

# PRODUCTS CATALOGUE 2014



EMEC

An abstract graphic consisting of several thin, wavy green lines that intersect to form a central, horizontally-oriented oval shape. The lines extend outwards from the oval, creating a sense of motion or a signal path.

INNOVATIVE EXPERIENCE

EMEC



## THIRTY YEARS OF LEADERSHIP

EMEC ranks among Italy's top, consolidated industrial actors in the field of electronic control systems for fluids metering and management applications. Our products are designed and manufactured for both industrial and small-scale applications.

We are an all-Italian business entity with a clear strategic outlook, right from the outset, striving to merge design innovation with a long-term industrial footing. Our high-precision, hi-reliability products are entirely designed and assembled at our Rieti facilities.

EMEC's reputation as a market leader is expanding both in Italy and internationally, boosting demand for our quality, Italian designer products.

## QUALITY FIRST

Our products are supported by passion and a solid industrial background. At EMEC, we have always sought to identify and seize investment opportunities, committing our resources to technology and human resources.

That key to our success - and what sets us apart from market competitors - is our complete control of the production cycle, reliant on specialist business set-ups and resources. Our approach feeds into all aspect ahead of end product delivery: systems design, component production and assembly, software programming and final testing. In line with total quality commitments, we provide installation and maintenance specialists with up-to-date training for both our household and industrial products.

Our retail and commercial units operate with a technical mindset, encompassing a firm grounding in all aspects of design and production; as such, they stimulate product innovation and enhancements based on Customer requirements, feedback and field experience. That approach makes us ideal partners when it comes to delivering targeted solutions to specific requirements. Our claims are anything but overstated: complete control, to us, is the only viable approach to ensuring total product quality and effective service delivery.

## A CONSTANLY EVOLVING WORLD

Our 30-year industrial footing has bred constant improvements in all our products, expanding range and functions. Our range of products is currently implemented in a broad range of settings:

- Pools
- Saunas
- Industrial water treatment
- Drinking water treatment
- Irrigation
- Chemical industry
- Processing industry
- Cooling towers
- Refineries
- Car wash



### 100% MADE IN ITALY

All our products are manufactured in our factory in Italy.

## SUSTAINABILITY

Respecting and safeguarding the environment are the core values underpinning our business. In keeping with that commitment we engage in and promote all actions designed to curb the environmental impact of our processes, products and raw materials, on a life-cycle basis. Our company implements an Environmental Management System compliant with UNI ENI ISO 14001 standards, subject to ongoing updates.

Our goal is to curb atmospheric emissions, rationalise water consumption and enact appropriate waste management policies. Environmental impact assessments cover new products, process innovations and public tenders.

We are committed to providing our employees and staff with appropriate information and training concerning our company policy and its implementation with respect to both the workplace and our products.

## CERTIFIED SKILLS AND VALUES

EMEC's values and reliability are the result of a long-standing commitment to quality and detail. We testify to that commitment through ongoing human resources training, rigorous abidance by production benchmarks, and concerted efforts to curb all employee health hazards.

Our pledge is a firm one and is backed by our policy implementation and investment goals. Our global quality approach matches our market standing and is certified by the world's leading certification institutes.



## EMEC WORLDWIDE



### WARRANTY

All our solenoid pump membrane have 5 years warranty.





## PRODUCT DESIGN

Design underpins the production process, driving each and every aspect of our work at EMEC. Our every effort is geared towards delivering a timely, accurate and effective response to our customers' requirements. The resources allocated to our design and development division reflect that: close to 10% of our company's human capital. Our in-house engineers and technicians design and develop software and hardware, as well as test hydraulic and mechanical components.

### OUTSTANDING PROFESSIONALS

Our in-house professionals carry unparalleled qualifications, gained through years of experience and dedication. Our team boasts years of hand-on experience and regularly takes part in ongoing professional training, allowing us to be on top of chemical handling and industry developments. EMEC offers its clients highly trained, skilled professionals, whose proven credentials and wealth of experience are nothing less than leading-edge.

## PRODUCTION

The high standards to which we deliver, on a daily basis, both our services and products, comes from our uncompromising dedication to quality. Total quality is our industrial hallmark, and quality is what sets our products apart from the broader market.

### WORKSHOP

With on-site manufacturing facilities we are a notch above the competition. At EMEC we take pride in ensuring full internal control over all aspects of production. As much as it implies an onus, product reliability is our foremost pledge, one that cannot be delivered by outsourcing the production of key product components.

Our workshop's capabilities are also crucial to the design stage, ensuring full control over product and systems development and customisation, offering customers a complete solution to their requirements.

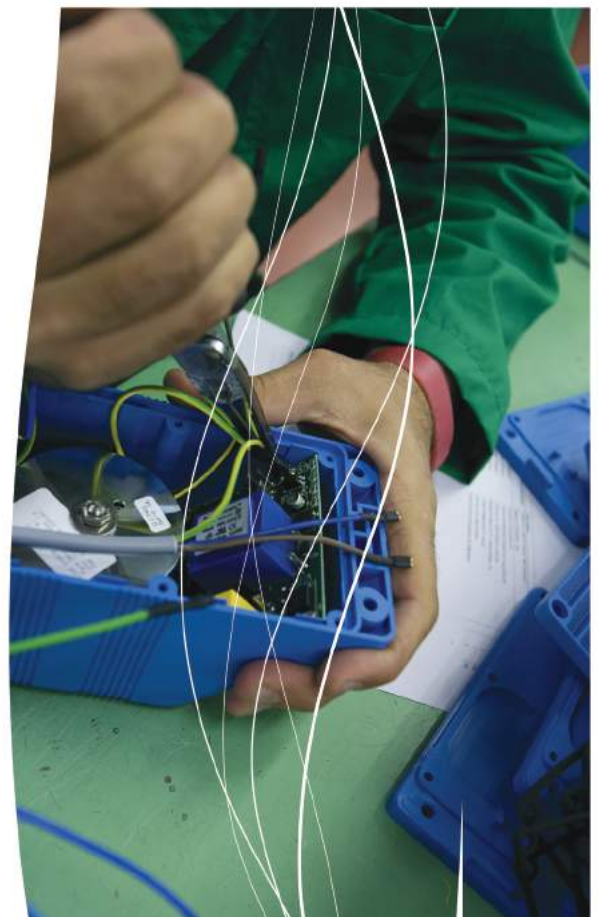
### ASSEMBLY

Our unparalleled experience and professional know-how also come to bear during the delicate assembly stage, where high quality components come together to form top-of-the-range products. Our components list features as many as 40,000 items: a figure which, on its own, testifies to the scale of our commitment to resources and standards.

### TEST CENTER

Low quality isn't an option for us. Substandard products defy efforts to secure a market standing, generate the added burden of production recalls and inevitably compromise subsequent product placement.

Our efforts to apply rigorous self-assessment standards are reflected in the quality of our products. Each and every component is subject to rigorous internal testing, with three layers of testing contributing to assembled product reliability. Such stringent standards ensure significantly inferior damage probability, heightened lifetime and optimal operation of our products.







## SALES

Our solid customer base is proof of our ongoing commitment to delivering reliable products to high price-quality standards. On top of that, our clients can rely on our constant support leading up to and after product purchase. Pre- and post-sales services address all of our customers' product requirements and potential customisation needs.

### CUSTOMISATION

Total control over production allows us to offer clients a broad set of customisation options, ranging from individual branding and product component options, to substantial hardware and software departures from standard product specifications.

### SALES NETWORK

As sales network partners you are part of the broader EMEC project, you're not just sales agents. Our sales managers boast a firm technical grounding and in-depth knowledge of the production cycle, offering client focused, practical insights into our product range. Our every effort is geared towards offering customer-led solutions, establishing full-fledged partnerships with our clients. At EMEC we exceed our role as suppliers, focusing on solving as well as preventing product issues.

### SALES DESK

Our sales department's back office ensures that every aspect of product supply, from order through to delivery, runs smoothly. Any issues or problems arising during the course of supply are dealt with in timely fashion, cutting any potential delays to a minimum. Our sales desk's efficient handling of client enquiries translates into 40% of orders being adapted during the first contact stage. EMEC has a close to zero customer-loss record.

### POST-SALES ASSISTANCE

Following delivery we provide ongoing support for our products, ensuring onsite maintenance and inspection services, as well as remote support. Our Max5 system, for instance, allows us to provide Sydney-based clients with immediate software updates direct from our Rieti office via remote PC applications. We provide real-time, multi-language customer assistance during out-of-office hours.

## TRAINING

At EMEC we fully understand the complexity of each industry's ever-changing challenges and that the products we develop need to be handled by qualified, trained personnel. That understanding inspired the establishment of the EMEC Training Program: a scheme built around modules, addressing topics spanning technology and chemistry. Our most senior, expert sales account managers are entrusted with providing the training. At EMEC we believe that experienced account managers can exceed their sales role and deliver value-added service to our customers.

### TRAINING WITH A PURPOSE

Anyone who has taken part in our Program knows that the scope of training goes well beyond providing static learning requirements. EMEC training courses seek to target issues of practical consequence, providing insights into the workings of our products, building solution-oriented approaches.





1. METERING PUMPS

2. LOTUS - CHLORINE DIOXIDE GENERATOR

3. INSTRUMENTS

4. PROBES

5. CUSTOMIZED SOLUTIONS



# Metering Pumps

## AMS Series

Flow rate up to 60 L/hr, working pressure up to 25 bar

- Manual stroke length adjustment
- Manual or self venting
- High strength membrane -5- year warranty
- Horizontal mounting
- PVDF pump head



- AMS MF digital multi-function
- AMS PH built-in pH reading and adjustment
- AMS RH built-in ORP reading and adjustment



- AMS PLUS constant / constant 1-10 multiplier 1-10 divider 1-10 / 1-100 / 1-1000 mA current signal
- AMS CO PLUS constant. Pulses divider 0/10.
- AMS CL PLUS constant with level control. Pulses divider 0/10.

### PUMP HEADS



PVDF



PP



AISI316



PMMA



LPV



P

### SUPPLIED ACCESSORIES



Level Probe with foot filter



1/2" or 3/4" Injection valve

# Metering Pumps

## KMS Series

Flow rate up to 16 L/hr, working pressure up to 20 bar

- Manual stroke length adjustment
- Manual or self venting
- High strength membrane -5- year warranty
- Horizontal mounting
- PVDF pump head



- KMS DC digital constant
- KMS MF digital multi-function
- KMS PH built-in pH reading and control
- KMS RH built-in ORP reading and control
- KMS EN weekly timer and solenoid valve control
- KMS CL built-in chlorine reading and control

- K PLUS constant / constant 1-10 multiplier 1-10 divider 1-10 / 1-100 / 1-1000 mA current signal
- K CO PLUS constant with divider 1/10
- K CL PLUS constant with level control and divider 1/10

### PUMP HEADS



PVDF



PP



AISI316



PMMA



LPV



P

### SUPPLIED ACCESSORIES



Level Probe with foot filter



1/2" Injection valve

# Metering Pumps

## TMS Series

Flow rate up to 100 L/hr, working pressure up to 20 bar

- Electronic flow adjustment
- Manual or self venting
- High strength membrane - 5 - year warranty
- Wall mounting
- PVDF pump head



- TMS DC digital constant
- TMS MF digital multi-function
- TMS PH built-in pH reading and control
- TMS RH built-in ORP reading and control

- TCO constant
- TCL constant with level control

### PUMP HEADS



PVDF

PP

P

### SUPPLIED ACCESSORIES



Level Probe  
with foot filter



1/2" or 3/4"  
Injection valve

# Metering Pumps

## VMS Series

Flow rate up to 17 L/hr, working pressure up to 20 bar

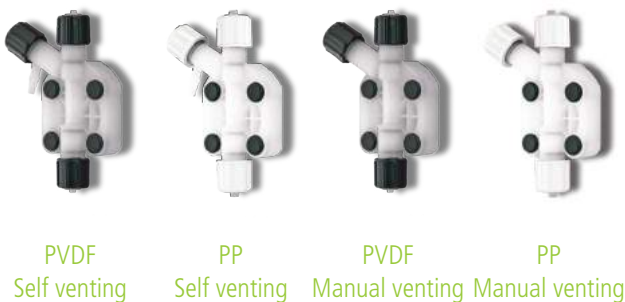
- Electronic flow adjustment
- Manual or self venting
- High strength membrane - 5 - year warranty
- Wall mounting
- PVDF pump head
- Also available quiet and ultra-quiet models



- VMS MF digital multi-function
- VMS PO built-in pH or ORP reading and control (set by menu)
- VMS EN weekly timer and optional solenoid valve control

- VCO constant
- VCL constant with level control

### PUMP HEADS



### SUPPLIED ACCESSORIES





# Metering Pumps

## WDPHxx Series

Flow rate up to 10 L/hr, working pressure up to 5 bar

- Digital programmable controller with double metering pumps
- Wall mounting
- Easy control by ENCODER wheel with EASY-NAV rotation
- Double PVDF pump head
- RS485 output for remote control



WDPHRH acid (pH) and disinfectant (ORP)

WDPHCL acid (pH) and chlorine

WDPHCF acid, flocculant (gr/h) and 230 VAC output for chlorine

WDPHCA acid, anti-algae and 230 VAC output for chlorine

WDPHOS acid (pH) and active oxygen

### PUMP HEADS



PVDF  
Self venting



PP  
Self venting



PVDF  
Manual venting



PP  
Manual venting

### SUPPLIED ACCESSORIES



Level Probe  
with foot filter



1/2" Injection valve

# Metering Pumps

## WTx Series

Flow rate up to 10 L/hr, working pressure up to 15 bar

Digital programmable cooling tower controller with double metering pumps

Wall mounting

Double PVDF pump head



**WTC** inhibitor proportional feed, biocide weekly timer, conductivity bleed

**WT IND** WTC version with inductive conductivity probe

### PUMP HEADS



PVDF



PP

### SUPPLIED ACCESSORIES



Level Probe  
with foot filter



1/2" Injection valve



**WTC**  
Ecdcc probe



**WTC IND**  
Ecdsind probe



Motorized valve  
(optional)

# Metering Pumps

## RAC Series

Car Wash

- Compressed Air driven pumps
- 3 installing modes: horizontal, wall and DIN mounting
- Multiple pumps installation (side by side)
- Single injection control knob



- RAC Pneumatic
- RACV Pneumatic with electrovalve
- RACP Pneumatic with priming button

### PUMP HEADS



Pump Head

Diaphragm

### INSTALLING OPTIONS



Bara Din

Wall

Horizontal

### SUPPLIED ACCESSORIES



Foot filter



1/2" Injection valve

# Metering Pumps

## PR1US

Flow rate up to 500 L/hr, working pressure up to 10 bar

- Manual stroke length adjustment
- High strength PTFE membrane - 5- year warranty
- Spring return mechanism
- Models up to 160 l/h are supplied with accessories  
(filter, 3/4" injection and hose fitting)
- Single or three phase motors



### PUMP HEADS



PVDF

PP

AISI316

PVC

### DIAPHRAGM & SUPPLIED ACCESSORIES



PTFE



Level Probe  
with foot filter



3/4" Injection valve



# Metering Pumps

## Pumps Accessories

Efficiency products

### CHEMICAL TANKS & SAFETY BUNDS



Chemical tanks made of polyethylene, UV resistant with safety bunds.  
For dosing pumps and mixers.



Our chemical tanks can be assembled with:

- 1 Dosing pump (or 2 without mixer)
- 1 mixer
- 1 water loading faucet
- 1 outgassing valve
- 1 or 2 suction lances
- 1 water purging faucet
- 2 level probes with filter (without mixer)

Assembling made with two dosing pumps must use a double-suction lance and KDPV kit for connecting both the pumps.

#### MIXVN/8



High speed mixer 1400 RPM.  
AISI shaft-PVC coated,  
different lengths available  
(630-730-830-930 mm).  
Marine impeller, diameter 70mm.

#### MIXN/8



Slow speed mixer 70/200 RPM.  
AISI shaft-PVC coated, different  
lengths available  
(630-730-830-930 mm).  
3-blade impeller, diameter 150mm.

#### MIXN/MAN



Manual mixer.  
PVC shaft, different  
lengths available  
(500-600 and 700-800 mm).  
Impeller diameter 90 mm.

#### MIX "PISTON"



Manual mixer.  
PVC shaft, different lengths  
available  
(500-600 and 700-800 mm).

# Metering Pumps

## Pumps Accessories

Efficiency products

### LASP



Suction lances with level control, for tanks up to 1000 liters.

### LINI R



1/2" injection lance for dosing sodium hypochlorite in hard water. Self cleaning. FKM B o-ring. PVC body.

### MF MULTIFUNCTION VALVE



Multifunction valve (pressure, safety, antisiphon and bleed) 1/2" connections for different hoses diameters. FKM B or EPDM o-ring. PVDF body.

### SEFL



Flow sensor with PVDF body, N.C. contact and adjustable sensitivity.

Max 45°C - 25 bar

### CWFA



Woltmann water pulse sender water meter, dry dial.

Max 60°C - 16 bar

### CTFI



Cold water pulse sender water meter.

Max 30°C - 16 bar

**CATFI** - dry dial

### CWFAT



Woltmann water pulse sender water meter, dry dial and PTFE internal/external coating.

Max 60°C - 16 bar

### CTFIT



Cold water pulse sender water meter and PTFE internal/external coating.

Max 30°C - 16 bar

# Chlorine dioxide generator

## LOTUS



### FUNCTION

- In-situ  $\text{ClO}_2$  production
- $\text{ClO}_2$  dosing in proportional mode to water meter
- $\text{ClO}_2$  dosing in proportional mode to  $\text{ClO}_2$  reading (probe and probe holder not included)
- Flow control input (flow alarm)
- Tank level controls (level alarms)
- Water meter input
- Stand-by input
- Real time production data
- Pumps and SEFL flow sensors monitoring
- Permanent data storage with system data log (on Logbook menu)
- Service due date

### LOTUS A

reaction at a controlled pressure

### LOTUS B

reaction at ambient pressure

The LOTUS system produces, doses and controls Chlorine Dioxide for water disinfection.

Chlorine Dioxide is produced from diluted base chemicals: acid-chlorite process by Hydrochloric Acid (HCl 9%) and Sodium Chlorite ( $\text{NaClO}_2$  7,5%).

Chlorine dioxide produced by LOTUS is set to be proportional to the circulating water flow or based on a set-point – it is then dosed into the water flow. There is no storage of chlorine dioxide hence no chlorine dioxide gas or concentrated solutions exist outside of the process application.

LOTUS is designed so that the reaction to produce chlorine dioxide takes place in a reaction chamber. Multi function valves on the injection points ensure the security of the reaction chamber.

The base chemicals are stored in tanks and fed into the reaction chamber through suction lances. Integrated level switches automatically stop the pumps when the tanks are empty.



#### FEATURES

- $\text{ClO}_2$  concentration: 20 gr/l
- $\text{ClO}_2$  dilution: 2 gr/l
- $\text{ClO}_2$  capacity: see models list below
- LOTUS control instrument
- HCl (red) and  $\text{NaClO}_2$  (blue) blind metering pumps
- Blind pump for dilution water (grey) (LOTUS A)
- 3 SEFL flow sensors as security (LOTUS A)
- 2 SEFL flow sensors as security (LOTUS B/LOTUSD)
- MFKT/V multifunction valve as pressure, safety, anti-syphon and bleed valve
- PVC reaction chamber
- ASA (Acrylonitrile Styrene Acrylate) enclosure
- IP65 protection (NEMA4x) of LOTUS control instrument
- ENCODER wheel control
- Working temperature:  $0 \div 45^\circ\text{C}$  ( $32 \div 110^\circ\text{F}$ )

#### CHLORINE DIOXIDE GENERATOR $\text{ClO}_2$ max capacity: 8 to 40 g/h

- LOTUS 8 (LOTUS A/LOTUS B)
- LOTUS 20 (LOTUS A)
- LOTUS 40 (LOTUS A)

#### CHLORINE DIOXIDE GENERATOR $\text{ClO}_2$ max capacity: 80 to 1000 g/h

- LOTUS-D 80
- LOTUS-D 160
- LOTUS-D 240
- LOTUS-D 400
- LOTUS-D 600
- LOTUS-D 800
- LOTUS-D 1000

#### SUPPLIED ACCESSORIES



2 LASP  
suction lances



1/2"  
Injection valve



SEFL  
flow sensor



MFKT/V



LINI  
(optional)



Static mixer  
(optional)



# Instruments

## 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 or GSM/GPRS Configuration will be immediately 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 GSM/GPRS Configuration you can receive SMS report on your mobile. All EMEC latest controllers are ERMES ready:

- MAX5
- LD MULTICHANNEL
- LD WITH ENCODER (wheel)
- MTOWER
- WD

### How to select a configuration

CONFIGURATION	FEATURES	CONNECTION TYPE	REQUIREMENTS	FUNCTIONS
BASIC	/	LOCAL CONTROLLER NETWORK	/	RS485 link to EMEC instruments / PC
ADVANCED USB	USB	Download data log from controller to Usb Pendrive	/	RS485 link to EMEC instruments / PC Data Log recording on PENDRIVE
ETHERNET	LAN	Remote control via WEB APP ( <a href="http://www.ermes-server.com">www.ermes-server.com</a> ) or with PC APP	LAN (RJ-45)	RS485 link to EMEC instruments / PC ERMES Web App (PC, smartphone, tablet) Email Alarm messages
GSM/GPRS	MOBILE	Remote control via WEB APP ( <a href="http://www.ermes-server.com">www.ermes-server.com</a> ) or with PC APP	Network Coverage	RS485 link to EMEC instruments / PC ERMES Web App (PC, smartphone, tablet) Email / SMS Alarm messages

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.

Instruments

# 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 are 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

## Instruments

# LD Multichannel 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 EBR (LDPHCL), Flocculant pump control, mA output (option).

### Options:

- USB for data log recording
- Current Output (0/4 - 20 mA)
- Ethernet
- GSM/GPRS modem

<b>LDPHRH</b>	pH (0÷14) - ORP (0÷1000mV) - °C (0÷200)
<b>LDPHCL*</b>	pH (0÷14) - Chlorine (0÷10 mg/l Cl <sub>2</sub> ) - °C (0÷200)
<b>LDPHBR</b>	pH (0÷14) - Bromine (0÷10 mg/l Br) - °C (0÷200)
<b>LDPHO2</b>	pH (0÷14) - O <sub>2</sub> (0÷200 mg/l H <sub>2</sub> O <sub>2</sub> ) - °C (0÷200)
<b>LDPHCD</b>	pH (0÷14) - Conductivity (depending on the probe) - °C (0÷200)
<b>LDPHCDIND</b>	pH (0÷14) - Inductive conductivity (0÷3 mS 0÷30mS 0÷300mS) - °C (0÷99,9)
<b>LDPHTORBH</b>	pH (0÷14) - Turbidity (0÷9999 NTU) - °C (0÷99,9)

LD - Custom configurations on client request.

\*On order please specify parameters and chlorine probe model.

## LD Encoder 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:

- USB for data log recording
- Current Output (0/4 - 20 mA)
- Ethernet
- GSM/GPRS modem

**LDSPH** pH (0÷14) - °C (0÷200)

**LDSRH** ORP (0÷1000mV) - °C (0÷200)

**LDSCl** Chlorine (0÷10 mg/l Cl<sub>2</sub>) - °C (0÷200)

**LDSCD** Conductivity (depending on the probe) - °C (0÷200)

**LDSCDIND** Inductive conductivity (0÷3 mS|0÷30mS|0÷300mS) - °C (0÷99,9)

**LDSTORBH** Turbidity (0÷9999 NTU) - °C (0÷99,9)



# Instruments

## 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
- GSM/GPRS modem

### 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 MODELS

**MTOWER CD:** controller for conductivity

# Panel instruments

1 channel plus 1 for temperature

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

## "JC" SERIES

96x96 RACK MOUNTING SINGLE READING



**JC PH:** pH

**JC RH:** ORP

**JC CL:** Chlorine (Total - Free) - Chlorine Dioxide - Hydrogen - Peroxyde Ozone - Bromine - Peracetic Acid

**JC CD:** controller for conductivity

## "J DIGITAL" SERIES

96x48 RACK MOUNTING 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 O2:** Dissolved Oxygen

**J DIGITAL CLO2:** Chlorine Dioxide

**J DIGITAL TEMP:** Temperature

## "DIN DIGITAL" series

RAIL MOUNTING (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 O2:** Dissolved Oxygen

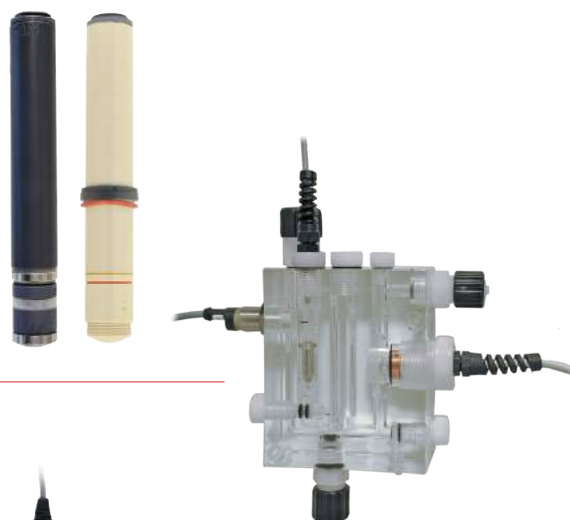
**DIN DIGITAL CLO2:** Chlorine Dioxide

**DIN DIGITAL TEMP:** Temperature

## Probes

### ECL - Closed amperometric cells

Free chlorine (organic and inorganic) for fresh water, total chlorine, chlorine dioxide, hydrogen peroxyde, ozone, peracetic acid, bromine.



### ECL - Open amperometric cells

Free chlorine (organic and inorganic) for fresh water and salt water.

### EPH - pH probes

Working temperature max 70° C  
Working pressure max 7 bar



### ERH - ORP probes

Working temperature max 70° C  
Working pressure max 7 bar

### EOLUM - Dissolved Oxygen probes

Working temperature max 50° C  
Working pressure max 10 bar



### ETORBH - Turbidity probe

Working temperature max 25° C  
Working pressure max 6 bar



## Probes



### ECDHL - Conductivity, Platinum electrodes

Working temperature max 70° C

Working pressure max 7 bar



### ECDC - Conductivity, Graphite electrodes

Working temperature max 60° C

Working pressure max 7 bar



### ECDI - Conductivity, Stainless Steel electrodes

Working temperature max 60° C

Working pressure max 7 bar



### EICD - Conductivity Stainless Steel probes

Working temperature max 130° C

Working pressure max 15 bar



### ECDIND PT - Inductive Conductivity probe

Measuring range up to 300,00 mS

Working temperature max 85° C

Working pressure max 8 bar

L 151.00 mm Ø 44.70 mm



### ECDSIND PT - Inductive Conductivity probe

Measuring range up to 10,00 mS

Working temperature max 85° C

Working pressure max 8 bar

L 105.00 mm Ø 32.70 mm



## Measurement systems

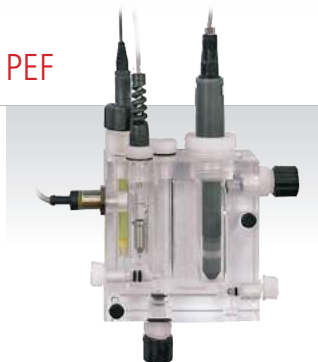
# Probes Accessories

### NPED



Off-line probe holders.  
Working temperature 0°/50° C  
Maximum pressure 5 bar

### PEF



Off-line probe holders for closed amperometric cells.

### PEL



In-line probe holders.

### NFIL



Filters.  
Maximum temperature 60° C  
(30° C NFIL/CA)  
Filtration degree 60 µ / 150 µ

### PEC



Immersion probe holders.  
Optional compressed air or water self cleaning system  
(automatic or manual control).

### MANIFOLD



With flow sensor as well as housing for the conductivity probe.  
Optional motorized valve, two injection points and even additional measurement probes

Maximum pressure 8 bar  
Maximum temperature 75° C

### BUFFER SOLUTIONS



Buffer solutions for probe calibration.

# Mixing and Dosing Station & SKID

## MIXING AND DOSING STATION

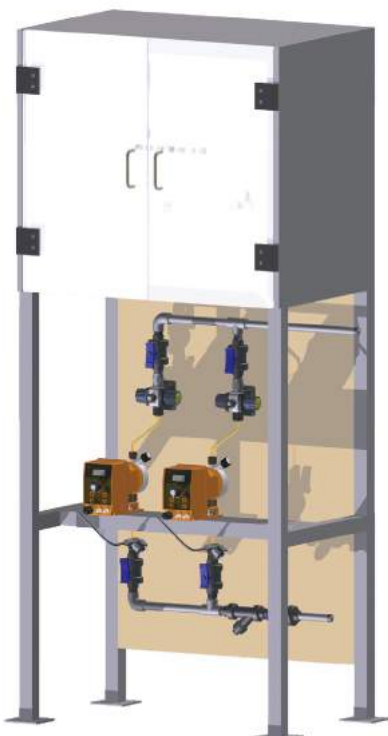


Storage, dosing, all regulation in one single system.  
Dosing stations are assembled to include:

- Dosing pumps
- Suction lances
- Mixer
- Water makeup valve
- Water bleed valve

Dosing stations are complete solutions ready to go.

## PLANTS ON SKIDS OR IN CUSTOM-MADE CABINS



The Stainless Steel or plastic skid is designed and built on client requirements.  
In addition to the solution on skids, it is possible to create dosing plants in a cabin, screen guard or with window.

Electric control panels designed to control all the assembled solution.  
The final product includes electrical and piping hook-ups ready for installation.

Customized solutions

# Anti-Legionella

## Sanitary hot water lines disinfection

- | Easy maintenance
- | Automatic re-priming
- | Tailor-made solutions
- | Custom panels for specific treatments
- | Remote Control



Sample panel

Customized solutions

# Pools & SPA

## Complete system for reliable protection

- | Multiple parameters measurement and control
- | Complete control and dosing systems for pH, ORP, Free chlorine, Chlorine, Combined chlorine, Temperature, Bromine, Ozone, Flocculant and Algicide
- | Scent and essences dosing, foot-bath disinfection systems, dechloration system for filters cleaning waters
- pH and active oxygen measurement and control
- | Remote Control



Sample panel



Customized solutions

# Potable and waste water

**Water treatment for a clearer, safer, better tasting and better smelling water**

- | Chlorination system
- | Pre-treatment and final disinfection of potable waters
- | Disinfection with sodium hypochlorite or calcium hypochlorite
- | Real time monitoring
- | Remote Control



Sample panel

# Customized solutions

## Cooling towers



### Cooling towers & Industrial water treatment

- | Efficient measuring system
- | Complete monthly report
- | Accurate conductivity control
- | Pre-assembled skids
- | Remote Control

Sample panel



Sample panel











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