

Type F9.50

Batch Controller

The Type F9.50 Batch Controller is designed for accurate and reliable batching or blending of liquids. It accepts a pulse input from all FlowX3 Hall Effect flow sensors. Flow sensor supply voltage is provided by the controller. Modular design allows the same instrument to be mounted in three different ways: directly to the flow sensor or remotely either panel or wall mount.

The instrument offers complex control capability. It is easy to calibrate and operate using self explanatory menus. A Simple and Advanced mode are available which allow the choice of quick calibration and basic outputs or a more customized and detailed control set-up. Four separate control outputs (two relays, an open collector and an analog output) allow the operator to set-up for accurate batch operation. State-of-the-art electronic design ensures performance and reliability.

■ Displays

Batch in Progress	– 6 digits
Flow Rate	– 5 digits
Resettable Total	– 6 digits
Non-Resettable Total	– 10 digits

■ Output Signals

Item No.	4 – 20 mA*	Wiring	Open Collector†	Relay (SPDT)††	No. of LEDs
F9.50	1	3/4 Wire	1	2	3

† User selectable as START Batch, END Batch or Off.

†† **OUT1** – Batch: Batch in Progress indication
OUT2 – Option: User selectable Two-Stage Shutdown, End of Batch, Overrun Alarm or Missing Signal Alarm.

* User selectable as Valve Control or Degree of Batch Completion.

■ Connectable FlowX3 Sensors

Instrument Mounting	Sensor
Direct	F3.01.H
Panel or Wall	F3.00.H, F3.15.H, ULF.H, ULF3.15H F111.H

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FLOWX3



■ Features

- **Modular Design** – The same instrument may be mounted in three different ways using mounting kits. See page 26.



Direct



Panel



Wall

- Simple or Advanced Operating Modes
- External Start, Stop and Resume
- Two-Stage Shutdown Control
- Advanced Valve Control
- Permanent and Resettable Totalizer
- Auto-calibration
- Automatic or Manual Overrun Compensation
- Overrun Alarm
- Missing Signal Alarm
- Count-up or Count-down batch indication
- End of Batch pulse output
- Output Simulation for system testing
- Password Protection

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■ Technical

Supply Voltage:

- 12 to 24 VDC $\pm 10\%$ regulated
- 110/230 VAC with F9.KW2 Wall Mount Kit

Sensor Input (Frequency):

- Sensor Power: 3.8 to 5 VDC @ < 30 mA
- Range: 0.5 to 1000 Hz
- Optically isolated from current loop
- Short circuit protected

Enclosure:

- NEMA 4, 4X (IP65) front
- 1/4 DIN Size
- Monolithic clear polycarbonate plastic with silicone rubber keypad

Operating Temperature:

- 10 to 70°C (14 to 158°F)

For dimensions and more technical specifications, see page 27.

■ Output Specifications

4 to 20 mA Output:

- Isolated, fully adjustable and reversible
- Maximum Loop Impedance: 150 W@ 12 VDC, 330 W@ 18 VDC, 600 W@ 24 VDC
- User Selectable as Valve Control or Batch Completion

1 Open Collector Output with LED display:

- User selectable as START Batch, END Batch or Off
- Optically isolated, 50 mA maximum sink, 24 VDC maximum pull-up voltage
- Maximum pulses per minute: 300
- Hysteresis: Adjustable

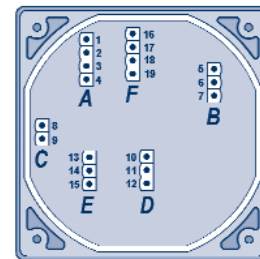
2 Relay Outputs with LED display:

- OUT1 – Batch: Batch in progress indication
- OUT2 – Option: User selectable Two-Stage Shutdown, End of Batch, Overrun Alarm or Missing Signal Alarm
- Mechanical SPDT contact
- Rated maximum: 3A @ 30 VDC or 3A @ 250 VAC resistive load
- Maximum pulses per minute: 300
- Hysteresis: Adjustable



■ Wiring

REAR TERMINAL VIEW



Power Supply A	1	+ VDC
	2	+ LOOP
	3	- LOOP
	4	- VDC
Sensor B	SENSOR	
	5	GND
	6	IN
Open Collector Output C	7	V+
	8	O.C.+
Relay OUT 1 D	9	O.C.-
	RELAY 1	
	10	NC
Relay OUT 2 E	11	COM
	12	NO
Remote Control F	RELAY 2	
	13	NC
	14	COM
	15	NO
	16	GND
	17	RESUME
	18	START
	19	STOP