Product information

Electrolysis systems

Intelligent functions and a stylish, ergonomic design. VoDes BlueWave systems generate fresh, highly active disinfection solution based on hypochlorite, stable when stored.

VoDes BlueWave 30 with integr. control technology
with option to upgrade to full MCD,
with power module, control terminal, softener

Art. no.: 0551-600-94

Short description	dinotec electrolysis systems for production of a highly effective disinfection solution from common salt, stable when stored. The basic version of the controller already includes redox and pH measurement as well as the corresponding dosing outputs.
Description	dinotec electrolysis systems for production of a highly effective disinfection solution from common salt, stable when stored. Integrated product tank to cover peak demand. The basic version of the controller already includes redox and pH measurement as well as the corresponding dosing outputs. The measurement technology can be easily extended to a complete measurement and control system for chlorine, redox and pH. Special characteristics • Microprocessor-controlled measuring and control unit with graphic display and display of measured values via a backlit graphical screen with alphanumeric characters. • Logical menu structure for an easy adjustment of setpoints, limit values and parameters • Password protection to prevent unauthorized operation • Integrated measuring inputs for redox and pH and the respective control outputs. • Simple extension to free chlorine measurement with automatic electrode cleaning AER. • Measuring input for sample water flow to compensate the measured value (potentiostatic measurement only); optionally also as input for a binary sensor for sample water monitoring. • Controlled fresh water supply - therefore very insensitive to pressure fluctuations. • Brine supply via signal-controlled peristaltic dosing pump • Hydrostatic level measurement in product tank • Monitoring of product temperature with optional temperature reduction to avoid high chlorate concentrations • Safety monitoring of hydrogen discharge • Multilingual system / language selection • Low energy input • Easy installation on site • • Minimum space requirements with closed conventional hydrogen discharge to the outside

Main system components are:

- Space-saving wall mounting plate with all functional components such as control system with graphic display, brine pump and controlled fresh water supply as well as electrolysis unit with hydrogen separator.
- Elegant cover with snap-fit.
- External salt solution tank with sieve extraction and integrated softener.
- Hydrostatic storage tank

Technical data

System housing:	Plastic housing, protection class: IP 65
Supply voltage:	230V / 50Hz
Energy demand:	approx. 0.18kW/h
Display:	via large graphical display 100 x 30 mm
Operation:	Clear text menu with keys
Language:	Language selection
Production output:	approx. 30 g chlorine/h
Product concentration of:	approx. 6.4 g chlorine/l
Salt consumption:	approx. 118 g NaCl/h
Space requirements wall mounting plate:	1212 x 772 x 195 mm (hxwxd)
Transport weight:	approx. 55 kg
Operating weight:	approx. 58 kg
Flow control and monitoring	Yes
Monitoring of back pressure in hydrogen line	Yes
Softening plant:	integrated
Refill control in softener	Yes
Type of Operation:	stand-alone

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:	-30°C to +140°C (+/-1%)

Inputs/outputs, control response

Type of control:	P, PI, or PID control optionally
Control:	optionally 1-position
Binary outputs:	2 potential-free output relays for disinfection, pH reduce/pH raise (pulse length, pulse frequency, On/Off), alarm
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

Environmental conditions

Working temperature:	5 to +50 C°
Storage temperature:	20 to 65 C°

	Rel. humidity:	max. 90 % at 40 °C (non-condensing)

Application

Ecological and safety-conscious production of a disinfection solution containing chlorine for use in drinking water and process water disinfection, swimming pool water treatment to maintain the quality of hygiene parameters (TVO - German drinking water regulations, § 11 UBA - German Federal Environment Office).

It must be ensured that only high-quality salt according to the manufacturer's specifications is provided as operating material for the Vodes BlueWave systems. Non-observance results in an exclusion of any statutory warranty/warranty claims. Manufacturer specifications for salt: NaCl min. 99.90 % / hardeners (sum Ca and Mg) max. 50 ppm / sulphate (SO4) < 400 ppm / bromide (Br) < 75 ppm / manganese (Mn) < 1 ppm / iron (Fe) < 2 ppm / components insoluble in water < 0.1 %. We recommend the use of dinosolit special salt tablets, otherwise it's the operator's responsibility to monitor the salt quality.

Safety information

No handling of or contact with hazardous materials required.

Disposal informations

There are no waste products that require a special form of disposal.

Storage instructions

Work environment for electronics

Storage temperature:	20 to 65 C°
Rel. humidity:	max. 90 % at 40 °C (non-condensing)

Supplementary information

Preliminary works by customer

- Electrical mains supply and cable laying
- Water supply
- Process water inlet temperature max. +25°C
- Floor drain in installation room
- Ventilation of installation room
- Exhaust air pipe for hydrogen discharge to be placed in a continuously rising way to the outside (min. PN 6)
- Ventilation port min. 500cm²
- Permissible room temperatures min. +10 °C to max. + 40 °C

Installation of a backflow preventer, air inlet valve or pipe separator required, if demanded by the local utility companies. A separate technical room is not required.

Accessories

0220-270-00
dinodos EASY, capacity 0.2 - 4.5 l/h
Peristaltic dosing pump in wall mounting case
Hose connection 6/4 mm

0220-282-00
dinodos START
Peristaltic dosing pump in wall mounting case
with power cord l = 1.8 m grey, hose connector 6/4 mm

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

0284-040-02
Dosing line, DN 4, 6/4 mm, PE, yellow
standard, for pH and flocculation, cut to 6m each
rolled and fixed with bands

0284-040-03
Dosing line, DN4, 6/4mm, 6m piece
PTFE for extreme loads (10 bar up to 100°C)
rolled and fixed with bands

0284-104-01
Suction lance rigid, float switch, DN8
Height adjustable, for 20/30l containers

0551-630-00
Extension set Cl, pH, Rx for VoDes BlueWave
with dinodos START, measuring board, measuring cell universal FM,
electrodes and accessories mounted on a plate

0551-632-00
Extension set Rx, pH for VoDes BlueWave
with dosing technology dinodos EASY, flow cell,
electrodes and accessories mounted on a plate

0551-641-00
Measurement technology CL, pH, Rx with measuring board
Measuring cell universal fm up to 10 bar, electrodes and accessories mounted on a plate - for process water

0551-642-00
Measurement technology CL, pH with measuring board
Measuring cell universal fm up to 10 bar, electrodes and accessories mounted on a plate - for process water

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Subject to technical changes. Errors excepted.
Photos of items may are different.
Do you have any questions? Our hotline will be happy to help.

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