

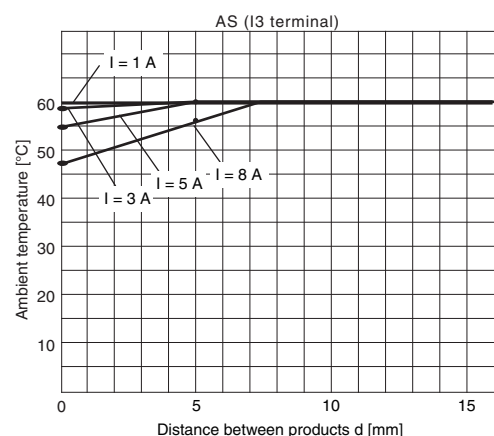
Case material	PC and ABS, UL 94 V-0
Weight	Approx. 150 g
Mounting	Mounts to DIN Track
Dimensions	22.5 × 90 × 100 mm (W×H×D)

Specifications

Allowable operating voltage range	85% to 110% of power supply voltage	
Allowable operating frequency range	50/60 Hz ±5 Hz	
Input frequency range	K8AK-AS1 and K8AK-AS2: DC input or AC input (45 to 65 Hz) K8AK-AS3: AC input (45 to 65 Hz)	
Overload capacity	K8AK-AS1 and K8AK-AS2: Continuous input at 120% of maximum input, 1 s at 150% K8AK-AS3: Continuous input at 120%, 30 s at 200%, and 1 s at 600% with an OMRON CT (K8AC-CT200L) Note: Overload capacity of primary side of CT.	
Repeat error	Operating value	±0.5% full scale (at 25°C and 65% humidity, rated power supply voltage, DC or 50/60 Hz sine wave input)
	Operating time	±50 ms (at 25°C and 65% humidity, rated power supply voltage)
Applicable standards	Conforming standards	EN 60947-5-1 Installation environment (pollution level 2, installation category III)
	EMC	EN 60947-5-1
	Safety standards	UL 508 (Recognition), Korean Radio Waves Act (Act 10564), CSA: C22.2 No.14, CCC: GB14048.5
Insulation resistance	20 MΩ min. Between external terminals and case Between power supply terminals and input terminals Between power supply terminals and output terminals Between input terminals and output terminals	
Dielectric strength	2,000 VAC for one minute Between external terminals and case Between power supply terminals and input terminals Between power supply terminals and output terminals Between input terminals and output terminals	
Noise immunity	1,500 V power supply terminal common/normal mode Square-wave noise of ±1 μs/100 ns pulse width with 1-ns rise time	
Vibration resistance	Frequency 10 to 55 Hz, 0.35-mm single amplitude, acceleration 50 m/s ² 10 sweeps of 5 min each in X, Y, and Z directions	
Shock resistance	100 m/s ² , 3 times each in 6 directions along 3 axes	
Degree of protection	Terminals: IP20	

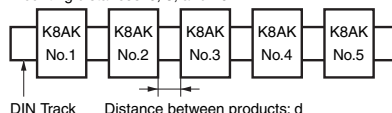
●Relationship of Mounting Distance between K8AK-AS Relays and Input Current (Reference Values)

The following diagram shows the relationship between the mounting distances and the input current. If the relay is used with an input current that exceeds these values, the temperature of the K8AK may rise and shorten the life of the internal components.



Test method

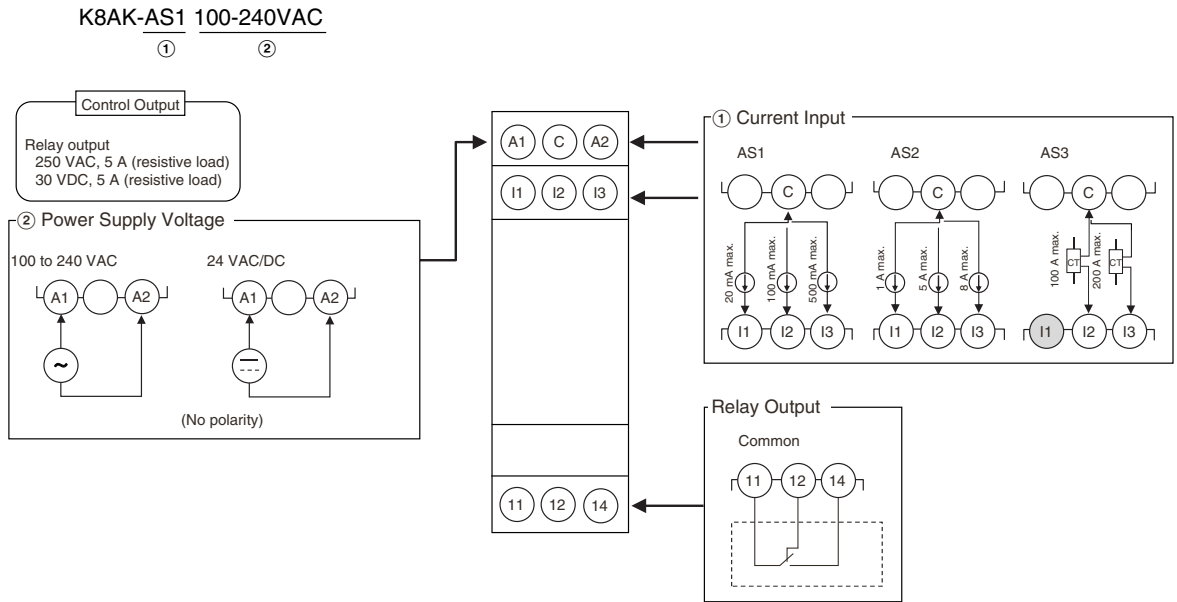
Sample: K8AK-AS
Applied voltage: 240 VAC
Mounting distances: 0, 5, and 10 mm min.



K8AK-AS

Connections

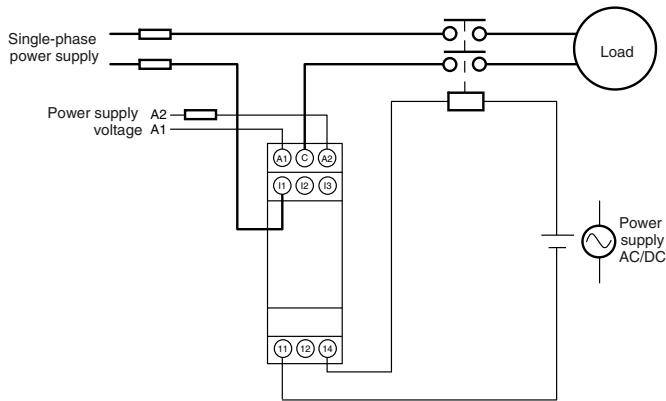
Terminal Diagram



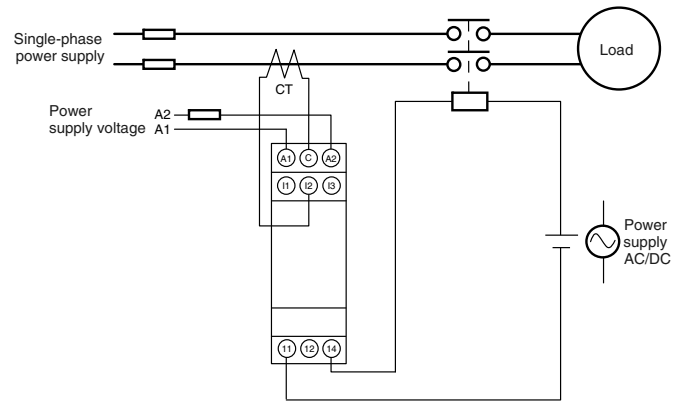
- Note:**
1. Do not connect anything to terminals that are shaded in gray.
 2. There is no polarity for the DC power supply input.
 3. For the current input, you can input only from the C terminal and one other terminal.
 4. Refer to *Setting Ranges and Wiring Connections* on the I1, I2, and I3 current input terminals.
 5. Use the recommended ferrules if you use twisted wires.
 6. The K8AK-AS3 is designed to be used in combination with the OMRON K8AC-CT200L Current Transformer (CT).

Wiring Example

Directly Inputting a Current



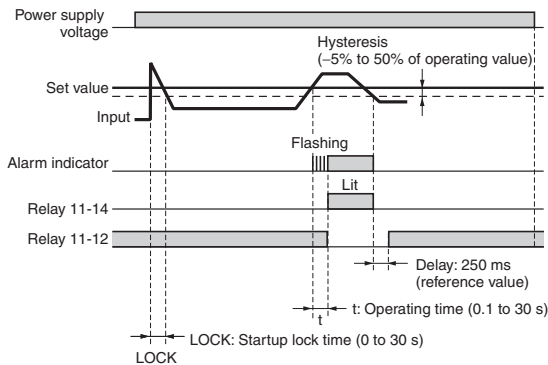
Using a CT



Timing Charts

● Overcurrent Operation Diagram (Output Relay Drive Method: Normally Open)

DIP switch setting: SW3 OFF, SW4 OFF



● Undercurrent Operation Diagram (Output Relay Drive Method: Normally Closed)

DIP switch setting: SW3 ON, SW4 ON

