

Kontrol 800 Cooling Tower Panel

Controller panel pH, Conductivity, Redox, Temperature



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Metering control system **Kontrol 800 Panel 800 for Cooling Tower Application**, it is a complete panel station with hydraulic part and Electronic controller instrument.

The **Kontrol panel 800** is based on user friendly approach, can be selected and its maintenance can be done without technical knowledge.



The **Kontrol 800 Control Instrument** is a dedicated multi-parameter controller to drive dosing pumps and open drain valve (Blow down function), to solve four significant problem to be addressed with **Cooling Tower application**:

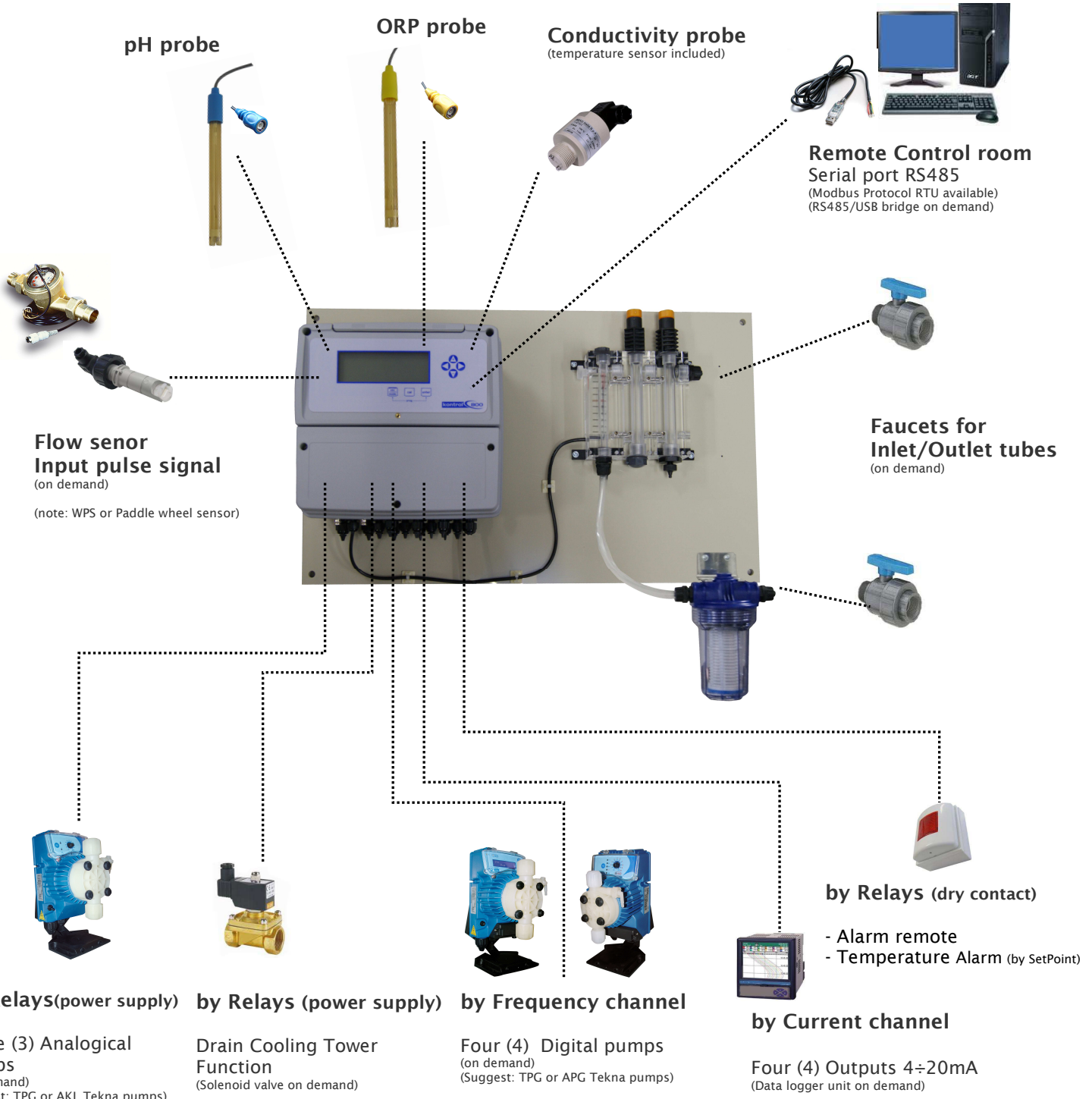
- **Scale** – Because water is continually being lost by evaporation, fresh water has to be added. With this water come certain impurities: hardness, alkalinity, silica, etc.
- **Corrosion** – Anytime water and metal come in contact. How well the water treatment professional minimizes that corrosion is a measure of the water treatment program's success.
- **Fouling** – The effect of airborne contaminants (airborne dust, dirt) that are subjected to the system by movement of the air through the water and to a lesser degree by particles falling directly into the tower (leaves, bird droppings).
- **Microbiological Contaminants** –A layer of dead or alive microbiological growths (algae, fungi, yeasts, molds, and bacteria) that can cause corrosion, lead to increased scaling, provide a means to trap fouling materials and can cause excessive energy consumption



Thanks to Kontrol 800 panel will be possible to reduce a corrosion risk to preserve cooling tower station, moreover by serial port (RS485 Modbus RTU) it is possible to check all parameter measures by remote control room.

Layout function:

The following layout drawing inputs and outputs device.



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Multi-parameter control instrument

The Kontrol 800 is a dedicated multi-parameter controller for complex applications that require a number of chemical parameters to be checked at the same time.

The unit features independent proportional control output measures, four programmable frequency outputs, four current channel outputs, RS485 serial port with MODBUS RTU protocol, six relays outputs, probe quality checking and Data logging capability.

Features

Graphic display and Keypad

- Simultaneous value of the measure, Temperature and Relay status.
- 4-lines, 20-characters Alphanumeric Display.
- Seven control keys for instrument calibration and configuration.

Enclosure Box and Power Supply

- Wall mounting PP plastic material IP65 Box
- Universal Power Supply 100÷240 Vac 50/60 Hz

Manual controls

The user-friendly programming step menu makes starting up and checking the control and dosing system easily.

Data logging

Internal Flash memory to load record measures values. Type: Circular (F.I.F.O.) or Filling.

RS485 Serial port

For set-up and real-time data acquisition from remote or for stored data download on PC or laptop (Communication software **SekoNet** required). MODBUS RTU communication protocol.

Measure Input

High measuring resolution with probe quality control for pH and ORP probes.

12:30	FLOW ON
pH 7.20 pH	Tm 25.0°C
Cond 1000 µS	
ORP 750 mV	Hold A

View Measure value

P ON	pH	7.40 pH	Hold
P ON	Cond	1000 µS	
P OFF	ORP	700 mV	
R ON	T	25.0°C	A

View Relays Status

12:30	
Flow	30.0L/S
TRes	168952L
TPerm	168952L A

View Flow rate Measure (Water meter Input)

F1: 1/sec	MEM	Flow
F2:10/sec		0.0
F3:10/sec		L/S
F4: 1/sec		A

View Frequency Outputs to send dosing pumps

12:30	
P1	MTWTFSSMTWTFSS
10.00	X-----
OL	W1 W2

View Weekly setting dosing (two weeks)

Digital Input

Double channel Voltage Input and Reed level Input to disable all function controller output.

Four (4) Current outputs 4÷20mA Galvanic insulation

Four (4) programmable outputs proportional Measures: pH, ORP, Conductivity, Flow rate.

Four (4) Frequency Outputs

- 1÷120 Pulses/Minutes open collector Insulation channel.
- Four (4) independent frequency outputs proportional to the input signal from the water meter pulse sender.

Six (2) Relay Outputs

- **Four (4) independent relays with power supply** dedicated for:
 - **pH** chemical products
 - **Chlorine** by redox measure, open solenoid valve
 - **Blow down function**
 - **Biweekly function for Algaecide** product.
- **Two (2) relays dry contact** for:
 - **Alarm remote**
 - Temperature Set point Measure.

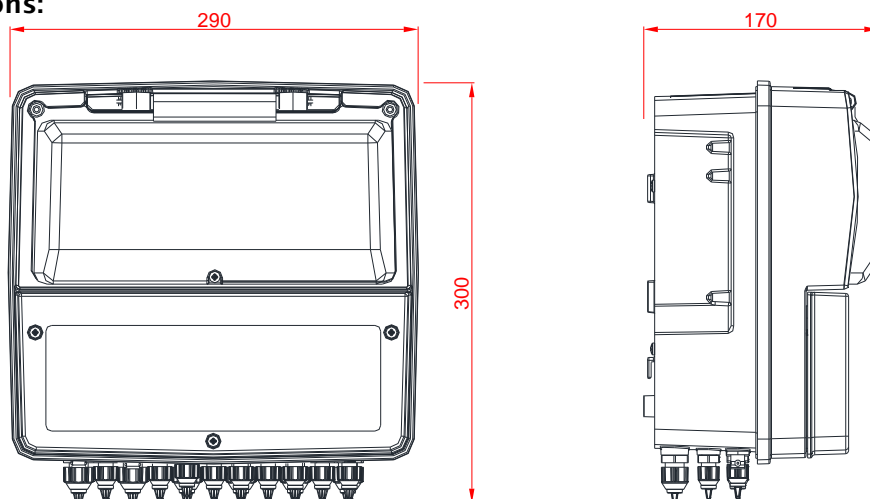
Integrated software functions

- Contact Relays: ON/OFF, Timed, Proportional settings
- Biweekly timer with six (6) programs
- Conductivity measure to convert in Ohm or TDS units
- Flow rate measure with permanent and resettable counter

Measure range

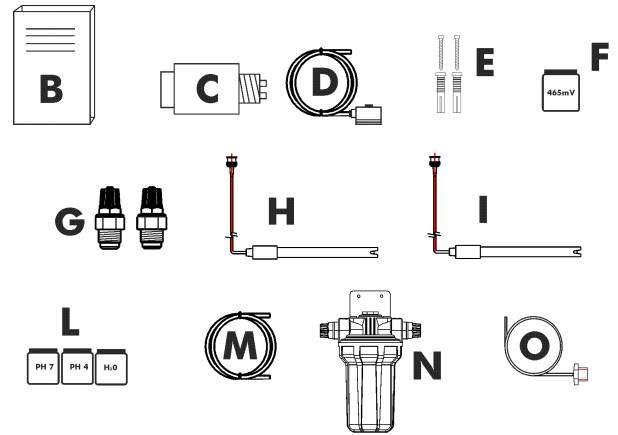
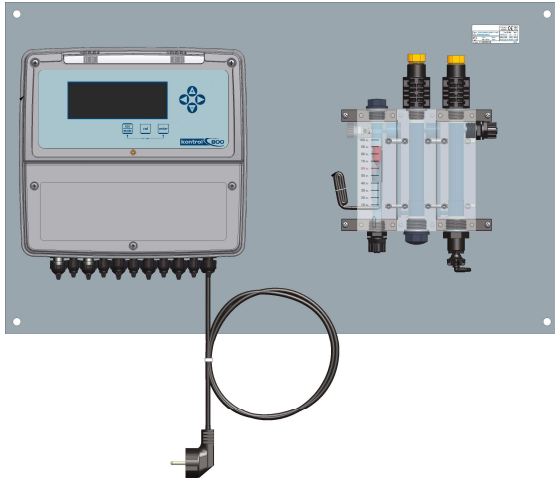
Type	Description
pH	0÷14,00 pH
ORP	± 1500 mV
Flow:	0÷1500Hz (By water meter pulse sender)
Conductivity	1÷200 (Probe K10)/10÷2000(prober K5)/100÷20.000 μ S (probe K1)
Temperature	with PT100/PT1000 0÷100°C (32÷212 °F)

Mechanical Dimensions:



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Package Carton Box:

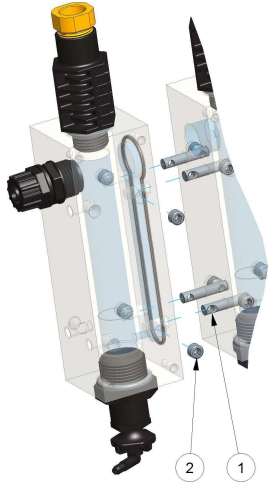


Letter	Item
A	Panel
B	Manual
C	Conductivity probe CTK1
D	Conductivity cable CC
E	Metal anchors
F	Redox Buffer
G	Pipe holder 8x12
H	pH probe
I	Redox probe
L	pH buffer
M	Hose 8x12 mm
N	Filter
O	Temperature probe

TECHNICAL SPECIFICATIONS PANEL

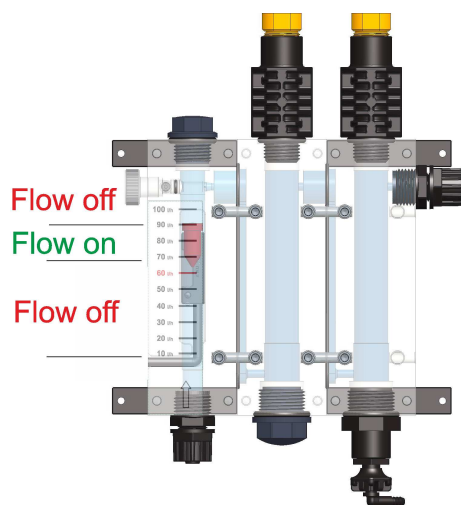
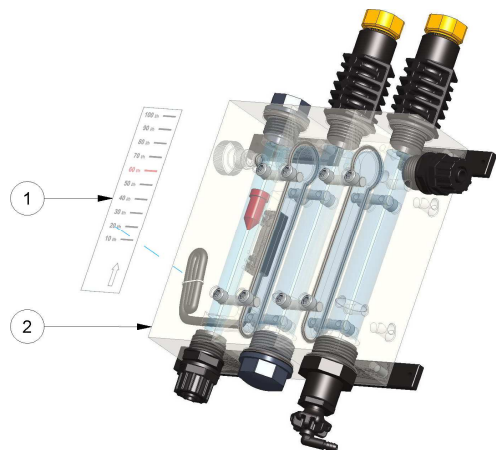
Dimensions: (H x L x T) 420x 700 x 10 mm
Weight: 7 Kg
Input and Output Tubes: 8X12 mm

Modular Probe Holder:



The principle of **patented** modularity consists in elements assembled with metallic tie rods and metal screws.

The Probe Holder is based on user friendly approach, can be selected and its maintenance can be done without technical knowledge.



Feedback Flow rate value thanks to magnetic red float with external reed sensor for proper flow rate between 70 and 90 liters/ hour.

A Worldwide Group at your service

seko has been a significant manufacturer of metering pumps and dosing systems for over 40 years. This long activity allowed seko to acquire a vast experience in diversified applications and to confirm its international success in many industrial fields through the supply of reliable solutions for the dosing, injection and transfer of liquids.

Today seko is an International Group, developing, manufacturing and delivering its products in more than 50 countries, through its 16 subsidiaries and an extended network of distributors, agents and authorized dealers.



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