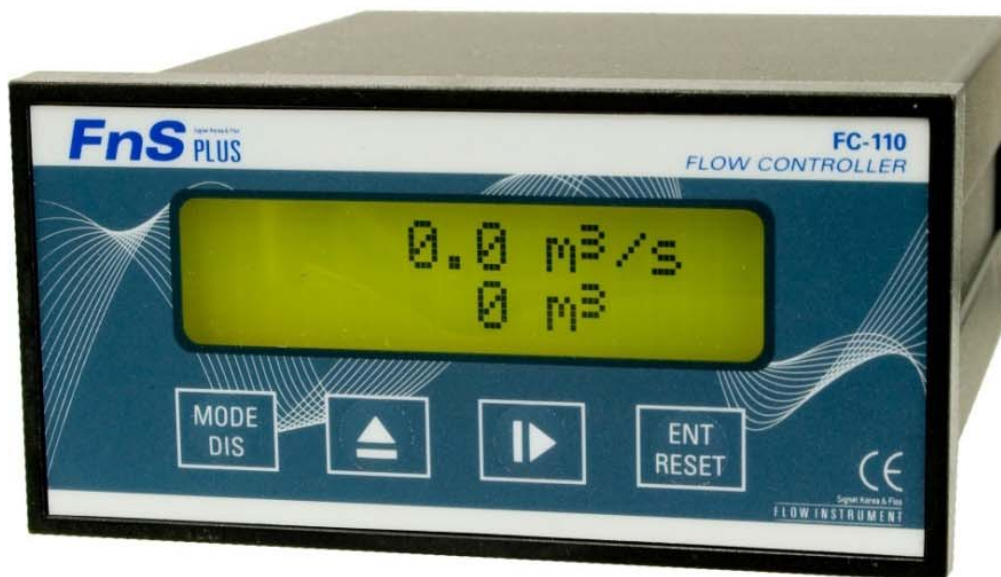


# FI 110 Series

## Panel Mount Flow Controllers with LCD Display



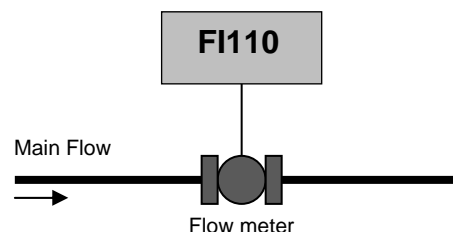
### Features

- 2-line \* 16-character LCD display
- Total / accumulated total / flow rate
- Frequency input
- Open collector pulse output
- 4-20 mA output
- Alarm set points (2 relays)

### Overview

The FI110 series of panel mount liquid flow controllers are designed to provide reliable results for a variety of industrial requirements.

The FI110 series has micro-processor inside, which makes it dependable and the controller also has pulse input such as sine wave, open collector, reed switch and even analogue input. The FI110 series has open collector pulse output and 4-20mA output.



## General

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### **Display**

2-line \* 16-character LCD display with LED backlight

### **Display Update Rate**

0.25-sec

### **Decimal Point**

Fully programmable for rate and total

### **Time Base**

The flow rate can be displayed in unit per second, per minute or per hour

### **Data Retention**

Set up parameters and totals stored in non-volatile memory with 10 years' retention

### **Operating Temperature**

-0 to 55 °C

### **Power**

- AC110~220V DC 24V

### **Power Consumption**

6VA

### **Transducer Supply**

12Vdc, 50 mA max

## Flow Inputs

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### **Frequency (Pulse) Input**

Frequency Range: 0 to 5 kHz

Signal Type:

sine wave, open collector, reed switch, proximity switch, voltage and current pulse

K-factor Range:  
0.0001 – 9000000.0000 (pulse per units)

## Pulse Output

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### **Function**

Open collector output with a pulse produced on each increment of the accumulated total

### **Pulse Width**

10, 50, 100 ms (negative going pulse)

### **Duty Cycle**

49 pulses/sec max

### **Output**

Current sinking output transistor 50 mA, 30 Vdc max (pulse output is suitable for driving remote counter or PLCs)

## Relay Output

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### **Function**

High and low flow rate alarms based on the flow volume

### **Max. Switching Power**

1250 VA, 150W

### **Max. Switching Voltage**

AC 250V, DC 30V

### **Max. Switching Current**

cos  $\phi$  = 1, 5 Amps

## 4-20 mA Output

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### **Function**

The flow rate is output

### **Resolution**

12-bit

### **Accuracy**

Better than 0.1% (F/S)

### **Maximum Load**

500 Ohms internally powered

950 Ohms from external 24 Vdc

### **Isolation**

Isolated

## RS-422/RS-485

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Multi-drop communication can be implemented with up to 32 instruments connected to a common bus

### **Function**

Printer & computer protocols are fully programmable

### **Printer**

A print is initiated on each reset or at a programmable time interval

### **Computer**

ASCII based protocol enables all display parameters to be read & totals to be reset

### **Baud Rate**

1200 to 19200 BPS

### **Data Bit**

8-bit

### **Parity Bit**

None

### **Data Logging**

Output generated at intervals of once a minute to once every 24 hours. The total can be programmed to reset on each print or at 24:00 hours

### **Time**

A real time clock is provided to give time and date on each output

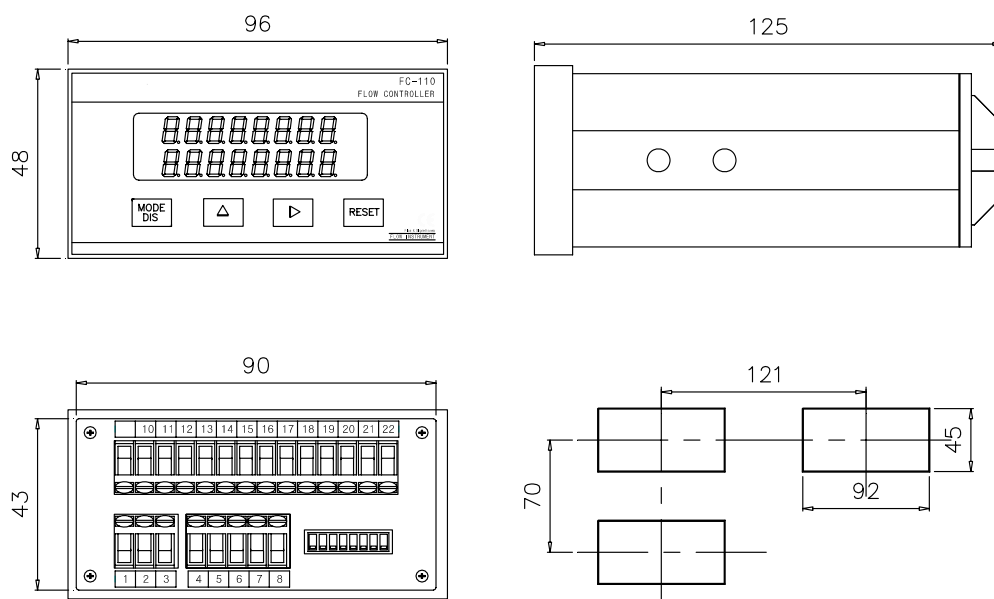
## Enclosure

Dimension: 48(H) x 96(W) x 125(D) mm  
Material: Polycarbonate & aluminum  
Cutting Size: 45 x 92 (±0.2) mm

## Standards and Approvals

CE, manufactured under ISO 900

## Dimensions



## Ordering Information

<b>FI 110</b>	<b>Panel mounted powered flow transmitter</b>	
	<b>Output</b>	
	<b>0</b>	Basic model (pulsed, loop powered 4-20 mA)
	<b>3</b>	+ 4-20 mA + 2 relays
	<b>Communication</b>	
	<b>0</b>	None
	<b>2</b>	RS-422 / RS-485
	<b>Power</b>	
	<b>A</b>	110VAC
	<b>D</b>	24 Vdc
	<b>E</b>	220VAC