

# FLS M9.06

## PH/ORP MONITOR



The new FLS M9.06 is a powerful pH/ORP monitor designed to satisfy a broad range of applications. A 4" wide full graphic display shows measured values clearly together with many other useful information. Moreover, due to the multicolor bright backlight, measurement status can be determined easily also from very long distance. A tutorial software guarantees a mistake-proof and fast set up of every parameter. A calibration based on automatic buffer recognition plus a in line adjustment allow to achieve a precise and a reliable measurement in every conditions.

### APPLICATIONS

- Water treatment and regeneration
- Industrial waste water treatment and recovery
- Scrubber control
- Neutralization systems
- Heavy metals recovery
- Metal surface coating
- Processing and manufacturing industry
- Chemical production
- Swimming pools and SPA

### MAIN FEATURES

- Wide full graphic display
- Multicolor backlight visualization
- Help on board
- Automatic recognition of pH buffers
- In line adjustment
- Analog output for temperature remoting
- Mechanical relay for external device control
- Solid State Relays for programmable alarms



# TECHNICAL DATA

## General

- Associated sensors: FLS pH/ORP electrodes and FLS temperature sensors
- Materials:
  - Case: ABS
  - Display window: PC
  - Panel & Wall gasket: silicone rubber
  - Keypad: 5-button silicone rubber
- Display:
  - LC full graphic display
  - Backlight version: 3-colours
  - Backlight activation: User adjustable with 5 levels of timing
  - Update rate: 1 second
- Enclosure: IP65 front
- pH input range:  $-2 \div 16\text{pH}$
- pH measurement resolution:  $\pm 0.01\text{ pH}$
- ORP input range:  $-2000 \div +2000\text{mV}$
- ORP measurement resolution:  $\pm 1\text{ mV}$
- Temperature input range:  $-50 \div 150^\circ\text{C}$  ( $-58 \div 302^\circ\text{F}$ ) (with Pt100-Pt1000)
- Temperature measurement resolution:  $0,1^\circ\text{C}/^\circ\text{F}$  (Pt1000);  $0,5^\circ\text{C}/^\circ\text{F}$  (Pt100)

## Electrical

- Supply Voltage: 12 to 24 VDC  $\pm 10\%$  regulated
- 2 x Current output:
  - 4-20 mA, isolated, fully adjustable and reversible
  - Max loop impedance:  $800\ \Omega$  @ 24 VDC -  $250\ \Omega$  @ 12 VDC

- 2 x Solid State Relay output:
  - User selectable as ON-OFF, Proportional frequency output, Proportional Pulse, Timed Pulse, Off
  - Optically isolated, 50 mA MAX sink, 24 VDC MAX pull-up voltage
  - Max pulse/min: 300
  - Hysteresis: User selectable
- 2 x Relay output:
  - User selectable as ON-OFF, Proportional frequency output, Proportional Pulse, Timed Pulse, Off
  - Mechanical SPDT contact
  - Expected mechanical life (min. operations):  $10^7$
  - Expected electrical life (min. operations):  $10^5\text{ N.O./N.C.}$  switching capacity 5A/240VAC
  - Max pulse/min: 60
  - Hysteresis: User selectable

## Environmental

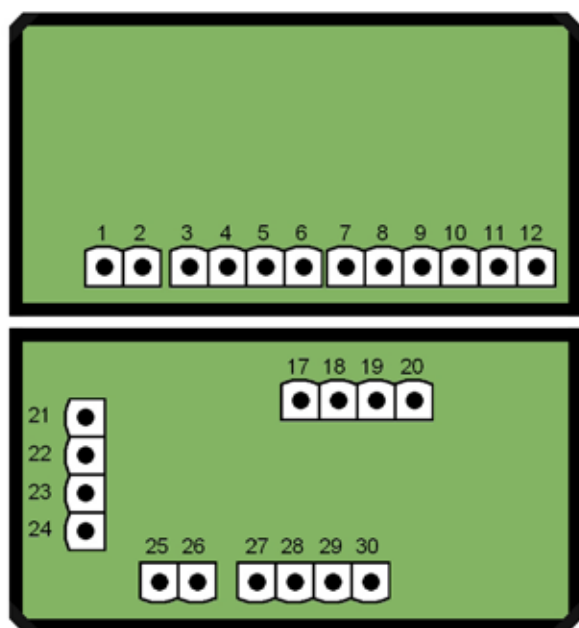
- Operating temperature:  $-20$  to  $+70^\circ\text{C}$  ( $-4$  to  $158^\circ\text{F}$ )
- Storage temperature:  $-30$  to  $+80^\circ\text{C}$  ( $-22$  to  $176^\circ\text{F}$ )
- Relative humidity: 0 to 95% not condensing

## Standards & Approvals

- Manufactured under ISO 9001
- Manufactured under ISO 14001
- CE
- RoHS Compliant
- GOST R

# WIRING CONNECTIONS

Rear Terminal View



1	-VDC	Power Supply
2	+VDC	
3	NO	SSR1
4	COM	
5	NO	SSR2
6	COM	
7	NO	RELAY1
8	COM	
9	NC	RELAY2
10	NO	
11	COM	
12	NC	
17	+HOLD	Digital Input
18	-HOLD	
19	+REED	
20	-REED	
21	-LOOP2	Analog Output
22	+LOOP2	
23	-LOOP1	
24	+LOOP1	
25	+IN	pH/ORP Input
26		
27	REF	PT100 - PT1000
28		
29		
30		

## ORDERING DATA

M9.06 pH/ORP monitors						
Part No.	Description /Name	Power supply	Wire power Technology	Sensor Input	Output	Weight (gr.)
M9.06.P1	Panel mount pH/ORP monitor	12 - 24 VDC	3/4 wire	pH/ORP	2*(4-20mA), 2*(S.S.R.), 2*(mech. relay)	550
M9.06.W1	Wall mount pH/ORP monitor	12 - 24 VDC	3/4 wire	pH/ORP	2*(4-20mA), 2*(S.S.R.), 2*(mech. relay)	650
M9.06.W2	Wall mount pH/ORP monitor	110 - 230 VAC	3/4 wire	pH/ORP	2*(4-20mA), 2*(S.S.R.), 2*(mech. relay)	750



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