

FLS M9.50

Batch Controller



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FLS M9.50 is a device dedicated to the accurate batching or mixing operations of liquids. A 4" wide full graphic display shows measured values clearly together with a lot of other useful information. The colour display and its powerful backlight allow an easy control of batching process even from very long distance. The software provides assistance to minimise errors and speed up the configuration of all settings. Advanced options are also available to increase accuracy and reduce transfer times. The possibility of setting various volumes (up to 10 transfers) according to certain calibration factors optimises the flexibility of the system and guarantees maximum precision. The special set of outputs allows remote control and monitoring of the transfer system. The USB port on the back allows you to update the software with a wide range of customisation services as standard and on-demand.

BATCH CONTROLLER

APPLICATIONS

- Transfer
- Chemical dosing
- Filling
- Mixing
- Batching
- Bottling

MAIN CHARACTERISTICS

- Large graphic display
- Colour backlighting
- On-line help
- Remote start, stop and resume
- User-friendly setting
- Two-stage transfer
- Alarm and overrun compensation
- No signal alarm
- USB port for software upgrade

TECHNICAL DATA

General information

Compatible sensors: FLS Hall effect flow sensors with frequency output or FLS F6.60 electromagnetic flow sensors

Materials:

- Case: ABS
- Display: PC
- Panel and wall gasket: silicone rubber
- 5-button keyboard: silicone rubber

Display:

- LCD full graphic
- Backlight version: 3 - colours
- Backlighting activation: User adjustable with 5 levels of timing
- Update rate: 1 second
- Protection class: IP65 front

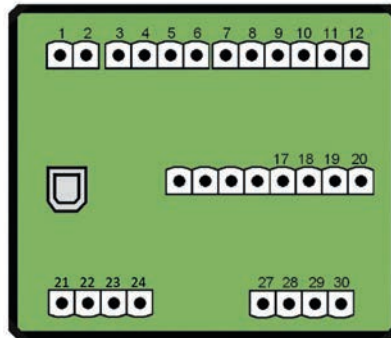
Flow input range (frequency): 0÷1500Hz

Flow input accuracy: 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 solid state relay outputs: – Optically isolated, 50 mA max sink, 24 VDC max pull-up voltage – Max pulse/min: 300 – Hysteresis: selectable by the user as: two-stage Batch, overrun or no signal alarm
	2 relay outputs: – Mechanical 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 – User selectable as: OUTPUT1 – Option: two-stage batch, overrun alarm or no signal OUTPUT2 – Batch: Batch indication in progress
	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



1	-VDC	Power Supply
2	+VDC	
3	NO	SSR2
4	COM	
5	NO	SSR1
6	COM	
7	NO	RELAY1
8	COM	
9	NC	
10	NO	RELAY2
11	COM	
12	NC	
17	GND	Remote control
18	RESUME	
19	START	
20	STOP	
27	+V	Flow Sensor
28	FREQ IN	
29		
21	- LOOP 2	Analog Output
22	+ LOOP 2	
23	- LOOP 1	
24	+ LOOP 1	

PRODUCT CODES



M9.50.PX - M9.50.WX

Batch Controller

Code	Mounting	Power supply	Sensor Input	Output	Weight (gr.)
M9.50.P1	Panel	12 - 24 VDC	Flow (Frequency)	2*(S.S.R.) 2*(mech. relay)	550
M9.50.W1	Wall	12 - 24 VDC	Flow (Frequency)	2*(S.S.R.) 2*(mech. relay)	650
M9.50.W2	Wall	110 - 230 VAC	Flow (Frequency)	2*(S.S.R.) 2*(mech. relay)	750

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