

BIO-ZAW

BOD / Toxicity Analyser



The BIO-ZAW series features online analysers for the short-time measurement of the biochemical oxygen demand (BOD) and toxicity assessment.

The employed biomass is taken from the plant, making BIO-ZAW a reliable support when assessing the plant's treatment capacity.

Available in three different housings: Standing with castors as BIO-ZAW-LAB, wall-mounted as BIO-ZAW-PRO or as BIO-ZAW-FIX in a heated stainless steel cabinet for outdoor installation at the site of measurement.

- Genuine biology
- No reagents required
- Easy operation
- Low operating costs

Method

The BIO-ZAW monitors the oxygen concentration of a sample of biomass in its measurement tank. Bacteria in the sample consume oxygen with their metabolic processes. The observed respiration, the biochemical oxygen demand, is a measure for biological activity. It is one of the most important criterions to determine the performance of a biological treatment step.

Toxic contaminants in the sample water reduce the biological activity and can therefore easily be detected by the measurement of respiration.

No sample preparation is necessary. Sample intake and discharge are performed via a shared tube. A suction basket prevents larger particles from being sucked in, avoiding damage to the analyser.

Applications

Wastewater treatment plants

General technical data

BIO-ZAW Series Analysers

| | |
|--------------------|---|
| Measuring method | Respirometry |
| Measuring cycle | Adjustable |
| Measuring range | 0~300 mg/lh O ₂ |
| Response time | < 10 min |
| Repeatability | ± 1% of full scale |
| Sample feed | self-suction |
| Suction height | max. 5 m |
| Sample volume | 0.4 l/measurement cycle |
| Signal output | 4~20 mA, RS 232, optional RS 422 |
| Alarm output | Potential free contact |
| Power supply | 230 V AC ± 10%, 50 Hz, optional 115 V AC ± 10%, 60 Hz |
| Sample temperature | 4~35 °C |

Housing data

BIO-ZAW-LAB

| | |
|---------------------|----------------------------------|
| Description | Sheet steel housing with castors |
| Power consumption | Max. 350 VA |
| Ambient temperature | 10~35 °C |
| Dimensions | 690 mm × 1780 mm × 690 mm |
| Weight | Approx. 95 kg |
| Protection class | IP 44 |

Product code 747 910



BIO-ZAW-PRO

| | |
|---------------------|---------------------------------------|
| Description | Sheet steel housing for wall mounting |
| Power consumption | Max. 350 VA |
| Ambient temperature | 10~35 °C |
| Dimensions | 600 mm × 1140 mm × 400 mm |
| Weight | Approx. 80 kg |
| Protection class | IP 44 |

Product code 747 920



BIO-ZAW-FIX

| | |
|---------------------|---|
| Description | V2A stainless steel isolated with 40 mm PU foam |
| Power consumption | Max. 450 VA |
| Ambient temperature | -20~45 °C |
| Dimensions | 720 mm × 1930 mm × 720 mm |
| Weight | Approx. 140 kg |
| Protection class | IP 65 |

Product code 746 900



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