



INWATER TECHNOLOGIES

POINT4 RIU3 MONITOR AND CONTROLLER

The Point4 RIU3 (Remote Interface Unit) is a versatile and reliable monitoring instrument which can be used to display data and also provides the ability to control. The RIU can be used as a single stand-alone unit, or as part of a larger monitoring system where multiple units are networked together. When used in a daisy-chain, the capabilities of the RIUs are enhanced by connecting to:

- a) Our Point4 LC3 main control panel for data logging, alarming and remote viewing
- b) Our PT4 Sync Software for communication with your PC
- c) Your SCADA system

The RIU3 accepts analog and digital input signals, which allow operators to monitor water quality parameters as well as flowmeters, level switches, etc. The internal relays can be programmed to trigger alarms or control devices.

A key feature of the RIU3 is tank-side probe calibration, which is easily performed using the weatherproof four button keypad. Probe calibration can now be done by just one operator, allowing the user to service the probe and adjust values all at the probe location.

The multi-link network layout minimizes data and probe cable lengths since the RIU3 can be located tank-side and all units connect to the same data bus. This makes the system easily expandable as the facility grows or budgets become available.

Weatherproof Enclosure:
NEMA 4x
IP65 Rated

Easy to Read:
Large Font
Backlit Display

Adjustable Alarm and
Control Setpoints
Probe Calibration

Network Multiple Units
to LC3 touchscreen
controller or PC

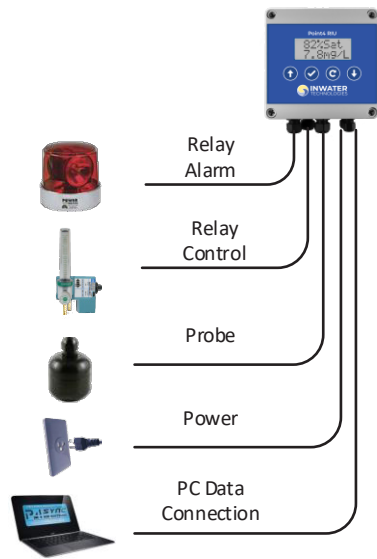


2 Relay Outputs which can
be used to trigger alarms or
control devices

Various Sensor Input Types:
Oxygen
Temperature
pH/ORP
Salinity
TGP
Optical DO
Level Switch

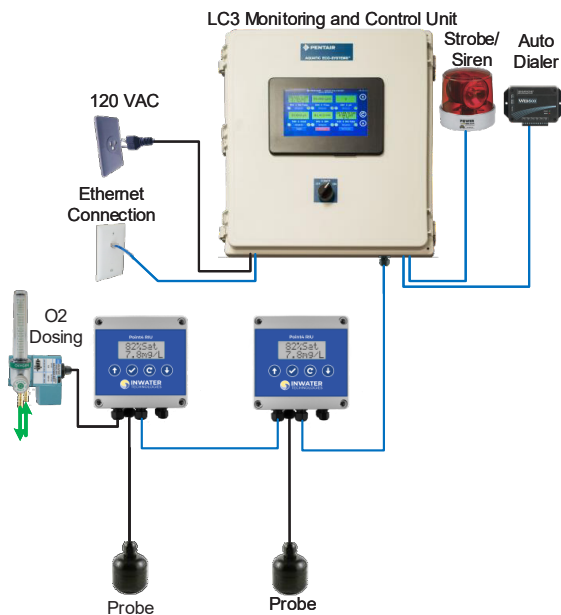
SYSTEM CONFIGURATIONS

Single Unit Controller



FEATURE	DESCRIPTION
Signal Input	Analog signals from probes (4-20 mA or 0-5 VDC); or digital signals (on/off); or MODBUS data
Relay Control Output	Each relay can be programmed for control functions to turn on/off devices, for example a solenoid for oxygen dosing
Relay Alarm Output	Each relay can be programmed for alarm functions to initiate alarm lights and/or siren
Power Supply	24 VDC Adapter
Data Connection	LC3 control panel for datalogging, graphing, emailing alarms, connectivity to phones and tablets PT4 Sync on a PC for remote viewing and datalogging Connection to SCADA system via RS-485 MODBUS

Multi-Linked Network



FEATURE	DESCRIPTION
Multi-Linked Network	Connect up to 48 RIU3s to a touchscreen LC3 controller via RS-485 MODBUS
Centralized Data	Data from all linked units is visible in one place
Trends and Datalogging	View data trends and log data to CSV file
Centralized Alarming	Alarm outputs for Siren/Strobe, Autodialer, etc
Email Alarms	Receive an email when an alarm condition exists
Remote Access	View and control remotely from PC or iOS/Android device

SPECIFICATIONS

Power	12-24VDC, 120mA
Sensor Power	Onboard isolated 24VDC loop power supply
Input	Probe input (optically isolated) (4-20mA, 0-5V, digital on/off, MODBUS RS-485)
Display	8x2 Character, Large Font, LED Backlit
Relay Output	Two SPDT 10 Amp relay-user configurable, LCD/LED Alarm Indicator
Digital Output	MODBUS RTU RS485 communication port, Network addressable
Environmental	NEMA 4X / IP65, Sealed Cable Grips
Temperature	-5 °C to +60 °C - Operation/Storage -10 °C to +60 °C - Storage
Relative Humidity	5% to 85% RH at up to +40 °C - Operation 5% to 40% RH above +40 °C up to +60 °C - Storage
Altitude	Up to 3,000 meters (10,000 feet) - Operation/Storage
Dimensions	125mm x 145mm x 75mm (4.9" x 5.7" x 3")
Weight	457 grams (1 lbs)
Accessories	Wall mount bracket

PROBE OPTIONS

OxyGuard Commander	Galvanic Dissolved Oxygen and Temperature (%Saturation, mg/L, and °C)
OxyGuard Stationary	Galvanic Dissolved Oxygen (Configurable for %Saturation or mg/L)
InSitu RDO	Optical Dissolved Oxygen and Temperature (%Saturation, mg/L, and °C)
Sensorex pH	Process pH Sensor (pH)
Sensorex ORP	Process ORP Sensor (mV)
OxyGuard Salinity	Salinity (ppt)
OxyGuard CO2	Dissolved CO2 probe and transmitter (mg/L)
Temperature	Temperature (°C)
Level Switch	High/Low level switch
Analog Input	Configurable to work with most 4-20mA or mV analog sensors
Discrete Input	Configurable to work with most discrete output sensors or switches

POINT4 PRODUCT COMPARISON

	RIU3	Point4 Sync Software	LC3 (7" Screen)	LC3 (10" Screen)
Alarm Output	●	—	●	●
Email Alarming	—	—	●	●
Viewing on Local PC	—	●	●	●
Remote Viewing on PC/phone/tablet	—	—	●	●
Remote Control	—	●	●	●
Max number of RIUs	—	40	24	48
Data Logging	—	●	●	●
Graphing	—	●	●	●
Cost	\$	\$\$	\$\$\$	\$\$\$\$

RELATED PRODUCTS

NEMA 4X Enclosure	RIU3 mounted inside NEMA 4X enclosure for harsh environments.
Solenoid Valve and Flow Meter	Oxygen ready solenoid valve and flow meter combination installed alongside an RIU3 either on PVC panel or in NEMA 4X enclosure.
Point4 LC3	The LC3 is the main control unit of the Point4 monitoring system and allows for alarm outputs, remote monitoring/control, data logging and graphing. LC3 is available in a 7" screen for up to 24 RIUs, or in a 10" screen for up to 48 RIUs.
Point4 Sync	Point4 Sync is Microsoft Windows based software that allows for viewing of networked RIUs on a PC, where data can be logged in CSV files.
Remote HOA Power Supply	A simple, plug and play controller with a Hand/On/Auto selector, allowing you to run your 120 VAC pump in manual mode, or automated mode controlled by setpoints programed at the RIU.
Float Switch Assembly	High or Low water level protection using a float switch assembly which is easily installed and wired into the RIU for alarming purposes.