

Space-saving Plug-in Signal Conditioners F-UNIT

CURRENT LOOP SUPPLY

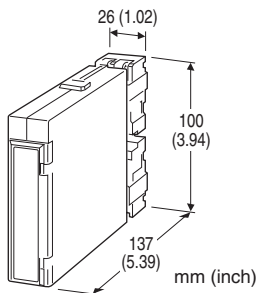
(isolated)

Functions & Features

- Powering a 4 - 20 mA DC current loop
- Shortcircuit protection
- Applicable to smart transmitters
- High-density mounting

Typical Applications

- Various 2-wire transmitters

**MODEL: FDY2-24[1]-[2]****ORDERING INFORMATION**

- Code number: FDY2-24[1]-[2]

Specify a code from below for each [1] and [2]
(e.g. FDY2-246-K)

SUPPLY OUTPUT

24: 24 V DC

INPUT**Current**4 - 20 mA DC (Input resistance 300 Ω)**[1] OUTPUT****Current**

- A: 4 - 20 mA DC (Load resistance 750 Ω max.)
 B: 2 - 10 mA DC (Load resistance 1500 Ω max.)
 C: 1 - 5 mA DC (Load resistance 3000 Ω max.)

Voltage

- 1: 0 - 10 mV DC (Load resistance 10 k Ω min.)
 2: 0 - 100 mV DC (Load resistance 100 k Ω min.)
 3: 0 - 1 V DC (Load resistance 1000 Ω min.)
 4: 0 - 10 V DC (Load resistance 10 k Ω min.)
 5: 0 - 5 V DC (Load resistance 5000 Ω min.)
 6: 1 - 5 V DC (Load resistance 5000 Ω min.)

[2] 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.)

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**Zero adjustment:** -5 to +5 % (front)**Span adjustment:** 95 to 105 % (front)**SUPPLY OUTPUT**

(across the terminals 1 - 2)

Output voltage:

24 - 28 V DC with no load

18 V DC min. at 20 mA

Current rating: \leq 22 mA DC

- **Shortcircuit Protection**

Current limited: 30 mA max.**Protected time duration:** No limit**INPUT SPECIFICATIONS**

- **DC Current:** Input resistor incorporated

INSTALLATION**Power input**

- **AC:** Approx. 4.5 VA

- **DC:** 24 V approx. 90 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: 200 g (0.44 lbs)**PERFORMANCE in percentage of span****Accuracy:** \pm 0.1 %**Temp. coefficient:** \pm 0.015 %/°C (\pm 0.008 %/°F)**Response time:** \leq 0.5 sec. (0 - 90 %)**Line voltage effect**

Supply output: $\pm 3\%$ over voltage range

Output signal: $\pm 0.1\%$ 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)

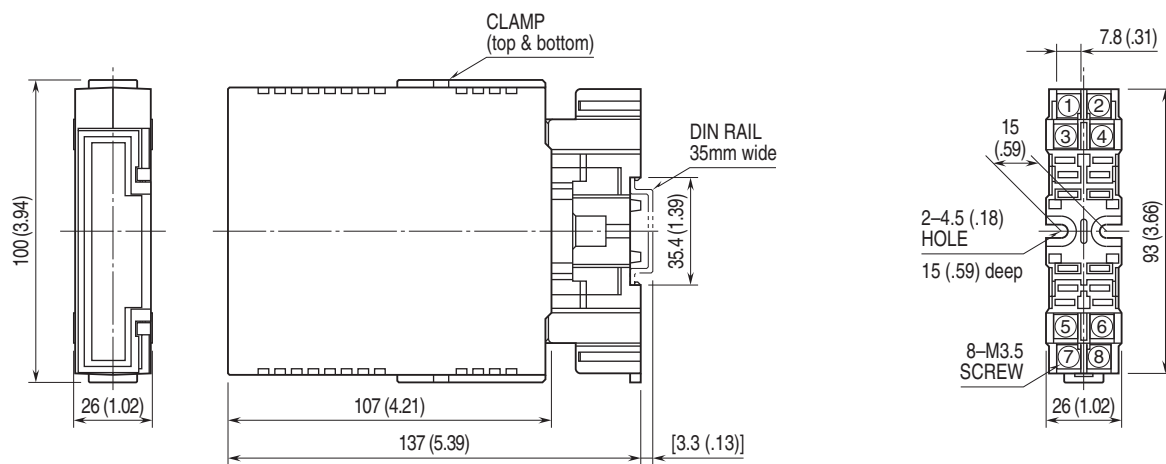
Power input code K, L, P:

1000 V AC @ 1 minute (input to output)

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

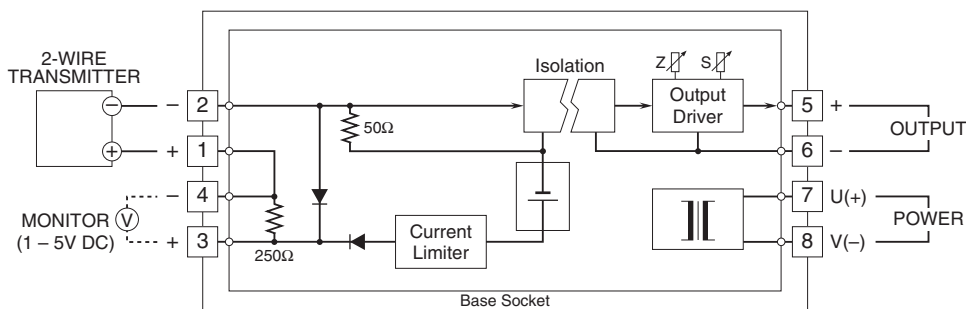
1500 V AC @ 1 minute (I/O to power)

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



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

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.