emec®
SIMPLE AS WATER

CONTROL SYSTEMS



SIMPLE
AS WATER

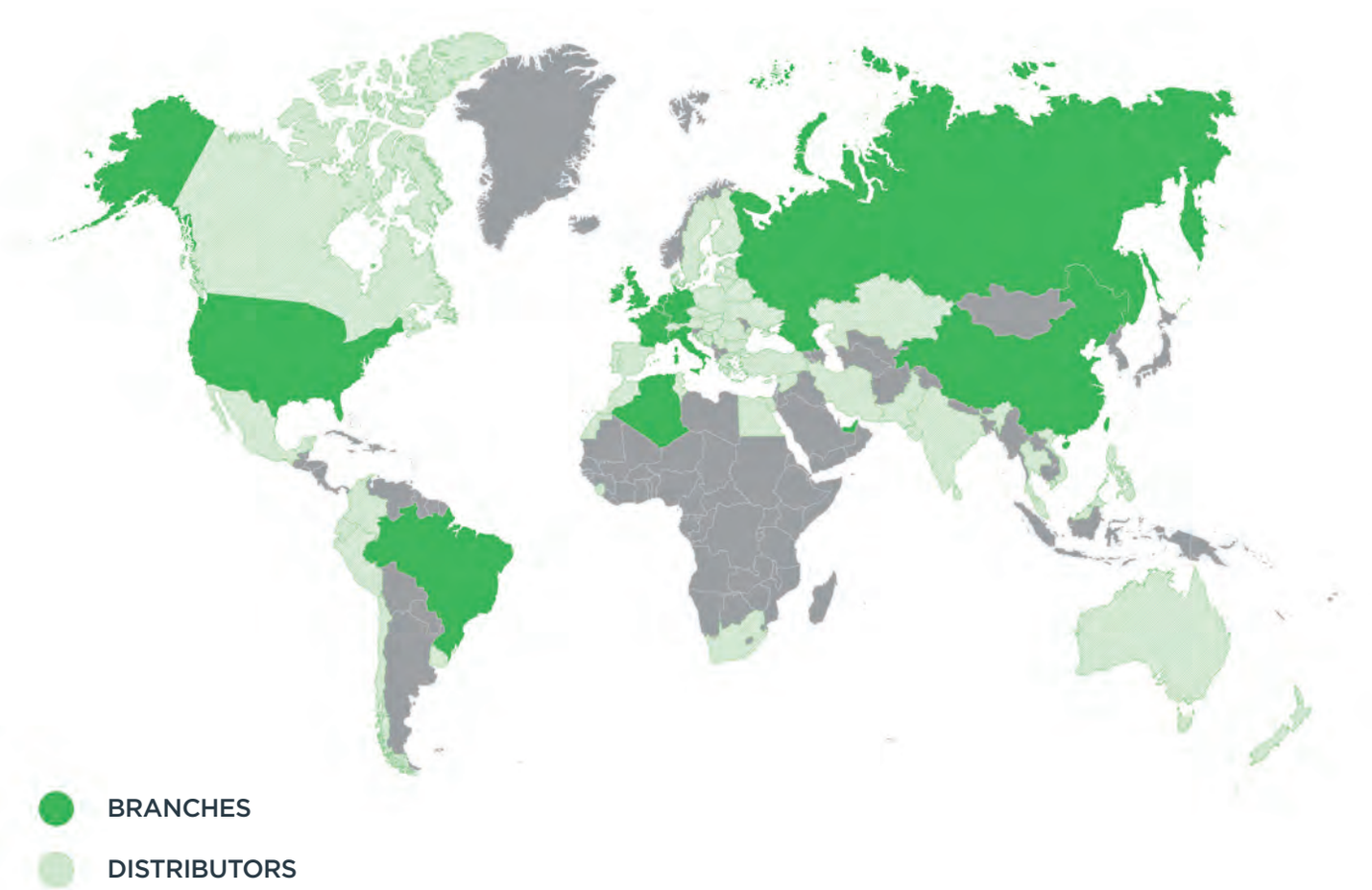
emec



EMEC

WATER TREATMENT SYSTEMS

Worldwide



EMEC srl
THE BEST DOSING SOLUTIONS SINCE 1982

188 employees in Italy
54 countries
10 branches and **24** distributors
150.000 dosing pumps/year
30.000 controllers/year
5.000 all-in-one solutions/year

MADE IN ITALY

100% MADE IN ITALY
All our products are 100% Made in Italy.

5 YEARS WARRANTY

WARRANTY
5 years warranty for our dosing pumps and controllrers.

CENTURIO PRO / TOWER / POOL

10 channels

Water treatment



UP TO 10 CHANNELS (6 ANALOG)

- CONDUCTIVITY - CONTACT OR INDUCTIVE
- pH
- ORP
- CHLORINE
- TRACERS
- mA INPUT
- TURBIDITY
- POTENTIOSTATIC
- DISSOLVED OXYGEN
- LEVEL LASER SENSOR
- CORROSION

ONLINE REMOTE CONTROL

- REALTIME PARAMETERS READING AND REGULATION
- SETTINGS EXPORT / IMPORT
- REMOTE SOFTWARE UPDATE

CENTURIO TOWER is the control instrument in cooling tower water treatment, with the ease and safety you need and with the stylish box designed by Giugiaro Design. CENTURIO is equipped with a Linux operating system, a high-performance ARM A5 microprocessor, a large, touchscreen, color display, in order to give you total and simultaneous control, also with real-time graphs, over 5 channels and the most important parameters for cooling tower water treatment, such as conductivity, chlorine, pH or ORP.
CENTURIO TOWER can connect to the internet and then be safely configured and managed with ERMES wherever you are by using any device and any browser. It is also equipped with MODBUS serial communication to be connected to other devices on RS485 networks and TCP/IP MODBUS.

HARDWARE

- Large 4.3" LCD Full Color
- Touchscreen Display
- High-performance ARM A5 microprocessor
- Large capacity storage for logging

SOFTWARE

- ERMES Remote Control
- Multi-language
- Cross platform software
- Communication WIFI - 3G - ETHERNET - MODBUS
- High performance with LINUX operating system

PARAMETERS

- CENTURIO TOWER with conductivity measurement
- 5 Modular channels to combine
- MODBUS TCP/IP and RTU module included
- ETHERNET module included
- USB module included
- WIFI or 3G module as option
- 0-20 mA input module as option to control different parameters remotely

DESIGN

- Box design by GIUGIARO DESIGN
- New "EASY-MOUNT" system
- Designed for mounting on pipes
- Opening with side zipper and captive screws

CONTROLLERS

MAX5 Series

5 channels plus 1 for temperature

- Water treatment
- Cooling towers
- Industrial chemical dosing
- Depuration
- Swimming pools disinfection



Factory parameter configuration.
- pH
- ORP (ORP)
- Chlorine (total, free and combined)
- Chlorine dioxide
- Hydrogen Peroxide
- Ozone
- Peroxyacetic acid
- Turbidity
- Conductivity (contact or inductive)
- Dissolved oxygen
- Temperature
- Bromine

Its versatility allows different programming solutions: each channel can be programmed on user needs.
All information is provided through a widescreen LCD display (240x64).

Instrument has:
- 6 setpoints output (on/off, PID or PWM) and 6 proportional output
- 1 Temperature setpoint
- 1 probe cleaning output
- 5 level tank input
- 5 daily/weekly timer for multiple options like flocculant, algicide, lights...
- Water meter input for water restore
- Temperature probe input
- Alarm output
- Wheel with "EASY-NAV" control
- ERMES web communication
- Local & Remote Controlled
- Multiple probe readings can be viewed
- Probe readout menu
- Probes check up
- Permanent data storage with system log
- Stand-by input
- Alarms: damaged probes - max dosage - 2 overflow alarms per channel - 5 product level alarms - flow alarm
- Totalizer for instant flow rate

OPTIONS
- MODBUS protocol

LD Multichannel / PLUS Series

2 channels plus 1 for temperature

Water treatment
Cooling towers
Industrial-level chemical dosing
Depuration
Agriculture
Swimming pools disinfection



Factory parameter configuration.
- pH
- ORP
- Chlorine/Bromine
- Conductivity
- Inductive Conductivity
- Chlorine Dioxide
- Hydrogen peroxyde
- Ozone
- Peracetic acid
- Turbidity

Controller for acid (pH) and a second parameter. Wheel with "EASY-NAV" control, Flow control, Local & Remote Controlled, ERMES web communication, Permanent data storage with system log, PT100 temperature probe, Stand-by input. Alarms: damaged probes - max dosage - threshold - levels - flow - reading. Programmable delay at dosing start-up (up to 60 minutes), Priority dosage, Probe readout menu, Probes check up, Multiple probe readings can be viewed. Working modes: on/off, impulsive proportional, proportional PWM and fixed PWM. Automatic or manual dosing activity, Chlorine/Bromine selection with SBR (LDPHCL), Flocculant pump control, mA output (option).

Options:
- USB for data log recording
- Current Output (0/4 - 20 mA)
- Ethernet
- 2G/3G modem
- MODBUS protocol
- WIFI module

PLUS Features:
- 5 relais (2 setpoint; alarm; probe cleaning; circulation)
- Probe cleaning
- PID
- Feed forward

LDPHRH - LDPHRH PLUS pH (0-14) - ORP (0-1000mV) - °C (0-200)
LDPHCL* - LDPHCL PLUS* pH (0-14) - Chlorine (0-10 mg/l Cl2) - °C (0-200)
LDPHBR - LDPHBR PLUS pH (0-14) - Bromine (0-10 mg/l Br) - °C (0-200)
LDPHO2 - LDPHO2 PLUS pH (0-14) - O2 (0-200 mg/l H2O2) - °C (0-200)
LDPHCD - LDPHCD PLUS pH (0-14) - Conductivity (depending on the probe) - °C (0-200)
LDPHCDIND - LDPHCDIND PLUS pH (0-14) - Inductive conductivity (0-3 mS|0-30mS|0-300mS) - °C (0-99,9)
LDPHTORBH - LDPHTORBH PLUS pH (0-14) - Turbidity (0-9999 NTU) - °C (0-99,9)

LD - Custom configurations on client request.

* When ordering, please specify the parameters and the chlorine probe model.

CONTROLLERS

LDS / LDS PLUS Series

1 channel plus 1 for temperature

- Water treatment
- Cooling towers
- Industrial-level chemical dosing
- Depuration
- Agriculture
- Swimming pools disinfection



Factory parameter configuration.
- pH
- ORP
- Chlorine/Bromine
- Conductivity
- Inductive Conductivity
- Chlorine Dioxide
- Hydrogen peroxyde
- Ozone
- Peracetic acid
- Turbidity
- Dissolved Oxygen

Wheel with "EASY-NAV" control, flow control, local & Remote Control, ERMES web communication, permanent data storage with system log, PT100 temperature probe, Stand-by input, Alarms: damaged probes - max dosage - threshold - levels - flow, Programmable delay at dosing start-up (up to 60 minutes), Priority dosage, Automatic temperature compensation, Probe readout menu (LDSCDIND), Working modes: on/off, impulsive proportional, proportional PWM and fixed PWM, Automatic or manual dosing activity, mA output (option).

Options for LDS and LDS PLUS:
- USB for data log recording
- Current Output (0/4 - 20 mA)
- Ethernet
- 2G/3G modem
- MODBUS protocol
- WIFI module

PLUS Features:
- 5 relais (2 setpoint; alarm; probe cleaning; circulation)
- Probe cleaning
- PID
- Feed forward

LDSPH - LDSPH PLUS pH (0-14) - °C (0-200)
LDSRH - LDSRH PLUS ORP (0-1000mV) - °C (0-200)
LDSCL - LDSCL PLUS Chlorine (0-10 mg/l Cl_2) - °C (0-200)
LDSCD - LDSCD PLUS Conductivity (depending on the probe) - °C (0-200)
LDSCDIND - LDSCDIND PLUS Inductive conductivity (0-3 mS|0-30mS|0-300mS) - °C (0-99,9)
LDSETORB2 - LDSETORB2 PLUS Turbidity (0-4000 NTU) - °C (0-40)
LDSTRC - LDSTRC PLUS Markers (0-9999 PPM) - °C (0-200)
LDSFR - LDSFR PLUS Fluorine (1E-5-1M) - Concentration (0-300 ppm) - °C (0-60)

CONTROLLERS

MTOWER Series

Up to 3 channels

Cooling towers



Features
- Conductivity for blowdown
- 2 Timers for biocides
- Pre-bleed
- Lockout

Factory parameter configuration.
- pH
- ORP
- Chlorine
- Conductivity or Inductive conductivity
- Temperature

Easy control by ENCODER wheel with "EASY-NAV" rotation, Current Feed&Bleed display, Local & Remote Controlled, ERMES web communication, Simultaneous multiple view for probes reading, Permanent data storage with system log, Stand-by input, mA output (option). Working modes: on/off, impulsive proportional, proportional PWM and fixed PWM. Pre-bleed: Reduced water system conductivity before biocide dosing. Blow down: Discharge control on conductivity values, Lockout: Discharge valve locked for a settable time (after biocide dosage).
Timeout: Maximum discharge valve opening time, Programmable delay at dosing start-up (up to 99 minutes), PT100 temperature compensation.
Alarms: conductivity (high/low), Bleed timeout (conductivity not reached after set time), product level, flow, meter activity, not restored water.

Options:
- Conductivity inductive probe.
- USB for data log recording
- Current Output (0/4 - 20 mA)
- Ethernet
- 2G/3G modem
- WIFI module
- MODBUS protocol

3 CHANNELS MODELS
MTOWER PLUS CD/PH/CL : controller for conductivity, pH and chlorine
MTOWER PLUS CD/PH/RH : controller for conductivity, pH, ORP

2 CHANNELS MODELS
MTOWER CD/PH : controller for conductivity and pH
MTOWER CD/RH : controller for conductivity and ORP
MTOWER CD/CL : controller for conductivity and chlorine

1 CHANNEL MODEL
MTOWER CD : controller for conductivity

CONTROLLERS

Panel controllers

1 channel with temperature

- Water treatment
- Cooling towers
- Industrial-level chemical dosing
- Depuration
- Agriculture
- Swimming pools disinfection

JA PRO
96x96 RACK-MOUNT SINGLE READING



JA PRO PH pH
JA PRO RH ORP
JA PRO CL Chlorine (Total - Free) - Chlorine Dioxide - Hydrogen - Peroxyde - Ozone - Bromine - Peracetic Acid
JA PRO CD Conductivity
JA PRO CD IND Inductive conductivity

JA PRO control instruments are a series of rack-mount (96x96) single reading systems with temperature reading, mA module and native modbus. On/Off, impulsive proportional and PID are main working modes.
It can set and monitor: pH, ORP, chlorine (depending on the probe: total chlorine, free chlorine, chlorine dioxide, hydrogen peroxide, ozone, bromine or paracetic acid) and conductivity (uS/S - Ohm - TDS / PPM) with automatic range and probe / product selection (H3PO4 - H2SO4 - HNO3 - HCl - NaOH - NaCl).

Fearures
- 2 setpoints (on/off, proportional)
- flow alarm,
- flow sensor
- stand-by input
- 0-20 mA or 4-20 mA output
- proportional to read value and programmable in the reading range
- alarm output
- mA module
- MODBUS serial communication

Options
- Avalilable low voltage 9-18VDC or 18-36VDC power supply.
- Available IP54 protection cover.

Panel controllers

1 channel with temperature

Water treatment
Cooling towers
Industrial-level chemical dosing
Depuration
Agriculture
Swimming pools disinfection

J DIGITAL
96x48 RACK-MOUNT SINGLE READING



J DIGITAL PH pH
J DIGITAL RH ORP
J DIGITAL CL Chlorine (Total - Free) - Chlorine Dioxide - Hydrogen Peroxyde - Ozone - Bromine - Peracetic Acid
J DIGITAL CD Conductivity
J DIGITAL O3 Ozone
J DIGITAL CLO2 Chlorine dioxide
J DIGITAL TEMP Temperature

J DIGITAL control instruments are a series of rack mounting (96x48) single reading systems that meets many applications.
It can set and monitor: pH, ORP, chlorine (depending on the probe: total chlorine, free chlorine, chlorine dioxide, hydrogen peroxide, ozone, bromine or paracetic acid), conductivity, ozone, chlorine dioxide and temperature. Probes are not included.
J DIGITAL models have: 2 setpoints (on/off, proportional), flow alarm, flow sensor stand-by input, 0-20 mA or 4-20 mA output proportional to read value and programmable in the reading range.

Available IP54 protection cover.

DIN DIGITAL
RAIL-MOUNT (6 modules) SINGLE READING



DIN DIGITAL PH pH
DIN DIGITAL RH ORP
DIN DIGITAL CL Chlorine (Total - Free) - Chlorine Dioxide - Hydrogen Peroxyde - Ozone - Bromine - Peracetic Acid
DIN DIGITAL CD Conductivity
DIN DIGITAL O3 Ozone
DIN DIGITAL CLO2 Chlorine dioxide
DIN DIGITAL TEMP Temperature

DIN DIGITAL control instruments are a series of rail mounting (6 modules) single reading systems that meets many applications.

It can set and monitor: pH, ORP, chlorine (depending on the probe: total chlorine, free chlorine, chlorine dioxide, hydrogen peroxide, ozone, bromine or paracetic acid), conductivity, ozone, chlorine dioxide and temperature. Probes are not included.

DIN DIGITAL models have: 2 setpoints (on/off, proportional), flow alarm, flow sensor stand-by input, 0-20 mA or 4-20 mA output proportional to read value and programmable in the reading range.

CONTROL SYSTEMS

ERMES

Software for complete remote configuration and control of instruments

ADVANTAGES

- reduces plant intervention and inspections.
- reports on the current status of the network's devices and connections (probes, outputs, alarms, setpoints)
- instantly gives notification of alarms by sms or email
- generates an up to date report of all plant instruments
- can display the instruments activity log as line graphs and charts and it can download it to your pc in excel or pdf format



HOW DOES ERMES WORK?

Enter the website www.ermes-server.com and, after registration, set your plants.
EMEC instruments with ETHERNET, 3G or WIFI Configuration will be immediatly connected and available for remote control.
Furthermore, with ERMES you can receive alarm messages via email, with different report option on instrument status. If your instrument has a 3G Configuration you can receive SMS report on your mobile. All EMEC latest controllers are ERMES ready:

- CENTURIO TOWER
- MAX5
- LD MULTICHANNEL
- LD WITH ENCODER (wheel)
- MTOWER
- WD
- JA

AVAILABLE CONFIGURATIONS FOR CONTROL INSTRUMENTS

BASIC
- RS485 output to link other EMEC instruments

ETHERNET
- RS485 output to link other EMEC instruments
- LAN connection to web app ERMES
- Alarm messages via email

3G
- RS485 output to link other EMEC instruments
- 3G connection to web app ERMES
- Alarm messages via email
- Alarm messages via SMS

WIFI
- RS485 output to link other EMEC instruments
- WIFI connection to web app ERMES
- Alarm messages via email

USB
- RS485 output to link other EMEC instruments
- USB connection for downloading of log files to be viewed on web app ERMES

MODBUS
- Connection to other PLC instruments via RS485 or TCP/IP for reading and modifying parameters

CONFIGURATION	FEATURES	CONNECTION TYPE	REQUIREMENTS	FUNCTIONS
BASIC	/	Local control	/	- RS485 link to EMEC instruments
ETHERNET	LAN	Remote control via ERMES web app (www.ermes-server.com)	LAN (RJ-45)	- RS485 link to EMEC instruments - ERMES Web App (PC, smartphone, tablet) - Email Alarm messages
3G	MOBILE	Remote control via ERMES web app (www.ermes-server.com)	Network Coverage	- RS485 link to EMEC instruments - ERMES Web App (PC, smartphone, tablet) - Email / SMS Alarm messages
WIFI	WIFI	Remote control via ERMES web app (www.ermes-server.com)	Network Coverage	- RS485 link to EMEC instruments - ERMES Web App (PC, smartphone, tablet) - Email Alarm messages
ADVANCED USB	USB	Download data log from controller to USB drive	/	- RS485 link to EMEC instruments - Data Log recording on USB drive
MODBUS	PLC	PLC plant management	/	- PLC connection output for reading and modifying parameters via RS485 or TCP/IP

You can CUSTOMIZE configurations adding external modules.
Mixed configurations allows to connect instruments to ERMES software in multiple ways: directly, locally and remotely. Those configurations extend connection capacity.
If you already use EMEC instruments and you want use ERMES web application, contact our customers service.

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EMEC S.r.l. Via Donatori di Sangue, 1 - 02100 Rieti - Italien
T. +39 0746 2284 1 F. +39 0746 2284 2
info@emec.it - www.emecpumps.com