



fluid and water technology

# CTRL POOL

The simple, reliable, cost effective system for small pools



## THE SIMPLE, RELIABLE, COST EFFECTIVE SYSTEMS FOR SMALL POOLS

FWT® is pleased to introduce a new system for small swimming pools comprised of controllers and peristaltic dispenser featuring various functions for continuous measurements and different levels of operating modes and programming procedures. CTRL POOL covers most of small swimming pools technical requirements, safety and able to match different price demands. **Four series are available:**

### CTRL POOL



CTRL POOL



CTRL POOL V

CTRL POOL is a compact system, with **single** controller and a peristaltic dispenser all integrated in one enclosure.

- PH measurement can be changed to RX just a simple programming and using RX electrode

**BENEFIT:** The above feature allow dealers to stock one type for all controller thus reducing stock value or saving problems when issuing orders to manufacturer. The quality is well included in the price relationship.

**Measuring parameters: pH or RX (ORP)**

Two types of programming menu:

- **Basic** making life easier for home applications with small swimming pool;
- **Expert** for professionals giving the opportunity to refine measurements and safety functions.

A friendly user menu programming it is almost self-explanatory and the elegant wide display allows easy vision.

### MAIN CHARACTERISTICS

#### INPUTS

- ✓ pH or RX electrodes
- ✓ Proximity switch (flow sensor)
- ✓ Temperature probe NTC type (probe upon request)
- ✓ 1 Level switch input for external chemical tank

#### OUTPUTS

- 1 set-point relay ON-OFF / PWM mode
  - PWM mode for peristaltic proportional operations
- 1 Alarm output relay

CTRL POOL is equipped with a peristaltic dispenser UPER series with **fixed** flow rate

CTRL POOL V is equipped with a peristaltic dispenser VPER series with **adjustable** flow rate

Provided with Accessory kit

- Universal power supply 100÷250 Vac (available 12÷24 Vdc);
- ON-OFF mode; Timed pulses mode (PWM) start/stop mode;
- Hysteresis and Delay adjustable;
- Max / min Alarm output;
- PH range: 0÷14; Resolution: pH ± 0,01;
- REDOX range ± 2000 mV; Resolution ± 1 mV;
- PWM / timed pulses activating point: 1.50 pH / 150 mV;
- Basic / Expert menu programming;
- Temperature measurements (NTC);
- Level control of external chemical tank
- Peristaltic hose: Santoprene

#### DISPLAY

- Large Graphic display 70x50 (128x64 pixels);*
- Simultaneous measurements;*
- Scrolling output keys and programming menu;*
- Graphic icons for status of outputs,*
- Alarm signaling;*
- Display backlight adjustment for energy saving;*
- Set point relay activation;*
- Error and No link (485 communication);*
- Level control and Flow sensor status*

#### VPER peristaltic characteristics

	l/h	bar
▪ ADJUSTBLE flow rate	1	3
	4	3

#### UPER peristaltic characteristics

	l/h	bar
▪ FIXED flow rate	1,1	1
	2,2	1

## CTRL+ POOL



CTRL+ POOL



CTRL+ POOL V

CTRL+ POOL is a **multifunction** compact system, with **single** controller and a peristaltic all integrated in one enclosure.

- PH measurements can change to RX changing the parameter during programming and using RX electrode;
- Chlorine measurements features 4 chlorine ranges suitable for Membrane type sensors 0-2 ppm, 0-20 ppm, 0-200 ppm and also for Open type chlorine cell range 0-10 ppm;
- Conductivity measurements features K factor ranges (Cell Constant) selectable K1 20.000  $\mu$ S; K 5 up to 2.000  $\mu$ S;
- PPM measurements suitable for Membrane sensors for Hydrogen Peroxide with various ranges;
- Real time clock and timer functions; Start/Stop time clock.

**BENEFIT:** the above feature allow dealers to stock one type for all controller thus reducing stock value or reducing problems when issuing orders to manufacturer. **2 Auxiliary outputs** drive remote equipment via timer operations making this unit extremely versatile to control also other functions of the system to service.

**Measuring parameters: pH, RX (ORP), Chlorine, Hydrogen Peroxide, Conductivity**

Two types of programming menu:

- **Basic** making life easier for home applications with small swimming pool;
- **Expert** for professionals giving the opportunity to refine measurements and safety functions.

A friendly user menu programming it is almost self-explanatory and the elegant wide display allows easy vision.

### MAIN CHARACTERISTICS

#### INPUTS

- ✓ pH or RX electrodes
- ✓ Proximity switch (flow sensor)
- ✓ Temperature probe PT100 type (probe upon request)
- ✓ 1 Level switch input for external chemical tank

#### OUTPUTS

- 1 set-point relay ON-OFF / PWM mode
  - PWM mode for peristaltic proportional operations
- 1 Alarm output relay
- 2 Auxiliary relay outputs
- 2 of 4-20 mA Auxiliary output

CTRL+ POOL is equipped with a peristaltic dispenser UPER series with **fixed** flow rate

CTRL+ POOL V is equipped with a peristaltic dispenser VPER series with **adjustable** flow rate

Provided with Accessory kit

#### VPER peristaltic characteristics

- |                       | l/h | bar |
|-----------------------|-----|-----|
| ▪ ADJUSTBLE flow rate | 1   | 3   |
|                       | 4   | 3   |

#### UPER peristaltic characteristics

- |                   | l/h | bar |
|-------------------|-----|-----|
| ▪ FIXED flow rate | 1,1 | 1   |
|                   | 2,2 | 1   |

- Universal power supply 100÷250 Vac (available 12÷24 Vdc);
- 485 communication between measuring unit – transmitter;
- ON-OFF mode; Timed pulses mode (PWM) start/stop mode;
- Hysteresis and Delay adjustable; Max / min Alarm output;
- PH range: 0÷14; Resolution: pH  $\pm$  0,01;
- REDOX range  $\pm$  2000 mV; Resolution  $\pm$  1 mV;
- PWM / timed pulses activating point: 1.50 pH / 150 mV;
- mA output, galvanic isolation; aux functions;
- Real time clock; Timer for Start-up / Stop unit operations;
- Basic / Expert menu programming;
- Temperature measurements (PT100 or NTC);
- Level control of external chemical tank
- Peristaltic hose: Santoprene

#### DISPLAY

*Large Graphic display 70x37 (128x64 pixels);*

*Simultaneous measurements;*

*Scrolling output keys and programming menu;*

*Graphic icons for status of outputs,*

*Alarm signaling;*

*Display backlight adjustment for energy saving;*

*Set point relay activation;*

*Error and No link (485 communication);*

*Level control and Flow sensor status*

## CTRL2 POOL



CTRL2 POOL



CTRL2 POOL V

CTRL2 POOL is a compact system, with **dual** controller and two peristaltic dispensers all integrated in one enclosure.

- PH measurement can be changed to RX just a simple programming and using RX electrode

**BENEFIT:** The above feature allow dealers to stock one type for all controller thus reducing stock value or saving problems when issuing orders to manufacturer. The quality is well included in the price relationship.

Measuring parameters: **pH and RX (ORP)**

Two types of programming menu:

- **Basic** making life easier for home applications with small swimming pool;
- **Expert** for professionals giving the opportunity to refine measurements and safety functions.

A friendly user menu programming it is almost self-explanatory and the elegant wide display allows easy vision.

### MAIN CHARACTERISTICS

#### INPUTS

- ✓ pH and RX electrodes or Membrane sensor or Cl cell
- ✓ Proximity switch (flow sensor)
- ✓ Temperature probe NTC type (probe upon request)
- ✓ 1 Level switch input for external chemical tank

#### OUTPUTS

- 2 set-point relay ON-OFF / PWM mode
  - PWM mode for peristaltic proportional operations
- 1 Alarm output relay

CTRL2 POOL is equipped with two peristaltic dispensers UPER series with **fixed** flow rate

CTRL2 POOL V is equipped with two peristaltic dispensers VPER series with **adjustable** flow rate

Provided with **two** Accessory kits

VPER peristaltic characteristics	l/h	bar
▪ ADJUSTBLE flow rate	1	3
	4	3

UPER peristaltic characteristics	l/h	bar
▪ FIXED flow rate	1,1	1
	2,2	1

- Universal power supply 100÷250 Vac (available 12÷24 Vdc);
- ON-OFF mode; Timed pulses mode (PWM) start/stop mode;
- Hysteresis and Delay adjustable;
- Max / min Alarm output;
- PH range: 0÷14; Resolution: pH ± 0,01;
- REDOX range ± 2000 mV; Resolution ± 1 mV;
- PWM / timed pulses activating point: 1.50 pH / 150 mV;
- Basic / Expert menu programming;
- Temperature measurements (NTC);
- Level control of external chemical tank
- Peristaltic hose: Santoprene

#### DISPLAY

*Large Graphic display 70x50 (128x64 pixels);;*

*Simultaneous measurements;*

*Scrolling output keys and programming menu;*

*Graphic icons for status of outputs,*

*Alarm signaling;*

*Display backlight adjustment for energy saving;*

*Set point relay activation;*

*Error and No link (485 communication);*

*Level control and Flow sensor status*

## CTRL2/6 POOL



CTRL2/6 POOL



CTRL2/6 POOL V

CTRL2/6 POOL is a **multifunction** compact system, with **dual** controller and a peristaltic all integrated in one enclosure.

- PH measurements can change to RX changing the parameter during programming and using RX electrode;
- Chlorine measurements features 4 chlorine ranges suitable for Membrane type sensors 0-2 ppm, 0-20 ppm, 0-200 ppm and also for Open type chlorine cell range 0-10 ppm;
- Conductivity measurements features K factor ranges (Cell Constant) selectable K1 20.000  $\mu$ S; K 5 up to 2.000  $\mu$ S;
- PPM measurements suitable for Membrane sensors for Hydrogen Peroxide with various ranges;
- Real time clock and timer functions; Start/Stop time clock.

**BENEFIT:** the above feature allow dealers to stock one type for all controller thus reducing stock value or reducing problems when issuing orders to manufacturer. **3 Auxiliary outputs** drive remote equipment via timer operations making this unit extremely versatile to control also other functions of the system to service.

**Measuring parameters: pH, RX (ORP), Chlorine, Hydrogen Peroxide, Conductivity**

Two types of programming menu: **Basic** and **Expert**.

CTRL POOL/U features a peristaltic with **fixed** flow; CTRL POOL/V features a peristaltic with **adjustable** flow rate.

### MAIN CHARACTERISTICS

#### INPUTS

- ✓ pH and RX electrodes or Membrane sensor or Cl cell
- ✓ Proximity switch (flow sensor)
- ✓ Temperature probe NTC type (probe upon request)
- ✓ 1 Level switch input for external chemical tank

#### OUTPUTS

- 2 set-point relay ON-OFF / PWM mode
  - PWM mode for peristaltic proportional operations
- 1 Alarm output relay • 3 Auxiliary relay outputs
- 2 of 4-20 mA Auxiliary output

CTRL2/6 POOL feature 2 **fixed** flow rate peristaltic

CTRL2/6 POOL V feature 2 **variable** flow rate peristaltic

Provided with **two** Accessory kits

- Universal power supply 100÷250 Vac (available 12÷24 Vdc);
- 485 communication between measuring unit – transmitter;
- ON-OFF mode; Timed pulses mode (PWM) start/stop mode;
- Hysteresis and Delay adjustable; Max / min Alarm output;
- PH range: 0÷14; Resolution: pH  $\pm$  0,01;
- REDOX range  $\pm$  2000 mV; Resolution  $\pm$  1 mV;
- PWM / timed pulses activating point: 1.50 pH / 150 mV;
- mA output, galvanic isolation; aux functions;
- Real time clock; Timer for Start-up / Stop unit operations;
- Basic / Expert menu programming;
- Temperature measurements (PT100 or NTC);
- Level control of external chemical tank
- Peristaltic hose: Santoprene

#### DISPLAY

*Large Graphic display 70x37 (128x64 pixels);  
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Display backlight adjustment for energy saving;  
Set point relay activation;  
Error and No link (485 communication);  
Level control and Flow sensor status*

#### UPER peristaltic characteristics

	l/h	bar
▪ ADJUSTBLE flow rate	1	3
	4	3

#### UPER peristaltic characteristics

	l/h	bar
▪ FIXED flow rate	1,1	1
	2,2	1

## EXTRA FEATURES UPON REQUEST FOR CTRL+ AND CTRL2/6 SERIES



- ✔ **RS485** expansion board Modbus protocol using FWT® TOUCH software;
- ✔ **USB** port direct download Data Logger on Pen drive via FWT® software (USB pen not included);
- ✔ **ETHERNET** connection external module: it allows operator to connect to the unit via PC and change programming and settings using FWT® CTRL software. Unit will signal once reaching alarm level or overdosing settings (USB pen not included)

## DIMENSIONS / ENCLOSURES



**CTRL / CTRL+ POOL**  
Enclosures B IP56 ABS enclosure, lid captive screws UL94 HB  
203w x 172h x 110,80



**CTRL / CTRL+ POOL V**  
Enclosures B IP56 ABS enclosure, lid with screws UL94 HB  
200w x 172,5h x 130,40



**CTRL2 / CTRL2/6 POOL**  
Enclosures B IP56 ABS enclosure, lid captive screws UL94 HB  
202w x 273,80h x 125,40



**CTRL2 / CTRL2/6 POOL V**  
Enclosures B IP56 ABS enclosure, lid with screws UL94 HB  
202w x 273,80h x 149,20

## CHARACTERISTICS OVERVIEW

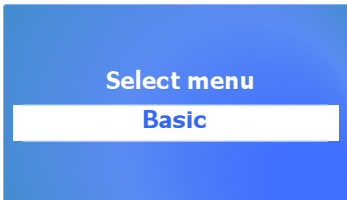
	CTRL POOL	CTRL+ POOL	CTRL2 POOL	CTRL2/6 POOL
Measuring parameters	1	1	2	2
Display visible area	45x27 mm	70 x 37 mm	45x27 mm	70 x 37 mm
Display resolution	128 x 64	128 x 64	128 x 64	128 x 64
Output relays	2	4	2	6
Set points	1	1	2	2
Temperature	NTC	PT100 or NTC	NTC	PT100 or NTC
mA outputs	✘	2	✘	2
Real clock timer	✘	✔	✘	✔
Auxiliary Outputs	✘	2	✘	3
Alarm relay	✔	✔	✔	✔
Level control	1	1	2	2
Flow sensor function	✔	✔	✔	✔
On-Off mode	✔	✔	✔	✔
PWM mode	✔	✔	✔	✔
Over dosing alarm	✘	✔	✘	✔
Max Dosing Time	✘	✔	✘	✔
RS485 / Software	✘	✔	✘	✔
ETHERNET*	✘	✔	✘	✔
GSM connection*	✘	✔	✘	✔

# PROGRAMMING FEATURES

## PROGRAMMING MENU

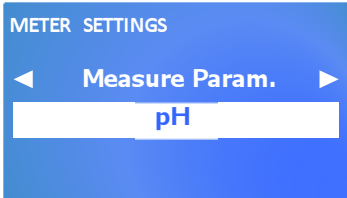
FWT controllers feature two programming menu:

- Basic menu with simplified functions;
- Expert: complete programming including functions for more refined control and results.



## SELECTING MEASURING PARAMETER PH/RX

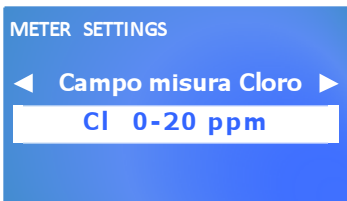
Measuring parameter can be changed from PH to RX and consequently changing display and measurement data and programming parameter settings.



## SELECTING CHLORINE MEASURING RANGE

Chlorine controller is set as for 4 ranges:

- Membrane type ion selective sensor, covering ranges 0-2 ppm; 0-20 ppm; 0-200 ppm;
- Open chlorine cell (CLC3 model) range 0-10ppm



## CHANGING VALUES

- CTRL series has a keyboard with buttons for changing values placed on the front panel;



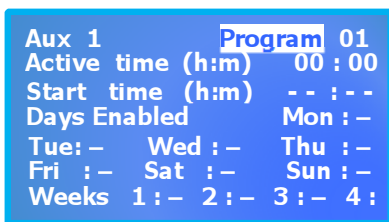
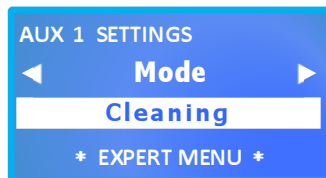
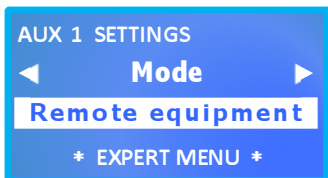
## AUXILIARY OUTPUTS

**Auxiliary outputs** can remote control various functions related to external equipment and dosing pump including automatic Open chlorine cell cleaning. Each output can drive remote equipment or devices according to a very accurate programming of minutes/hours/days/weeks.

AUX1 output can be set for remote control of external equipment or for a cleaning program of Open Chlorine cell (FWT series CLC); other AUX outputs only have remote control external equipment.

## CTRL series

Operator can program the working days and weeks and the exact time of the unit operations (ON-OFF mode).



Program settings features many steps, which can be programmed to have the most accurate operation with absolute precision (up to 99 programs for each AUX output).

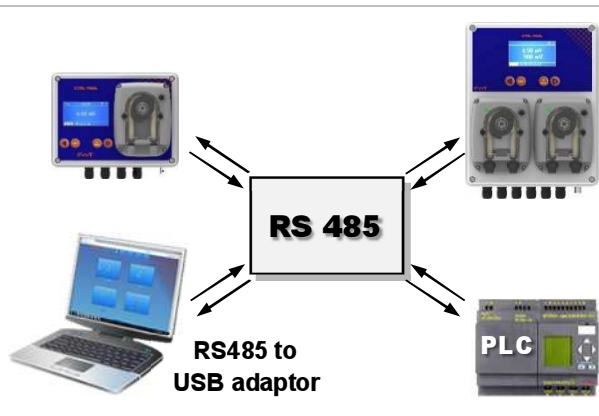
# REMOTE CONTROL FEATURES

CTRL+ POOL and CTRL/26 POOL series are suitable for remote control by RS485 expansion board with Modbus protocol using FWT® software.

ETHERNET connection allows the operator to connect to the unit via PC and change programming and settings using FWT® software. Unit will signal once reaching alarm level, overdosing settings or Max dosing pump time out.

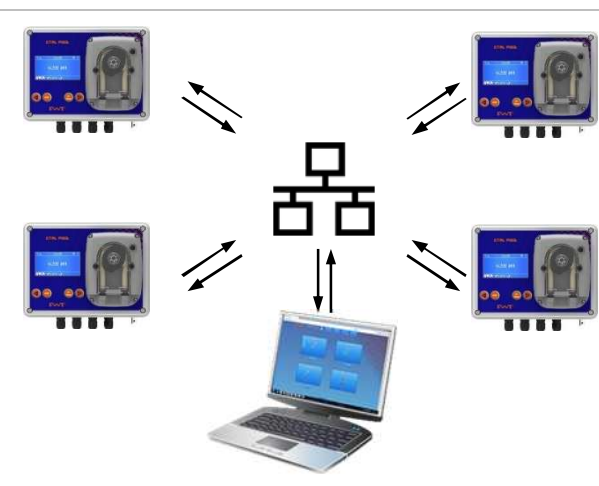


## CTRL+ / CTRL 2/6 POOL REMOTE CONTROL CONNECTIONS



**RS485** connection, single unit.

Management programming by PC through FWT® software or PLC.



**ETHERNET** connection, multiple units. **Private network** (Intranet), external module.

Management programming by PC through FWT® software. User can name each unit.

## CTRL+ / CTRL2/6 POOL REMOTE CONTROL CONNECTIONS

FWT offers wide range of complete panel mounted stations for in-line measuring and control, which are available in a variety of designs covering most of requirements for most installations. FWT panels allow also full customization according to individual application.



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