

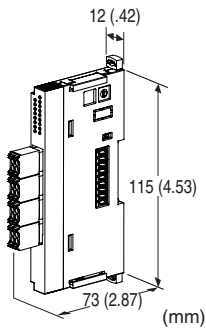
## Remote I/O R80 Series

### NPN TRANSISTOR OUTPUT MODULE, 8 points

(Tension clamp terminal block)

#### Functions & Features

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



### MODEL: R80DCT8A[1]

#### ORDERING INFORMATION

- Code number: R80DCT8A[1]  
Specify a code from below for [1].  
(e.g. R80DCT8A/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: R80CFG)  
Downloadable at M-System's web site.  
For connecting to PC, use commercially available Mini-B type USB cable. (provided by user)

#### GENERAL SPECIFICATIONS

##### Connection

**Output:** Separable tension clamp terminal

**Internal bus, internal power, excitation power supply:**

Connected to internal bus connector

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

**Module address:** With rotary switch

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

**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

**Module type:** Discrete output, 8 points

**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:**  $\leq 0.2$  msec.

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

With shortcircuit protection

With overheat protection

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

**Output when communication is lost:**

Hold output (the previous output received normally is held)

Clear output (output is fixed to OFF)

(Settable with PC configurator)

(Factory setting: Hold output)

#### INSTALLATION

**Max. current consumption:** 120 mA

**Operating temperature:**  $-10$  to  $+55^{\circ}\text{C}$  (14 to  $131^{\circ}\text{F}$ )

**Operating humidity:** 30 to 90 %RH (non-condensing)

**Atmosphere:** No corrosive gas or heavy dust

**Mounting:** DIN rail

**Weight:** 80 g (2.82 oz)

#### PERFORMANCE

**Power output (output connector):** Rated current 3 A DC  
(rated current 3 A for internal fuse (slow blow fuse  $i^2t$  ( $\text{A}^2\text{sec}$ ) max. 5.04)

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

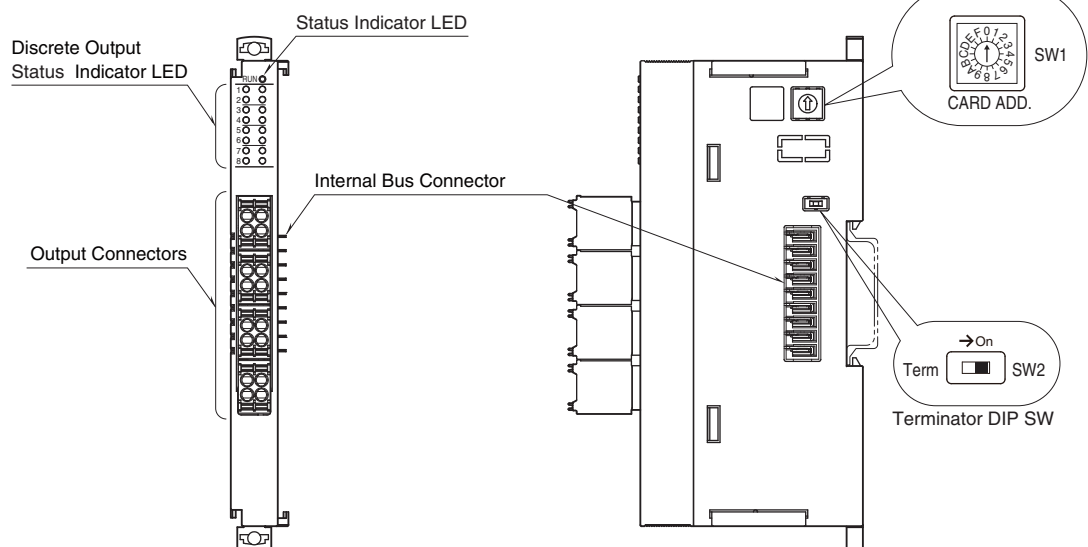
**Dielectric strength:** 1500V AC @1 minute

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

## EXTERNAL VIEW

### ■ FRONT VIEW

### ■ SIDE VIEW



**WIRING**• **OUTPUT CONNECTOR**

**Unit side connector:** M-System's product

**Cable side connector:** DFMC1,5/2-ST-3,5 (Phoenix Contact)  
(included in the package)

**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  | 2  | Do 1    | Do 2 | OUTPUT 1                  |
| 3  | 4  | Do 3    | Do 4 | OUTPUT 2                  |
|    |    |         |      | OUTPUT 3                  |
|    |    |         |      | OUTPUT 4                  |
| 5  | 6  | Do 5    | Do 6 | OUTPUT 5                  |
| 7  | 8  | Do 7    | Do 8 | OUTPUT 6                  |
|    |    |         |      | OUTPUT 7                  |
|    |    |         |      | OUTPUT 8                  |
| 9  | 10 | 0 V     | 0 V  | Excitation supply 0 V DC  |
| 11 | 12 | 24 V    | 24 V | Excitation supply 0 V DC  |
|    |    |         |      | Excitation supply 24 V DC |
|    |    |         |      | Excitation supply 24 V DC |
| 13 | 14 | NC      | NC   | No connection             |
| 15 | 16 | NC      | NC   | No connection             |
|    |    |         |      | No connection             |
|    |    |         |      | No connection             |

**OPERATING MODE SETTING**• **Module address setting**

**Module address:** Selectable between 0 and F, with rotary switch

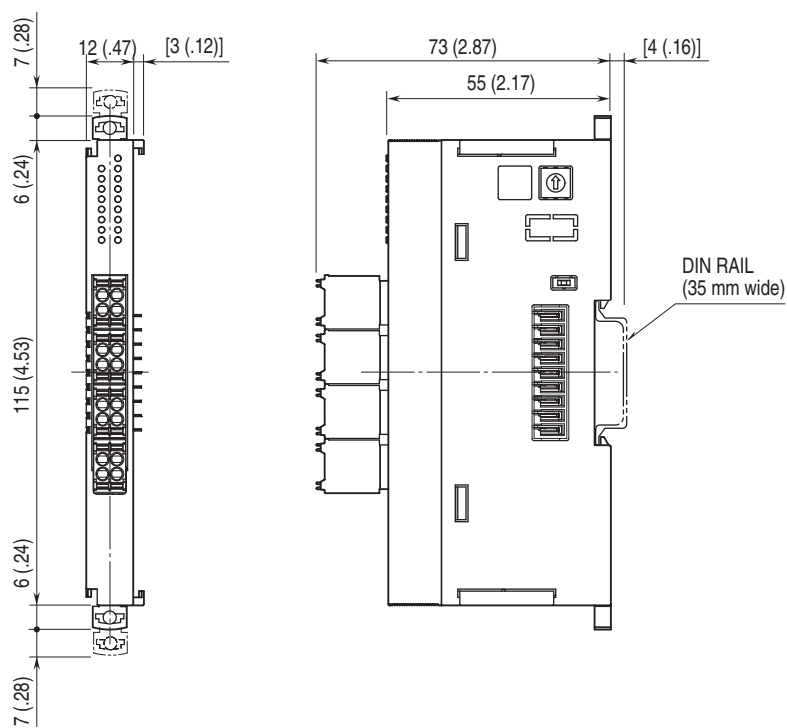
(Factory setting: 0)

• **Terminator DIP SW**

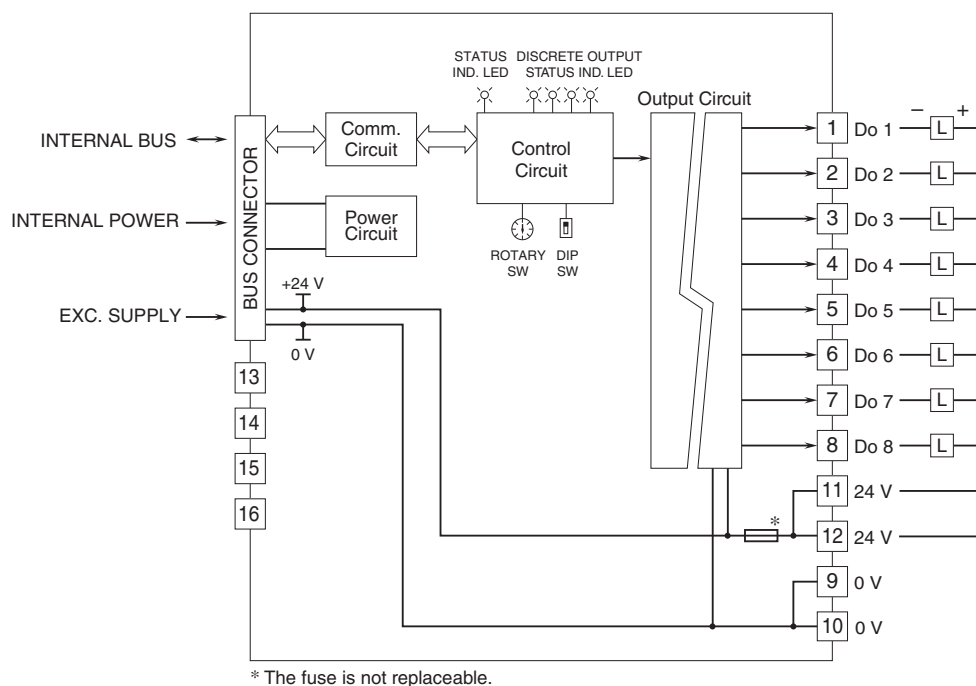
|               |     |
|---------------|-----|
| TERMINATOR SW | SW2 |
| Without (*)   | OFF |
| With          | ON  |

(\*) Factory setting

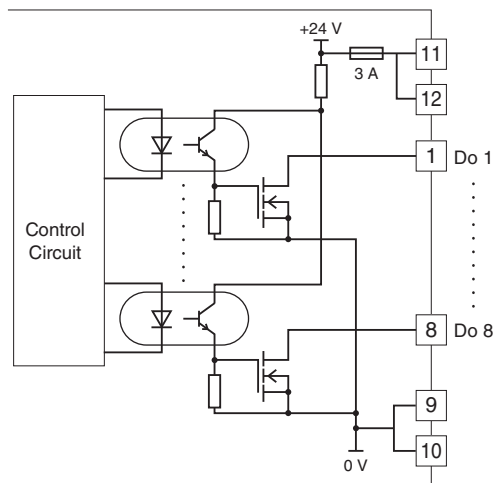
EXTERNAL DIMENSIONS unit: mm (inch)



## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



### ■ OUTPUT CIRCUIT



Specifications are subject to change without notice.