

## Solid-state, Plug-in Current Sensor

- Applicable to motor overcurrent protection and 3-phase AC current detection.
- Inverse-type, start-up lock type, and instantaneous type overcurrent sensors available.
- Instantaneous type under current sensor available.
- Plug-in design simplifies installation, removal, and wiring.
- DIN sized (48 mm x 96 mm)

**⚠ The SAO cannot be used in circuits with waveform distortion, inverter circuits, or with capacitor loads.**



## Model Number Structure

### Model Number Legend

SAO-□□□□

1 2 3 4 5

#### 1. Basic model name

SAO: Current Sensor

#### 2. Operating time characteristics

R: Inverse type: inverse time both at starting and during operation

Q: Instantaneous type with start-up lock

S: Regular instantaneous type

#### 3. Detection function

U: Undercurrent detection

None: Overcurrent detection

#### 4. Control voltage

1: 100/110/120 VAC

2: 200/220/240 VAC

5: 24 VDC

6: 48 VDC

7: 100/110 VDC

#### 5. Product history

N: New version

## Ordering Information

| Terminal/<br>mounting          | Control voltage | Overcurrent detection |                    |                   | Under current<br>detection |
|--------------------------------|-----------------|-----------------------|--------------------|-------------------|----------------------------|
|                                |                 | Inverse type          | Instantaneous type |                   | Instantaneous type         |
|                                |                 |                       | W/start-up lock*   | W/o start-up lock |                            |
| Plug-in/DIN<br>rail via socket | 100/110/120 VAC | SAO-R1N               | SAO-Q1N            | SAO-S1N           | SAO-SU1N                   |
|                                | 200/220/240 VAC | SAO-R2N               | SAO-Q2N            | SAO-S2N           | SAO-SU2N                   |
|                                | 24 VDC          | SAO-R5N               | SAO-Q5N            | SAO-S5N           | SAO-SU5N                   |
|                                | 48 VDC          | SAO-R6N               | SAO-Q6N            | SAO-S6N           | SAO-SU6N                   |
|                                | 100/110 VDC     | SAO-R7N               | SAO-Q7N            | SAO-S7N           | SAO-SU7N                   |

\* Fixed time-limit at start-up, instantaneous thereafter.

## Accessories (Order Separately)

### Current Converters

| Model  | Current range |
|--------|---------------|
| SET-3A | 1 to 80 A     |
| SET-3B | 64 to 160 A   |

| DIN rail socket |
|-----------------|
| 8PFA1           |

### Socket

| Type                    | Model |
|-------------------------|-------|
| Front connecting socket | 8PFA1 |