

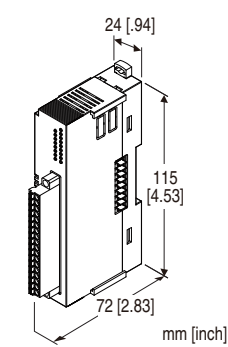
## Remote I/O R8 Series

### PNP TRANSISTOR OUTPUT MODULE, 16 points

(with short circuit protection, tension clamp terminal block)

#### Functions & Features

- 16 channels for discrete output, compact size remote I/O module
- 18 pins tension clamp connector



## MODEL: R8-DCT16B2[1]

### ORDERING INFORMATION

- Code number: R8-DCT16B2[1]  
Specify a code from below for [1].  
(e.g. R8-DCT16B2/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: R8CFG)  
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

- **Output:** Tension clamp

- **Excitation supply, internal bus:**

Connected to internal bus connector

- **Internal power:** Via bus connector

**Isolation:** Output or exc. supply to internal bus or internal power

**Module address:** With DIP switch

**Output at the loss of communication:** Selectable with the side DIP SW

**Terminating resistor:** Built-in (DIP Switch, default: disable)

**Configuration mode:** With DIP switches on the side panel

**Status indicator:** Bi-color (red/green) LED; Refer to the instruction manual.

**Discrete output status indicators:** Green LED; Refer to the instruction manual.

### OUTPUT SPECIFICATIONS

**Common:** Positive common (PNP) per 16 points

**Maximum outputs applicable at once:** No limit (at 24 V DC)

**Number of output:** 16 points

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

**Rated output current:** 0.1 A per point, 1.6 A per common

**Residual voltage:**  $\leq 0.5$  V

**Leakage current:**  $\leq 0.1$  mA

**ON delay:**  $\leq 0.5$  msec.

**OFF delay:**  $\leq 1.5$  msec.

With shortcircuit protection

With overheat protection

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

### INSTALLATION

**Max. current consumption:** 110 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:** DIN rail

**Weight:** 110 g (0.24 lb)

### PERFORMANCE

**Data allocation:** 1

**Module addresses in use:** 1

**Power output (output connector):** Rated current 3 A DC  
(rated current 3 A for internal fuse (slow blow fuse i<sup>2</sup>t (A<sup>2</sup>sec.) max. 5.04)

**Insulation resistance:**  $\geq 100$  M $\Omega$  with 500 V DC

**Dielectric strength:** 1500V AC @1 minute  
(output or exc. supply to internal bus or internal power to ground)

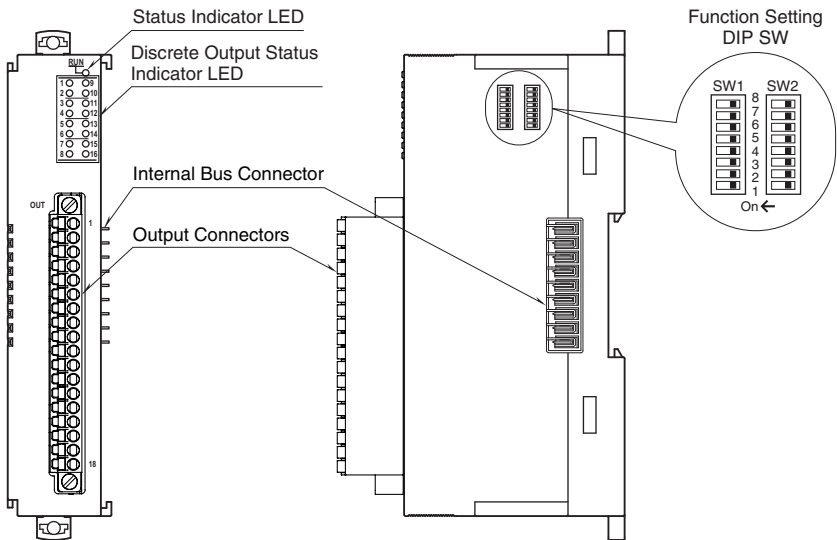
**STANDARDS & APPROVALS**

EU conformity:  
EMC Directive  
EMI EN 61000-6-4  
EMS EN 61000-6-2  
RoHS Directive

**EXTERNAL VIEW**

■ FRONT VIEW

■ SIDE VIEW



## CONNECTION DIAGRAMS

### ■ Tension clamp terminal block

Unit side connector: MC1,5/18-GF-3,5

(Phoenix Contact)

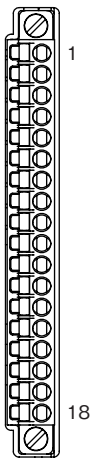
Cable side connector: FMC1,5/18-STF-3,5 (Phoenix Contact)

Applicable wire size: 0.2 – 1.5 mm<sup>2</sup>

Stripped length: 10 mm

### Recommended solderless terminal

- AI0,25–10YE 0.25 mm<sup>2</sup> (Phoenix Contact)
- AI0,34–10TQ 0.34 mm<sup>2</sup> (Phoenix Contact)
- AI0,5–10WH 0.5 mm<sup>2</sup> (Phoenix Contact)
- AI0,75–10GY 0.75 mm<sup>2</sup> (Phoenix Contact)
- A1–10 1.0 mm<sup>2</sup> (Phoenix Contact)
- A1,5–10 1.5 mm<sup>2</sup> (Phoenix Contact)



PIN NO.	ID	FUNCTION
1	Do1	Output 1
2	Do2	Output 2
3	Do3	Output 3
4	Do4	Output 4
5	Do5	Output 5
6	Do6	Output 6
7	Do7	Output 7
8	Do8	Output 8
9	Do9	Output 9
10	Do10	Output 10
11	Do11	Output 11
12	Do12	Output 12
13	Do13	Output 13
14	Do14	Output 14
15	Do15	Output 15
16	Do16	Output 16
17	0V	Exc. supply 0V
18	24V	Exc. supply 24 V

## OPERATING MODE SETTING

(\*) Factory setting

Caution ! - SW2-1, 2-2, 2-3, 2-4, 2-7 are unused. Be sure to turn off unused ones.

### ■ Module Address (SW1)

SW1-1 through 1-4 determine the tenth place digit, while SW1-5 through 1-8 do the ones place digit of the module address.

Address is selected between 0 to 31.

(Factory setting: 0)

MODULE ADDRESS	SW1				
	×10	1	2	3	4
	×1	5	6	7	8
0		OFF	OFF	OFF	OFF
1		OFF	OFF	OFF	ON
2		OFF	OFF	ON	OFF
3		OFF	OFF	ON	ON
4		OFF	ON	OFF	OFF
5		OFF	ON	OFF	ON
6		OFF	ON	ON	OFF
7		OFF	ON	ON	ON
8		ON	OFF	OFF	OFF
9		ON	OFF	OFF	ON

### ■ Output at the loss of communication (SW2)

Same output for all channels.

OUTPUT AT THE LOSS OF COMMUNICATION	SW2-5
Output hold (*) (last data correctly received is hold)	OFF
Output clear (fixes output to OFF)	ON

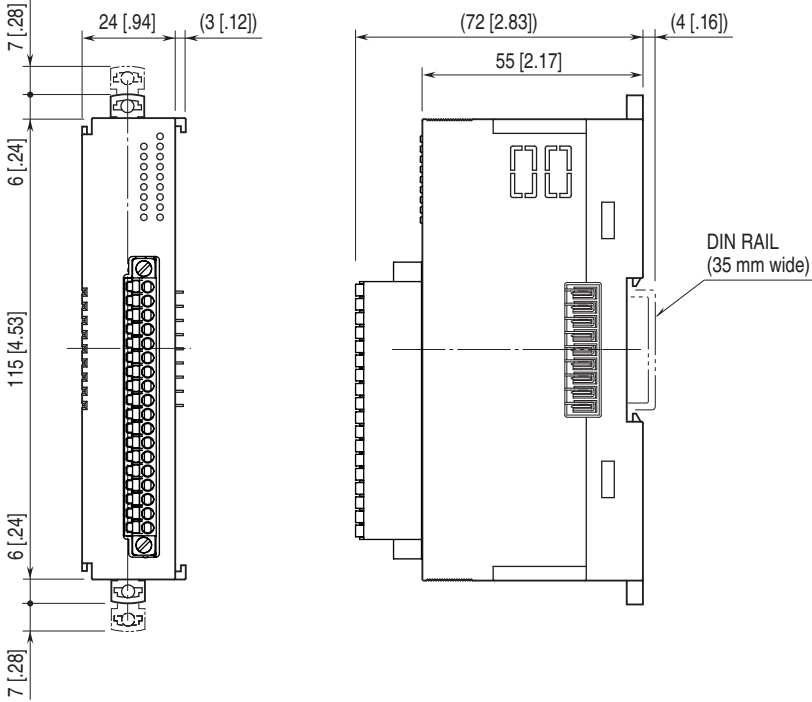
### ■ Terminator DIP SW (SW2)

TERMINATOR SW	SW2-6
Without (*)	OFF
With	ON

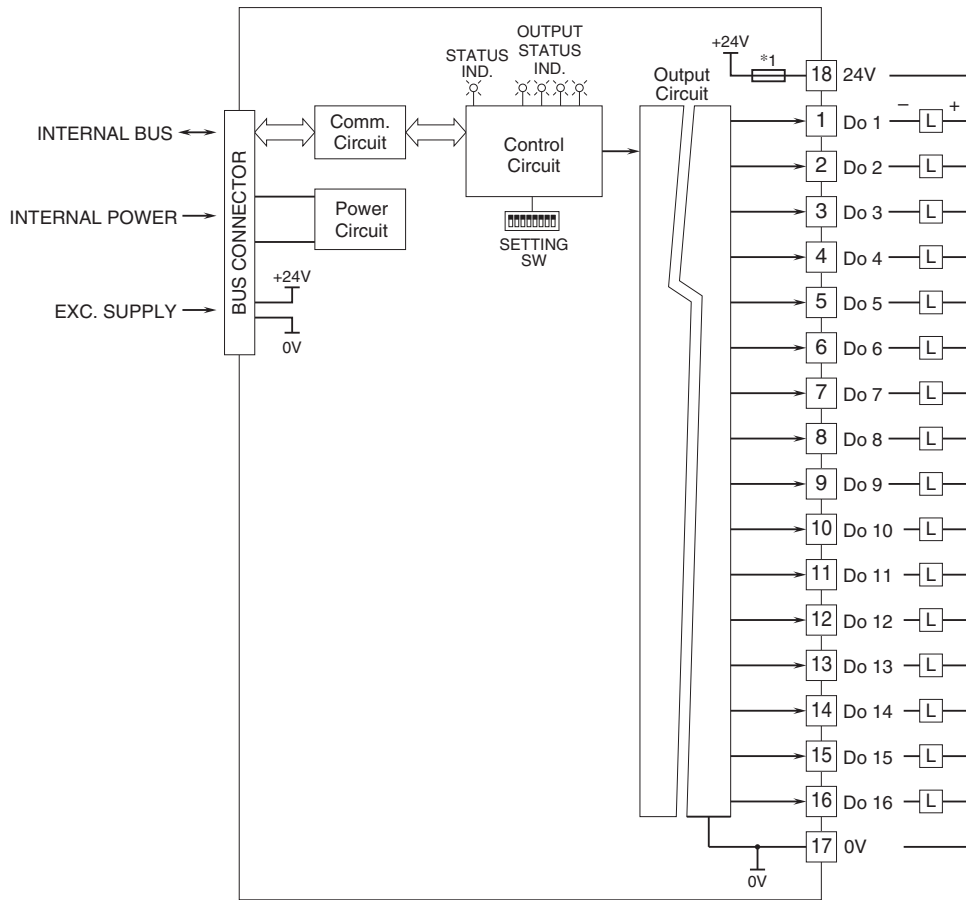
### ■ Configuration mode (SW2)

CONFIGURATION MODE	SW2-8
DIP SW (*)	OFF
PC	ON

**EXTERNAL DIMENSIONS** unit: mm [inch]

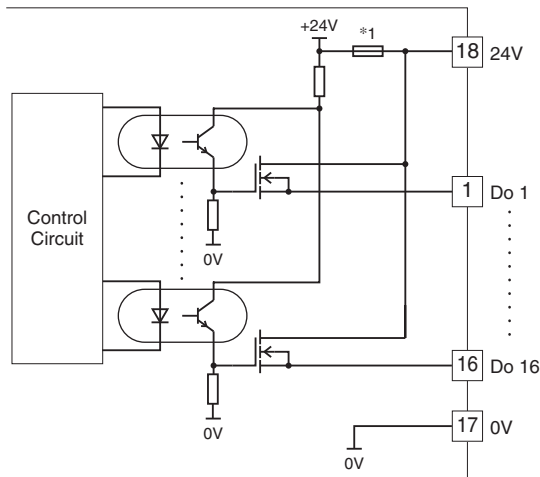


**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



\*1. Fuse is not replaceable.

■ OUTPUT CIRCUIT



Specifications are subject to change without notice.