

# UNIVERSAL 4-20 mA TRANSMITTERS

## PRODUCT SPECIFICATIONS

### GENERAL

Description ..... 2- or 3-wire Input, automatic sensor recognition and configuration, microprocessor based with nonvolatile memory, LCD Display, magnetic non-intrusive user interface, analog output, and optional integral alarm relay. Conformal Coated Electronics.

Sensor Types .... Plug-in intelligent sensors, temperature compensated with nonvolatile memory. See back-page listing.

Service ..... Indoor or Outdoor Locations, including hazardous classified areas.

### ENCLOSURE OPTIONS

NEMA 4X ..... Polycarbonate  
5.3 (W) by 9.3 (H) by 3.3 (D) Inches  
13.5 (W) by 23.5 (H) by 8.5 (D) cm  
1.9 lbs. (0.8 kg)

HD (Div 2) ..... Cast Aluminum (Copper-free)  
HD (I.S.) ..... 6.1 (W) by 10.1 (H) by 4.9 (D) Inches  
15.5 (W) by 25.6 (H) by 12.4 (D) cm  
4.2 lbs. (1.9 kg)

Explosion-Proof . Cast Aluminum (Copper-free)  
6.1 (W) by 9.0 (H) by 4.9 (D) Inches  
15.5 (W) by 22.9 (H) by 12.4 (D) cm  
4.9 lbs. (2.2 kg)

### ENVIRONMENTAL

Temperature ..... -22° to 131°F (-30° to 55°C)  
Subject to sensor temperature limits

Humidity ..... 0-95 %RH, non-condensing

### ELECTRICAL

Power ..... 15-30 VDC, 20-115 mA (without relay)  
18-30 VDC, 60-300 mA (with relay)

EMI/RFI ..... Certified to EN 50082-1  
Certified to IEC 801-2, 801-3, & 801-4

### OUTPUTS

All Models ..... 2-wire or 3-wire 4-20 mA (600Ω)

Optional Relay ... SPDT, 5 amp, 230 VAC or 24 VDC, Resistive

### USER INTERFACE

Display ..... 2-line alphanumeric LCD display for Gas Name, Gas Value, & Measuring Units.

Controls ..... ZERO and SPAN magnetic switches for menu driven automated calibration.

### APPROVALS

All Models ..... CE Mark

HD (Div 2) ..... UL, Class I, Division 2, Groups A, B, C, & D

Explosion-Proof UL, Class I, Division 1, Groups B, C, & D

Intrinsic Safety. NEMA 4X and HD (I.S.) models (without relay) are approved intrinsically safe (UL 913) for Class I, Div 1, Groups A, B, C, & D, when installed with listed Sensidyne Barrier.

### WARRANTY

One year from start-up date or 18 months from date of shipment, whichever comes first.

### ORDERING INFORMATION

NEMA 4X Transmitter (I.S.) (2-wire) ..... 7013182-1  
NEMA 4X Transmitter (I.S.) (3-wire) ..... 7013182-2  
NEMA 4X Transmitter (3-wire w/relay) ..... 7013305-2  
HD (I.S.) Transmitter (2-wire) ..... 7013183-1  
HD (I.S.) Transmitter (3-wire) ..... 7013183-2  
HD (Div 2) Transmitter (3-wire w/relay) ..... 7013306-2  
HD (Div 2) Transmitter (2-wire) ..... 7013941-1  
HD (Div 2) Transmitter (3-wire) ..... 7013941-2  
XP Transmitter (2-wire) ..... 7013276-1  
XP Transmitter (3-wire) ..... 7013276-2  
XP Transmitter (3-wire w/relay) ..... 7013377

Sensor sold separately

¥ Transportable Calibration

¥ 4-20 mA Output

¥ Automatic Sensor Recognition

¥ Displays Gas Name, Range & Units

¥ 2-Wire or 3-Wire Operation

¥ Magnetic Non-intrusive Interface

¥ Choice of NEMA 4X, Division 2, or Explosion-Proof Enclosures

¥ Optional I. S. Installation

¥ Optional Alarm Relay

Labor-saving is how major users describe the SensAlert<sup>™</sup> Universal Transmitter. Introduced three years ago, it uses advanced components and rigorous ergonomic design, to significantly improve reliability and reduce maintenance.

The Sensidyne family of Universal 4-20 mA transmitters includes 2-wire and 3-wire versions, three enclosure styles, and third party approval for Intrinsically Safe installation. A variety of accessories, including duct mount and sample draw equipment, complete this exceptional product line.

The transmitter automatically recognizes all SensAlert<sup>™</sup> sensors, displaying the gas name, engineering units, and value. And, it performs linearization, plus temperature compensation from sensor stored data. This delivers an accurate, drift-free measurement over the widest range of environmental conditions.

The user interface (MMI) is magnetic, and functional tests plus calibration are menu driven, from **APPLY GAS NOW**, to **CAL OK**. The new calibration data are written into sensor memory and used for continuing accurate operation.



NEMA 4X Enclosure shown

## MENU DRIVEN USER INTERFACE (MMI)

All Sensidyne Transmitters have a magnetic MMI designed for fast, error-free set-up and maintenance.

Applying a known zero gas to the sensor and touching ZERO with the magnet sets the zero. An immediate **Zero OK** or **Zero Fail** is displayed, and the new zero data is written into sensor memory.

Touching the SPAN control with the magnet displays **Enter Value** and prompts the entry of the cal gas concentration by using the ZERO and SPAN controls as **▲** and **▼** buttons. A few seconds after setting the calibration gas value, the transmitter display



## INTRINSIC SAFETY

SensAlert<sup>™</sup> two- and three-wire 4-20 mA transmitters are UL approved for intrinsically safe installation (Class I, Division 1, Groups A, B, C & D) when used with an approved Sensidyne or other barrier.

Barriers accept either two- or three-wire transmitters, and are DIN Rail mounted, or supplied in an enclosure. Installation cost savings far exceed the moderate cost of the barriers, and will enhance system performance for certain applications.

Electrical ..... 30 Vdc Max @ 125 mA, fused at 3/8 amp, 250 VAC  
Environmental ..... 0°C to 40°C, 0E80 %RH, non-condensing  
Device Wiring ..... 2-wire (Power, Signal), 3-wire, (Power, Ground, Signal)  
Physical ..... 3.310(W) x 3.120(H) x 1.000(D), 4.0 oz.

