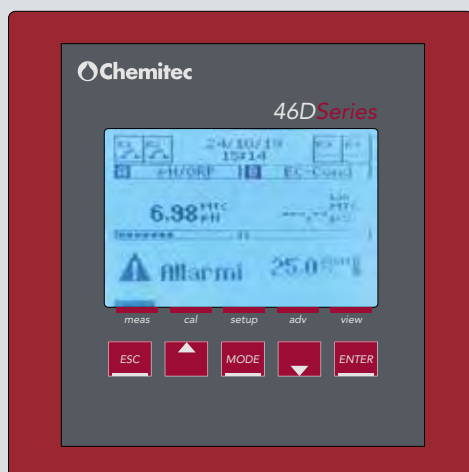


Single or double channel control unit



The 46 Series are professional controllers designed for advanced high-end water-treatment applications. All models are equipped with analogue and digital outputs that can be set by the end user – who has full programming autonomy – via software.

46 Series

Graphic display and keypad

128x128 pixel monochrome display with graphic icons to show digital output status, washing cycle and alarms with three-colour backlight. Simultaneous flashing values for measurement (numeric & paragraph) and temperature readings. Five control keys for instrument calibration and configuration.

Box dimension and power supply

Wall mounting ABS plastic material IP65 full box (144x144x122.5mm). Panel mounting ABS IP65 front panel only (96x96x80mm). Universal power supply 100...240 Vac 50/60 Hz. Low power supply 24...48 Vdc or 24 Vac

Current outputs with galvanic isolation

4-20mA output. Two independent programmable output measures with proportional routine regulation.

Relay outputs

Four independent relays, two set-points, remote alarm and back washing probe setting by software. On/Off, timed and proportional (PWM) routine function setting.

Solid state relay (SSR)

Dual-frequency output signal with two set-points. Snail lock fixing system. Quick connection for panel mounting version. Communication features. Wi-Fi embedded module for hotspot connectivity; RS485 serial port with Modbus protocol.

Measurements

- pH / ORP (redox)
- Conductivity
- Chlorine
- Chlorine dioxide
- Ozone
- Hydrogen peroxide
- Peracetic acid
- Chlorites
- Bromine
- Dissolved oxygen
- Turbidity
- Suspended solids
- Flow

Power supply (version 100...240 Vac)

Electrical requirements	from 100 to 240 VAC $\pm 10\%$, 8 W (note 1)
Frequency	50 to 60 Hz
Power supply fuse	Fuse glass body 5x20mm T1.25AL250V
Short circuit protection	Active

Power supply (version 24...48 Vdc)

Electrical requirements	from 24 to 48 Vdc, or 24Vac $\pm 20\%$, 8 W (note 1)
Power supply fuse	Glass body 5x20mm T1.25AL250V
Short circuit protection	Active
Reverse polarity protection	Active

Relay outputs

RL1, RL2, RL3 and RL4	2-SPST mechanical 250 VAC/5A, 30 VCC/3 A
Relay RL1, RL2 configuration	Load activation
Relay RL3, RL4 configuration	Load activation, Probe Wash, Alarm repetition
Cycle time	1 sec to 3600 sec
Delay time	1 sec to 3600 sec
Test mode	ON, OFF

SSR outputs (solid state relays)

SSR1 and SSR2	2-SPST 60 V, max 100 mA, Bidirectional, NPN, PNP
Resistance in ON state	5 ohm max
Leakage current in OFF state	1 uA max
SSR1 and SSR2 configuration	Pulse output
Frequency range	0 to 400 pulse/min
Pulse duration	100 msec
Test mode	0 to 400 pulse/min

Outputs 4-20 mA

Analogue output signals	2 outputs 4-20 mA, galvanically isolated from one another and from the power supply
Measure error	± 0.01 mA
Load	max. 800 Ω
Error condition	NAMUR Alarm: OFF, 3.6 mA, 22 mA
Test mode	3 to 23 mA

Digital inputs

REED digital input	Input for dry contact 5 Vdc, max 6 mA
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Communication ports

RS485 digital communication port	Modbus server ASCII/RTU standard protocol
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Output 24 Vdc for digital probe

Voltage	24 Vcc $\pm 5\%$, max. 250 mA (note 2)
Short circuit protection	Self-resettable fuse

User interface

Connection terminals	Removable screw terminals AWG 14 < 2.5 mm ²
Machine cycle time	ca. 1 s
Keyboard	5 tactile feedback keys
Display	Graphic LCD 128x128 or 240x128 pixels, FSTN, transreflective
Display refresh	500 msec
Backlight	White, green and red with energy saving function

(note 1) Only Instrument: 8W; Instrument + 1 Digital probe: 10,5W; Instrument + 2 Digital probes: 13,5W;

(note 2) DO NOT exceed the maximum allowable current limit, RISK of damaging the apparatus