

Microprocessor-controlled measuring and control system for the determination of pH and redox (ORP) potential in water

COMBIMAT pH/Redox

Compact system in plastic case (ABS) for wall mounting.

2-digit LC-display for pH and 3-digit LC-display for redox (ORP) potential in mV, 10 LEDs indicate the operating status.

Measurement of pH and redox (ORP) by maintenance-free combination electrodes.

Potential-free relay contact as summary alarm indicator for instrument faults and deviations from set values.

Two potential-free relay contacts for the control of dosing pumps, solenoid valves, or pulse pumps.

Remote-off input for a potential-free contact, for the automatic interruption of the dosing function.

Input for a potential-free flow detector.

Two inputs for potential-free liquid level sensors.

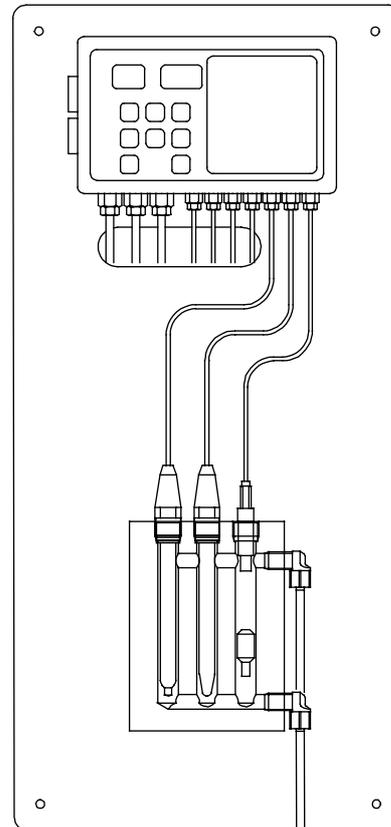
Optical sample flow indicator.

Delivery includes:

Measuring and control unit with fluidics and sensors, mounted on a plastic panel ready for installation.

Options:

- Double signal output 0 - 20 mA for pH and redox (ORP).
- Automatic sample flow check.



Order scheme	COMBIMAT pH/Redox	A-61.3		0		
Voltage supply:	230 VAC, 50/60 Hz	↑ 1			↑	↑
	115 VAC, 50/60 Hz _____	2			↑	↑
Signal output:	not installed			0		
	double signal output 0 - 20 mA for pH and redox (ORP) _____		1			
Sample flow check:	not installed				0	
	with sample flow check _____				1	
Language:	German					0
	English					1
	French					2
	Spanish					3
	Italian					4
	others _____					9

Technical data:

Housing: 120 x 200 x 90mm (HxWxD)
Material, protection: ABS, IP65
Mounting panel: 300 x 530 mm (WxH)
Ambient temperature: 0 - 50 °C
Storage and transport: -25 to +85 °C
Relative humidity: 10 - 90%
All connections with strippable terminal blocks

Display:

2-digit LC-display for pH
3-digit LC-display for redox (ORP)
10 LEDs for the indication of operating status

Supply:

Voltage supply: 115 or 230 VAC
(±15%) / 50/60 Hz
Power consumption: 3 VA

Signal outputs (optional):

Current loop 0 - 20 mA for pH and redox (ORP) with common return
Scaling pH: 5.4 - 9.0 pH
Scaling redox (ORP): 460 - 900 mV
Max. burden: 150 Ω

Alarm contact:

Potential-free relay contact as summary alarm indicator for instrument faults and deviations from set values (± 0.4 pH resp. ± 40 mV)
Max. load: 2 A / 250 VAC
30 min alarm delay for deviations from set values

Redox (ORP) measuring:

Electrode Swansensor Redox Pt - Ag/AgCl
Measuring range: 420 - 920 mV
Resolution: 1 mV

pH measuring:

Electrode Swansensor pH
Measuring range: 4.9 - 9.9 pH
Resolution: 0.1 pH

Control outputs:

2 potential-free relay contacts for the control of dosing pumps, solenoid valves, or pulse pumps
Max. load: 2 A / 250 VAC
Selectable control mode for each contact:
- On/Off control
- Cycle time
- Pulse control

Control of redox (ORP):

Set value: 600 - 900 mV
On/Off control:
Hysteresis: 5 mV
Cycle time:
Proportional band: 20 mV
Time base: 1 min
Pulse control:
0 - 100 or 0 - 300 impulses/min,
Proportional band: 20 mV
Time base: 1 min

Control of pH:

Set value: 6.8 - 7.6 pH
Selectable direction: pH⁺/pH⁻ (internal switch on electronic board)
On/Off control:
Hysteresis: 0.05 pH-units
Cycle time:
Proportional band: 0.2 pH
Time base: 1 min
Pulse control:
0 - 100 or 0 - 300 impulses/min,
Proportional band: 0.2 pH
Time base: 1 min

Sample flow check:

Optical indicator or (optional) with automatic flow switch displayed on the instrument and connected to the summary alarm

Control of liquid level:

2 inputs for potential-free liquid level sensors displayed on the instrument and connected to the summary alarm

Remote-off function:

Input for potential-free contact, for the automatic interruption of the dosing function

Sample:

Connection: Tube 6x8 mm PE
Pressure sample inlet: 0.2-2 bar
At lower pressure a pump has to be installed.

Complete connection scheme

