Space-saving Plug-in Signal Conditioners F-UNIT

DC ALARM

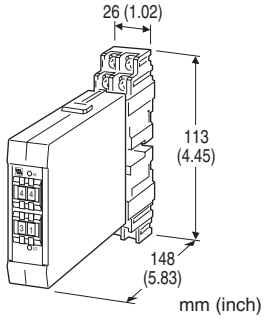
(thumbwheel switch adjustment)

Functions & Features

• Providing SPDT relay contact closures at preset DC input levels
• Dual (Hi/Lo) trip
• Thumbwheel switch setpoint adjustments
• Enclosed relays
• Relays can be powered 110 V DC
• High-density mounting

Typical Applications

• Annunciator
• Various alarm applications



MODEL: FASD–[1]1–[2][3]

ORDERING INFORMATION

• Code number: FASD-[1]1-[2][3]
Specify a code from below for each of [1] through [3].
(e.g. FASD-61-R/Q)
• Specify the specification for option code /Q
(e.g. /C01/S01)

[1] INPUT

Current

A1: 4 – 20 mA DC (Input resistance 50 Ω)
G: 0 – 1 mA DC (Input resistance 1000 Ω)

Voltage

4: 0 – 10 V DC (Input resistance 1 MΩ min.)
5: 0 – 5 V DC (Input resistance 1 MΩ min.)
6: 1 – 5 V DC (Input resistance 1 MΩ min.)

OUTPUT

Relay; SPDT or transfer contact

SETPOINT ADJUSTMENTS

1: Thumbwheel switch

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

[3] OPTIONS

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

SPECIFICATIONS OF OPTION: Q (multiple selections)

COATING (For the detail, refer to M-System's 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 to output to power
Setpoint adjustments: Thumbwheel switches (front); 0 – 99 % independently; 1 % increments
Hysteresis (deadband): Approx. 1 %
Front LEDs: Red LED turns on when the coil for Hi output is energized.
Green LED turns on when the coil for Lo output is energized.

INPUT SPECIFICATIONS

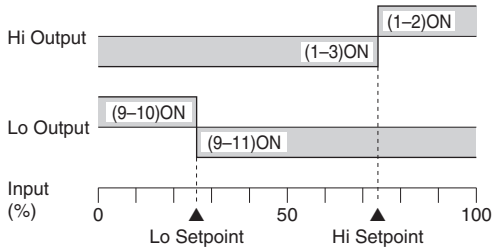
■ DC Current: Input resistor incorporated

OUTPUT SPECIFICATIONS

■ Relay Contact: 100 V AC @ 1 A (cos ø = 1)
120 V AC @ 1 A (cos ø = 1)
240 V AC @ 0.5 A (cos ø = 1)
30 V DC @ 1 A (resistive load)

Maximum switching voltage: 380 V AC or 125 V DC
Maximum switching power: 120 VA or 30 W
Minimum load: 5 V DC @ 10 mA
Mechanical life: 5 x 10^7 cycles
For maximum relay life with inductive loads, external protection is recommended.

Alarm Trip Operation Terminal No. in parentheses



Trip Operation in Power Failure
: Terminals 1 – 3, 9 – 11 turn ON.

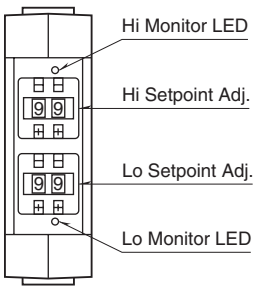
INSTALLATION

•**AC**: Approx. 3 VA
•**DC**: Approx. 3 W (130 mA at 24 V)
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: 210 g (0.46 lb)

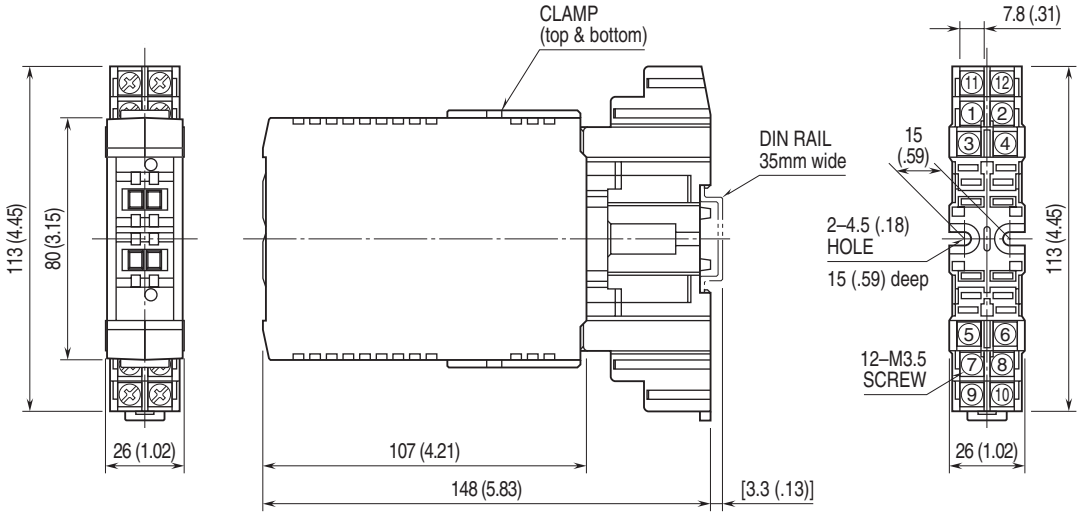
PERFORMANCE in percentage of span

Setpoint accuracy: ±0.5 %
Trip point repeatability: ±0.05 %
Temp. coefficient: ±0.015 %/°C (±0.008 %/°F)
Response time: ≤ 0.5 sec. (0 – 100 % at 90 % setpoint)
Line voltage effect: ±0.1 % over voltage range
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 2000 V AC @1 minute (input to output to power to ground)

EXTERNAL VIEW

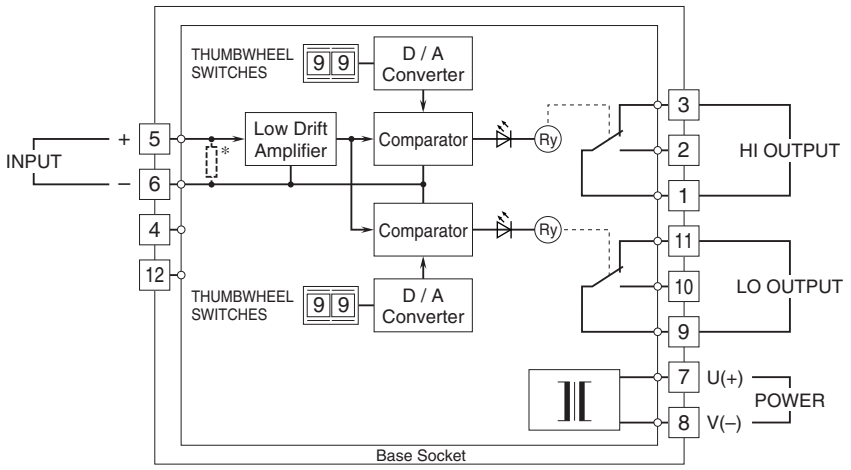


EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



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

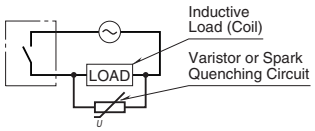
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



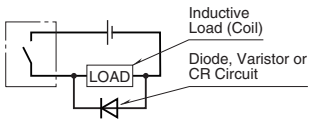
* Input shunt resistor incorporated for current input.

■ Relay Protection

•AC Powered



•DC Powered



⚠ Specifications are subject to change without notice.