WDG-VCM
FLUE GAS OXYGEN, COMBUSTIBLES & HYDROCARBON ANALYZER
Close-coupled extractive design for fast response in a wide range of flue gas applications up to 3000°F (1648°C). Completely field serviceable.

SENSOR
Principle of Operation: Zirconium oxide for net oxygen measurement and dual hot-wire catalytic detectors for both combustibles and methane.
Output Range:
Oxygen: From 0-1 to 0-100% Combustibles: 0-1000 PPM with Overrange
0-2,000 PPM to 0-10,000 PPM, 0-2 to 0-5%
Hydrocarbon: 0-5%
Accuracy:
Oxygen: ±0.75% of measured value or ±0.05%, whichever is greater
Combustibles: ±2% of full scale output range
Hydrocarbon: ±5% of full scale output range
Response:
Response to Calibration Gas: Less than 3 seconds
Oxygen: 90% of a step change < 11 seconds with Flame Arrestors
Combustibles & Hydrocarbon: 90% of a step change < 20 seconds with Flame Arrestors
Aspirator Air Requirements: 3 SCFH Typical at 3 to 6 psig, Instrument air or Nitrogen
Analog Output: Three isolated linear current outputs for O₂, combustibles and hydrocarbon. Each output can be 4-20 mA, 0-20 mA, 20-4 mA or 20-0 mA and is fully scalable.
NAMUR Configurable. Hold or track during calibration. Max. load 1200 Ω
Alarms: Five independent, NO alarms
Set relays to energize or de-energize on alarm
Contact Rating: 0.5A, 30V, 10VA max. non-inductive load, AC or DC
Digital Communication: 2 wire MODBUS RTU, AMETEK configuration software, or AMEVision HMI

Diagnostics: Low Sample Flow, Cell & Detector age tracking, Cell resistance, Calibration required, Analog current verification
Calibration: Calibrate or verify calibration. Stored calibration and verification data. Selectable calibration gas run time and process recovery time. Timed automatic calibration with optional Remote Calibration Unit.
Sample Pressure: ±6 in. water gauge
Max. Sample Dewpoint: 392°F (200°C)
Power Requirements: 115 VAC, ±10%, 47-63 Hz, 740 VA max.; 230 VAC, ±10%, 47-63 Hz, 740 VA max.
Calibration Gas Requirements: Use calibration gases @ 10 psig, 3 SCFH (0.7 L/min.)
O₂ Span Gas: Air or from 1.0% to 100% O₂, balance N₂
O₂, Comb. & CH₄ Zero Gases: From 0.1 to 10% O₂, balance N₂
Comb. Span Gas: 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
Hydrocarbon Span Gas: 2% CH₄, 8% to 10% O₂, balance N₂

AMEVISION HMI
Display: 4.2” Color 1/4W VGA with Graphical User Interface. Password protected.
Keypad: 18 key, Membrane
Input: 2 wire MODBUS RTU from Sensor. Host capable up to 4 sensors
Digital Outputs: 2 or 4 wire MODBUS RTU, TCP/IP Ethernet with embedded Web Server (RJ45 connection), USB Port for Data collection or software update.
Environment:
Ambient Temp.: -25° to 60°C
Power Requirements: Nominal 115-230 VAC ±10%, 47-63 Hz, 75 VA max.
Enclosure: IP65 (NEMA 4X); Division 2 or optional Zone 2
System Compliance:
EMC Directive 2004/108/EC
Low Voltage Directive 73/23/EEC