Super-mini Signal Conditioners F2 Series

SQUARE ROOT EXTRACTOR

(non-isolated)

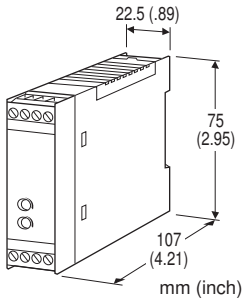
Functions & Features

• Provides a DC output proportional to the root of input signal

• Low-end cutout

Typical Applications

• Converting differential pressure to flow



MODEL: F2FL–[1]6–R[2]

ORDERING INFORMATION

• Code number: F2FL-[1]6-R[2]

Specify a code from below for each of [1] and [2].
(e.g. F2FL-66-R/Q)

• Specify the specification for option code /Q
(e.g. /C01)

[1] INPUT

Current

A: 4 – 20 mA DC (Input resistance 250 Ω)
B: 2 – 10 mA DC (Input resistance 500 Ω)
C: 1 – 5 mA DC (Input resistance 1000 Ω)
H: 10 – 50 mA DC (Input resistance 100 Ω)

Voltage

6: 1 – 5 V DC (Input resistance 100 kΩ min.)

OUTPUT

Voltage

6: 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.)

[2] OPTIONS

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

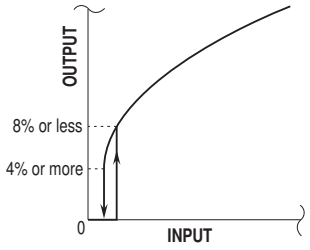
SPECIFICATIONS OF OPTION: Q

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 mm^2, 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)



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

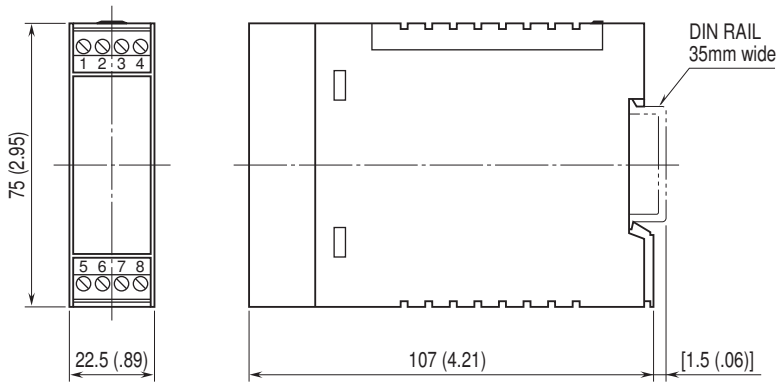
Accuracy: ±0.2 % (input 1 – 100 %)
Temp. coefficient: ±0.015 %/°C (±0.008 %/°F)
Response time: ≤ 0.5 sec. (0 – 90 %)
Line voltage effect: ±0.1 % over voltage range
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 2000 V AC @1 minute (input or output to power to ground)

STANDARDS & APPROVALS

EU conformity:
EMC Directive

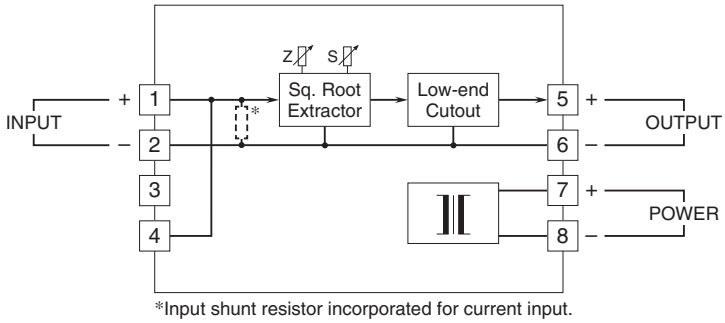
EMI EN 61000-6-4
EMS EN 61000-6-2
RoHS Directive
EN 50581
Approval:
UL/C-UL general safety requirements
(UL 3111-1, CAN/CSA-C22.2 No.1010-1)

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



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

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*Input shunt resistor incorporated for current input.

⚠ Specifications are subject to change without notice.