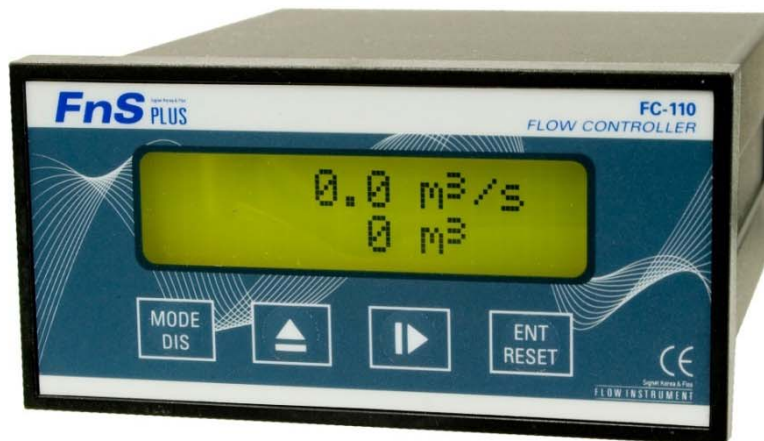


# FC110 Series

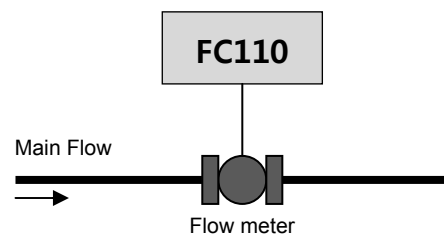
## Flow Controller

### FC110 ▶▶▶



### Feature

- Total / accumulated total / flow rate
- Accepts 4-20mA and frequency flow inputs
- Scaled pulse output
- Alarm setter
- 4-20mA outputs



### Over View

The FC110 series flow controllers are designed to measure general liquid and are provide highly reliable results for the variety of industrial requirement. This series have microprocessor inside, which makes it dependable and also have pulse input such as sine wave, open collector, reed switch and even analog input. The FC110 series have 4-20mA outputs, alarm and remote input as an option.

# Flow Controller

## FC110 ▶▶▶

### General

|                              |  |
|------------------------------|--|
| <b>Display</b>               | 2-Line *16-character LCD display with LED back Light                               |
| <b>Display Update Rate</b>   | 0.25-seconds   |
| <b>Decimal Points</b>        | Fully programmable for Rate and Total  |
| <b>Time Base</b>             | The Rate can be displayed in unit per second, per minute or per hour.              |
| <b>Data Retention</b>        | Set up parameters and totals stored in non-volatile memory with 10 years retention |
| <b>Operation Temperature</b> | 0 to 55°C  |
| <b>Power</b>                 | AC 110 or 220V / DC 24V  |
| <b>Power Consumption</b>     | 6VA  |
| <b>Transducer Supply</b>     | DC12V , 50mA max   |

### Flow Inputs

#### Frequency Input

Frequency Range 0 to 5kHz

#### Signal Type

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

#### K-factor Range

0.0001–9000000.0000(the pulse per units)

#### Analog Input

|                        |                       |
|------------------------|-----------------------|
| <b>Inputs</b>          | 4-20mA or 1-5V option |
| <b>Input Impedance</b> |                       |
| Current                | 250 ohms              |
| Voltage                | 10K ohms              |
| <b>Accuracy</b>        | 0.05%                 |
| <b>Zero</b>            | 0.0000 to 50000.0000  |
| <b>Span</b>            | 0.0001 to 50000.0000  |

#### Cut-off Point

A low flow rate cut-off can be Programmed below which flow is not registered. The cut-off is programmed as a percentage of span Relationship Linear or square root

### Pulse Output

#### Function

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

**Pulse Width** 10,50,100ms(negative going pulse)

**Duty Cycle Output** 49 pulses/sec. Max.

Current sinking output transistor 50mA, 30vdc max.(Pulse output is suitable for driving remote counter or PLC's)

### Relay Output

#### Function

High and low or high-high, high, low and Low-low flow rate alarms based on the flow rate in volume.

**Max. Switching Power** 1250VA,150W

**Max. Switching Voltage** AC250V, DC30V

**Max. Switching Current**  $\cos\phi = 1$ , 5 Amps

### 4-20mA Output

#### Function

The flow rate is output.

**Resolution** 12-bit.

**Accuracy** Better than 0.1%

#### Maximum Load

500 ohms internally powered. 950 ohms from external 24V dc.

#### Isolation

Isolated.

# Flow Controller

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## FC110 ▶▶▶

### RS232/422/485

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#### Type

Both RS232 and RS422/485 are provided.  
(Note: When using the RS422/485, multi drop communication can be implemented with up to 32 instruments connected to a common bus.)

#### Function

Printer and computer protocols are fully programmable.

#### Printer

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

#### Computer

An ASCII based protocol enable all display parameters to be read and the 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

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**Dimension** 48mm(H) x 96mm(W) x 125mm(D)

**Material** Polycarbonate and Aluminum

**Cutting Size** 45mm x 92mm(±0.2mm)

### Standards and Approvals

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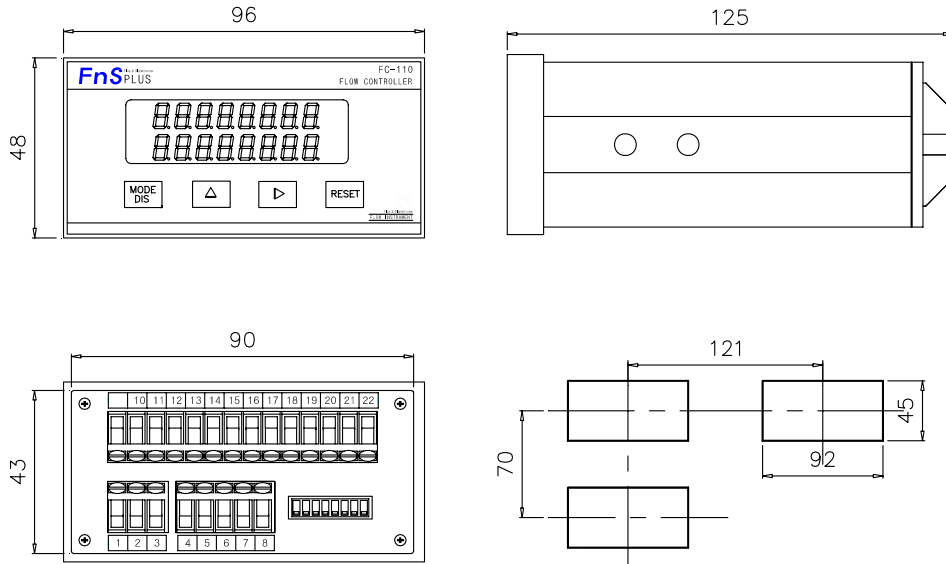
#### CE

**Manufactured under** ISO 9001

# Flow Controller

## FC110 ▶▶▶

### Dimension



Flow Controller  
FC110

### Ordering Information

| MODEL          | Order Code |   |   |   | Description  |
|----------------|------------|---|---|---|--|
| FC110 -        |            |   |   |   | Basic Model Name   |
| Sensor         | P          | A |   |   | Frequency Type Flow Meter Input<br>4-20mA Analog Type Flow Meter Input |
| Input / Output |            |   | 0 |   | Basic Model  |
|                |            |   | 1 |   | 4-20mA Output  |
|                |            |   | 2 |   | 2-Relay Output   |
|                |            |   | 3 |   | 4-20mA and 2-Relay Output  |
|                |            |   | 4 |   | Remote Reset Input   |
| Communication  |            |   | 0 |   | None Communication   |
|                |            |   | 1 |   | RS-232 Communication   |
|                |            |   | 2 |   | RS-422/RS-485 Communication  |
| Power          |            |   |   | A | AC 110V  |
|                |            |   |   | E | AC 220V  |
|                |            |   |   | D | DC 24V   |