

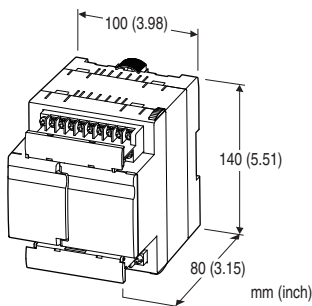
Remote I/O R9 Series

MULTI POWER MONITORING EXTENTION UNIT

(clamp-on current sensor type CLSE use)

Functions & Features

- Extension unit for Multi Power Monitoring Unit (model: R9xWTU) to expand current inputs.
- By using clamp-on current sensors, there is no need of current transformers.
- Up to 16 circuits can be measured with R9xWTU. (Common voltage measurement)
- Current sensors are easy to install in existing systems. Wide input range of 5 to 600 A is available.



MODEL: R9WTU-EP8

ORDERING INFORMATION

- Code number: R9WTU-EP8

NO. OF CHANNELS

8: 8 circuits

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)
- Clamp-on current sensor (model: CLSE)

The clamp-on current sensors, not included in this product package, must be ordered separately. Required number depends upon the system configuration.

GENERAL SPECIFICATIONS

Construction: Stand-alone

Degree of protection: IP20

Connection: M3 screw terminals (torque 0.5 N·m)

Recommended solderless terminal: Refer to the drawing on

the end of this section.

Applicable wire size: 0.3 to 0.75 mm²

Screw terminal: Nickel-plated steel

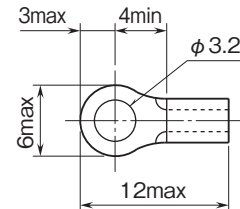
Housing material: Flame-resistant resin (black)

Isolation: Must be the same potential as R9xWTU current input

■ Measured variables

Refer to R9xWTU specification sheet.

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



INPUT SPECIFICATIONS

Refer to R9xWTU specification sheet.

INSTALLATION

Power consumption

- AC: ≤ 1 VA
- DC: ≤ 1 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

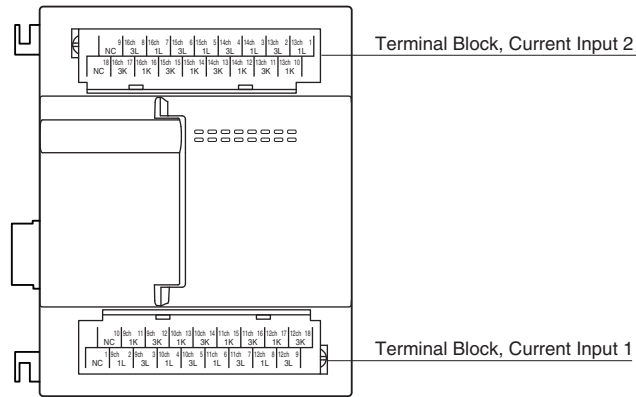
Mounting: Surface or DIN rail

Weight: 300 g (0.66 lbs)

PERFORMANCE

Refer to R9xWTU specification sheet.

EXTERNAL VIEW



TERMINAL CONNECTIONS

Use the model CLSE clamp sensor for current inputs.

The figure below shows only one circuit. At the maximum of eight (8) current sensor inputs are available (9ch through 16ch).

Grounding is not required for low voltage circuits.

System / Application	Terminal	System / Application	Terminal
Single-phase / 2-wire	<p>Diagram showing a single-phase 2-wire system with a balanced load. The source consists of L1 and N. The load is connected between L1 and N. The terminal block has terminals P1 (L1), N (N), 1K (L1), and 1L (N). The load is connected between 1K and 1L.</p>	Three-phase / 3-wire balanced load	<p>Diagram showing a three-phase 3-wire system with a balanced load. The source consists of L1, L2, and L3. The load is connected between L1, L2, and L3. The terminal block has terminals P1 (L1), P2 (L2), P3 (L3), 1K (L1), and 1L (L2).</p>
	<p>Diagram showing a single-phase 2-wire system with an unbalanced load. The source consists of L1 and N. The load is connected between L1 and N. The terminal block has terminals P1 (L1), N (N), 1K (L1), and 1L (N). The load is connected between 1K and 1L.</p>		<p>Diagram showing a three-phase 3-wire system with an unbalanced load. The source consists of L1, L2, and L3. The load is connected between L1, L2, and L3. The terminal block has terminals P1 (L1), P2 (L2), P3 (L3), 1K (L1), 1L (L2), 3K (L3), and 3L (L3).</p>
Single-phase / 3-wire	<p>Diagram showing a single-phase 3-wire system with a balanced load. The source consists of L1, N, and L2. The load is connected between L1, N, and L2. The terminal block has terminals P1 (L1), N (N), P3 (L2), 1K (L1), 1L (N), 3K (L2), and 3L (L2).</p>	Three-phase / 3-wire unbalanced load	<p>Diagram showing a three-phase 3-wire system with an unbalanced load. The source consists of L1, L2, and L3. The load is connected between L1, L2, and L3. The terminal block has terminals P1 (L1), P2 (L2), P3 (L3), 1K (L1), 1L (L2), 3K (L3), and 3L (L3).</p>
	<p>Diagram showing a single-phase 3-wire system with an unbalanced load. The source consists of L1, N, and L2. The load is connected between L1, N, and L2. The terminal block has terminals P1 (L1), N (N), P3 (L2), 1K (L1), 1L (N), 3K (L2), and 3L (L2).</p>		<p>Diagram showing a three-phase 3-wire system with an unbalanced load. The source consists of L1, L2, and L3. The load is connected between L1, L2, and L3. The terminal block has terminals P1 (L1), P2 (L2), P3 (L3), 1K (L1), 1L (L2), 3K (L3), and 3L (L3).</p>

TERMINAL ASSIGNMENTS

■ CURRENT INPUT 1

10	9ch	11	9ch	12	10ch	13	10ch	14	11ch	15	11ch	16	12ch	17	12ch	18
NC	1K	3K	1K	3K	1K	3K	1K	3K	1K	3K	1K	3K	1K	3K	1K	3K
1	9ch	2	9ch	3	10ch	4	10ch	5	11ch	6	11ch	7	12ch	8	12ch	9
NC	1L	3L	1L	3L	1L	3L	1L	3L	1L	3L	1L	3L	1L	3L	1L	3L

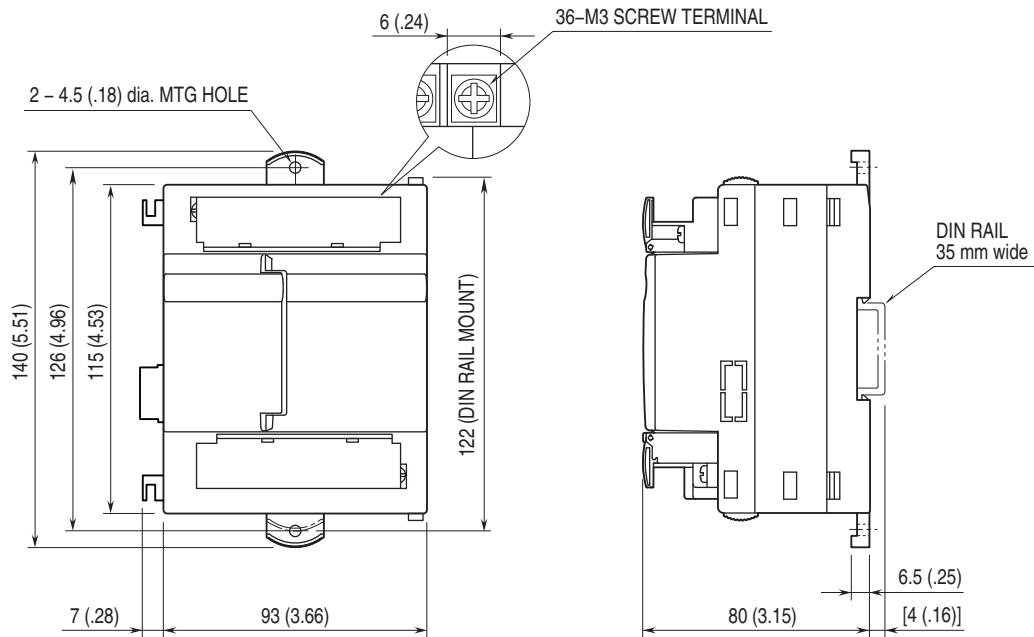
■ CURRENT INPUT 2

9	16ch	8	16ch	7	15ch	6	15ch	5	14ch	4	14ch	3	13ch	2	13ch	1
NC	3L	1L	3L	1L	3L	1L	3L	1L	3L	1L	3L	1L	3L	1L	3L	1L
18	16ch	17	16ch	16	15ch	15	15ch	14	14ch	13	14ch	12	13ch	11	13ch	10
NC	3K	1K	3K	1K	3K	1K	3K	1K	3K	1K	3K	1K	3K	1K	3K	1K

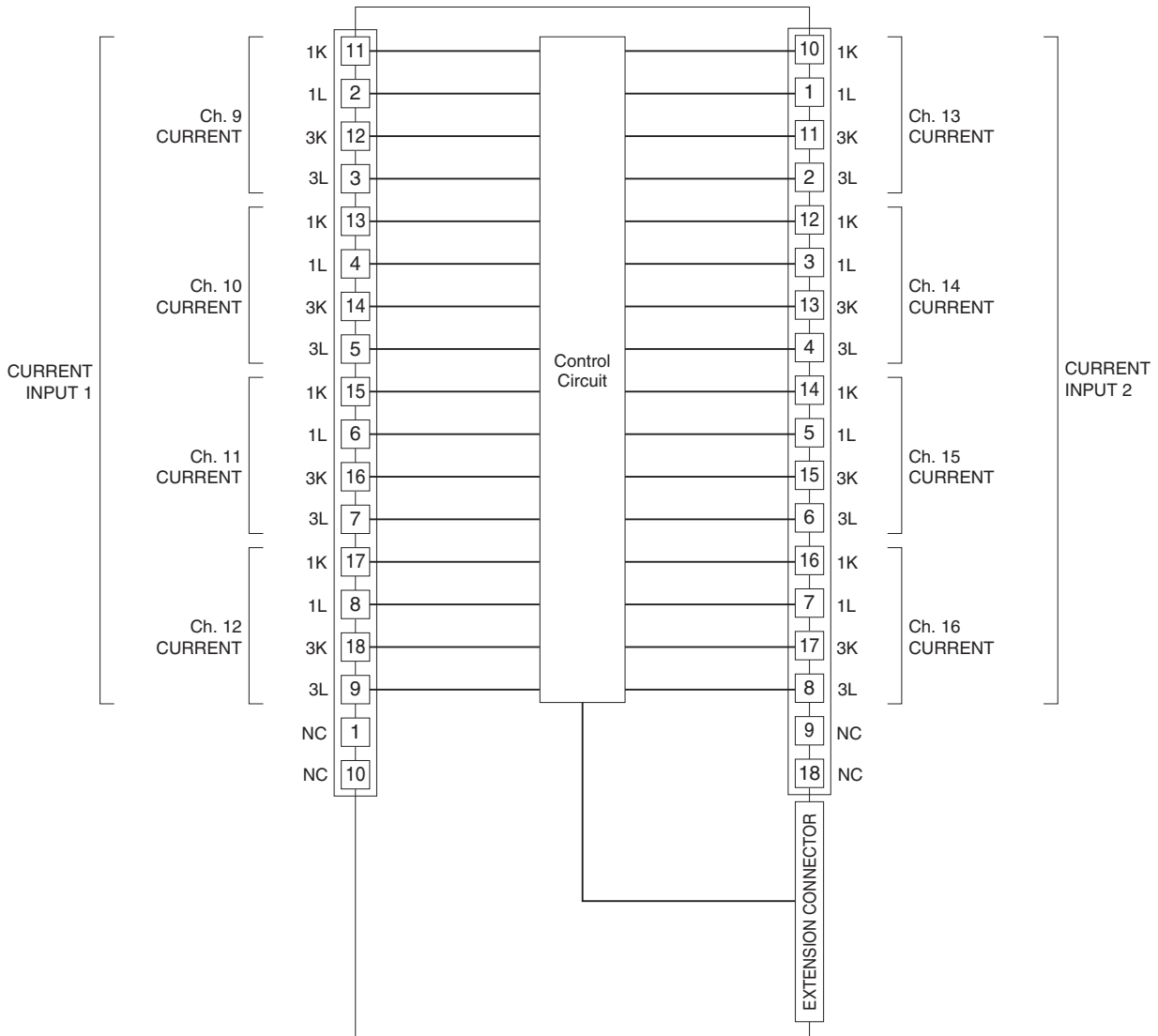
No.	ID	FUNCTION	ID	No.	FUNCTION
1	NC	Unused	10	NC	Unused
2	9ch 1L	9ch Current input 1L	11	9ch 1K	9ch Current input 1K
3	9ch 3L	9ch Current input 3L	12	9ch 3K	9ch Current input 3K
4	10ch 1L	10ch Current input 1L	13	10ch 1K	10ch Current input 1K
5	10ch 3L	10ch Current input 3L	14	10ch 3K	10ch Current input 3K
6	11ch 1L	11ch Current input 1L	15	11ch 1K	11ch Current input 1K
7	11ch 3L	11ch Current input 3L	16	11ch 3K	11ch Current input 3K
8	12ch 1L	12ch Current input 1L	17	12ch 1K	12ch Current input 1K
9	12ch 3L	12ch Current input 3L	18	12ch 3K	12ch Current input 3K

No.	ID	FUNCTION	No.	ID	FUNCTION
1	13ch 1L	13ch Current input 1L	10	13ch 1K	13ch Current input 1K
2	13ch 3L	13ch Current input 3L	11	13ch 3K	13ch Current input 3K
3	14ch 1L	14ch Current input 1L	12	14ch 1K	14ch Current input 1K
4	14ch 3L	14ch Current input 3L	13	14ch 3K	14ch Current input 3K
5	15ch 1L	15ch Current input 1L	14	15ch 1K	15ch Current input 1K
6	15ch 3L	15ch Current input 3L	15	15ch 3K	15ch Current input 3K
7	16ch 1L	16ch Current input 1L	16	16ch 1K	16ch Current input 1K
8	16ch 3L	16ch Current input 3L	17	16ch 3K	16ch Current input 3K
9	NC	Unused	18	NC	Unused

DIMENSIONS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.