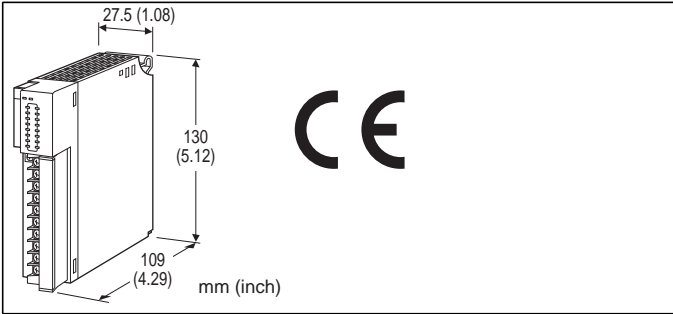


## Remote I/O R3 Series

### DISCRETE OUTPUT MODULE

(relay contact output, 16 points)



### MODEL: R3-DC16[1][2]

#### ORDERING INFORMATION

- Code number: R3-DC16[1][2]  
Specify a code from below for each [1] and [2].  
(e.g. R3-DC16W/CE/Q)
- Specify the specification for option code /Q  
(e.g. /C01)

#### NO. OF CHANNELS

16: 16

#### [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 function:** 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 relays energized.

#### OUTPUT SPECIFICATIONS

**Output:** Relay contact, 16 points  
**Common:** All 16 points (4 terminals)  
**Common current:** Max. 4 A (total of 4 terminals)  
**Rated load:**  
250 V AC @ 0.5 A ( $\cos \theta = 1$ )  
30 V DC @ 0.5 A (resistive load)  
(Max. 50 V AC to conform with EC Directive)  
**Maximum switching voltage:** 250 V AC or 30 V DC  
**Maximum switching power:** 250 VA or 30 W  
**Minimum load:** 1 V DC @ 1 mA  
**Mechanical life:**  $2 \times 10^7$  cycles (300 cycles/min.)  
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:** 200 g (0.44 lb)

#### PERFORMANCE

**Data allocation:** 1  
**Current consumption:** 180 mA  
**Response time:**  $\leq 0.1$  sec.  
**Insulation resistance:**  $\geq 100$  M $\Omega$  with 500 V DC  
**Dielectric strength:** 1500 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

**CE conformity:**  
EMC Directive (2004/108/EC)  
EMI EN 61000-6-4: 2007/A1: 2011



## 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.

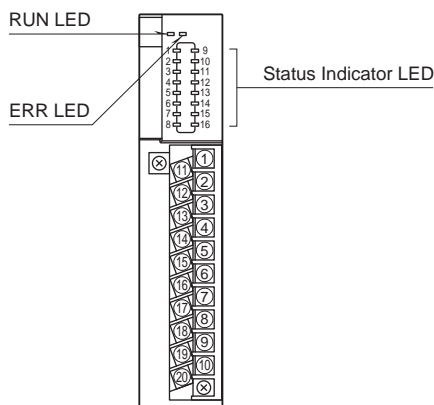
#### •Output OFF

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

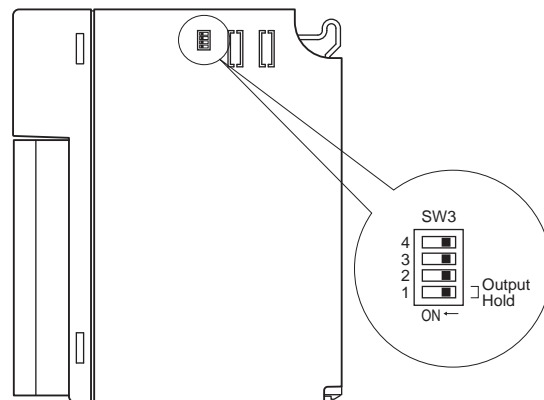
At the startup, it outputs OFF until the communication is established and normal data is received.

## EXTERNAL VIEW

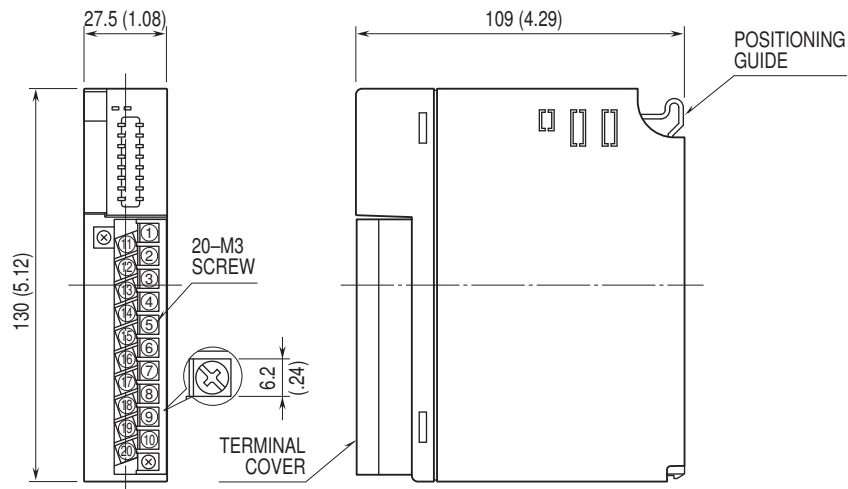
### ■FRONT VIEW



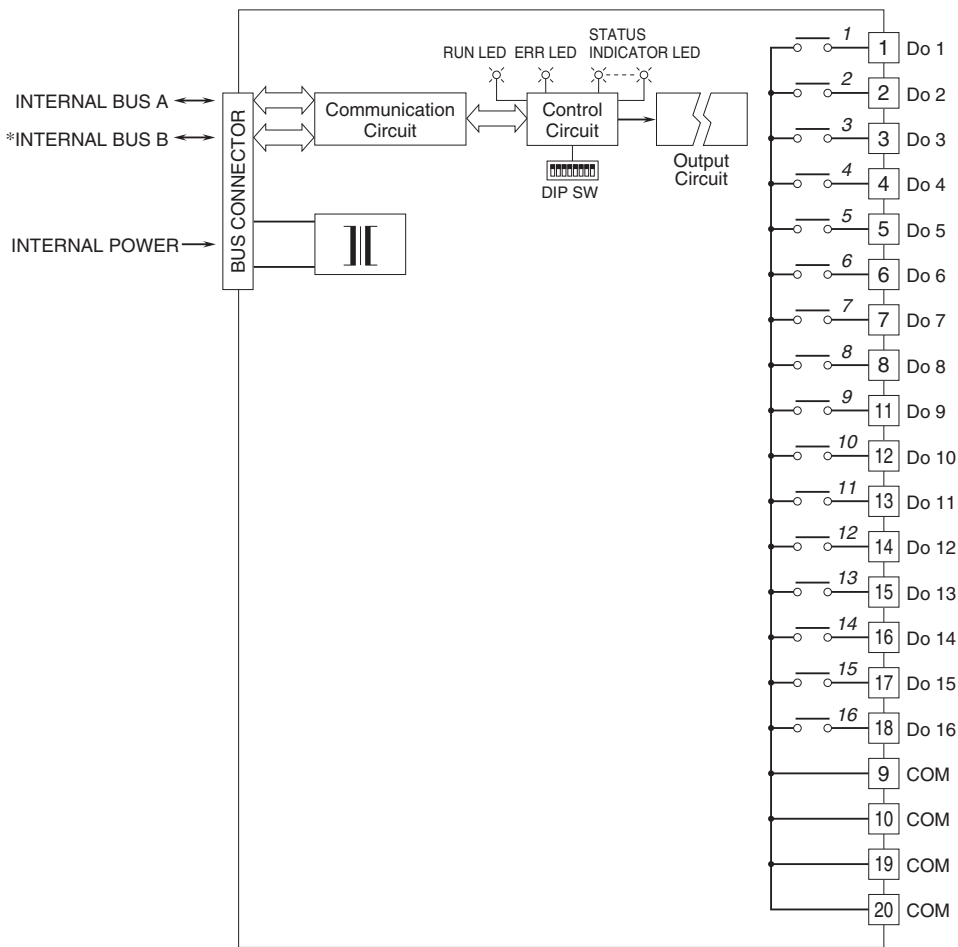
### ■SIDE VIEW



## 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.

