

# Current monitoring relay **SRN mecotron®**

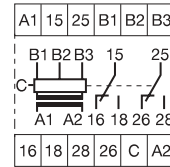


- Monitors AC or DC currents in 6 ranges covering 3 mA ... 15 A
- 3 measuring ranges covered by unit
- Switching hysteresis adjustable from 5...30 %
- Without or with delay on operate from 0.05...30 s
- 2 SPDT contacts
- 2 LEDs to indicate operational status
- 4 supply voltage versions, from 24...240 V AC/DC up to 415 V AC
- Version 24...240 V AC/DC with convertible undercurrent/ overcurrent monitoring, frequency range from 16 Hz to 400 Hz

## Operation

The current being monitored is applied to the terminals B1 or B2 or B3 and C. The output relay energizes when the monitored current exceeds the set response value. It de-energizes when the current is below the set response value within the hysteresis range. The AC/DC version has a built-in selection switch on the front face where the energizing mode of the output relays can be preselected. In the OC position, the output relay will energize when the monitored current exceeds the set response value. In the UC position, the output relay energizes when the current is below the set response value. Hysteresis is adjustable from 5...30 % related to the response value. Measuring, output and supply circuits are electrically isolated to prevent mutual interference. As one measuring cycle takes only 80 ms, changes in current can quickly be detected. Delay on "ON" is continuously adjustable from 0.05 to 1 second or 1.5 to 30 seconds, thus ensuring optimal adaptation to application requirements.

■ Approvals:



### Supply voltage 50...60 Hz

	With delay on operate Current measuring ranges P/N:		Without delay on operate Current measuring ranges P/N:	
	3...30 mA 10...100 mA 0.1...1 A	0.3...1.5 A 1...5 A 3...15 A	3...30 mA 10...100 mA 0.1...1 A	0.3...1.5 A 1...5 A 3...15 A
24...240 V AC/DC	2 450 125 00	2 450 125 01	2 450 115 00	2 450 115 01
110...130 V AC	2 450 120 00	2 450 120 01	2 450 110 00	2 450 110 01
220...240 V AC	2 450 121 00	2 450 121 01	2 450 111 00	2 450 111 01
380...415 V AC	2 450 122 00	2 450 122 01	2 450 112 00	2 450 112 01

Accessories	P/N:
Sealable transparent cover	3 440 005 01
Adapter for screw mounting	3 430 029 01
Current monitoring, see following page	

## Technical data

### Input circuit

Supply voltage - power consumption	<b>A1-A2</b>	24...240 V AC/DC - 2 VA
	<b>A1-A2</b>	110...130 V AC - 2 VA
	<b>A1-A2</b>	220...240 V AC - 2 VA
	<b>A1-A2</b>	380...415 V AC - 2 VA

Tolerance of supply voltage	-15 % ... +10 %
Supply voltage frequency	50...60 Hz
Duty time	100 %

### Measuring circuit

Delay on operate time adjustable	Message of error overvoltage/ undervoltage
Timing error within tolerance of supply voltage	0.05...1 s and 1.5...30 s
Timing error within temperature range	≤ 0.5 %
	≤ 0.06 % / °C

### Measuring circuit

Measuring current input	<b>B1/C</b>	3...30 mA	0.3...1.5 A
	<b>B2/C</b>	10...100 mA	1...5 A
	<b>B3/C</b>	0.1...1 A	3...15 A

Hysteresis (ref. to the response value) adjustable	5...30 %
Measuring cycle max.	80 ms
Temperature error	≤ 0.06 % / °C
Error within tolerance of supply voltage	≤ 0.5 %

### Display of operational status

Supply voltage	LED, green
Output relay energized	LED, yellow

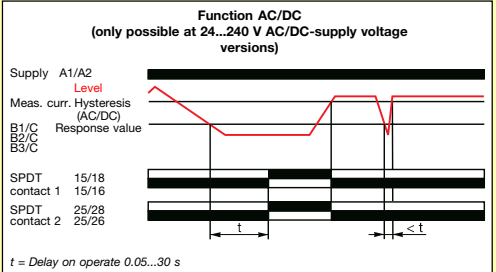
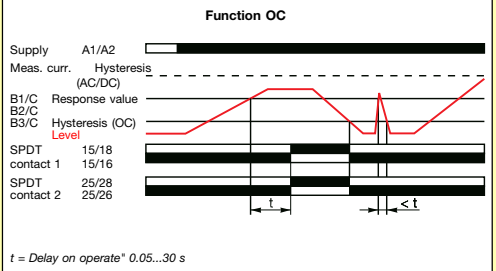
### Output circuit 15-16/18, 25-26/28

Rated voltage	VDE0100, IEC 947-1	400 V
Rated switching voltage max.		400 V AC
Rated switching current	AC 12 (resistive)	5 A (at 230 V)
Rated switching current	AC 15 (inductive)	3 A (at 230 V)
Rated switching current	DC 12 (resistive)	5 A (at 24 V)
Rated switching current	DC 13 (inductive)	2.5 A (at 24 V)
Maximum mechanical life		30 x 10 <sup>6</sup> operations
Maximum electrical life (acc. to AC 12 / 230 V / 5 A)		3 x 10 <sup>5</sup> operations
Short-circuit proof, max. fuse rating		5 A / fast, operating class gL

### General data

Rated impulse withstand voltage V <sub>imp</sub>	4 kV
Operating temperature	-25°C ... +60°C
Storage temperature	-40°C ... +85°C
Mounting position	any
Mounting to DIN rail (EN 50022)	Snap-on mounting/Screw mounting by adapter
Cable size stranded with wire end ferrule	2 x 14 AWG (2 x 2.5 mm <sup>2</sup> )
Weight	approx. 0.66 lb (300 g)

## 2 Functions



Note: Dimensions (W x H x D), 45 x 78 x 101 mm