# SPECIFICATION SHEET

### **DO SENSOR UNIT**

## 7561L/7562L/7563L7564L OC-64

This is a membrane polarographic dissolved oxygen electrode for low concentration. The double-cathode structure provides excellent linearity from low to high concentrations, as well as responsiveness and repeatability.

By incorporating this electrode into a flow-cell OC-64 detector, accurate measurements can be made with low flow rate (100 to 300mL/min) sample water.

The combinatorial transmitter is either a ODM-100A/110A or OBM-100H/300 type for measuring low densities.

#### Features

- ○The 90% response time from the atmosphere to the zero solution (25°C sodium sulfite water) is within 15 seconds, and the convergence time to the zero indication also has very fast response characteristics.
- ○Models are available that are less susceptible to dissolved hydrogen and carbon dioxide at low concentrations (e.g., 0 to 100µg/litre). (7561L type, 7562L type)
- ○As there are two types of body materials, PP and SUS316, they can be selected according to the plant facility.
- OThe cartridge-type membrane unit facilitates replacement of the internal liquid.



Product name	: DO Sensor Unit	
Model	: 7561L/7562L/7563L/7564L	
Measurement principle	: Diaphragm type polarographic method	
Temperature Range	$: 0 \text{ to } 45^{\circ}\text{C}$	
Pressure Range	: 0.5MPa or less	
Measurement range : $0\mu g/L$ to $20mg/L$		
Lower detection limit	: 0.1µg/L	
Output	: About 9µA (at atmospheric saturation)	



7561L/7563L

7562L/7564L



○Because it is polarographic, it does not use lead electrodes or strong acid or alkali reagents.

Response rate
Flow
Repeatability Purpose

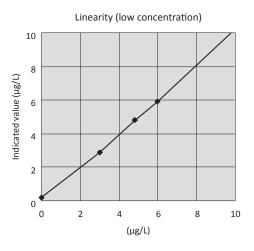
- 90% response within 15seconds (Air to zero liquid, 25°C)
  100 to 300mL/min
- (For OC-64 built-in flow cell) : ±2%F.S. or less
- : Pure water, semiconductors, pharmaceuticals, boiler water, etc.

Model	7561L	7562L	7563L	7564L
Cathode (detection electrode) material	Ag		Au	
Main unit Material	PP	SUS316	PP	SUS316
Wetted part Material	PP, SUS316, FEP	SUS316, FEP	PP, SUS316, FEP	SUS316, FEP
Residual current	0.5µg/L equivalent		0.1µg/L equivalent	
Effect of dissolved hydrogen (100%)	0µg/L equivalent		-4µg/L equivalent	
Effect of carbon dioxide (100%)	0µg/L equivalent		15µg/L equivalent	
Selection guidelines	More accurate dissolved oxygen concentration measurement is possible for samples in which dissolved hydrogen and carbon dioxide gas coexist.		It has faster responsiveness and lower residual current characteristics, and is effective for samples that do not contain dissolved hydrogen or carbon dioxide.	
Main applications/markets	"Thermal power plant", "Nuclear power plant", "Material test", etc.		"Thermal power plant" "Semiconductor" etc.	

#### Performance

#### 1. Linearity

Linearity is also an indicator of electrode reliability, and the 756 L series electrodes have excellent linearity from low to high concentrations, as shown in the figure below. Especially when used to manage low concentration areas, it is superior to conventional electrodes and contributes to system operation management.



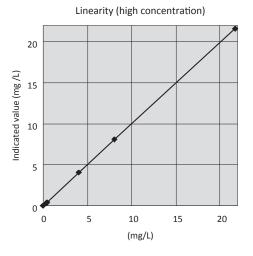
#### 2. Responsiveness/repeatability

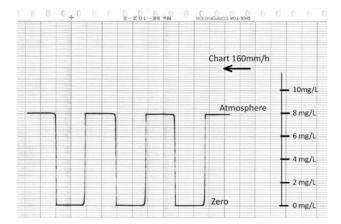
Electrode responsiveness is one of the most important items for system operation management, and the figure on the right shows the results of measurement with the 756 L series electrode attached to an OC-64 type flow cell. Shows speed and repeatability. It demonstrates its superiority in reducing the time required for on-site calibration work and improving the responsiveness of the entire system.

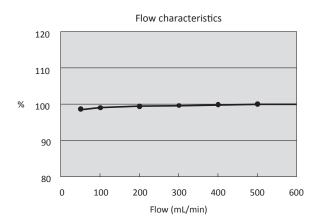
#### 3. Flow characteristics

The flow rate to the diaphragm of the dissolved oxygen electrode is an important factor from the principle of the electrode, but the amount of sample water consumed to measure the dissolved oxygen concentration from the perspective of the entire system may be limited by the size of the system. I have.

The figure on the right shows the measurement with the 756 L series electrode attached to the OC-64 flow cell. It can handle flow rates as low as 0.05L/min, and has the advantage of reducing the load on the entire system.

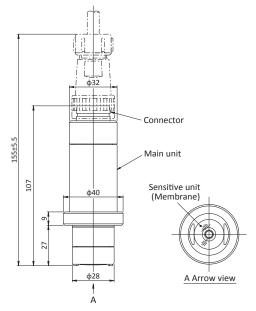


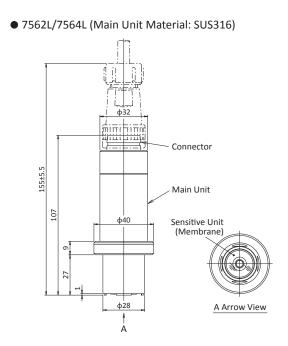




Dimensions Unit : mm

• 7561L/7563L (Main Unit material: Polypropylene)





## DO meter detector (for pure water measurement) OC-64 type

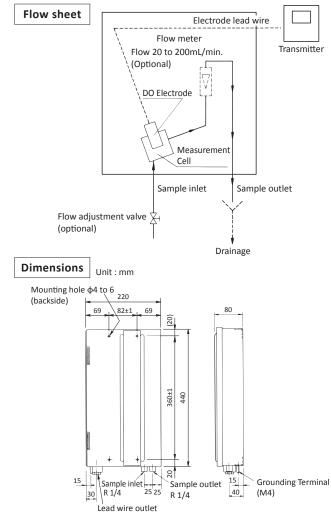
• This detector is suitable for measuring low concentrations of DO such as boiler water in power plants and pure water in semiconductor plants.

 $\bigcirc$  Consumption of sample water is very small.

○Combination electrode: 7561L/7562L type, lead wire ELW-32

### Standard specifications

Sample Condition	<ul> <li>Temperature0 to 45°C</li> <li>FlowConstant flow within 100 to 300mL/min.</li> <li>PressureInlet pressure; 0.05MPa or less Outlet pressure; open to</li> </ul>
Connection	atmosphere : Rc1/4 (Sample water inlet and outlet)
	: 7561L/7562L/7563L/7564L
Complited Electrode	
	Lead wire ELW-32
Ambient temperature	e: 0 to 40°C, 90%R.H or less
Weight	: Approx. 4kg
Dimension	: 220(W)×400(H)×80(D)mm
Mounting method	: Wall mounting or 50A pipe mounting
Material	CaseVinyl chloride coating
	(Groundwork SPCC)
	Measurement cellHeat-resistant
	PVC or SUS316
	Piping tubeNylon or SUS316
Structure	Rainproof type (JIS C 0920)
Color coating	: Metallic silver and blue
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#### Product code Material of Wetted Parts\*1 A Measurement cell: Heat-resistant PVC Piping: Nylon tube (standard) В All SUS316 Sample water flow meter\*2 0 None Equipped (200mL/min FS) when wetted part is standard resin 1 2 Equipped (1L/min FS) when wetted part is SUS Sample water flow adjustment valve\*3 0 None Equipped (SUS316) 1 **Case Structure** A Simple rainproof type (standard) В Rainproof, dustproof type (equivalent to IP54)\*4 Mounting Method Custom spec. code; A Wall or rack mounting Numeric digit: 9 В Pole mounting (With saddle for 50A pole) Alphabet: Z - Language Standard 1 English

\*1. "Heat-resistant PVC, nylon tube" with wetted parts as standard is suitable for boiler water measurement of power plants, etc. Select "All SUS316" when measuring ultra-pure water and ultra-low concentrations (DO

Select "All SUS316" when measuring ultra-pure water and ultra-low concentrations (DO 2µg/L or less) at semiconductor plants.

\*2. The small flowmeter is installed on the outlet side of the measurement cell in the case, but the wetted part is not suitable for measuring boiler water. If made of resin, select 200mL/min FS (100mL/min).

If all wetted parts are made of stainless steel for ultra-pure water/ultra-low concentration measurement, select 1L/min FS (100 to 500 mL/min setting).

- \*3. Attach a stainless steel needle valve to the sample water connection port on the bottom of the case. Therefore in the case of "equipped", the sample water connection port is the IN side (Rc 1/4) of this needle valve.
- \*4. The door is opened and closed with a stainless steel clasp, using a rubber packing seal between the case and medicine.



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Please read the operation manual carefully before using producuts.