

Super-mini Signal Conditioners F2 Series

5: 0 - 5 V DC (Load resistance 5000 Ω min.)

6: 1 - 5 V DC (Load resistance 5000 Ω min.)

CURRENT LOOP SUPPLY

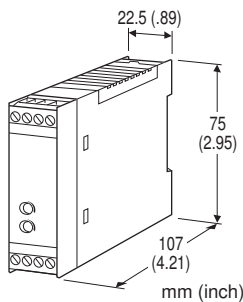
(isolated)

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: F2DY-24[1]-R[2]

ORDERING INFORMATION

- Code number: F2DY-24[1]-R

Specify a code from below for each of [1] and [2].
(e.g. F2DY-24A-R/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 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 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.)

POWER INPUT

DC Power

R: 24 V DC

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

[2] OPTIONS

blank: none

/Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q

COATING (For the detail, refer to M-System's 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 to output to power

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

Span adjustment: 95 to 105 % (front)

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: ±0.1 %

Temp. coefficient: ±0.015 %/°C (±0.008 %/°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 to output to power to ground)

STANDARDS & APPROVALS

EU conformity:

EMC Directive

EMI EN 61000-6-4

EMS EN 61000-6-2

RoHS Directive

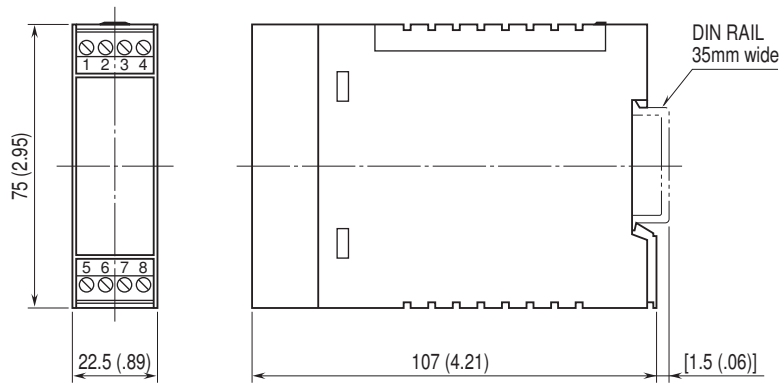
EN 50581

Approval:

UL/C-UL general safety requirements

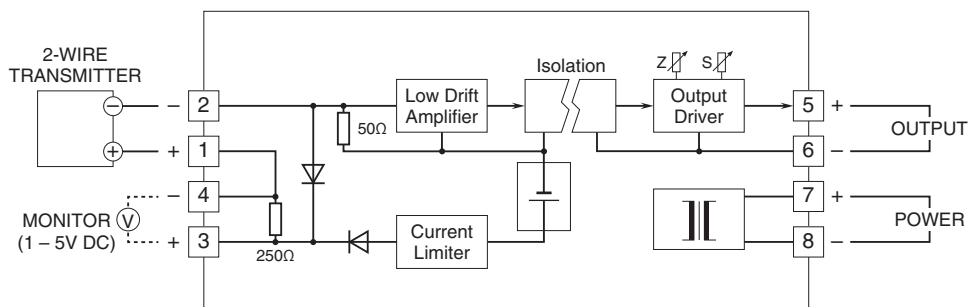
(UL 3111-1, CAN/CSA-C22.2 No.1010-1)

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.