CERTIFICATE OF CONFORMITY

FM Approvals

1. **HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS**
2. **Certificate No:** **FM21CA0078X**
3. **Equipment:** **S5000 Gas Monitor Gas Detection System**
   (Type Reference and Name)
4. **Name of Listing Company:** **General Monitors Inc**
5. **Address of Listing Company:** **an MSA Company, 16782 Von Karman Ave., Unit 14, Irvine, California 92606, United States of America**
6. The examination and test results are recorded in confidential report number:

   PR460784 dated 22nd July 2022

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

   CSA C22.2 No. 0.4:2017 (R2022), CSA C22.2 No. 0.5:2016 (R2020), CSA C22.2 No. 25:1966 (R2014), CSA C22.2 No. 30:1986 (R2016), CSA C22.2 No. 94.1:2015, CSA C22.2 No. 94.2:2015, CSA C22.2 No. 213:2017 (R2022), CSA C22.2 No. 60079-0:2019, CSA C22.2 No. 60079-1:2016, CSA C22.2 No. 60079-15:2012, CSA C22.2 No. 60079-29-1:2017, CSA C22.2 No. 60079-31:2015, CSA C22.2 No. 60529:2005 (R2010), CSA C22.2 No. 61010-1-12 (R2022)

8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
10. Equipment Ratings:

    See Annex

11. The marking of the equipment shall include:

    See Annex

12. **Description of Equipment:**

Certificate issued by:

J.E. Marquedant

J.E. Marquedant
VP, Manager - Electrical Systems

19 November 2024

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

See Annex

13. **Specific Conditions of Use:**

See Annex

14. **Test and Assessment Procedure and Conditions:**

This Certificate has been issued in accordance with FM Approvals Canadian Certification Scheme.

15. **Schedule Drawings**

A copy of the technical documentation has been kept by FM Approvals.

16. **Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
22 July 2022	Original Issue.
17 August 2022	Supplement 1: Report Reference: PR462892 dated 17th august 2022. Description of the Change: Replaced microprocessor, as well as minor hardware changes and a firmware update. Updated format of certificate to add an annex.
19 November 2024	Supplement 2: Report Reference: PR467006 dated 19 November 2024. Description of the Change(s): The equipment received hardware and firmware updates resulting in additional performance and explosive atmosphere testing verification. The list of standards is updated to the latest edition as permitted in the Official Journal. The structure of the certificate is updated to list details in a table format. The leading paragraphs remain to detail information not in the specifications table. The equipment listings are moved into separate sections for the transmitter, the junction boxes, and the approved sensors. The listing for the transmitter shows a newly created table of Approved Sensors, detailing all FM Approved transmitter and sensor combinations. This includes FM Approved sensors maintained under separate approvals. This table indicates if performance testing has been performed. In cases where performance testing has not been performed, the transmitter/sensor combination still maintains the explosive atmosphere rating. The IR700 sensors and IR sensors with model codes R13 and R14 have been removed. The model code option for Aluminum housing for the transmitter has been removed. The humidity range for the Combustible Digital Sensors is increased to 95%RH, non-condensing. The term "FRIT" is replaced with "sintered flame arrestor".

ANNEX

S5000 Series Combustible, Toxic, & Oxygen Gas Monitor

Equipment Ratings:

The S5000 Gas Monitor is Explosionproof for use in Class I, Division 1, Groups A, B, C, D (with cemented window joint) or Class I, Division 1, Groups B, C, D (with non-cemented, flanged window joint), T5; Class II, Division 1, 2, Groups E, F, G, Class III, T5; Nonincendive for Class I, Division 2, Groups A, B, C, D, T4; Flameproof for use in Ex db IIC T5 Gb (with cemented window joint) or Ex db IIB+H2 T5 Gb (with non-cemented, flanged window joint); Protection by Enclosure as Ex tb IIIC T85°C Db; Non-Sparking & Sealed Device as Ex nA nC IIC T4 Gc; Ta = -40°C to +75°C (with relays) or Ta = -50°C to +75°C (without relays) Hazardous Locations, indoor and outdoor (Type 4X/IP66).

The S5000 Junction Box is Explosionproof for use in Class I, Division 1, Groups A, B, C, D (with cemented window joint) or Class I, Division 1, Groups B, C, D (with non-cemented, flanged window joint), T6; Class II, Division 1, 2 Groups E, F, G, Class III, T6; Nonincendive for Class I, Division 2, Groups A, B, C, D, T6; Flameproof for use in Ex db IIC T6 Gb (with cemented window joint) or Ex db IIB+H2 T6 Gb (with non-cemented, flanged window joint); Protection by Enclosure as Ex tb IIIC T85°C Db; Non-Sparking as Ex nA IIC T6 Gc; Ta = -50°C to +75°C Hazardous Locations, indoor and outdoor (Type 4X/IP66).

Markings:

S5000 Transmitter
CL I, Div 1 Group A, B, C, D; T5 (WITH CEMENTED WINDOW JOINT)
CL I, Div 1 Group B, C, D; T5 (WITH NON-CEMENTED, FLANGED WINDOW JOINT)
CL I, Div 2 Group A, B, C, D; T4
CL II, Div 1, 2 Group E, F, G; CL III; T5
Ex db IIC T5 Gb (WITH CEMENTED WINDOW JOINT)
Ex db IIB+H2 T5 Gb (WITH NON-CEMENTED, FLANGED WINDOW JOINT)
Ex nA nC IIC T4 Gc
Ex tb IIIC T85°C Db
Ta = -40°C to +75°C (WITH RELAYS); Ta = -50°C to +75°C (WITHOUT RELAYS); Type 4X/IP66
FM 6340
ANSI/ISA 92.00.01
ANSI/ISA 92.04.01
60079-29-1

WHEN USING PASSIVE COMBUSTIBLE SENSOR
CL I, Div 1, Group B, C, D; T5
Ta = -40°C to +75°C

WHEN USING PASSIVE MOS SENSOR
CL I, Div 1, Group B, C, D; T5
Ta = -40°C to +60°C

S5000 Junction Box
CL I, Div 1, Group A, B, C, D; T6 (WITH CEMENTED WINDOW JOINT)
CL I, Div 1, Group B, C, D; T6 (WITH NON-CEMENTED, FLANGED WINDOW JOINT)
CL I, Div 2, Group A, B, C, D; T6
CL II, Div 1, 2, Group E, F, G; CL III; T6
Ex db IIC T6 Gb (WITH CEMENTED WINDOW JOINT)
Ex db IIB+H2 T6 Gb (WITH NON-CEMENTED, FLANGED WINDOW JOINT)
Ex nA IIC T6 Gc
Ex tb IIIC T85°C Db
Ta = -50°C to +75°C; Type 4X, IP66
FM 6340
ANSI/ISA 92.00.01
ANSI/ISA 92.04.01
60079-29-1

WHEN USING PASSIVE COMBUSTIBLE SENSOR
CL I, Div 1, Group B, C, D; T5
Ta = -40°C to +75°C

WHEN USING PASSIVE MOS SENSOR
CL I, Div 1, Group B, C, D; T5
Ta = -40°C to +60°C

Description of Equipment:

The S5000 Gas Monitor consists of an S5000 Transmitter and an optional S5000 Junction Box or JB5000 Junction Box. The S5000 Gas Monitor supports two Digital Sensors, one ULTIMA XIR Plus sensor and one Digital Sensor simultaneously, or one IR400 point IR detector and one Digital Sensor simultaneously. The device only supports one passive sensor, either a combustible catalytic bead sensor for combustible gases or a metal oxide semiconductor (MOS) sensor for H2S.

The S5000 Gas Monitor and S5000 Junction Box consist of a single 316 stainless steel compartment enclosure approximately 5 inches diameter by 4 inches high. The JB5000 Junction Box consists of a single 316 stainless steel compartment enclosure approximately 3.5 inches in diameter by 3 inches high. The enclosures are explosionproof/dust-ignitionproof and contain the field connections, power, display and control circuitry if used as the transmitter and as a means of connecting remote sensors. The transmitter and junction box enclosures provides (4) ¾ inch NPT threaded conduit entries, which when unused will be fitted with certified blanking plugs and a 4-1/2-12UN threaded cover housing a 0.375 inch thick soda lime tempered glass window that is held in place by a retaining ring. The JB5000 junction box enclosure provides (3) ¾ inch NPT or M25 threaded conduit entries, which when unused will be fitted with certified blanking plugs and a 3-1/4-12UN threaded cover. For the JB5000 Junction Box marking and listing, refer to MSA certificate FM21CA0079X.

Model Code Options:

S5000-a-b-c-d-e-fff-ggg-h, Gas Monitor S5000

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SCHEDULE

Canadian Certificate of Conformity No: FM21CA0078X

a is for Enclosure Material:
- 2 = Stainless Steel – IIB+H2 (with non-cemented, flanged window joint)
- 3 = Stainless Steel – IIC (with cemented window joint)

b is for Outputs:
- 0 = Bluetooth/ Modbus/ HART 1.25 mA
- 1 = Bluetooth/ Modbus/ HART 3.5 mA
- 2 = Bluetooth/ Modbus/ HART 1.25 mA/ RELAYS
- 3 = Bluetooth/ Modbus/ HART 3.5 mA/ RELAYS
- 4 = No Bluetooth/ Modbus/ HART 1.25 mA
- 5 = No Bluetooth/ Modbus/ HART 3.5 mA
- 6 = No Bluetooth/ Modbus/ HART 1.25 mA/ RELAYS
- 7 = No Bluetooth/ Modbus/ HART 3.5 mA/ RELAYS

c is for Relay State:
- 0 = No Relays
- 1 = Latch Alarm / Non-Latch Warn De-Energized
- 2 = Latch Alarm / Non-Latch Warn Energized
- 3 = Latch Alarm / Latch Warn De-Energized
- 4 = Latch Alarm / Latch Warn Energized
- 5 = Non-Latch Alarm / Non-Latch Warn De-Energized
- 6 = Non-Latch Alarm / Non-Latch Warn Energized
- 7 = Non-Latch Alarm / Latch Warn De-Energized
- 8 = Non-Latch Alarm / Latch Warn Energized

d is for Agency Approval:
- 2 = FM

e is for Custom Features:
- 00 = None (standard)
- 01 = Stainless Steel Tag
- 02 = HART Off (Factory Setting, customer can enable later)
- 03 = Stainless Steel Tag / Hart Off (Factory Setting, customer can enable later)
- 04 = UI Assy –1 with Bluetooth Disabled
- 05 = Stainless Steel Tag / UI Assy –1 with Bluetooth Disabled
- 06 = BCM Modbus (Isolated)
- 07 = SS Tag/BCM Modbus (Isolated)

fff is for Sensor 1 selection: See Approved Sensors table below
- Cxx = Passive Cat Bead Sensor (Combustible)
- Dxx = Digital Sensor
- Mxx = Passive MOS Sensor (Toxic)
- Rxx = IR Series Combustible Sensor
- Xx = Ultima XIR Plus Sensor

ggg is for Sensor 2 selection: See Approved Sensors table below
- 000 = No Sensor or Sensor Body
- Dxx = Digital Sensor

h is for Paint Options:
- 0 = no paint
- 1 = Gray

2 = Blue
3 = Yellow
4 = White

Specifications:

Sensor Type:	See Sensor Table for sensor type
Gases:	See Sensor Table for approved gases
Range:	See Sensor Table for ranges
Installation:	Fixed
Sampling Type:	See Sensor Table for sampling type
Accuracy:	See Sensor Table for sensor accuracy
Response Time:	See Sensor Table for response time
Supply Parameters:	12-30 Vdc, 13.7W maximum
Operating Temperature:	-50°C to +75°C (when installed without relays) -40°C to +75°C (when installed with relays) -40°C to +75°C (when installed with passive combustible sensors as identified in the Sensor Table) -40°C to +60°C (when installed with passive MOS sensor as identified in the Sensor Table)
Storage Temperature:	-50°C to +85°C
Relative Humidity:	5 to 95% RH non-condensing
Measurement Signal:	Two 4-20mA, LED Display
Alarms:	LED Display, Relay (5A 30Vdc / 250Vac)
Ingress Protection:	Type 4X, IP66
Firmware:	NXP Microprocessor: 2.00.0065 ST Microprocessor: 4.01.0011

Sensor Table - Sensors permitted for use with the S5000 Gas Monitor:

SCHEDULE

Canadian Certificate of Conformity No: FM21CA0078X

Product / Listing Title	Model Code	Gas / Description	Range	Certificate Number
Ultima XIR Plus Combustible Gas Sensors	See Sensor Table in the associated product listing of the referenced certificate			FM21CA0079X
Digital Sensor (Combustible)	See Sensor Table in the associated product listing of the referenced certificate			FM21CA0078X
Digital Sensor (Toxic & Oxygen)	See Sensor Table in the associated product listing of the referenced certificate			FM21CA0078X
IR400-1501	R31	Methane - CH_4	0-100% LFL	FM17CA0021
IR400-1516	R32	Propane - C_3H_8	0-100% LFL	FM17CA0021
IR400-2554	R34	Hexane - C_6H_{14}	0-100% LFL	FM17CA0021
IR400-1173	R35	Pentane - C_5H_{12}	0-100% LFL	FM17CA0021
IR400-1528	R37	Ethane - C_2H_6	0-100% LFL	FM17CA0021
IR400-1523	R38	Butane - C_4H_{10}	0-100% LFL	FM17CA0021
Passive Sensors				
10058-1	C04	General Purpose	0-100% LFL	N/A
50448-1	M04	Hydrogen Sulfide - H_2S	0-100 ppm	N/A
50448-5	M05	Hydrogen Sulfide - H_2S	0-50 ppm	N/A
50448-9	M06	Hydrogen Sulfide - H_2S	0-20 ppm	N/A

Accessories - The following accessories are included in the Approval:

CALKIT1	Calibration Kit for Digital Gas Sensors & ULTIMA XIR Plus Sensors
1400270	Calibration Kit for IR400 Point IR Detector

Junction Boxes Approved with the S5000:

324240-5, 324240-9, 324240-13, 324240-17, 324240-21	S5000 Junction Box; Stainless Steel, (flanged/non-cemented)
324240-2, 324240-6, 324240-10, 324240-14, 324240-18	S5000 Junction Box; Aluminum, (flanged/non-cemented)

To verify the availability of the Approved product, please refer to www.approvalguide.com

324240-7, 324240-11, 324240-15, 324240-19, 324240-22	S5000 Junction Box; Stainless Steel, (cemented)
324240-4, 324240-8, 324240-12, 324240-16, 324240-20	S5000 Junction Box; Aluminum, (cemented)
10213892	JB5000 Junction Box; Stainless Steel, ¾" NPT
10213896	JB5000 Junction Box; Stainless Steel, M25

Specific Conditions of Use:

S5000 Transmitter

1. The Model S5000 complies with FM 6320, ANSI/FM 60079-29-1, FM 6340, ANSI/ISA 92.00.01, and ANSI/ISA-92.04.01 only when connected to a gas sensor that also has been evaluated to the appropriate standard listed on the certificate.
2. Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore, the equipment shall only be cleaned with a damp cloth.
3. Certification does not cover HART, Wireless HART, MODBUS or Bluetooth communications used for toxic, oxygen or combustible gas performance. The HART, Wireless HART, MODBUS or Bluetooth communications may only be used for data collection or record keeping with regard to toxic, oxygen and combustible gas detection.
4. To minimize the risk of electrostatic charge, provisions shall be made for adequate grounding and equipment shall be installed in such a manner so that accidental discharge shall not occur.
5. The High Alarm relay can be programmed for a latching or non-latching operation with a deliberate manual action to reset. When the High Alarm relay is set to non-latching the output must be connected to an integrated or auxiliary system with the means of latching and resetting incorporated into these systems.
6. In order achieve the ingress ratings, the S5000 enclosure when used with the Digital Sensor must be mounting in the orientation described in the instruction manual.
7. The S5000 Transmitter and Junction Box are rated for indoor/outdoor (IP66/Type 4X) locations only.
8. This fixed equipment is designed for field mounting in the vertical orientation with restrictions placed around the conduit entry locations permitted for connection of the Digital Sensor, ULTIMA XIR Plus Sensor, IR400 Sensor, and Passive Sensors. The equipment is subject to the installation and orientation requirements defined in the product manual.
9. The flameproof joints shall not be repaired.
10. When the manufacturer of the equipment has not identified the type of protection on the label, the user shall, on installation, mark the label adjacent to the type of protection used. Once the type of protection has been marked it shall not be changed.

Junction Box

1. Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore, the equipment shall only be cleaned with a damp cloth.
2. The flameproof joints shall not be repaired.

Digital Sensors (Combustible)

Equipment Ratings:

Explosionproof for installation in Class I, Division 1, Groups A, B, C and D T5; Class I, Division 2, Groups A, B, C and D T5; Class II, Div 1, 2 Groups E, F, G, Cl III T5; Flameproof for use in Ex db IIC T5 Gb; Protection by Enclosure as Ex tb IIIC T85°C Db; Flameproof and Non-Sparking as Ex db nA IIC T5 Gc; Ta = -50°C to +60°C Hazardous Locations, indoor/outdoor (TYPE 3X, IP65).

Markings:

CL I, Div 1 Group A, B, C, D; T5
CL I, Div 2 Group A, B, C, D; T5
CL II, Div 1, 2 Group E, F, G; CL III; T5
Ex db IIC T5 Gb
Ex tb IIIC T85°C Db
Ex db nA IIC T5 Gc
Ta = -50°C to +60°C; Type 3X, IP65
60079-29-1

Description of Equipment:

The Digital Sensors consist of a Digital Sensor body and a gas sensing element. The Digital Sensors are constructed of stainless steel and include a ¾" NPT thread for connection to the S5000 Gas Monitor. Remote connection requires the S5000 or JB5000 Junction Box.

Model Code Options:

A-5K-SENS-a-b-c-d-e Digital Sensor
a is for Gas Type:
See Sensor Table below
b is for Material:
0 = Stainless Steel
c is for Listed Approval:
M = FM Approval
d is for Sensor Body Thread Type:
0 = No Sensor Body
1 = ¾ NPT
2 = M25
e is for Advanced Option:
0 = none

Sensor Table:

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Model Code	Approved Gas	Range
00	No Sensor or Sensor Body (transmitter only)	N/A
01	No Sensor (sensor body with Sintered Flame Arrestor w/ blank element)	N/A
60	Methane - CH_4	0-100% LFL – 5.0% vol
61	Propane - C_3H_8	0-100% LFL – 2.1% vol
62	Heptane - C_7H_{16}	0-100% LFL – 1.05% vol
63	Nonane - C_9H_{20}	0-100% LFL – 0.8% vol
64	Hydrogen - H_2	0-100% LFL – 4.0% vol
65	Methane - CH_4	0-100% LFL – 4.4% vol
66	Propane - C_3H_8	0-100% LFL – 1.7% vol
67	Heptane - C_7H_{16}	0-100% LFL – 0.85% vol
68	Nonane - C_9H_{20}	0-100% LFL – 0.7% vol

Specifications:

Sensor Type:	Catalytic Bead
Sampling Type:	Diffusion
Accuracy:	±5% F.S.
Time of Response:	t(90) ≤ 60 s
Operating Temperature:	-50°C to +60°C
Storage Temperature:	-40°C to +60°C
Relative Humidity:	10 to 95% RH, non-condensing
Firmware:	1.0.1

Specific Conditions of Use:

1. To minimize the risk of electrostatic charge, provisions shall be made for adequate grounding and equipment shall be installed in such a manner so that accidental discharge shall not occur.
2. This fixed equipment is designed for field mounting in the vertical orientation with restrictions placed around the conduit entry locations permitted for connection of the Digital Sensors.
3. The equipment is subject to the installation and orientation requirements defined in the product manual.

Digital Sensors (Toxic & Oxygen)

Equipment Ratings:

Explosionproof for installation in Class I, Division 1, Groups A, B, C and D T5; Class II, Division 1, 2 Groups E, F, G, Class III, T5; Class I, Division 2, Groups A, B, C and D T5; Flameproof for use in Ex db IIC T5 Gb; Protection by Enclosure as Ex tb IIIC T85°C Db; Flameproof and Non-Sparking as Ex db nA IIC T5 Gc; Ta = -40°C to +60°C (for CO, O2, and H_2S sensors), Ta = -40°C to +50°C (for H_2S 500 ppm sensor) Hazardous Locations for indoor and outdoor (Type 3X, IP65) .

Markings:

CL I, Div 1 Group A, B, C, D; T5
CL I, Div 2 Group A, B, C, D; T5
CL II, Div 1, 2 Group E, F, G; CL III; T5
Ex db IIC T5 Gb
Ex tb IIIC T85°C Db
Ex db nA IIC T5 Gc
Ta = -40°C to +60°C (CO & H_2S sensors); Ta = -40°C to +50°C (H_2S 500 ppm sensor); Type 3X, IP65
ANSI/ISA 92.00.01
ANSI/ISA 92.04.01 (O2 Sensor)

Description of Equipment:

The S5000 Digital Sensor consists of a Digital Sensor body and a toxic gas or oxygen sensing element. The Digital Sensors are constructed of stainless steel and include a ¾" NPT thread for connection to the S5000 Transmitter. Remote connection requires the S5000 Junction Box or JB5000 Junction Box.

Model Code Options:

A-5K-SENS-a-b-c-d-e Digital Sensor
a is for Gas Type:
See Sensor Table below
b is for material type:
0 = Stainless Steel
c is for listed Approval:
M = FM
d is for Sensor Body Thread Type:

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0 = No Sensor Body
1 = ¾ NPT
2 = M25

e is for Advanced Option:
0 = none

Sensor Table:

Model Code	Approved Gas / Description	Range
00	No Sensor or Sensor Body (transmitter only)	N/A
01	No Sensor (Sensor Body with Sintered Flame Arrestor w/ blank element)	N/A
02	No Sensor (Sensor Body without Sintered Flame Arrestor w/ blank element)	N/A
10	Carbon Monoxide - CO	0-100 ppm
11	Carbon Monoxide - CO	0-500 ppm
12	Carbon Monoxide - CO	0-1000 ppm
14	Carbon Monoxide - CO, Hydrogen Resistant	0-100 ppm
15	Oxygen - O_2	0-25% O_2
20	Hydrogen Sulfide - H_2S	0-10 ppm
21	Hydrogen Sulfide - H_2S	0-50 ppm
22	Hydrogen Sulfide - H_2S	0-100 ppm
23	Hydrogen Sulfide - H_2S	0-500 ppm
24	Hydrogen Sulfide - H_2S, Span at 10 ppm	0-20 ppm
25	Hydrogen Sulfide - H_2S, Span at 25 ppm	0-50 ppm
26	Hydrogen Sulfide - H_2S, Span at 50 ppm	0-100 ppm
27	Hydrogen Sulfide - H_2S, Diffusion Supervision	0-10 ppm
28	Hydrogen Sulfide - H_2S, Diffusion Supervision	0-50 ppm
29	Hydrogen Sulfide - H_2S, Diffusion Supervision	0-100 ppm
36	Carbon Monoxide - CO, Diffusion Supervision	0-100 ppm
37	Carbon Monoxide - CO, Diffusion Supervision	0-500 ppm
38	Carbon Monoxide - CO, Diffusion Supervision	0-1000 ppm

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Model Code	Approved Gas / Description	Range
39	Carbon Monoxide - CO, Hydrogen Resistant, Diffusion Supervision	0-100 ppm
42	Hydrogen Sulfide - H_2S, Span at 10 ppm, Diffusion Supervision	0-20 ppm
43	Hydrogen Sulfide - H_2S, Span at 25 ppm, Diffusion Supervision	0-50 ppm
44	Hydrogen Sulfide - H_2S, Span at 50 ppm, Diffusion Supervision	0-100 ppm
77	Hydrogen Sulfide - H_2S, Span at 10 ppm, Alcohol Tolerant	0-20 ppm
78	Hydrogen Sulfide - H_2S, Span at 25 ppm, Alcohol Tolerant	0-50 ppm
79	Hydrogen Sulfide - H_2S, Span at 50 ppm, Alcohol Tolerant	0-100 ppm
80	Hydrogen Sulfide - H_2S, Span at 10 ppm, Alcohol Tolerant, Diffusion Supervision	0-20 ppm
81	Hydrogen Sulfide - H_2S, Span at 25 ppm, Alcohol Tolerant, Diffusion Supervision	0-50 ppm
82	Hydrogen Sulfide - H_2S, Span at 50 ppm, Alcohol Tolerant, Diffusion Supervision	0-100 ppm
83	Hydrogen Sulfide - H_2S, Alcohol Tolerant	0-10 ppm
84	Hydrogen Sulfide - H_2S, Alcohol Tolerant	0-50 ppm
85	Hydrogen Sulfide - H_2S, Alcohol Tolerant	0-100 ppm
86	Hydrogen Sulfide - H_2S, Alcohol Tolerant, Diffusion Supervision	0-10 ppm
87	Hydrogen Sulfide - H_2S, Alcohol Tolerant, Diffusion Supervision	0-50 ppm
88	Hydrogen Sulfide - H_2S, Alcohol Tolerant, Diffusion Supervision	0-100 ppm

Specifications:

Sensor Type:	Electrochemical
Sampling Type:	Diffusion
Accuracy:	H2S Sensors: ±3 ppm CO Sensors: ±6 ppm O2 Sensor: ±0.5 $\%O_2$

Response Time:	t(90) ≤ 60 s (Toxic) 5 seconds (O_2)
Operating Temperature:	Model Code 23, 500 ppm H_2S Sensor: -40°C to +50°C All others: -40°C to +60°C
Storage Temperature:	-40°C to +60°C
Relative Humidity:	5 to 95% RH, non-condensing (Toxic) 10 to 95% RH, non-condensing (O_2)
Firmware:	H_2S and CO sensors ASIC: 1.1.2 H_2S and CO sensors L&H, NXP Microprocessor: 1.3.0 H_2S and CO sensors L&H, ST Microprocessor: 5.1.2 H_2S and CO sensors L&H with DS: 4.0.9 Model Code 23, 500 ppm H_2S sensor & O_2 sensor ASIC: 1.0.1

Specific Conditions of Use:

1. To minimize the risk of electrostatic charge, provisions shall be made for adequate grounding and equipment shall be installed in such a manner so that accidental discharge shall not occur.
2. This fixed equipment is designed for field mounting with restrictions placed around the conduit entry locations permitted for connection of the Digital Sensors. The equipment is subject to the installation and orientation requirements defined in the product manual.

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