification
- No flow balancing
- Password protection
- All events logged
- Data stored locally, CD-ROM, or download to another location on LAN
- Two 60GB hot swappable hard drives
- Simple system configuration
- Electronic manual with video
- Optional Chemcam camera






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Technical Data Specifications

Detection Techniques:	Chemcassette [®] Technology
Detection Limits:	Gas specific, typically less than 1/10 TLV
Analysis Method:	Continuous
Monitoring Points:	72 points maximum. Each 8 points must be of same family.
Sampling Distance:	400 ft. (120m) (Consult your local ZA agent for longer distance requirements.)
Sample Line Tubing:	1/4 in. (6.35mm) O.D., 0.190 in. (4.83mm) I.D. FEP grade Teflon [®] tubing (same tubing as used on CM4 and/or System 16) with minimum bend radius of 12 in. (305mm). Note: 0.156 in. (3.96mm) I.D. FEP tubing can be used with minimum bend radius of 12 in. (305mm).
Exhaust Tubing:	1/2 in. (12.7mm) O.D., 3/8 in. (9.5mm) I.D. Polypropylene, with maximum length of 50 ft. (15m)
Operating Voltage:	230 VAC ± 10% @ 50/60 Hz; 15 Amps maximum single phase, providing hot, neutral and ground
Power Consumption:	3,500 watts (15 Amps) maximum, which is a 48-point system consisting of 24 points (3 Analyzers) of pyrolyzer and 24 points (3 Analyzers) of standard Chemcassette. The heat load would be 12,000 BTU/hour. 72 points of Chemcassette (9 Analyzers) draws 7.2 Amps (1,600 Watts). The heat load for this configuration would be 5,500 BTU/hour.
Power Entry:	Top 3/4 in. female NPT
Operating Temperature:	59° to 95° F (15° to 35° C)
Dimensions:	24 in. (60.96cm) W x 34.5 in. (87.63cm) D x 76 in. (193.04cm) H
Weight:	Approximately 970 lbs. (409.1kg) with 9 analyzers
Transport Flow:	1.6 Liters per minute (L/min) typical
Transport Time:	400 ft. using 0.190 in. I.D. tubing @ 1.6 L/min is 79 seconds with 6 Analyzers. Shared sample lines to two analyzers cut times in half.
Touch Screen:	Surface acoustic wave, glass over 15" LCD
Display:	Thin film transistor (TFT), Active Matrix, 15" liquid crystal display (LCD) with 1024 x 768 resolution and antiglare surface
Data Acquisition:	256 meg RAM, Pentium 4 processor 60 GB hard drive, CD-R, 56K Internal modem,
Relay Output Options:	Non-isolated 16 Channel Relay, normally open (Form A) 176 group-isolated form A contacts or 88 fully isolated contacts.
Users Interface:	Windows-style interface – pull-down menus, etc. Std. External Communication's
Bus/protocol:	TCP/IP, OPC on TCP/IP via Ethernet (<u>not</u> recommended for alarm annunciation) Parallel port (printer)
Additional Protocols Supported:	Options – LONWORKS, PROFIBUS, DeviceNet, ControlNet, Modbus Plus, DF1 Interface Current Loop Output: Optional, isolated 4-20 mA in separate enclosure 24 in. (60.96cm) H x 36 in. (91.44cm) W x 10 in. (25.4cm) D



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