WQ-COND Conductivity Sensor

Rugged Water Conductivity Sensor

Features

- Fully encapsulated electronics
- Dual 4-20 mA outputs
- Sensor armor available for harsh environments
- Marine grade cable with strain relief
- Measure conductivity up to 82 feet deep

Applications

Ideal for stream and lake monitoring, aquaculture studies, baseline analyses, mitigation monitoring, and other environmental applications.

Description

The Global Water WQ-COND Conductivity Sensors are suitable for measuring conductivity in a wide variety of applications including laboratories, streams, rivers, and groundwater. The conductivity sensor's small size and rugged housing make it useful for hand held measurements or permanent installation.

The conductivity sensors use a 4-electrode measuring technique that provides accurate readings over a wide range of conductivities and temperatures. Because the conductivity of ionic solutions increases with increasing temperature, a temperature sensor is also incorporated and is used to provide automatic temperature compensation of 2%/°C normalized to 25°C. An in-line interface module converts the digital conductivity sensor and temperature data into two separate 4-20mA signals for monitoring with data loggers and PLC devices.

The standard conductivity sensors come with three feet (one meter) of cable between the conductivity sensor and interface module, and 25 feet of marine grade cable for connecting to recording devices. Additional cable can extend the length of the conductivity sensor up to 1000 feet. Available conductivity ranges are 0-200uS/cm, 200-2000uS/cm, 2-20mS/cm, 20-200mS/cm and 200-2000mS/cm. The conductivity sensor's temperature output has a measurement range of -5°C to +70°C.

Specifications

Conductivity Ranges	0 to 200 µS/cm 200 to 2000 µS/cm 2 to 20 mS/cm 20 to 200 mS/cm 200 to 2000 mS/cm
Temperature Range	23 to 158°F (-5 to 70°C)
Conductivity Accuracy	±0.5% of reading
Temperature Accuracy	±0.4°F (±0.2°C)
Conductivity Resolution	0.1 uS/cm 1 µS/cm 0.01 mS/cm 0.1 mS/cm 1 mS/cm
Temperature Resolution	0.02°F (0.01°C)
Output	Dual 4-20 mA
Temperature Response	99% in <20 seconds
Maximum Pressure	35 psi (82 ft (25m))
Immersion Depth	1.4 inches (36 mm)
Operating Voltage	10-36 VDC
Current Draw	20 mA plus sum of both sensor outputs
Warm-up Time	3 seconds minimum
Operating Temperature	23 to +158°F (-5 to +70°C)
Storage Temperature	-4 to +212°F (-20 to +100°C)
Dimensions	8 inch L x 0.86 inch Diameter (202 mm L x 22 cm Dia.)
Weight	8 oz (227 g) plus cable

Ordering & Options

Conductivity Sensors[1]

Order No.	Conductivity Range
WQ-Cond-1	0 to 200 uS/cm
WQ-Cond-2	200 to 2000 uS/cm
WQ-Cond-3	2 to 20 mS/cm
WQ-Cond-4	20 to 200 mS/cm
WQ-Cond-5	200 to 2000 mS/cm

1) Sensors include 25 ft of cable.

Cable

Order No.	Description
WQEXC	Extra Sensor Cable, per foot (up to 500 ft)

Please call us for calibration standards.

Accessories

Order No.	Description
903836	Plastic Armor
903837	Stainless Steel Armor