



cosa+xentaur
INNOVATIVE MEASUREMENT SOLUTIONS

COSA 9700

Wobbe Index / Calorific Value / CARI



Applications

- Waste Fuel Gases
- Bio-gas
- Flare stack monitoring
- Turbine control
- Combustion optimization
- Gas blending
- Steel Industry

Features

- High Precision ($\pm 0.4\%$ of reading)
- Fast Response ($T_{90} < 5$ sec for WI and CV)
- Large Measurement Range
- Residual Oxygen Method (No Flame) with optional measurement of oxygen in sample stream
- High Temperature Furnace (1050°C)
- Low Maintenance
- Small Dimensions
- Outdoor Installation without further enclosure

The Cosa 9700 is a fast response calorimeter for the on-line monitoring of Wobbe Index (WI), Combustion Air Requirement Index (CARI) and Heating Value (HV). The COSA 9700 is based on the Residual Oxygen Method (ROM), thus avoiding the use of a flame. The analyzer is immune to ambient temperature fluctuations and can be installed outdoors or in harsh environments. The high furnace temperature of 1050°C , converts all sulfur constituents into SO_2 , thus eliminating corrosion issues with the exhaust gas. Optionally, the oxygen concentration in the sample can be measured continuously and the residual oxygen is offset accordingly. Further options include simultaneous measurements of sulfur and hydrogen concentrations.

SPECIFICATIONS:

Analyzer Performance:

Model: COSA 9700

Sample Gas: Natural gas, fuel gas, refinery gases, biogas etc.

Range (WI): 0-2730 BTU/SCF (0-108 MJ/Nm³),
Span 1150 BTU/SCF (45.3 MJ/Nm³)
(selectable)
CARI: 0-20, span 0-10)

Accuracy (WI): ±0.4% of reading for natural gas
±2.0% of reading for Raffinerie-Gas
and gases with large variations of
constituents

Repeatability ±0.7 BTU/SCF, (27.6 kJ)

Drift 0.4 BTU/SCF, (15.7 kJ/Nm³/24 H)

Response Time T90 < 5 Seconds (WI und HV)

Ambient Temperature Standard: 10°C to 40°C
Extended Range: -40°C to +50°C

Outputs 2 x isolated 4-20mA with
programmable span
TCP/IP Webservice
Modbus 232/485
Backlit LCD screen Malfunction
relay

Specific Gravity (optional) ... Range: 0.2-2.2 rD
Accuracy: ±0.1% of reading

Utilities:

Power supply 110 VAC, 50/60 Hz or
220 VAC, 50/60 Hz

Power consumption 430 VA maximum

Instrument Air Analyzer:
20 SCFH at 42 PSIG (0.53 Nm³h at
1.4 bar)
Z-purge:
40 SCFH at 80 PSIG (1.06 Nm³h at
5.5 bar)

Sample flow: 2 SCFH at 28 PSIG (950 ccm/min at
2 bar)

Installation:

Mounting SS Frame

Dimensions 19.63" x 71" x 18.07" / Free
Standing (496 x 1803 x 459 mm)

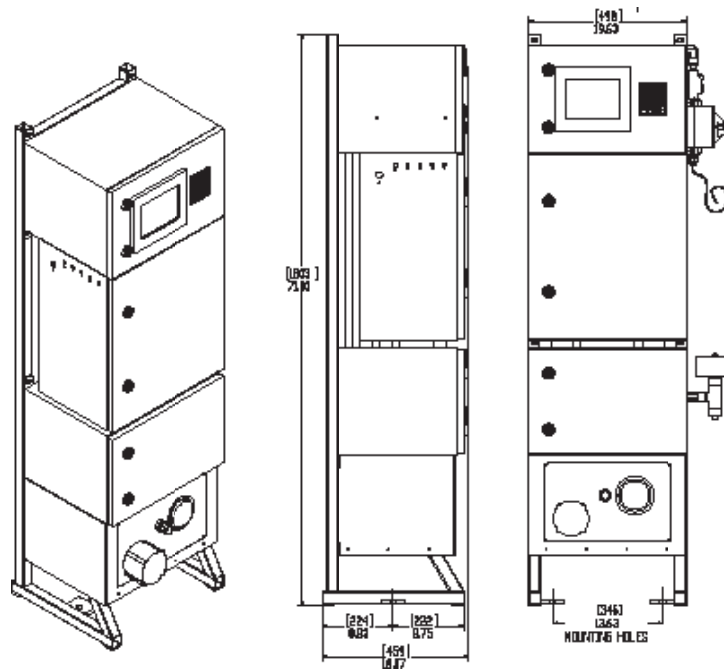
Weight 110 lbs (50 kg)

Weatherproof Protection: IP66 (NEMA 4X)

Hazardous Area Classification Designed for
installation in:
..... Class 1 Division 2 Groups A, B, C and
D (Z-purge)
..... Class 1 Division 1 Groups A, B, C
and D (X-purge)

Certifications Ex ib px II T6 Gb Ta=+5C to 45C,
IP66, II 2G, FM11ATEX0006X,
IECex. FMG 16.0030X

DIMENSIONS:



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