Type F9.03 New

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 25). Modular design allows the same instrument to be mounted remotely either panel or wall mount.

Displays

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

Backlit display version is available for F9.03 Monitor**

Output Signals[‡]

Item	4 – 20 mA	Open	Relay	No. of
No.		Collector [†]	(SPDT)*	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.
- ** Add "L" to the Item No. for backlit version for F9.03.

Connectable FlowX3 Sensors

Instrument Mounting	Sensor No.
Panel or Wall	F3.00.H, F3.15.H, ULF3.15H F111.H, ULF.H, F3.60.M





■ Features

- Easy Set-up Setting up the instrument is easy using the keypad and self-explanatory
- 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.

Type F9.03 New

Dual Input Flow Monitor/Transmitter

Output Specifications

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

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

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

- User selectable as MIN alarm, MAX alarm, Pulse Out, Frequency Out 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 △Flow:

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

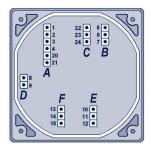


■ Wiring – Rear Terminal View

(See Instruction Manual for detailed wiring information)

Se

+ VDC + LOOP - LOOP Power Supply A - VDC 20 + LOOP2 21 - LOOP2



		SE	NSOR A
		5	GND
nsor A	В	6	IN
		7	V+

		22	GND
Sensor B	C	23	IN
		24	V+
		-	

Open		
Collector	D	
Output		

0	O.C.
J	0.0

SENSOR B

Relay OUT 1	E
00	

ŀ	RELAY 1
10	NC
11	сом
12	NO

		13
Relay	F	14
OUT 2		15

F	RELAY 2
13	NC
14	COM
15	NO