



## Features

- Low cost of ownership
- Stable and Repeatable performance
- Spherical electrode is standard
- Industrial Grade Quality
- Chemically resistant PPS body
- Universal style: flow-through and submersion
- Analog (4-20 mA) or Digital (RS485) Output
- Automatic Temperature Compensation
- Replaceable Salt Bridge
- M12 8-pin Male Connector

## Description

The new and improved PXR8-M12 sensor is the latest addition to the legendary AquaMetrix differential sensor family. Our smart sensors maintain their robust design, but leverage the analytical power of our controllers, fully integrated. The 1-1/2" version also comes in a sleek Black PPS (Ryton®) for superior resistance to chemical and mechanical weathering.

The advantages of digital output sensors are compelling. They include reduced noise, higher immunity from stray voltages, calibration stored in the sensor, and the elimination of intermediary transmitters.

The new TX-series incorporates all the benefits of differential measurement found in other models of the 60 and 65 series, field-proven in thousands of installations.

The replaceable CPVC salt bridge rejuvenates your sensor in seconds. The spherical glass process electrode is specially designed for tough applications. A larger surface area guarantees quick readings and outstanding performance. Other electrode options are also available.

A new variant of the PTX sensor is now available with an M12 connector in place of the traditional fixed cable. This design allows the probe to be quickly connected in the field without the need to run a long cable through conduit. It can be easily

unplugged for maintenance, cleaning, or calibration in a lab setting — providing added flexibility and reducing downtime in demanding applications.

Aquametrix pH sensors are designed to simply and reliably ensure water quality compliance. Aquametrix pH sensors provide accurate measurements under conditions that often render conventional pH sensors inoperable. Differential measurement technology uses two glass electrodes to make the measurement differentially with respect to a third metal electrode. The resulting true differential measurement has several advantages over conventional sensors: ground loop problems are virtually eliminated and the sensor can be restored to factory condition at modest cost by replacing the salt bridge and reference solution.

The automatic temperature compensation is improved through the use of a thermistor at the tip of the probe, providing rapid response for process temperature variations. The sensor is compatible with any off-the-shelf 1-1/2" NPT fittings.

You no longer need to sacrifice precision for longevity with Aquametrix TX Sensors.

## Applications

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

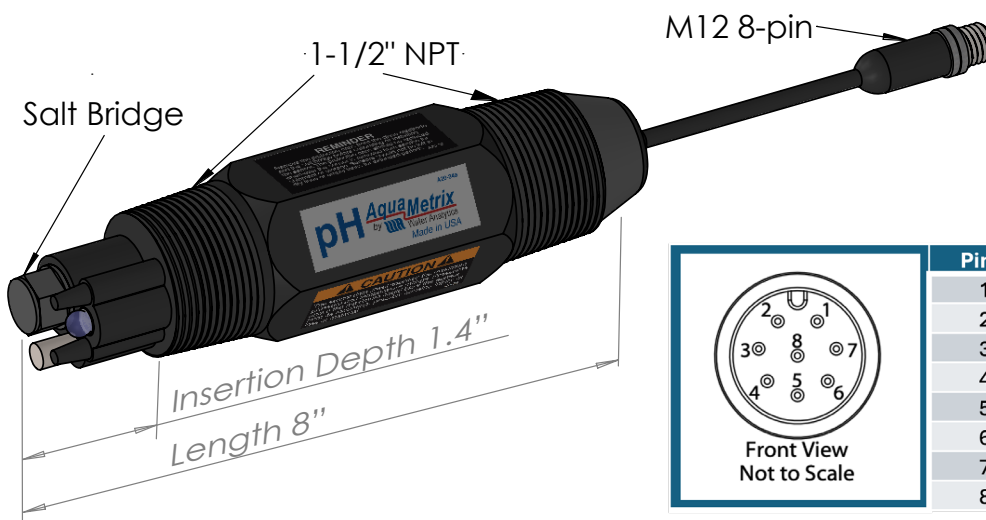
**Smart Inside.  
Tough Outside.**

# AquaMetrix PTXR8-M12 Differential Smart Sensor with M12

## Technical Data

<b>Linear Measurement Range</b>	1 to 12 pH Response at pH<1 or >12 is non-linear (<59.2 mV/pH @ 25 °C)	<b>Temperature</b>	Automatic pH compensation Optional temperature output (RS-485)
<b>Wetted Materials</b>	Ryton® (PPS), CPVC, Ceramic, Glass, Viton®, Titanium, *PVC (cable jacket), *Santoprene® 101-55 (strain relief) *when fully submerged.	<b>Stability</b>	0.03 pH per day, non-cumulative
<b>Temperature Limits</b>	-5 to 75°C (23 to 167°F)	<b>Sensitivity</b>	0.01 pH
<b>Maximum Pressure</b>	100 psig at 150°F (65°C)	<b>Accuracy</b>	± 0.02 pH
<b>Maximum Flow Rate</b>	10 ft./sec maximum (3 meters/sec) but lower in water with low conductivity water or suspended solids	<b>Sensor Cable</b>	6in cable with M12 8-pin Male Connector IP67 * when used with a matching connector

## Dimensions



Pin #	Wire Color	PTXR8-M12
1	Red	Power IN (24VDC)
2	Yellow	Digital RS-485 A (-)
3	Black	4-20mA OUT
4	White	Digital RS-485 Shield
5	Orange	Not used
6	Blue	Not used
7	Green	Digital RS-485 B (+)
8	Purple	Not used

## 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

## Ordering Information

PTXR8-M12 Smart Analog output (4-20mA) or Digital (RS485) industrial differential pH sensor for flow-through 1-1/2" NPT or submersion application. Compatible with AM-2300 and any PLC with 4-20mA input. M12 8-pin male connector.

AM-CBL-M12-xxx Cable (xxx length in ft) with matching M12 8-pin female connector

### CALIBRATION SOLUTIONS

- AM-PH4-1P pH 4 Buffer, 1 pint (500 mL)
- AM-PH7-1P pH 7 Buffer, 1 pint (500 mL)
- AM-PH10-1P pH 10 Buffer, 1 pint (500 mL)