M9.08

Dual parameter pH/ORP & flow monitor and transmitter

aliaxis

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The FLS M9.08 dual-parameter monitor is a device that combines pH/ORP and flow measurements. A 4" wide full graphic display shows measured values clearly together with a lot of other useful information. Moreover, due to a multicolour display plus a powerful backlight, measurement status can be determined easily from afar too. The software provides assistance to minimise errors and speed up the configuration of all settings. Various types of calibration can be performed as needed for both measurements. The 4-20 mA output dedicated to each measurement allows you to send the values to a remote external device. Appropriate combination of digital outputs allows customised setups for any process to be controlled. The USB port on the back allows you to update the software with a wide range of customisation services as standard and on-demand.

DUAL PARAMETER PH/ORP & FLOW MONITOR AND TRANSMITTER

APPLICATIONS

- Water treatment and regeneration
- Industrial wastewater treatment and recovery
- Scrubber control
- Neutralisation systems
- Heavy metal recovery
- Coating of metal surfaces
- Processing and manufacturing industry
- Chemical production
- Swimming pools and spas

MAIN CHARACTERISTICS

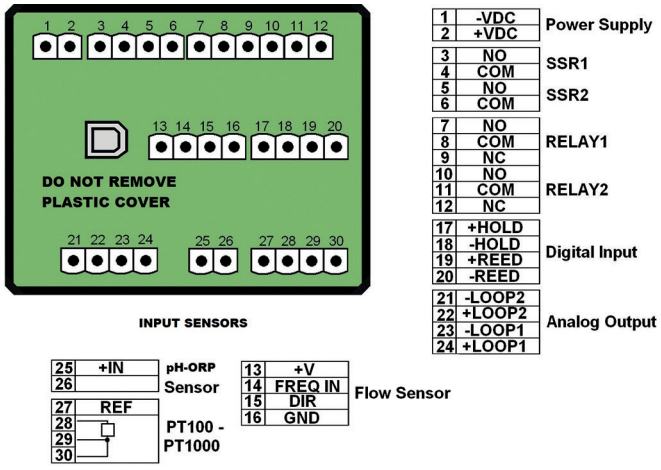
- Large graphic display
- Colour backlighting
- On-line help
- Simultaneous measurement of pH/ORP and flow
- User-friendly calibration procedures
- Mechanical relay and solid state relay for external alarms and for the control of external devices
- Multilingual menu
- USB port for software upgrade

TECHNICAL DATA	
General information	**Compatible sensors**: F6.60 pH/ORP sensors and Hall-effect flow sensors with frequency output or electromagnetic flow meters
	Materials: – Case: ABS – Display: PC – Panel and wall gasket: silicone rubber – 5-button keyboard: silicone rubber
	Display: – Backlight version: 3 - colours – Backlighting activation: user adjustable with 5 levels of timing – Update rate: 1 second – Protection class: IP65 front
	pH input range: –2÷16 pH (depending on the pH electrode applied)
	pH measurement resolution: ±0.01 pH
	ORP input range: –2000÷2000 mV (depending on the ORP probe applied)
	ORP measurement resolution: ±1 mV
	Temperature input range: –50÷150°C (–58÷302°F) (with Pt100-Pt1000)
	Temperature measurement resolution: 0.1°C/°F (Pt1000); 0.5°C/°F (Pt100)
	Flow input range (frequency): 0÷1500Hz
	Flow input accuracy (frequency): 0.5%

Electrical data	**Supply voltage:** from 12 to 24 VDC ±10% regulated
	Max electrical consumption: < 300 mA
	FLS Hall effect flow sensor power supply: – 5 VDC at < 20 mA – Optically isolated from current loop – Short circuit protected
	2 current output: – 4-20 mA, isolated, fully adjustable and reversible – Max loop impedance: 800 Ω @ 24 VDC - 250 Ω @ 12 VDC
	2 solid state relay outputs: – (flow) User selectable as MIN alarm, MAX alarm, pulse output, window alarm, off – (pH/ORP) User selectable as ON-OFF, proportional frequency output, timed pulses, off – Optically isolated, 50 mA max sink, 24 VDC max pull-up voltage – Max pulse/min: 300 – Hysteresis: user selectable
	2 relay outputs: – (flow) User selectable as MIN alarm, MAX alarm, pulse output, window alarm, off – (pH/ORP) User selectable as ON-OFF, proportional frequency output, timed pulses, off – Mechanical Single Pole Double Throw (SPDT) contact – Expected mechanical life (min. operations): 10^7 – Expected electrical life (min. operations): 10^5 switching N.A./N.C. capacity 5 A/240 VAC – Max pulse/min: 60 – Hysteresis: user selectable
Environmental data	**Operating temperature:** from –10°C to 70°C (from 14°F to 158°F)
	Storage temperature:from -30°C to +80°C (from -22°F to +176°F)
	Relative humidity: from 0 to 95% not condensing
Standards & Approvals	Manufactured under ISO 9001 Manufactured under ISO 14001 CE RoHS Compliance EAC

ELECTRICAL CONNECTIONS

Rear view of electrical connections



PRODUCT CODES

M9.08.P1 - M9.08.WX

Dual parameter pH/ORP & Flow Monitor and Transmitter

Code	Mounting	Power supply	wires power Technology	Sensor Input	Output	Weight (gr.)
M9.08.P1	Panel	12 - 24 VDC	3/4 wires	pH/ORP temperature Flow (Frequency)	2*(4-20mA) 2*(S.S.R.) 2* (mech. relay)	550
M9.08.W1	Wall	12 - 24 VDC	3/4 wires	pH/ORP temperature Flow (Frequency)	2*(4-20mA) 2*(S.S.R.) 2* (mech. relay)	650
M9.08.W2	Wall	110 - 230 VAC	3/4 wires	pH/ORP temperature Flow (Frequency)	2*(4-20mA) 2*(S.S.R.) 2* (mech. relay)	750

S.S.R: solid state relay / mech relay.: mechanical relay