

PERMANGANATE SENSOR

PML SERIES



FEATURES & BENEFITS

- Affordable, real-time permanganate monitoring
- Outputs as permanganate (mg/L or µg/L)
- Operator friendly, low maintenance design
- Quick and simple optical measurements
- Long life LED technology
- Reagent free operation

WATER QUALITY
MONITORING
SOLUTIONS

REAL-TIME MONITORING SOLUTION

Permanganate Sensor

Real Tech's bypass Permanganate sensor has a very low detection limit that provides an early warning of overdosing, well before residual permanganate is visible in water. Designed with LED technology, this practical and affordable sensor measures permanganate continuously in real time.

Controllers and Accessories

Our innovative modular product platform ensures our clients gain the real-time water quality monitoring system that meets their specific demands and budget. With multiple controller and accessory options available such as automatic chemical cleaning systems that lower maintenance while improving system performance, Real Tech provides a total solution for all of your unique water quality needs.

Liquid Ai Compatible

Our Liquid Ai data services complement our real-time water quality monitoring systems. Our Remote Monitoring platform is a powerful data management and visualization tool that enables access to data anywhere, anytime.

MEASUREMENT PRINCIPLE

Real Tech's Permanganate sensor uses the absorbance of light at multiple wavelengths to accurately detect permanganate levels. Compounds that may interfere with measurement, such as particles, are compensated for using additional reference wavelengths. The sensor uses a unique long path length measurement cell which enables the detection levels and sensitivity required in drinking water applications. The result is reliable, low-cost, real-time measurement of permanganate in water.



PERMANGANATE SENSOR SPECIFICATIONS

CHARACTERISTIC	TECHNICAL DATA
Path Length	25, 50, 100, 150 mm
Parameter	Permanganate
Range	Depends on model selected. Refer to range chart.
Accuracy	± 1% full scale
Units	mg/L, ug/L, ppm, ppb
Sampling Time	30 seconds
Calibration	Factory calibrated. Field adjustment of calibration is possible.
Cleaning	In-situ chemical cleaning makes cleaning quick and easy. Automatic chemical cleaning is optional.
Self-Diagnostics	Detection and diagnosis of internal system fault
Alarms	Dry contact terminals allow for operator configurable alarms for: high and low set points, low lamp output, leaks, system fault, etc.
Humidity Control	Humidity sensor with large plug-in regenerating desiccant system
Wavelength	Multiple wavelengths
Light Source	LED
Flow Rate	300-1000 mL/min
Pressure Rating	20 PSI maximum
Fluid Connections	1/4" OD tube push-in fittings
Wetted Materials	Kynar, Polyethylene, Quartz, SS 316L, Viton
Electrical/Comm.	From controller
Ambient Temp.	0 to 45°C (32 to 113°F)
Water Temp.	0 to 90°C (32 to 194°F) at 21°C (69.8°F) Ambient temperature
Enclosure	NEMA 4X, wall mountable
Weight	24 lb
Dimensions	15.82"H x 13.82"W x 9.00"D
Warranty	2-year limited warranty (Extended care packages available)

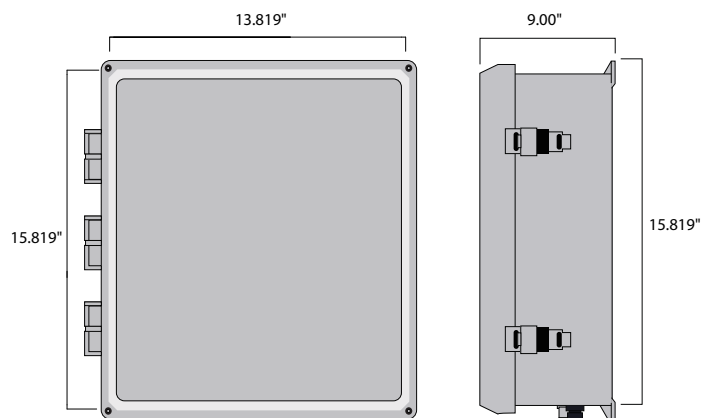
* Technical Specifications are subject to change without notice.

* Water temperature range based on material compatibility only. Contact Real Tech to verify application.

DIMENSIONS

The permanganate sensors is a bypass cabinet instrument installed directly on a wall, railing or system backboard. Sample is supplied to the sensor from either a pressurized source.

DIMENSIONS FOR PERMANGANATE SENSOR



SENSOR MODELS & RANGE

Includes permanganate sensor, flow cell, calibration bottle and dehumidifier.
Controller and accessories sold separately.

MODEL#	PATH LENGTH	PERMANGANATE (mg/L)	PERMANGANATE (µg/L)
PML4025	25 mm	0.1 - 20	100 - 20,000
PML4050	50 mm	0.05 - 10	50 - 10,000
PML4100	100 mm	0.025 - 5	25 - 5,000
PML4150	150 mm	0.02 - 3.5	20 - 3,500

* Stated ranges are approximate, dependent on industry, site and application - contact Real Tech to confirm model selection.

CONTROLLERS

Controllers include proprietary inputs for Real Tech sensors and accessories.

PRODUCT #	NAME	DESCRIPTION
S--229005	Real Controller Lite	Wall mounted controller with 4-line x 20-character back lit LCD display. Includes modbus RTU (RS485)
S-169000	Real Controller	Wall mounted controller with 4-line x 20-character back lit LCD display. Includes modbus RTU (RS485), 1 channel of 4-20 mA out and digital I/O module
S-11TPC	Real Controller Pro	Wall mounted controller with 12.1" colour LCD touch panel PC interface (PC inside cabinet model). Includes Modbus TCP
S-11TPCD	Real Controller Pro	Wall mounted controller with 12.1" colour LCD touch panel PC interface (PC external on door model). Includes Modbus TCP

ACCESSORIES

PRODUCT #	NAME	DESCRIPTION
UVT-118010	Real Clean System II	Automatic chemical cleaning system for use with 4000 series models
S-178121	Dual Feed II	Dual feed option includes Digital I/O module for use with controllers

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