

WDG HPIIC/IQ OXYGEN & COMBUSTIBLES

WDG HPIIM/IQ OXYGEN & METHANE

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SMART FLUE GAS ANALYZERS

Close-coupled convective design for high particulate applications. Suitable for flue gas temperature up to 2800°F (1537°C). Completely field serviceable.

SPECIFICATIONS



Principle of Operation:

Zirconium oxide net oxygen measurement and catalytic detectors for both combustibles and methane.

Output Range:

Oxygen: 0-1% to 0-100%
Combustibles: 0-2000 ppm to 0-10,000 ppm or 0-1% to 0-5%

Methane: 0-1% to 0-5%

Accuracy:

Oxygen: $\pm 0.75\%$ of measured value or $\pm 0.05\%$ oxygen, whichever is greater

Combustibles: $\pm 2\%$ of full scale output range

Methane: $\pm 5\%$ of full scale output range

Response - Oxygen: 90% of a step change < 30 seconds with 24" probe

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

Max. Flue Gas Temp. / Probe Type:

1300°F (704°C) / 316 SS
1875°F (1024°C) / 310 SS
2800°F (1537°C) / Ceramic

Probe Lengths: 24" (0.61m), 36" (0.91m), and 48" (1.22m)

Max. Sample Dewpoint: 392°F (200°C).

Alarms: Three dry contact alarms. Alarms can be set to oxygen, high combustibles and high methane. One can be set to start-of-calibration, start-of-verify, or both.

Contact Rating: 1 A, 30 V max., non-inductive 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: Three isolated linear current outputs. Select O₂, combustibles, methane, cell temperature, thermocouple mV or cell mV. Each output can be 4-20 mA,

0-20 mA, 20-4 mA 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

Enclosure: Lift-off NEMA 3R, weather resistant, stainless steel. Optional hinged NEMA 4X (IP56), purged, and floor mount versions available.

Environment:

Ambient Temp.: -5°F to 150°F (-20°C to 65°C);
-5°F to 140°F (-20°C to 60°C) with Div. 2 Option
Operating Temp: -20°C to 85°C (See Note 1)
Relative Humidity: 10% to 90%, non-condensing

Power Requirements: 115 VAC, $\pm 10\%$, 47-63 Hz, 740 VA max. (790 VA max. floor mount version);
230 VAC, $\pm 10\%$, 47-63 Hz, 1990 VA max. (2040 VA max. floor mount version)

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 @ 10 psig, 1.5 scfh (0.70 kg/cm², 0.7 L/min.)

O₂ Span Gas: Air or from 1.0 to 100% O₂, balance N₂
O₂, Comb. & CH₄ Zero Gases: 2% or from 0.1 to 10% O₂, balance N₂

Comb. Span Gas: (WDG HPIIC/IQ & WDG HPIICM/IQ) 60 to 80% (ppm ranges) or 40 to 60% (% ranges) of the selected comb. recorder output range in certified equal mixtures of CO+H₂, 3-4% O₂, balance N₂

CH₄ Span Gas: (WDG HPIIM/IQ & WDG HPIICM/IQ) 2% CH₄, 8 to 10% O₂, balance N₂

System Compliance:

EMC Directive: 2004/108/EC
Low Voltage Directive: 73/23/EEC

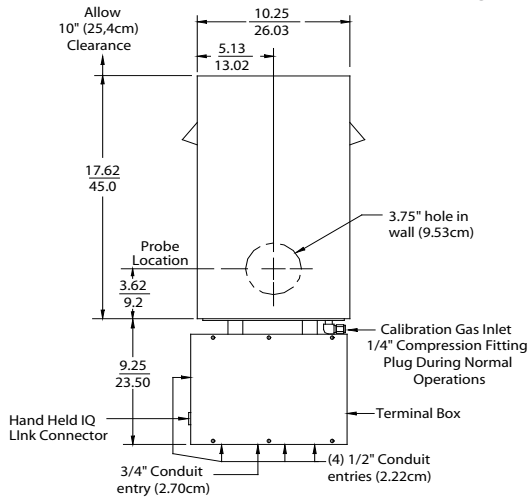
OPTIONAL

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

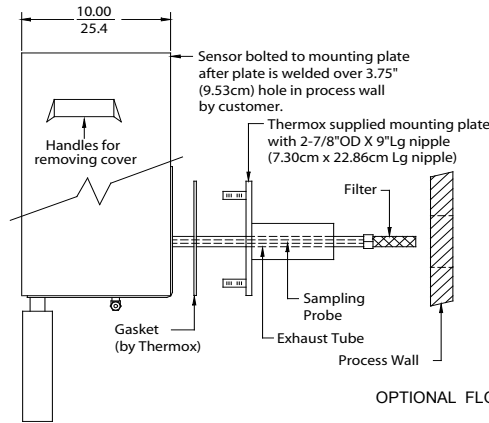
WDG HP11/IQ SERIES

STANDARD LIFT-OFF SENSOR ENCLOSURE APPROX. WEIGHT: 37.6 LB (17KG)

INCHES
CM

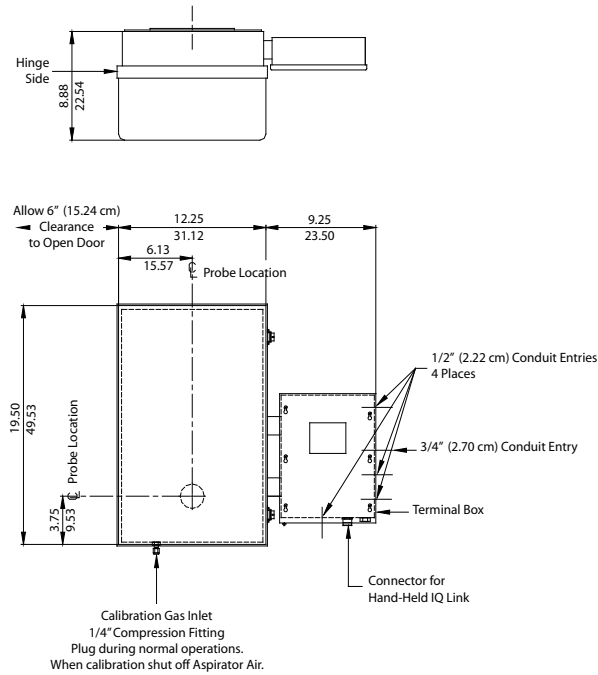


STANDARD MOUNTING - PREFERRED METHOD

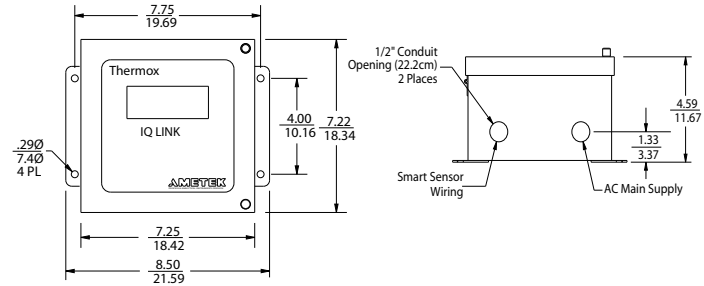


OPTIONAL FLOOR MOUNT VERSION AVAILABLE (VERTICAL PROBE)

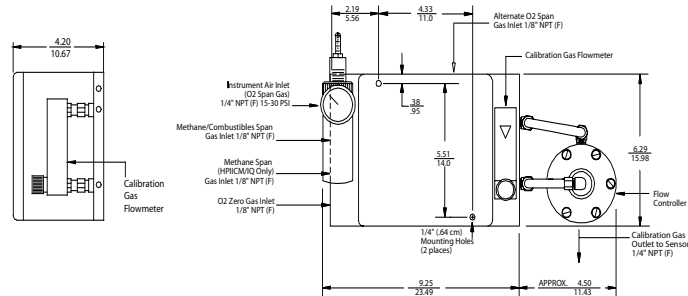
OPTIONAL: HINGED SENSOR ENCLOSURE APPROX. WEIGHT: 53 LB (24 KG)



WALL MOUNT IQ LINK - OPTIONAL APPROX. WEIGHT: 10 LB / 4.5 KG



REMOTE CALIBRATION UNIT RCU ENCLOSURE NEMA 4X - APPROX. WEIGHT: 8.0 LB (3.6 KG)



NOTES:

- Operating temperature of electronics inside the electronics housing is measured by IQ Link, RS247 Web Enabled Remote System, Series 200 Host, or Hart Communicator.
- All static performance characteristics are with operating variables constant.
- System accuracy referenced to 0.1 to 10% calibrated range.
- Response is to calibration gas.

AMETEK
PROCESS INSTRUMENTS

150 Freeport Road, Pittsburgh, PA 15238
Ph. +1-412-828-9040, Fax +1-412-826-0399
www.thermox.com



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SALES AND MANUFACTURING:

USA - Delaware
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