SENSIDYNE®
Industrial Health & Safety Instrumentation

New!

SENSALERT® PLUS

Universal Area Monitor Accepts Combustible (Infrared or Catalytic), Toxic and Oxygen Gas Sensors

Highest Reliability And Function

Sensor Test-On-Demand, with On-board Gas Generator
Predictive Sensor End-of-Life Warning
Missing or Non-functional Sensor Indication

Intrinsically Safe Sensor Head

Shop Calibrate and Hot-swap Gas Sensors in Classified Areas
Mount Sensor up to 100 ft./30 m. Away without XP Conduit

Intelligent SensAlert*Plus* Sensors

Auto-recognition and Set-up from Sensor Memory Provides Operating Parameters and Diagnostics for All *Plus* Transmitters

International Performance Approvals

Performance Tested and Certified to FM and ATEX Standards
Unrestricted Hazardous Classified Area Installation and Operation

Flexible Installation or Retrofit

2-Wire and 3-Wire Transmitters with Enclosure Options
Non-intrusive Configuration and Maintenance Interface
Remote Sensor / Gassing, Duct Mount and Sample Draw
Configurable Alarms: Fault Conditions, Gas Levels, TOD, PSF, TWA

Smart Sensor Technology enables SensAlert*Plus* to automatically recognize and configure to the gas type and range of the sensor, using the latest calibration data. The Predictive Sensor Failure (PSF) function provides warning of approaching sensor end-of-life. Non-volatile memory stores calibration date and time, operating parameters, default settings and PSF values.

Unique Test-On-Demand (TOD) built-in gas generation cell affords a Functional Sensor Test with data recall, that ensures sensors are 'healthy' eliminating manual bump testing.

Maintenance is greatly reduced with a non-intrusive, menu-driven user interface for functional tests and configuration (password protected). A large graphic display shows step-by step instructions for calibration, configuration and data retrieval. SensAlert*Plus* Sensors are shipped factory calibrated and have been Agency approved for hot-swapping in hazardous classified areas.

Performance Testing and Certification permits virtually unrestricted operation in hazardous classified areas. Intrinsically safe installation solves difficult application problems with minimal maintenance, while delivering a high level of operational security and confidence with the lowest cost of ownership.

Fully Configurable Alarms - Assign up to four relays plus warning on current loop, to inform the facility of gas monitor status and target gas value, delivering the highest system integrity.

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A & E Specification Optional items in ( )

FM (ATEX) approved Gas Detection equipment will be installed to comply with NFPA 820 and NEC Standards.

The Sensor Head shall be Intrinsically Safe to minimize installation-maintenance costs and employ temperature compensated, hot-swappable smart sensors, with non-volatile memory for all operating parameters.

Predictive Sensor Failure (and Sensor Test-On-Demand) function(s) will be provided. The Universal Transmitter must automatically recognize and set-up for Electrochemical, Catalytic, and Infrared Gas Sensors.

A large, menu-driven graphic display for Gas Name or type, measured value, units, and maintenance functions, password protected per the ISA Standard, shall be provided. (LEDs will confirm interface actions and annunciate the standard and optional alarm relays.)

The transmitter must perform continuous diagnostics and produce user configurable alarms including Value, TWA, and PSF, with one (four) standard relay(s) and a warning on the current loop. A 4-20 mA output capable of driving 600 Ω at 24 VDC transmitter terminal voltage is required.

The Vendor shall furnish a priced spare parts list for two years operation and a calibration kit with one year's gas supply. A factory technician will commission the system and train the owner's personnel.

The gas detection shall be SensAlert Plus by Sensidyne.

Ordering Information

Transmitters

2-Wire GP	820-0201-01
3-Wire GP	820-0202-01
3-Wire GP with IS barrier	820-0202-04
3-Wire GP for use with relay card[2]	820-0202-03
2-Wire HD Div2	820-0203-01
3-Wire HD with IS barrier	820-0204-04
3-Wire HD Div2 Standard Dome	820-0204-01
3-Wire HD Div2 Large Dome[2]	820-0204-02
2-Wire XP Div1	820-0205-01
3-Wire XP Div1 Standard Dome	820-0206-01
3-Wire XP Div1 Large Dome[2]	820-0206-02

Sensors

NH_3 0-100 ppm	823-0201-21
Cl_2 0-10 ppm	823-0202-21
HCN 0-20 ppm	823-0203-21
CO_2 0-5% Vol.[1]	823-0205-51
H_2S 0-100 ppm	823-0206-21
HF 0-10 ppm	823-0207-21
HF 0-20 ppm	823-0207-22
H_2 0-1000 ppm	823-0210-21
Cat Bead 0-100% LEL Comb[1]	823-0211-31
Cat Bead 0-100% LEL H Spec. Comb[1]	823-0211-32
IR Combustible 0-100% LEL[1]	823-0211-51
SO_2 Filtered 0-20 ppm	823-0218-21
CO 0-500 ppm	823-0219-22
O_2 0-25% Vol.	823-0240-21

Test-On-Demand and Accessories

TOD Cell for Cl_2	821-0204-02
TOD Cell for H_2S	821-0204-06
Moisture Barrier Assembly	821-0201-01
Calibration Cup/Flow Block	821-0202-01
Rainshield	821-0203-01
Relay Card	700-0046-01

Consult factory for a complete list of sensors, accessories and Test-On-Demand cells.

Notes: [1] Only for use with 3-wire transmitters. Not approved for Zone 0.
[2] Optional relay card available for use with these transmitters - sold separately.

Technical Specifications

Sensors

Gas Sensors: ..... Combustibles, Toxics and Oxygen
Test-On-Demand Modules: ..... Type C and Type S

Electrical

Voltage/Power:
2-Wire 24 VDC (18-30 VDC): ..... 20 mA
3-Wire 24 VDC (12-30 VDC): ..... 90 mA
With Opt. Relay Card and
combustible sensors: ..... 300 mA
Output and load resistance with 24 VDC
at transmitter terminals:
3 wire 4-20 mA: ..... 600 Ω minimum
2-wire 4-20 mA: ..... 250 Ω minimum
Relay: .....3-Wire Only - One SPDT Configurable Relay
Optional Card: .....Three (3) SPDT Configurable Relays
Contact Ratings: ..... 5 Amps at 115 VAC or
30 VDC Resistive

Controls

Magnetic Keypad: ..... OK, << (Go Back), ⍰, ⍰
Security: .....Password Protected Configuration Menu

Displays

LEDs: ..... Four (4) Red, corresponding to magnetic keypad, and Alarm Relays when so equipped.
Graphic LCD: ..... 128 by 64 pixel screen (backlight on 3-wire transmitters); displays Concentration and Measuring Units, Gas Name or Type, Sensor Span, Local Date-Time, Tag Number and System messages or Warnings

Environmental

Temperature (Transmitter): ..... -40°F – 158°F /-40°C – 75°C
Temperature (Sensor): ..... See Sensor Data Sheets
Humidity (Sensor): ..... 15% – 95% RH, non-condensing
0-99% Infrared, non-condensing
0-90% Catalytic, non-condensing

Enclosure Options

NEMA 4X (IP 66): ..... Polycarbonate
Dimensions: ..... 7.5" W x 12.6" H x 6.2" D
190 mm W x 320 mm H x 157 mm D
Weight Range: ..... 5.5-6.4 lbs /2.5-2.9 kg
Explosion-proof (IP 66)..... Copper-free, Cast Aluminum
Physical: ..... 5.5" W x 12.3" H x 4.6" [6.4"] D
140 mm W x 312 mm H x 117 mm [163 mm] D
Weight Range: ..... 6.1-7.9 lbs / 2.8-3.6 kg
Note: Brackets indicate large dome depth.
IP66 with use of an optional rainshield.

Approval Ratings

Explosion Proof
NEC/ CEC: ..... Class I Div 1, Groups A, B, C & D, T4
Class II Div 1, Groups E, F & G; Class III Div 1
ATEX: ..... Eex d[ia] IIC T4 II 2 G

Non-Incendive
NEC/ CEC: ..... Class I Div 2, Groups A, B, C, D
Class II Groups F & G; Class III Div2
ATEX: ..... Eex nA [ia] IIC T4 II 3 G

Intrinsically Safe
NEC/ CEC: ..... Class I Div 1, Groups A, B, C, D, E
Class II, Groups F & G; Class III
ATEX: ..... Eex ia IIC T4 II 1 G

Bulletin: SAPR110

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