

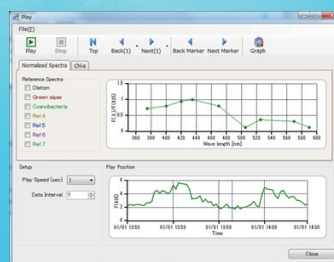
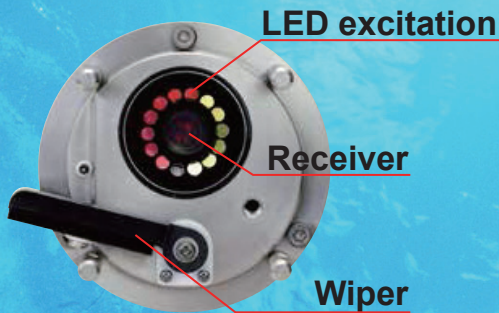
# Multi-Exciter

# INFINITY-ME

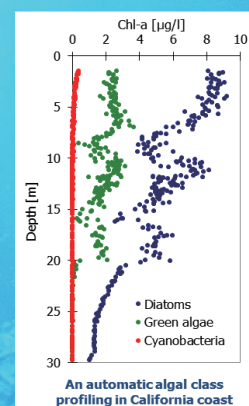
MFLW-USB/  
CAD



User tunable algal classification



Classification example  
(standard software)



- 9 wavelength LED excitations
- Automated algal classifications (software)
- Anti-fouling wiper for long-term deployments



JFE Advantech Co., Ltd.

# Multi-Exciter

MFLW-USB/CAD

## ■ Description

Multi-Exciter is a multi-excitation fluorometer for automatic algal class detection. It is equipped with a chlorophyll fluorescence probe with 9-wavelength excitation LEDs to measure fluorescent spectra, a turbidity meter and a temperature and a depth sensor. The taxonomic composition and the chlorophyll-a concentration of each class are automatically estimated using the analysis software with a spectra-library of cultures

## ■ Sensor specifications

Parameter	Excitation spectra	Turbidity	Temperature	Depth
<b>Principle</b>	Fluorescence	Near IR backscattering	Thermistor	Semiconductor
<b>Excitation/light Source wavelength</b>	375, 400, 420, 435, 470, 505, 525, 570, 590 nm	-	-	-
<b>Range</b>	0 to 400ppb (Rhodamine WT reference)	0 to 1,000FTU (Formazin reference)	-3 to 45°C	0 to 50m 0 to 100m 0 to 500m
<b>Accuracy (Repeatability)</b>	± 2%FS (0 to 100ppb)*1	± 5%	± 0.02°C *2	± 0.3%FS

\*1. 570nm of fluorescence output against 100ppb of Rhodamine solution is tuned to output 100-digit count for fluorescence intensity. Other wavelengths are standardized in accordance with the fluorescence characteristics of the Rhodamine solution.  
\*2. Guaranteed temperature accuracy range: 3 to 31°C.

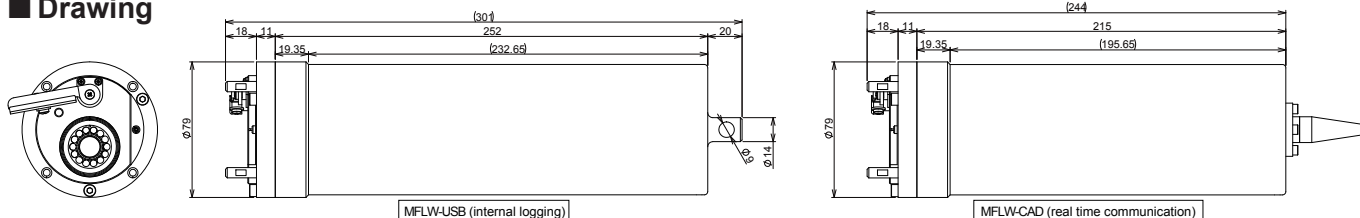
## ■ Instrument specifications

Version	Logger			Cable	
<b>Depth range</b>	0 to 50m	0 to 100m	0 to 500m	0 to 50m	0 to 100m
<b>Model name</b>	MFL05W-USB	MFL10W-USB	MFL50W-USB	MFL05W-CAD	MFL10W-CAD
<b>Communication</b>	USB			RS-485	
<b>Memory medium</b>	microSD card (waterproof & high speed type)			Depends on external devices	
<b>Measuring mode</b>	Continuous/Burst mode				
<b>Continuous Mode Sampling interval</b>	0.1 to 1.0 s (0.1 s increment), 1 to 600 s (1 s increment)			0.5/1/2/5/10/15/20/30 s	
<b>Burst Mode Sampling interval</b>	1 to 1,440 min (1 min increment)				
<b>Burst Mode No. of samples</b>	1 to 18,000			1/10/15/20/30/60/120/ 180/240/300/600/1,200	
<b>Battery</b>	3V(CR-V3) *1			DC12V to 24V	
<b>Current/Power consumption</b>	Approx. 300mA			Approx. 900mW	
<b>Dimensions</b>	Φ79mm×301mm			Φ79mm×244mm (Without cable)	
<b>Weight</b>	Approx. 1.8kg			Approx. 1.6kg	
<b>Material</b>	Housing : titanium (grade 2) Optical sensor : Epoxy-acrylic resin				
<b>Depth rating</b>	500m *2				

\*1. 3.3Ah. Up to 4 pieces.

\*2. With the exception of the pressure sensor. The depth rating of pressure sensor is defined in accordance with the depth range.

## ■ Drawing



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

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