

SPS-T-SC4 Turbidity Water Quality Sensor

Datasheet

Overview

The turbidity water quality sensor, with the principle of 90° scattered and 180° transmission light measurement, can measure turbidity and suspended solids. It is mainly used in the field of surface water, domestic sewage, and industrial sewage. The turbidity sensor is equipped with an automatic optical window cleaning function. In addition, with the MC-W-S series meter controller and SPS-Server (SPS cloud service), users can realize both on-site and remote data viewing.



Features

- Optical in-situ measurement
- Quick measurement, the shortest measurement cycle is 1 seconds
- The maintenance-free period is long, and the sensor has its own cleaning brush
- RS485 communication mode, can quickly connect to the meter
- IP68 protection grade, can be used in harsh environment
- Low power consumption, can be powered by battery, convenient for equipment deployment

Application

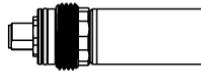
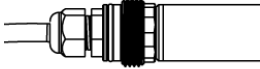
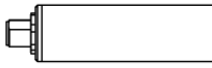
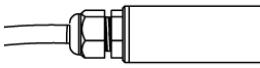
- Influent and effluent monitoring of sewage treatment plant
- Watershed, surface water, groundwater monitoring
- Urban domestic sewage monitoring
- Industrial water monitoring
- Raw water monitoring of water works
- Water pipe network monitoring

Specification

Principle	Transmission and 90° scattering
Range	Turbidity: 0-1000 NTU/FNU TSS (diatomaceous earth): 0-2000 mg/L
Accuracy	Turbidity: 0.001 NTU/FNU TSS (diatomaceous earth): 1 mg/L
Resolution	Turbidity: $\pm 3\%$ or ± 0.015 NTU TSS (diatomaceous earth): $\pm 5\%$ or ± 5 mg/L
Dimension	$\phi 30 \times 267$ mm (Dimensions may vary slightly for different sensor models)
Weight	1.6 kg
Power requirements	DC +12~+24 V
Installation	Submerged, flow-through
Operating temperature	0-50 °C (32~122 °F)
Storage temperature	0-50 °C (32~122 °F)
Sensor cable length	Cable extending directly: 6 m (19.69 ft.) 5 pole aviation plugs: 2 m (6.56 ft.) Please contact us for other sizes
Cleaning method	Cleaning brush Temperature: 0-50 °C (32~122 °F) Flow rate: <3 m/s.
Sampling requirements	Pressure: No more than 6 bar, in water flow at 0-50 °C (32~122 °F)
Communication method	ModbusRTU, RS485
Warranty period	1 year

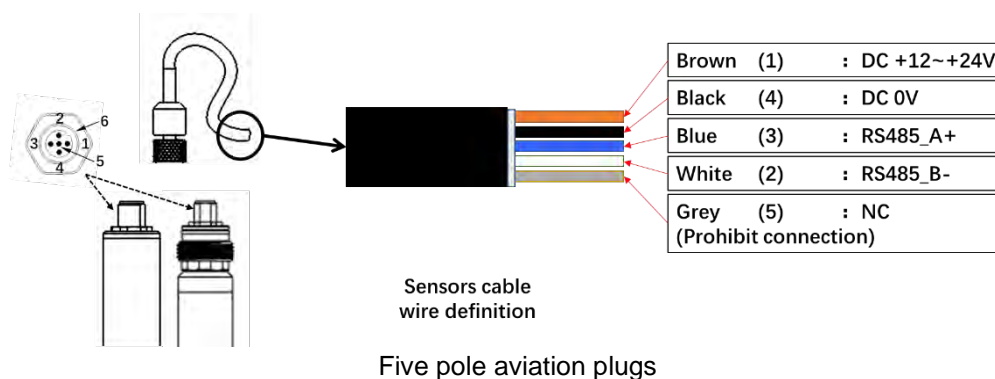
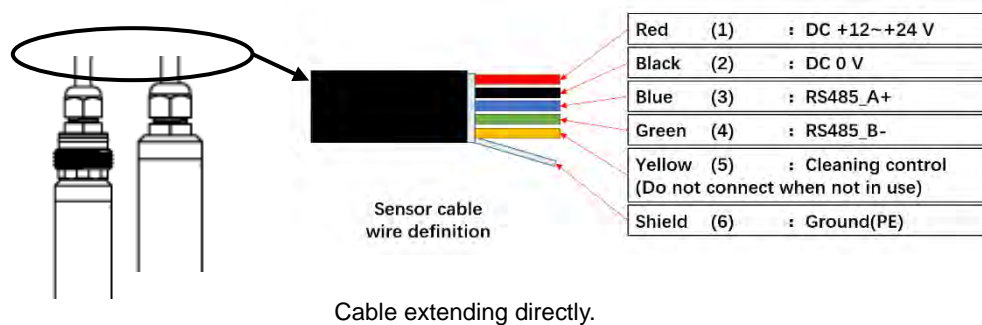
Product selection

The sensors are available with different tail connections so that customers can choose according to their needs.

Model	Description	IP rating	Pictures
SPS-T-SC4-S01	5 pole aviation plug, cable length: 2 m with waterproof connection thread	IP65	
SPS-T-SC4-S11	Cable extending directly, cable length: 6 m with waterproof connection thread	IP68	
SPS-T-SC4-P01	5 pole aviation plug, cable length: 2 m	IP65	
SPS-T-SC4-P11	Cable extending directly, cable length: 6 m	IP68	

Interface definition

There are two types of wiring for the sensors, direct out and 5 pole aviation plugs. The two use different cables and have different wiring definitions, see diagram below:



Dimension

