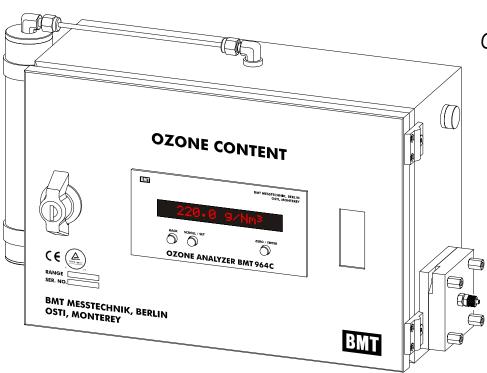




OZONE ANALYZER BMT 964 C

Cabinet Version of High Concentration Ozone Gas Analyzer



FEATURES

- Dual beam UV photometer
- Long-life mercury lamp
- Warranty 3 years, 5 years on the UV lamp
- High accuracy, error less than 0.5%
- Pressure and temperature compensated
- Ranges from 10 to 600 g/Nm³
- Built-in sample gas filter
- Built-in purge unit for automatic zeroing
- Failure warnings include: lamp low, cuvette dirty, overrange, summary error
- Key functions programmable via the front panel, or a Windows PC
- Display in g/Nm³, %wt/wt, or ppm_v
- · High and low limit alarms
- · Timing sequence for automatic zeroing
- Pressure readout in bar, psi, Torr or MPa
- 4-20mA and 0-10V isolated outputs
- RS-232 interface (bidirectional, isolated)

APPLICATIONS

- Ozone measurement in hostile environment
- Monitoring of ozone generator output
- Monitoring of residual ozone after a process
- Potable water treatment
- Waste water treatment
- Industrial ozone processes

The OZONE ANALYZER BMT 964 C is the wall-mount version of the standard BMT 964 (see data sheet of standard BMT 964) for application in a hostile environment. It is housed in a splash-proof IP 65 (NEMA 4X) aluminum cabinet, and is equipped with everything needed for fully automatic stand-alone operation.

Fully automatic means: a purge unit is provided which consists of a 3-way solenoid valve, and an air pump with particle filter, both being controlled by the automatic purge timer of the analyser. The system automatically purges the cuvette with clean, filtered air, and then zeroes the analyser. The zeroing interval may be chosen between 1 and 99 hours.

Stand-alone means: a sample gas filter is provided (external to the cabinet), a throttle valve, a flow meter (behind the front door), and a Catalyzing Cartridge (external). An external Dirt Trap to remove namely fluidic dirt before it can reach the analyser, may be provided on request.

Superior stability of the photometer is achieved by use of a true dual beam optical system with an extremely long-life mercury lamp. MTBF of the instrument, including the lamp, is in excess of 65,000 hours. Excluding the lamp it is 120,000 hours.



SPECIFICATIONS

measurement principle dual-beam UV photometer (254 nm),

no moving parts

MTBF instrument incl. UV lamp 65,000 h,

excl. UV lamp 120,000 h

UV lamp low pressure mercury lamp, long life design,

burnt-in for 300 h

display 16 character alphanumeric backlit LCD

concentration ranges 50, 100, 200, 300, 400, 500, 600 g/Nm³, selectable units g/Nm³, %wt/wt and ppm_v

optional ranges 10, 20 g/Nm3,

accuracy after zeroing the max. error is the sum:

0.4% of measurement + 0.1% of scale

repeatability error 0.2 % of measurement

response time 0.03 s (analog output), 0.3 s (display)

zero drift typ. 0.2% of range per day,

after warm-up, non-cumulative

max. inlet pressure 2.5 bar g max. outlet pressure 1.15 bar abs

ambient temperature 0 - 50°C (non-condensing)

materials in contact quartz (cuvette windows), Al₂O₃ (cuvette),

with ozone FFPM (window seals), PTFE (tubing), stainless steel (fittings, cuvette spacer)

inlet gas port for 3x5 mm (1/8" x 3/16") tubing, opt. 4x6 mm,

or 1/8" or 1/4" or 6mm Swagelok

Built-in sample gas filter is standard

outlet gas port for 4x6 mm tubing recommended flow rate 0.1 to 1 l/min typical

pressure drop approx. 5 mbar at 0.5 l/min

(throttle valve fully open) temperature compens. is standard

pressure compensation with built-in cuvette pressure transducer

units selectable: bar, psi, Torr, MPa

signal outputs concentration 4 - 20 mA (isolated, active)

concentration 0 - 10 V (isolated)

concentration alarms High Alarm, Low Alarm, latching, not latching

control input set to zero (24 V, 18 mA, isolated) control outputs relay contacts, 28 V, 0.5 A, isolated:

Lamp Low
Cuvette Dirty
High Alarm

Low Alarm error handling Error Relay: 30 V, 1 A,

summarizing instrument failures
Warnings and errors: Lamp Low Warning,
Lamp Low Error, Lamp Off Error, Cuvette
Dirty Warning, Cuvette Dirty Error, Overrange,

Overpressure

serial interface RS-232, bidirectional, isolated,

2400 - 38400 Baud

automatic zeroing with internal purge pump

and solenoid valve

only with pressure range 1.15 bara

software BMT 964 Link, instrument configuration,

readout of Event & Error Logs (Windows)

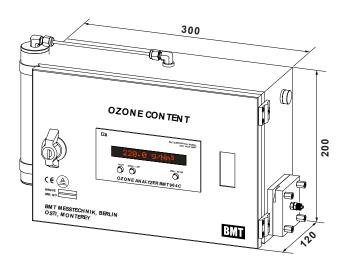
power wide range input: 100 - 240 VAC, 35 VA

dimensions (W x H x D) 300 x 200 x 120 mm (W x H x D)

weight 3.9 kg

compliance CE-marked (EMC & safety),

cTUVus NRTL-listed USCG 46 CFR 612.060-30



dimensional outline

The OZONE ANALYZER BMT 964 C is housed in a powder coated aluminum cabinet. The space needed (door open, sample gas tubing and cables connected) is approx. $480 \times 240 \times 420 \text{ mm}$ (W x H x D). The cabinet can be wall-mounted using the four brackets provided at the rear (four mounting holes 6 mm ID, spaced $240 \times 225 \text{ mm}$, W x H).

For sample gas connection (inlet gas port) 3x5 mm (or 1/8" x 3/16") PTFE tubing should be used. The BMT 964 C is also available with 1/8" or 1/4" Swagelok fittings.

Additional BMT Products (for details, refer to the appropriate data sheets):

- BMT 964 BT (Bench Top) for stand-alone applications on the bench, or in the field
- BMT 964 AQ and BMT 964 AQ-LC for ozone measurement in DI (de-ionized) water
- BMT 964 AQ/HF for ozone measurement in DI water with hydrofluoric acid
- Sample Gas Dehumidifier for drying of wet ozone sample gas
- BMT 932 Ozone Monitor for TLV monitoring in ambient air (1, 3 & 6 channels)

A broad spectrum of field-proven accessories - from simple fittings and tubing up to the thermoelectric sample gas dryer - helps the user with the application and installation of the OZONE ANALYZER BMT 964 C. Please ask for our assistance!

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