



## 1. Measurement & control equipment

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01.05.2023



## 1. Measurement & control equipment

### 1.1. Wall Mounting



1.1.1.

**DOSAControl** Measurement and control device **DCW 105**

Single channel controller for potentiostatic sensors for measurement of: free chlorine, chlorine dioxide, ozone or hydrogen peroxide as well as for temperature display.



**Product description:**

- Graphical menu navigation
- Additional functions accessible via activation codes or modules
- Electrochemical cleaning with special sensors available as an option (automated process)
- Device with measurement and temperature input:
  - Input 1: variable measurements
  - Input 2: temperature
  - Input 3: external stop
- Outputs:
  - Output 1: relay with PID behaviour,
  - Output 2: relay with PID behaviour,
  - Output 3: 4–20 mA
  - Output 4: alarm relay
- Start delay: 0–200 s until controller is active
- Temperature coefficient: 0.0 ... 8.0 %, coefficient K adjustable
- Two limits with delay, coupled with the alarm relay
- SD card slot (for firmware update or image creation)
- Two user levels with password protection
- Event log and event help
- Energy-saving mode selectable
- Protected by auto-lock function
- Complies with valid EU regulations and thus meets all regulatory standards
- Temperature range: -30 to +140 °C with Pt100 or Pt1000
- Ambient temperature: 0–50 °C
- Power supply: 85–230 VAC, optionally 24 VDC

**Areas of application:**

- Potentiostatic measurement and regulation of: chlorine (Cl<sub>2</sub>), chlorine dioxide (ClO<sub>2</sub>), ozone (O<sub>3</sub>), temperature with temperature compensation (measurement and display).

**Scope of supply:**

- **DOSAControl DCW 105**, standard 2 m connection cable, IP 54 housing (B x W x D) 144 x 144 x 83 mm, made of ABS (optional wallmounted version with IP 65), SD card up to 2 MB (industrial standard)

**Ordering data:**

Type:	Item number:
DCW 105	2088180



**Additional technical data:**

Type:	Measured variable:	Suitable sensors:	Measuring range: mg/l	Power supply:	Max. contact load:	Measurement modules available for:
<b>DCW 105</b>	Free chlorine	KCL	0–1,000 mg/l	85–230 VAC, +6 /-10%	250 V/6 A, max. 550 VAC	- pH/Redox - conductiv - inductive - mA input - gas
	Chlorine dioxide	KCLD	0–5,00 mg/l			
	Ozone	KCOZ	0–10 mg/l			
	H <sub>2</sub> O <sub>2</sub>		0–30 mg/l			
	on request					

**Optionen:**

Type	Option:	Specification:	Item number:
<b>DCW 105</b>	Communication	RS 485 – modbus RTU	2038262
	Back-up	Data logger	2038261
	Power supply	24 VDC	2038260
	Outputs	Second analogue output (mA)	2038263
	Automatic cleaning	Automatic cleaning with suitable sensor (sensor not included in the scope of delivery)	2038215
	Wall mounting	With IP 65	2038266
	Integration to control panel	With IP 54 (front), IP 30 (housing)	2038265

1.1.2.

**DOSAControl** Measurement and control device **DCW 120 MF**

Single channel controller, freely programmable for the following potentiostatic sensors: pH, redox (ORP), conductivity, temperature, turbidity, oxygen, nitrate. For amperometric sensors: Cl<sub>2</sub>, COI<sub>2</sub>, O<sub>3</sub>, H<sub>2</sub>O<sub>2</sub>, PES, bromine, each for a mA or a mV signal input.



**Product description:**

- Backlit LCD for parameter display, all measured and operating values are displayed on the screen simultaneously
- Test functions
- Adjustable polarisation time
- Direct access to calibration
- Inputs
  - Input 1: for measurement cells 4–20 mA at 12/24 V, galvanically isolated
  - Input 2: for measurement cells ±0 to -2000 mV
  - Input 3: Flow meter (inductive proximity switch, PNP)
  - Input 4: Control input NO/NC with adjustable delay
  - Input 5: for stand-by
- Outputs:
  - Output 1: 4–0 mA, transmission of measured or set point
  - Output 2: 4–20 mA, transmission of measured or set point
  - Output 3: relay output for dosing pumps (230 VAC, pulse or cycle)
  - Output 4: relay output (control, P, PI, or PID)
  - Output 5: relay output for alarm
- Controller 1: PID behaviour
- Option: RS 485 serial port, Modbus protocol
- Integrated safety features, e.g. in case of mains failure or lack of water
- Dosing rate can be monitored; in case of excessive dosing at full rate an alarm is triggered. Two limits can be set.
- Data/parameters are saved even in case of power failure
- Languages: DE, ES, FR, GB, IT, PT

**Areas of application:**

- Measurement and regulation of: pH, redox, conductivity, temperature, turbidity, oxygen chlorine, ozone, hydrogen peroxide, peracetic acid, bromine.

**Scope of supply:**

- **DOSAControl DCW 120 MF**, IP 65 housing, 229 x 204 x 116 mm (W x H x D), made of ABS, for wall mounting, standard connection lead 2 m

**Ordering data:**

Type:	Option:	Item number:
<b>DCW 120 MF</b>		2188200
Hardware interface	RS 485	2188205
Software interface	Modbus RTU	on request

### 1.1.3.

## DOSAControl Measurement and control device DCW 130

1-channel controller for potentiostatic and amperometric sensors, for measuring pH, free chlorine, chlorine dioxide, ozone, hydrogen peroxide, redox or conductivity and for measuring and indicating temperature.



#### Product description:

- Microprocessor unit with backlit LC display
- Settings via keypad
- Signal input for pH and redox electrodes, with BNC connector
- Inductive conductivity
- Conductive conductivity with cell constants 0.1, 1 and 10
- Input for amperometric sensors with 4–20 mA
- Output signal Cl<sub>2</sub>, ClO<sub>2</sub>, O<sub>3</sub> or H<sub>2</sub>O<sub>2</sub>
- Temperature measurement with Pt100 or Pt1000
- Automatic temperature compensation
- Built-in data memory, with the option of creating data tables and charts
- Programmable 4–20 mA analogue output (500 Ω)
- Communication via RS485 interface, Modbus protocol, (DCW 130-M)
- Digital input for external dosing stop 24 V, 10 mA max.
- One alarm relay output or temperature setpoint
- 2 relay outputs for switching final control elements ON/OFF
- 1 A relays at 230 VAC
- One relay output for sensor cleaning or temperature setpoint
- Power connection: 100–240 VAC ±10%, 50/60 Hz, (24 VDC as an option)
- Housing in ABS plastic, protection class IP65

#### Areas of application:

- Measurement and control of: pH, free chlorine, chlorine dioxide, ozone, hydrogen peroxide, redox or conductivity as well as measurement and indication of temperature.

#### Scope of supply:

- **DOSAControl DCW 130**, standard connection lead 2 m, IP 65 housing, 144 x 144 x 122.5 mm (width x height x depth) in ABS plastic for wall mounting

#### Ordering data:

Type:	Indicator:	Item number:
<b>DCW 130</b> 100 ... 240 VAC	pH / Redox	21230155
	Conductivity, conductive sensor	21230150
	amperometric (mA)	21230160
<b>DCW 130-M</b> 100 ... 240 VAC	pH / Redox	21230157
	Conductivity, conductive sensor	21230152
	amperometric (mA)	21230162
<b>DCW 130</b> 24 VDC	pH / Redox	21230156
	Conductivity, conductive sensor	21230151
	amperometric (mA)	21230161
<b>DCW 130-M</b> 24 VDC	pH / Redox	21230158
	Conductivity, conductive sensor	21230153
	amperometric (mA)	21230163



1.1.4.

**DOSAControl** Measurement and control device **DCW 220**

2-channel controller, freely programmable for potentiostatic and amperometric sensors, for measurement of: pH, free chlorine, total chlorine, chlorine dioxide, ozone, oxygen, conductivity, temperature, redox or turbidity.



**Product description:**

- Microprocessor unit with large LCD display, backlit
- all measured values and operating states are shown simultaneously in one display
- complete visualisation of the controller information
- operation via foil keyboard
- retentive data storage in case of power failure
- measuring input for measuring cells: 4-20 mA and 12/24 V galvanically isolated
- pulse input for flow measurement
- adjustable polarisation time
- direct calibration access
- 2 analogue outputs 0/4...20 mA (for measuring signal and regulation)
- 2 potential-free relay outputs
- 4 relay outputs for dosing pumps (230 VAC)
- 4 relay outputs (control P, PI or PID)
- programmable timer function
- Alarm relay output
- Alarm display: Sensor not connected
- Alarm display: Sensor error
- Flow sensor
- Test functions
- 1 input for flow monitoring (inductive proximity switch, PNP)
- UBS connection
- Hold and auto function
- Optional: RS 485, serial interface (Modbus protocol)
- Electrical connection: 90-240 V AC + 10%, 50/60 Hz
- Housing made of ABS plastic, protection class IP 65

**Areas of application:**

- Measurement and control of: pH value, conductivity, oxygen, free and total chlorine, chlorine dioxide, ozone, redox, turbidity, as well as temperature.

**Scope of supply:**

- **DOSAControl DCW 220**, standard connection cable 2 m, IP 65 Housing, 229 x 204 x 116 mm (width x height x depth) made of ABS plastic for wall mounting.

**Ordering data:**

Type:	Measurement:	Item number:
<b>DCW 220</b>	pH value, conductivity, oxygen, free and total chlorine, chlorine dioxide, ozone, redox, turbidity, temperature	2188220



1.1.5.

**DOSAControl** Measurement and control device **DCW 230**

2-channel controller for potentiostatic and amperometric sensors, for measuring and control: pH, redox or pH, conductivity or pH-, free chlorine, chlorine dioxide, ozone, hydrogen peroxide, redox or conductivity and for measuring and indicating temperature.



**Product description:**

- Microprocessor unit with backlit LC display
- Settings via keypad
- Signal input for pH and redox electrodes, with BNC connector
- Inductive conductivity
- Conductive conductivity with cell constants 0.1, 1 and 10
- Input for amperometric sensors with 4–20 mA
- output signal Cl<sub>2</sub>, ClO<sub>2</sub>, O<sub>2</sub> or H<sub>2</sub>O<sub>2</sub>
- Temperature measurement with Pt100 or Pt1000
- Automatic temperature compensation
- Built-in data memory, with the option of creating data tables and charts
- 2 programmable 4–20 mA analogue outputs (500 Ω)
- 2 relay outputs for limits
- Communication via RS485 interface (Modbus protocol)
- Digital input for external dosing stop 24 V, 10 mA max.
- 1 alarm relay output or temperature setpoint
- 2 relay outputs for switching final control elements ON/OFF, 1 A relays at 230 VAC
- One relay output for sensor cleaning or temperature setpoint
- Power connection: 100–240 VAC ±10%, 50/60 Hz, (24 V DC as an option)
- Housing in ABS plastic, protection class IP65

**Areas of application:**

- Measurement and control of: pH, redox or pH conductivity or pH- free chlorine, chlorine dioxide, ozone, hydrogen peroxide, redox or conductivity as well as measurement and indication of temperature.

**Scope of supply:**

- **DOSAControl DCW 230**, standard connection lead 2 m, IP65 housing, in ABS plastic for wall mounting

**Ordering data:**

Type:	Indicator:	Item number:
<b>DCW 230</b>	pH and redox	21230035
	pH and conductivity, inductive sensor	21230040
	pH and conductivity, conductive sensor	21230025
	pH and amperometric sensors with output signal for chlorine, chlorine dioxide, ozone or hydrogen peroxide and pH	21230015

**Ordering data:**

Type:	Indicator:	Item number:
<b>DCW 230</b> 24 V DC	DCW 230 - in 24 V DC version	90230430
	pH and redox	21230005
	pH and conductivity, inductive sensor	21230000
	pH and conductivity, conductive sensor	21230001
	pH and amperometric sensors with output signal for chlorine, chlorine dioxide, ozone or hydrogen peroxide and pH	21230010

1.1.6.

**DOSAControl** Measurement and control device **DCW 260**



2-channel controller for potentiostatic and amperometric sensors, for measuring and controlling: pH, free chlorine or total chlorine and free chlorine or pH and redox, or pH-, total chlorine, chlorine dioxide, ozone, hydrogen peroxide, peracetic acid or chlorite, and for measuring and indicating temperature.

**Product description:**

- Microprocessor unit with backlit LC display
- Settings via keypad
- Data storage on SD card
- Signal input for pH electrodes, high-impedance input -1800 mV +1800 mV, with BNC connector
- Signal input for amperometric sensors 0 to -2000 mV, with 12 V power supply
- Temperature measurement with Pt100
- Empty indication switch, potential-free contact
- External dosing release, potential-free contact
- Inductive flow meter or reed contact, 12 V
- Direct calibration access
- two 4 – 20 mA analogue outputs (for transferring measurement or output values)
- 2 analogue outputs for final control elements, electronic relays, max. 40 mA at 48 VDC
- 2 analogue outputs for switching final control elements ON/OFF or for switching pulse widths, 2 A relays at 230 VAC
- Output for switching final control elements ON/OFF or for switching pulse widths, 2 A relay at 230 VAC, version for motor valve “closed” direction
- Output for switching alarms or final control elements, NO or NC relays, 2 A at 230 VAC
- 2-channel P, PI or PID control, programmable output signals for two-point, pulse width or pulse frequency final control elements or optionally for controlling a motor valve
- Power connection: 90 – 240 VAC ±10 %, 50/60 Hz
- Housing in ABS plastic, protection class IP65

**Areas of application:**

- Measurement and control of: pH, free chlorine or total chlorine and free chlorine or pH and redox or pH-, total chlorine, chlorine dioxide, ozone, hydrogen peroxide, peracetic acid, chlorite, as well as measurement and indication of temperature.

**Scope of supply:**

- **DOSAControl DCW 260**, standard connection lead 2 m, IP65 housing 229 x 204 x 116 mm (width x height x depth) in ABS plastic for wall mounting

**Ordering data:**

Type:	Indicator:	Item number:
<b>DCW 260</b>	pH and free chlorine	2188051
	Total chlorine and free chlorine	2188052
	pH and redox	2188053

1.1.7.

**DOSAControl** Measurement and control device **DCW 320**

3-channel controller for potentiostatic and amperometric sensors, for measuring and controlling pH, free chlorine, redox and for measuring and indicating temperature.



**Product description:**

- Microprocessor unit with backlit LC display
- Settings via keypad
- Signal input for redox and pH electrodes, with BNC connector
- Signal input for amperometric sensors 0 to  $\pm 2000$  mV, with 12 V–24 V power supply
- Signal input for amperometric sensors 4–20 mA, with 24 V power supply
- Signal input for temperature sensors 4–20 mA, with 12 V power supply
- Input for external dosing stop
- Input for flow sensor, inductive proximity switch
- Pulse input for flow meter
- Direct calibration access
- pH control in both directions
- Two 4–20 mA analogue outputs, measurement or output value, max. 500  $\Omega$  (P or PID control)
- 3 relay outputs, 2 A/250 VAC for cyclic mode
- 4 freely programmable relay outputs, e.g. for alarm signals, dosing pumps or final control elements
- 1 printer output (e.g. for printing reports), RS232 interface
- Communication via RS485 interface (Modbus protocol)
- RJ45 modem interface for GSM, Ethernet or WiFi communication in case of remote monitoring (optional)

**Areas of application:**

- Measurement and control of: pH, free chlorine, redox as well as measurement and indication of temperature.

**Scope of supply:**

- **DOSAControl DCW 320**, standard connection lead 2 m, IP65 housing 235 x 119 x 185 mm (width x height x depth) in ABS plastic for wall mounting

**Ordering data:**

Type:	Indicator:	Item number:
<b>DCW 320</b>	pH, free chlorine, redox and measuring and indicating temperature	2188210



1.1.8.

**DOSAControl** Measurement and control device **DCW 330**



3-channel controller for potentiostatic and amperometric sensors, for measuring and control: pH, redox, free chlorine or total chlorine, chlorine dioxide, bromine, ozone, hydrogen peroxide or peracetic acid and for measuring and indicating temperature.

**Product description:**

- Microprocessor unit with backlit LC display
- Settings via keypad
- Signal input for pH and redox electrodes, with BNC connector
- Input for amperometric sensors with 4–20 mA output signal (Cl<sub>2</sub>, ClO<sub>2</sub>, O<sub>3</sub>)
- H<sub>2</sub>O<sub>2</sub>, bromine or peracetic acid
- Temperature measurement with Pt100, Pt1000 or NTC
- Automatic temperature compensation
- Input for external dosing stop
- Two inputs for level control
- Two programmable 4–20 mA analogue outputs (500 Ω)
- Two programmable frequency outputs, 0 – 120 pulses / minute
- One alarm relay output
- Three relay outputs for switching final control elements ON/OFF,
- 1 A relays at 230 VAC
- One relay output for sensor cleaning or temperature setpoint
- Communication via RS485 interface (Modbus protocol)
- Power connection: 100–240 VAC ±10%, 50/60 Hz, (24 VDC as an option)
- Housing in ABS plastic, protection class IP65

**Areas of application:**

- Measurement and control of: pH, redox, free chlorine or total chlorine, chlorine dioxide, bromine, ozone, hydrogen peroxide or peracetic acid as well as measurement and indication of temperature.

**Scope of supply:**

- **DOSAControl DCW 330**, standard connection lead 2 m, IP65 housing 144 x 144 x 122.5 mm (width x height x depth) in ABS plastic for wall mounting

**Ordering data:**

Type:	Indicator:	Item number:
<b>DCW 330</b>	pH, redox and free chlorine; measuring and indicating temperature	21230020
	pH, redox and total chlorine; measuring and indicating temperature	on request
	pH, redox and chlorine dioxide; measuring and indicating temperature	
	pH, redox and bromine; measuring and indicating temperature	
	pH, redox and ozone; measuring and indicating temperature	
	pH, redox and hydrogen peroxide; measuring and indicating temperature	
	pH, redox and peracetic acid; measuring and indicating temperature	

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09.11.2021



Integrated\* web server for an app-free measurement, regulation and remote control with a classically 4-channel-controller, for the measuring and, optionally regulation of: pH-, redox, conductivity and free chlorine, total chlorine, chlorine dioxide, free bromine, hydrogen peroxide, peracetic acid, turbidity, oxygen and many other parameters.

**Product description:**

- Operation via web browser with external device (PC, smartphone tablet pc) with integrated access administration
- LAN-connection RJ45 necessary, DHCP- or hard addressing
- LED-display on the device, display-free settings via network
- Data recording in the device via Micro-SD card and by remote access
- Timer functions: increase of control parameters\*, individual outputs directly switchable, trigger e-mails; (\*setpoint)
- User administration (in groups)
- General functions:
  - computation of the activity of the free chlorine
  - correction of the pH-error of the chlorine mV-sensors
  - monitoring of the overrange from the mV-sensors
  - valuation of the empty signal channel
  - separate external metering enabling via electronic input
  - evaluation of the inductive proximity switch
  - evaluation of other reed-contacts
  - guided calibration
- Input:
  - 4 galvanically isolated slots for pH-, redox, mV, or 4–20 mA sensors (see accessory list)
  - 1 x temperature measurement with Pt100
  - 4 x digital input
  - 1 NPN or PNP
- Output:
  - 4 relays as Pulse, PWM, ON/OFF, Warning, Alarm
  - 2 x optical coupler
  - optional: mA Out, Module with 2 outputs (Analog)
- Regulation:
  - per channel:
    - ON/OFF (or) controller
    - P-, PI-, PID-controller
    - adaptive controller
- Power connection: 90–240 VAC ±10 %, 50/60 Hz, (24 V DC as an option)
- protection class IP65



**Areas of application:**

- Measurement and regulation with Web-connection.

**Scope of supply:**

- **DOSAControl DCW 400ip**, housing in ABS plastic, 229 x 204 x 116 mm (W x H x D) for wall mounting

\*Is not connected to an external Internet-Server, it will only be addressed through your internal network = completely autonomous system

**Ordering data:**

Type:	Option:	Item number:
<b>DCW 400ip</b>		2188300
Modules: will be needed for special measurements	<b>DCW 400ip</b> pH-module and accessories for the measurement of pH	2188301
	<b>DCW 400ip</b> Redox module and accessories for the measurement of redox	2188302
	<b>DCW 400ip</b> analog module In (0 to-2000 mV)	21250120
	<b>DCW 400ip</b> module 4–20 mA (input)	21250140
	<b>DCW 400ip</b> conductivity module 1 $\mu$ S–200.000 $\mu$ S	21250150
	<b>DCW 400ip</b> analog module Out (2 x 4–20 mA out)	21250130
	<b>DCW 400ip</b> analog-out module, option (2 x 4–20 mA out) ERWEITER	21250160



## 1. Measurement & control equipment

### 1.2. DIN Rail mounting





1.2.1.

**DOSAControl** Measurement and control unit **DCH**

1-channel controller for potentiostatic and amperometric sensors for the measurement of: pH, free chlorine, total Chlorine, Chlorine dioxide, Chlorite, Ozone, Oxygen, Hydrogen, peroxide, Peracetic acid, Bromine, conductivity, redox (ORP) and for the measurement and displaying of the temperature.

**Product description:**

- Microprocessor unit with LCD, backlit
- Programmable switch-on delay
- ON/OFF control mode with two limits and adjustable control hysteresis
- Input:
  - 1 x 0 to -2000 mV or, 4–20 mA or conductivity
  - NTC 10 kΩ with autom. temp. compensation (only pH and conductivity) flow control
- Output:
  - 2 x limit switch contact (Digital outputs as potential free relay, max. contact load 230 V/5A
  - 1 x 4–20 mA, programmable, Minimum Load 250 Ohm
- Power supply:
  - 230 VAC, 50/60 Hz
  - Alternating power supply 24 VDC
- Enclosure in ABS plastic for DIN Rail mounting, 106 x 95 x 55 mm (width x height x depth), protection class IP20



Please look under accessories

**Areas of application:**

- Measurement and control of: pH, redox (ORP), conductivity, free chlorine, total chlorine ... as mentioned above.

**Scope of supply:**

- **DOSAControl** DCH, standard connection lead 5 m

**Ordering data:**

Type:	Measurand:	Item number:
<b>DCH</b>	pH, temperature	2188550
	Redox	2188551
	0 to -2000 mV, or 4–20 mA	2188552
	CD1 - Conductivity (0–1.99 µS) Cell constant K= 0.1	2188553
	CD1 - Conductivity (0–3.99 µS) Cell constant K= 0.2	2188553
	CD2 - Conductivity (0–19.9 µS) Cell constant K= 0.1	2188554
	CD2 - Conductivity (0–39.9 µS) Cell constant K= 0.2	2188554
	CD3 - Conductivity (0–199.9 µS) Cell constant K= 0.1	2188555

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12.03.2019

**Ordering data:**

Type:	Measurand:	Item number:
<b>DCH</b>	CD3 - Conductivity (0–399.9 µS) Cell constant K= 0.2	2188555
	CD4 - Conductivity (0–1999 µS) Cell constant K= 0.2	2188556
	CD4 - Conductivity (0–9999 µS) Cell constant K= 1	2188556
	CD5 - Conductivity (0–19.99 mS) Cell constant K= 1	2188557

**Additional technical data:**

Type:	Measured variable:	Measuring range:	
<b>DCH</b>	Potentiostatic:		
	pH	0 – 14	
	redox (ORP)	-1000 mV to +1000 mV	
	Amperometric: 0 to -2000mV, or 4 – 20 mA		
	free chlorine	0.005 mg/l ... 200 mg/l	
	total Chlorine	0.005 mg/l ... 20 mg/l	
	Chlorine dioxide	0.005 mg/l ... 200 mg/l	
	Chlorite	0.05 mg/l ... 2 mg/l	
	Ozone	0.05 mg/l ... 20 mg/l	
	Oxygen	on request	
	Hydrogen peroxide	0 mg/l ... 2 mg/l	
	Peracetic acid	0 mg/l ... 2 mg/l	
	Bromine	0.005 mg/l ... 20 mg/l	

**Accessories: housing**

Typ:	RAL Color number:	Dimensions: (height x width x depth) mm	Number of TE units: according to DIN standard 43880, (1 TE $\pm$ 17,5–18 mm)	Protection:	Protection:	Number of doors:	Item number:
Wall-mounted-housing for 1 x DCH	7035 (stone gray)	190 x 165 x 113	6	IP 65	2	1	8917250
Wall-mounted-housing for 1 x DCH + addition		on request	10				8917251
Wall-mounted-housing for 2 x DCH		210 x 235 x 113	12				8917252



## 1. Measurement & control equipment

### 1.3. Photometer, Legionella-Kits



1.3.1.

**DOSAControl Photometer – KITS (preconfigured)**

Photometer for water analysis and calibration.



**Product description:**

- Meter operating according to the DPD method for chemical-photometric determination of the concentration of disinfectants
- Menu guidance: intuitive, using a touch screen (5.5 inches)
- Technical description: see „Photometer - selection by parameters“
- Testing instructions during the measurement process
- Spectral range: 380 nm – 950 nm, complete coverage by multi-spectral sensor
- Measuring ranges:
  - pH: 6.5 – 8.4
  - Chlorine: 0.00 – 8.00 mg/l (ppm), free, combined, total
  - Iso-cyanuric acid: 0 – 160 mg/l (ppm)
  - Bromine: 0.0 – 13.5 mg/l (ppm)
  - Ozone: 0.0 – 4.00 mg/l (ppm)
  - Hydrogen peroxide: 0.00 – 2.9 mg/l (ppm)
  - Chlorine dioxide: 0.0 – 11.4 mg/l (ppm)
- Calibration: Auto Calibration function
- Operating environment:
  - 5 °C – 45 °C, 30 – 90% rel. humidity
- Protection class: IP 68
- Operating languages: > 15 languages: English, German, French, Italy, Spanish ...

**Areas of application:**

- Water analysis and calibration.

**Scope of supply:**

- **DOSAControl Photometer – Selection by parameter** with Plastic case incl.:
  - 4 x 24 mm / 10ml glass vials with lid (light shield integrated in lid)
  - 1 x light shield for 16mm vials, Eppendorf vials and calibration
  - 1 x 24 mm vial adapter (built-in, exchangeable)
  - 1 x 10.5 cm plastic stirring rod
  - 1 x graduated 10ml plastic syringe
  - 1 x vial cleaning brush, 1 x microfibre cleaning cloth for vials
  - 1 x Battery-Charger with USB-cable (type C)
- Reagents: (1 of each included)
  - Chlorine: 1 x 30 ml, DPD 1 A (dropper bottle), 1 x 30 ml, DPD 1 B (dropper bottle) 1 x 30 ml, DPD 3 C (dropper bottle)
  - pH: 1 x 65 ml, phenol red, (dropper bottle)
  - Cyanuric acid: 1 x 50 pcs. CYA test (tablets)
  - Chlorine dioxide: 1 x 30 ml, DPD 1 A (dropper bottle), 1 x 30 ml, DPD 1 B (dropper bottle), 1 x 30 ml, DPD glycine (dropper bottle)

**Ordering data:**

Type:	Item number:
<b>Photometer</b> Chlorine (chlorine, total chlorine, pH, iso-cyanuric acid)	89231000
<b>Photometer</b> Chlorite (chlorine, total chlorine, pH, iso-cyanuric acid, chlorite)	89231010
<b>Photometer</b> Bromine (chlorine, total chlorine, pH, iso-cyanuric acid, bromine)	89231020
<b>Photometer</b> Ozone (chlorine, total chlorine, pH, iso-cyanuric acid, ozone)	89231030
<b>Photometer</b> Hydrogen Peroxide (chlorine, total chlorine, pH, iso-cyanuric acid, hydrogen peroxide)	89231040
<b>Photometer</b> Disturbance Variables (chlorine, total chlorine, pH, iso-cyanuric acid, iron, manganese)	89231050
<b>Photometer</b> Chlorine Dioxide (chlorine, total chlorine, pH, chlorine dioxide)	89231060

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1.3.2.

**DOSAControl Photometer – Selection by parameter**

Photometer for water analysis and calibration.

Select the parameters required for the use with the corresponding reagents. Reagents\* are available for more than 140 special parameters (\*see lists below).

**Product description:**

- Menu guidance: intuitive, using a touch screen (5.5 inches)
- Modern software management:
  - Cloud synchronized: Win/Mac, Android and iOS Apps
  - Unlimited number of accounts/accounts possible
  - Reporting and statistics possible (printable or sendable)
  - Admin tool allows creating rules (daily measurement, limits, warnings ...)
- Camera: internal camera, as QR code scanner, for task verification of parameter or location allocation via accounts/accounts
- Test instructions during the measurement process
- Spectral range: 380 nm ... 950 nm, complete coverage by multi-spectral sensor
- Calibration: Auto Calibration function
- Measuring ranges: see reagent lists below (> 140 parameters)
- Adapter for different cuvette sizes
- USB connection for electrodes for measuring :
  - pH, temperature, salinity, conductivity, ORP, TDS
- PTSA (fluorescent marker) integrated
- Environment:
  - 5 °C – 45 °C
  - 30 – 90 % rel. humidity
- Power supply: 8400 mAh accu
- Protection level: IP 68
- User languages: > 15 languages: English, German, French, Italy, Spanish ...



**Operating mode:**

- **DOSAControl** Photometer spectral-photometrically measures all water values in which the water sample is visibly discoloured after the addition of a reagent. Three sensors with six wavelengths each (corresponds to a measurement of eighteen different wavelengths at the same time) allow very precise measurement results.

**Scope of supply:**

- **DOSAControl/Photometer – Selection by parameter** with Plastic case incl.:
  - 4 x 24 mm / 10ml glass vials with lid (light shield integrated in lid)
  - 1 x light shield for 16mm vials, Eppendorf vials and calibration
  - 1 x 24 mm vial adapter (built-i, exchangeable)
  - 1 x 10.5 cm plastic stirring rod
  - 1 x graduated 10ml plastic syringe
  - 1 x vial cleaning brush
  - 1 x microfibre cleaning cloth for vials
  - 1 x Battery-Charger with USB-cable (type C)

**Ordering data:**

Type:	Item number:
Photometer – Selection by parameter (basic device)	89231100

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**Reagent list:**

Methods (ID xxx) and suitable reagents:	Item number:
<b>Active Oxygen:</b>	
<i>ID 01 Active Oxygen/0-40 mg/l/tablets/resolution 0.1</i>	99231000
50 tablets DPD N° 4	93231135
<b>Alkaliinität:</b>	
<i>ID 05 Alkaliinität-M/5-200 mg/l/tablets/Resolution 1</i>	99231002
50 tablets Alkaliinität-M	93231163
<i>ID 121 Alkaliinität-M (HR)/0-500 mg/l/tablets/Resolution 1</i>	99231002
50 tablets Alkalinity m-hr-	93231163
<i>ID 06 Alkaliinität-P/5-300 mg/L tablets/Resolution 1</i>	99231003
50 Tablets Alkaliinität-P	93231119
<b>Aluminum:</b>	
<i>ID 04 Aluminium/0-0.3 mg/l/tablets/resolution 0.01</i>	99231004
50 tablets Aluminium N° 1	93231093
50 tablets Aluminium N° 2	93231117
<b>Ammonium:</b>	
<i>ID 02 Ammonium (LR) /0-1 mg/L tablets/Resolution 0.01</i>	99231006
50 tablets Ammonium N° 1	93231094
50 tablets Ammonium N° 2	93231118
<i>ID 155 Ammonium (HR) / 1-50 mg/L/prepared ampoules + powder/Resolution 0.1</i>	99231006
Kit for ammonium:	
50 Ammonium HR vial	93231010
50 Ammonium salicylates F5 Powder Pack	
50 Ammonium Cynurate F5 Powder Pack	
100 ml VE-Water	
Adapter to use 16 mm Hoses	92231230
<b>Ascamine:</b>	
<i>ID 125 Acsamine 28F/0-100 mg/l/drop/Resolution 1</i>	99231007
65 ml PL Acsamine 1	93231032
65 ml PL Acsamine 2	93231033
<i>ID 145 Acsamine cc/0-100 mg/l/drop/Resolution 1</i>	99231008
65 ml PL Acsamine 1	93231032
65 ml PL Acsamine 2	93231033
<i>ID 146 Acsamine CCA/0-100 mg/l/drop/Resolution 1</i>	99231009
65 ml PL Acsamine 1	93231032
65 ml PL Acsamine 2	93231033
<i>ID 126 Acsamine DW/0-100 mg/l/drop/Resolution 1</i>	99231010
65 ml PL Acsamine 1	93231032
65 ml PL Acsamine 2	93231033
<i>ID 141 Acsamine DWBR1/0-100 mg/l/drop/Resolution 1</i>	99231011
65 ml PL Acsamine 1	93231032
65 ml PL Acsamine 2	93231033
<i>ID 142 Acsamine DWC/0-100 mg/l/drop/Resolution 1</i>	99231012
65 ml PL Acsamine 1	93231032
65 ml PL Acsamine 2	93231033
<i>ID 143 Acsamine SW/0-100 mg/l/drop/Resolution 1</i>	99231013
65 ml PL Acsamine 1	93231032
65 ml PL Acsamine 2	93231033
<i>ID 144 Acsamine SWC/0-100 mg/l/drop/Resolution 1</i>	99231014
65 ml PL Acsamine 1	93231032
65 ml PL Acsamine 2	93231033
<b>Bor:</b>	
<i>ID 07 Bor / 0-2 mg/l/tablets/resolution 0.1</i>	99231015
100 tablets Boron N° 1	93231096
50 tablets Boron N° 2	93231120
<b>Bromine:</b>	
<i>ID 08 Bromine/0-18 mg/l/tablets/resolution 0.01</i>	99231016

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**Reagent list:**

Methods (ID xxx) and suitable reagents:	Item number:
50 tablets DPD N° 1	93231130
50 tablets Glycine	93231103
<i>ID 63</i> Bromine / 0-18 mg/l/drop/Resolution 0.01	99231017
30 ml PL DPD 1 A drop (125 tests)	93231015
30 ml PL DPD 1 B drops (125 tests)	93231016
20 g PL DPD Nitrite powder (285 tests)	93231071
<i>ID 128</i> Bromine / 0-4.5 mg/l /Resolution 0.01	99231018
100 Powder Pillow DPD Total Chlorine PP (100 Tests)	93231086
<b>Carbohydrazid:</b>	
<i>ID 71</i> Carbohydrazid/0-1.3 mg/l/ drop/Resolution 0.01	99231019
65 ml PL Oxygen Scavenger 1 (270 tests)	93231052
65 ml PL Oxygen Scavenger 2 (65 tests)	93231053
<b>Chlorine amines:</b>	
<i>ID 95</i> Chlorine Amines/0.00-8.00 mg/l /tablets/resolution 0.01	99231020
50 tablets DPD N° 1	93231130
50 tablets DPD N° 2	93231132
50 tablets DPD N° 3	93231133
<b>Chloride:</b>	
<i>ID 10</i> Chloride / 0.5-25 mg/l /tablets/resolution 0.1	99231021
50 tablets chloride N° 1	93231099
50 tablets chloride N° 2 (Hazardous material class 3077)	93231127
<i>ID 124</i> Chloride /0-100 mg/l /drop/Resolution 0.1	99231022
65 ML PL chloride 1 (108 tests), (Hazardous material class 3077)	93231034
65 ML PL chloride 2 (108 tests)	93231035
<b>Chlorine:</b>	
<i>ID 11</i> Chlorine (free-bound-total) / 0.00-8.00 mg/l/tablets /resolution 0.1	99231023
50 tablets DPD N° 1	93231130
50 tablets DPD N° 3	93231133
<i>ID 12</i> Chlorine (free-bound-total)/0.00-8.00 mg/l/ drop/ Resolution 0.01	99231024
30 ml PL DPD 1 A drop (125/250 tests)	93231015
30 ml PL DPD 1 b drops (125/250 tests)	93231016
30 ml PL DPD 3 C drops (250 tests)	93231017
<i>ID 129</i> Chlorine (free)/0-2 mg/l/ Resolution 0.01	99231025
100 Powder Pillow DPD free Chlorine (PP) (100 Tests)	93231085
<i>ID 122</i> Chlorine (MR)/0.00-10.00 mg/l /tablets/resolution 0.01	99231026
50 tablets DPD N° 1 Mr	93231131
50 tablets DPD N° 3 Mr	93231134
<i>ID 14</i> Chlorine (HR) 5-200 mg/l/tablets/Resolution 1	99231027
50 tablets chlorine hr (KI)	93231126
50 Tablets Acidifying GP	93231092
<i>ID 15</i> Chlorine (HR) 0-200 mg/l/ drop/Resolution 1	99231028
65 ml PL Chlorine HR 1 (541 Tests, Hazardous material class 2790)	93231037
65 ml PL Chlorine HR 2 (541 tests)	93231038
<b>Chlorine dioxide:</b>	
<i>ID 16</i> Chlorine dioxide / 0-15 mg/l/ tablets/resolution 0.01	99231029
50 tablets DPD N° 1	93231130
50 tablets Glycine	93231103
<i>ID 64</i> Chlorine dioxide / 0-15 mg/l/ drop/Resolution 0.01	99231030
30 ml PL DPD 1 A drop (125/250 tests)	93231015
30 ml PL DPD 1 b drops (125/250 tests)	93231016
30 ml PL DPD Glycine (250 tests)	93231019
<i>ID 130</i> Chlorine dioxide / 0-5 mg/l /drops + /Resolution 0.01	99231031
30 ml PL DPD Glycine (250 tests)	93231019
100 Powder Pillow DPD free Chlorine (PP) (100 Tests)	93231085
<b>Total Oxidase:</b>	
<i>ID 108</i> Total Oxidants / 0-8 mg/l /drop/Resolution 0.01	99231032

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**Reagent list:**

Methods (ID xxx) and suitable reagents:	Item number:
30 ml PL DPD 1 A drop (125/250 tests)	93231015
30 ml PL DPD 1 b drops (125/250 tests)	93231016
30 ml PL DPD 3 C drops (250 tests)	93231017
30 ml PL DPD Acidifying (250 tests)	93231018
30 ml PL DPD Neutralizing (250 tests)	93231022
<b>Chlorites:</b>	
<i>ID 106</i> Chlorites / 0-8 mg/l/ drop/Resolution 0.01	99231033
30 ml PL DPD 1 A drop (125/250 tests)	93231015
30 ml PL DPD 1 b drops (125/250 tests)	93231016
30 ml PL DPD 3 C drops (250 tests)	93231017
30 ml PL DPD Acidifying (250 tests)	93231018
30 ml PL DPD Neutralizing (250 tests)	93231022
30 ml PL DPD Glycine (250 tests)	93231019
<b>Chrome:</b>	
<i>ID 94</i> Chrome / 0-2.2 mg/l /tablets/resolution 0.01	99231034
50 tablets Chrome N° 1	93231098
50 tablets Chrome N° 2	93231125
<i>ID 103</i> /Chrome / 0-1 mg/l/ Powder drop/Resolution 0.01	99231035
10 g PL chromate 1 (142 tests)	93231065
65 ml PL chromate E 2 (108 tests, hazardous material class 2796)	93231036
<b>Chemical oxygen requirement (COD):</b>	
<i>ID 79</i> COD (LR)/0-150 mg/l /prepared ampoules/Resolution 1	99231036
25 Tube tests Cod Lr (0-150 mg/l, hazardous material class 2922)	93231001
Adaptor for the use of 16mm hoses	92231230
Heating block for 8 x 16mm vials	92231500
<i>ID 80</i> /COD (MR)/0-1500 mg/l /prepared ampoules/Resolution 1	99231037
25 TubeTests Cod MR (0-1500 mg/l, hazardous material class 2922)	93231002
Adaptor for the use of 16 mm hoses	92231230
Heating block for 8 x 16 mm vials	92231500
<b>Color:</b>	
<i>ID 107</i> Colour/ 15-500 mg/l/ -/Resolution 1	99231039
Filter kit 0.45 µm	92231510
<b>Copper:</b>	
<i>ID 18</i> Copper / 0-5 mg/l/ tablets/resolution 0.01	99231040
50 tablets copper N° 1	93231100
50 tablets copper N° 2	93231128
<i>ID 19</i> Copper / 0-5 mg/l /powder/Resolution 0.01	99231041
10g PL Copper 1 (71 tests)	93231066
<b>Cyanide:</b>	
<i>ID 158</i> Cyanide / 0.01-0.50 mg/l /Powder drop/Resolution 0.01	99231042
Cyanide Kit	93231011
<b>Cyanuric acid:</b>	
<i>ID 20</i> Cyanuric Acid/2-160 mg/l/ tablets/Resolution 1	99231043
50 th Tablets CYA Test	93231122
<b>Cyanacetamid (DBNPA):</b>	
<i>ID 65</i> DBNPA / 0-13 mg/l /drop/Resolution 0.01	99231044
30 ml PL DPD 1 A drop (125/250 tests)	93231015
30 ml PL DPD 1 b drops (125/250 tests)	93231016
30 ml PL DPD 3 C drops (250 tests)	93231017
<i>ID 82</i> DBNPA / 0-13 mg/l/ tablets/resolution 0.01	99231045
50 tablets DPD N° 1	93231130
50 tablets DPD N° 3	93231133
<b>Dehydroepiandrosterone (DEHA):</b>	
<i>ID 21</i> DEHA / 20-1000 mg/l /drop/Resolution 10	99231046
65 ml PI Oxygen Scavenger 1 (270 Tests, hazardous material class 3264)	93231052
65 ml PL Oxygen Scavenger 2 (65 tests)	93231053

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**Reagent list:**

Methods (ID xxx) and suitable reagents:	Item number:
<b>Dissolved oxygen:</b>	
<i>ID 163</i> Dissolved oxygen (0 -10 mg/l/ drop/Resolution 0.1)	99231047
30 ml PL DissOx 1 (75 Tests)	93231012
50 ML glass bottle with plug	92231520
30 ml PL DissOx 2 (75 tests)	93231013
30 ml PL DissOx 3 (75 tests)	93231014
<b>Erythorbinsäure:</b>	
<i>ID 70</i> Erythorbinsäure / 0-3.5 mg/l/ drop/Resolution 0.01	99231048
65 ml PL Oxygen Scavenger 1 (270 Tests, Hazardous material class 3264)	93231052
65 ml PL Oxygen Scavenger 2 (65 Tests, Hazardous material class 3264))	93231053
<b>Fluorescein:</b>	
<i>ID 113</i> Fluorescein / 0-500 µ g/l /Adapter/Resolution 1	99231049
Adapter Kit "Fluorescein" For ID 113. Case with Adaptor	92231530
<b>Fluoride:</b>	
<i>ID 72</i> Fluoride/0-2 mg/l/drop/Resolution 0.01	99231050
65 ml PL Fluoride 1 (32 Tests, Hazardous material class 1789)	93231040
65 ml PL Fluoride 2 (162 tests)	93231041
<b>Calcium hardness:</b>	
<i>ID 78</i> Hardness-calcium / 0-500 mg/l /tablets/Resolution 1	99231051
50 tablets calcium Hardness N° 1	93231097
50 tablets calcium Hardness N° 2	93231123
<i>ID 09</i> Hardness calcium (HR) / 50-1000 mg/l/ tablets/Resolution 1	99231053
50 tablets Calcium Hardness	93231124
<b>Hardness Total:</b>	
<i>ID 56/57</i> Hardness-Total (LR/hr)/2 (20)-50 (500) mg/l/tablets/Resolution 1	99231054
50 tablets Total Hardness	93231164
<b>Hydrazine:</b>	
<i>ID 23</i> Hydrazines / 5-600 mg/l/ drop/Resolution 1	99231056
65 ml PI Hydrazines 1 (162 tests)	93231044
<b>Hydrocarbons in methanol (tank wash):</b>	
Opacity Adapter Kit (NTU) For ID 112. Case with Adaptor	92231540
<i>ID 160</i> Hydrocarbons in methanol (tank wash)/yes/no/adaptor	99231057
<b>Hydrogen peroxide:</b>	
<i>ID 66</i> Hydrogen peroxide (LR) / 0-3.8 mg/l/ drop/Resolution 0.01	99231058
30 ml PL hydrogen peroxide LR 1 (250 tests)	93231025
30 ml PL hydrogen peroxide LR 2 (250 tests)	93231026
<i>ID 24</i> Hydrogen peroxide (LR) / 0-3.8 mg/l/ tablets/resolution 0.01	99231059
50 tablets Hyd. Peroxide LR	93231136
<i>ID 25</i> Hydrogen peroxide (HR) /0-200 mg/l drop/Resolution 1	99231060
65 ml PL hydrogen Peroxide HR 1 (541 Tests, Hazardous material class 2796)	93231042
65 ml PL Hydrogen Peroxide Rear 2 (541 tests)	93231043
<i>ID 162</i> Hydrogen peroxide (HR) /0-200 mg/l/ tablets/Resolution 1	99231061
50 Tablets Acidifying PT Photometer	93231095
50 tablets Hyd. Peroxide HR Photometer	93231137
<b>Dewan:</b>	
<i>ID 109</i> DEWAN / 50/0-300 mg/l/ drop/Resolution 1	99231062
<b>Hydroquinone:</b>	
<i>ID 26</i> Hydroquinone / 0-2.5 mg/l/drop/Resolution 0.01	99231063
65 ml PL Oxygen Scavenger 1 (270 Tests, Hazardous material class 3264)	93231052
65 ml PL Oxygen Scavenger 2 (65 tests)	93231053
<b>Iodine:</b>	
<i>ID 27</i> Iodine / 0-28 mg/l/ tablets/resolution 0.01	99231064
50 tablets Dpd N° 1	93231130
<i>ID 67</i> Iodine / 0-28 mg/l/ drop/Resolution 0.01	99231065
30 ml PL DPD 1 A drop (125/250 tests)	93231015
30 ml PL DPD 1 b drops (125/250 tests)	93231016

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**Reagent list:**

Methods (ID xxx) and suitable reagents:	Item number:
<b>Iron:</b>	
<i>ID 28</i> Iron (LR) /0-1 mg/l/ tablets/resolution 0.01	99231066
Filter Kit 0.45 µm	92231510
50 tablets Iron Lr	93231138
<i>ID 29</i> Iron (MR)/0-10 mg/l/powder/Resolution 0.01	99231067
Filter Kit 0.45 µm	92231510
20g PL Iron Mr 1 (285 Tests)	93231072
<i>ID 127</i> Iron (MR) ferrous /0-10 mg/l/ powder/Resolution 0.01	99231068
20 g PL Iron Mr 2 ((400 tests)	93231073
<i>ID 30</i> Iron (HR) / 0-30 mg/l/ drop/Resolution 0.01	99231069
Filter Kit 0.45 µm	92231510
65 ml PL Iron Rear 1 (162/108 Tests, Hazardous material class 2810)	93231039
30 ml PL Iron Rear 2 (375 tests)	93231023
<i>ID 132</i> Iron Total / 0-3 mg/l/Resolution 0.01	99231070
100 Powder Pillow FerroVer® Iron (PP) (100 Tests)	93231087
<b>Tank Wash:</b>	
<i>ID 88</i> Tank wash / 0.0-10.0 mg/l/ drop/Resolution 0.1	99231072
30 ml PL Tank Wash 1 (187 tests)	93231027
65 ml PL Tank Wash 2 (108 tests)	93231045
65 ml PL Tank Wash 3 (85 Tests, Hazardous material class 2672)	93231046
65 ml PL Tank Wash 4 (108 Tests, Hazardous material class 1824)	93231047
30 ml PL Tank Wash 5 (150 tests, Hazardous material class 3264)	93231028
<b>Magnesium:</b>	
<i>ID 93</i> Magnesium / 0-100 mg/l/tablets/Resolution 1	99231074
50 tablets Magnesium Photometer	93231139
<b>Manganese:</b>	
<i>ID 31</i> Manganese / 0.2-5 mg/l/tablets/resolution 0.1	99231076
50 tablets manganese LR N° 1	93231107
50 tablets manganese LR N° 2	93231143
<b>Methylethylketoxime:</b>	
<i>ID 69</i> Methylethylketoxime / 0-4.1 mg/l/drop/Resolution 0.01	99231077
65ml PL Oxygen Scavenger 1 (270 Tests, Hazardous material class 3264)	93231052
65ml PL Oxygen Scavenger 2 (65 tests)	93231053
<b>Molybdates:</b>	
<i>ID 96</i> Molybdates (LR) / 0-15 mg/l/ tablets/resolution 0.01	99231078
50 tablets molybdates LR N° 1	93231106
50 tablets molybdates LR N° 2	93231142
<i>ID 33</i> Molybdates (HR) / 5-200 mg/l/ drop/Resolution 0.1	99231079
65 ml PI Molybdates 1 (162 Tests, Hazardous material class 2810)	93231048
<i>ID 32</i> Molybdates /1-100 mg/l/tablets/resolution 0.1	99231080
50 tablets molybdates HR N° 1	93231105
50 tablets molybdates HR N° 2	93231141
<i>ID 134</i> Molybdates (HR) / 0-40mg/l/ Resolution 0.1	99231081
100 Powder Pillow MolyVer ® 1 (PP) (100 Tests)	93231088
100 Powder Pillow MolyVer ® 2 (PP) (100 Tests)	93231089
100 Powder Pillow MolyVer ® 3 (PP) (100 Tests)	93231090
<b>Nickel:</b>	
<i>ID 90</i> Nickel (HR) / 0-7 mg/l/ tablets/resolution 0.1	99231082
50 tablets nickel rear N° 1	93231108
50 tablets nickel rear N° 2	93231144
<i>ID 100</i> Nickel (HR) / 0-10 mg/l/ drop/Resolution 0.1	99231083
65 ml PL Nickel Rear 1 (100 Tests)	93231049
30 ml PL Nickel Rear 2 (150 tests)	93231029
30 ml PL Nickel Rear 3 (150 tests)	93231030
<b>Nitrat:</b>	
<i>ID 34</i> Nitrat / 0.00 - 11.00 mg/l/ Pulver-Tropfen / Auflösung 0.1	99231084

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**Reagent list:**

Methods (ID xxx) and suitable reagents:	Item number:
20 g PL Nitrate 1 (285 tests)	93231074
65 ml PL Nitrate 2 (162 tests)	93231050
<b>Nitrite:</b>	
<i>ID 35</i> Nitrite (LR) / 0-0.5 mg/l/ tablets/resolution 0.01	99231085
50 tablets Nitrite Lr	93231146
<i>ID 36</i> Nitrite (HR) / 5-200 mg/l /powder/Resolution 0.1	99231086
10 g PL nitrite HR 1 (142 Tests, Hazardous material class 3260)	93231067
<i>ID 97</i> Nitrite (HR) / 0-1500 mg/l/ tablets/Resolution 1	99231087
50 tablets nitrite HR 1 photometer	93231109
50 tablets nitrite HR 2 photometer	93231145
<i>ID 101</i> Nitrite (HR) / 0-3000 mg/l/ drop/Resolution 1	99231088
65 ml PL Nitrite HR 2 (108 tests)	93231051
<b>Nitrogen (total):</b>	
<i>ID 151</i> Nitrogen-Total (LR) / 0.5-25 mg/l/ prepared ampoules + powder packs/Resolution 0.1	99231089
Kit for nitrogen-total LR (für ID 151)	93231006
Adaptor for the use of 16 mm hoses	92231230
Heating block for 8 x 16 mm-phials	92231500
<i>ID 152</i> /Nitrogen-Total (HR) / 5-150 mg/l/ prepared ampoules + powder Packs/Resolution 1	99231090
Kit for nitrogen-total HR (für ID152)	93231007
Adaptor for the use of 16 mm hoses	92231230
Heating block for 8 x 16 mm-phials	92231500
<b>Ozone:</b>	
<i>ID 37</i> Ozone / 0-5.4 mg/l/ tablets/resolution 0.01	99231091
50 tablets DPD N° 1	93231130
50 tablets DPD N° 3	93231133
50 tablets Glycine	93231103
<i>ID 92</i> /Ozone / 0-5.4 mg/l/ drop/Resolution 0.1	99231092
30 ml PL DPD 1 A drop (125/250 tests)	93231015
30 ml PL DPD 1 b drops (125/250 tests)	93231016
30 ml PL DPD 3 C drops (250 tests)	93231017
30 ml PL DPD Glycine (250 tests)	93231019
<b>Permanganate Time Test in methanol (tank wash):</b>	
<i>ID 159</i> Permanganates Time Test in methanol (tank wash) / 0 -100% t/ tablets/Resolution 0.1	99231095
50 tablets PTT	93231156
<b>Ph:</b>	
<i>ID 38</i> Ph Value (MR ) / 6.5-8.4/tablets/ Resolution 0.01	99231097
50 Tablets Phenol Red	93231150
<i>ID 39</i> Ph Value (MR) / 6.5-8.4/drop/ Resolution 0.01	99231098
65 ml PL PH 6.4-8.4 (270 tests)	93231054
<i>ID 41</i> PH-UNIVERSAL / 5-11/tablets/ Resolution 0.1	99231099
50 Tablets Universal PH	93231165
<i>ID 42</i> PH-UNIVERSAL/4-11/drop/ Resolution 0.1	99231100
65 ml PL ph 4-11 (162 tests)	93231064
<b>Phenol:</b>	
<i>ID 98</i> Phenol / 0-5 mg/l/ tablets/resolution 0.01	99231101
50 tablets phenol N° 1	93231112
50 tablets phenol N° 2	93231151
50 Tablets Phenol CR	93231152
<b>PHMB:</b>	
<i>ID 43</i> PHMB / 2-60 mg/l/ tablets/Resolution 1	99231102
50 tablets PHMB	93231149
<b>Phosphate ortho:</b>	
<i>ID 44</i> Phosphate-ortho (LR) / 0-4 mg/l/ tablets/resolution 0.01	99231103
100 tablets phosphate LR N° 1	93231114
50 tablets phosphate LR N° 2	93231154
<i>ID 45</i> Phosphate-Ortho (LR) / 0-4 mg/l/ powder-drop/Resolution 0.01	99231104

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20.08.2020

**Reagent list:**

Methods (ID xxx) and suitable reagents:	Item number:
65 ml PL phosphate LR 1 (65 tests)	93231060
10 g PL phosphate LR 2 (142 tests)	93231068
<i>ID 46</i> Phosphate-ortho (HR) / 0-80 mg/l/ tablets/resolution 0.1	99231105
100 tablets phosphate HR N° 1	93231113
50 tablets phosphateHR N° 2	93231153
Filter-Kit GF/C	92231550
<i>ID 47</i> Phosphate-Ortho(HR) / 0 - 100 mg/l/ drops/ Resolution	99231106
65 ml PL phosphate HR 1 (65 tests)	93231058
65 ml PL phosphate HR 2 (65 tests)	93231059
Filter-Kit GF/C	92231550
<b>Phosphonate:</b>	
<i>ID 87</i> Phosphonate / 0-20 mg/l/ Powder drop/Resolution 0.01	99231107
Filter-Kit GF/C	92231550
65 ml PL phosphonate 3 (81 tests)	93231057
65 ml PL phosphonate 3 (81 tests)	93231057
20 g PL phosphonate 1 (285 tests)	93231075
20 g PL phosphonate 2 (285 tests)	93231076
20 g PL phosphonate 4 (285 tests)	93231077
<i>ID 110</i> Phosphonate/0-20 mg/l/ tablets/resolution 0.01	99231108
Filterset GF/C	92231550
50 Tablets OrgaPhos-ox	93231111
50 tablets OrgaPhos N° 1	93231147
100 tablets OrgaPhos N° 2	93231148
50 tablets OrgaPhos N° 3	93231110
<b>Phosphorus-Total:</b>	
<i>ID 153</i> Phosphorus-Total (LR) 0 – 2.6 mg/l/ prepared ampoules + powder drop tablets/Resolution 0.01	99231109
Adapter to use 16 mm Hoses	92231230
Heating block for 8 x 16 mm vials	92231500
Phosphorus Kit 0-2.6 mg/l (Hazard class: 3268, 3215, 1824)	93231008
<i>ID 154</i> Phosphorus-Total (HR) 0 – 52 mg/l/ prepared ampoules + powder drop tablets/Resolution 0.1	99231110
Adapter to use 16 mm Hoses	92231230
Heating block for 8 x 16 mm vials	92231500
Phosphorus Kit 0-52 mg/l (hazardous substance : 3268, 3215, 1824, 3290)	93231009
<b>Polyacrylates:</b>	
<i>ID 85</i> Polyacrylate/1-30 mg/l/drop/Resolution 0.1	99231111
65 ml PL polyacrylate 1 (65 tests, hazardous substance 3267)	93231055
65 ml PL polyacrylate 2 (65 tests, hazardous substance 3082)	93231056
<b>Potassium:</b>	
<i>ID 48</i> Potassium/0.7-12 mg/l/tablets/resolution 0.1	99231112
50 tablets Potassium	93231155
<b>PTSA:</b>	
<i>ID 111</i> PTSA/0-1000 µ g/l/ Adapter/Resolution 1	99231113
Adapter Kit "PTSA" for ID 111. Case with adaptor, batteries	92231560
<i>ID 157</i> PTSA Tracer/0-1000 µ g/l/ Resolution 1	99231114
Adapter Kit "PTSA" for ID 111. Case with adaptor, batteries	92231560
<i>ID 156</i> PTSA Watch Products/0-1000 µ g/l/ Resolution 1	99231115
Adapter Kit "PTSA" for ID 111. Case with adaptor, batteries	92231560
<b>QAC:</b>	
<i>ID 83</i> QAC/25-150 mg/l/ tablets/Resolution 1	99231116
50 Tablets Acidifying GP	93231092
50 Tablets QAC HR	93231157
<b>Silica:</b>	
<i>ID 49</i> Silica (LR)/0-5 mg/l/ Drop powder/Resolution 0.01	99231117
65 ml PL silica LR 1 (162 tests)	93231061
65 ml PL Silica LR 2 (162 tests)	93231062
40 g PL silica LR 3 (190 tests)	93231079

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**Reagent list:**

Methods (ID xxx) and suitable reagents:	Item number:
<i>ID 50</i> silica (HR)/0-100 mg/l/ powder/Resolution 1	99231118
20 g PL Silica Rear 1 (142 tests)	93231078
60 g PL silica Rear 2 (241 tests, Hazardous material class 2967)	93231080
10 g PL Silica Rear 3 (142 tests)	93231069
<b>Sodium hypochlorite:</b>	
<i>ID 51</i> Sodium hypochlorite / 0.2-40%/ tablets/Resolution 0.1	99231119
100 ML measuring cups	92231570
50 tablets chlorine hr (KI)	93231126
<i>50 tablets acidifying GP</i>	93231092
<i>ID 68</i> Sodium hypochlorite / 0.2-40%/drop/ Resolution 0.1	99231120
65 ml PL Chlorine HR 1 (541 Tests, Hazardous material class 2710)	93231037
65 ml PL Chlorine HR 2 (541 tests)	93231038
<b>Sulfate:</b>	
<i>ID 54</i> sulphate / 5-100 mg/l/ Tablets Resolution 1	99231121
50 Tablets Sulphate	93231161
<i>ID 55</i> sulphate / 5-100 mg/l/ powder/Resolution 1	99231122
10 g PL Sulphate 1 (142 tests)	93231070
<b>Sulphide:</b>	
<i>ID 52</i> Sulphide / 0.0-0.5 mg/l/ tablets/resolution 0.01	99231123
10g PL Sulphate 1 (142 Tests, Hazardous material class 1759)	93231070
50 tablets Sulphide N ° 2	93231158
<b>Sulfit:</b>	
<i>ID 53</i> Sulphite (LR) / 0-10 mg/l/ tablets/resolution 0.1	99231125
50 tablets Sulphite LR	93231160
<i>ID 105</i> sulphite (HR)/0-300 mg/l/ tablets/resolution 0.1	99231126
50 tablets Sulfitst n ° 1	93231116
50 tablets Sulfitst N ° 2	93231159
<b>Suspended Material:</b>	
<i>ID 81</i> Suspended material /0-750 mg/L Resolution 1	99231127
<b>Tannic acid:</b>	
<i>ID 91</i> tannic acid/0-150 mg/l/ Tropfen/Resolution 0.1	99231128
65 ml PL tannin 1 (65 tests)	93231063
30 ml PL tannin 2 (125 tests)	93231031
<b>Transmission:</b>	
<i>ID 114</i> transmission on 420nm/0-100%/Resolution 0.1	99231129
<i>ID 115</i> transmission on 470nm/0-100%/Resolution 0.1	99231130
<i>ID 116</i> transmission on 520nm/0-100%/Resolution 0.1	99231131
<i>ID 117</i> transmission on 570nm/0-100%/Resolution 0.1	99231132
<i>ID 118</i> transmission on 620nm/0-100%/Resolution 0.1	99231133
<i>ID 119</i> transmission on 670nm/0-100%/Resolution 0.1	99231134
<b>Turbidity:</b>	
<i>ID 59</i> Turbidity / 20-1000 mg/l (FAU)/Resolution 1	99231135
<i>ID 112</i> Turbidity / 0-1100 mg/l (NTU)/adapter/Resolution 0.01	99231136
Opacity Adapter Kit (NTU) for ID 112Case with Adaptor	92231540
<b>Urea:</b>	
<i>ID 120</i> Urea / 0.1-2.5 mg/l/ tablets + drop/Resolution 0.1	99231137
30 ml PL Urea 1 (375 tests)	93231024
10 ml PL Urea 2 (250 tests)	93231005
50 tablets Ammonium N° 1	93231094
50 tablets Ammonium N° 2	93231118
<i>ID 150</i> urea/0.2-5.0 mg/l/ tablets + drop/Resolution 0.2	99231138
30 ml PL Urea 1 (375 tests)	93231024
10 ml PL Urea 2 (250 tests)	93231005
50 tablets Ammonium N° 1	93231094
50 tablets Ammonium N° 2	93231118
<b>Zinc:</b>	

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**Reagent list:**

Methods (ID xxx) and suitable reagents:	Item number:
<i>ID 62 Zinc/0- 1 mg/l/ tablets/Resolution 0.01</i>	99231139
50 tablets copper/zinc LR	93231129
50 Tablets EDTA	93231102

1

Mobile laboratory – sample evaluation on site within the hour.



**Product description:**

- The live, active Legionella are genetically „captured“ and attached to magnetic micro bits. The Legionella are separated via magnetic filters and rinses in several steps.
- The bacteria are rendered visible by colour tracers. The quantity of Legionella is then ascertained by means of spectrophotometry and displayed.
- The procedure consists of several process steps, lasting around a total of 60 minutes. Several samples can be processed at the same time.
  - Quantitative results:
    - When analysing a 1000 ml sample, accuracy of 60 – 106 CFU/1000 ml is obtained.
    - This is the equivalent of 6 CFU/100 ml. Higher accuracies can be achieved by enlarging the sample.
- Benefits:
  - Measurement results are immediately available, after approx. 60 minutes.
  - The 10-day breeding period of the cultures in the incubator is eliminated.
  - The speed of response to any exceedance of threshold values and margin for action between regulatory checks is substantially higher.
- Measurement can be performed on site. This means that any misinterpretation due to transportation, which is limited to 24 h by standards, and the absence of a cooling system can be excluded. The test can be performed with the customer's own instructed personnel.
- Restriction:
  - This method is (still) not recognised by German authorities as a replacement for laboratory measurements via cultures to DIN EN ISO
- N.B.
  - When performing multiple measurements, one extra set of consumables and reagents kit are required for the „clean water“ comparative sample.
  - The sampler's completion of a course to VDI 2047 or accreditation as a laboratory sampler is recommended but not required.

**Areas of application:**

- Inspection of water systems for contamination with Legionella in drinking, cooling and service water (industrial, public, private).

**Ordering data:**

Typ:	Item number:
Mobile laboratory – Legionella Kit (semi-automatic)	89231510
Mobile laboratory – Consumables - Kit hundredfold, 50 – 99 measurements	92231400
Mobile laboratory – Reagent - Kit 10, for 5 – 9 measurements	92231200
Mobile laboratory – Reagent - Kit 40, for 20 – 39 measurements	92231210
Mobile laboratory – Reagent - Kit 100, for 50 – 99 measurements	92231220

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#### Scope of supply:

- **DOSAControl Mobile laboratory for Legionella measurement Kit**  
filtering with a pump and agitator for up to 20 cuvettes:
- 1 storage and transportation in aluminium case, transport of agitator outside the case
- 1 photometer (detailed description see below Photometer – „Selection by parameter“)
- Small parts, consisting of:
  - 4 x 24 mm / 10 ml glass cuvettes with lid (light protection integrated in the lid)
  - 1 x Luminous lid for 16 mm cabins
  - 1 x 10,5 cm plastic stirring rod
  - 1 x graduated 10 ml plastic syringe
  - 1 x bottle cleaning brush, 1 x microfibre cleaning cloth for vials
  - 1 x 24 mm kitchen adapter (built-in, interchangeable)
  - 1 agitator (shakes the cuvettes), electronic, holds 5 cuvette holders magnetic units for four 10 ml cuvettes apiece, thus 20 x 10 ml cuvettes in total 1 table mat in synthetic fabric for correct placement of cuvette holders, as a template to ensure sufficient spacing between the magnets
  - 4 cuvette holders, magnetic units for four 10 ml cuvettes apiece, addition of small parts for same-time processing of 19 + 1 samples
  - 16 x 24 mm/10 ml cuvette
  - 1 laboratory dropper (0.0 – 1.0 ml)
  - 10 x 60 ml elution beakers
  - 1 filter set with 1 vacuum pump, 1 x 500 ml filtering head,
  - 1 x 1000 ml glass bottle, 1 x tweezers, 1 x scissors, 10 x elution beakers,
- Consumables:
  - starter kit for up to 99 measurements:
    - 100 x 47 mm prefilters, 100 x polycarbonate filters 0.40 µm, 10 x 1 ml dropper heads
- Reagents (not included, see scope of supply for ordering/reagents)

#### Scope of supply: consumables, reagents

- **DOSAControl Mobile laboratory consumables** (100-fold, 50 ... 99 measurements):
  - 80 x pipette attachments for PLSp-PIP1 ml laboratory pipette, 80 x 60 ml elution cup 100 x 47mm GF/C (pre) filter for professional filter equipment, 100 x 47mm 0.40 µ polycarbonate filters for professional filter equipment
- **DOSAControl Mobile laboratory reagent - Kit 10**
  - Kit for measuring Legionella content (spp.) of fluids
  - Can be used for min. 5 tests / 5 controls for up to max. 9 tests / 1 control.
  - Kit contains:
    - 1 bottle (110 ml) „L0 Diluent“, 10 single doses (1 ml each) „L1 Capture Reagent“, 1 bottle (200 ml) „L2 Washing buffer“, 10 single doses (1 ml each) „L3 Enzyme-labelled antiLegionella“, 5 x tetra doses (5 ml each) „L4 Enzyme-co-substrates“, 1 bottle (2 ml) „L5 Stopping reagent“,
    - 10 x CB 1 ml cuvettes, 10 x MHCB 9 ml cuvettes, 5 disposable droppers
- **DOSAControl Mobile laboratory reagent - Kit 40**
  - Kit for measuring Legionella content (spp.) of fluids
  - Can be used for min. 20 tests / 20 controls for up to max. 39 tests / 1 control.
  - Kit contains:
    - 1 bottle (420 ml) „L0 Diluent“, 1 bottle (42 ml) „L1 Capture Reagent“
    - 1 bottle (750 ml) „L2 Washing buffer“, 1 bottle (42 ml) „L3 Enzymelabelled anti-Legionella“, 15 tetra doses (5 ml each) „L4 Enzyme-co-substrates“, 1 bottle (4.4 ml) „L5 Stopping reagent“, 40 x CB 1 ml cuvettes
    - 40 x MHCB 9 ml cuvettes
- **DOSAControl Mobile laboratory reagent - Kit 100**
  - Kit for measuring Legionella content (spp.) of fluids
  - Can be used for min. 100 tests / 100 controls for up to max. 99 tests / 1 control.
  - Kit contains:
    - 1 x 1050 ml „L0 Diluent“, 1 x 105 ml „L1 Capture reagent“, 2 x 940 ml „L2 Washing buffer“, 1 x 105 ml „L3 Enzyme-labelled anti-legionella“, 35 tetra doses (5 ml each) „L4 Enzyme-co-substrates“, 1 x 11 ml „L5 stopping reagent“, 100 x 1 ml CB cuvettes, 100 x 9 ml MHCB cuvettes

Subject to technical modifications and printing errors. Images may vary slightly from actual product.  
20.10.2020





**1. Measurement & control equipment**  
**1.4. Density- and level control**

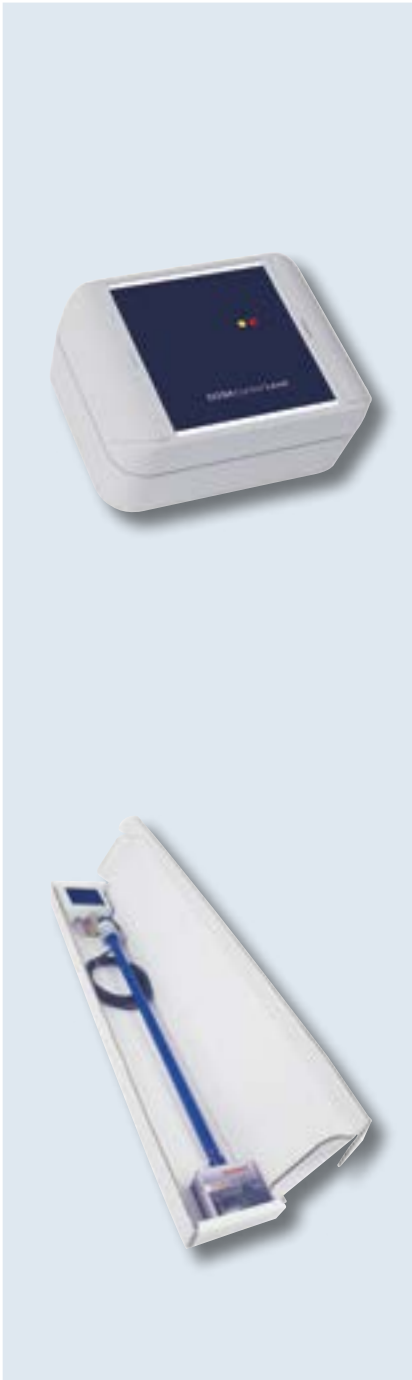




1.4.1.

**DOSAControl Level**

Device for monitoring the density of liquids, for example for the saturation of salt in water, using a float switch.



**Product description:**

- Level lance with float switch, vertical installation
- limit value is exceeded, flashing red
- switchable relay, from NO to NC
- Float switch with reed contact, vertical assembly
- Warns if the limit is exceeded, flashes red
- Alarm, with preset time delay, permanent red light and acoustic warning
- Contact switch: opened by an optocoupler

**Areas of application:**

- Measurement of the saturation/density of a liquids solution.

**Scope of supply:**

- **DOSAControl Level**, level lance with float switch, power adapter 12 V, 500 mA

**Ordering data:**

Type:	Item number:
DOSAControl Level	2188035

