

Type F9.00, F9.01 and F9.02

Flow Monitor/ Transmitters

Type F9.00, F9.01 and F9.02 Flow Monitors/Transmitters are designed to process the pulse signals from all FlowX3 Hall Effect flow sensors. The instruments supply voltage to the flow sensor. All units are supplied standard with a large offering of control outputs, including 4 to 20mA, open collector (pulse) and relay outputs. All have 3 line LCD displays and LED status indication for the control outputs. 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.

■ Displays

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
F9.00	1	2 Wire	1	–	1
F9.01	1	3/4 Wire	3	–	3
F9.02	1	3/4 Wire	1	2	3

[†] 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 F111.H, ULF.H (for F9.01, F9.02) ULF.R (for F9.00)

Digiflow®
FLOWX3



F9.01, F9.02

■ 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
- **Output Simulation** – For system testing

■ 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

More technical specifications on page 27.

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■ Output Specifications

F9.00 – 2 Wire:

4 to 20 mA Output: Isolated, fully adjustable and reversible

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

1 Open Collector Output with LED display:

- 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

F9.01 – 3/4 Wire:

4 to 20 mA Output: Isolated, fully adjustable and reversible

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

3 Open Collector Outputs with LED display:

- 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

F9.02 – 3/4 Wire:

4 to 20 mA Output: Isolated, fully adjustable and reversible

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

1 Open Collector Output with LED display:

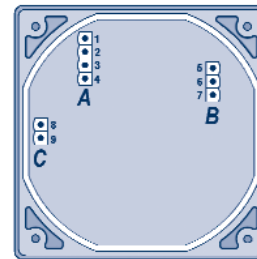
- User selectable as MIN alarm, MAX alarm, Pulse Out, Frequency Out or Off
- Optically isolated, 50 mA maximum sink, 24 VDC maximum pull-up voltage
- Maximum pulses per minute: 300
- Hysteresis: Adjustable

2 Relay Outputs with LED display:

- 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

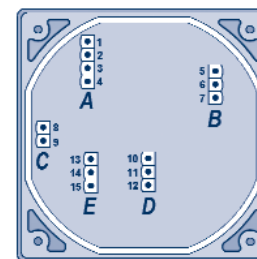
■ Wiring – Rear Terminal View

F9.00



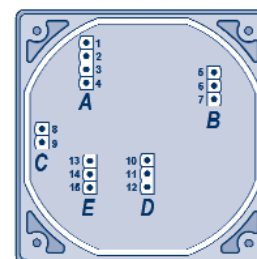
Power Supply A	1	+ VDC
	2	+ LOOP
	3	- LOOP
	4	- VDC
Sensor B	SENSOR	
	5	GND
	6	IN
Open Collector Output C	7	V+
	8	O.C.+
	9	O.C.-

F9.01



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.+
	9	O.C.-
Open Collector OUT 1 D	10	OUT 1+
	11	
Open Collector OUT 2 E	12	OUT 1-
	13	OUT 2+
	14	
	15	OUT 2-

F9.02



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.+
	9	O.C.-
Relay OUT 1 D	RELAY 1	
	10	NC
	11	COM
Relay OUT 2 E	RELAY 2	
	12	NO
	13	NC
	14	COM
	15	NO