



Cooling Tower Control & Dosing Acid or Base (pH)

| Ordering Code | Description |
|-----------------|---|
| PH-XP2 | ON/OFF or Proportional pH Controller with powered relay output for optional Acid or Base Pump. Datalogging standard. pH probe, flow switch & manifold not included. |
| DCON-PH2-P | PH-XP2 Controller & Peristaltic Pump with manifold on PVC backboard (Incl. Flow switch, pH probe, & injection valve). |
| DCON-PH2-P-CABG | DCON-PH2-P with controller & pump in IP65 Polyester hinged cabinet. |

Description

One complete pH (acid or base) dosing system for cooling towers, water features, or any circulating system requiring pH correction. The integrated PH-XP2 controller maintains the system pH by dosing either Acid or Base via one Peristaltic Pump.

The systems are supplied with manifold on PVC backboards or with controllers and pumps in IP65 hinged cabinets.

pH control can be programmed to take place continuously or only during 28 day timer programs. High & Low Level and Maximum Dose Timer Alarms are standard features. Datalogging of the pH level, output and alarm status is incorporated in the controller and can be downloaded via a Coms port on the front fascia.

Features & Benefits

- pH Control (with 28 day timer) of Acid or Base via dosing pumps
- Data logging of pH, output status, alarm & power status
- Easy to program and calibrate
- Backlit LCDs simultaneously displays pH process value & pH Setpoint
- Manual priming & testing via menu
- Automatic Slug Dose Feature
- Fail-safe alarm relay with remote power failure detection
- Flow switch logic can be reversed or disabled.
- Weatherproof - can be mounted outside

XP2 Series

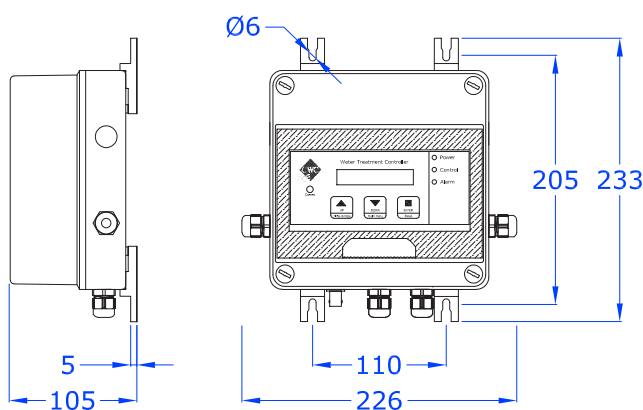


PH-XP2



DCON-PH2-P

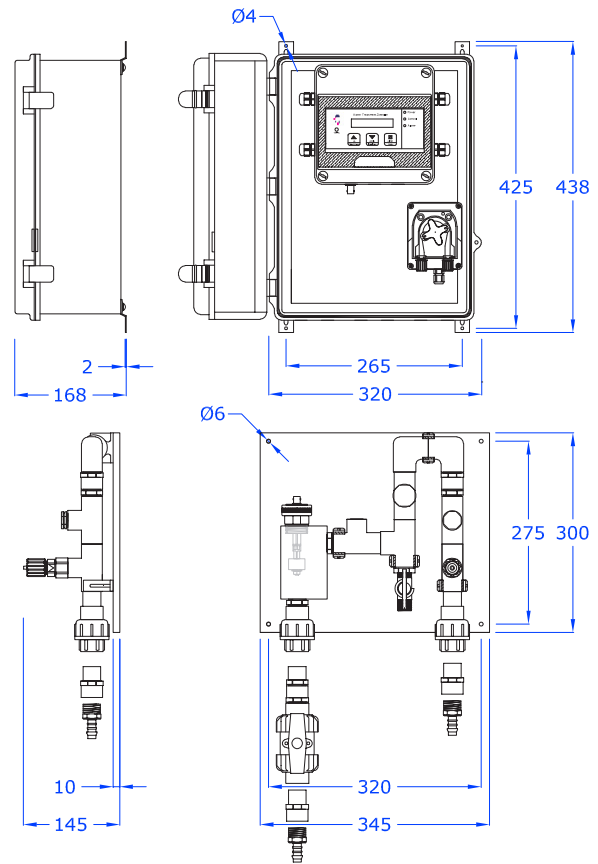
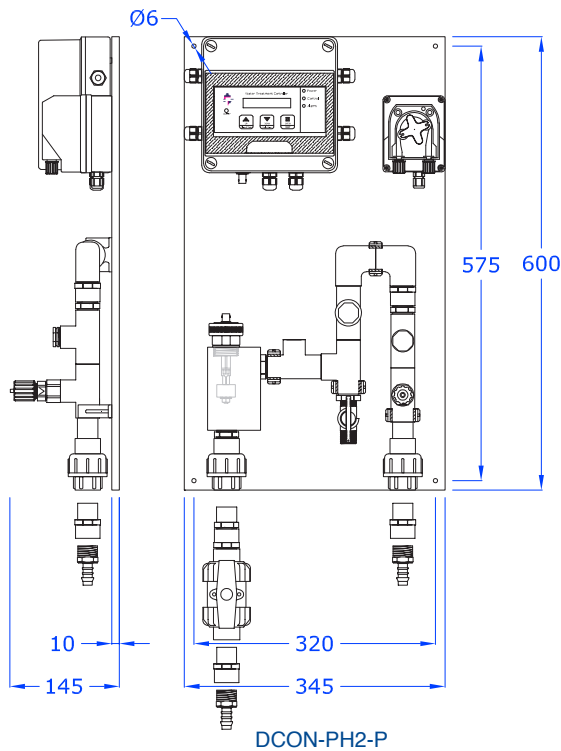
Dimensional Drawing - Controller only



PH-XP2

(Note: Specifications subject to change without notice)

Dimensional Drawings



How to Order

Controller Only (excludes probes, pumps, manifold, backboard & cabinets)

Ordering Code → **PH - XP2**

Conductivity Bleed & Dosing Systems Supplied with Peristaltic Dosing Pumps

Ordering Code → **DCON - PH2 - P - CABG**

| Explanation of Fixed Part Codes | |
|---------------------------------|---|
| DCON | System with XP2 Series controller (supersedes DCON Series controller) |
| PH2 | pH Control Incorporated |
| P | pH Control via Dosing Pump |

| Mounting of Controller & Pumps | |
|--------------------------------|--|
| blank | Controller & pump on PVC backboard. |
| CABG | Controller & pump in IP65 hinged cabinet |

Options & Accessories

| Ordering Code | Description |
|-------------------|--|
| RV ILS-3/4-T20E | In-line Strainer, 3/4" NPTF ports, transparent Nylon bowl, 20% glass filled PP body, EPDM gasket, 20 mesh (915 micron) SS304 screen, max 6.9 bar @ 52 degC or 10.3 bar @ 21 degC, mounting in any orientation |
| RV ILS-1-T20E | In-line Strainer, 1" NPTF ports, transparent Nylon bowl, 20% glass filled PP body, EPDM gasket, 20 mesh (915 micron) SS304 screen, max 6.9 bar @ 52 degC or 10.3 bar @ 21 degC, mounting in any orientation |
| AF09B-XP2 | Isolated 4-20mA output card (proportional to 0-13.99pH) |
| AF10B-XP2 | Output Card for BMS/DDC, incl. isolated 4-20mA (proportional to 0-13.99pH), plus open collector NPN logic outputs for pump/solenoid valve status, and for alarm & power status. |
| SP-XP2-COMCABLE-3 | USB cable for local download of logged data from DIGICHEM ® XP2 & PH-XP2 controllers (plugs into Comms port on controller fascia. Software for download at www.cwc.com.au) |

Specifications

| | DCON-PH2-P | DCON-PH2-P-CABG |
|---------------------------------|---|-------------------------------|
| Dosing Pumps Incl. | | |
| Acid/Base (pH controlled) | 1.3 l/hr | 1.3 l/hr |
| Pump Type | Peristaltic Pump (SEKO PE-1.3-FP-T), 2.7 bar max (Tygon Squeeze tube, PVDF injection valve, PVC foot valve, Clear PVC suction tubing, Black UV stable PE discharge tubing). | |
| Manifold | | |
| Description (Inlet to Outlet) | Inlet, isolation valve, flow switch, pH Probe, sample point, check valve, injection points, outlet. | |
| Probes Included | pH (WA OPF10-NNN-1.5m), N/O volt-free flow switch | |
| Inlet & Outlet | 20mm solvent weld union ends, or 3/4" BSP Female thread (3/4" Male x 12mm hoesetails supplied loose) | |
| Max Pressure & Temp | 270 kPa (2.7 bar), 50°C | |
| Physical | | |
| Protection | IP65 | IP65 |
| Operating Temperature | 0-50°C | |
| Pump and/or Controller mounting | PVC backboard | IP65 Polyester Hinged cabinet |
| Manifold mounting | PVC backboard | |
| Packaged dimensions | 630(l) x 370(w) x 290(h) mm | 480(l) x 370(w) x 400(h) mm |
| Actual Packaged weight | 9kg | 12kg |



Specifications - cont.

| PH-XP2 CONTROLLER | |
|------------------------------|--|
| Control Functions | |
| Measured Variables | pH |
| Range | 0-13.99pH |
| Resolution | 0.01pH |
| Accuracy | 0.4% of Range |
| Repeatability & drift | 0.8% of Range |
| Control Type | ON/OFF or proportional |
| Hysteresis | 1-90% (ON/OFF control only) |
| ON/OFF Dose [Bleed] Cycle | ON/OFF = 0-99s/0-99s (ON/OFF control only) |
| Proportional Band | 1-90% (Proportional control only) |
| Cycle Time | 10-100s (Proportional control only) |
| Timer Programs | pH control can be programmed to occur continuously or only during 28 day timer programs |
| Alarms | |
| Level Alarms | High & Low pH |
| Max Dose [Bleed] Timer Alarm | 0-999m (0=disabled) |
| Alarm Output | Common alarm via N/O & N/C failsafe volt-free contact |
| General | |
| Display | Backlit Single Line LCD displays pH process value, Setpoint, Flow & Alarm Status |
| Keypad | UP, DOWN & ENTER pushbuttons |
| LED Indication | None required as all output status indicated on LCD display |
| Manual Test | All outputs independently activated via menu |
| Flow Sensing | Can be enabled/disabled |
| Calibration | Menu driven |
| Datalogging Interval | Programmable from 5 min to 240 min |
| Logged Variables | pH, %Output, %Alarm |
| Data Retention | 100 years |
| Battery Backup | 1 year (approx) |
| Battery Type | CR2032 (3VDC) |
| Electrical | |
| Power Supply | 220-240 VAC, 50/60Hz (110VAC available on request) |
| Power Consumption | 10W max (with no loads on outputs) |
| Fuse | 2A, 5x20mm (in-line with circuit & powered relays) |
| Auxiliary Mains Output | 240VAC continuous (2A fused) |
| Control Relay Outputs | Switched 240VAC outputs rated 6A/250VAC resistive (4A fused) |
| Alarm Relay Outputs | N/O & N/C Volt-free (6A/250VAC resistive) 2A fused. Relay Coil de-energises on power failure |

Recommended Spare Parts & Consumables

| Ordering Code | Description |
|-------------------|---|
| WA OPF10-NNN-1.5m | Replacement pH probe, 1.5m cable |
| SP-SK-01A-BK-TY | Replacement Squeeze tube, Tygon 3x7.4mm (pre-greased with connectors) for SEKO PE-1.3 peristaltic pump with SP-SK-06 rotor assembly |
| SP-SK-06 | Replacement rotor assembly for SEKO PE-1.3 pump with SP-SK-01A-BK-TY squeeze tube |