

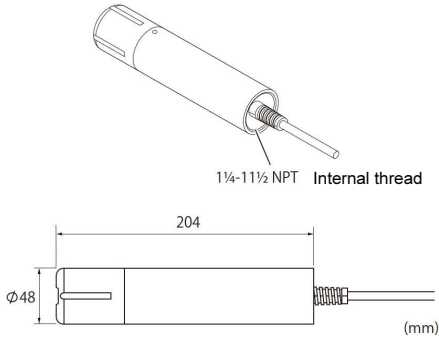
Optical Dissolved Oxygen Sensor DOS-20



Specifications

Model	DOS-20
Measurement item	Dissolved Oxygen concentration (mg/L) Temperature (°C) Dissolved Oxygen Saturation Rate (%) Oxygen Partial Pressure (kPa)
Measurement range (Display resolution)	Dissolved Oxygen concentration: 0.00 - 50.00 mg/L (0.01 mg/L) Temperature: 0.0 - 50.0°C (0.1°C) Dissolved Oxygen Saturation Rate: 0.0 - 200.0 (0.1%) Oxygen Partial Pressure: 0.0 - 150.0 kPa (0.1 kPa)
Measurement resolution	± 0.1 mg/L (0 - 8 mg/L) ± 0.2 mg/L (8 - 20 mg/L)
Response time	90% response: < 45 seconds 95% response: < 60 seconds (measurement water temperature : 25°C)
Power supply voltage	12 to 36 VDC
Current Consumption	25 mA max. (24 VDC)
Communications	MODBUS (RTU/ASCII)
Operating temperature	0 to 50°C (unfrozen)
Major material	ABS
Dimensions	Φ44 x 204 mm
Weight	Approx. 850 g (including cable length of 10 m)
Degree of protection	Under water type, max. depth of 200 m (IP68)
Cable length	10 m

Dimensions



Optional items

Universal transmitter : SC-U1(E)

- 2 sensors can be installed.
(max. 4 sensors can be installed when using expansion board)
- 4-20 mA output
- Relay output



Replacement Cap : DOS-CP

Recommended to replace it once a year



OPTEX Optical Dissolved Oxygen Sensor -Easy Installation, Simple Operation-



Optical Dissolved Oxygen Sensor
DOS-20

■ Robust Design – Hard to deteriorate with ABS construction

■ Long Term Stability -No Influence by water flow rate

Applications



Aquaculture



Aquarium

OPTEX sensors line-up

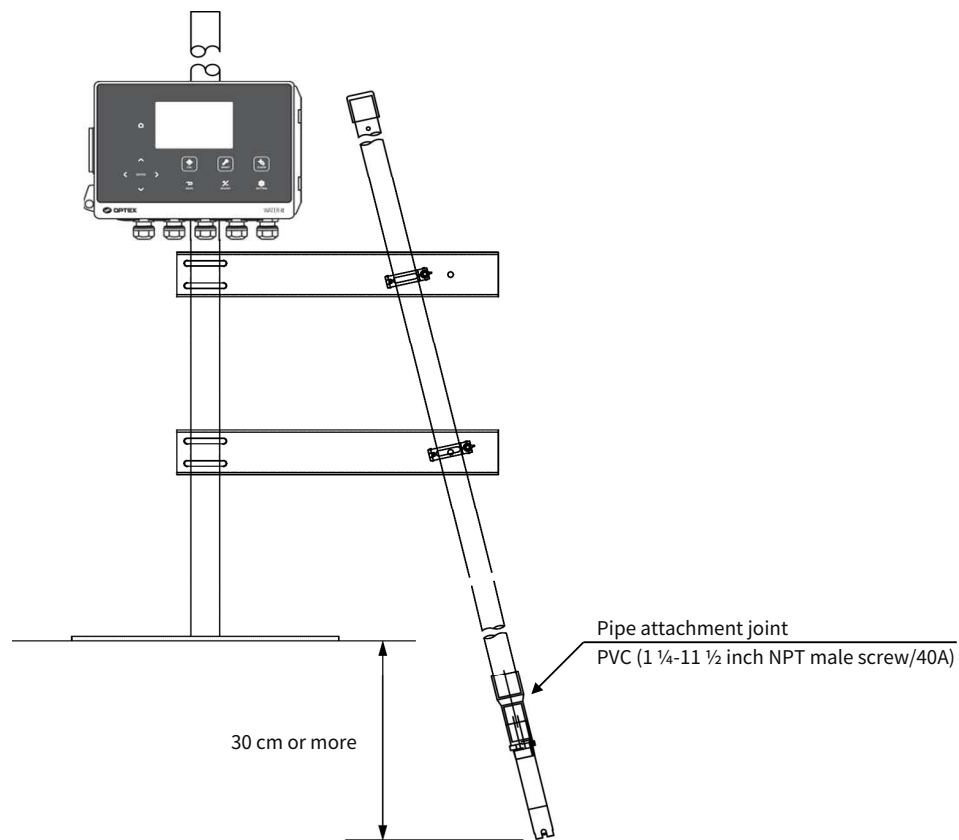


●The appearance and specifications are subject to change for improvement without prior notice. ●The colors might be slightly different from the actual products. ●Safety Precautions: Read the instruction manual carefully and thoroughly before using the appliance, and then use it correctly. ●The products have a limited life. Maintenance and replace it regularly.

OPTEX CO., LTD.

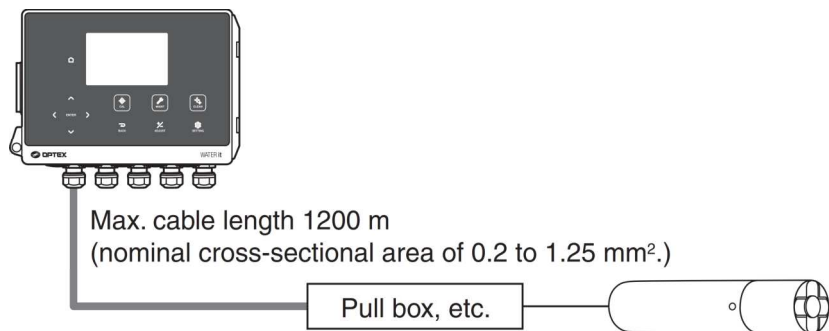
5-8-12, Ogoto, Otsu, Shiga, 520-0101 Japan
Tel. +81-77-579-8680 Fax. +81-77-579-8199
www.optex.co.jp/e/

Recommended installation example



Extension of sensor cable

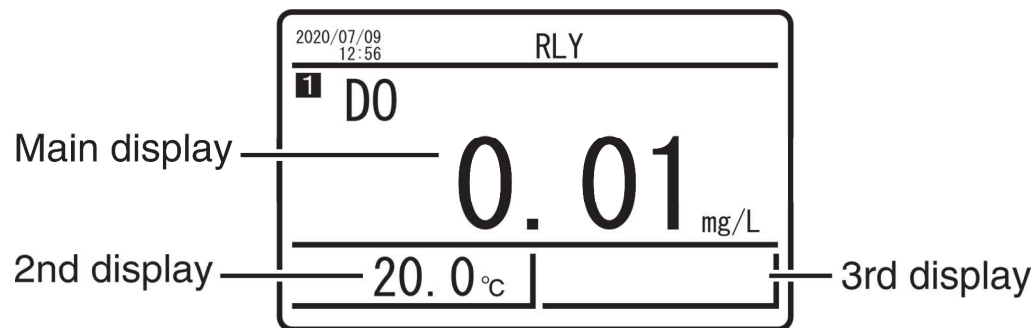
The standard length of the sensor cable is 10 m. To extend the cable, refer to the following. To extend the cable, connection using pull box is recommended.



- The cable clamp fits the cable sheath diameter of 6 to 8 mm.
- The sensor cable must be shielded with a nominal cross-sectional area of 0.2 to 1.25 mm².

Display item

Set measurement items to display as main, 2nd, and 3rd display of SC-U1.



	Measurement item	Display item		Factory default setting
		item	Unit	
Main display	Dissolved oxygen con-centration	DO	mg/L	DO
	Dissolved oxygen % saturation	% sat.	% sat	
	Oxygen partial pressure	O-Press	kPa	
2nd display	—	OFF	—	Temp.
	Temperature	Temp.	°C	
3rd display	—	OFF	—	OFF
	Dissolved oxygen % saturation	% sat.	% sat	
	Dissolved oxygen con-centration	DO	mg/L	
	Oxygen partial pressure	O-Press	kPa	

Installation and setting instructions can be found in the website instruction manual below.

DOS-20

Instruction Manual
<https://navi.optex.net/manual/05160/?lang=en>



SC-U1(E)

Installation Manual
<https://navi.optex.net/manual/05324/en/index.html?type=installationmanual>



Operation Manual
<https://navi.optex.net/manual/05324/en/index.html?type=operationmanual>

