Krypton® pR Flow

pH / ORP measurement

Single channel water monitoring instrument

The Krypton® pR Flow provides reliable measurement results for pH and redox potential while also detecting water temperature. The single-channel water monitoring system consists of a measuring device, sensors, flow fitting, software, and cables. In the standard version, the Krypton® pR Flow is equipped with inputs for level and temperature measurement. A digital input and an alarm relay are also included. The built-in flow fitting is pressure-resistant up to 6 bar (at 20 °C) and salt-resistant. All measuring parameters and the measuring range can be selected directly via the system's user interface. The Krypton® pR Flow can also be expanded with two additional analog outputs, concentration or volume-based control functions, as well as a Modbus RTU unit and a data logger. Access the measuring system at any time, from anywhere, by connecting to Kuntze Cloud Connect® service. Software updates and add-on modules can also be activated at any time after purchase. All Kuntze products are Made in Germany.

Applications

Industrial Water

Drinking Water

Process Water

Cooling Water

Food/ Beverages

Waste Water Treatment

Technical data

Measuring range

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

Input characteristic

Temperature measuring range	-30.0 °.. +140.0 °C (-22.0 °.. 284.0 °F)
Temperature compensation	Nonlinear (pH)
Digital input	1. Input by external contact, Option: 2nd input as controller stop or flow measurement for volume based dosing

Output characteristics

Alarm relay	1 potential-free N/O contact, max. 250 V, 6 A, 550 VA (invertible)	
Output signal	Option: 2 x 0/4 .. 20 mA (scalable, galvanically isolated)	
	Load:	Max. 500 Ohm
	Registration range:	Scalable within the measuring range
Voltage output	+/- 6 VDC for impedance converter	
Storage media	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.. 60 Hz; option: 24 V DC
Power consumption	10 VA

Process conditions

Temperature	Storage:	-20 °.. +65 °C (-4 °..+149 °F)
	Operation:	0 .. +50 °C (32 °.. 122 °F)
Humidity	Max. 90 % rH at 40 °C (non-condensing)	
Protection class	IP 65	

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. 250 V, 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. 250 V, 6 A, 550 VA (pulse-pause, pulse-frequency)	
Relay 2	Activating circulation pum	

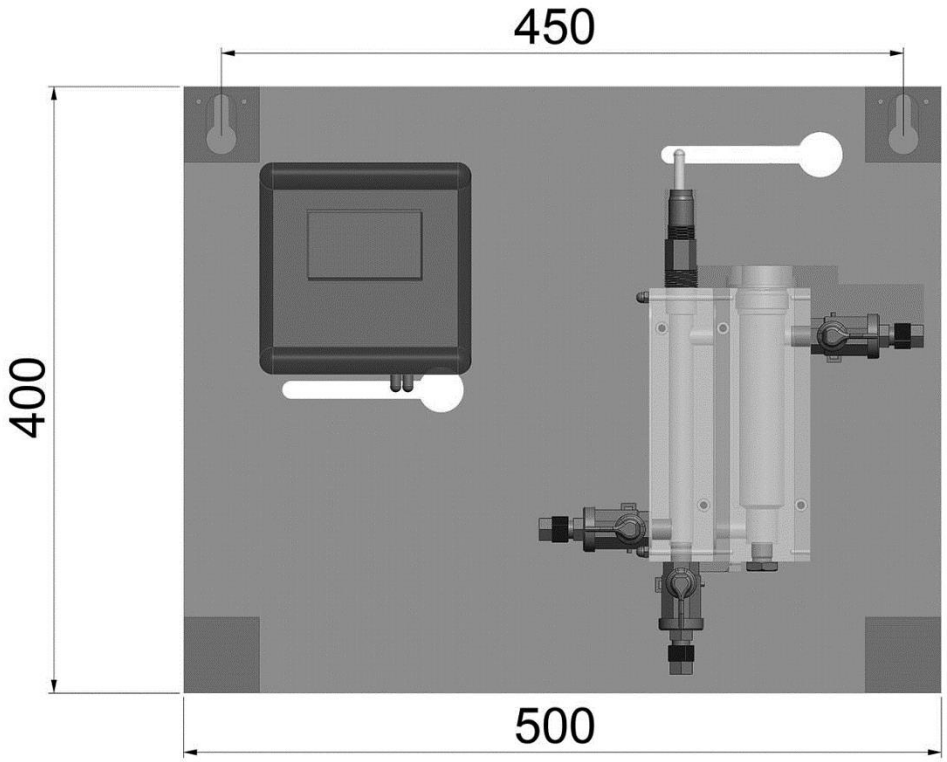
Certificates and approval

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

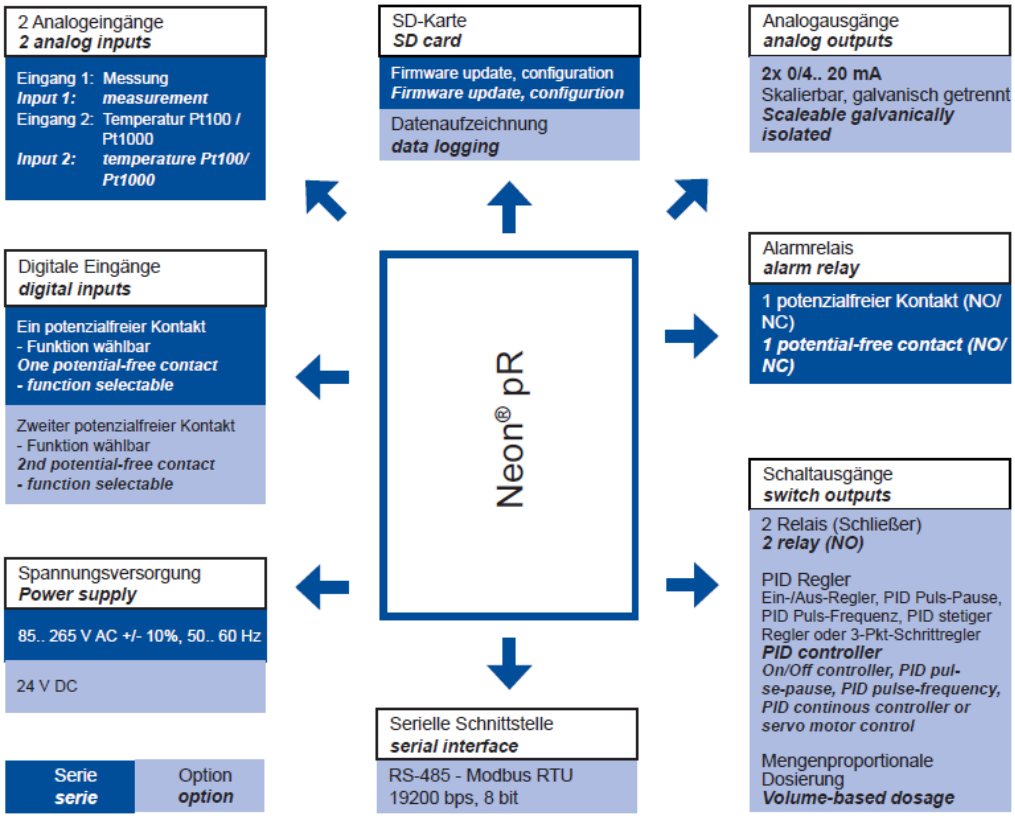
Design configuration

Material	Board:	PVC
	Assembly:	PMMA
	Plug:	PVC
	Instrument:	ABS
	Sensor:	Glass, POM / Gold / Platinum
Dimensions	400 x 500 mm	
Connection	Cable inlet:	2 x M16, 2 x M12 + optional: 2 x M12 and 1 x 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 mm²

Mechanical drawing



Interface diagram



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