



HIGH ACCURACY

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PRODUCT DATASHEET

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M21 Transmitter

Single Channel Universal Gas Monitoring

The Millennium II (M21) single channel universal transmitters have been engineered from the ground-up to include the innovative features that managers and operators in the field demand, while providing rock solid day-to-day operation, even in the most extreme conditions. The Millennium II redefines what you expect from a fixed gas detection solution.

- Universal transmitter — compatible with all sensor types (infrared, catalytic bead, and electrochemical)
- Wide voltage range allows for greater stability and system compatibility
- Lowest power consumption available

Universal Transmitter

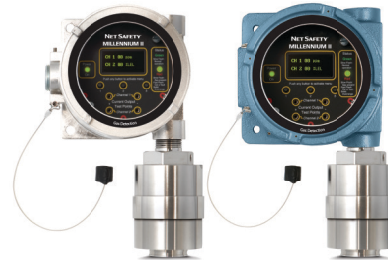
The transmitter can be fitted with a wide range of toxic or combustible gas sensors. Sensors are pre-calibrated and easily connected to the transmitter which recognizes a newly fitted sensor, automatically uploading the sensor's specific configuration profile.

Digital Communications

Sensor and transmitter continuously communicate digitally, giving you the confidence of stable, accurate protection with fast response times even over long separation distances.

Easy To Use Menus

English, French, Portuguese, or Spanish display languages included. The full text menu makes installation, operation, and calibration simple. No manual necessary!



M21 (SS & AL) shown with SX3 Series Sensors

- Full diagnostics with event and data logging
- Intuitive menu system provides operators with non-intrusive set-up and calibration interface
- Field selectable gas curves and ranges
- Long range (+2,000 ft/600 m) sensor separation

Superior OLED Display

The only full graphic OLED display available, easy to read in all ambient lighting conditions.

Analog, Relay, Modbus RS485 RTU & HART®

Multiple communication protocols are available combined with relays to allow the M21 Transmitter to work seamlessly with your system.

Field-proven Sensor Innovations

All of our sensors are engineered to be fast and reliable with field-proven performance in the harshest industrial conditions possible. These include a full range of fast response Electrochemical toxic gas sensors. For combustible gas detection, poison resistant Catalytic Bead technology with *SensorGuard*, which greatly prolongs sensor life and Infrared sensor technology utilizing a dual beam design with no mirrors that can become contaminated (“fogged up”) or misaligned.

Specifications

Table 1 - Millennium II M21 Single Channel Transmitter

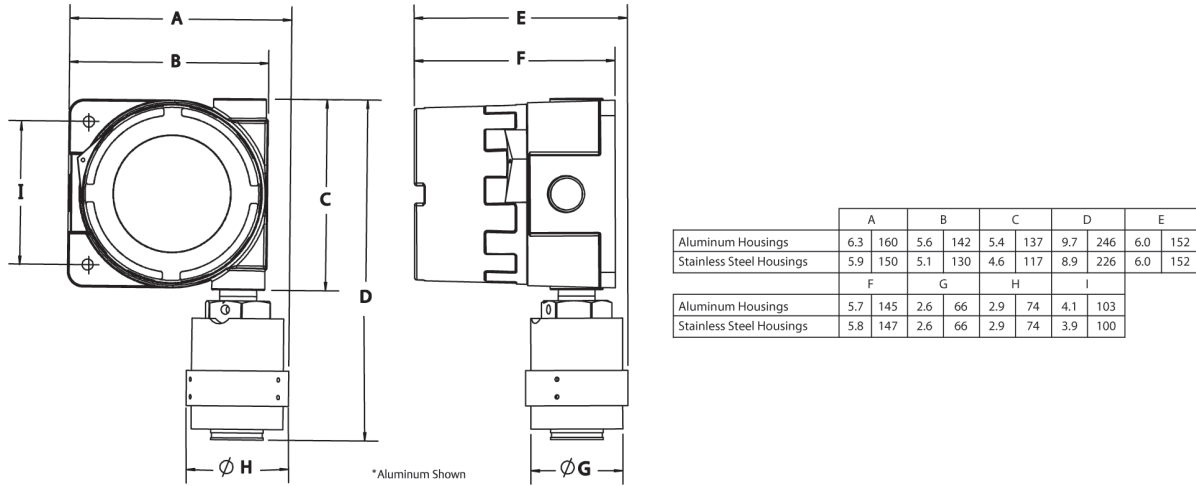
Electrical	
Power Consumption	2.4 W @ 24 VDC (average - varies by sensor types/quantities)
Voltage Range	10.5–32.0 VDC (HART®: 18–32 VDC)
EMC Compliance	EN 50270:2006 per EMC directive 2004/108/EC
Display	Organic LED (OLED), Power/Status LED's
Environmental	
Temperature	-67 °F to +185 °F (-55 °C to +85 °C) - Stainless steel -58 °F to +185 °F (-50 °C to +85 °C) - Stainless steel - North American explosion-proof certification -40 °F to +185 °F (-40 °C to +85 °C) - Aluminum
Relative Humidity	0–95 % RH non condensing
Ingress Protection	IP66 (Aluminum), IP67 (Stainless Steel), IP64 (with sensors) Type 4X
Mechanical	
Enclosure Material	Cast Aluminum (A359) or Stainless Steel (SS316)
Conduit Opening	¾" NPT (3X)
Outputs	Standard: Analog 4–20 mA Optional: Four 5 A Form C Relays, and RS 485 Modbus® RTU, and HART®
Certifications	<p>North American Class I, Division 1, Groups BCD T5 Class I, Zone 1, AEX/Ex d IIB+H2 T5 -50 °C ≤ Ta ≤ +85 °C NEMA Type 4X/IP67 FM6320, ANSI/ISA 12.13.01, CSA 22.2 No. 152:2006</p> <p>IECEX Ex d IIB+H2 T5 Gb IECEX DNV 12.0014 (Aluminum) IP66, controller only IECEX FMG 12.0006X (Stainless Steel) IP 67, controller only IEC 60079-0: 2007-10 & IEC 60079-1: 2007-04</p> <p>Inmetro Ex d IIB+H2 T5 Gb IP67</p>
Sensors	Combustible Gases: SC3 Series Infrared and Catalytic Bead Toxic Gases: ST3 Series Electrochemical
Warranty	3 years
Mounting	Surface Mount/Pipe Mount/Duct Mount
Weight	Aluminum: 5.5 lbs (2.5 kg), Stainless steel: 7.0 lbs (3.2 kg)

Ordering Information	
M21-A	Single Channel - Analog
M21-AR	Single Channel - Analog & Relay
M21-AD	Single Channel - Analog & Modbus
M21-ARD	Single Channel - Analog & Relay & Modbus
M21-AH	Single Channel - Analog & HART®
M21-AHR	Single Channel - Analog & HART® & Relay
Enclosures Available: Aluminum (-A) Stainless Steel (-S)	
Ordering Matrix Example: M21-AH-S (Transmitter - Output - Enclosure Material)	

Special Features
<ul style="list-style-type: none"> ■ Current loop test jacks for each channel on faceplate ■ Non-intrusive one man calibration (magnetic switch) ■ Field selectable toxic gas ranges ■ Redundant menu access via push buttons ■ Sensor enable/disable option from menu (Cl1, Div2) ■ Alarm relays configurable/assignable to any channel ■ Displayed event logging (980 events) ■ Easily retrieve last calibration data from sensor ■ Four languages - English, French, Spanish, Portuguese

Accessories
<ul style="list-style-type: none"> ■ Mounting Bracket Complete With Hardware ■ Sun Shade/Deluge Protection ■ Duct Mount and Hardware Kit

Figure 1 - Millennium II M21 Single Channel Transmitter Dimensions



Accessories

Table 2 - Accessories













Accessories	
UDM-001	Universal duct mount assembly with 1 m inlet sampling pipe - Stainless Steel
UDM-002	Universal duct mount assembly with 1.5 m inlet sampling pipe - Stainless Steel
UDM-003	Universal duct mount assembly - Stainless Steel
UDM-EX1	1 m extension - for use with UDM-001 and UDM-002 - Stainless Steel
UDM-EX2	1.5 m extension - for use with UDM-001 and UDM-002 - Stainless Steel
UN-MK-31	1" Pipe Mounting kit c/w stainless steel mounting bracket and hardware
UN-MK-32	2" Pipe Mounting kit c/w stainless steel mounting bracket and hardware
UN-MK-33	3" Pipe Mounting kit c/w stainless steel mounting bracket and hardware
HPT-001	HART® Communicator port, mounts directly to Millennium II transmitter
SSK-51	1" Pipe Mounted Sun shade kit/rain guard - Stainless steel - includes UN-MK-31 Mounting Kit
SSK-52	2" Pipe Mounted Sun shade kit/rain guard - Stainless steel - includes UN-MK-32 Mounting Kit
SSK-53	3" Pipe Mounted Sun shade kit/rain guard - Stainless steel - includes UN-MK-33 Mounting Kit



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measurement instruments

Our offering:

	<p>Pressure Measurement</p>		<p>Level Measurement</p>
	<p>Temperature Measurement</p>		<p>Flow Measurement</p>
	<p>Marine Measurement & Analytical</p>		<p>Gas Analysis</p>
	<p>Liquid Analysis</p>		<p>Flame and Gas Detection</p>
	<p>Tank Gauging</p>		<p>Wireless Infrastructure</p>
	<p>Acoustic & Discrete</p>		

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