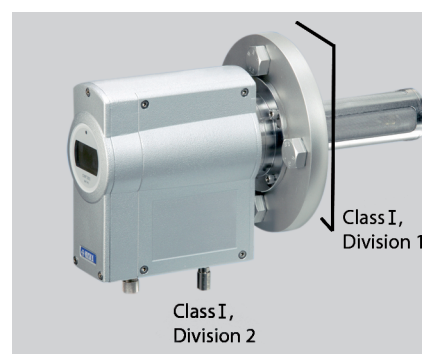
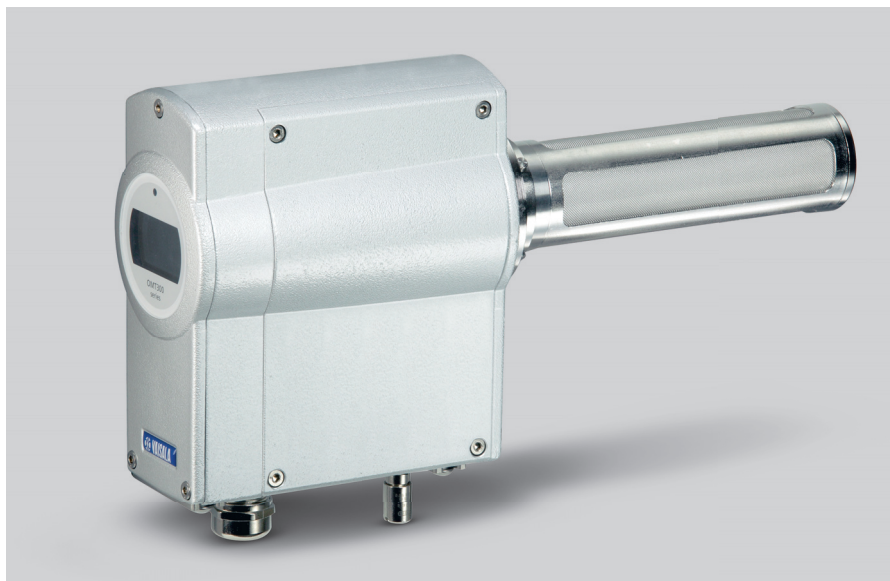


OMT364 Oxygen Transmitter for Hazardous Areas



The Vaisala SPECTRACAP® Oxygen Transmitter OMT364 for hazardous areas.

Features/Benefits

- Minimizes need for sample conditioning equipment
- In-situ probe or sampling cell
- Tolerates aggressive chemicals
- Tolerates excessive amounts of moisture even in liquid form
- Low maintenance
- Calibration interval 12 months
- Software and keypad user interfaces and an LCD display
- Example applications: fermentation, composting process monitoring, inerting processes and flare gas recovery

The Vaisala SPECTRACAP® Oxygen Transmitter OMT364 is designed for oxygen monitoring in moist and aggressive process gases.

Laser based measurement

The OMT364 incorporates a compact tunable diode laser (TDL) gas spectrometer built in the measurement probe. This optical measurement technology is well known for unmatched stability and robustness. The patented SPECTRACAP® sensor offers uniquely TDL technology in a compact probe suitable for field use.

FM Approved OMT364 for Hazardous Areas

The non-incendive OMT364 transmitter is permitted for use in Class I, Division 2 of the NEC® 500 area classification according to FM Approvals SM . The probe of the

instrument can be installed in areas that are classified as Class I, Division 1 or 2.

Direct installation

In many applications, the OMT364 can be flange-mounted directly into a process. No sampling or sample conditioning equipment is needed. This feature provides real time measurement data without sampling or sample switching delays.

Sampling cell installation

An optional sampling cell is available for processes with high temperatures, elevated pressures or extremely difficult mechanical conditions. Due to the robustness of the SPECTRACAP® sensor and its low sensitivity to gas flow and pressure variations, the sampling system is simple and it can be installed near the sampling point.

Technical data

Performance

Measurement range	0 ... 100 % O ₂
Accuracy (including noise, linearity and repeatability)	±0.2 % O ₂
Temperature range over T range	±2 % of reading
Stability	±1 % of reading/yr
Zero drift	±0.1 % O ₂ /yr
Response time of measurement	3 s
Diffusion limited response in still air	T ₆₃ /T ₉₀
without filters	10 s / 20 s
with stainless steel mesh filter	10 s / 25 s
with stainless steel mesh filter and PTFE filters	30 s / 70 s
Pressure dependence without pressure compensation	
0.8 ... 1.2 bar	-2 % of reading
1.2 ... 1.4 bar	-5 % of reading
Accuracy of pressure compensation	±0.25 % of reading
Background gas effects for CO ₂ and H ₂ O uncompensated	
< 1% of reading for <6 vol -% CO ₂	
< 1% of reading for gas dew point < 30 °C	
Accuracy of background gas compensation	
0 ... 50 vol-% CO ₂	±0.5 % of reading
0 ... 300 g/m ³ H ₂ O (T _d =80 °C)	±1 % of reading

Operating environment

Operating temperature range for probe (in-line installation)	-20 ... +80 °C
electronics (housing) (Kalrez® seals)	-20 ... +60 °C
transmitter (ambient gas measurement)	-20 ... +60 °C
Storage temperature range	-55 ... +80 °C
Operating pressure range	0.8 ... 1.4 bar
Maximum pressure range for probe	up to 10 bar
Compliance	
IEC(EN)-61326 Electrical equipment for measurement, control and laboratory use. EMC requirements.	
Laser safety	Class 1 laser product

Classification

OMT364 CLASSIFICATIONS FOR THE TRANSMITTER	
USA and Canada	FM, Non-incendive for Class I, Division 2, Groups A, B, C, and D. T _a = -20 °C to +60 °C
OMT364 CLASSIFICATIONS FOR THE PROBE	
USA and Canada	FM, Suitable for Class I, Division 1, Groups A, B, C, and D. T _a = -20 °C to +80 °C

Inputs and outputs

Power supply	
input range	11 ... 36 VDC
Power consumption	
maximum	6W
typical	3W
Analog output	0/4 ... 20 mA sourcing
maximum load	500 Ω
Serial output (2-wire, non-isolated)	RS-485
Alarm/control relay	30 VAC/60 VDC

Mechanics

Housing material	G-AISI10 Mg (DIN 1725)
Probe material	AISI 316
Housing classification	IP66
Weight, transmitter and probe	2.2 kg
Weight, sample cell	2.6 kg
Mounting flange diameter	97 mm
Cable bushing	Cable gland M20 x 1.5
Stainless steel mesh filter	openings ø 310 µm
Wetted materials	
	AISI 316, Kalrez®, PTFE (optional), SiN, MgF ₂

Options and accessories

Hydrophobic PTFE filter, pore size 8 µm with Kalrez® O-rings	217056
1/2" NPT conduit fitting	217917
Sample cell with wall-mounting bracket	
gas fittings for O.D. 6 mm tube	
volume 260 m ³	
T63 response time with 1 l/min sample flow and mesh filter, 18 s	
with Kalrez® O-rings	216619

VAISALA

For more information, visit www.vaisala.com or contact us at sales@vaisala.com



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