



Description

The new one-inch PTX sensor is the latest addition to the AquaMetrix differential sensor family, maintaining the robust design of earlier models while fully integrating with AquaMetrix controllers. The 1" TX version comes in durable blue PPS (Ryton®), offering superior resistance to chemical and mechanical wear. A new variant is also available with an M12 connector in place of the traditional fixed cable, allowing quick field connections, easy removal for maintenance or calibration, and reduced downtime.

The addition of the M12 connector greatly enhances flexibility in installation and service. Instead of committing to a fixed cable run, technicians can simply attach a standard M12 extension cable of any length, making it easier to install sensors in tight spaces or retrofit existing systems. When maintenance is needed, the probe can be unplugged in seconds without disturbing conduit or wiring, then reconnected just as quickly. This modular approach simplifies inventory management, reduces the risk of cable damage during handling, and shortens service downtime—critical advantages in demanding industrial environments where every hour of uptime matters.

Digital output provides clear advantages: reduced noise, immunity from stray voltages, onboard calibration storage, and elimination of intermediate transmitters. The TX-series incorporates all the benefits of differential measurement proven in the 60 and 65 series across thousands of installations. Ground loop problems are virtually eliminated, and the sensor can be restored to factory condition at modest cost by replacing the redesigned salt bridge and reference solution—no special tools required. Built-in isolation further protects the measurement signal, and an optional RS-485 digital output provides seamless integration into modern control systems.

The universal flat-faced glass electrode, with its larger surface area, ensures fast, accurate readings in tough applications and flushes clean when installed inline. Encased in PPS for added protection, it delivers durability in challenging environments. Automatic temperature compensation, with a thermistor at the probe tip, ensures rapid response to process variations.

The PTX sensor is compatible with a wide variety of AquaMetrix fittings and most off-the-shelf 1" NPT fittings, making it a true drop-in replacement for earlier models while offering more flexibility in installation.

Features

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

Applications

- Process Control
- Industrial and Municipal Waste Treatment and Neutralization
- Fume Scrubbers
- Plating
- Power Generation
- Food and Beverage
- Aquaculture
- Agriculture

**Smart Inside.
Tough Outside.**

AquaMetrix
by  Water Analytics

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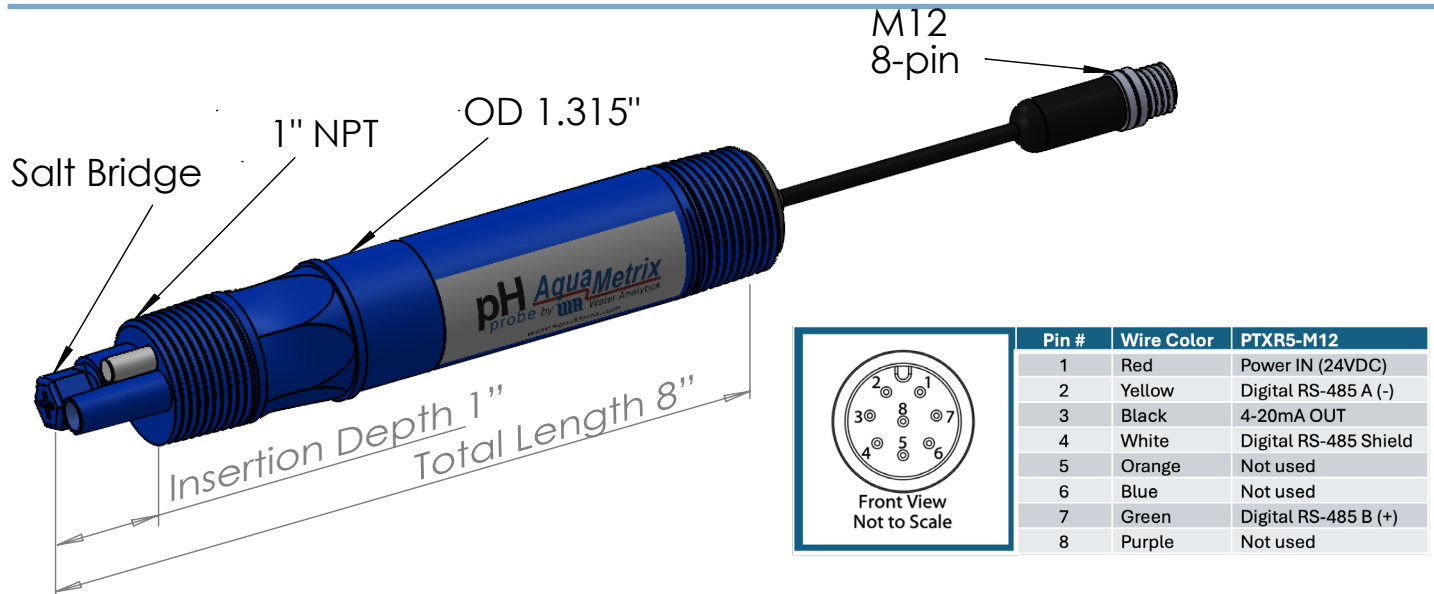
N110-163 R0

AquaMetrix PTXR5-M12 pH Differential Smart Sensor with M12

Technical Data

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

Dimensions



Related Products

ANALYZERS

AM-2300 Multi-Input Controller

ACCESSORIES

- AM-SBK3-R5 Salt bridge kit (3 pack) for R5 sensor
- AM-SBK10-R5 Salt bridge kit (10 pack) for R5 sensor
- AM-CFT-R5 1.5" compression fitting for R5 sensor
- AM-TEE-5 2" Union TEE with quick disconnect adapter
- AM-ARM-5 Submersion Arm
- AM-PTR-5 Electrode Protector
- AM-JET-5 Jet Cleaner
- AM-SFL-5 2" Sanitary Flange
- AM-JB2 NEMA 4X Junction Box

Ordering Information

- PTXR5-M12 Smart Analog output (4-20mA) or Digital (RS485) industrial differential pH sensor for flow-through 1" 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)