

Space-saving Plug-in Signal Conditioners F-UNIT

HIGH/LOW SELECTOR

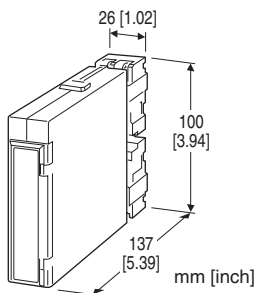
(non-isolated)

Functions & Features

- Monitoring two DC input signals and transmitting an output signal proportional to the higher or lower input
- High-density mounting

Typical Applications

- Selecting greater flow, pressure, etc. for control
- Heating control based on the highest temperature among several T/C's on a furnace



MODEL: FSE-[1][2][3]-[4][5]

ORDERING INFORMATION

- Code number: FSE-[1][2][3]-[4][5]
- Specify a code from below for each of [1] through [5].
(e.g. FSE-1AA-K/Q)
- Special output range (For codes Z & 0)
 - Specify the specification for option code /Q
(e.g. /C01/S01)

[1] SELECTING FUNCTION

- 1: Low input
- 2: High input

[2] INPUT

- Current
- A: 4 - 20 mA DC (Input resistance 250 Ω)
- Voltage
- 6: 1 - 5 V DC (Input resistance 1 MΩ min.)

[3] 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.)

- D: 0 - 20 mA DC (Load resistance 750 Ω max.)
 - E: 0 - 16 mA DC (Load resistance 900 Ω max.)
 - F: 0 - 10 mA DC (Load resistance 1500 Ω max.)
 - G: 0 - 1 mA DC (Load resistance 15 kΩ max.)
 - Z: Specify current (See OUTPUT SPECIFICATIONS)
- Voltage
- 1: 0 - 10 mV DC (Load resistance 10 kΩ min.)
 - 2: 0 - 100 mV DC (Load resistance 100 kΩ min.)
 - 3: 0 - 1 V DC (Load resistance 1000 Ω min.)
 - 4: 0 - 10 V DC (Load resistance 10 kΩ min.)
 - 5: 0 - 5 V DC (Load resistance 5000 Ω min.)
 - 6: 1 - 5 V DC (Load resistance 5000 Ω min.)
 - 4W: -10 - +10 V DC (Load resistance 10 kΩ min.)
 - 5W: -5 - +5 V DC (Load resistance 5000 Ω min.)
 - 0: Specify voltage (See OUTPUT SPECIFICATIONS)

[4] 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 ±10 %, ripple 10 %p-p max.)
 - P: 110 V DC
(Operational voltage range 85 - 150 V, ripple 10 %p-p max.)

[5] OPTIONS

- blank: none
- /Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q (multiple selections)

- COATING (For the detail, refer to our web site.)
- /C01: Silicone coating
 - /C02: Polyurethane coating
 - /C03: Rubber coating
- TERMINAL SCREW MATERIAL
- /S01: Stainless steel

GENERAL SPECIFICATIONS

- Construction:** Plug-in
- Connection:** M3.5 screw terminals (torque 0.8 N·m)
- Screw terminal:** Nickel-plated steel (standard) or stainless steel
- Housing material:** Flame-resistant resin (black)
- Isolation:** Input or output to power
- Overrange output:** Approx. -10 to +120 % at 1 - 5 V
- Selecting operation:** Automatic

INPUT SPECIFICATIONS

■ **DC Current:** Input resistor incorporated

OUTPUT SPECIFICATIONS

■ **DC Current:** 0 – 20 mA DC

Minimum span: 1 mA

Offset: Max. 1.5 times span

Load resistance: Output drive 15 V max.

■ **DC Voltage:** -10 – +12 V DC

Minimum span: 5 mV

Offset: Max. 1.5 times span

Load resistance: Output drive 1 mA max.; at ≥ 0.5 V

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: 200 g (0.44 lb)

PERFORMANCE in percentage of span

Accuracy: ± 0.2 %

Selecting sensitivity: 0.5%

Temp. coefficient: ± 0.015 %/°C (± 0.008 %/°F)

Response time: ≤ 0.5 sec. (0 – 90 %)

Line voltage effect: ± 0.1 % over voltage range

Insulation resistance: ≥ 100 M Ω with 500 V DC

Dielectric strength**Power input code R:**

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

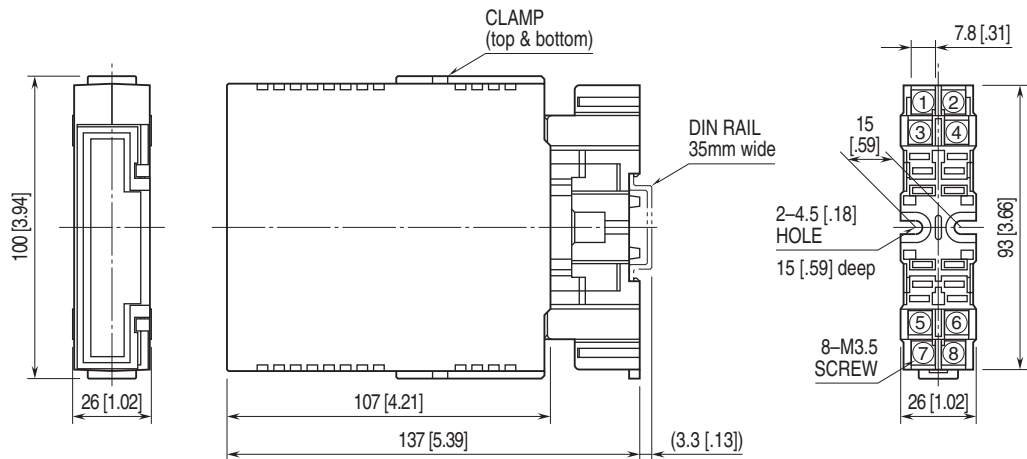
500 V AC @ 1 minute (I/O to power)

Power input code K, L, P:

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

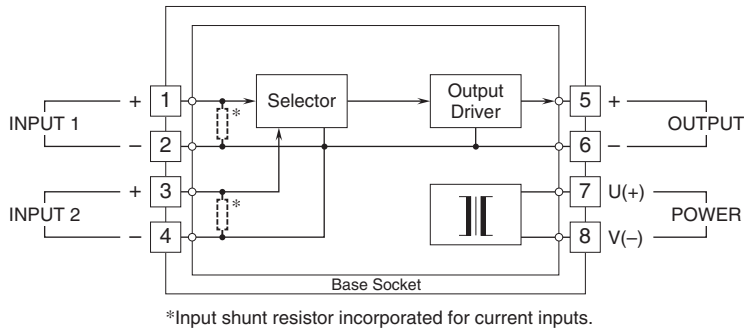
1500 V AC @ 1 minute (I/O to power)

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



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

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*Input shunt resistor incorporated for current inputs.



Specifications are subject to change without notice.