

Single channel water monitoring instrument

Neon® is a leading edge measuring and control instrument. Its range of functions can be tailored according to customers' applications.

The entry level version contains inputs for measurements and temperature, one digital input and an alarm relay. Various add-ons are available to expand the functionality as well as wall mounted or panel mounted housing. Neon's® water measurement process can be controlled at any time, from any place, on any device via Kuntze's Cloud Connect® service. All Kuntze products are Made in Germany.



Applications



Technical data

Measuring parameter

pH-value	-2.00.. +16.00 pH
ORP	-1500.. +1500 mV

Input characteristics

Temperature measuring range	-30.0 .. +140.0 °C
Temperature coefficient	Non-linear
Digital input	1 as controller stop by external contact option: 2nd as controller stop or flow measurement for volume based dosing

Output characteristics

Alarm relay	1 potential-free NO contact, max. 250 V, 6 A, 550 VA (invertable)
Output signal	Option: 2 x 0/4 .. 20 mA (scaleable, galvanically isolated)
	Load 500 Ohm
	Registration range Scaleable within the measuring range
Voltage output	+/- 6 VDC for impedance converter
Storage media	Accessory: SD card up to 1 GB - Industry standard
Serial interface	Option: RS 485 - modbus RTU
	Baud rate 19200 bps
	Data format 8 bit

Power supply

Line voltage	85.. 265 V AC, +6/-10%, 50.. 60Hz option: 24 V DC
Power consumption	10 VA

Ambient conditions

Temperature	Storage	-20.. +65°C
	Operation	-5.. +50°C
Humidity		max. 90% rH at 40°C (non-condensing)
Protection class	Wall mounted	IP 65
	Panel mounted	IP 54 (front), IP 30 (housing)

Controller

Control response	Option: on/off controller (adjustable hysteresis) P/PI/ PID controller (pulse-pause, pulse-frequency or continuous output) servo motor control
Relay	2 relays, each with a potential-free NO contact, max. 250V, 6 A, 550 VA
Start delay	0.. 200 sec until controller active
Controller stop	Digital input

Proportion to volume

Control mode	Option: volume based by flow measurement
Flow measurement	Impulse measurement NPN (by digital input 2)
Flow measurement	Engine speed 0.030.. 9.999 l/Imp
Relay 1	Potential-free NO contact, max. 250V, 6 A, 550 VA output of control variable as pulse frequency or pulse pause.
Relay 2	Activating circulation pump

Certificates and approvals

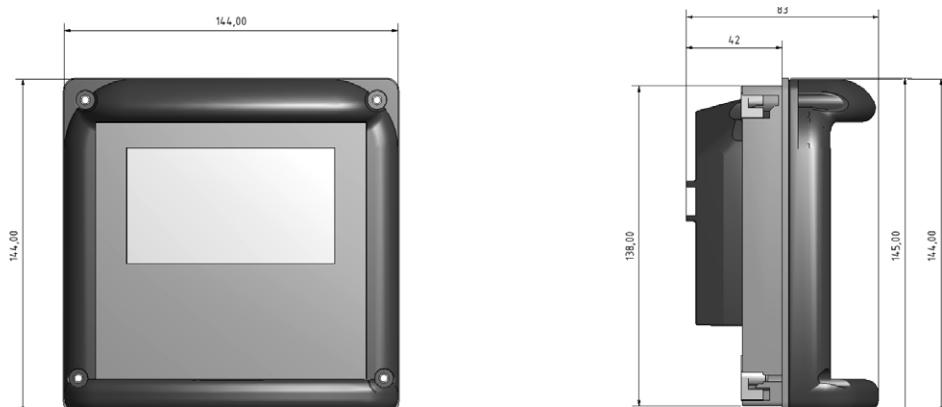
CE-Symbol	The product meets the requirements of the harmonized European standards and complies with the legal requirements of the EC directives.
EMV/EMC	EN 61000 6-1 (3) EN 61000 6-2 (4) EN 61326-1

Design configuration

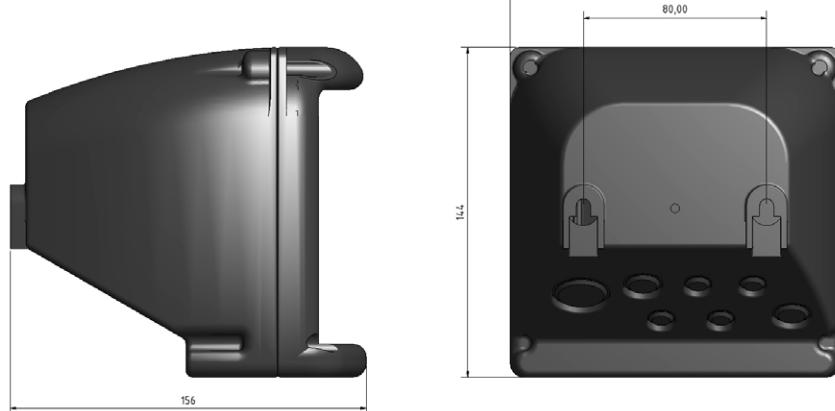
Material	ABS
Dimensions	Panel mounted housing: 138 x 138 x 83 mm
Mounting dimension	Wall mounted housing: 144 x 144 x 156 mm
Weight	Panel mounted housing: 138 x 138 x 42 mm
Connection	0.6 kg (wall mounted housing: 1 kg) Cable inlet: 2x M16, 2x M12 + optional: 2x M12 and 1x M25 plug-in terminal: rigid /flexible 0.2-2.5 mm ² / 0.2-2.5 mm ² measurement rigid /flexible 0.2-1 mm ² / 0.2-1.5 mm

Mechanical drawing

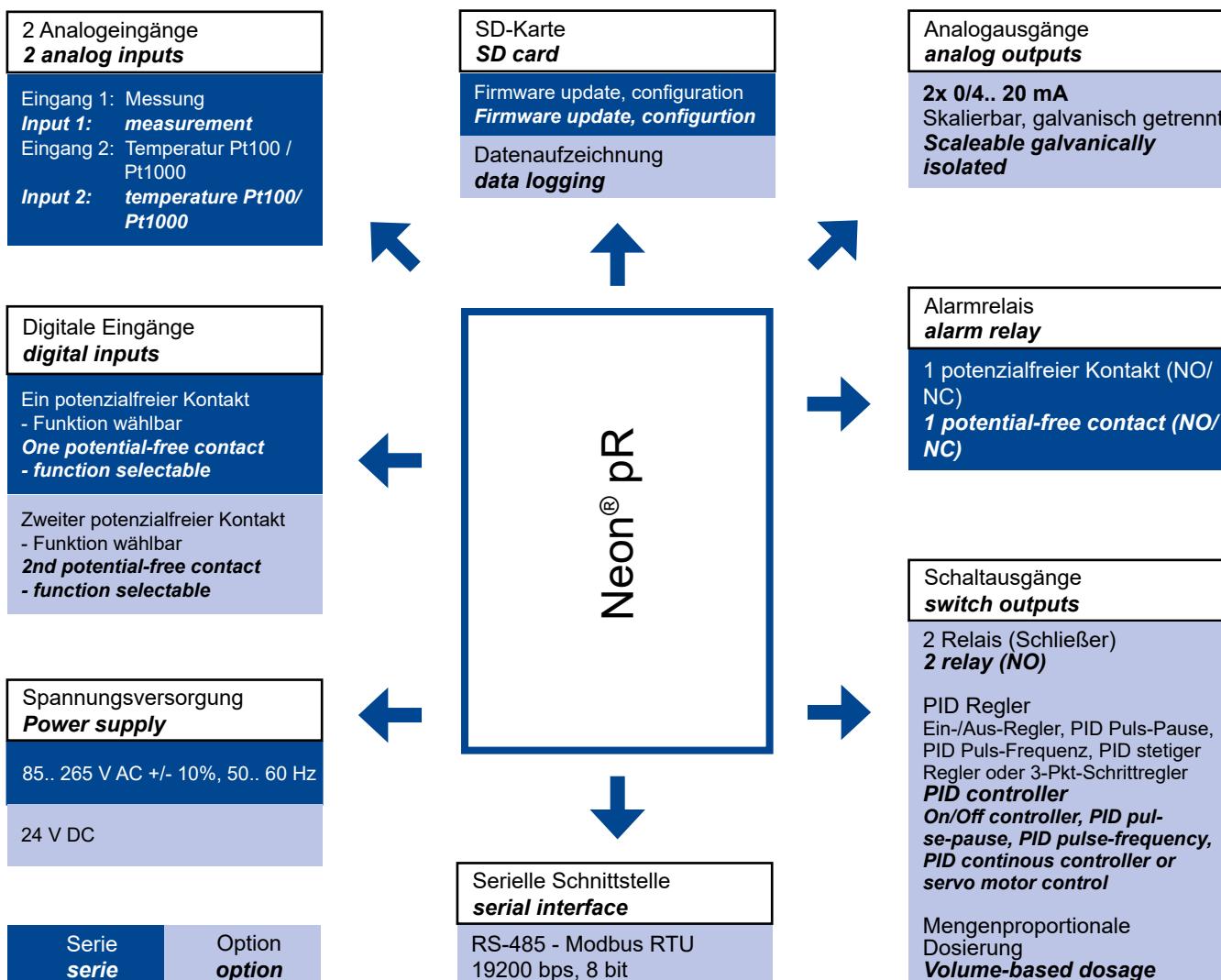
Neon® panel mounted



Neon® wall mounted



Interface diagram



Single channel water monitoring instrument

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Applications



Technical data

Measuring parameter

Free Chlorine	0.. 1000 µg/l 0.. 5,00 mg/l 0.. 10,00 mg/l 0.. 20,00 mg/l
Chlorine Dioxid	0.. 1000 µg/l 0.. 5,00 mg/l 0.. 10,00 mg/l 0.. 20,00 mg/l
Ozone	0.. 1000 µg/l 0.. 5,00 mg/l 0.. 10,00 mg/l
Hydrogen Peroxide	0.. 30,0 mg/l

Input characteristic

Temperature measuring range	-30.0 .. +140.0 °C
Temperature coefficient	0.0 .. 8.0 %/K adjustable
Digital input	1 as controller stop by external contact, option: 2nd as controller stop or flow measurement for volume based dosing.
Ambient conditions	pH-range Flow Min. conductivity Temperature
	6.. 9 pH (Chlorine dioxide, Ozone and Hydrogen Peroxide) 6.. 8 pH (free Chlorine) ~20- 200 l/h, constant >150 µm/cm Depending on sensor and assembly

**Output characteristics**

Alarm relay	1 potential-free N/O contact, max. 250 V, 6 A, 550 VA (invertable)
Output signal	optional: 2 x 0/4 .. 20 mA (scaleable, galvanically isolated)
	Load 500 Ohm
	Registration range Scaleable within the measuring range
Storage media	Accessory: SD card up to 1 GB - Industry standard
Serial interface	Option: RS 485 Modbus RTU
	Baud rate 19200 bps
	Data format 8 bit

Power supply

Line voltage	85.. 265 V AC, +6/-10%, 50.. 60Hz; option: 24 V DC
Power consumption	10 V

Ambient conditions

Temperature	Storage -20 .. +65°C
	Operation 0 .. +50°C
Humidity	max. 90% rH at 40°C (non-condensing)
Protection class	Wall mounted IP 65 Panel mounted IP 54 (front), IP 30 (housing)

Controller

Control response	Option: on/off controller (adjustable hysteresis) P/PI/ PID controller (pulse-pause, pulse-frequency or continuous output) servo motor control
Relay	2 relays, each with a potential-free N/O contact, max. 250V, 6 A, 550 VA
Start delay	0.. 200 sec until controller active
Controller stop	Digital input

Proportion to volum

Control mode	Option: volumed based by flow measurement
Flow measurement	Impuls measurement NPN (by digital input 2)
Flow measurement	Engine speed 0.030.. 9.999 l/Imp
Relay 1	Potential-free N/O contact, max. 250V, 6 A, 550 VA output of control variable as pulse frequency or pulse pause.
Relay 2	Activating circulation pum

Certificates and approval

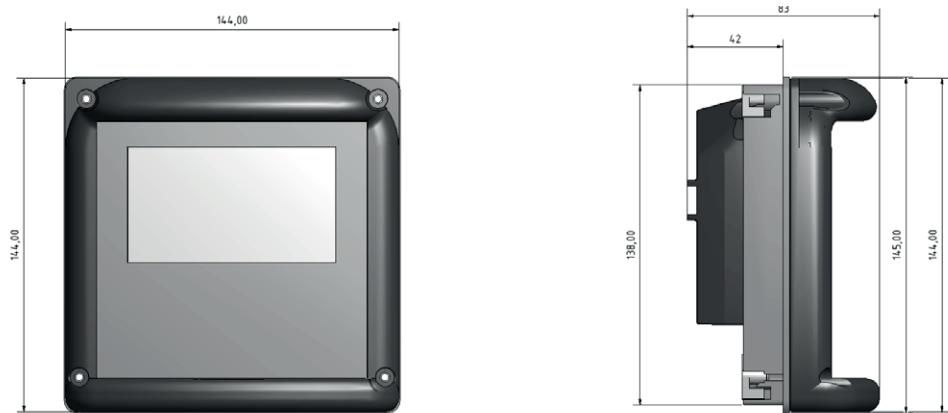
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EMV/EMC	EN 61000 6-1 (3) EN 61000 6-2 (4) EN 61326

Design configuration

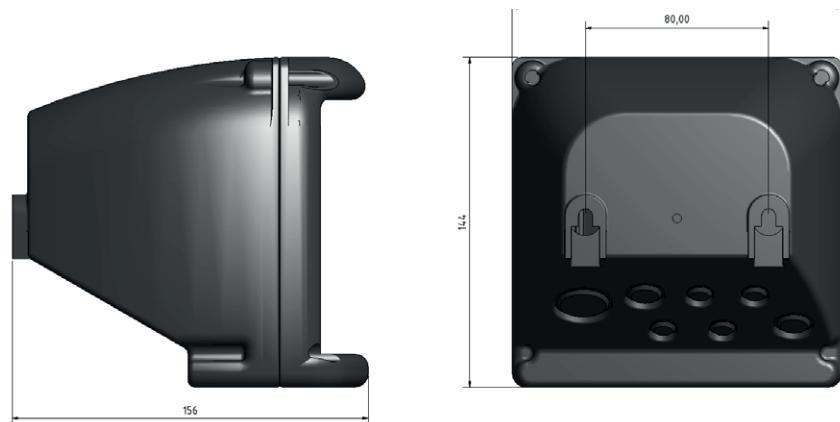
Material	ABS
Dimensions	Panel mounted housing: 138 x 138 x 83 mm Wall mounted houing: 144 x 144 x 156 mm
Mounting dimension	Panel mounted housing: 138 x 138 x 42 mm
Weight	0.6 kg (wall mounted housing: 1 kg)
Connection	Cable inlet: 2x M16, 2x M12 + optional: 2x M12 and 1x M25 plug-in terminal: rigid /flexible 0.2-2.5 mm ² / 0.2-2.5 mm ² measurement rigid /flexible 0.2-1 mm ² / 0.2-1.5 mm

Mechanical drawing

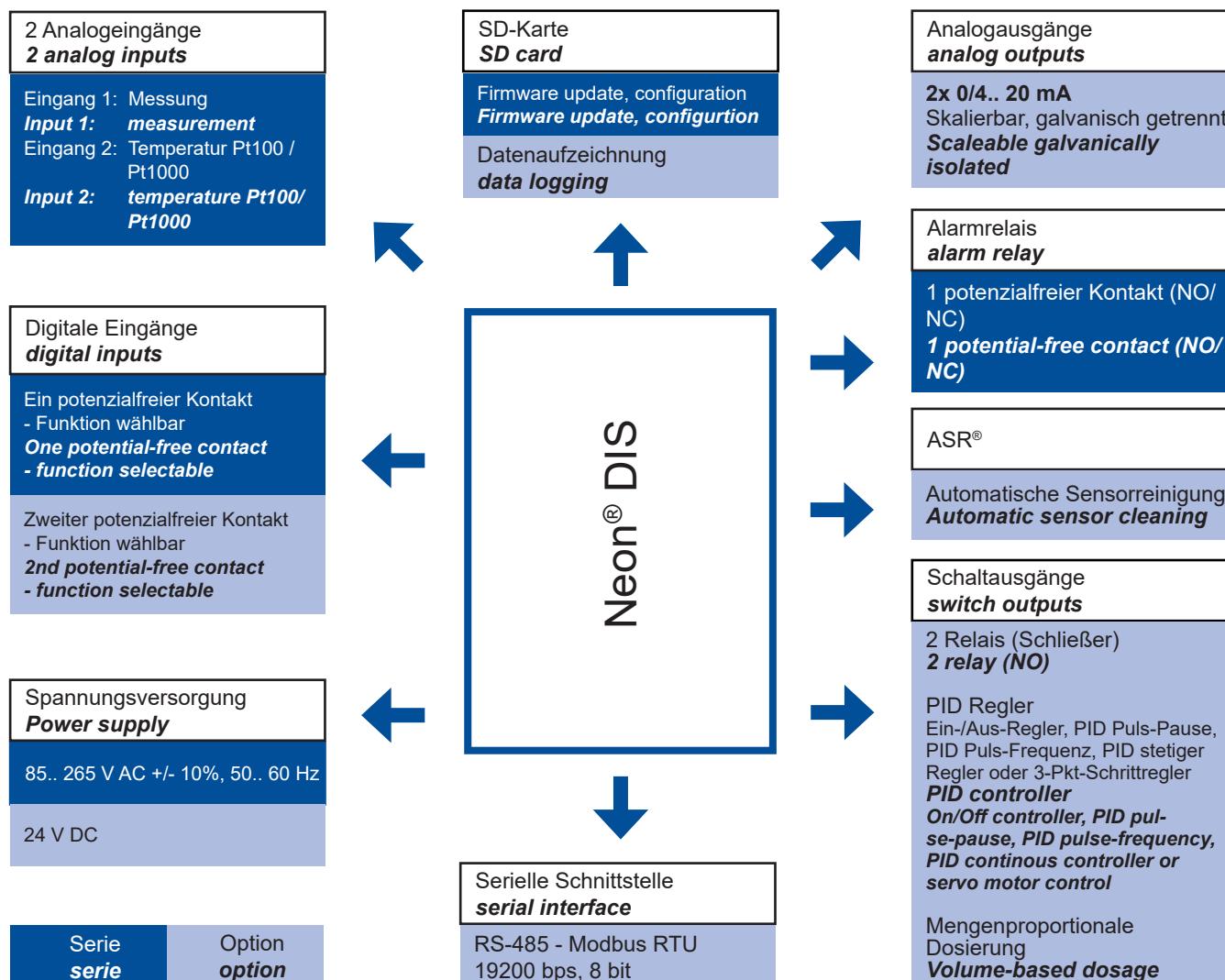
Neon® panel mounted



Neon® wall mounted



Interface diagram



Single channel water monitoring instrument

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Applications



Technical data

Measuring parameter

Conductivity (inductive)	0.. 2.000 mS/cm 0.. 20.00 mS/cm 0.. 200.0 mS/cm 0.. 2000 mS/cm
Conductivity (conductive)	0.. 2.000 µS/cm C=0,05 /cm 0.. 20.00 µS/cm C=0,05 /cm 0.. 200.0 µS/cm C=0,05 /cm 0.. 2.000 mS/cm C=0,20 /cm 0.. 20.00 mS/cm C=1,00 /cm

Input characteristic

Temperature measuring range	-30.0 .. +140.0 °C
Temperature coefficient	0.0 .. 8.0 % / K adjustable or non-linear
Digital input	1 as controller stop by external contact, option: 2nd as controller stop or flow measurement for volume based dosing.

Output characteristics

Alarm relay	1 potential-free NO contact, max. 250 V, 6 A, 550 VA (invertable)
Output signal	Option: 2 x 0/4 .. 20 mA (scaleable, galvanically isolated)
Load	500 Ohm
Registration range	Scaleable within the measuring range
Storage media	Accessory: SD card up to 1 GB - Industry standard
Serial interface	Option: RS 485 Modbus RTU
Baud rate	19200 bps
Data format	8 bit

Power supply

Line voltage 85.. 265 V AC, +6/-10%, 50.. 60Hz; option: 24 V DC
 Power consumption 10 V

Ambient conditions

Temperature	Storage -20 .. +65°C
	Operation 0 .. +50°C
Humidity	max. 90% rH at 40°C (non-condensing)
Protection class	Wall mounted IP 65 Panel mounted IP 54 (front), IP 30 (housing)

Controller

Control response	Option: on/off controller (adjustable hysteresis) P/PI/ PID controller (pulse-pause, pulse-frequency or continuous output) servo motor control
Relay	2 relays, each with a potential-free N/O contact, max. 250V, 6 A, 550 VA
Start delay	0.. 200 sec until controller active
Controller stop	Digital input

Proportion to volum

Control mode	Option: volumed based by flow measurement
Flow measurement	Impuls measurement NPN (by digital input 2)
Flow measurement	Engine speed 0.030.. 9.999 l/Imp
Relay 1	Potential-free N/O contact, max. 250V, 6 A, 550 VA output of control variable as pulse frequency or pulse pause.
Relay 2	Activating circulation pump

Certificates and approval

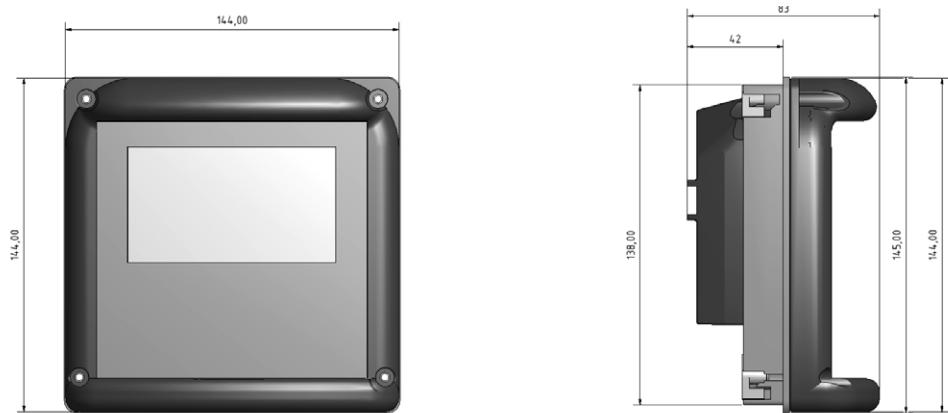
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 EN 61000 6-1 (3) EN 61000 6-2 (4) EN 61326-1

Design configuration

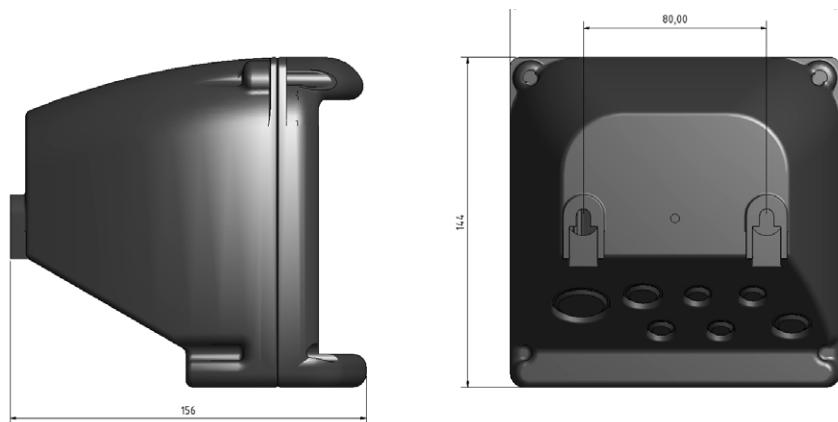
Material	ABS
Dimensions	Panel mounted housing: 138 x 138 x 83 mm Wall mounted houing: 144 x 144 x 156 mm
Mounting dimension	Panel mounted housing: 138 x 138 x 42 mm
Weight	0.6 kg (wall mounted housing: 1 kg)
Connection	Cable inlet: 2x M16, 2x M12 + optional: 2x M12 and 1x M25 plug-in terminal: rigid /flexible 0.2-2.5 mm ² / 0.2-2.5 mm ² measurement rigid /flexible 0.2-1 mm ² / 0.2-1.5 mm

Mechanical drawing

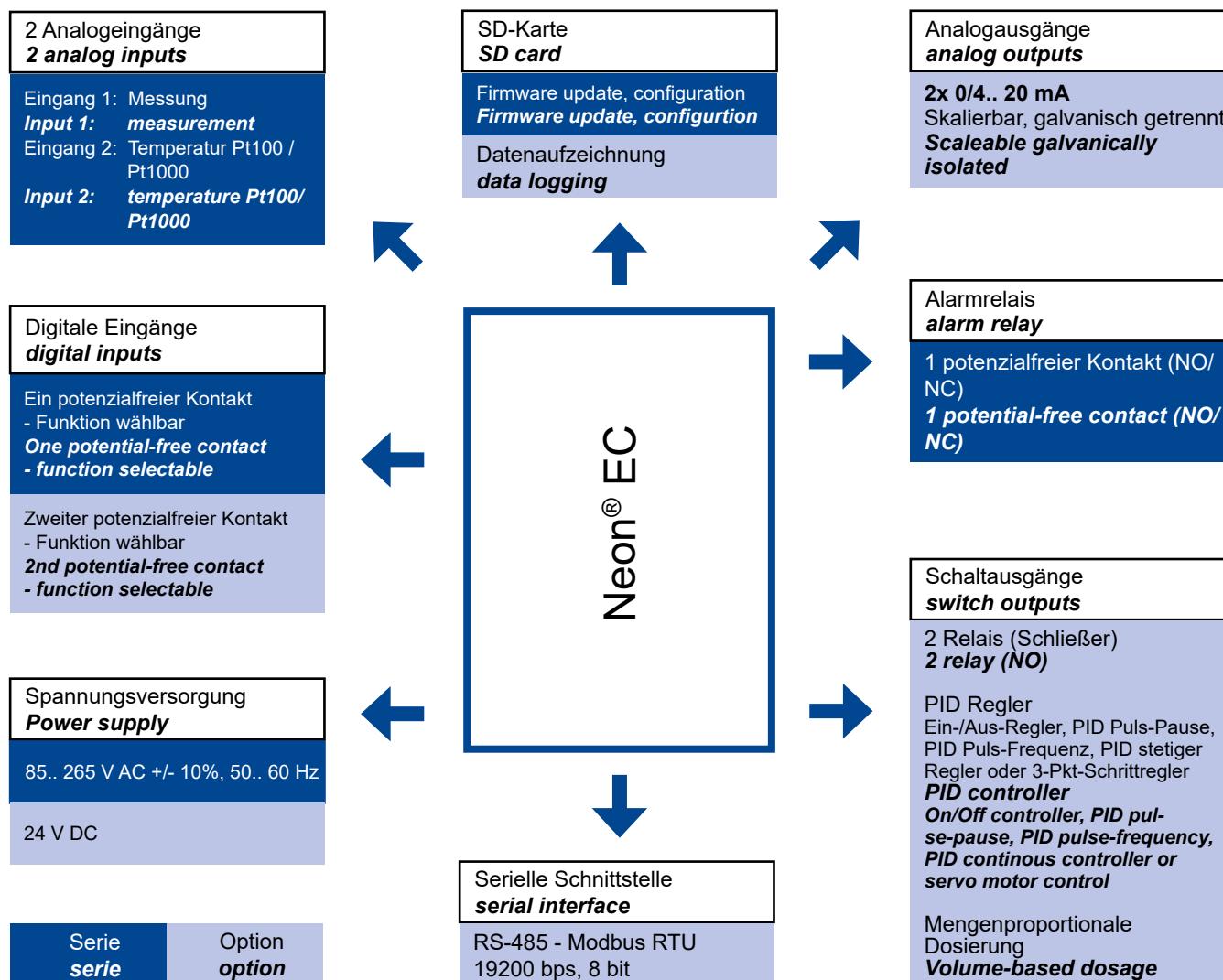
Neon® panel mounted



Neon® wall mounted



Interface diagram



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Applications



Pool & Spa



TLV Monitoring



Warehouse
Exhaust Air

Technical data

Measuring parameter

Chlorine Gas	0.00.. 10.00 ppm
Chlorine Dioxide Gas	0.00.. 1.00 ppm
Ozone Gas	0.00.. 1.00 ppm

Output characteristics

Alarm relay	1 potential-free N/O contact, max. 250 V, 6 A, 550 VA (invertable)
Output signal	optional: 2 x 0/4 .. 20 mA (scaleable, galvanically isolated)
	Load 500 Ohm
	Registration range Scaleable within the measuring range
Storage media	Accessory: SD card up to 2 MB - Industry standard
Serial interface	Option: RS 485 Modbus RTU
	Baud rate 19200 bps
	Data format 8 bit

Power supply

Line voltage	85.. 265 V AC, +6/-10%, 50.. 60Hz; option: 24 V DC
Power consumption	10 V

Ambient conditions

Temperature	Storage -20 .. +65°C
	Operation 0 .. +50°C
Humidity	max. 90% rH at 40°C (non-condensing)
Protection class	Wall mounted IP 65
	Panel mounted IP 54 (front), IP 30 (housing)

**Certificates and approval**

CE-Symbol

The product meets the requirements of the harmonized European standards and complies with the legal requirements of the EC directives.

EMV/EMC

EN 61000 6-1 (3) EN 61000 6-2 (4) EN 61326-1

Design configuration

Material

ABS

Dimensions

Panel mounted housing: 138 x 138 x 83 mm

Mounting dimension

Wall mounted housing: 144 x 144 x 156 mm

Weight

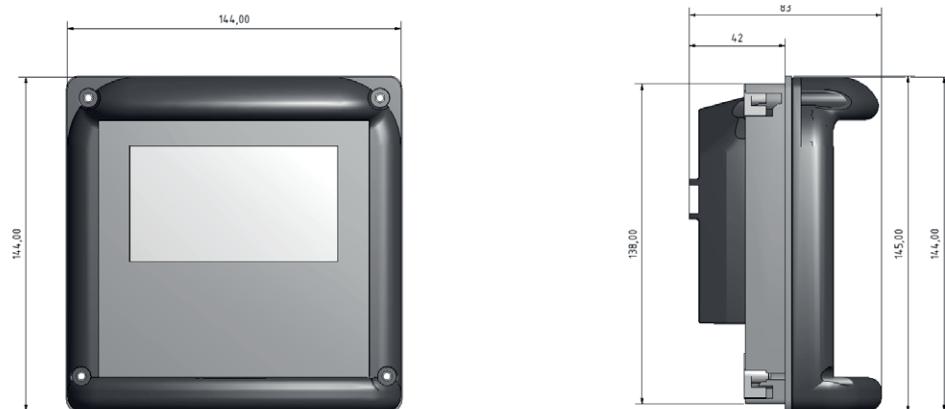
Panel mounted housing: 138 x 138 x 42 mm

Connection

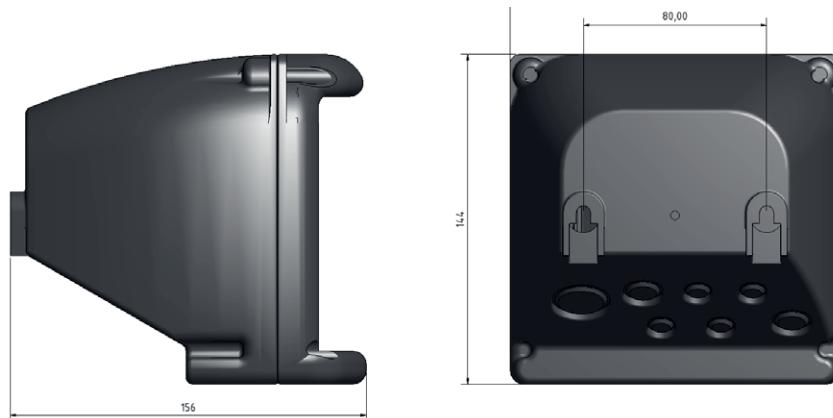
0.6 kg (wall mounted housing: 1 kg)

Cable inlet: 2x M16, 2x M12 + optional: 2x M12 and 1x M25 plug-in terminal:
rigid /flexible 0.2-2.5 mm² / 0.2-2.5 mm² measurement rigid /flexible
0.2-1 mm² / 0.2-1.5 mm**Mechanical drawing**

Neon® panel mounted



Neon® wall mounted



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Applications



Technical data

Measuring parameter

Total Chlorine	0/4.. 20 mV 0.. 2000 mV
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Input characteristic

Temperature measuring range	-30.0 .. +140.0 °C
Temperature coefficient	0.0 .. 8.0 % / K adjustable
Digital input	1 as controller stop by external contact, option: 2nd as controller stop or flow measurement for volume based dosing.

Output characteristics

Alarm relay	1 potential-free NO contact, max. 250 V, 6 A, 550 VA (invertable)
Output signal	Option: 2 x 0/4 .. 20 mA (scaleable, galvanically isolated)
	Load 500 Ohm
	Registration range Scaleable within the measuring range
Storage media	Accessory: SD card up to 1 GB - Industry standard
Serial interface	Option: RS 485 Modbus RTU
	Baud rate 19200 bps
	Data format 8 bit

Power supply

Line voltage 85.. 265 V AC, +6/-10%, 50.. 60Hz; option: 24 V DC
 Power consumption 10 V

Ambient conditions

Temperature	Storage -20 .. +65°C
	Operation 0 .. +50°C
Humidity	max. 90% rH at 40°C (non-condensing)
Protection class	Wall mounted IP 65 Panel mounted IP 54 (front), IP 30 (housing)

Controller

Control response	Option: on/off controller (adjustable hysteresis) P/PI/ PID controller (pulse-pause, pulse-frequency or continuous output) servo motor control
Relay	2 relays, each with a potential-free N/O contact, max. 250V, 6 A, 550 VA
Start delay	0.. 200 sec until controller active
Controller stop	Digital input

Proportion to volum

Control mode	Option: volumed based by flow measurement
Flow measurement	Impuls measurement NPN (by digital input 2)
Flow measurement	Engine speed 0.030.. 9.999 l/Imp
Relay 1	Potential-free N/O contact, max. 250V, 6 A, 550 VA output of control variable as pulse frequency or pulse pause.
Relay 2	Activating circulation pump

Certificates and approval

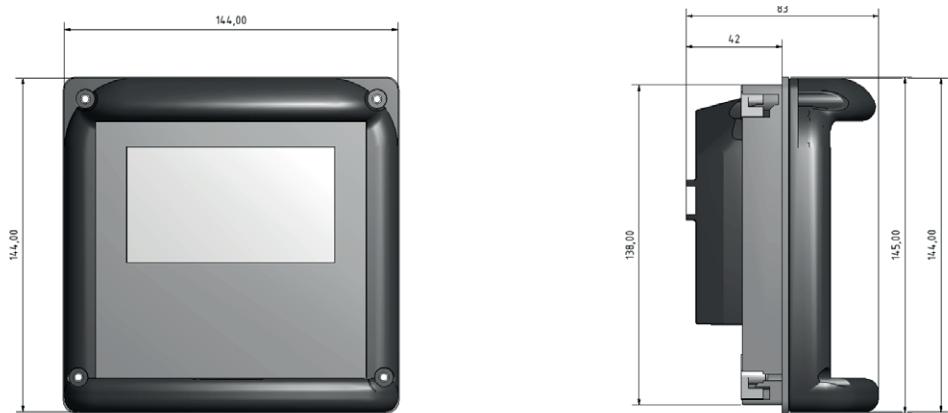
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Design configuration

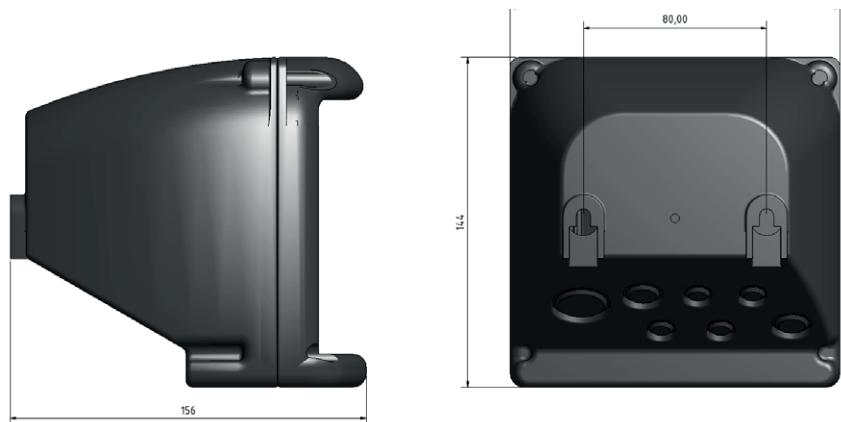
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Mechanical drawing

Neon® panel mounted housing



Neon® wall mounted housing



Interface diagram

