

Dissolved Oxygen Transmitter (for Low-Concentration Measurement)

Model : OBM-100H

Model OBM-100H is a panel mount type dissolved oxygen (DO) transmitter for low-concentration measurement that is compact and light-weight.

This product equips DC 4~20 mA transmission output signal and two alarm contacts (a-type contacts for upper-limit and lower-limit alarms), and is driven by a universal AC power supply.

Polarographic electrodes for low-concentration measurement, including type 7561. For details, see the separate detector specification sheet.



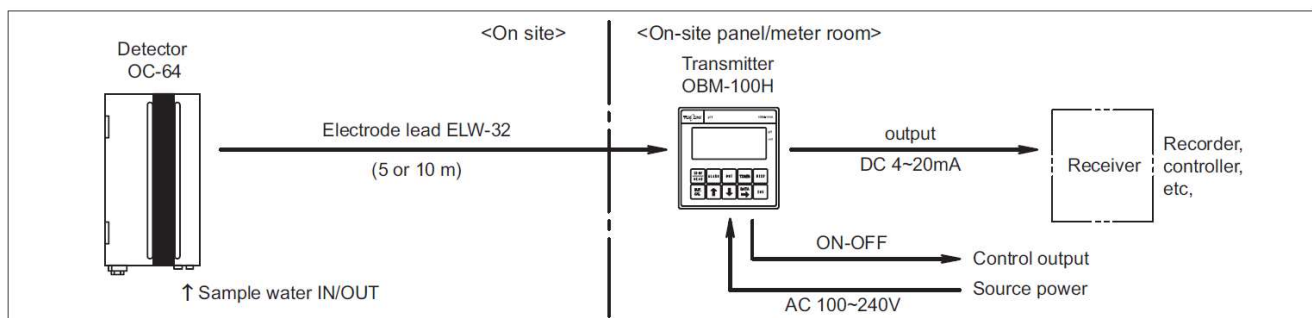
features

- Display to the second decimal place within a minimum meas. range of 0.00~50.00 µg/L
- In addition to dissolved oxygen (DO), this product can also measure and display the dissolved oxygen saturation ratio (SAT), oxygen (O₂) in gas, temperature (TEMP), and atmospheric pressure (hPa).
- Simple and reliable span calibration by ambient air using a built-in pressure sensor to eliminate the influence of variations in atmospheric pressure.
- Quick response at the start of measurement: An internal battery continually applies voltage to the electrode while the AC power is OFF (during which no measurements are made).
- Combined with OC-64 allows for accurate measurements while consuming only a small amount of sample water (100 mL/min.).
- Response to meter failures: To output a contact signal and trigger burnout (to maximize the transmission output).
- Optional RS-232 interface to data transfer to a PC.

Standard Specifications

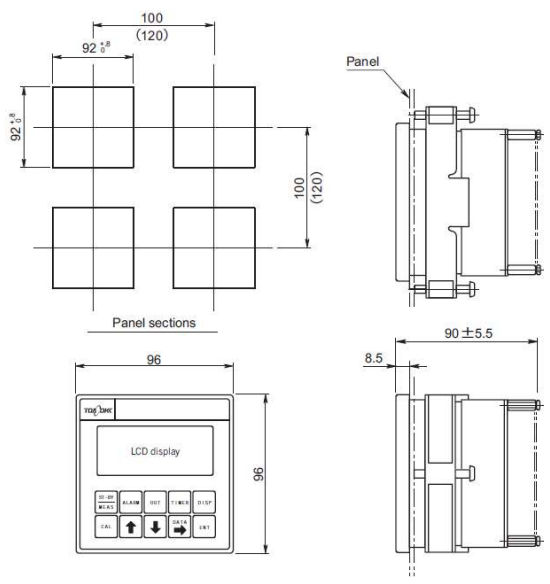
Product name	: DO Transmitter
Model name	: OBM - 100H
Measurement ranges	: DO 0.00 µg/L ~ 20.00mg/L SAT 0.000 ~ 200.0% O ₂ 0.000 ~ 25.00% TEMP..... -5.0 ~ 100.0 °C Atmospheric pressure ... 850 ~ 1150 hPa Output signal for DO only Other parameter are display only
Least displayed value	: DO 0.01 µg/L SAT 0.001% O ₂ 0.001% TEMP..... 0.1 °C Atmospheric pressure ... 1 hPa
Performance	: Linearity ... within ±0.6%FS (by equivalent input)
Temperature compensation	: Temperature compensation range -1.0 ~ 50.0 C° Temperature Compensation accuracy ± 0.5 C°

Configuration

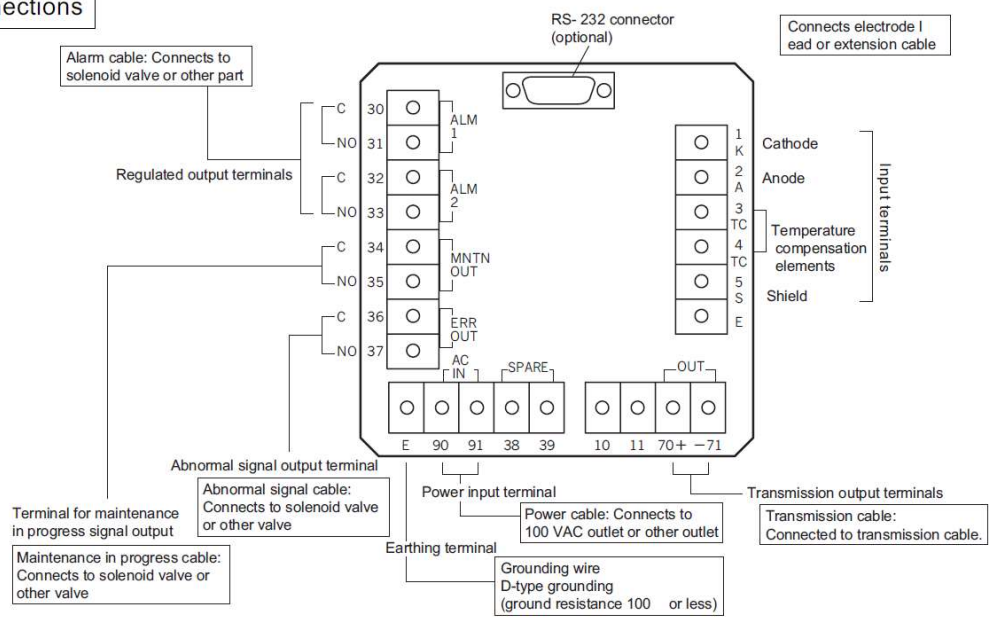


Output	: Isolated *** DC 4 ~ 20 mA, load resistance of 650 Ω or less	Calibration: Zero	: Zero ; (1) Zero electricity (2) Zero solution (automatic calibration)
Alarm outputs	: Number of contacts *** 2 points, contact a (upper and lower limits) Maintenance in progress signal *** 1 point contact a Abnormal signal output *** 1 point contact a Contact capacity *** AC 250V 3A or less, DC 30V 3A or less (resistance load)	Span ;	(1) Ambient air or air saturated water (automatic atmospheric pressure compensation, automatic/manual) (2) Registered values
Maintenance in progress signal output	: Closed contact signal output in maintenance mode Contact capacity *** AC 250V 3A or less, or DC 30V 3A or less(Load resistance)	Atmosphere ;	Manual calibration
Abnormal signal output	: Closed contact signal output when the temperature of sample water exceeds the temperature compensation range. Contact capacity *** AC 250V 3A or less, or DC 30V 3A or less (resistance load)	Others	: Voltage is applied to the electrode when the meter stops.
		Ambient temperature	: -10 to 50°C, 90% RH or less (non-condensing)
		Power	: AC 90 ~ 264V 50/60Hz
		Power consumption	: Approx. 5 VA
		Structure	: Panel mounted, indoor use
		Mass	: Approx. 0.5 kg
		Communication	: RS- 232 (optional)

Dimensions Unit : mm



Terminal Connections



■ Combined Detector OC-64

- Suitable for measurement of boiler water in power plants and pure water in semiconductor plants.
- Trace sample water consumption
- Combined electrodes: 7561L/7562L, electrode lead ELW-32



Sample conditions : Temperature *** 0 ~ 45°C
Flow rate *** Constant flow rate within 100 ~ 300 mL/min
Pressure ***
Inlet pressure ; 0.05 MPa or less
Outlet pressure ; Open to atmospheric pressure
Inlet : Rc1/4 (Both sample inlet and outlet)
Ambient temperature : 0 ~ 40°C, Max.90% RH and humidity
Dimension : Approx. 4 kg
External dimensions : 220 (W) X 400 (H) X 80 (D) mm
Mounting : Wall mount, or 50A pipe mount
Materials : Case *** PVC coated SPCC
Measurement cell *** Heat-resistant PVC
Tubing *** Nylon
Construction : Rain proof type (JIS C 0920)
Surface color : Metallic silver and blue

■ Low-Concentration Dissolved Oxygen Electrodes 7561L/7562L

- Polarographic-membrane type dissolved oxygen electrode for low-concentration DO measurements.
- Use of dual cathode structure for low-to-high concentration measurements allows for quicker response.
- Not susceptible to interference gases, such as hydrogen and carbon dioxide that dissolved during low-concentration measurements.
- Use of cartridge-type diaphragm allows for easier maintenance (easier replacement of inner solution).
- Environment-conscious design. Polarographic membrane type eliminates the use of lead within the internal electrode, as well as the use of strong acidic and alkaline reagents.

Measurement method : Polarographic-diaphragm type
Operational : 0 ~ 45°C
temperature range
Operational : 0.5 MPa or less
pressure range
Measurement range : 0 µg/L ~ 20 mg/L
Minimum limit of : 0.1 µg/L
detection
Output : Approx. 9µA (at saturation in atmosphere)
Response time : 90% of all responses made within 15 seconds (from atmosphere to zero liquid at 25°C)
Flow : 100 ~ 300 mL/min.
(OC-64 embedded flow cell used)
Repeatability : ± 2% F.S. or less



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⚠ CAUTION

Do not operate products before consulting instruction manual.

For continuous product improvement, DKK-TOA reserves the right to change specifications without notice.