QED™ MicroPurge™ MP25 FLOWCELL

LOW-FLOW GROUND WATER SAMPLING WITH PURGESCAN PLUS™ TECHNOLOGY

The MicroPurge® MP25 Flow Cell system has ease of use and ruggedness built in, designed for practical field conditions. The MP25 system measures electrical conductivity (specific conductance), pH, ORP, dissolved oxygen and temperature and calculated values such as total dissolved solids (TDS), salinity and oxygen saturation, and the MP25T system adds turbidity measurement. Sensor calibration is fast and easy and the sensors are highly stable, so calibration holds under use. The multi-parameter sonde connects wirelessly to most Android tablets and smart phones using a long-life rechargeable Bluetooth battery pack. QED's MP25 flow cell is crystal clear for ease of observation and attaches quickly to the sonde with a bayonet mount. The unique flow-engineered design directs the flow in a tangential path around the cell to provide fast, thorough mixing with no "dead spots" that could affect the accuracy of purge parameter measurements. Bubbles in the flow stream are vented out of the cell and away from the sensors whether vertical or horizontal.

FEATURES

- Exclusive PurgeScan™ technology
- Exclusive Trending function
- Bluetooth connectivity via Android
- Optical DO sensor technology
- Long-life sensors with 3-year warranty
- Data logging with automatic stabilization indicator on log file
- Flow-engineered low volume flow cell (170-210 mL)
- Optional MP25T Turbidity measurement system

BENEFITS

- Lets you know when purging is completed
- Identify hidden trends in purging parameters
- Real time control and monitoring of sonde operation
- Data logging with Well ID file capability
- Eliminate routine maintenance associated with polarographic DO cells
- Automatically displays all readings: pH, ORP, temperature, conductivity, DO, and turbidity (optional)
- Significantly lowers maintenance costs
- Fast response to changes in purge water parameters, even at low flow rates

Successful, consistent low-flow ground water sampling is based on knowing when purge water indicator parameters stabilize.

The new MicroPurge® MP25 Flow Cell system makes this process easy and accurate. QED's exclusive PurgeScan™ technology monitors each parameter and performs the stabilization calculations automatically, letting you know when you're ready to sample. And, when you use the Trending function, the system will also watch to make sure that your purging parameters aren't steadily moving upward or downward even though they fall within the selected parameter range, helping you to avoid "false stabilization" and assuring that purging is truly completed. This makes low-flow sampling easier, more accurate, and more efficient too, as it frees up your time to perform other sampling tasks while purging is underway.

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MP25 FLOW CELL

The entire MP25 system is housed in a rugged, waterproof case that doubles as a measurement and calibration workbench in the field. The system includes the multi-parameter sonde and flow cell, Bluetooth battery pack, 3m waterproof cable, calibration & storage cup, convenient calibration stand, and a range of quick-connect barb fittings to fit most common pump discharge tubing sizes. The sonde and sensors are covered by an exclusive 3-year warranty, with all other system components covered for one year and backed by service and support from QED, the leader in low-flow groundwater sampling.

TYPICAL SENSOR PERFORMANCE SPECIFICATIONS

Parameter		Range	Resolution	Accuracy
Temperature	Temperature	-5 to 50 C	0.01	0.1
pH/ORP	pH	0 to 14 units	0.01	0.1 within 10 C of calibration, 0.2 otherwise
	ORP	-999 to 999 mV	1	20mV
Turbidity	Turbidity	0 to 40 FNU	4 digits with maximum of two deci-mals	2% of reading or 0.2
		40-400 FNU		2% of reading or 0.2
	Transmissivity	400-5000 FNU	4 digits	2% of range
		0 to100% Transmis-sion		linearity of 0.99R^2
Dissolved Oxygen (optical sensor)	Concentration	0 to 20 mg/l	0.01	0.1
		20 to 30 mg/l	0.01	0.15
	% Saturation µS	30 to 50 mg/1	0.1	5%
		0 to 500% saturation	0.1%	±1% of range 0- 225 ±5% of range 225- 500
Conductivity	Specific conductance, µS/cm	0 to 5000 µS/cm	4 digits with maximum of one dec-imal	±0.5% of reading ±0.
	Specific conductance, mS/cm	0 to 10 mS/cm		±1% of reading ±0.001
		10 to 100 mS/cm		1% of reading; 0.5% available
		100 to 275 mS/cm		2% of reading; 0.5% available
	Salinity	0 to 70 PSS	0.01	0.2
	total dissolved solids (TDS)	0 to 65 g/l	0.1	5% of reading

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TYPICAL SENSOR PERFORMANCE SPECIFICATIONS CONTINUED

Model Numbers		MP25 MP25T
Case Dimensions: in. (cm)		20.66” x 17.20” x 8.40” (52.5 x 43.7 x 21.3 cm)
Weight: lbs. (kg)		MP25: 18.6 (8.44)
		MP25T: 20.35 (9.24)
Case Materials		Structural Resin with semi-rigid foam insert
Flow Cell Specifications		
MP25 Flow Cell Operating Volume		210 mL
MP25T Flow Cell Operating Volume		170 mL
Material		rigid urethane
Fitting Type		quick-change barb fittings
Fitting Size(s)		Inlet: 1/4 in. I.D. x 3/8 in. O.D. tubing fitting
		Outlet: 3/8 in. I.D. x 1/2 in. O.D. tubing fitting
Operating Orientation		Horizontal and Vertical
Sonde Connection		Bayonet-Style Twist Mount
Sonde Specifications		
Bluetooth Radio/ Battery Pack Typical Life		Up to 20 hours
Operating Temperature Range		23-122°F (-5 to 50°C)
Cable Length		3 meter/10 ft.
Optional Auxiliary Cable Lengths		Lengths to 200m (650 feet) available
Dimensions:	MP25	1.95” x 17.5” (including storage cup)
	MP25T	2.95” x 17.5” (including storage cup)
Weight:	MP25	1.95 lbs. (0.88 kg)
	MP25T	3.9 lbs. (1.76 kg)

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