KWS-800 Online Multi-Parameter Water Quality Sensor

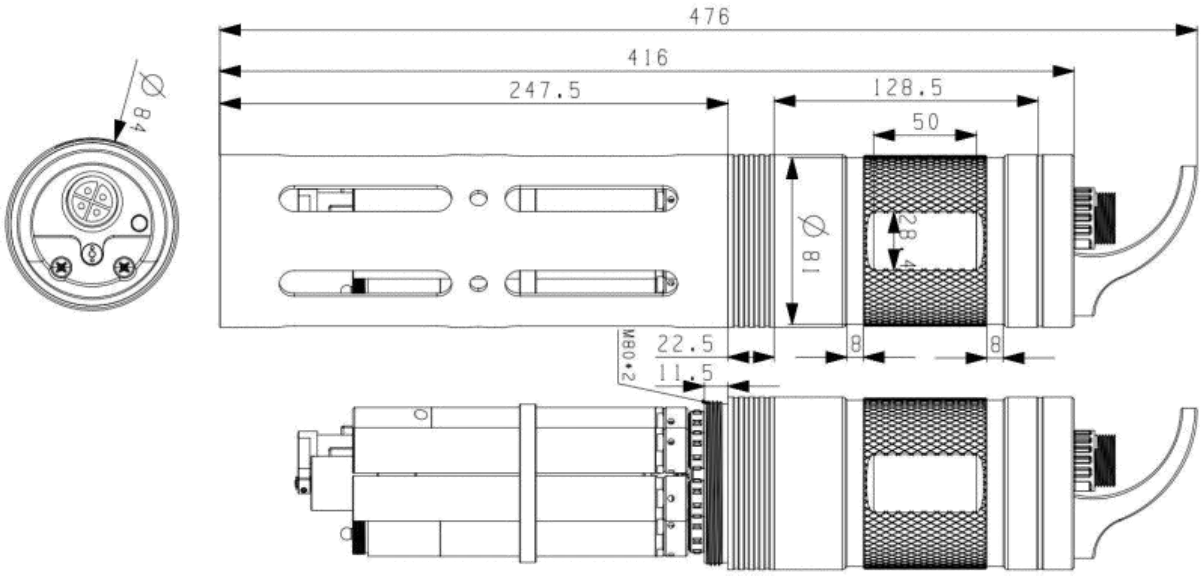
Introduction

The Kacise KWS-800 series of multi-parameter water quality sensors (seven optional parameters) are designed in an all-in-one configuration. Each sensor has a waterproof connector. Calibration data is stored in the sensor for field calibration and replacement. Up to 6 Kacise digital sensors can be connected at the same time, with optional fluori-dissolved oxygen, four-electrode conductivity, fiber turbidity, digital pH, digital ORP, chlorophyll and oil in water sensors. Equipped with an automatic cleaning device to eliminate air bubbles and prevent microbial growth, it can easily meet the needs of various water environment monitoring such as rivers, lakes, oceans and groundwater. Extremely reliable, it can run for months without maintenance in an unattended environment.

Feature

- Digital sensor, RS485 output, support MODBUS
- All calibration parameters are stored in the sensor, each with a waterproof connector for easy insertion and removal.
- Equipped with automatic cleaning device, it can effectively remove the surface contamination of the sensor, prevent the growth of microorganisms, more accurate and lower maintenance.
- Optional fluorimetry dissolved oxygen, four-electrode conductivity, fiber turbidity, digital pH, digital ORP, chlorophyll, water oil and ammonia nitrogen
- Sensor for long-term online monitoring.
- All-in-one structure design, can connect six probes at the same time and measure seven parameters.

Dimension



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Technical Specifications

Multi-parameter sensor other information	Main body information	Support up to 6 sensor access, 1 central cleaning brush. Probe and brush can be disassembled, free combination.	
	Size	Φ84mm*476mm	
	Operating temperature	0~50℃	
	Calibration data	The calibration data is stored in the probe, which can be disassembled for calibration.	
	Output	RS485 Modbus	
	Power supply	Complete machine：DC 12-24V,≥1A；probe：9-24V,≥1A	
	Full load power consumption	0.8W (not rotating brush), 2W (rotating brush)	
	Cable length	10 meters (default), customized	
	Self-clean brush	Default cleaning interval is 30 minutes, adjustable cleaning interval settings available.	
	Casing	POM, titanium alloy, anti-fouling copper	
	Cable length	Standard 10m, customizable 5m, 15m and 30m	
	Alarm	Internal power supply abnormal alarm, internal communication abnormal alarm, cleaning brush abnormal alarm.	
	IP Grade	IP68	
Fluorescent Dissolved Oxygen probe	Range	0-20mg/L or 0-200% saturation	
	Accuracy	<1% or ±0.3mg/L	
	Max. water depth	40m	
Turbidity Probe (90° Scattered Light)	Range	0.1-1000 NTU	
	Accuracy	<5% or 0.3NTU	
	Max. water depth	40m	
Four-electrode Conductivity Probe	Range	0~5000μS/cm	0-100mS/cm
	Salinity Range	0-2.5ppt or 0-80ppt	
	Max. water depth	40m	
Fluorescent Chlorophyll Probe	Range	0~500 ug/L	
	Accuracy	<5% or 0.5 μg/L	
	Max. water depth	40m	
Digital PH probe (glass electrode method)	Range	0-14pH	
	Accuracy	±0.02pH	
	Max. water depth	20m	
Oil-in-water Probe	Range	0-150ppm	

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(UV Fluorescent)	Linearity	R^2>0.999
	Max. water depth	40m
ORP (Platinum electrode method)	Range	-1999~1999mV
	Accuracy	±20mV
	Max. water depth	20m
Fluorescence Blue-green Algae	Range	0-300,000cells/mL (0-2,000,000 cells/mL customized)
	Linearity	R^2>0.999
	Max. water depth	40m
Built-in temperature probe	Range	0~50℃
	Resolution	0.1℃

Wiring

Red: 12-24V power supply (VCC)

White: 485 data _B (485_B)

Green: 485 data _A (485_A)

Black: ground (GND)

Precaution: Since the cleaning wiper starts to clean when it is powered on, please remove the pH/ORP protective cap and dissolved oxygen protective rubber sleeve before powering on. Please make sure that the power supply and line sequence are correct, and the product damage caused by improper operation is not included in warranty.

Main Body and Probe Connection

The corresponding number is engraved on the multi-parameter body (as shown on the right), and better performance can be obtained by installing the corresponding probe according to the number.

Port 1: dissolved oxygen (sensor SN starts with 01);

Port 2: Turbidity (sensor SN starts with 10);

Port 3: conductivity (sensor SN starts with 09);

Port 4: Chlorophyll (sensor SN starts with 48);

Port 5: blue-green algae (sensor SN starts with 61);

Port 6: pH (sensor SN starts with 43);

Port 7: Central cleaning wiper.