

## Space-saving Plug-in Signal Conditioners F-UNIT

## SIGNAL TRANSMITTER

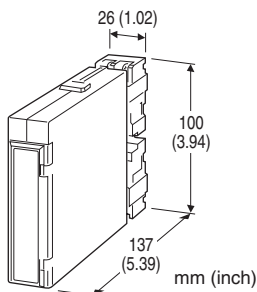
(field-programmable)

## Functions &amp; Features

- Converting a DC input into a standard process signal
- Micro-processor based
- Field-programmable input range
- Loop testing via hand-held programmer PU-2x
- High-density mounting

## Typical Applications

- Isolation between control room and field instrumentation
- Ideal for quick spare part



## MODEL: FJV-[1][2]-[3]

## ORDERING INFORMATION

- Code number: FJV-[1][2]-[3]

Specify a code from below for each [1] through [3]  
(e.g. FJV-6A-K)

## [1] INPUT

## Current

A: 4 - 20 mA DC (Input resistance 250  $\Omega$ )H: 10 - 50 mA DC (Input resistance 100  $\Omega$ )

## Voltage

6: 1 - 5 V DC (Input resistance 1 M $\Omega$  min.)U1: Range  $\pm 100$  mV; minimum span 3 mVU2: Range  $\pm 1000$  mV; minimum span 30 mVU3: Range  $\pm 10$  V; minimum span 0.3 V

## [2] OUTPUT

## Current

A: 4 - 20 mA DC (Load resistance 600  $\Omega$  max.)

## Voltage

6: 1 - 5 V DC (Load resistance 500  $\Omega$  min.)

## [3] POWER INPUT

## AC Power

K: 85 - 132 V AC

(Operational voltage range 85 - 132 V, 47 - 66 Hz)

L: 170 - 264 V AC

(Operational voltage range 170 - 264 V, 47 - 66 Hz)

## DC Power

R: 24 V DC

(Operational voltage range 24 V  $\pm 10$  %, ripple 10 %p-p max.)

P: 110 V DC

(Operational voltage range 85 - 150 V, ripple 10 %p-p max.)

## RELATED PRODUCTS

- JX configurator connection kit (model: JXCON)
- Programming Unit (model: PU-2x)

## GENERAL SPECIFICATIONS

Construction: Plug-in

Connection: M3.5 screw terminals (torque 0.8 N·m)

Screw terminal: Nickel-plated steel

Housing material: Flame-resistant resin (black)

Isolation: Input to output to power

Overrange output: Approx. -10 to +120 % at 1 - 5 V

Adjustments: Programming Unit (model: PU-2x); Input range, zero and span, simulating output, etc.

(Input range can be changed with Codes U1, U2 or U3 and limited within ranges of each code type.)

(Refer to the users manual of JXCON for the adjustments configurable with JXCON.)

## INPUT SPECIFICATIONS

## ■ DC Current:

Shunt resistor attached to the input terminals (0.5 W)

## ■ DC Voltage: -10 - +10 V DC

Minimum span: 3 mV

Offset: Max. 3 times span

Input resistance (Input Range: Input Resistance)

U1:  $\pm 100$  mV: 20 k $\Omega$  min.U2:  $\pm 1000$  mV: 20 k $\Omega$  min.U3:  $\pm 10$  V: 1 M $\Omega$  min.

Default setting will be used if not otherwise specified.

U1: 0 - 100 mV DC

U2: 0 - 1 V DC

U3: 0 - 10 V DC

## INSTALLATION

## Power input

•AC: Approx. 4.5 VA

•DC: 24 V approx. 70 mA



110 V approx. 20 mA

**Operating temperature:** -5 to +55°C (23 to 131°F)

**Operating humidity:** 30 to 90 %RH (non-condensing)

**Mounting:** Surface or DIN rail; Standard Rack Mounting

Frame BX-16H available

**Weight:** 220 g (0.49 lbs)

## PERFORMANCE in percentage of span

**Accuracy:**  $\pm 0.1\%$

**Temp. coefficient:**  $\pm 0.015\%/^{\circ}\text{C}$  ( $\pm 0.008\%/^{\circ}\text{F}$ )

**Response time:**  $\leq 0.5$  sec. (0 - 90 %)

**Line voltage effect:**  $\pm 0.1\%$  over voltage range

**Insulation resistance:**  $\geq 100\text{ M}\Omega$  with 500 V DC

**Dielectric strength**

**Power input code R:**

1000 V AC @ 1 minute (input to output)

2000 V AC @ 1 minute (input or output or power to ground)

500 V AC @ 1 minute (I/O to power)

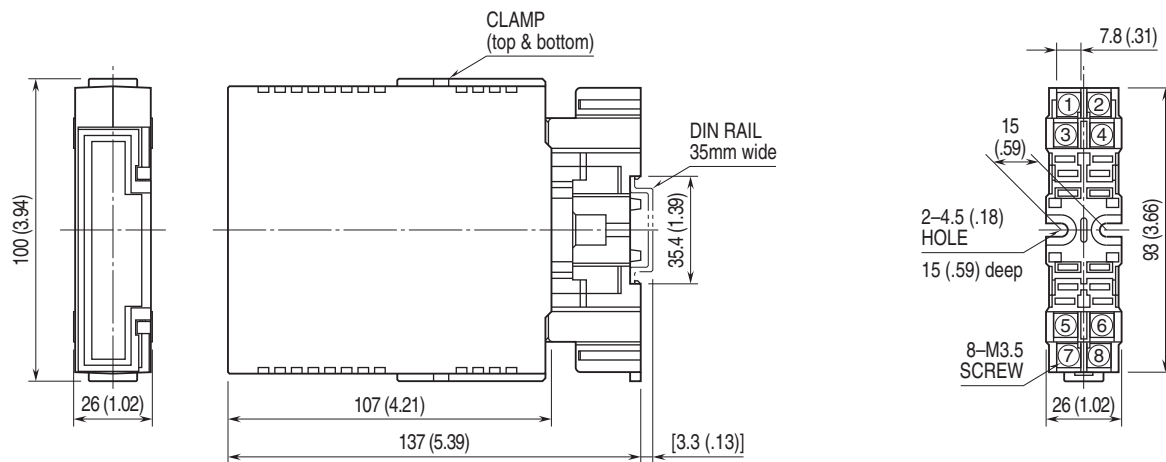
**Power input code K, L, P:**

1000 V AC @ 1 minute (input to output)

2000 V AC @ 1 minute (input or output or power to ground)

1500 V AC @ 1 minute (I/O to power)

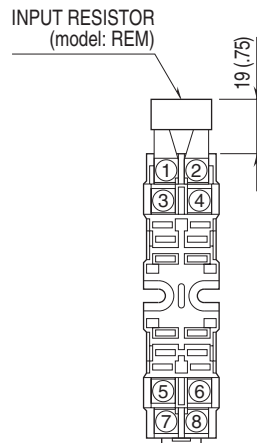
## DIMENSIONS unit: mm (inch)



•When mounting, no extra space is needed between units.

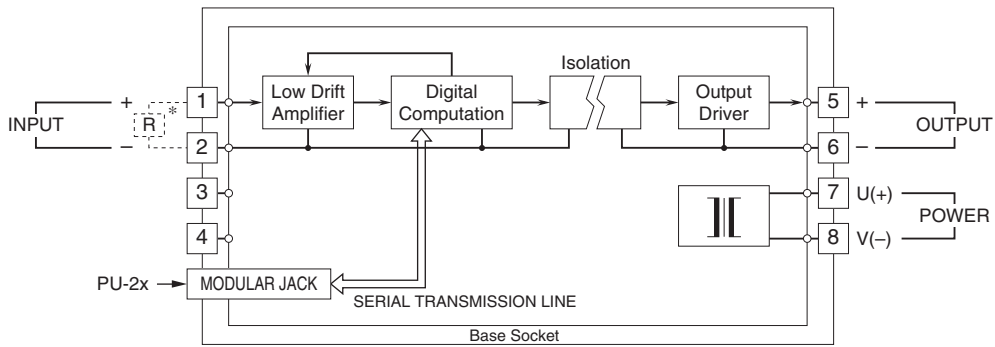


**TERMINAL ASSIGNMENTS unit: mm (inch)**



Input shunt resistor attached for current input.

**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



\*Input shunt resistor attached for current input.



Specifications are subject to change without notice.