



JFE

EPSA-RINKO

Optical Dissolved Oxygen Logger with Wiper



AROW-WFX

AROW-WFX-L

JFE Advantech Co., Ltd.

EPSA-RINKO

Model: AROW-WFX / AROW-WFX-L

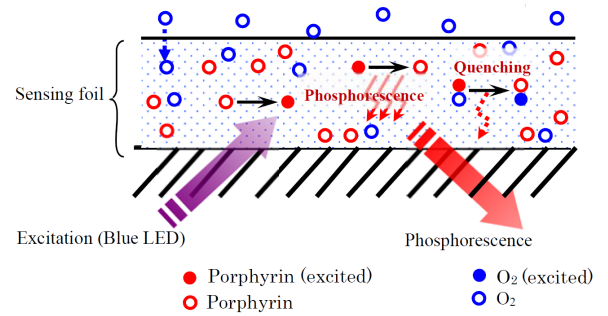
Description

EPSA-RINKO is an autonomously deployable data logger for long-term DO measurements. In order to protect the sensing foil against accumulating bio-fouling, the instrument has a mechanical wiper to sweep the optical window. The sensor is coated with photostimulable phosphor (PSP) on the outside of the pressure-resistant acrylic optical window, measuring the phase difference between phosphorescent time lengths. The excitation blue LED pulse generates a red phosphorescence pulse, which in turn has an inverse correlation with the oxygen partial pressure in the water (DO concentration). Phosphorescent time lengths under oxygen-free conditions are long. However, under high DO concentration conditions, the time length shortens. Since the method does not consume oxygen, there is no need for stirring.

Sensor specifications

Parameter	DO	Temperature
Principle	Phosphorescence (Optical)	Thermistor
Range	0 to 200 %	-3 to 45 °C
Resolution	0.01 %*	0.001 °C
Accuracy	Non-linearity ±2 % FS	±0.02 °C (3 to 31 °C)

*Standard value near 100% saturation

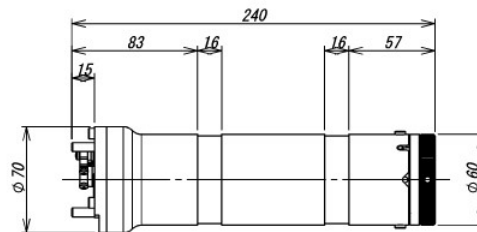
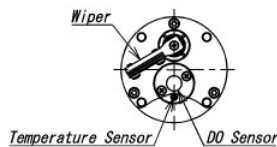


Instrument specifications

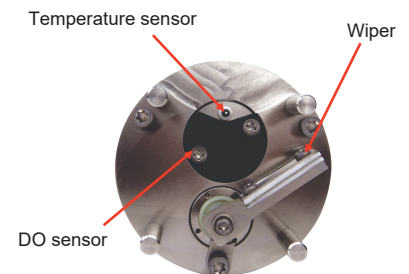
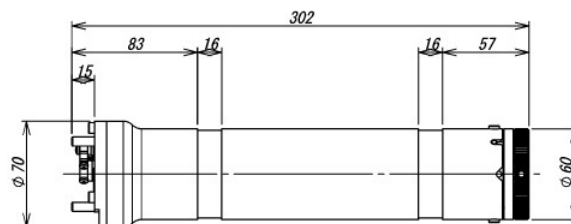
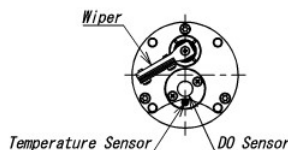
Model	AROW-WFX	AROW-WFX-L
Memory medium	1 GB built-in Flash memory	
Maximum data recordable	Approx. 15 million readings	
Measuring mode	Continuous, Burst	
Measuring interval	0.5 sec. or 1 to 600 sec. (1 sec. increment)	
Burst sampling interval	1 to 1,440 min. (1 min. increment)	
Number of samples	1 to 18,000	
Power source	1.5 V AA alkaline battery / 1.5 V or 3.6 V (SAFT) AA lithium battery	
Number of batteries	Max. 6	Max. 12
Communication	USB 2.0 (ver. 1.1 compatible) / Connector: USB-C	
Housing material	Titanium (grade 2)	
Dimensions	Φ70 mm x 240 mm	Φ70 mm x 302 mm
Weight	Approx. 1.4 kg in air, 0.8 kg in water	Approx. 1.8 kg in air, 1.0 kg in water
Depth rating	200 m equivalent	

Drawing

AROW-WFX



AROW-WFX-L



※ Dimensions are in mm. ※ All specifications on this leaflet are subject to change without notice.



JFE Advantech Co., Ltd.

Ocean & River Instruments Division
URL: <https://www.jfe-advantech.co.jp/eng/>

Head Office

Tokyo Sales Office

3-48 Takahata-cho, Nishinomiya, Hyogo 663-8202
TEL. +81-798-24-2465 FAX. +81-798-66-1654

JFE Kuramae Bldg. 2F, 2-17-4 Kuramae, Taito-ku, Tokyo 111-0051
TEL. +81-3-5825-5589 FAX. +81-3-5825-5591