

WDG-INSITU/IQ SMART FLUE GAS OXYGEN ANALYZER

Direct-sensing insitu probe suitable for applications where the flue gas temperature does not exceed 1250°F (677°C) and where combustibles measurement is not required. Completely field serviceable.

SPECIFICATIONS

Principle of Operation: Zirconium oxide

Output Range: From 0-1% to 0-100% oxygen

Accuracy: ±1% of measured value or ±0.05% oxygen, whichever is greater

Response: 63% of a step change in < 20 seconds

Drift: < 0.1% of cell output per month (< 0.005% O₂ per month with 2% O₂ applied)

Linearity: ±1% of output span

Repeatability: ±1% of output span

Max. Flue Gas Temp.: 1250°F (677°C). Probe material highly corrosion resistant.

Alarm: Alarm can be set to oxygen, start of calibration, start of verify, or both

Contact Rating: 1 A, 30 V max., noninductive load, AC or DC

Diagnostics: Watchdog timer and service alarm (trouble alarm). System test for A/D, RAM, and EEPROM. Twenty-entry event log.

Communications: RS-485, RS-232 (IQ Links), HART® Option available.

Analog Output: Isolated linear current output. Select O₂, cell temperature, thermocouple mV or cell mV. The output can be 4-20 mA, 0-20 mA, 20-4mA or 20-0 mA and is fully scalable. Hold or track during calibration and select degree of damping. Maximum load 1100 ohms.

Sample Pressure: ±10 in. water gauge



Power Requirements: 115 VAC, ±10%, 47-63 Hz; 230 VAC, ±10%, 47-63 Hz, 150 VA max.

Environment:

Ambient Temp.: -5°F to 158°F (-20°C to 70°C); Div. 2 Option: -5°F to 149°F (-20°C to 65°C)

Operating Temp.: -20°C to 85°C (See Note 1)

Relative Humidity: 10% to 90%, non-condensing

Enclosure: UL Type 4X (NEMA 4X). Optional NEC Class I, Division 2 version available (for subatmospheric process pressure only).

Calibration: Oxygen cell lifetime extender. Calibrate or verify calibration. Store last calibration and verification data.

Selectable calibration gas run time and process recovery time. Timed automatic calibration with optional Remote Calibration Unit.

Calibration Gas Requirements: Use calibration gases at 10 psig, 1 to 2 scfh (0.70 kg/cm², 0.5 to 0.9 L/min.)

O₂ Span Gas: Air or from 1.0 to 100% O₂, balance N₂

O₂ Zero Gas: 2% or from 0.1 to 10% O₂, balance N₂

System Compliance:

EMC Directive: 2004/108/EC

Low Voltage Directive: 73/23/EEC

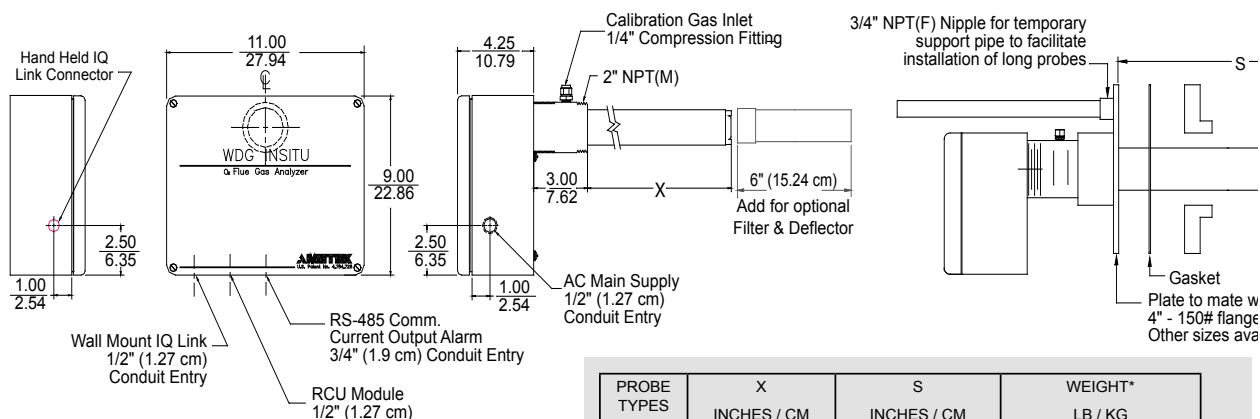
OPTIONAL

IQ Link provides a local interface to set up and display system parameters, initiate calibrations, and perform system tests and troubleshooting. Handheld or dedicated wall mount versions available. Refer to Bulletin P-620 for more IQ Link information.

WDG INSITU/IQ ANALYZER

SENSOR

INCHES
CM



PROBE TYPES	X INCHES / CM	S INCHES / CM	WEIGHT* LB / KG
9"	8.75 / 22.2	7.0 / 17.8	15 / 6.8
18"	17.75 / 45.1	16.0 / 40.6	20 / 9.1
36"	38.75 / 98.4	37.0 / 94.0	25 / 11.3
72"	74.75 / 189.9	73.0 / 185.4	40 / 18.1
108"	110.75 / 281.3	109.0 / 276.8	50 / 22.7

*APPROX. WEIGHT - INCLUDES PROBE + FLANGE.

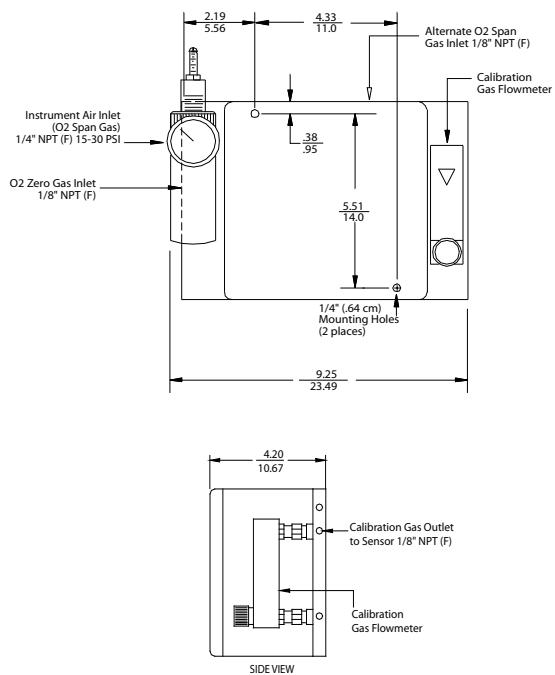
108" PROBE MUST HAVE INTERNAL SUPPORT PROVIDED BY CUSTOMER.

STANDARD THERMOX MOUNTING FLANGES: 3" - 300# AND 4" - 150#.

OTHER CONFIGURATIONS ARE AVAILABLE UPON REQUEST.

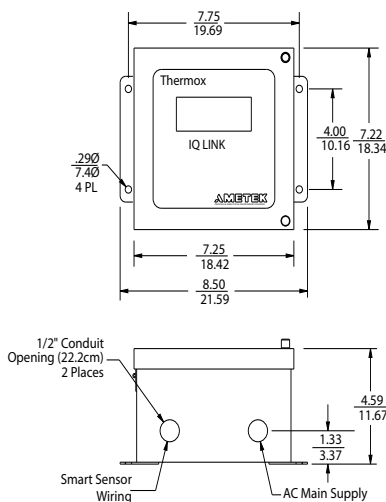
REMOTE CALIBRATION UNIT

ENCLOSURE NEMA 4X, APPROX. WEIGHT: 8 LB (3.6 KG)



WALL MOUNT IQ LINK - OPTIONAL

APPROX. WEIGHT: 10 LB / 4.53 KG



NOTES:

1. Operating temperature of electronics inside the electronics housing is measured by IQ Link, RS-247 Web Enabled Remote System, Series 2000 Host, or Hart Communicator.
2. All static performance characteristics are with operating variables constant.
3. System accuracy referenced to 0.1 to 10% calibrated range.
4. Response is to calibration gas.

AMETEK

PROCESS INSTRUMENTS

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THERMOX