

THE RIGHT ANALYZER FOR *YOUR* APPLICATION!

WDG INSITU-CENELEC

FLUE GAS OXYGEN ANALYZER FOR HAZARDOUS AREA

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.

SENSOR



Principle of Operation: Direct-sensing insitu probe using zirconium oxide for net oxygen measurement.

Enclosure: Approved for CE 0081, Ex II 2 G, EEx d II C T3 (IP 65)

Output Range: From 0-1% to 0-100% O₂

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

Response: 63% of process step change in < 48 secs. at 55 km/hr. (34 mph) duct velocity

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

Max. Flue Gas Temp.: 677°C (1250°F)

Ambient Temp.: -20°C to 70°C (-50°F to 160°F)

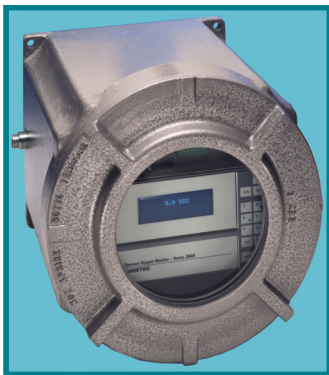
Power Requirement: 230 VAC ±10%, 47 - 63 Hz. (115 VAC optional); 150 VA max.

Calibration Gas: Use all calibration gases @ 0.7 kg/cm², 1.5 to 3 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

SERIES 2000 CONTROL UNIT



Display: Four-line x 20-character vacuum fluorescent. Displays combinations of oxygen, time and date, cell temperature, user programmable text, thermocouple mV or cell mV. Password protection, programmable pressure compensation and context-sensitive help are also provided.

Analog Output: Two isolated linear current outputs. Select oxygen, 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 1200 ohms.

Alarms: Two independent oxygen alarms, each high or low selectable. One alarm can be allocated to oxygen, calibrate or verify. Set relays to energize or de-energize on alarm.

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

Diagnostics: Watchdog timer and service alarms. System test for A/D, RAM, EEPROM and keypad. Display line 4 reserved for full text error and diagnostic messages. Twenty entry event log.

Communications: RS-485 2-way addressable

Environment

Ambient Temp.: -14°F to 122°F (-10°C to 50°C)
Relative Humidity: 0% to 80%, non-condensing

Enclosure: Approved for CE 0081, Ex II 2 G, EEx d II C T6 (IP65). For non-CENELEC area, optional weatherproof NEMA 4 (IP 56) wall/panel mount, GP (General Purpose) wall mount, GP 19" rack mount, GP panel mount, or stainless steel weatherproof NEMA 4X (IP 56) wall/panel mount. All are UL Listed for NEC Class I, Division 2 areas.

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.

Power Requirements: Nominal 115-230 VAC ±10%, 47-63 Hz; 75 VA max.

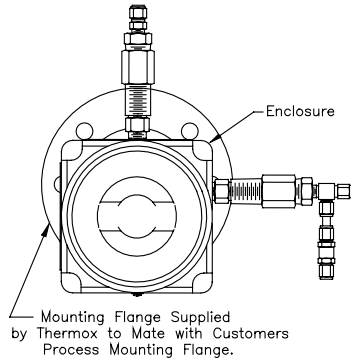
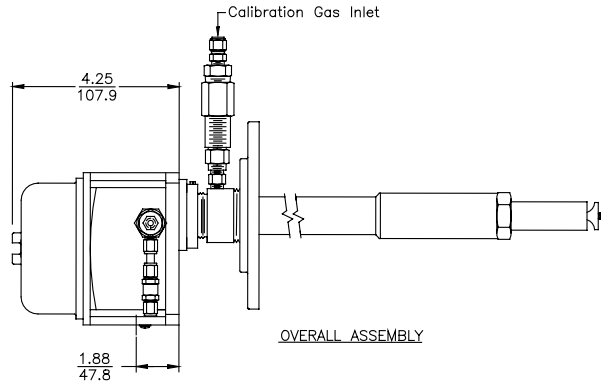
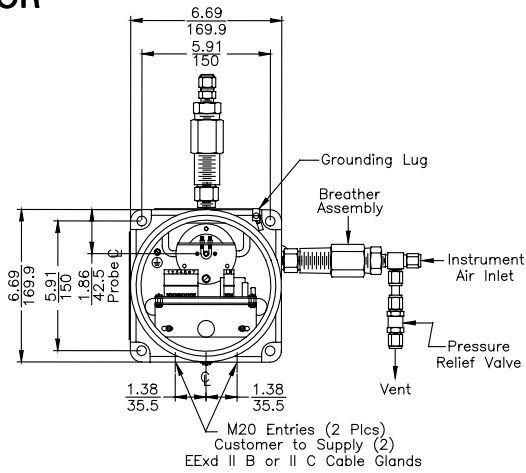
SYSTEM COMPLIANCE

ATEX Directive 94/9/EC
LCIE03 ATEX 6276X (Sensor)
LCIE01 ATEX 6028 (Controller)
EN50014 and EN50018
EMC Directive 89/336/EEC
Low Voltage Directive 73/23/EEC

DIMENSIONS

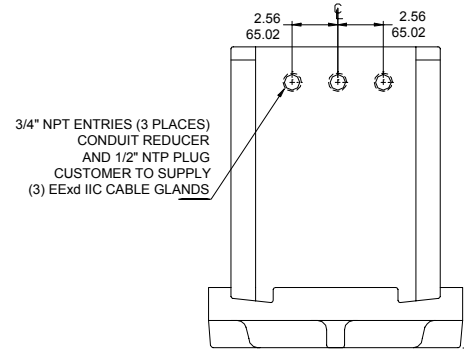
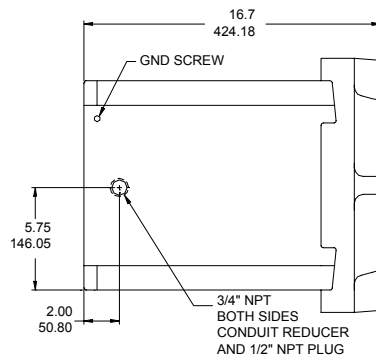
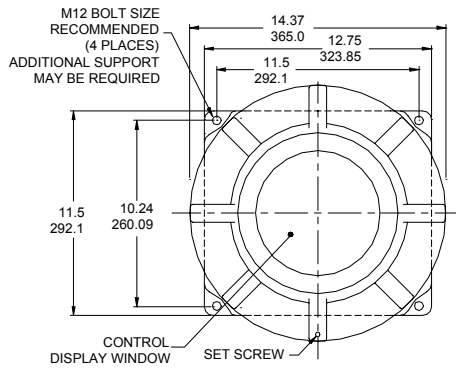
SENSOR

INCHES
MM



PROBE	INSERTION LENGTH
.5 m	.53 m (20.88 in)
1 m	1.06 m (41.88 in)
2 m	1.99 m (77.88 in)

CONTROL UNIT



NOTES: 1. All static performance characteristics are with operating variables constant. 2. System accuracy referenced to 0.1to 10% calibrated range.

One of a family of innovative process analyzer solutions from AMETEK Process Instruments. Specifications subject to change without notice.

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