

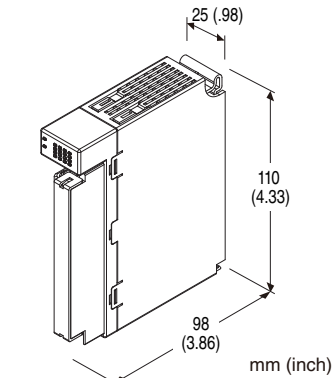
Remote I/O R30 Series

DISCRETE OUTPUT MODULE

(NPN transistor output, 16 points)

Functions & Features

- 16 channels for discrete output remote I/O module



MODEL: R30YN16AS[1]

ORDERING INFORMATION

- Code number: R30YN16AS[1]
Specify a code from below for [1].
(e.g. R30YN16AS/Q)
- Specify the specification for option code /Q
(e.g. /C01)

TYPE

16A: Output, 16 points (NPN transistor)

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)

Output: 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 mm²

Screw terminal: Nickel-plated steel

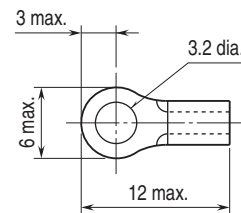
Isolation: Output to internal bus or internal power

Status indicator LED: RUN, ERR

Discrete output indicator LEDs: Green LED; turns on with output ON

(Refer to the instruction manual.)

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



OUTPUT SPECIFICATIONS

Module type: Discrete output, 16 points

Isolation: Optical isolator

Common: Negative common (NPN) per 16 points

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

Rated output current: 0.1 A per point, 1.6 A per common

Residual voltage: ≤ 1.2 V

Leakage current: ≤ 0.1 mA

ON delay: ≤ 0.5 msec.

OFF delay: ≤ 1.0 msec.

Overload current protection function: Limits the current value when overcurrent is detected

Overheat protection function: Turns OFF the outputs when overheat is detected

(When driving an inductive load, connect a diode in parallel with the load.)

INSTALLATION

Current consumption: Approx. 75 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

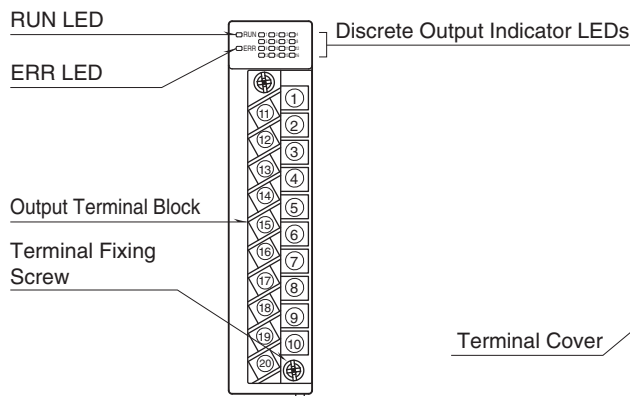
- Data allocation: 1
- Insulation resistance: $\geq 100 \text{ M}\Omega$ with 500 V DC
- Dielectric strength: 1500 V AC @ 1 minute (output to internal bus or internal power)
- 1500 V AC @ 1 minute (power input to FE; isolated on the power supply module)

STANDARDS & APPROVALS

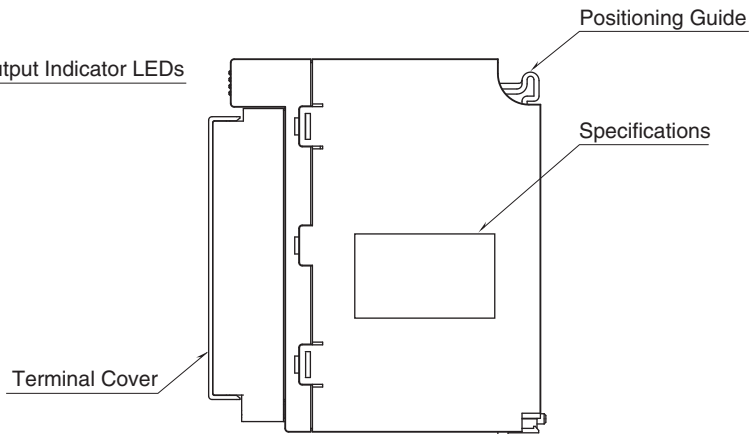
- EU conformity:
 - EMC Directive
 - EMI EN 61000-6-4
 - EMS EN 61000-6-2
 - RoHS Directive
 - EN 50581

EXTERNAL VIEW

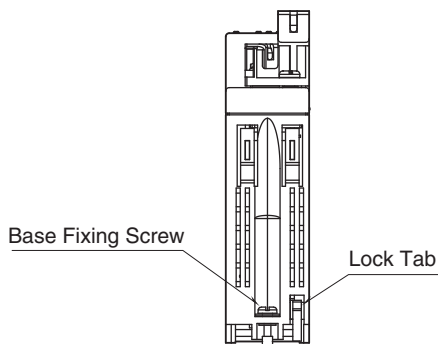
FRONT VIEW



SIDE VIEW



BOTTOM VIEW

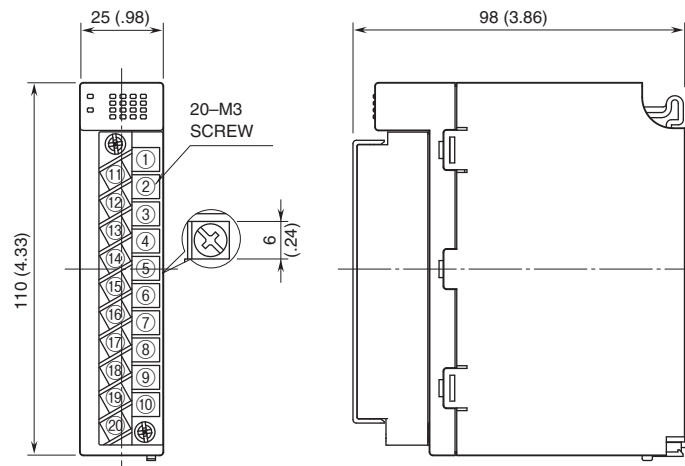


TERMINAL ASSIGNMENTS

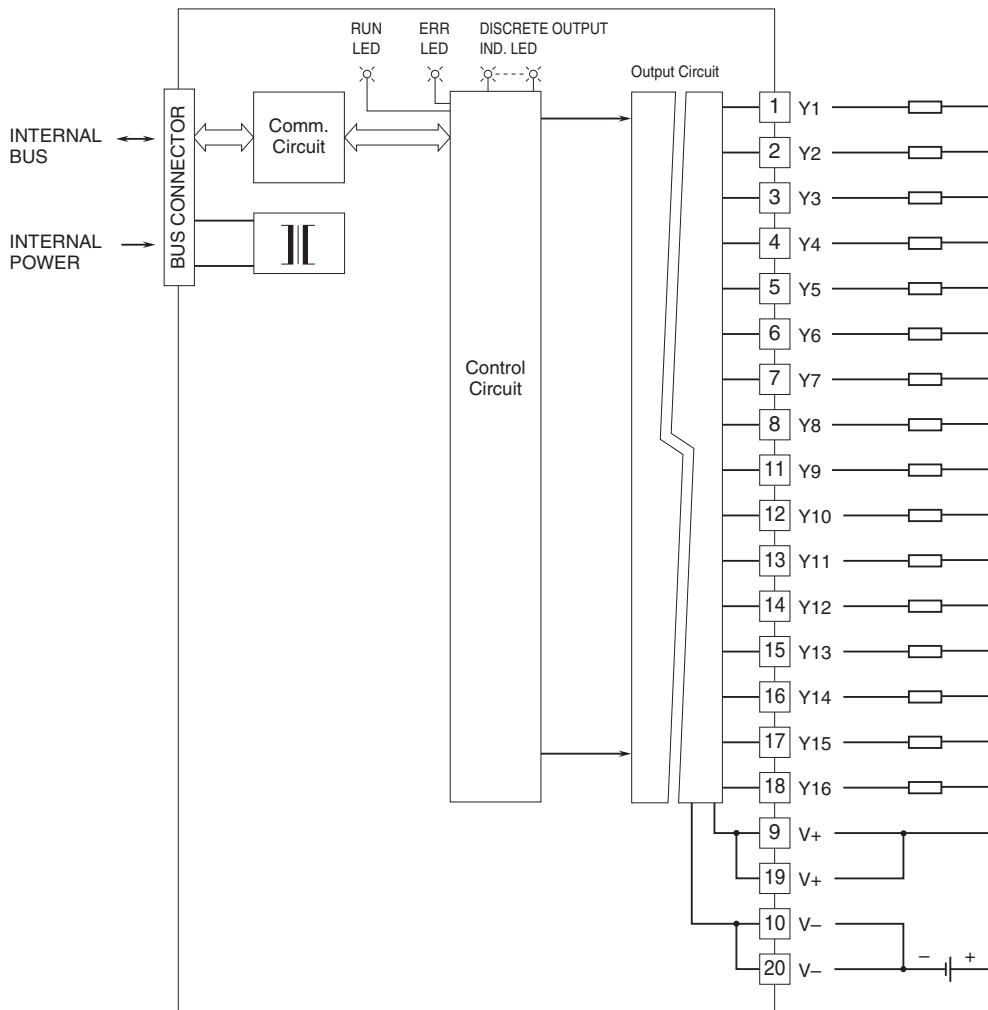
	1
11	Y1
Y9	2
12	Y2
Y10	3
13	Y3
Y11	4
14	Y4
Y12	5
15	Y5
Y13	6
16	Y6
Y14	7
17	Y7
Y15	8
18	Y8
Y16	9
19	V+
V+	10
20	V-
V-	

NO.	ID	FUNCTION	NO.	ID	FUNCTION
1	Y1	Output 1	11	Y9	Output 9
2	Y2	Output 2	12	Y10	Output 10
3	Y3	Output 3	13	Y11	Output 11
4	Y4	Output 4	14	Y12	Output 12
5	Y5	Output 5	15	Y13	Output 13
6	Y6	Output 6	16	Y14	Output 14
7	Y7	Output 7	17	Y15	Output 15
8	Y8	Output 8	18	Y16	Output 16
9	V+	24V DC	19	V+	24V DC
10	V-	0V	20	V-	0V

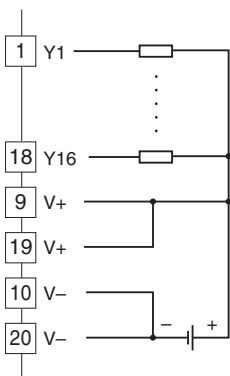
EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



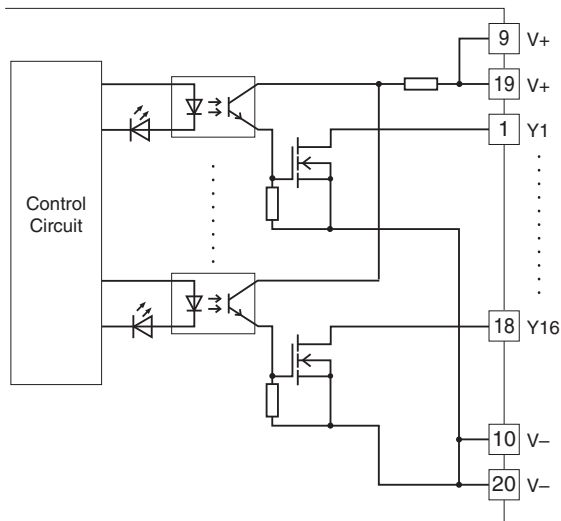
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



■ Output Connection Example



■ Output Circuit





Specifications are subject to change without notice.