

Space-saving Plug-in Signal Conditioners H-UNIT

LINEARIZER

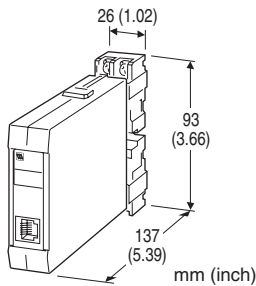
(field-programmable)

Functions & Features

- Accepting non-linear input and providing a linearized output, proportional to the process variables
- Micro-processor based
- On-site calibration up to 16 points using a hand-held programmer PU-2x
- Field-programmable input range
- High-density mounting

Typical Applications

- V-notch weir
- Gas analyzer
- Irregular-shaped tank level input for volume calculation



MODEL: HJFX-[1][2]-R[3]

ORDERING INFORMATION

- Code number: HJFX-[1][2]-R[3]

Specify a code from below for each [1] through [3].
(e.g. HJFX-6A-R/Q)

Use Ordering Information Sheet (No. ESU-1669) to specify linearization data when the I/O signals are non-linear.

- Linearization data (max. 16 points)
- Special input range (For codes U1, U2, U3)
- Specify the specification for option code /Q (e.g. /C01/S01)

[1] INPUT

Current

A: 4 - 20 mA DC (Input resistance 250 Ω)

H: 10 - 50 mA DC (Input resistance 100 Ω)

Voltage

6: 1 - 5 V DC (Input resistance 1 M Ω min.)

U1: Range ± 100 mV; minimum span 3 mV

U2: Range ± 1000 mV; minimum span 30 mV

U3: Range ± 10 V; minimum span 0.3 V

[2] OUTPUT

Current

A: 4 - 20 mA DC (Load resistance 600 Ω max.)

Voltage

6: 1 - 5 V DC (Load resistance 500 Ω min.)

POWER INPUT

DC Power

R: 24 V DC

(Operational voltage range 24 V ± 10 %, 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

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

Linearization: 16 points max. within the range of -15.00 - +115.00 % input or output; represented as percentage of full-scale

Adjustments: Programming Unit (model: PU-2x)

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

- Linearization data
- Input range
- Zero and span
- Simulating output
- Others

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



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: ±100 mV: 20 kΩ min.

U2: ±1000 mV: 20 kΩ min.

U3: ±10 V: 1 MΩ 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

Current consumption: Approx. 90 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: ±0.1 % with segment gain ≤ 1 [±0.1 % × gain]
with segment gain ≥ 1

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

Response time: ≤ 0.5 sec. (0 - 90 %)

Line voltage effect: ±0.1 % over voltage range

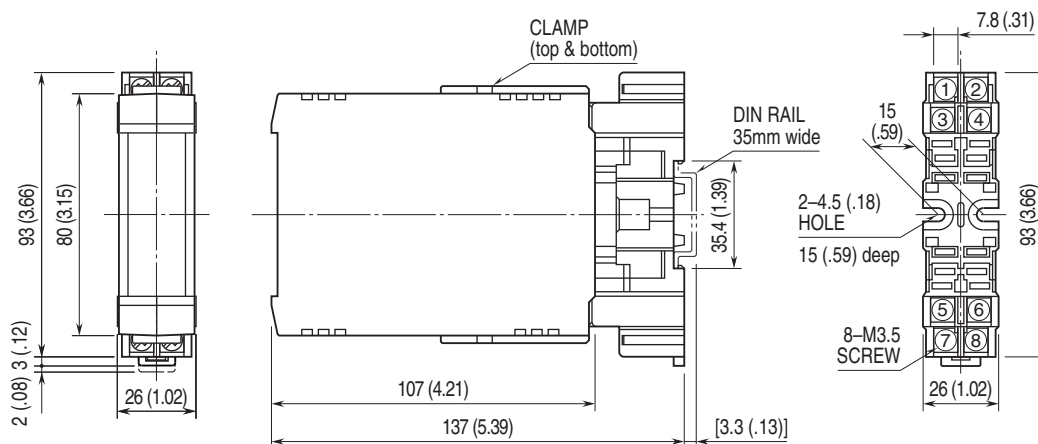
Insulation resistance: ≥ 100 MΩ with 500 V DC

Dielectric strength: 500 V AC @ 1 minute

(input to output to power)

1500 V AC @ 1 minute (input or output or power to ground)

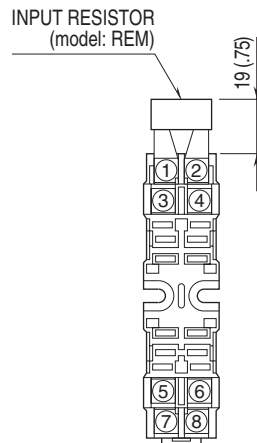
DIMENSIONS unit: mm (inch)



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

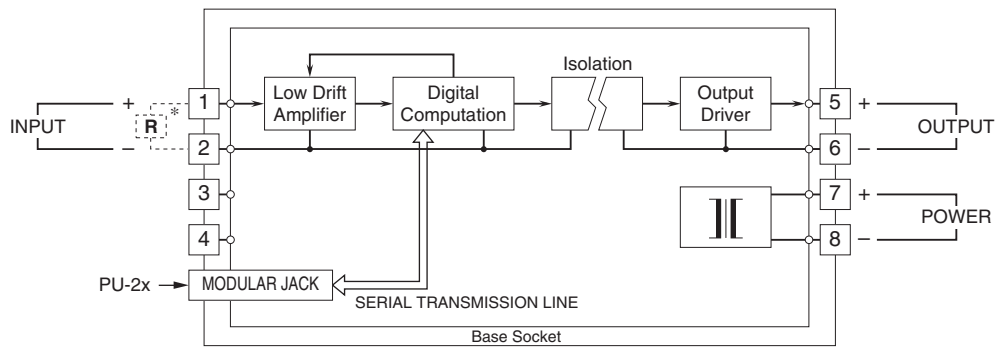


TERMINAL ASSIGNMENTS unit: mm (inch)



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.