

Super-mini Signal Conditioners F2 Series

CURRENT LOOP SUPPLY

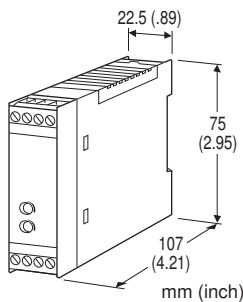
(with square root extractor; non-isolated)

Functions & Features

- Powers a 4 - 20 mA DC current loop
- Square root extraction
- Shortcircuit protection
- Applicable to smart transmitters

Typical Applications

- Various 2-wire transmitters



MODEL: F2DL-24-R[1]

ORDERING INFORMATION

- Code number: F2DL-24-R[1]

Specify a code from below for [1].

- (e.g. F2DL-24-R/CE/Q)
- Specify the specification for option code /Q (e.g. /C01)

SUPPLY OUTPUT

24: 24 V DC

INPUT

Current

4 - 20 mA DC (Input resistance 310 Ω)

OUTPUT

Voltage

1 - 5 V DC (Load resistance 10 kΩ min.)

POWER INPUT

DC Power

R: 24 V DC

(Operational voltage range 24 V ±10 %, ripple 10 %p-p max.)

[1] OPTIONS (multiple selections)

Standards & Approvals (must be specified)

/N: Without CE

/CE: CE marking

Other Options

blank: none

/Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q

COATING (For the detail, refer to our web site.)

/C01: Silicone coating

/C02: Polyurethane coating

GENERAL SPECIFICATIONS

Construction: Stand-alone; terminal access at the front

Connection: Euro type connector terminal

(applicable wire size: 0.2 to 2.5 mm², stripped length 7 mm)

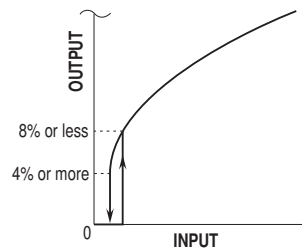
Housing material: Flame-resistant resin (black)

Isolation: Input or output to power

Zero adjustment: -5 to +5 % (front)

Span adjustment: 95 to 105 % (front)

Low-end cutout: Approx. 4 - 8 % (output)



SUPPLY OUTPUT

Output voltage: 24 - 28 V DC with no load

Current rating: ≤ 22 mA DC

- Shortcircuit Protection

Current limited: 30 mA max.

Protected time duration: No limit

INPUT SPECIFICATIONS

- DC Current: Input resistor incorporated

INSTALLATION

Current consumption

- DC: Approx. 80 mA

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

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

Mounting: DIN rail

Weight: 150 g (0.33 lb)

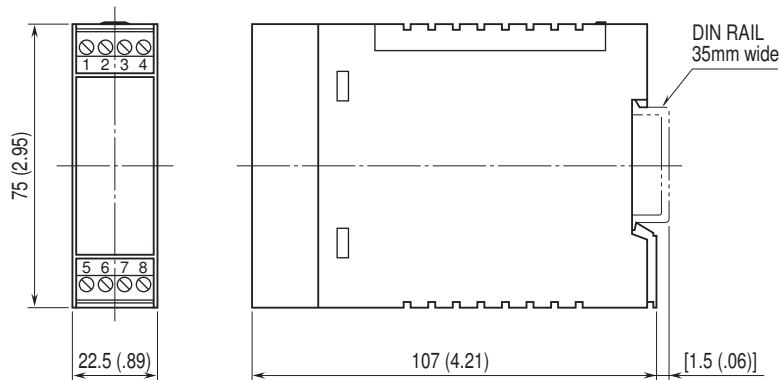
PERFORMANCE in percentage of span

Accuracy: $\pm 0.2\%$ (input 1 - 100 %)
 Temp. coefficient: $\pm 0.015\%/^{\circ}\text{C}$ ($\pm 0.008\%/^{\circ}\text{F}$)
 Response time: ≤ 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: 2000 V AC @1 minute (input or output to power to ground)

STANDARDS & APPROVALS

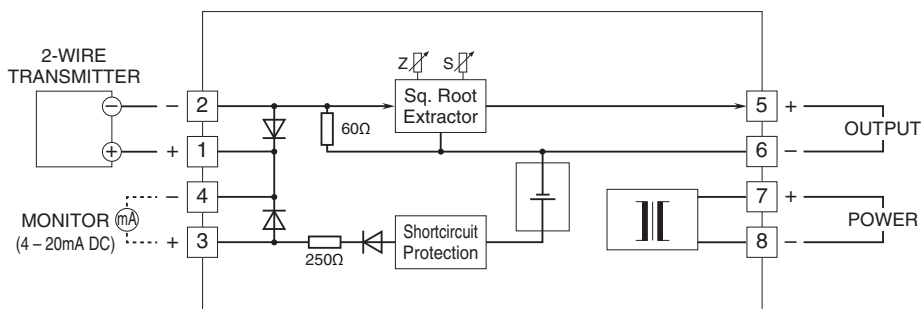
EU conformity:
 EMC Directive
 EMI EN 61000-6-4
 EMS EN 61000-6-2
 RoHS Directive

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.