

PC4000 Multi-Parameter Water Analyzer



Features & Benefits

Potence Controls PC4000 Multi-parameter Water Quality Analyzer provides accurate, user-friendly inline monitoring of Water Quality parameters like **pH, ORP, Conductivity/TDS, DO, Turbidity/TSS, Chlorine** for different Water applications.

Displaying the status of up to four (4) parameters simultaneously, PC4000 series analyzer provides a complete picture of process status on a single instrument. This multi-channel capability reduces both the number of Analyzers required and the time required for installation, maintenance and upgrades.

The large 4.3" backlit color touch-screen display has been designed to operate in all types of environments and provides information on Main measured value and Temperature simultaneously. PC4000 also provides Retransmission via 4 Nos. of 4–20 mA outputs and RS 485 digital communication.

With a high grade of thermoset plastic material case and NEMA 4X, IP65 waterproof rating the Analyzer is suitable for all types of mounting such as Wall, Pipe and Panel. The simple touch-screen logical menu structure makes the PC4000 easy to use. All stored parameters and calibration data are retained in the Non-volatile memory.

- Four Channel Analyzer
- Measures Dissolved Oxygen, Turbidity / Suspended Solids, Chlorine, pH / ORP, Conductivity / TDS
- 4.3" Backlit touch-screen Display
- Guided calibration procedures
- 4 x 4-20 mA Isolated Outputs
- 5 x Relay Outputs
- Modbus RS 485 Output
- Non-Volatile Memory

Controller Specifications

Parameters	: DO / Turbidity / TSS / Chlorine (Any 2)
	: pH / ORP / Conductivity / Total Dissolved Solids (TDS) (Any 2)
Display	: 4.3" Backlit Touchscreen LCD
Power Requirements	: 100 - 270 VAC $\pm$ 10%, 50/60 Hz
Operating Conditions	: Temperature: -10°C - 65°C, RH - 0 - 95% Non-Condensing
Storage Conditions	: Temperature: -10°C - 75°C
Analog Output Signal	: 4 x 4 - 20mA isolated current outputs, max 600 Ω
Analog Output Function	: Retransmission
Relays	: 5 x Electrochemical SPDT; 10 A; 115/230 VAC
Relays Operational Mode	: Control and Alarm
Digital Communication	: Modbus RS 485
Memory	: Non - Volatile
Calibration Methods	: Refer Sensor Data Details
Test / Maintenance	: Analog output Test Signals, Test Relay Operation
Enclosure	: Thermoset Plastic ; SS
Enclosure Dimension	: 144 (H) x 144 (W) x 132 (D) mm
Enclosure Rating	: IP 65
Mounting	: Wall; Panel; Pipe
Weight	: Approx. 1.80 kg

Dissolved Oxygen Specifications

Measuring Range	: 0.00 to 20.00 mg/L / ppm, 0.0 to 200% Sat
Accuracy	: $\pm 0.5\%$
Resolution	: 0.01 mg/l or ppm
Response Time	: 90% value in less than 60 seconds

Turbidity / TSS Specifications

Measuring Range	: Turbidity : 0 - 50.0 / 200 / 1000 / 4000 NTU
	: TSS : 0 - 4500 mg/L
Accuracy	: $\pm 0.5\%$ of the reading
Resolution	: Turbidity : 0.1 NTU for 0.0 to 50.0 NTU
	: 1 NTU for 0 to 200 / 1000 / 4000 NTU
	: TSS : 1 mg/L
Response Time	: <1 second

Chlorine Sensor

Measuring Range	: 0 / 2 / 5 / 10 / 20 ppm
Accuracy	: $\pm 1\%$ of full scale
Resolution	: ± 0.05 mg/L @25°C
Response Time	: 90 seconds @25°C
pH Compensation	: Yes (Optional)

PC4000 Specifications when used with

pH / ORP Sensors

Measuring Range

pH : 0.00 to 14.00 pH
ORP : -2000 to 2000 mV

Resolution

pH : 0.01 pH
ORP : ± 1 mV

Accuracy

pH : $\pm 0.2\%$ of Full scale
ORP : ± 10 mV

Temp. Compensation : Automatic (-15 to 150°C) / Manual

Temp. Element : Pt100 / Pt1000

Calibration Methods

2-point Buffer (pH Only)
1-point Buffer (pH or ORP)

Conductivity Sensors

Measuring Range

Conductivity : 0.00 - 20.00, 0.0 - 200.0, 0 - 2000 μ S/cm
: 0.00 - 20.00, 0.0 - 200.0 mS/cm
TDS : 0.00 - 10.00ppm, 0.0 - 100.0ppm, 0 - 1000ppt

Resolution

Conductivity/TDS : As per Range set

Accuracy

Conductivity : $\pm 1\%$ of Full scale
TDS : $\pm 1\%$ of Full scale

Temp. Compensation : Automatic or Manual

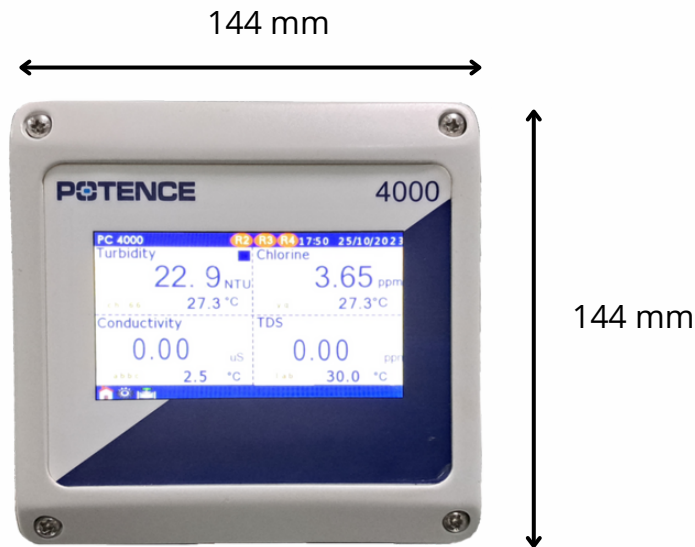
Temp. Element : Pt100 / Pt1000

Calibration Methods

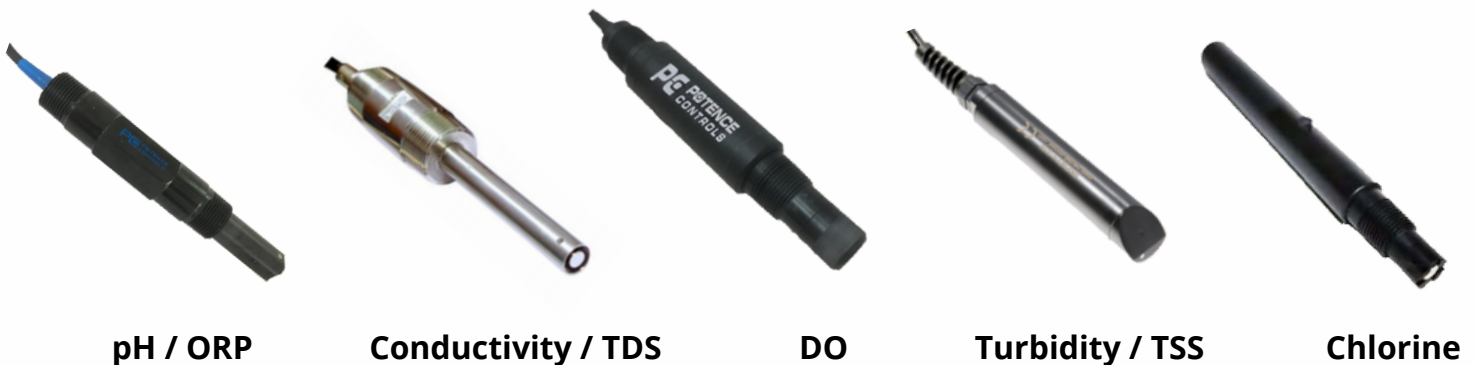
Zero point and 1 point sample

*These performance specifications are typical at 25°C

Dimensional Drawing



Sensors



Ordering Information

Model Number:

PC4000 : 4 Channel Analyzer; 100 - 270 VAC; 50/60 Hz; 4 x 4-20mA; 5 x SPDT Relays; RS485 Modbus; Wall, Panel, Pipe Mount; IP 65

In the interest of improving and updating, PCPL reserves the right to alter specifications at any time.