

## Electrodeless Conductivity / Concentration System



### Features & Benefits

Potence Controls PCECTX Toroidal Conductivity/ Concentration System is ideally suitable for the applications in Wastewater, Cooling Towers, Brine, Desalination, Wet Scrubbers, Chemical Processing, and high conductivity scenario where a rugged, non-fouling conductivity monitoring system with minimal maintenance requirements is desirable.

Controller with Large LCD Screen with brilliant illumination graphically displays up to four weeks of conductivity and concentration measurements, plus allows you to see how your measurements are trending in real time. Easy installation with versatile mounting options for wall or panel mount.

- Monitors Conductivity, TDS, Concentration, and Salinity
- Built-in Concentration tables or User defined table
- 4 - 20 mA Isolated Output
- RS485 Serial Interface (MODBUS RTU)
- Versatile Mounting options (Wall or Panel)

## Sensor Specifications

Measurement Range	: 0 - 2000 mS/cm
Sensor MOC	: PEEK
Temperature Element	: Pt1000 RTD
Cable Length	: 20 Feet (6m), Stripped and Tinned Leads
Process Connection	: 3/4" MNPT
Temperature Range	: 200 °C Max.
Pressure Range	: 200 psig @ 100 °C

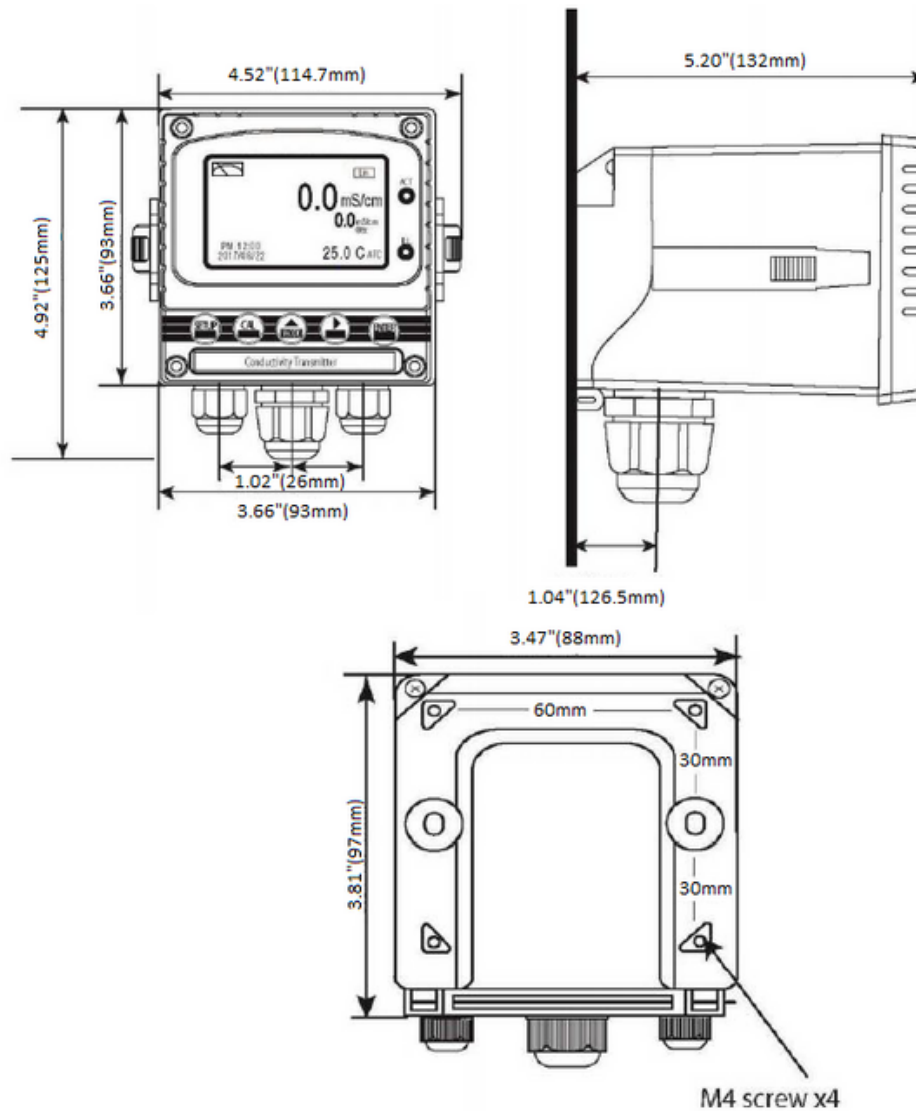
## Controller Specifications

Measurement	: Conductivity or Total Dissolved Solids (TDS) or Salinity or Concentration (Freely selectable via software)
Display	: Large Graphic LCD Display
Power Requirements	: 100 - 270 VAC $\pm$ 10%, 50/60 Hz
Analog Output Signal	: One No. 4 - 20 mA isolated current outputs, max 500 $\Omega$
Analog Output Function	: Retransmission
Relays	: Two Nos. Electrochemical
Relays Operational Mode	: Control and Alarm
Digital Communication	: Modbus RS485 Output
Temperature Compensation	: NTC30K/Pt 1000 Auto or Manual Adjustment
Memory	: Non - Volatile
Enclosure	: ABS
Enclosure Dimension	: 3.8" (96 mm) x 3.8" (96 mm) x 5.2" (132 mm); ¼ DIN
Enclosure Rating	: IP65
Mounting	: Wall; Panel; Pipe
Weight	: 1.1lb (0.5 kg)

## Controller Specifications

Parameter	Range	Resolution	Accuracy
Conductivity	0.0 $\mu$ S/cm~2000 mS/cm Auto	0.1 $\mu$ S/cm, 0.001 mS/cm, 0.01 mS/cm, 0.1 mS/cm, 1 mS/cm	$\pm 1\%$ (Full scale)
Temperature	-30-130°C NTC30K; -30-200°C PT 1000	0.1°C	$\pm 0.1\text{ }^{\circ}\text{C}$ (Full Scale)
TDS	0 ppm~19999 ppm; 0.0~199.9 ppt	-	-
Salinity	0.0 ppt~70.0 ppt	-	-
	Compound	Range	Resolution
Built-in Concentration Table	NaCl	0~28 %	0.01 %
	HCl	0~18 % 22~39 %	0.01 %
	HNO <sub>3</sub>	0~30 % 35~96 %	0.01 %
	H <sub>2</sub> SO <sub>4</sub>	0~37 % 28~88 % 89~99 %	0.01 %
	H <sub>3</sub> PO <sub>4</sub>	0~35 %	0.01 %
	NaOH	0~24 % 15~50 %	0.01%
User defined concentration Table	User may input upto 9 temperature data & 9 corresponding conductivity & concentration values at each temperature		

# Dimensional Drawing



# Ordering Information

Part Number	Description
<b>PCECTX</b>	Electrodeless Conductivity / Concentration Transmitter; 100 - 270 VAC; 50/60 Hz; 4 - 20 mA; Relays; RS485; Panel Mount
<b>PCECS</b>	Electrodeless Conductivity / Concentration Sensor, PEEK Body

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