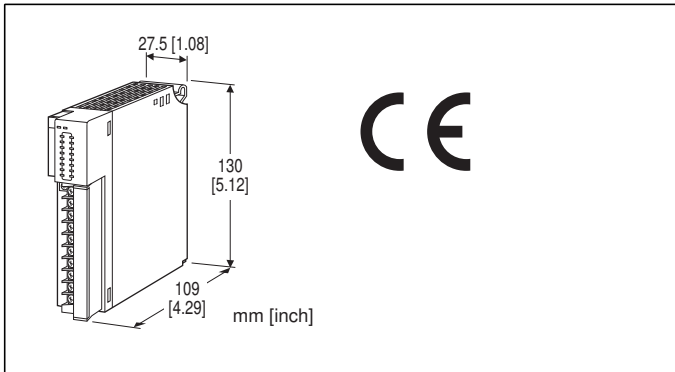


Remote I/O R3 Series

DISCRETE OUTPUT MODULE

(Do 8 points (photo MOSFET relay))



MODEL: R3-DC8D[1][2]

ORDERING INFORMATION

- Code number: R3-DC8D[1][2]

Specify a code from below for each of [1] and [2].

- (e.g. R3-DC8DW/CE/Q)
- Specify the specification for option code /Q (e.g. /C01)

NO. OF CHANNELS

8: 8

OUTPUT

D: Photo MOSFET relay

[1] COMMUNICATION MODE

S: Single

W: Dual

[2] OPTIONS (multiple selections)

Standards & Approvals

blank: Without CE

/CE: CE marking

Other Options

blank: none

/Q: Option other than the above (specify the specification)

SPECIFICATIONS OF OPTION: Q

COATING (For the detail, refer to M-System's web site.)

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

GENERAL SPECIFICATIONS

Connection

Internal bus: Via the Installation Base (model: R3-BSx)

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

Internal power supply: Via the Installation Base (model: R3-BSx)

Screw terminal: Nickel-plated steel

Isolation: Output 1 to output 2 to output 3 to output 4 to output 5 to output 6 to output 7 to output 8 to internal bus or internal power

Output hold setting: Setting for communication error with side DIP SW

RUN indicator: Bi-color (red/green) LED;
Red when the bus A operates normally;
Green when the bus B operates normally;
Amber when both buses operate normally.

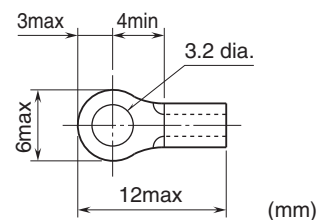
ERR indicator: Green LED turns on in normal operating conditions.

Output status indicator:

1 to 8: Red LED; turns on with the output ON.

9 to 16: Unused

■ **Recommended solderless terminal size - M3 (unit: mm)**



OUTPUT SPECIFICATIONS

Number of outputs: 8

Rated load voltage: 48 V peak AC/DC

Rated load frequency (AC): 50/60 Hz

Rated output current: 0.2 A per point

Output ON resistance: $\leq 1 \Omega$

Leakage current at open circuit: $\leq 0.1 \text{ mA}$

ON delay: $\leq 5 \text{ msec.}$

OFF delay: $\leq 3 \text{ msec.}$

(When driving an inductive load, external contact protection and noise quenching recommended.)

INSTALLATION

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: R3-BSx)

Weight: 175 g (0.39 lb)

PERFORMANCE

Data allocation: 1

Current consumption: Approx. 70 mA

Insulation resistance: $\geq 100 \text{ M}\Omega$ with 500 V DC

Dielectric strength: 1500 V AC @ 1 minute

(output 1 to output 2 to output 3 to output 4 to output 5 to output 6 to output 7 to output 8 to internal bus or internal power)

2000 V AC @ 1 minute (power input to FG; isolated on the power supply module)

STANDARDS & APPROVALS

EU conformity:

EMC Directive

EMI EN 61000-6-4

EMS EN 61000-6-2

RoHS Directive

FUNCTIONS

■ OUTPUT HOLD or OUTPUT OFF

In normal conditions, the module outputs the signal from the preferred bus A.

When an error is detected, the output is switched to the data from the bus B.

• Output Hold

If both are in error, the module holds the signal and stands by until one of the communications recovers.

• Output OFF

If both are in error, the module outputs OFF signals and stands by until one of the communications recovers.

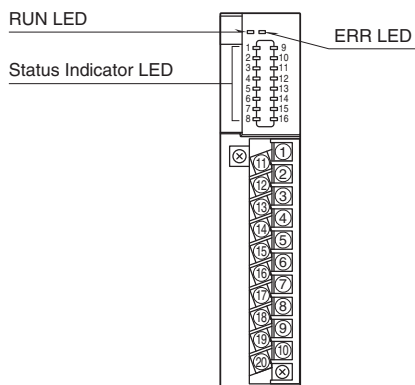
At the startup, it outputs OFF until the communication is established and normal data is received.

CAUTION

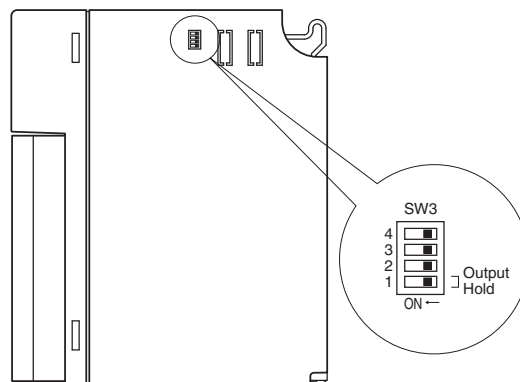
Use in combination with R3-NF2 or R3-NP1 is not available.

EXTERNAL VIEW

■ FRONT VIEW

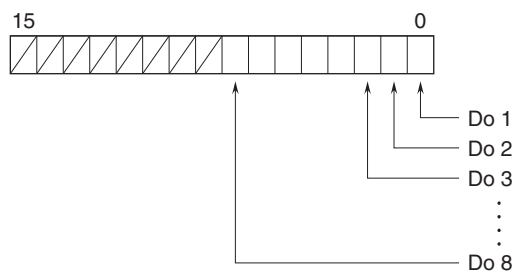


■ SIDE VIEW



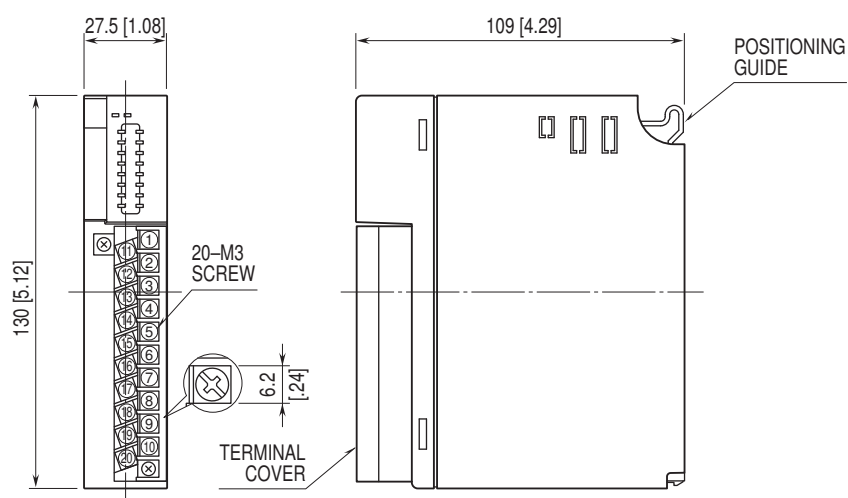
DATA ASSIGNMENT

■ Do

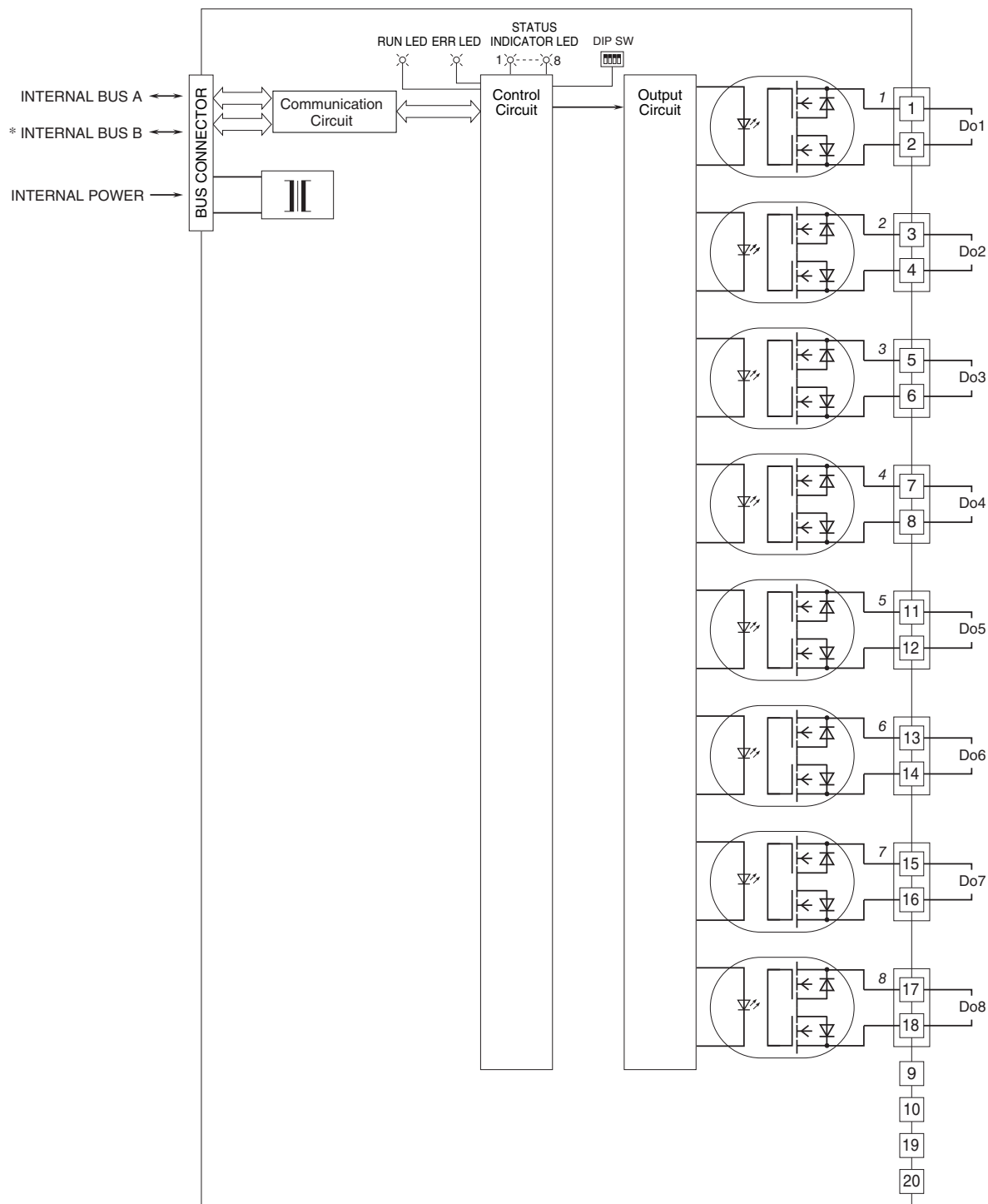


0 : OFF
1 : ON

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

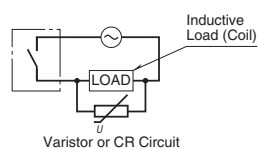


Numbers in italic indicate LED No.s assigned to the front panel LEDs.

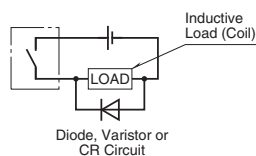
* For dual redundant communication.

■ Relay Protection

• AC Powered



• DC Powered





Specifications are subject to change without notice.