

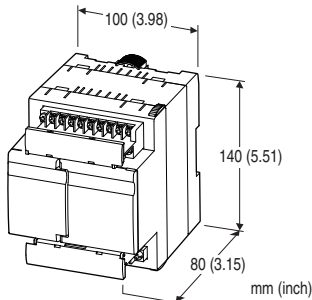
Remote I/O R9 Series

DISCRETE I/O EXTENSION UNIT

(Di (internal power), Do (photo MOSFET relay), pulse totalizer)

Functions & Features

- Extension unit for Multi Power Monitoring Unit (model: R9xWTU)
- Photo MOSFET relay output



MODEL: R9WTU-ED16[1]

ORDERING INFORMATION

- Code number: R9WTU-ED16[1]
Specify a code from below for [1].
(e.g. R9WTU-ED16/Q)
- Specify the specification for option code /Q
(e.g. /C01)

NO. OF CHANNELS

16: 16 points (Di 8, Do 8)

[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

RELATED PRODUCTS

- Multi Power Monitoring Unit for CC-Link (model: R9CWTU)
- Multi Power Monitoring Unit for LonWorks (model: R9LWTU)
- Multi Power Monitoring Unit for Modbus (model: R9MWTU)
- Multi Power Monitoring Unit for Modbus/TCP (model: R9EWTU)

GENERAL SPECIFICATIONS

Construction: Stand-alone

Degree of protection: IP20

Connection: M3 screw terminals (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

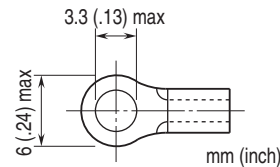
Housing material: Flame-resistant resin (black)

Isolation: R9xWTU (input or network or auxiliary power) to input to output to between outputs

Input status indicator: Red LED; turns on with the inputs ON.

Output status indicator: Red LED; turns on with the outputs ON.

■ Recommended solderless terminal size - M3



INPUT SPECIFICATIONS

Common: Negative common

Maximum frequency: 50 Hz

Minimum pulse width: 10 msec.

Max. counter value: 0 - 999 999 999

Count at overflow: Reset and restart at '0.'

Detecting voltage/current: 5 V DC / 5 mA approx.

ON/OFF levels: ≤ 5 kΩ / ≤ 2 V for ON;

≥ 100 kΩ / 4 V for OFF

Operation mode: Discrete and pulse counter

OUTPUT SPECIFICATIONS

Output: Photo MOSFET relay

Rating: Peak 350 V AC/DC @ 80 mA

ON resistance: ≤ 50 Ω

Power dissipation: 320 mW

Leakage current at OFF: ≤ 10 μA

INSTALLATION

Power consumption

• AC: ≤ 2 VA

• DC: ≤ 1.5 W

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

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

Atmosphere: No corrosive gas or heavy dust

Mounting: Surface or DIN rail

Weight: 300 g (0.66 lb)

PERFORMANCE

Insulation resistance: $\geq 100 \text{ M}\Omega$ with 500 V DC

Dielectric strength:

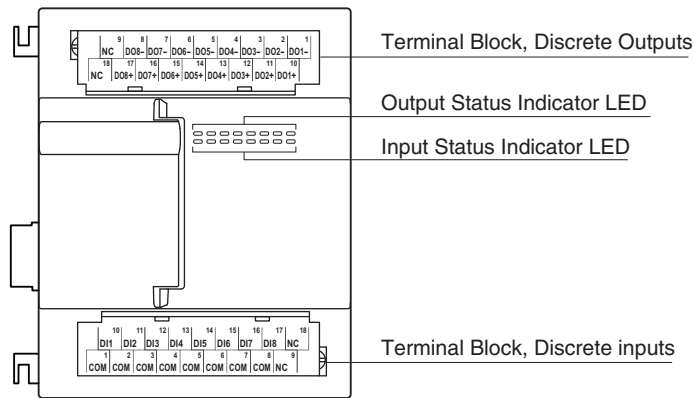
2000 V AC @ 1 minute (R9xWTU (input or network or auxiliary power) to input)

1500 V AC @ 1 minute (R9xWTU (input or network or auxiliary power) to output)

1500 V AC @ 1 minute (input to output)

1500 V AC @ 1 minute (between outputs)

EXTERNAL VIEW



TERMINAL ASSIGNMENTS

■ DISCRETE INPUT

10	11	12	13	14	15	16	17	18
DI1	DI2	DI3	DI4	DI5	DI6	DI7	DI8	NC
1	2	3	4	5	6	7	8	9
COM	COM	COM	COM	COM	COM	COM	COM	NC

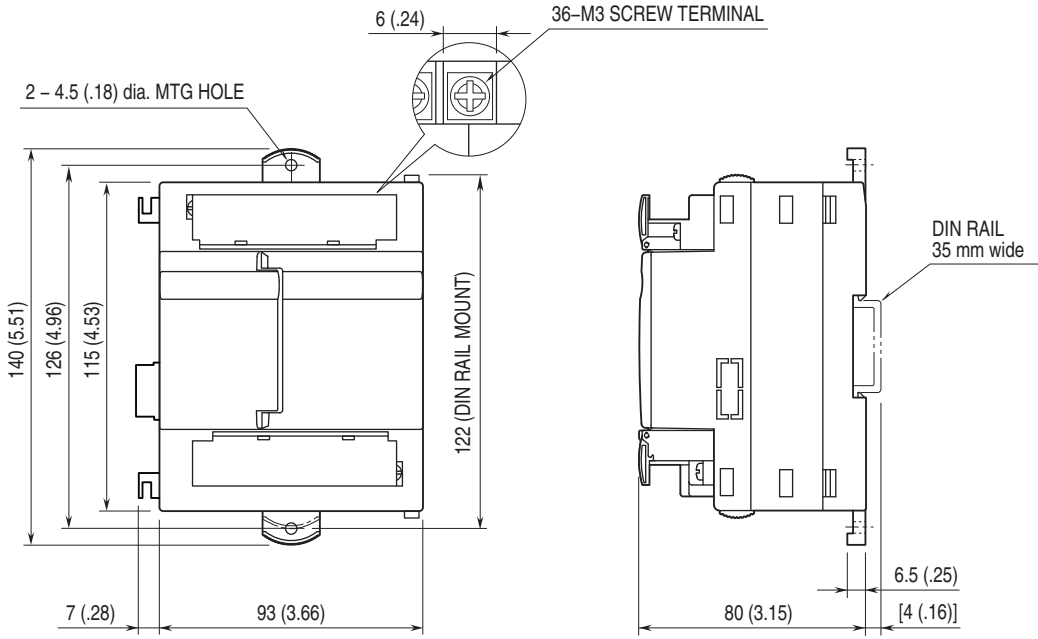
No.	ID	FUNCTION	No.	ID	FUNCTION
1	COM	Input comon	10	DI1	Input 1ch
2	COM	Input comon	11	DI2	Input 2ch
3	COM	Input comon	12	DI3	Input 3ch
4	COM	Input comon	13	DI4	Input 4ch
5	COM	Input comon	14	DI5	Input 5ch
6	COM	Input comon	15	DI6	Input 6ch
7	COM	Input comon	16	DI7	Input 7ch
8	COM	Input comon	17	DI8	Input 8ch
9	NC	Unused	18	NC	Unused

■ DISCRETE OUTPUT

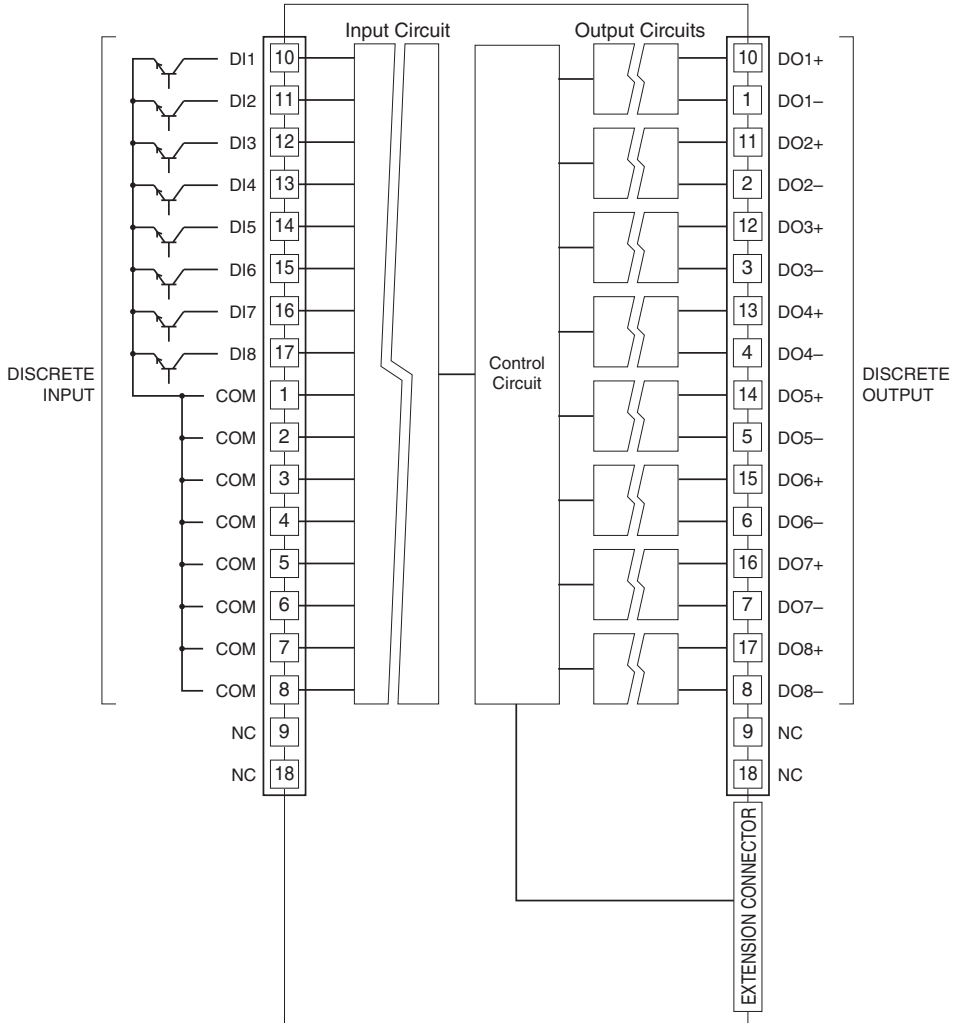
9	8	7	6	5	4	3	2	1
NC	DO8-	DO7-	DO6-	DO5-	DO4-	DO3-	DO2-	DO1-
18	17	16	15	14	13	12	11	10
NC	DO8+	DO7+	DO6+	DO5+	DO4+	DO3+	DO2+	DO1+

No.	ID	FUNCTION	No.	ID	FUNCTION
1	DO1-	Output 1ch-	10	DO1+	Output 1ch+
2	DO2-	Output 2ch-	11	DO2+	Output 2ch+
3	DO3-	Output 3ch-	12	DO3+	Output 3ch+
4	DO4-	Output 4ch-	13	DO4+	Output 4ch+
5	DO5-	Output 5ch-	14	DO5+	Output 5ch+
6	DO6-	Output 6ch-	15	DO6+	Output 6ch+
7	DO7-	Output 7ch-	16	DO7+	Output 7ch+
8	DO8-	Output 8ch-	17	DO8+	Output 8ch+
9	NC	Unused	18	NC	Unused

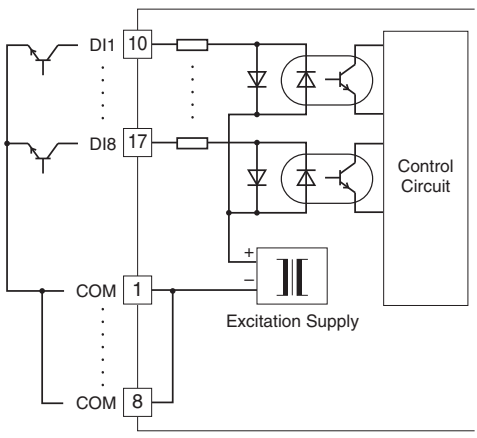
EXTERNAL DIMENSIONS unit: mm (inch)



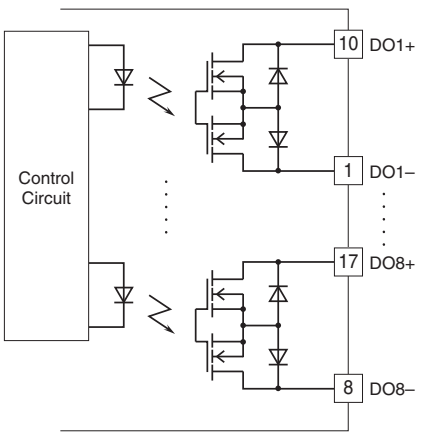
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



■ INPUT

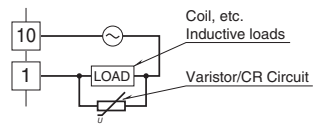


■ OUTPUT

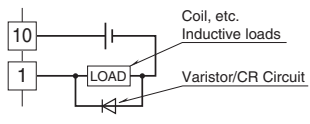


■ Refer to the figure below for Photo MOS Relay discrete protection and noise removal.

• AC Powered



• DC Powered





Specifications are subject to change without notice.