

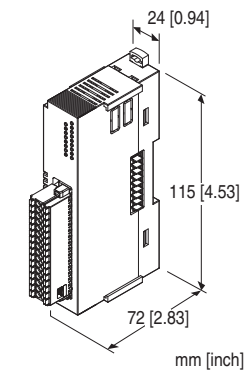
## Remote I/O R8 Series

### NPN TRANSISTOR OUTPUT MODULE, 8 points

(with shortcircuit protection, tension clamp terminal block)

#### Functions & Features

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



### MODEL: R8-DCT8A2[1]

#### ORDERING INFORMATION

- Code number: R8-DCT8A2[1]
- Specify a code from below for [1].  
(e.g. R8-DCT8A2/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:** 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:** Negative common (NPN) per 8 points

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

**Number of output:** 8 points

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

**Rated output current:** 0.1 A per point, 0.8 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 0.5 A DC per channel (rated current 3 A for internal fuse (slow blow fuse  $i^2t$  (A<sup>2</sup>sec.) max. 5.04); Total: 3 A DC

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

**Dielectric strength:** 1500V AC @1 minute

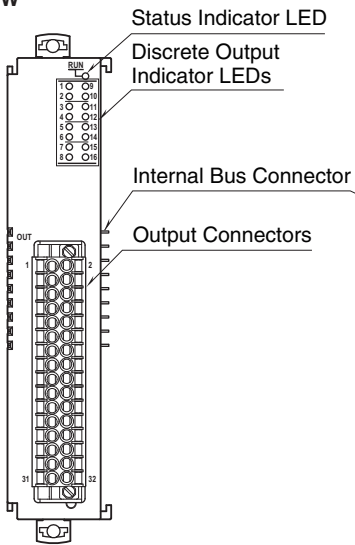
(output or exc. supply to internal bus or internal power to ground)

**STANDARDS & APPROVALS**

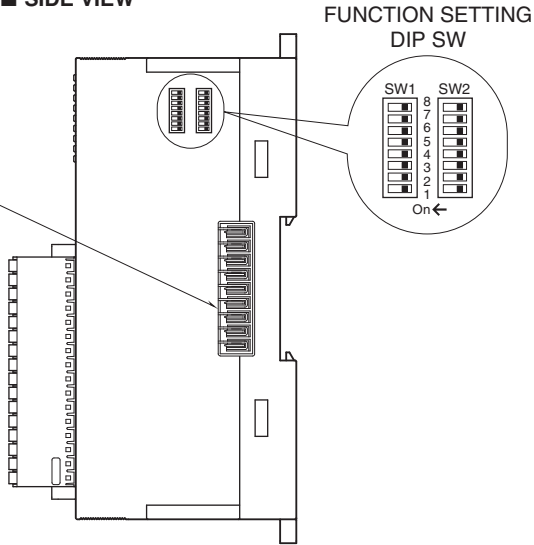
EU conformity:  
EMC Directive  
EMI EN 61000-6-4  
EMS EN 61000-6-2  
RoHS Directive

**EXTERNAL VIEW**

■ FRONT VIEW



■ SIDE VIEW



## CONNECTION DIAGRAMS

### ■ Tension clamp terminal block

Unit side connector: DMC1,5/1,6-G1F-3,5-LR P26THR (Phoenix Contact)

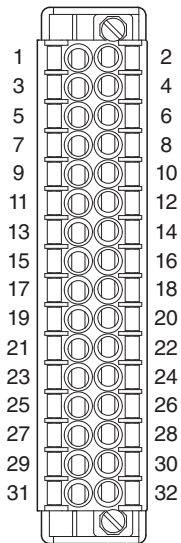
Cable side connector: DFMC1,5/16-STF-3,5 (Phoenix Contact)

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	PIN No.	ID	FUNCTION
1	24V	Excitation supply (+)	17	24V	Excitation supply (+)
2	Do 1	Output 1	18	Do 5	Output 5
3	24V	Excitation supply (+)	19	24V	Excitation supply (+)
4	0V	Excitation supply (-)	20	0V	Excitation supply (-)
5	24V	Excitation supply (+)	21	24V	Excitation supply (+)
6	Do 2	Output 2	22	Do 6	Output 6
7	24V	Excitation supply (+)	23	24V	Excitation supply (+)
8	0V	Excitation supply (-)	24	0V	Excitation supply (-)
9	24V	Excitation supply (+)	25	24V	Excitation supply (+)
10	Do 3	Output 3	26	Do 7	Output 7
11	24V	Excitation supply (+)	27	24V	Excitation supply (+)
12	0V	Excitation supply (-)	28	0V	Excitation supply (-)
13	24V	Excitation supply (+)	29	24V	Excitation supply (+)
14	Do 4	Output 4	30	Do 8	Output 8
15	24V	Excitation supply (+)	31	24V	Excitation supply (+)
16	0V	Excitation supply (-)	32	0V	Excitation supply (-)

## OPERATING MODE SETTING

(\*) Factory setting

Note: Be sure to set unused SW2-1 through 2-4 and 2-7 to OFF.

### ■ Module Address

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	ON	OFF					
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

OUTPUT AT THE LOSS OF COMMUNICATION	SW2
	5
Output Hold (*) (last data correctly received is hold)	OFF
Stop output (Output fixed at OFF)	ON

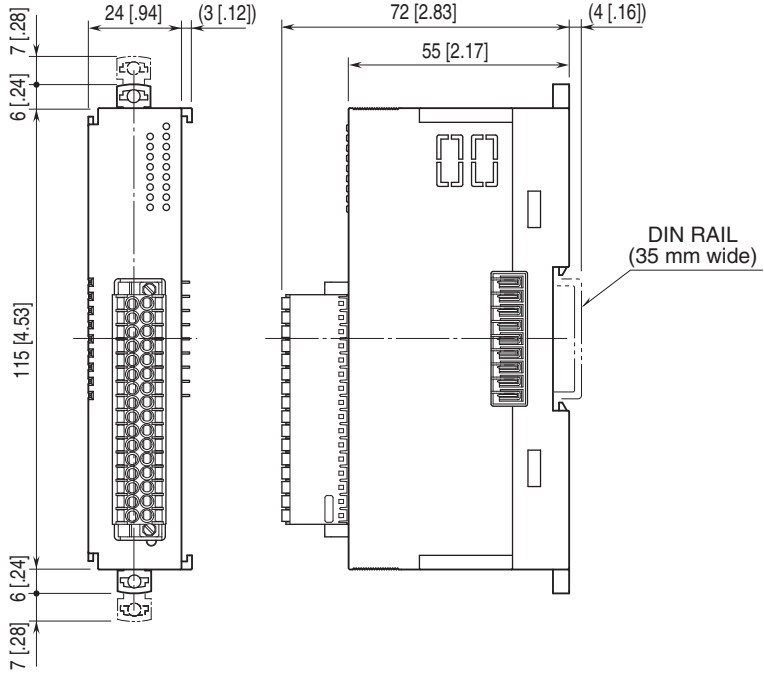
### ■ Terminator DIP SW

TERMINATOR SW	SW2
	6
Without (*)	OFF
With	ON

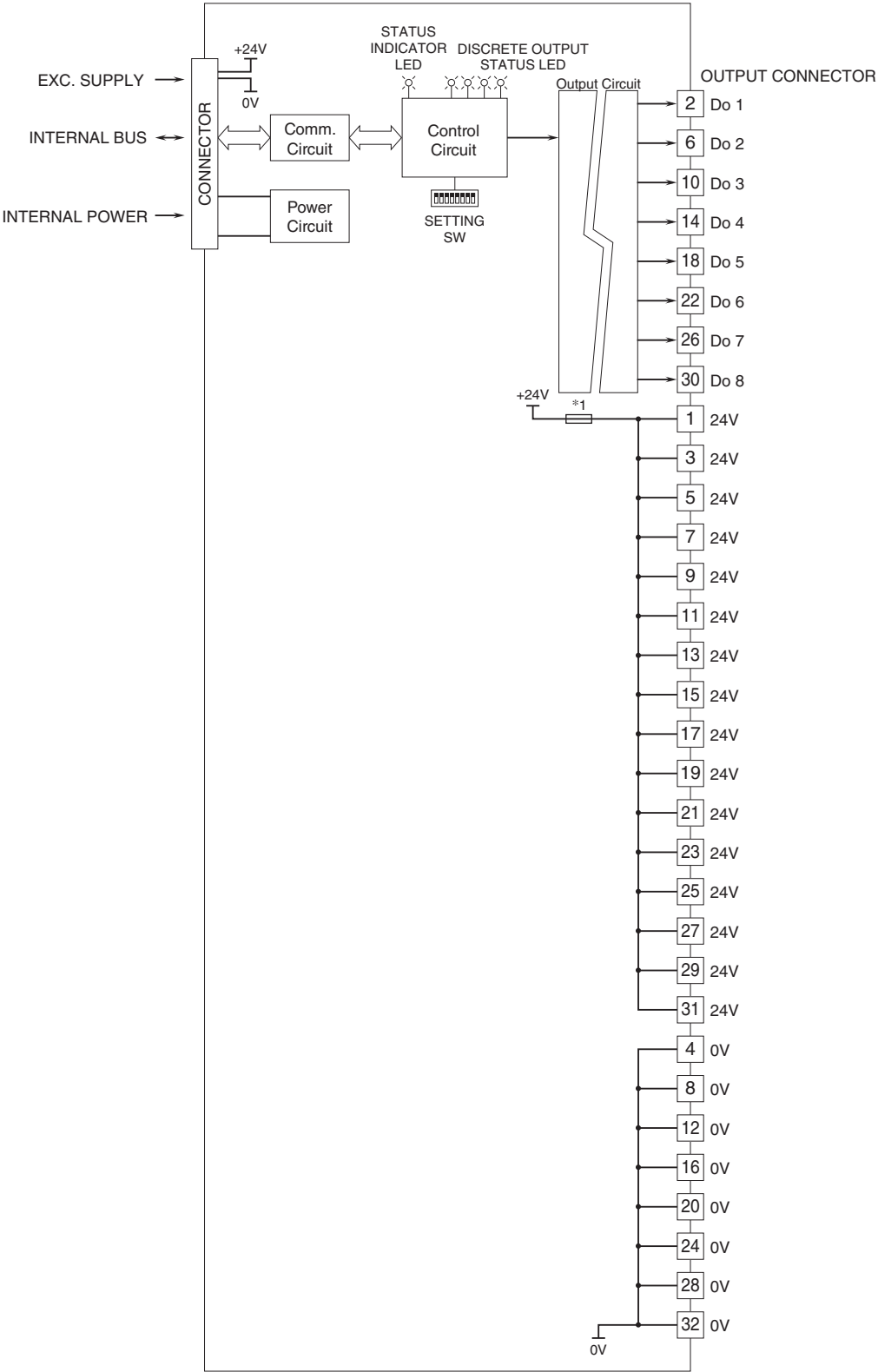
### ■ Configuration Mode

CONFIGURATION MODE	SW2
	8
DIP switch setting (*)	OFF
PC Configurator and communication	ON

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

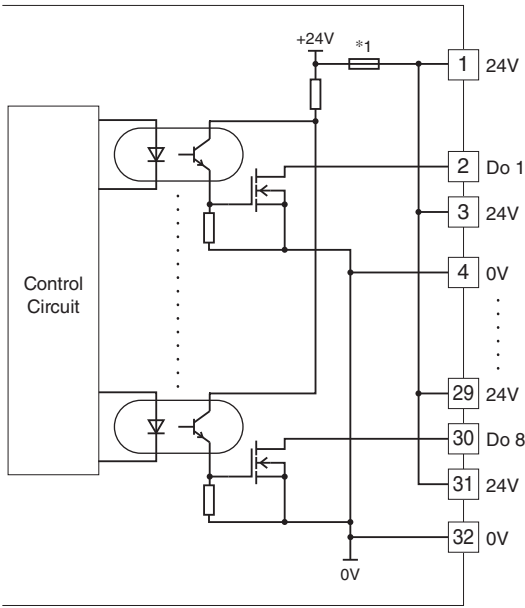


**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



\*1. Fuse is not replaceable.

■ OUTPUT CIRCUIT



Specifications are subject to change without notice.