AquaMetrix Model R65R8-015 Differential 4-20mA Output Sensors

Model R65 (ORP)

Features

- Two-Wire Transmitter built in
- Integral 4-20mA transmitter can be fed directly to a PLC
- Replaceable Salt Bridge
- Long-lasting
- Low Maintenance Cost
- Field-proven
- Chemically resistant Ryton body
- Flow-through and submersion
- Gold electrode available (ORP)

Description

AquaMetrix pH and ORP differential sensors stay in service and provide accurate measurements under conditions that often render conventional ORP sensors inoperable. Now for added versatility, these sensors, field-proven in hundreds of installations, are available with an integral encapsulated 4-20 mA two-wire transmitter to feed directly to a PLC or a DCS.

The R65 ORP sensor employs a differential measurement technique. Unlike conventional combination sensors, the differential sensor has two measurement circuits with each containing a common titanium return electrode. One circuit includes the process measurement electrode. The second circuit includes an internal measurement electrode immersed in a stable buffer solution. The difference between the two circuits is the true process ORP. Because both circuits have the same ground rod in common any inaccuracies caused by ground loops between process and instrument grounds are virtually eliminated.

As a result a differential sensor maintains its accuracy and stability in aggressive process applications long after a combination-style sensors performance begins to deteriorate.

The internal reference electrode is electrically connected to the process solution by means of a field-replaceable double junction salt bridge which greatly reduces the rate of contamination of the buffer solution in the reference circuit. The reference solution may be easily replaced by removing the screw-out salt bridge. The salt bridge itself is meant to be replaced every several months. An inexpensive salt bridge and buffer kit is all that is needed to keep the differential sensor working like new for many years.

The R65 series has been offering direct 4-20 mA output for years. The AquaMetrix RT65R8 ORP sensor ris equipped with an RTD temperature element that is coupled to a miniature PCB that converts the RTD reading to a 4-20 mA current. The two outputs are completely isolated and can be connected directly to a PLC or the AquaMetrix 2300.

Applications

- Process Control
- Industrial and Municipal Water Treatment and Neutralization
- Fume Scrubbers
- Mining
- Power Generation
- Food and Beverage
- Pharmaceutical Industry
- Pulp and Paper

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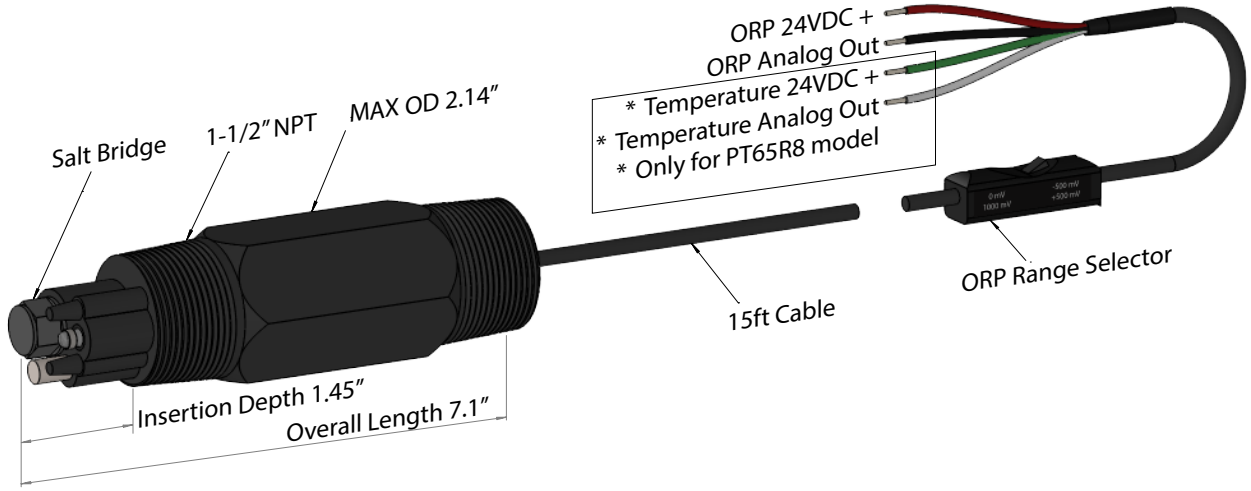
AquaMetrix R65R8 Differential 4-20mA Output Sensor

Technical Data

Measuring Range	-500 to +500 mV or 0 mV to +1000 mV, field selectable
Wetted Materials	Ryton, CPVC, Kynar, glass, titanium palladium alloy and Viton, Platinum or Gold, *PVC (cable jacket), *Dynaflex (cable strain relief). * when fully submerged
Temperature Limits	-5 to 75°C (23 to 167°F)
Maximum Pressure	100 psig at 65°C maximum
Maximum Flow Rate	10 ft./sec maximum (3 metres/sec)
Temperature Compensation	N/A
Stability	2 mV per day, non-cumulative
Sensitivity	0.1 mV
Accuracy	± 5 mV
Sensor Cable	Default length 15ft. (4.6m) 2-wire for R65R8 4-wire for RT65R8

Dimensions



Related Products

ANALYZERS

AM-2300	Multi-Input Controller

ACCESORIES

AM-JB2	NEMA 4X junction box
AM-TEE-8	2" Union Tee with adaptor for -8 series
AM-SFL-8	2" Sanitary Flange for -8 series
AM-ARM-8	Submersion hardware for tank mounting
AM-JET-8	Jet cleaner for -8
AM-PTR-8	Electrode protector for -8
AM-SBK3-R8	Salt Bridge Kit, package of 3
AM-SBK10-R8	Salt Bridge Kit, package of 10
AM-CBL	Extension cable

CALIBRATION SOLUTIONS

AM-R200-1P	ORP Standard, 200 mV, 1 pint (500 mL)
AM-R600-1P	ORP Standard, 600 mV, 1 pint (500 mL)

Ordering Information

R65R8-015	ORP Flow-through or submersion; Ryton, body threaded 1-1/2" both ends
R65R8G-015	ORP probe with Gold electrode, Ryton, body threaded 1-1/2" both ends
RT65R8-015	ORP & Temperature, Flow-through or submersion applications; body threaded 1-1/2" both ends