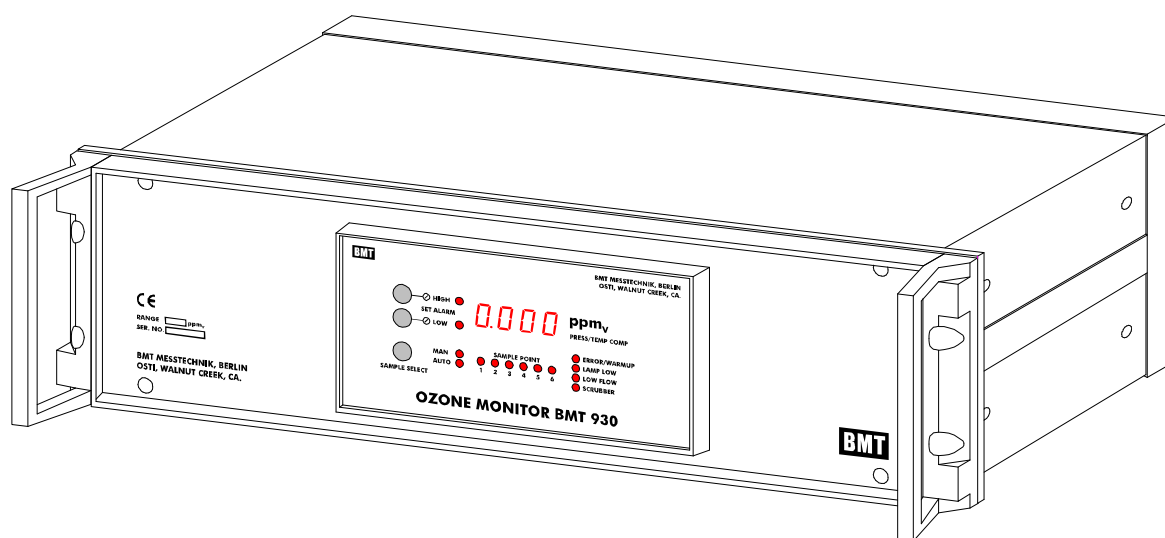


OZONE MONITOR BMT 930

*Low Concentration
Ambient Ozone Monitor*



FEATURES

- Dual beam UV photometer
- Warranty 2 years
- Long-life mercury lamp
- High accuracy, error less than 1%
- Resolution 0.001 ppm_v
- Pressure and temperature compensated
- Ranges from 1 to 250 ppm_v
- 19" rack mount, or cabinet versions
- Traceable to international standard (NIST)
- 1, 3, 6 channel versions
- Two threshold alarm levels
- Cycle time 20 s per channel
- Two scrubbers (utility + reserve)
- Ozone generator for automatically testing the utility scrubber every 24 hours
- Reserve scrubber automatically replaces the utility scrubber when it is faulty
- Sample gas flow 1 l/min, auto controlled via an electronic flow meter

APPLICATIONS

- Monitoring of ozone in ambient air
- TLV monitoring (Threshold Limit Value)
- Ambient monitoring in ozone plants
- Off-gas monitoring
- Monitoring in materials testing

The OZONE MONITOR BMT 930 is a state-of-the-art UV photometer for measuring and monitoring ozone content of the ambient air.

The instrument may be ordered with 1, 3, or 6 sample channels. Switching from channel to channel is automatic, or manual via push button.

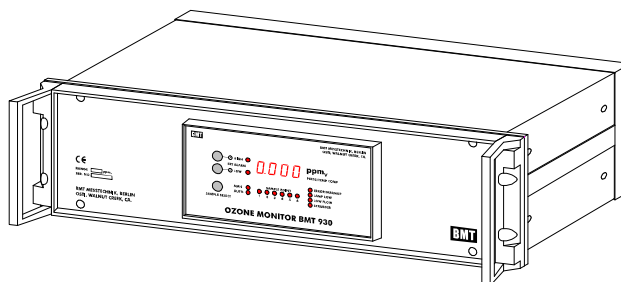
The BMT 930 has two scrubbers (the scrubber is one of the most important elements of an ambient ozone monitor). And it has a built-in ozone generator for intermittent automatic testing the utility scrubber. When this scrubber fails in completely removing the ozone from the sample ozonated by the ozone generator, the instrument automatically switches from the utility to the reserve scrubber, and activates the warning signal SCRUBBER indicating a scrubber failure.

The sample gas flow rate is maintained constant by a pump which is automatically controlled by a built-in electronic flow meter.

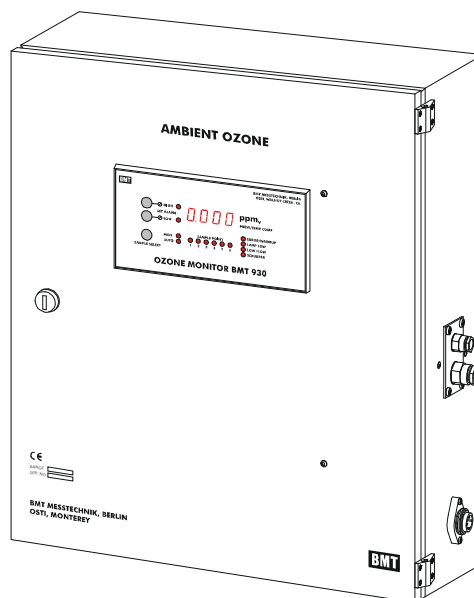
The highly stable UV radiation source has a life expectancy of several years. When the lamp's performance drops significantly, the early warning signal LAMP LOW is activated indicating that the lamp has to be replaced during the next months.

SPECIFICATIONS

| | |
|--|--|
| Measurement principle | Dual-beam UV photometer (254 nm) |
| UV lamp | Low pressure mercury lamp, long life design, burnt-in for 300 h |
| Display | 7-segment, bright red LED (13 mm), 4 digits |
| Concentration range | 1 ppm _v |
| Optional ranges | 10, 100, 250 ppm _v |
| Noise | ±0.001 ppm _v |
| Min. detectable Conc. | 0.002 ppm _v |
| Accuracy | ± 1 %, traceable to NIST |
| Response time | 20 s (0 - 95 %) |
| Temperature compensation | Standard |
| Pressure compensation | Standard |
| Flow rate | 1 l/min, automatically controlled by an electronic flow meter |
| Sample ports | 1, 3 or 6 (please specify), automatic and manual selection of sample port |
| Scrubber life | > 4 years (safety monitor operation) |
| Threshold alarms | Two, adjustable, with threshold alarm relays (Relay Box) included for each sample port |
| Error relay | Indicating any instrument failure, including Lamp low (one reserve lamp included, easy lamp replacement) Low flow Scrubber failure (tested for every 24 h, reserve scrubber takes over automatically) Warmup |
| Gas ports | Compression type for 1/4" PFA tubing Safety catalyst for off gas included |
| Signal outputs | Concentration 4-20 mA (isolated, active) Concentration 0-1 V, 0-10 V (isolated) Sample port identification by Relay Box |
| Control output | Lamp low (relay contact, 30 V, 1 A) |
| Digital interface | RS-232, showing concentration, threshold alarms, and error messages Hardware prepared for DeviceNet |
| Spare parts and accessories kit, including | UV lamp Scrubber Two filter holders per sample port, and 200 inserts Miscellaneous accessories |
| Warmup time | 5 min. max., 2 min. typical |
| Power | Universal line voltage: 85 - 264 VAC, 25 VA, 50/60 Hz optional: 18-36 VDC, 25W CE-marked (EMC and safety) |
| Ambient temperature | 0 - 45 °C (non-condensing) |
| Cabinet version | IP65, NEMA 4X |
| Dimensions (HxD) | 132x300 mm (19" rack mount) |
| (WxHxD) | 400x500x150 mm (wall mount BMT 930 C) |
| Weight | 10 kg (19" rack mount) 15 kg (wall mount BMT 930 C) |



19" rack mount version



Cabinet version
(IP65, NEMA 4X)

The OZONE MONITOR BMT 930 comes in a 19" rack mount enclosure 132 x 300 mm (H x D), or in a wall mount steel cabinet 400 x 500 x 150 (W x H x D). This cabinet is named BMT 930 C. The cabinet can be wall mounted using the four brackets provided at the rear (four mounting holes 6 mm ID, spaced 340 x 525 mm, W x H).

Dirt, organic compounds, and other contaminants in the ambient air can react with the ozone in the sample gas tubes. It is important that the sample gas tubes and the ozone monitor are kept clean inside. Therefore filters have to be provided at the inlet ports of the sample tubes. Filter holders and filter inserts are shipped with the instrument.

The filter inserts are of fine pure glass fibre felt to remove aerosol particles without affecting the ozone. This latter property may decrease with increasing dirt being retained by the filter. Therefore the filters should be replaced on a regular basis. Each user must determine the replacement interval optimum for the specific situation.

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