

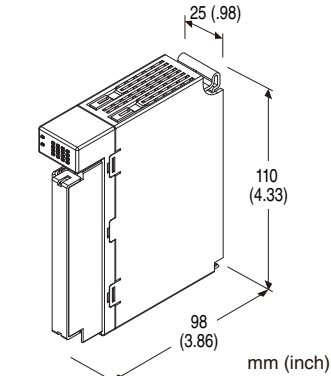
## Remote I/O R30 Series

### DISCRETE INPUT MODULE

(Di 16 points; with external excitation supply)

#### Functions & Features

- 16 channels for discrete input remote I/O module



### MODEL: R30XN16AS[1]

#### ORDERING INFORMATION

- Code number: R30XN16AS[1]  
Specify a code from below for [1].  
(e.g. R30XN16AS/Q)
- Specify the specification for option code /Q  
(e.g. /C01)

#### TYPE

**16A:** Input, 16 points (external input power)

#### COMMUNICATION MODE

S: Single

#### [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
- /C03: Rubber coating

#### GENERAL SPECIFICATIONS

##### Connection

**Internal bus:** Via the Installation Base (model: R30BS)  
**Input:** M3 separable screw terminal (torque 0.5 N·m)  
**Internal power:** Via the Installation Base (model: R30BS)  
**Solderless terminal:** Refer to the drawing at the end of the section.

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

(Solderless terminals with insulation sleeve do not fit.)

**Applicable wire size:** 0.25 to 0.75 mm<sup>2</sup>

**Screw terminal:** Nickel-plated steel

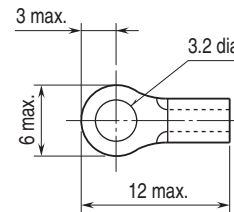
**Isolation:** Input to internal bus or internal power

**Status indicator LED:** RUN, ERR

**Discrete input indicator LEDs:** Green LED; turns on with input ON

(Refer to the instruction manual.)

■ **Recommended solderless terminal size - M3 (unit: mm)**



#### INPUT SPECIFICATIONS

**Module type:** Discrete input, 16 points

**Isolation:** Optical isolator

**Input resistance:** Approx. 4.4 kΩ

**Common:** Positive or negative common (NPN/PNP) per 16 points

**Rated input voltage:** 24 V DC ±10 % (ripple 5 %p-p max.)

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

**ON voltage / current:** ≥ 15 V DC (input - COM) / ≥ 3.5 mA

**OFF voltage / current:** ≤ 5 V DC (input - COM) / ≤ 1.0 mA

**ON delay:** ≤ 0.5 msec.

**OFF delay:** ≤ 1.0 msec.

#### INSTALLATION

**Current consumption:** Approx. 40 mA

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

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

**Operating humidity:** 10 to 90 %RH (non-condensing)

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

**Mounting:** Installation Base (model: R30BS)

**Weight:** 150 g (0.33 lb)

#### PERFORMANCE

**Data allocation:** 1

**Insulation resistance:** ≥ 100 MΩ with 500 V DC

**Dielectric strength:** 1500 V AC @ 1 minute (input to internal bus or internal power)  
 1500 V AC @ 1 minute (power input to FE; isolated on the power supply module)

## STANDARDS & APPROVALS

### EU conformity:

EMC Directive

EMI EN 61000-6-4

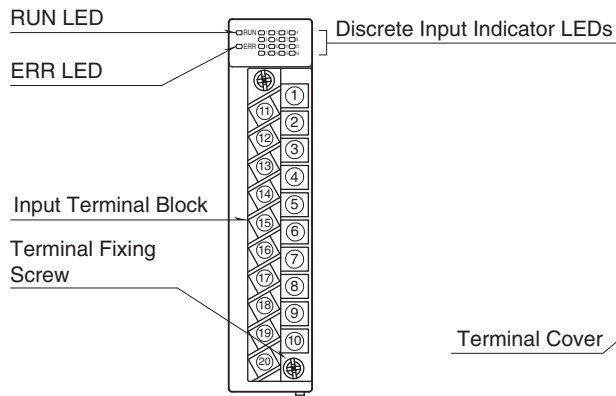
EMS EN 61000-6-2

RoHS Directive

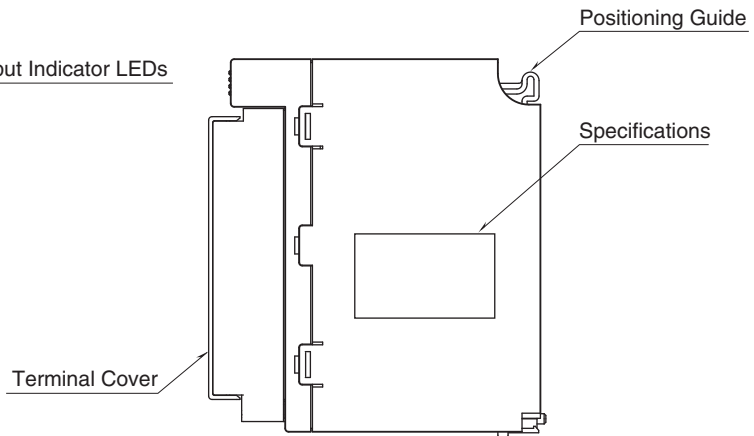
EN 50581

## EXTERNAL VIEW

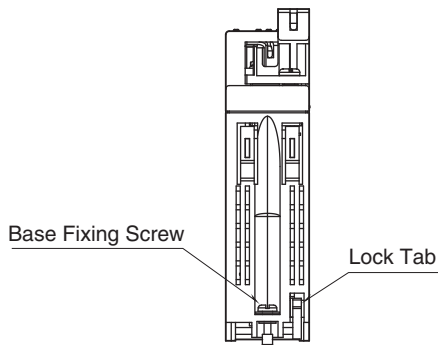
### FRONT VIEW



### SIDE VIEW



### BOTTOM VIEW

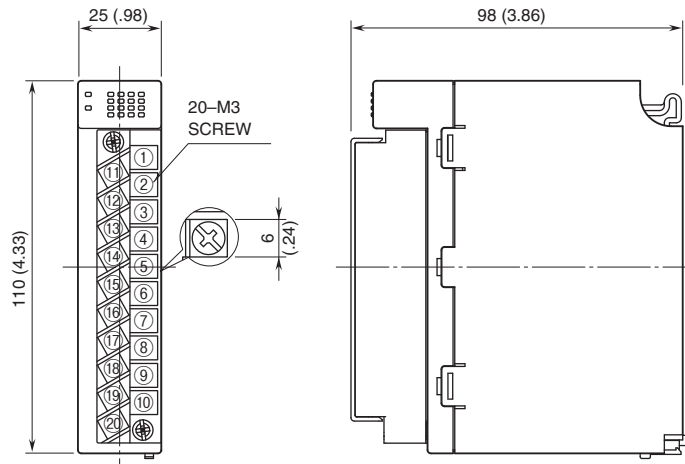


## TERMINAL ASSIGNMENTS

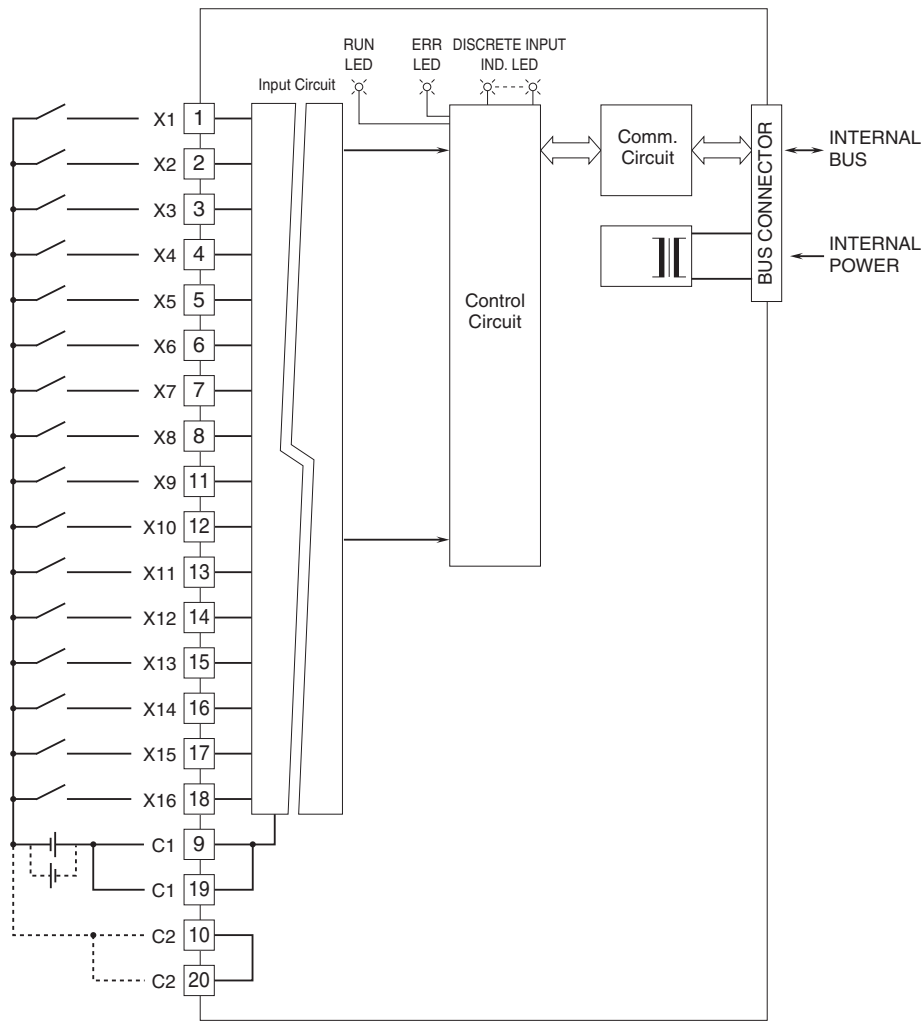
	1
11	X1
X9	2
12	X2
X10	3
13	X3
X11	4
14	X4
X12	5
15	X5
X13	6
16	X6
X14	7
17	X7
X15	8
18	X8
X16	9
19	C1
C1	10
20	C2
C2	

NO.	ID	FUNCTION	NO.	ID	FUNCTION
1	X1	Input 1	11	X9	Input 9
2	X2	Input 2	12	X10	Input 10
3	X3	Input 3	13	X11	Input 11
4	X4	Input 4	14	X12	Input 12
5	X5	Input 5	15	X13	Input 13
6	X6	Input 6	16	X14	Input 14
7	X7	Input 7	17	X15	Input 15
8	X8	Input 8	18	X16	Input 16
9	C1	Common 1	19	C1	Common 1
10	C2	Common 2	20	C2	Common 2

## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)

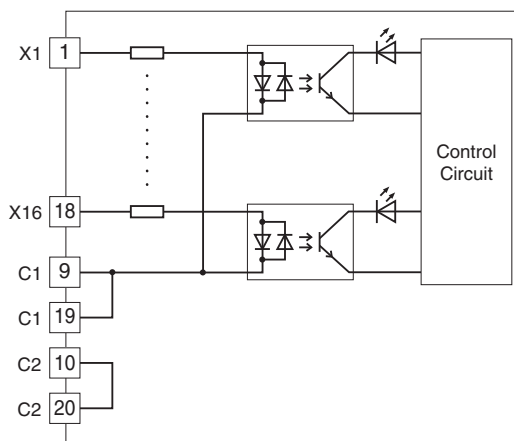


## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



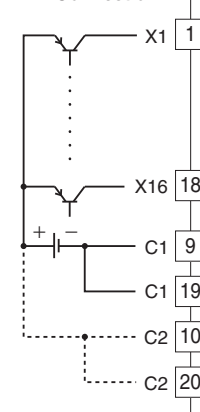
Note: Terminals C2 can be used as necessary.

### Input Circuit

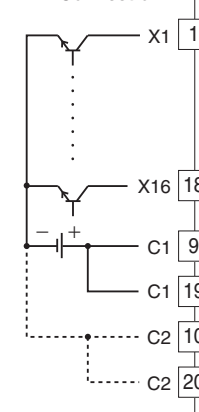


### Input Connection Examples

#### PNP Connection



#### NPN Connection



Specifications are subject to change without notice.