

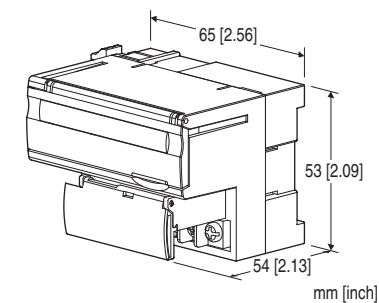
## Remote I/O R7 Series

### MODBUS I/O MODULE

(discrete input for extension, 8 points)

#### Functions & Features

- 8 points discrete input extension module connected to Modbus I/O module (model: R7M)



### MODEL:R7M-EA8[1]

#### ORDERING INFORMATION

- Code number: R7M-EA8[1]
- Specify a code from below for [1].  
(e.g. R7M-EA8/Q)
- Specify the specification for option code /Q  
(e.g. /C01)

#### I/O TYPE

**EA8:** Discrete input for extension, 8 points

#### [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

**/C03:** Rubber coating

#### GENERAL SPECIFICATIONS

**Connection:** M3 separable screw terminal (torque 0.5 N·m)

**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:** 0.25 to 1.65 mm<sup>2</sup> (AWG 22 to 16)

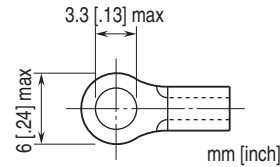
**Screw terminal:** Nickel-plated steel

**Housing material:** Flame-resistant resin (gray)

**Isolation:** Input to internal circuits

**Discrete input status indicator LED:** LED turns on with input ON

#### ■Recommended solderless terminal



#### INPUT SPECIFICATIONS

**Common:** Positive or negative common (NPN/PNP) per 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:**  $\geq 15$  V DC (input - COM) /  $\geq 3.5$  mA

**OFF voltage / current:**  $\leq 5$  V DC (input - COM) /  $\leq 1$  mA

**Input current:**  $\leq 5.5$  mA per point at 24 V DC

**Input resistance:** Approx. 4.4 k $\Omega$

**ON delay:**  $\leq 2.0$  msec.

**OFF delay:**  $\leq 2.0$  msec.

#### INSTALLATION

**Current consumption**

• **DC:** Approx. 10 mA

**Operating temperature:** -10 to +55°C (14 to 131°F)

**Storage temperature:** -20 to +65°C (-4 to +149°F)

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

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

**Mounting:** DIN rail (35 mm rail)

**Weight:** 90 g (0.2 lb)

#### PERFORMANCE

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

**Dielectric strength:** 1500 V AC @ 1 minute (input to internal circuits)

#### STANDARDS & APPROVALS

Refer to the manuals to comply with the standards.

**EU conformity:**

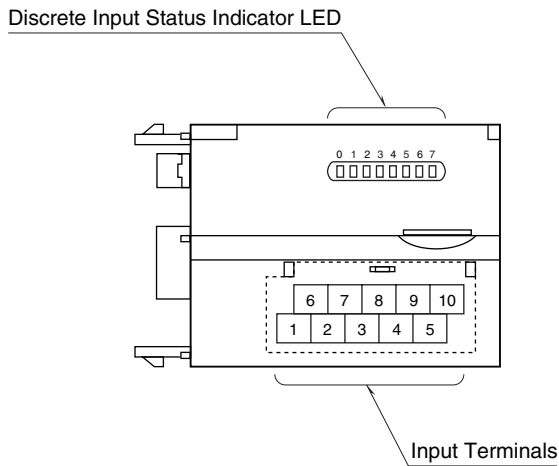
EMC Directive

EMI EN 61000-6-4

EMS EN 61000-6-2

RoHS Directive

## EXTERNAL VIEW



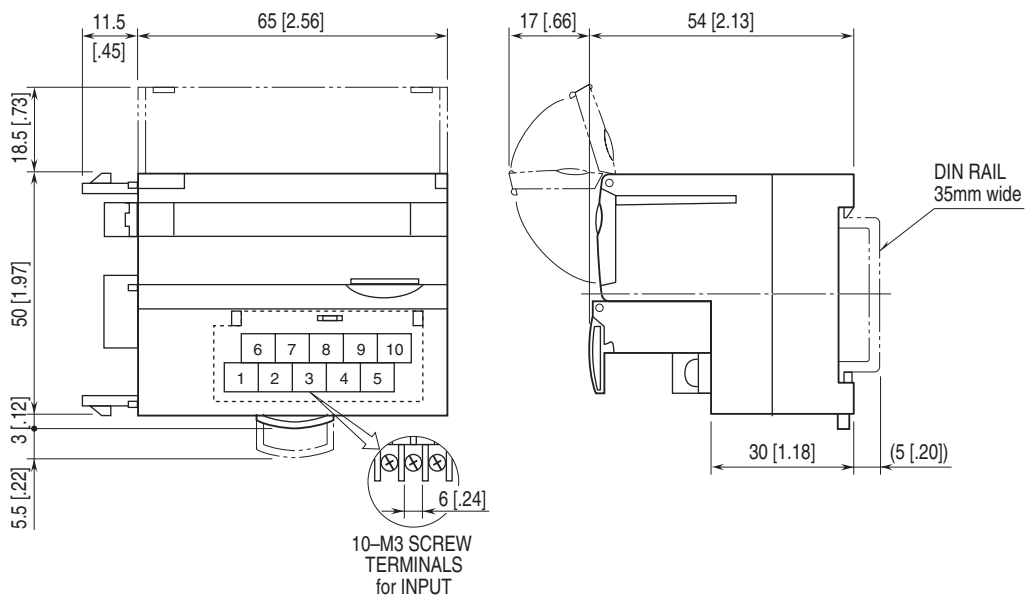
## TERMINAL ASSIGNMENTS

### ■ INPUT TERMINAL ASSIGNMENT

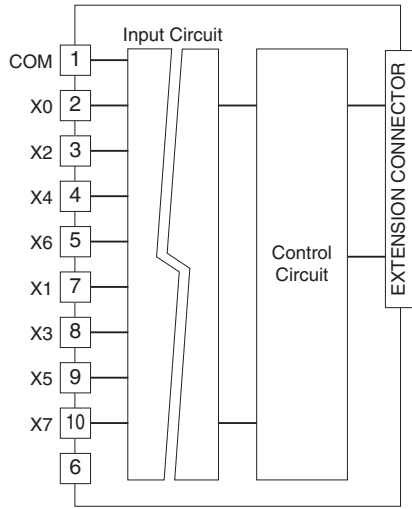
6	7	8	9	10
NC	X1	X3	X5	X7
1	2	3	4	5
COM	X0	X2	X4	X6

NO.	ID	FUNCTION	NO.	ID	FUNCTION
1	COM	Common	6	NC	No Connection
2	X0	Input 0	7	X1	Input 1
3	X2	Input 2	8	X3	Input 3
4	X4	Input 4	9	X5	Input 5
5	X6	Input 6	10	X7	Input 7

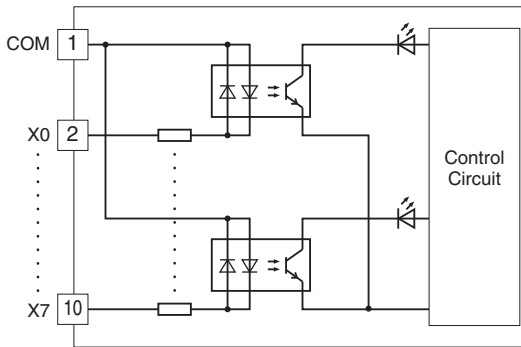
## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**

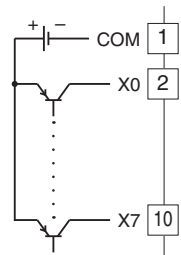


■ Input Circuit

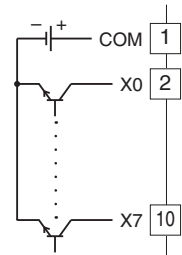


■ Input Connection Examples

PNP Connection



NPN Connection



Specifications are subject to change without notice.