

Product information

Measuring and control equipment



dinotec
Water & Pool Technology



PC DYNAMICS Chlorine/pH
with dinodos START on wall mounting plate
with filter/heating control

Art. no.: 0133-250-93

Description

Microprocessor-controlled measuring and control device, optionally for redox / pH or Poolcare (time-controlled) / pH, in splash-proof plastic housing, wired ready for connection 230V/50Hz. Display of measuring values on backlit graphical display with alphanumeric characters. Menu navigation via clear text display with selection of the desired language. Operating status, warning and alarm messages in clear text via the status bar on the display.

Compact measuring and control device for the measuring options:

- ORP, pH, temperature and sample water deficiency
- Poolcare (time-controlled), pH, temperature and sample water deficiency

Free switching between measurement options.

By adding the "potentiostatic measuring board for the Poolcontrol DYNAMICS", it is possible to implement additional measuring options.

Characteristics of system unit in wall-mounted case for disinfection and dosing equipment:

- Microprocessor-controlled measuring and control device
- IP 65
- Clear graphics display
- Logical menu structure for an easy adjustment of setpoints, limit values and parameters
- Configuration menu for selection of measurement technology and other functions
- Password protection to prevent unauthorized operation
- Multilingual system / language selection
- Measuring input for measurement of ORP
- Measuring input for measurement of pH
- Measuring input temperature measurement
- Integrated standard controls for disinfection, pH correction
- pH reduce and pH raise can be connected simultaneously
- Control of pH raise or flocculant dosing optional
- Automatic switch-on delay
- Sample water monitoring
- Dosing time monitoring
- Empty warning contact for container fill level

- Integrated alarm relay
- Interfaces for connection to dinowin and dinotecNET+
- Analog output for output of hygiene parameters

Compact measuring cell universal fm 4/2 for 2 probes incl. flow measurement/restriction for sample water return or free drain.

Pressure-resistant compact measuring cell for a potentiostatic probe (such as Cl₂, ClO₂, O₃ or Poolcare), a pH or a redox probe and a PT1000 temperature sensor.

Integrated turbine for recording the sample water flow and for a flow compensation of the potentiostatic measurement. The maximum flow is limited by means of a flow restrictor. The counter electrode required for potentiostatic measurement is pre-assembled in the compact measuring cell. A sampling valve is integrated in the measuring cup which can be easily unscrewed. The compact measurement cell can be operated under pressure or depressurized.

The fiber filter is used to retain impurities in the sample water to prevent entry in the measuring cell.

Fiber filter with transparent filter cup and cleanable strainer, small mesh size, standardized connections for installation in front of a measuring cell.

Measuring accessories for measurement of the parameters chlorine and pH.

This includes:

- 1x potentiostatic probe for free chlorine
- 1x pH measuring probe
- 1 x cleaning material liquid
- 1 x special cleaning paste
- 1 x calibration solution pH 4.0/50 ml
- 1 x calibration solution pH 7.0/50 ml

Microprocessor-controlled peristaltic dosing pump for an automatic addition of any kind of liquid media, even smallest quantities.

With stepper motor and continuously variable digital speed control. Activation by the touch of a button or control via switching contact (ON/OFF), current and frequency control.

The delivery rate is infinitely variable via the control or two potentiometers on the pump.

With integrated dosing pump hose and hose connector.

Canister low level signal input and fault output are included, a hose rupture is detected automatically. The pump is safe for continuous operation and features a thermal protection.

It can be easily ventilated by the touch of a button and can dose at 100 percent capacity for a minute by pressing a button.

Operating conditions are signalled via LEDs.

Technical data

System housing:	Plastic housing, protection class: IP 65
Dimensions system housing:	260 x 260 x 85 mm (w x h x d)
Weight:	approx. 1.5 kg
Mains voltage:	115 / 230V/AC, 48-63Hz
Power consumption:	10 VA (w/o dosing equipment)
Display:	via large graphical display 100 x 30 mm
Operation:	Clear text menu with keys
Language:	Language selection
Working temperature:	5 to +40 °C
Storage temperature:	-20 to +65 C
Rel. humidity:	max. 90 % at 40 °C (non-condensing)
Safety management:	<ul style="list-style-type: none">• Dosing stop input (e.g. flow sensor)• Monitoring of sample water flow• Common alarm / alarm relay• Display of alarms as clear text• Flashing display illumination to signal an alarm condition• Dosing time monitoring

Interfaces

RS 485:	for connection to dinowin / Profibus Gateway / etc.
dinotecNET+:	for connection to dinotecNET+ as field device

Redox measuring amplifier

Measuring range:	-1500 mV to +1500 mV
Resolution:	1 mV
Ambient temperature influence:	50 ppm/K (12 mV)
Reference temperature:	23° C
Input resistance:	> 10 ¹² ohm
Redox measurement:	via combination electrode without reference system
Calibration:	not required

pH measuring amplifier

Measuring range:	-1500 mV to +1500 mV
Resolution:	0.01 pH or 1 mV
Ambient temperature influence:	50 ppm/K (12 mV)
Reference temperature:	23° C
Input resistance:	10 ¹² ohm
Calibration pH:	optional single-point or two-point calibration
Electrode check:	automatically after calibration
Temperature compensation of pH value:	automatic via PT1000 or manually adjustable

Temperature

Temperature input for measuring sensor:	PT1000
Measuring range:	0 to +60 °C (+/-1%)

Inputs/outputs, control response

Type of control:	P, PI, or PID control optionally
Control:	optionally 1-position or 2-position controller
Binary outputs:	4 potential-free output relays for chlorine, pH reduce and pH raise (pulse length, pulse frequency, On/Off), alarm
Alternative to pH raise:	Flocculant dosing On/Off
Maximum contact load (230V/AC):	370 W (inductive), 500 W (Ohm resistive load)

Max. switching current:	30V/10A, 115V/0,3A, 230V/0,12A
Digital inputs:	Empty signal chlorine, pH reduce, dosing stop
Analog output:	0(4) - 20mA for individual measuring values (optional)
Cable cross section of connection terminal	0.25 - 2.5mm ²

universal FM 4/2

Threaded connection for measuring probes:	2 x PG 13.5
Threaded connection for temperature sensor	
PT 1000 with straight fitting:	M 12 x 1
Max. pressure:	1.5 bar at 20 °C
Max. sample water temperature:	70°C
Sample water flow:	40 l/h - 120 l/h
Flow restriction:	120 l/h
Sample water monitoring:	< 40 l/h
Flow measurement:	Sample water turbine with Hall-effect generator
Min. differential pressure:	0.3 bar
Connection supply and drain:	sample water hose 6/8mm
Material measuring cell:	PP
Material counter electrode:	stainless steel V4A
Dimensions (mm):	150 x 240 x 110 (wxhxd)

Fibre filter

Holder made of	PP black
Filter cup made of	PA transparent
Inlet/outlet	¼" inside
Operating pressure	max. 8 bar
Operating temperature	min. 0°C to max. 50°C
Mesh size	0.25mm
Dimensions:	58 x 58 x 135mm (wxdxh)
Weight	Approx. 0.15 kg

Measuring accessories

Operating temperature:	0 to +45°C
Storage temperature:	+20 to +65°C
Rel. humidity:	max. 90% at 40°C, non-condensing

dinodos START

Mains voltage:	230V +/-10 %, 50/60Hz
Power consumption:	approx. 16 VA max.
Protection class:	IP 65
Dimensions housing (w x h x d):	approx. 170 x 90 x 130 mm
Weight:	approx. 1.5 kg
Permissible ambient temperature:	+10 to +45 °C
Drive:	Stepper motor
Pump hose:	compl. with connection pieces for suction line D4
Capacity max.:	approx. 0.045-9.0 l/h (infinitely variable), at a counterpressure of max. 1.5 bar
Speed range:	0.01 rpm up to 100 rpm
Frequency range pulses:	0.02 pulse/sec. - 1 pulse/sec.
Suction lift max.:	1.80 m
Operation:	Capacity infinitely adjustable via two potentiometers
Control methods:	Choose between:

- potential-free contact input (NOC)
- Current input 4-20mA (4mA=0%, 20mA=100%)
- Current input 20-4mA (4mA=100%, 20mA=0%)
- Frequency control

Empty signal connection:	Normally closed contact / normally open contact (switchable)
Hose leak detection:	Integrated contacts in pump housing

Application

For water treatment in swimming pools, hot tubs and the like.



0101-013-00
Reed contact float, red
for Inline system chlorine



0101-120-00
Fiber filter 3/4", connection 8/6 mm
with screen tube 0.5mm,
hose connection 8/6 mm on both sides



0101-139-00
Calibration solution pH 4.0, 50 ml



0101-140-00
Calibration solution pH 7.0, 50 ml



0101-158-00
Connection fitting GRP 1/4" x 8/6 mm
Straight version, for sample water, with union nut



0111-103-00
Redox electrode without reference system
for dsc compact systems
and Poolcontrol 1000/S/avant



0121-104-01
Chlorine electrode, potentiostatic, WE/S
for measurement of free chlorine
gold ring



0161-101-01
pH combination electrode (standard), WE/S
for all measuring and control devices



0181-109-00
Measuring cable for measuring electrodes (standard)
pH and redox, length: 1.2 m



0181-109-05
Measuring cable with integrated reference cable
for pot. measurements (chlorine, ozone, Poolcare),
with plug, length 1.2 m



0181-178-01
Ball valve R 1/4" male/female in PVC
for water sampling etc.



0284-025-00
Injection valve, DN 4, R 1/4", 30 mm, PVC
Hose connection 4/6 mm



0284-098-00

Suction line, flexible, with lid screw MÜ 61
Without float switch, ball check valve and plug
Hose 6/4mm, DN 4 1.5m, for dinodos Easy, START,
Concept pumps

dinotec GmbH

Water and Pool Technology
Philipp-Reis-Str. 28
D-61130 Nidderau/Germany

Tel: +49 (6187) 41379-0
Fax: +49 (6187) 41379-90
Hotline: +49 (6187) 41379-72
E-Mail: mail@dinotec.de
Internet: www.dinotec.de

Subject to technical changes. Errors excepted.

Photos of items may be different.

Do you have any questions? Our hotline will be happy to help.

Status: 26.04.2023

Simply enjoy the best water!