

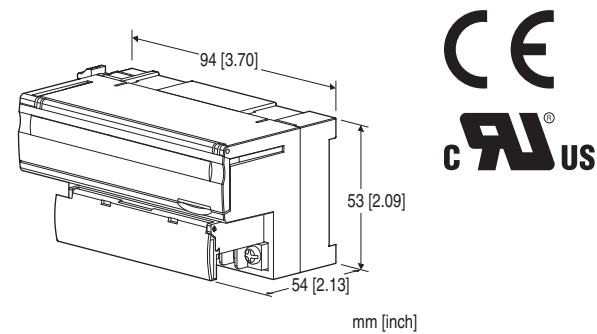
Remote I/O R7 Series

MODBUS I/O MODULE

(discrete input for extension, 16 points)

Functions & Features

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



MODEL:R7M-EA16[1]

ORDERING INFORMATION

- Code number: R7M-EA16[1]
- Specify a code from below for [1].
(e.g. R7M-EA16/Q)
- Specify the specification for option code /Q
(e.g. /C01)

I/O TYPE

EA16: Discrete input for extension, 16 points

[1] OPTIONS

Standards & Approvals

blank: CE marking

/UL: UL approval, CE marking

Other Options

blank: none

/Q: Option other than the above (specify the specification)
(UL not available)

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 mm² (AWG 22 to 16)

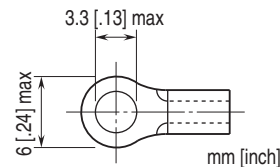
Screw terminal: Nickel-plated steel

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 16 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 - COM) / ≥ 3.5 mA

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

Input current: ≤ 5.5 mA per point at 24 V DC

Input resistance: Approx. 4.4 k Ω

ON delay: ≤ 2.0 msec.

OFF delay: ≤ 2.0 msec.

INSTALLATION

Current consumption

- DC: Approx. 20 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: 150 g (0.33 lb)

PERFORMANCE

Insulation resistance: ≥ 100 M Ω 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

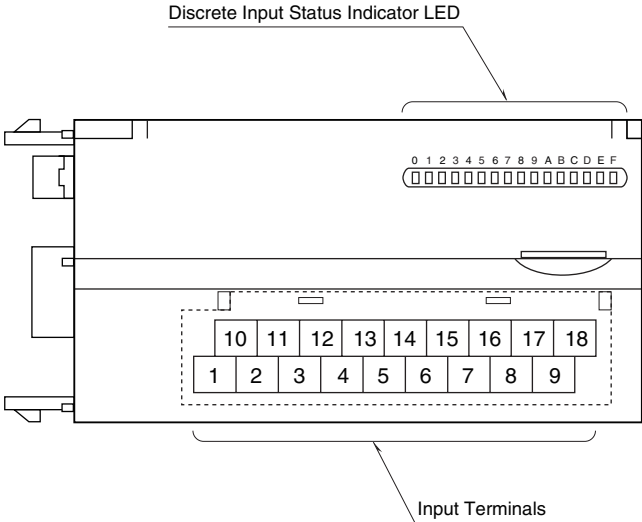
RoHS Directive

Approval:

UL/C-UL nonincendive Class I, Division 2,
 Groups A, B, C, and D
 (ANSI/UL 121201, CAN/CSA-C22.2 No.213-17)
 UL/C-UL general safety requirements
 (UL 61010-1, CAN/CSA-C22.2 No.61010-1)

Note: This equipment is to be supplied by a Class 2 power supply when using as conformity with UL/C-UL.

EXTERNAL VIEW



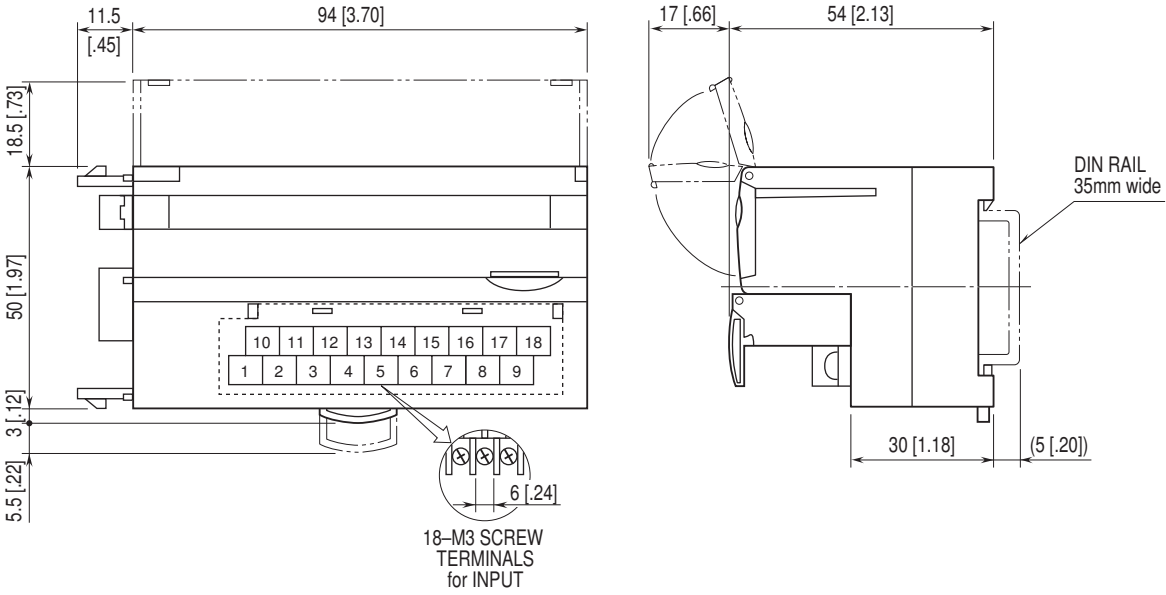
TERMINAL ASSIGNMENTS

■ INPUT TERMINAL ASSIGNMENT

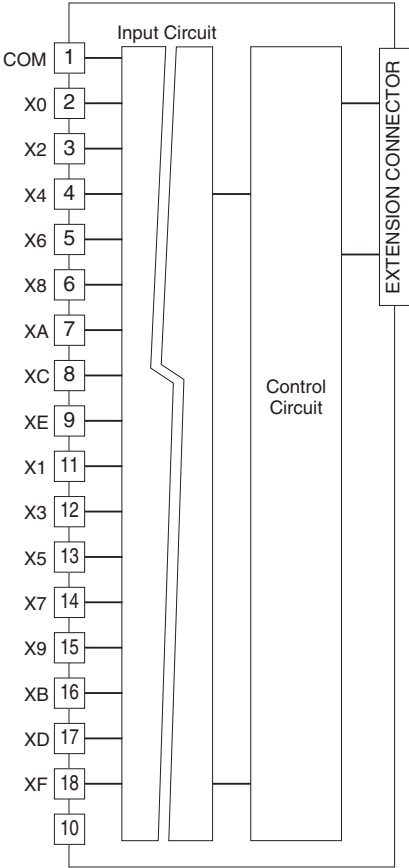
10	11	12	13	14	15	16	17	18
NC	X1	X3	X5	X7	X9	XB	XD	XF
1	2	3	4	5	6	7	8	9
COM	X0	X2	X4	X6	X8	XA	XC	XE

NO.	ID	FUNCTION	NO.	ID	FUNCTION
1	COM	Common	10	NC	No Connection
2	X0	Input 0	11	X1	Input 1
3	X2	Input 2	12	X3	Input 3
4	X4	Input 4	13	X5	Input 5
5	X6	Input 6	14	X7	Input 7
6	X8	Input 8	15	X9	Input 9
7	XA	Input 10	16	XB	Input 11
8	XC	Input 12	17	XD	Input 13
9	XE	Input 14	18	XF	Input 15

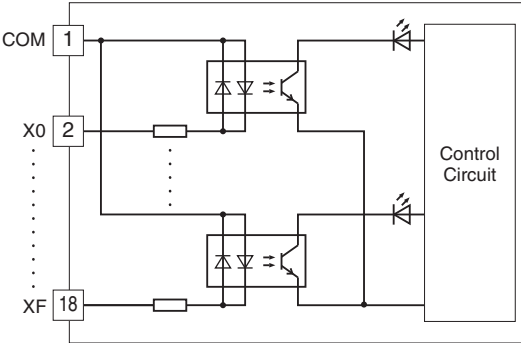
EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



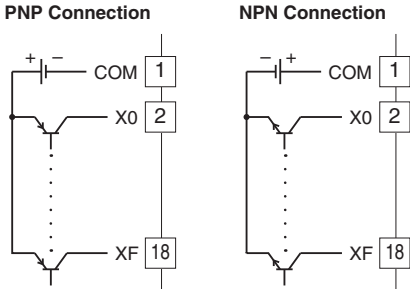
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



■ Input Circuit



■ Input Connection Examples





Specifications are subject to change without notice.