

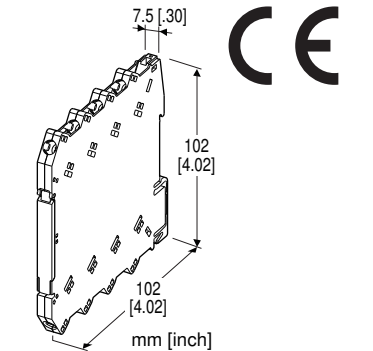
Remote I/O R6 Series

4 - 20 mA INPUT MODULE

(Screw terminal)

Functions & Features

- Compact size remote I/O module for 2-wire transmitter



MODEL: R6N-DS1[1]

ORDERING INFORMATION

- Code number: R6N-DS1[1]
- Specify a code from below for [1].
(e.g. R6N-DS1/Q)
- Specify the specification for option code /Q
(e.g. /C01)

[1] 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

RELATED PRODUCTS

- PC configurator software (model: R6CON)
Downloadable at M-System's web site.
- A dedicated cable is required to connect the module to the PC. Please refer to the internet software download site or the users manual for the PC configurator for applicable cable types.

GENERAL SPECIFICATIONS

Connection

Internal bus: Via the Installation Base (model: R6N-BS)

Input: M3 screw terminals (torque 0.5 N·m)

Internal power: Via the Installation Base (model: R6N-BS)

Recommended solderless terminal: Max. 5.8 mm (0.23")

wide; Ones with insulation sleeve do not fit.

Applicable wire size: 0.2 - 2.5 mm²

Housing material: Flame-resistant resin (black)

Isolation: Input to internal bus or internal power

Zero adjustments: PC programming

Span adjustments: PC programming

Module address: Selectable with DIP and rotary switches on the side

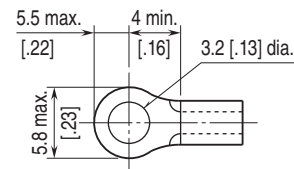
Configuration mode: With DIP switches on the side panel

Power indicator: Green LED; Refer to the instruction manual for details.

Status indicator: Bi-color (red/green) LED;

Refer to the instruction manual for details.

■ **Recommended solderless terminal (unit: mm [inch])**



SUPPLY OUTPUT

(across the terminals 3 - 4)

Output voltage: 24 - 28 V DC with no load

19 V DC min. at 20 mA

Current rating: ≤ 22 mA DC

Permissible leadwire resistance:

$R_L \leq ((19 - \text{min. XMTR Operational Voltage}) V \div 0.02 A) \Omega$

- **Shortcircuit Protection**

Current limited: 45 mA max.

Protected time duration: No limit

INPUT SPECIFICATIONS

■ **DC Current:** 4 - 20 mA DC

Input resistance: 250 Ω resistor incorporated

INSTALLATION

Current consumption: 55 mA

Operating temperature: -10 to +55°C (14 to 131°F)

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

Atmosphere: No corrosive gas or heavy dust

Mounting: Installation Base (model: R6N-BS)

Weight: 60 g (2.1 oz)

PERFORMANCE

Conversion rate (PC programmable. Factory set to 80

msec.)/conversion accuracy:

10 msec./±0.8 %

20 msec./±0.4 %

40 msec./±0.2 %

80 msec./±0.1 %

Data range: 0 - 10000

Data allocation: 1

Temp. coefficient: ±0.01 %/°C (±0.006 %/°F)

Response time: Conversion rate × 2 + 50 msec. or less

Line voltage effect: ±0.1 % over voltage range

Insulation resistance: ≥ 100 MΩ with 500 V DC

Dielectric strength: 1500 V AC @ 1 minute

(input to internal bus or internal power to ground)

STANDARDS & APPROVALS

EU conformity:

EMC Directive

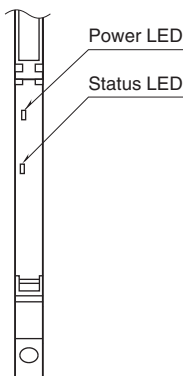
EMI EN 61000-6-4

EMS EN 61000-6-2

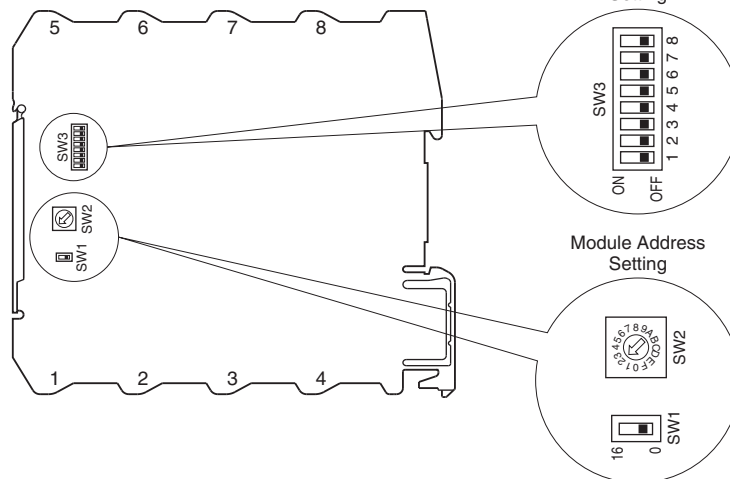
RoHS Directive

EXTERNAL VIEW

• Front View (cover opened)



• Side View



Operating Mode Setting

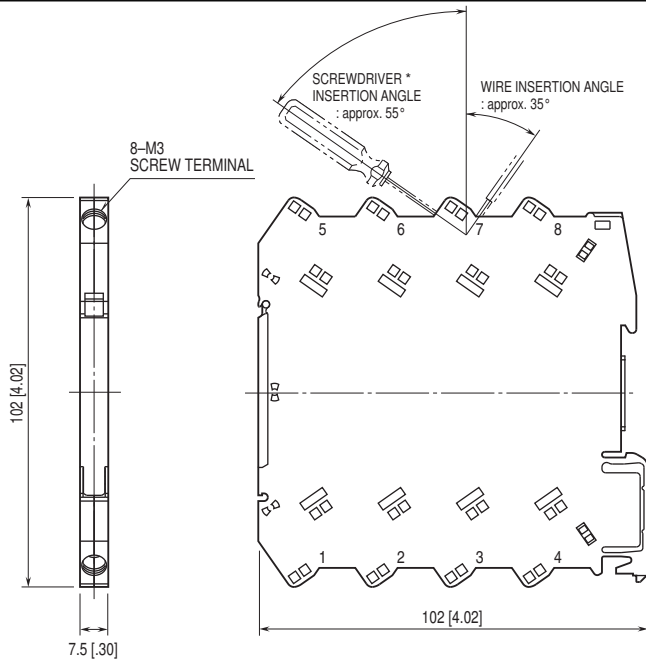
SW3
ON OFF
1 2 3 4 5 6 7 8

Module Address Setting

SW2
SW1
0 16

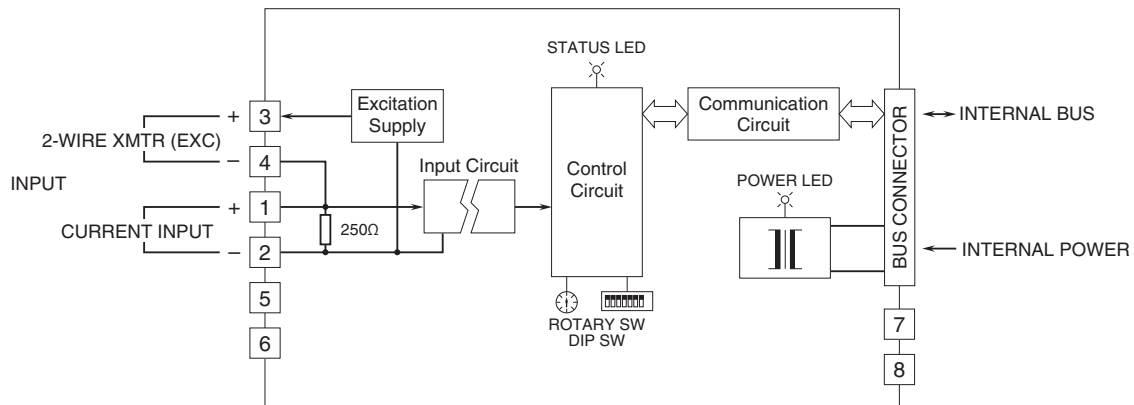
Refer to the instruction manual for setting procedures.

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



*Screwdriver stem diameter: 6 mm [.24"] or less

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.