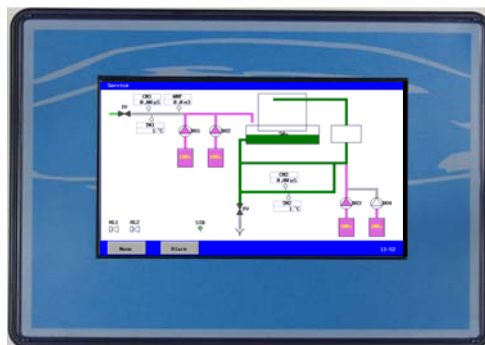


CTS8000

Controller for Cooling Tower



■ Description

The unit type CTS8000 is universal applicable for automatic monitoring and control of cooling tower plants.

There are five possible stages : "Stand by", "Service", "Flushing", "Biociddosing" and "Maintenance".

This unit can monitor conductivity, temperature and several inputs e.g. water meters, level switches, alarm reset flush blocking, flush start etc.. Adaptable to user specific requirements by built-in programmable options. The programmed configuration will be stored into non volatile memory and therefore not be affected by power loss.

■ Features

User Interface

- Colour 7X TFT display (800x480)
- Control through touch panel
- Language : English, French, German, Dutch

Inputs

- 8x Input for potential free switch
- CTS : 1x Conductivity meter (cap, passive) + 1x Temperature meter
- CTI : 1x Conductivity meter (ind., 0-10V)

Expandable with :

- CTS : 3x Conductivity meter (cap, passive) + 3x Temperature meter
- CTI : 1x Conductivity meter (ind., 0-10V)
- Max. 12x input 0 (4) -20mA :
Flow, pressure, conductivity, pH and tank level
or pulse inputs : paddle wheel flow meter

Conductivity meter

- Automatic range switching
- Cell constants from 0,01 - 10,00 cm⁻¹
- Range from 0,5 - 100.000 µS/cm depending on used cell
- Manual or automatic temperature compensation
- Capacitive cell

Temperature meter

- Range from 0 - 94°C (Δ 32 - 201 °F)
- PT1000

Outputs

- 4x Relay output (powered)
- 3x Relay output (dry contact)

Outputs (optional)

- 7x Additional relay outputs
(4x powered / 3x dry contact)
- 6x output 0 (4) -20mA
(recorder, soft starter set point)

Memory

- Last twenty alarm messages will be stored.
- Real time clock with "lifetime" battery
- Programming will be stored and not be affected by power loss.

SD Card

- Software updates
- Programming (Save and Load)
- Data log, Process log and Alarm log

Communication (optional)

- RS485 (data log formats : CSV)
- RS232 (data log formats : CSV)
- Webserver
- Email messages (alarm)

Enclosure

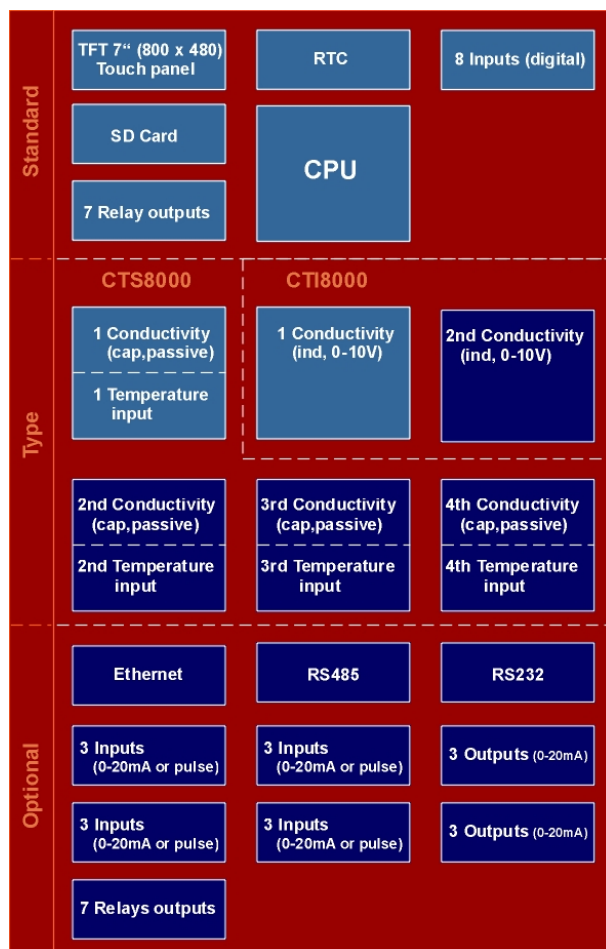
- Suitable for wall mounting, panel mounting and plate mounting
- IP65

Power supply

- 24 VAC input / (output = input or extern)
- 115 VAC input / (output = input or extern)
- 230 VAC input / (output = input or extern)
- *) 115 VAC input / 24 VAC output
- *) 230 VAC input / 24 VAC output
- *) 240 VAC input / 24 VAC output

CTS8000

■ Block diagram



■ Function Table

The relay outputs, digital inputs and inputs 0-20mA are free programmable for the following functions :

Relay Outputs	Digital Inputs	Inputs 0-20 mA	Outputs 0-20mA
Inlet valve	Water meter in	Conductivity meter	Recorder
Flush valve	Water meter flush	Temperature meter	Softstarter set point
Biocid dosing	Stand by	Flow meter	
Proportional dosing	High level switch	Pressure meter	
Circulation pump	Low level switch	Tank level	
Alarm	Remote alarm reset	pH	
Additional program	Level switch dosing tank	ORP	
Service	Pump protection switch		
Stand by	Valve position switch		
Flow pulse	Flush start		
	Flush block		



EQUIPMENT FOR WATER TREATMENT SYSTEMS

CTS8000

■ Ordering Information

CTS8000

CCS8000 With capacitive conductivity measurement (passive)
CIS8000 With inductive conductivity measurement (0-10V)

Power supply : 115 VAC / 24 VAC
230 VAC / 24 VAC
240 VAC / 24 VAC
24 – 240 VAC / output = input
24 – 240 VAC / output = external power

Communication without RS232, RS485 and ethernet
with RS232, RS485 and ethernet

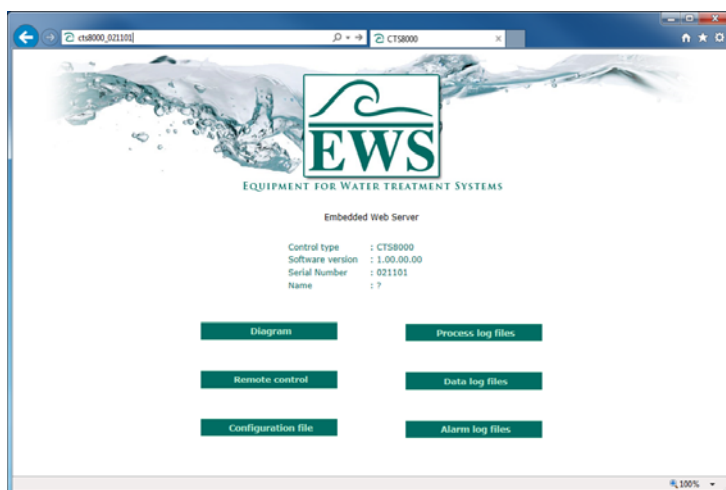
Relay outputs number of circuit boards with 7 relay outputs (4x powered, 3x dry) (1 – 2)

Conductivity number of conductivity meters and temperature meters (1 – 4)

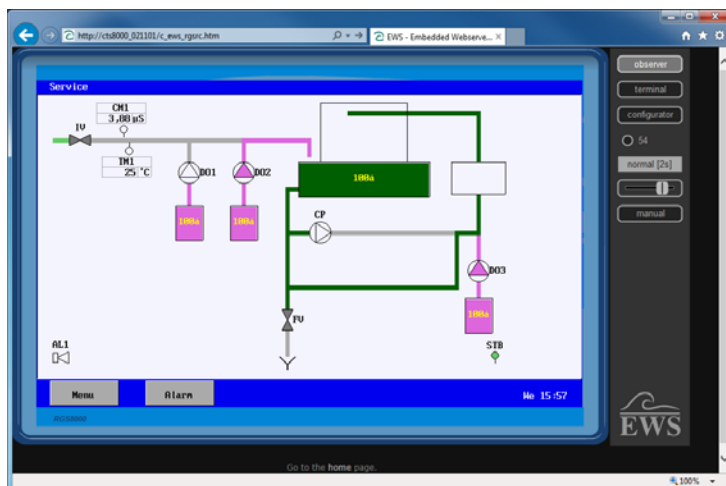
Inputs 0-20mA number of additional circuit boards with 3 inputs 0-20 mA (0 – 4)

Outputs 0-20mA number of additional circuit boards with 3 outputs 0-20 mA (0 – 2)

■ Web browser screen shots



Main menu



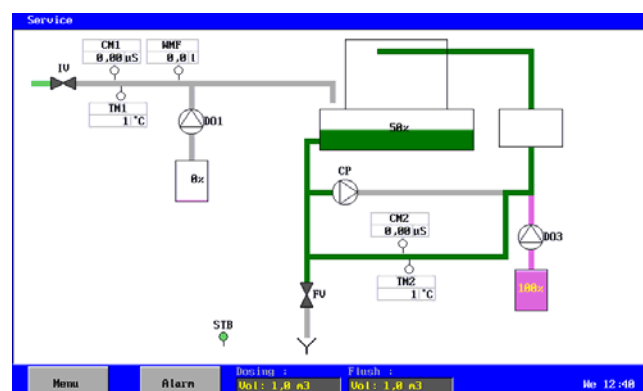
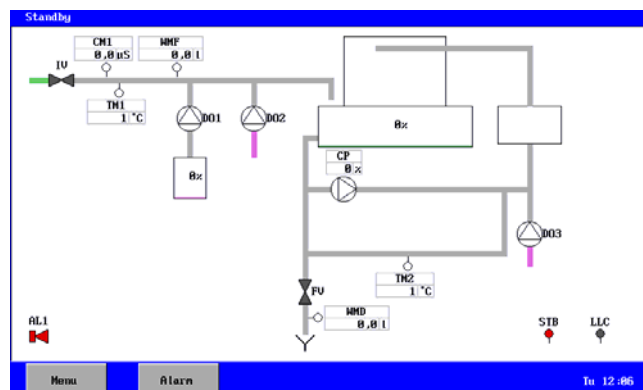
Remote control



EQUIPMENT FOR WATER TREATMENT SYSTEMS

CTS8000

■ General screen shots



Main menu	Media	Ethernet
Manual control	Ethernet	☒ Auto IP (DHCP)
Information	SD Card	IP 192 168 1 5
User settings	Email	NH 255 255 255 8
Installation	RS485	GH 192 168 1 254
Clock	Harddisk	Port 00
Language	RS232	
Media		
Service		
Security		
Close	Close	Close

Programming	Components	Conductivity 1
Components	Conductivity 1	Property
Cooling towers	Temperature 1	Temperature
	Temperature 2	Monitor Min.
	Dosing Pump 1	Monitor Max.
	Dosing Pump 2	
	Dosing Pump 3	
	Alarm	
	Coolwater tank	
	Dosing tank 1	
Close	Close	Close



EQUIPMENT FOR WATER TREATMENT SYSTEMS

Controller for Reverse Osmose

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