

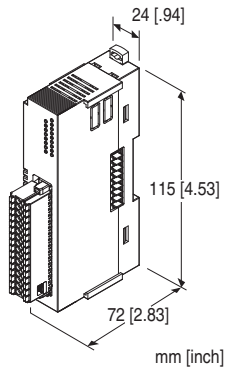
Remote I/O R8 Series

NPN DISCRETE INPUT MODULE, 8 points

(tension clamp terminal block)

Functions & Features

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



MODEL: R8-DAT8A2[1]

ORDERING INFORMATION

- Code number: R8-DAT8A2[1]
Specify a code from below for [1].
(e.g. R8-DAT8A2/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

- **Input:** Separable tension clamp terminal
- **Excitation supply, internal bus:**
Connected to internal bus connector

- **Internal power:** Supplied from internal bus connector

Isolation: Input or exc. supply to internal bus or internal power

Module address: With DIP switch

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

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

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

INPUT SPECIFICATIONS

Common: Positive common (NPN)

Number of input: 8 points

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

Rated input voltage: 24 V DC $\pm 10\%$; ripple 5 %p-p max.

ON voltage / current: ≥ 15 V DC (input - 24V) / ≥ 2.3 mA

OFF voltage / current: ≤ 5 V DC (input - 24V) / ≤ 1 mA

Input current: ≤ 4.5 mA per point at 24 V DC

Input resistance: Approx. 5.7 k Ω

ON delay: ≤ 2.0 msec.

OFF delay: ≤ 2.0 msec.

INSTALLATION

Max. current consumption: 100 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 (input connector): 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: ≥ 100 M Ω with 500 V DC

Dielectric strength: 1500 V AC @ 1 minute

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

STANDARDS & APPROVALS

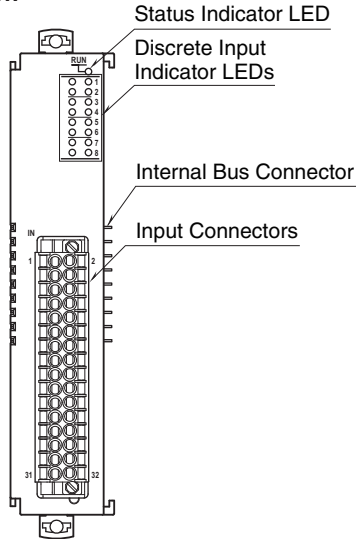
EU conformity:

EMC Directive

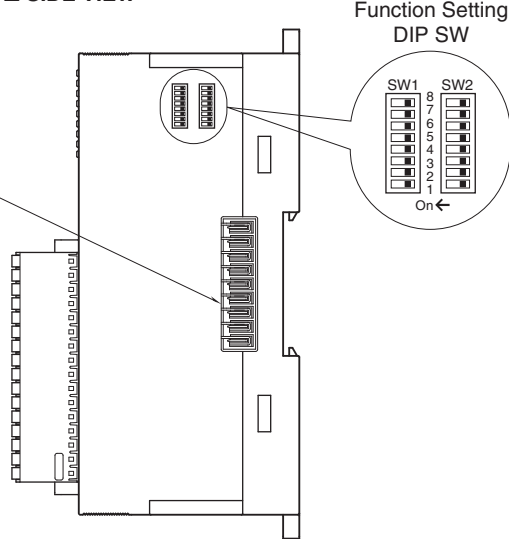
EMI EN 61000-6-4

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)

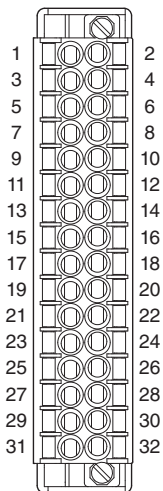
Cable side connector: DFM1,5/16-STF-3,5 (Phoenix Contact)

Applicable wire size: 0.2 – 1.5 mm²

Stripped length: 10 mm

Recommended solderless terminal

- AI0,25–10YE 0.25 mm² (Phoenix Contact)
- AI0,34–10TQ 0.34 mm² (Phoenix Contact)
- AI0,5–10WH 0.5 mm² (Phoenix Contact)
- AI0,75–10GY 0.75 mm² (Phoenix Contact)
- A1–10 1.0 mm² (Phoenix Contact)
- A1,5–10 1.5 mm² (Phoenix Contact)



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

OPERATING MODE SETTING

(*) Factory default setting

Note: Be sure to set unused SW2-1 through 2-5, 2-7 and 2-8 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.

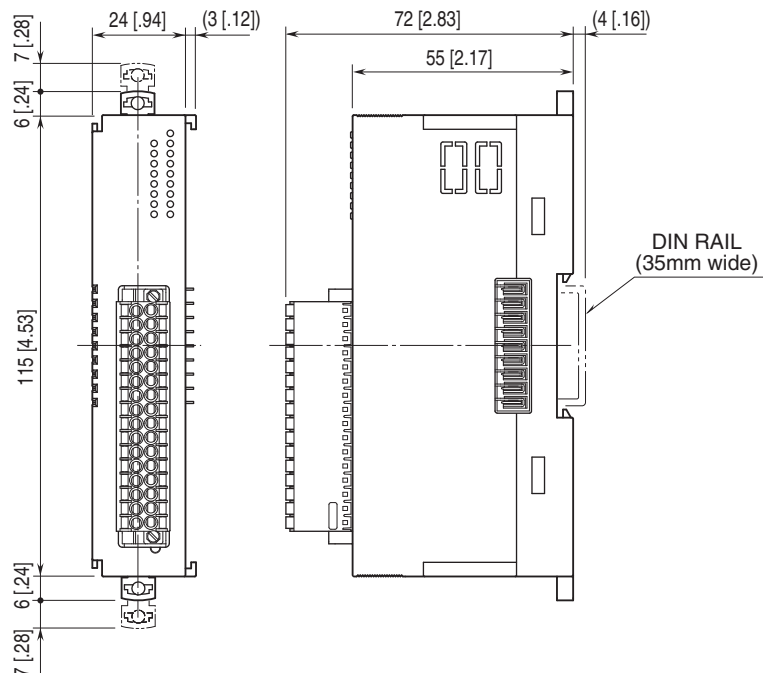
(Factory setting: 0)

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

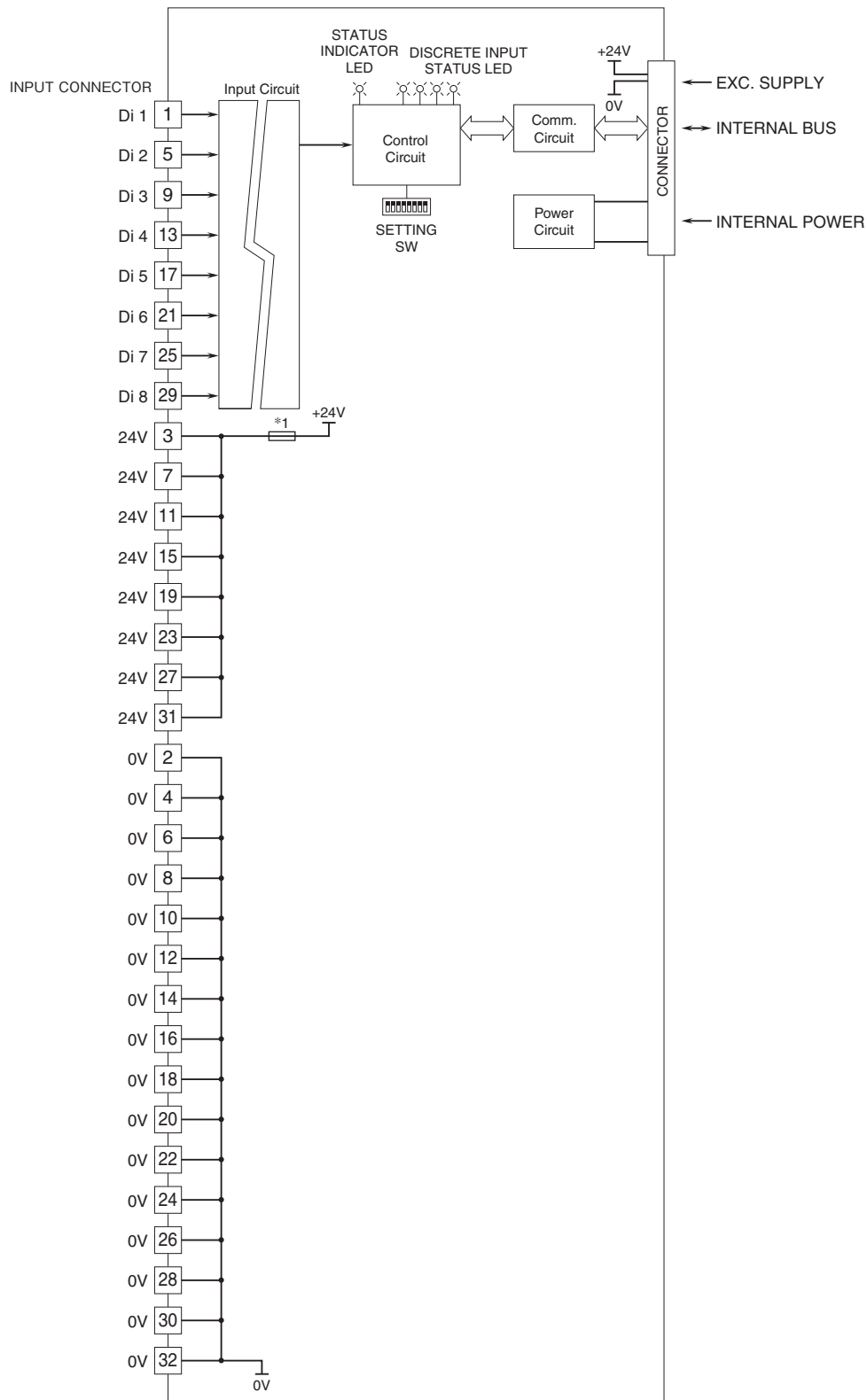
■ TERMINATOR (SW2)

TERMINATOR	SW2-6
Without (*)	OFF
With	ON

EXTERNAL DIMENSIONS unit: mm [inch]

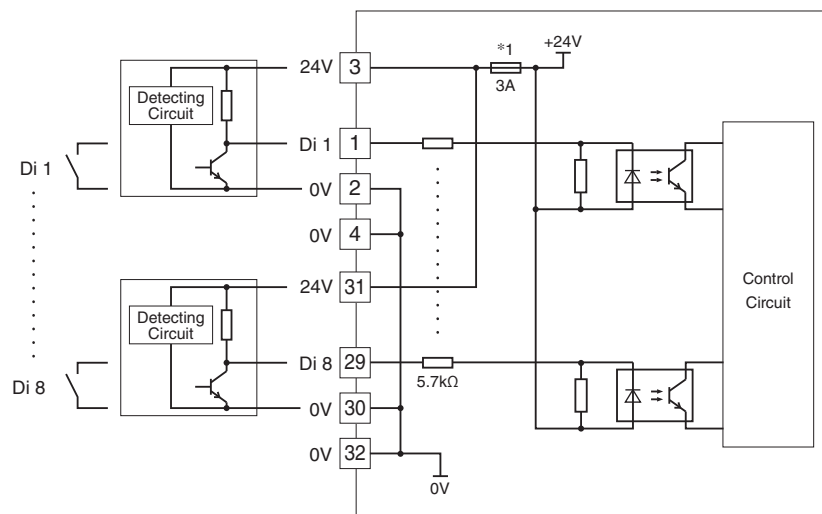


SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*1. Fuse is not replaceable.

■ INPUT CIRCUIT



Specifications are subject to change without notice.