

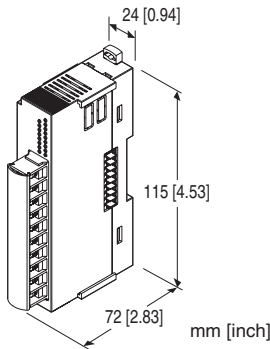
Remote I/O R8 Series

NPN TRANSISTOR OUTPUT MODULE, 8 points

(with shortcircuit protection, screw terminal block)

Functions & Features

- 8 channels for discrete output, compact size remote I/O module
- M3 screw terminal connection



MODEL: R8-DCN8A2[1]

ORDERING INFORMATION

- Code number: R8-DCN8A2[1]

Specify a code from below for [1].

- (e.g. R8-DCN8A2/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 our web site.)

/C01: Silicone coating

/C02: Polyurethane coating

RELATED PRODUCTS

- PC Configurator cable (model: MCN-CON or COP-US)
- PC configurator software (model: R8CFG)

Downloadable at our web site.

GENERAL SPECIFICATIONS

Connection

- **Output:** M3 screw terminals (torque: 0.6 N·m)
- **Excitation supply, internal bus:**
Connected to internal bus connector

• **Internal power:** Supplied from internal bus connector
Solderless terminal: Refer to the drawing at the end of the section.

Recommended manufacturer: Japan Solderless Terminal MFG. Co., Ltd., Nichifu Co., Ltd.

Applicable wire size: 0.3 to 0.75 mm² (AWG 22 to 20)

Screw terminal: Nickel-plated steel

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

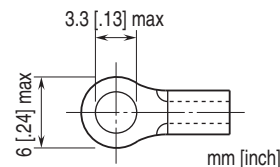
Terminating resistor: Built-in (DIP Switch, default: disable)

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.

■ Recommended solderless terminal size - M3



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: ≤ 0.5 V

Leakage current: ≤ 0.1 mA

ON delay: ≤ 0.5 msec.

OFF delay: ≤ 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)

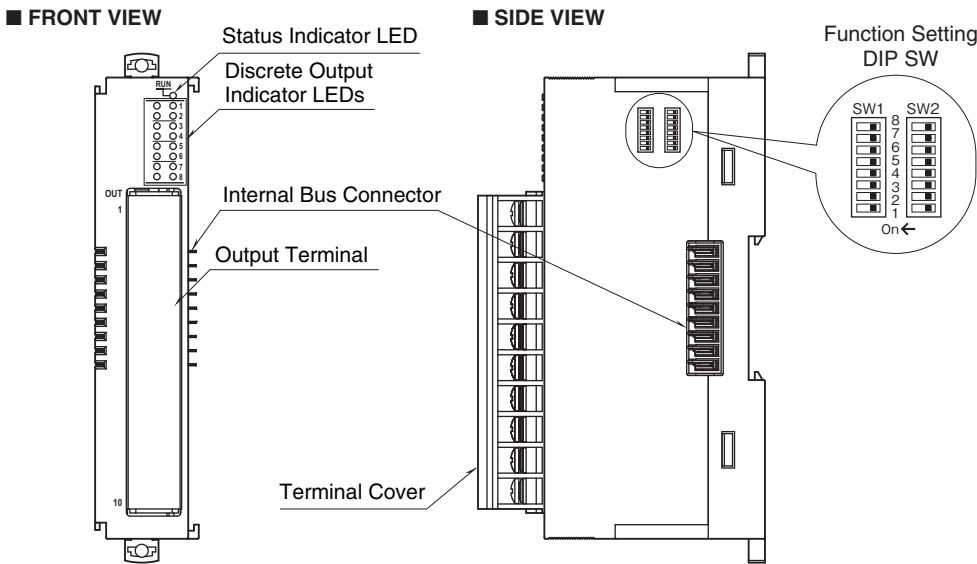
PERFORMANCE

Data allocation: 1
Module addresses in use: 1
Power output (output terminal): Rated current 0.5 A DC per channel (rated current 3 A for internal fuse (slow blow fuse i^2t (A²sec.) max. 5.04); Total: 3 A DC
Insulation resistance: $\geq 100\text{ M}\Omega$ with 500 V DC
Dielectric strength: 1500 V 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



CONNECTION DIAGRAMS

PIN No.	ID	FUNCTION
1	Do 1	Output 1
2	Do 2	Output 2
3	Do 3	Output 3
4	Do 4	Output 4
5	Do 5	Output 5
6	Do 6	Output 6
7	Do 7	Output 7
8	Do 8	Output 8
9	24V	Excitation supply (+)
10	0V	Excitation supply (-)

OPERATING MODE SETTING

(*) Factory default setting

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

■ 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
Stop output (output fixed at OFF)	ON

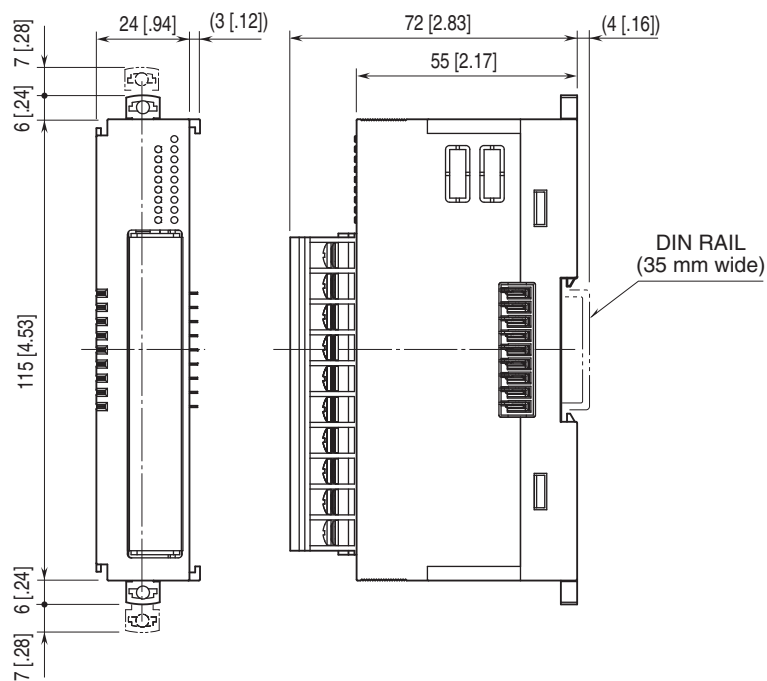
■ TERMINATOR (SW2)

TERMINATOR	SW2-6
Without (*)	OFF
With	ON

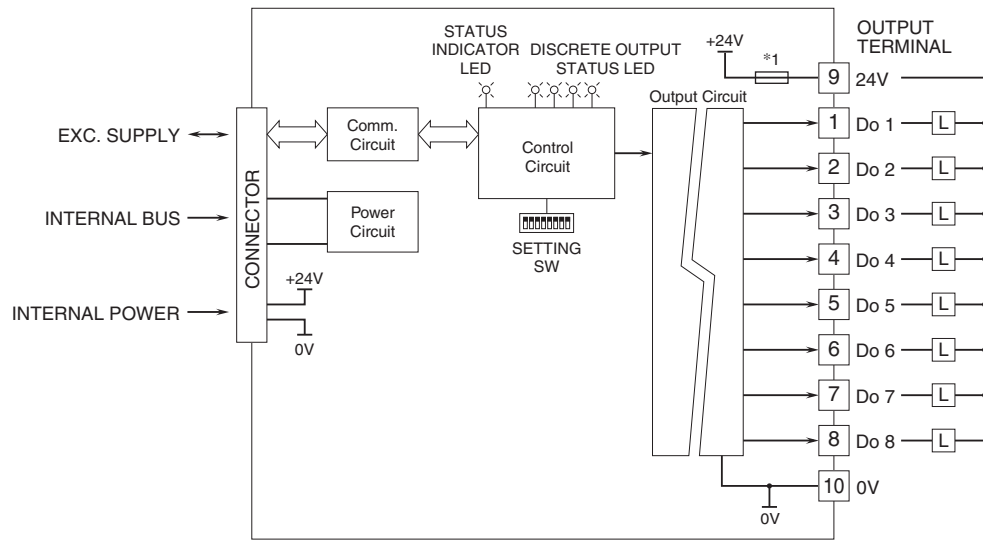
■ CONFIGURATION MODE (SW2)

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

EXTERNAL DIMENSIONS unit: mm [inch]

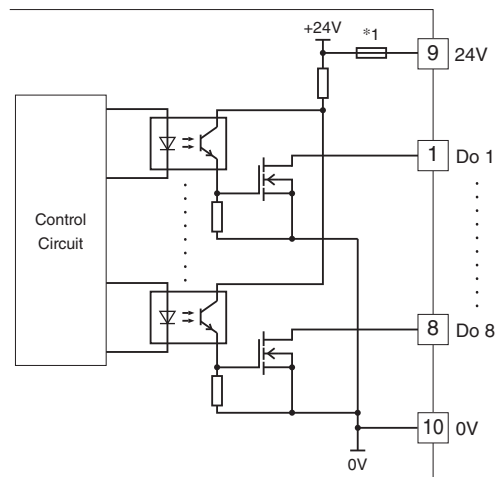


SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*1. Fuse is not replaceable.

■ OUTPUT CIRCUIT



Specifications are subject to change without notice.