

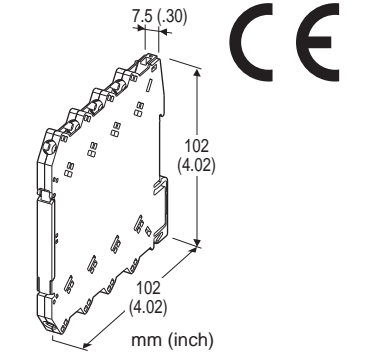
Remote I/O R6 Series

POWER SUPPLY MODULE

(Screw terminal)

Functions & Features

- Provides internal power needed for I/O and network modules from power input



MODEL: R6N-PF1-R[1]

ORDERING INFORMATION

- Code number: R6N-PF1-R[1]
Specify a code from below for [1].
(e.g. R6N-PF1-R/Q)
- Specify the specification for option code /Q
(e.g. /C01)

POWER INPUT

DC Power

R: 24 V DC

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

[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

GENERAL SPECIFICATIONS

Connection

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

RUN contact output, power supply: 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: RUN contact output to internal bus or internal power or power input to FG

Power indicator LED: Green LED turns on when the power is supplied.

RUN indicator: Orange LED turns on in normal communication with the host PLC.

■ RUN CONTACT OUTPUT

RUN contact: Terminals (2 – 3) turns ON and (4 – 3) OFF in normal communication with the host PLC;

Terminals (2 – 3) turns OFF and (4 – 3) ON in abnormal communication.

Rated load: 250 V AC @ 0.5 A (cos ϕ = 1)

30 V DC @ 0.5 A (resistive load)

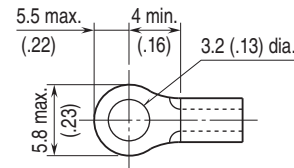
Maximum switching voltage: 250 V AC or 30 V DC

Maximum switching power: 250 VA or 150 W

Minimum load: 1 V DC @ 1 mA

Mechanical life: 2 \times 10⁷ cycles (rate 300 cycles/min.) When driving an inductive load, external contact protection and noise quenching recommended.

■ Recommended solderless terminal (unit: mm (inch))



INSTALLATION

Power input

• **DC:** Operational voltage range 24 V DC \pm 10 % ripple 10 % p-p max. Approx. 1 A with the maximum I/O extension

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

Insulation resistance: \geq 100 M Ω with 500 V DC

Dielectric strength: 2000 V AC @ 1 minute (RUN contact output to internal bus or internal power or power input to FG)

STANDARDS & APPROVALS

EU conformity:

EMC Directive

EMI EN 61000-6-4

EMS EN 61000-6-2

Low Voltage Directive

EN 61010-1, EN 61010-2-201

Measurement Category II (RUN contact output)

Pollution Degree 2

RUN contact output to internal bus or power

supply: Reinforced insulation (300 V)

RoHS Directive

CURRENT CONSUMPTION

The network module and I/O modules operate with 24V DC power supply via the power supply module. The total current consumption of the network module and I/O modules is required to be not more than 1 A. If the total current consumption exceeds 1 A, change the combination of I/O modules or reduce the number of I/O modules.

R6xSV2 20mA

R6xSS2 20mA

R6xTS2 20mA

R6xTS2A 20mA

R6xRS2 20mA

R6xDS1 55mA

R6xYV2 25mA

R6xYS2 45mA

R6xDA4 10mA

R6xDC4A 20mA

R6xDC4B 20mA

R6NC1 110mA

R6NC3 110mA

R6ND1 40mA

R6NE1 75mA

R6NE2 75mA

R6NM1 50mA

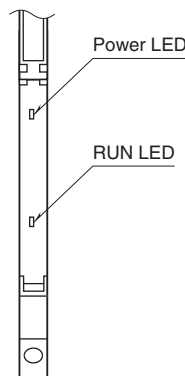
R6NM2 50mA

R6NF1 100mA

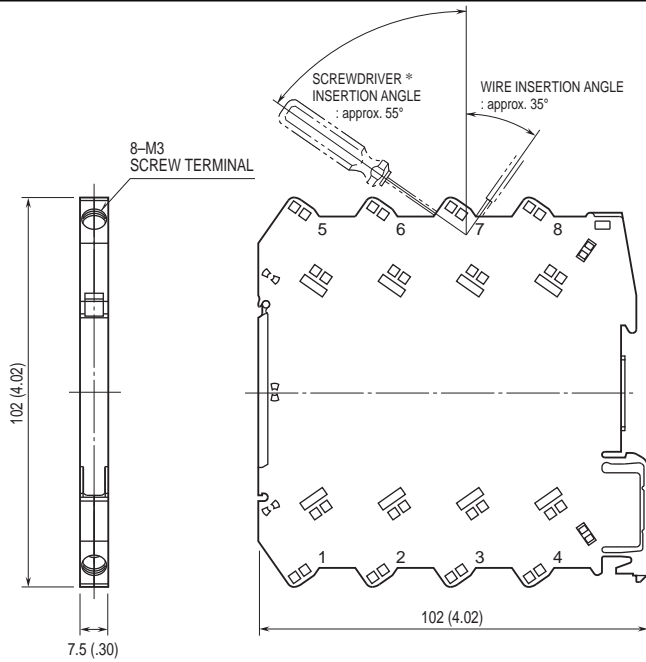
R6NP1 100mA

EXTERNAL VIEW

(With the cover open)



EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]

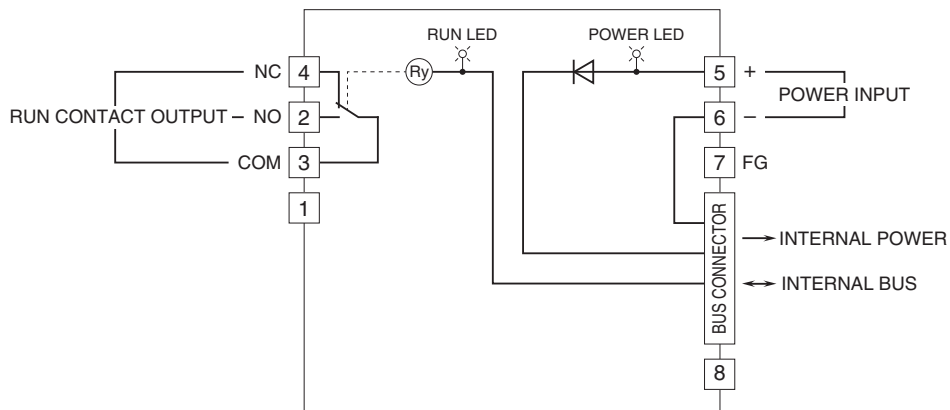


*Screwdriver stem diameter: 6 mm (.24") or less

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

Note: In order to improve EMC performance, bond the FG terminal to ground.

Caution: FG terminal is NOT a protective conductor terminal.



Specifications are subject to change without notice.