

Type F9.03

Dual Input Flow Monitor/Transmitter

Type F9.03 Flow Monitor/Transmitter is designed to process the pulse signals from two FlowX3 Hall Effect flow sensors or two Type F3.60.M Electromagnetic Flow Transmitters at the same time. Control outputs are two 4 to 20 mA, one open collector (pulse) and two relays. Two analog signals and relay outputs can correspond to any two of three flow measurements: Flow A (sensor A), Flow B (sensor B) or Delta Flow (flow difference between flow sensor A and B). One open collector output can be used for one of the three flow measurements. The instrument supplies voltage to the flow sensors.

The unit has a 3 line LCD display and LED indicators for the control output status (see page 27). Mounting may be either direct, panel or wall mount using different kits.

■ Displays

Flow Rate	– 5 digits
Resettable Total	– 6 digits
Non-Resettable Total	– 10 digits

■ Output Signals[‡]

Item No.	4 – 20 mA	Open Collector [†]	Relay (SPDT)*	No. of LEDs
F9.03	2	1	2	3

[‡] Associated to Flow A, Flow B or Differential Flow.

[†] User selectable as MIN alarm, MAX alarm, Pulse Out, Frequency Out or Off.

* User selectable as MIN alarm, MAX alarm, Pulse Out or Off.

■ Connectable FlowX3 Sensors

Instrument Mounting	Sensor No.
Direct	F3.01.H
Panel or Wall	F3.00.H, F3.15.H, ULF3.15H
	F3.10.H, F3.80, F111.H, ULF.H, F3.60.M, F3.63M



■ Features

- **Easy Set-up** – Setting up the instrument is easy using the keypad and self-explanatory menus
- **Plug-In Removable Terminals** – Makes instrument connection and removal easy
- **Epoxy Encapsulated Electronics** – For durability and reliability
- **Auto-calibration** – Automatic calculation of K-factors
- **Auto Systematic Error Compensation (ASEC)** – For increased linearity and accuracy
- **Output Simulation** – For system testing

■ Technical

Supply Voltage:

- 12 to 24 VDC ± 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 1,000 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

For dimensions and more technical specifications, see page 33.

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Output Specifications

Two 4 to 20 mA Loop Outputs correspond to (2) of Flow A, Flow B or Δ Flow: Isolated, fully adjustable and reversible

- Maximum Loop Impedance: 150 Ω @ 12 VDC, 330 Ω @ 18 VDC, 600 Ω @ 24 VDC

One Open Collector Output with LED display corresponds to (1) of Flow A, Flow B or Δ Flow:

- User selectable as MIN alarm, MAX alarm, Pulse Out, Frequency Out, Window or Off
- Optically isolated, 50 mA maximum sink, 24 VDC maximum pull-up voltage
- Maximum pulses per minute: 300
- Hysteresis: Adjustable

Two Relay Outputs with LED display correspond to (2) of Flow A, Flow B or Δ Flow:

- User selectable MIN alarm, MAX alarm, Pulse Out, Window or Off
- Mechanical SPDT contact
- Rated maximum: 3A @ 30 VDC, 3A @ 250 VAC resistive load
- Maximum pulses per minute: 300
- Hysteresis: Adjustable

Wiring – Rear Terminal View

(See Instruction Manual for detailed wiring information)

