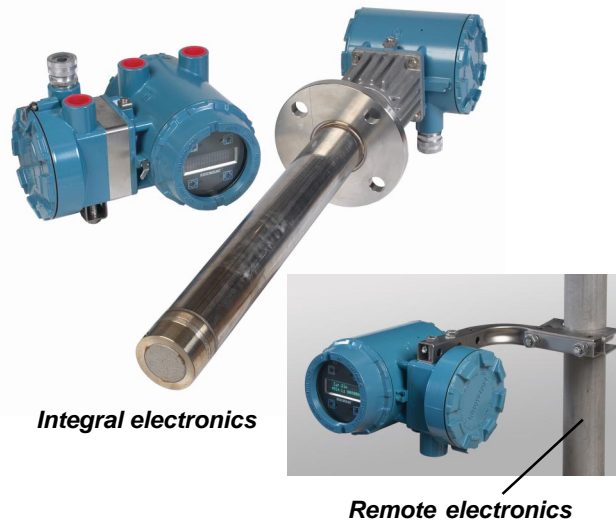


In Situ Oxygen Transmitter

- Outstanding accuracy
- Electronics mounted to probe or separate
- Adaptable to any existing O₂ probe installation
- Advanced sensor diagnostics
 - alarm indicates when calibration is recommended
- Optional explosion-proof rating
 - ATEX II 2 G EExd IIB + H2 T2/T6
 - Class I, Div. I, Groups B, C and D
- Digital HART® communications FOUNDATION™ fieldbus
 - AMS/PlantWeb® compatible
- Fully field-repairable



Integral electronics

Remote electronics

THE LATEST BREAKTHROUGH FOR COMBUSTION FLUE GAS ANALYSIS

The Oxymitter In Situ Oxygen Transmitter was the world's first in situ, zirconium oxide-based oxygen transmitter for flue gas measurement. These oxygen measurements can be used in a control system or by a boiler operator to fine tune burner fuel/air ratios for maximum efficiency. Ideal for:

- boilers
- process heaters
- kilns
- reheat furnaces

Emerson Process Management is the leader in oxygen flue gas analyzer technology. Our in situ, zirconium oxide oxygen analyzers have long been established as industry standards. We've combined our expertise with the latest Rosemount transmitter technology to create a truly revolutionary package – the Oxymitter.

The Oxymitter integrates an oxygen probe and field electronics into a single, compact package. The probe inserts directly into a flue gas duct to measure oxygen in combustion processes. No sampling system is required.

A NEMA 4X, IP 66 Rosemount transmitter housing mounts directly to the probe and contains the transmitter's electronics, replacing common stand-alone field electronics. This integrated design minimizes the costs of

installing separate probe cable, conduit and electronics. The Oxymitter electronics also require 95% less power to operate. So, its components last longer.

The HART® protocol provides a link into Emerson Process Management's PlantWeb® field-based architecture. Instrument technicians can interface with the Oxymitter from the control room or any location where the transmitter's signal wires terminate. Service diagnostics and calibrations can be performed remotely with a HART hand-held communicator or a personal computer equipped with AMS.

The Oxymitter is fully field-repairable. The probe's design provides convenient access to internal probe components so technicians can service the unit in house. The cell and heater/thermocouple are fully field-replaceable. The Oxymitter contains no potentiometer adjustments or jumpers.

The Oxymitter In Situ Oxygen Transmitter operates at process temperatures up to 1300°F (700°C), providing a fast response with high accuracy and reliability. Available lengths from 18 inches to 18 feet.

Optional accessories for the Oxymitter include:

- auto calibration gas sequencer
- remote, loop-powered Vacuum Fluorescent display of oxygen reading
- high temperature accessories for temperatures up to 1832°F (1000°C)
- flame arrestor
- abrasive shield



Contact Esys for more information about this product:
Esys® The Energy Control Company™
4520 Stine Road, Ste 7
Bakersfield, CA 93313
(661) 833-1902

email: esys@esys.us
website: <http://www.esys.us>



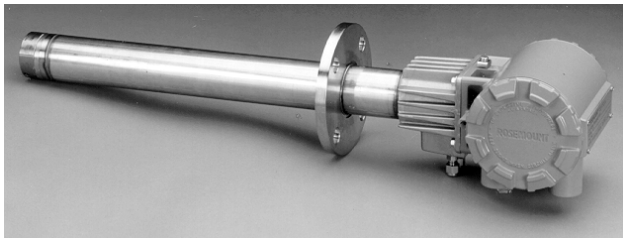
THE OXYMITTER OXYGEN TRANSMITTER IS COMPLETELY FIELD-REPAIRABLE



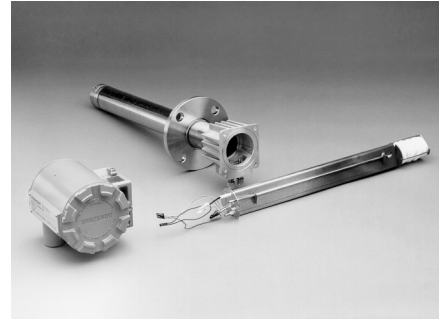
Diffusion Filter and Sensor Cell Assembly

- Outstanding accuracy— + or - .75% of reading or .05% O₂
- Special cells for tough service in SO₂ and HCL
- Rugged steel cell holder – cells will not crack

General Purpose – OXT4A/5A



- Lengths from 18" (.9m) to 18' (5.5m)
- ANSI, DIN and special flanges (1.8m) (5.5m)
- Flat-faced (snubber), Hastelloy and Ceramic Diffusers



Heater/Thermocouple Assembly

Hazardous Area – OXT4C/5C

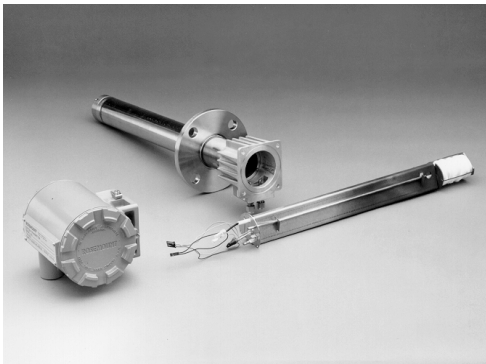


- ATEX II 2 G EExd IIB + H2 T2
- CSA/FM Class I, Div. I, Groups B, C and D
- Lengths from 18" (.9m) to 6'

Electronics

- -40°F to 185°F (-40°C to 70°C) ambient temperature limit
- HART or FOUNDATION™ fieldbus communications
- "Calibration Recommended" diagnostic

Integral to Probe



- Lowest cost of installation
- No cable or conduit between probe and electronics
- No separate electronics to mount

Remote Mounted



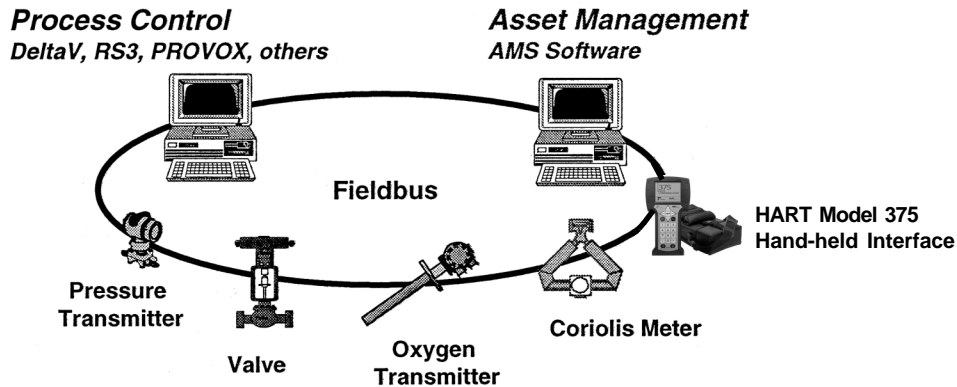
- Probe to electronics cable lengths to 200 feet
- Bright gas fluorescent local operator interface (LOI)
- Thru-glass infrared pushbuttons (LOI also available on integral electronics version)

DIGITAL COMMUNICATIONS

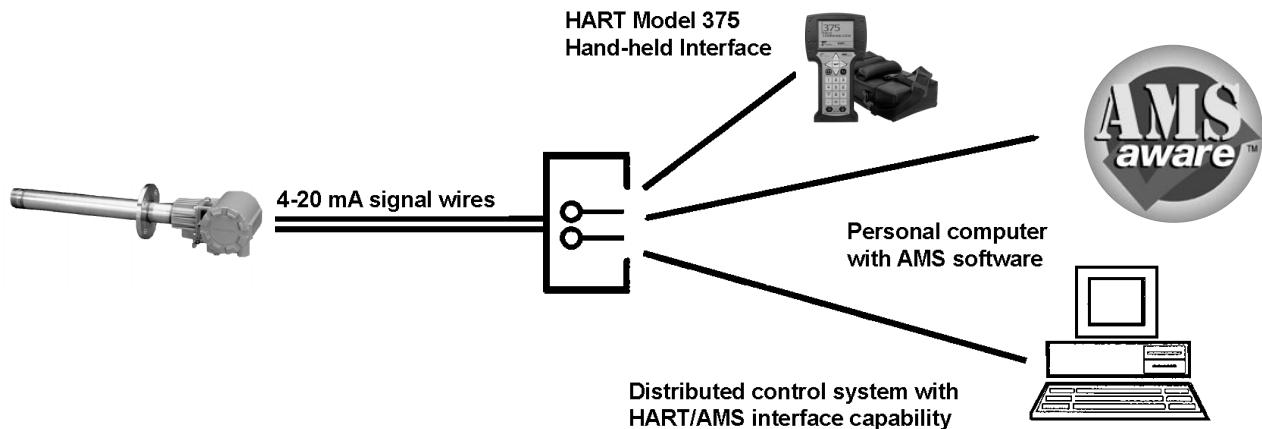
Communicate with the Oxymitter via the FOUNDATION™ Fieldbus Protocol

OXYMITTER OXYGEN TRANSMITTER FEATURES AND BENEFITS

Features	Benefits
Rapid, accurate and reliable measurement of excess oxygen with a single in situ transmitter.	Provides inputs for significant fuel savings which normally pay for the analyzer in less than one year; best accuracy specification in the industry!
Integrated oxygen probe and electronics simplifies installation.	Eliminates costs of mounting separate electronics. Eliminates cabling and conduit between probe and electronics.
In situ design. No sample system, sample probes, scrubbers, or pumps are necessary; test gas calibration check without disturbing the probe.	Low installation and maintenance costs.
Fast speed of response.	In situ design ideal for closed loop control.
"Calibration recommended" indication. On-line electrical CAL check indicates need for calibration.	Optimizes plant resources; reduces maintenance and calibration costs.
Field-replaceable cell, heater/thermocouple assembly and plug-in electronics module.	Ease of maintenance.
Suitable for use in process temperatures up to 1300°F (700°C). Optionally up to 1832°F (1000°C).	Suitable for use in most combustion applications.
Material of construction 316 LSS (all wetted parts).	High resistance to corrosion.
Cell sensitivity increases logarithmically when oxygen decreases.	Very useful for low oxygen levels. Ideal for low excess air burners.
Automatic line voltage selections.	Automatically selects from 100 to 240 VAC and 50/60 Hz. without configuration or set-up.



Communicate with the Oxymitter from almost anywhere via the HART™ Protocol

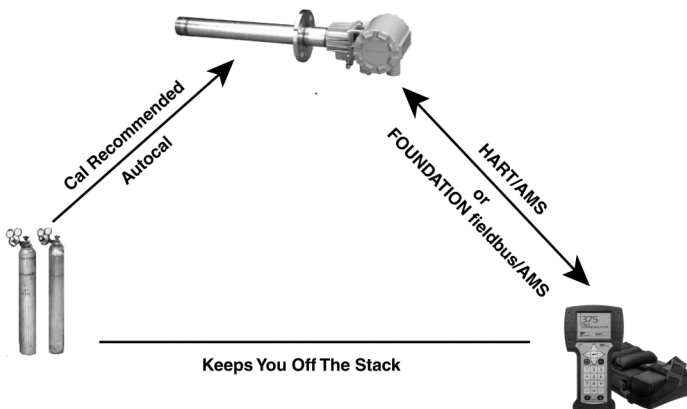


AUTOMATIC CALIBRATION OPTIONS

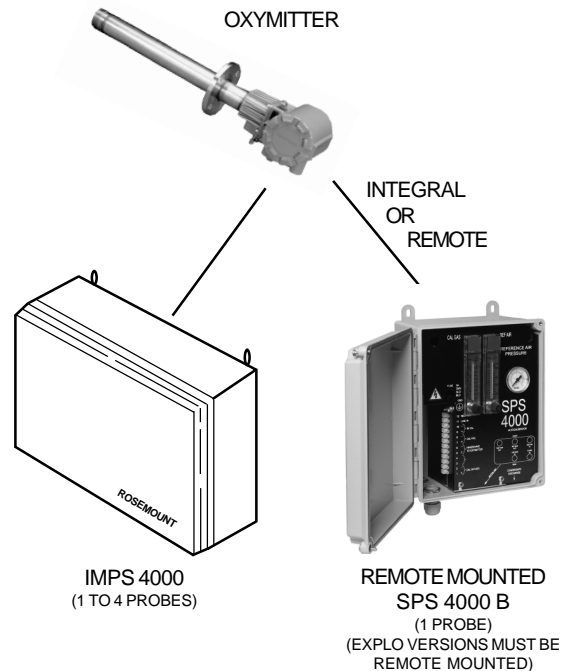
Plant personnel often ask how often an oxygen analyzer requires calibration. The answer is very application-dependent, based upon the fuels being burned, normal levels of oxygen and the sulfur content in the flue gases. The Oxymitter addresses this concern by providing an on-line diagnostic that determines when a calibration should be conducted. The Oxymitter electronics has an on-line impedance measurement of the sensing cell. This feature can trigger a fully automatic calibration via the SPS 4000, ensuring that the analyzer is always accurate. Also, many needless calibrations based on "time in service" are eliminated.

A contact closure notifies the control room when a calibration is taking place. The oxygen output signal can be held at its last value, or released during calibration. The Oxymitter can also initiate calibrations by traditional methods:

- Contact closure from the user's control room
- Time since last calibration feature – established by the autocalibration system
- Local operator interface (LOI) or keypad
- HART/FOUNDATION™ fieldbus communications or Asset Management Solution



OXYMITTER AUTOCALIBRATION SYSTEM INSTALLATION OPTIONS (For details, see Product Data Sheet 106-340AC)



See page 16 for ordering information.



Contact Esys for more information about this product:
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email: esys@esys.us
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