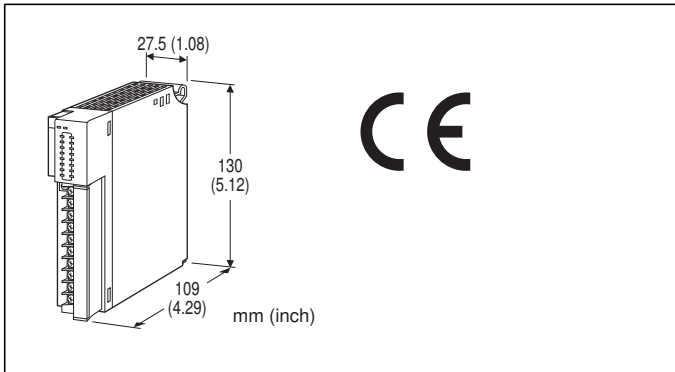


Remote I/O R3 Series

DISCRETE OUTPUT MODULE

(open collector output, 16 points)



MODEL: R3-DC16A[1][2]

ORDERING INFORMATION

- Code number: R3-DC16A[1][2]

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

- (e.g. R3-DC16AW/CE/Q)
- Specify the specification for option code /Q (e.g. /C01)

NO. OF CHANNELS

16: 16

OUTPUT

A: Open collector

[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 separable screw terminal (torque 0.5 N·m)

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

Screw terminal: Nickel-plated steel

Isolation: Output 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: Red LED; turns on with the output ON.

OUTPUT SPECIFICATIONS

Output: Open collector, 16 points

Isolation: Optical isolator

Common: All 16 points (2 terminals)

Common current: Max. 1.6 A per common

External excitation: 24 V DC $\pm 10\%$, approx. 0.02 A

Rated load voltage: 24 V DC $\pm 10\%$

Maximum load current: 0.1 A per point

Maximum rush current: 0.5 A for max. 10 msec.

Maximum leak current at OFF: 0.1 mA

Maximum voltage drop at ON: 0.6 V DC typical; 1.2 V DC max.

(When driving an inductive load, connect a diode in parallel with the load.)

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: 200 g (0.44 lb)

PERFORMANCE

Data allocation: 1

Current consumption: Approx. 100 mA

Response time: ≤ 2 msec.

Insulation resistance: ≥ 100 M Ω with 500 V DC

Dielectric strength: 2000 V AC @ 1 minute (output 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

EN 50581

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.

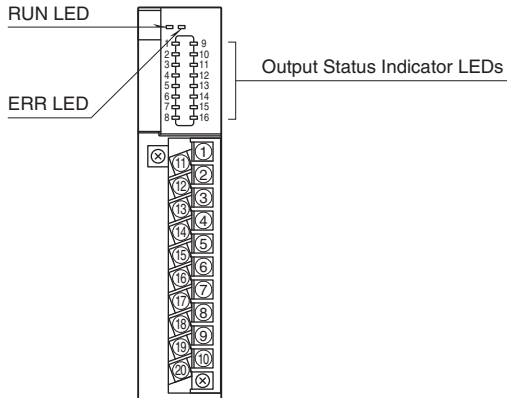
• Output OFF

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

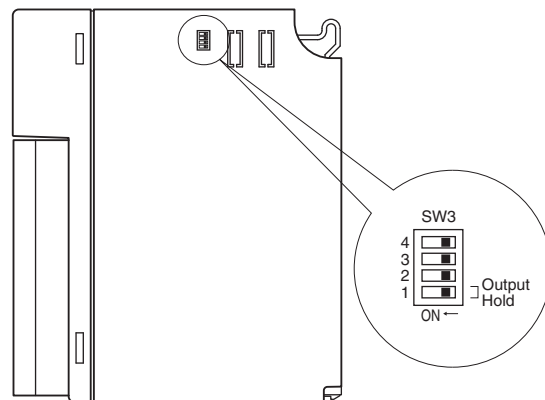
At the startup, it outputs OFF until the communication is established and normal data is received.

EXTERNAL VIEW

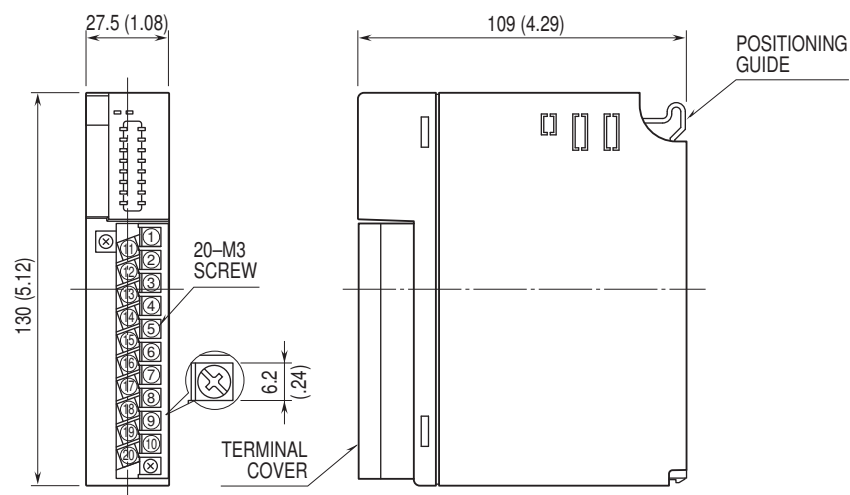
■ FRONT VIEW



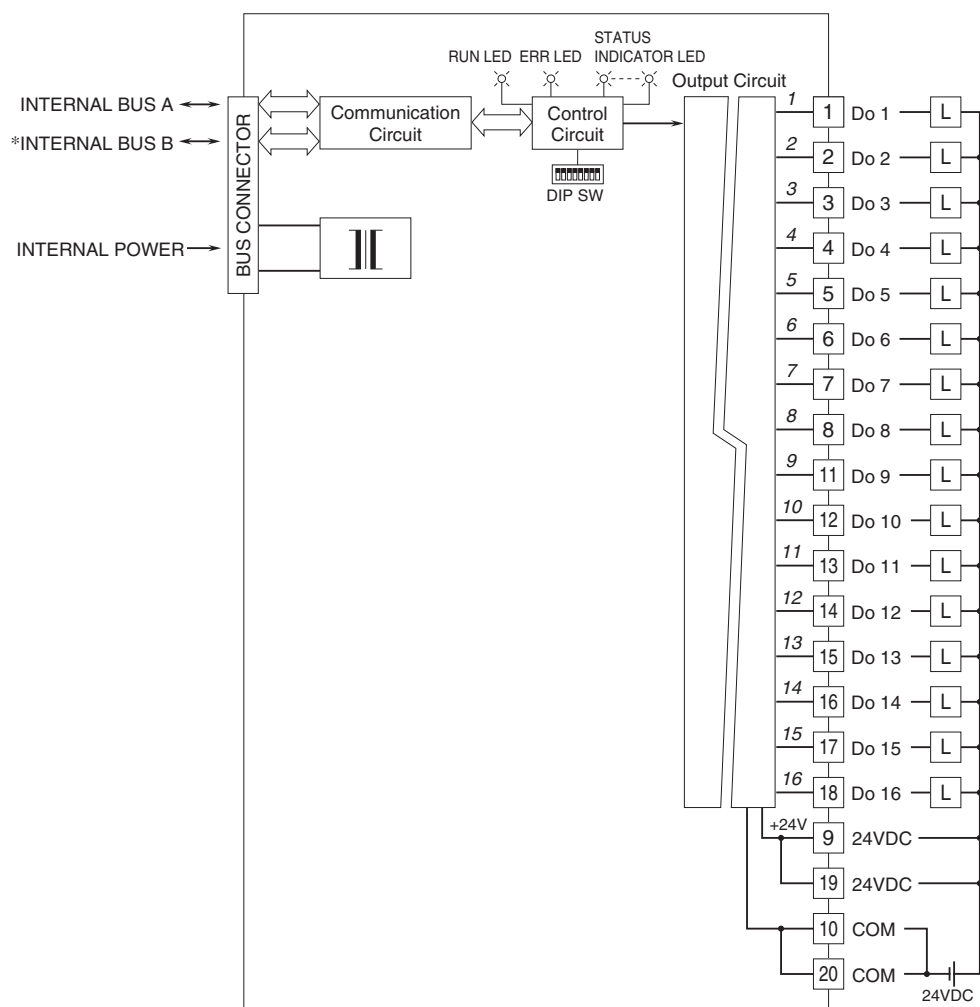
■ SIDE VIEW



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.



Specifications are subject to change without notice.