

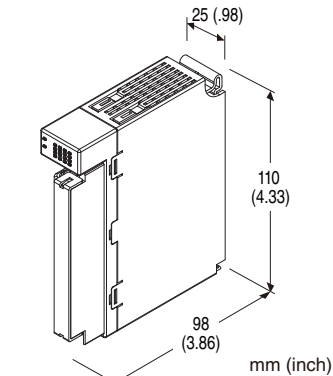
Remote I/O R30 Series

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 supply: 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 mm²

Screw terminal: Nickel-plated steel

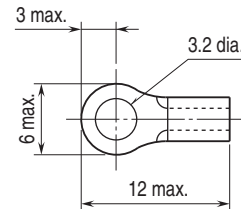
Isolation: Input to internal bus or internal power

Status indicators: 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: $\geq 100 \text{ M}\Omega$ 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

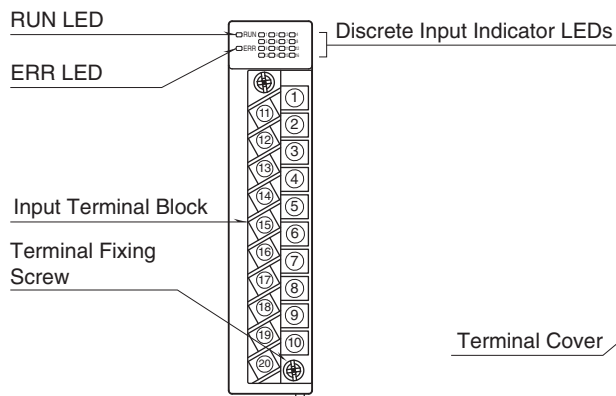
EMS EN 61000-6-2

RoHS Directive

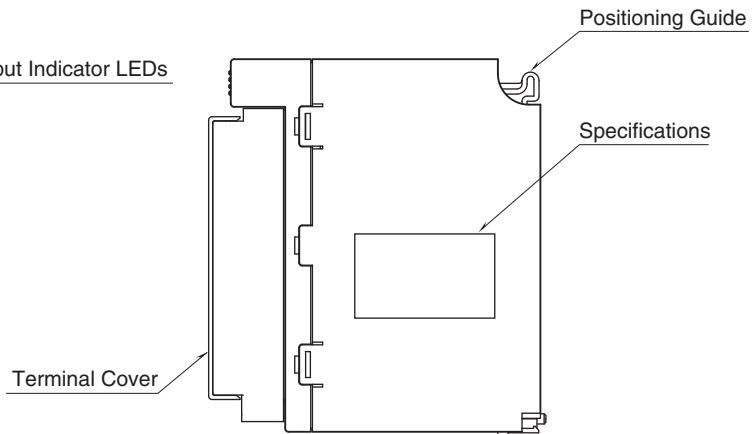
EN 50581

EXTERNAL VIEW

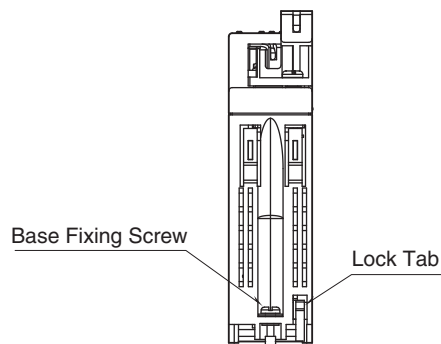
FRONT VIEW



SIDE VIEW



BOTTOM VIEW

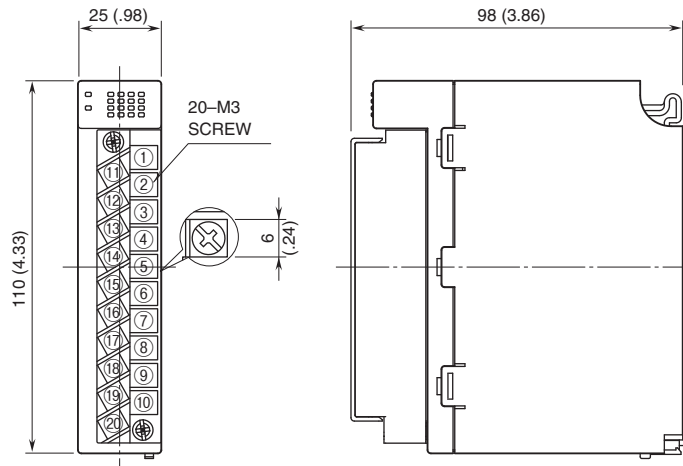


TERMINAL ASSIGNMENTS

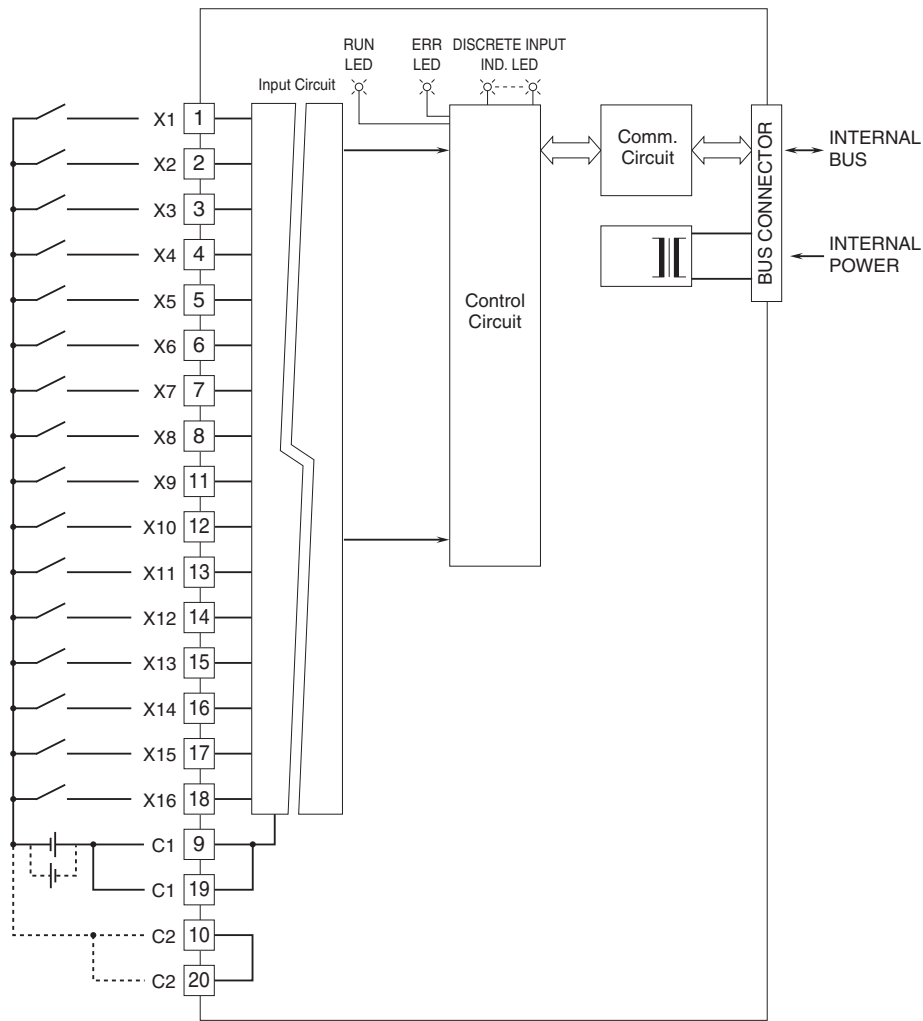
	1
11	X1
X9	2
12	X2
X10	3
13	X3
X11	4
14	X4
X12	5
15	X5
X13	6
16	X6
X14	7
17	X7
X15	8
18	X8
X16	9
19	C1
C1	10
20	C2
C2	

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)

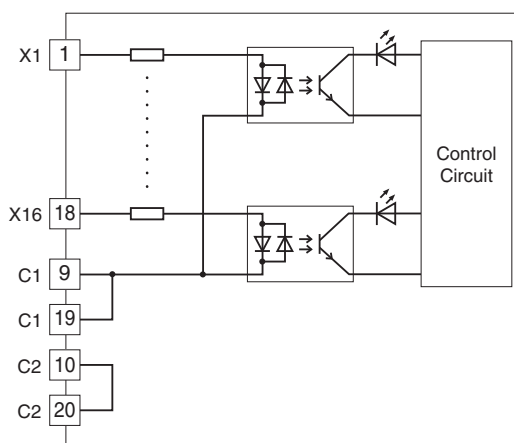


SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



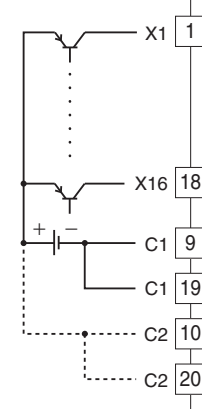
Note: Terminals C2 can be used as necessary.

■ Input Circuit

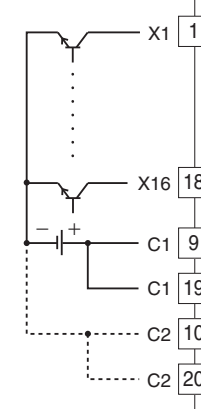


■ Input Connection Examples

PNP Connection



NPN Connection



Specifications are subject to change without notice.