

1-phase direct-current voltage monitoring relay

EMR SU21I, SU21J, SU21K, SU21L



EMR SU21I

- dc voltage monitoring in 1-phase mains
- Measuring range 12/24/36/48 Vdc
- Multifunction
- 2 change-over contacts

Functions

dc voltage monitoring in 1-phase mains with adjustable thresholds, and the following functions (selectable by means of rotary switch)

- Undervoltage monitoring
- Monitoring the window between Min and Max



EMR SU21J

Indicators

- Green LED ON: indication of supply voltage
- Yellow LED ON/OFF: indication of relay output
- Red LED ON/OFF: indication of failure of the corresponding threshold

Output relay

- 2 potential free change-over contacts
- Rated voltage: 250 Vac
- Switching capacity: 1250 VA (5 A / 250 Vac)
- Fusing: 5A fast acting



EMR SU21K

Connecting voltages

- 12/24/36/48 Vdc (= Measuring voltage)
- 100% duration of operation

Reference data

Selectron® EMR		Article no.
SU21I	12 Vdc	41230009
SU21J	24 Vdc	41230010
SU21K	36 Vdc	41230011
SU21L	48 Vdc	41230012
(Order data see chapter 1)		



EMR SU21L

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Technical data		
Nominal consumption		2 W
Ripple at dc		10%
Drop-out voltage		according to switching threshold
Base accuracy		±5% (of maximum nominal value)
Adjustment accuracy	±5% (of maximum nominal value)	
Repetition accuracy		≤2% (of maximum nominal value)
Temperature influence		<0.1% / °C
Recovery time		500 ms
Measuring circuit:	Measured variable	dc or ac sine (16.6 ... 400 Hz)
	Input:	
	12/24/36/48 Vdc	terminals 2 (A1) and 10 (A2)
	Overload capacity:	
	12/24/36/48 Vdc	-25% ... +30%
	Input resistance:	
	12/24/36/48 Vdc	according to nominal voltage 2 W
	Switching threshold:	
	Max:	80% ... 130% of U_N
	Min:	75% ... 125% of U_N

Type key

EMR S U 2 1 I ...	
Construction	Special functions
D Industrial design 22.5 mm	1 = Additional asymmetry monitoring
S pluggable 11 poles	
Function	Measuring circuit
U Voltage	A No measuring circuit
I Current	B 3(N)~115/66 Vac
P CosPhi	C 3(N)~230/132 Vac
T Temperature	D 3(N)~400/230 Vac
S Star-Delta	E 1 ≅ 30/60/300 Vac/dc
	F 1 ≅ 100mA/1A/10A ac/dc
	G PTC
	H CosPhi
	I 12 Vdc
	J 24 Vdc
	K 36 Vdc
	L 48 Vdc
	M 1~110 Vac
	N 1~230 Vac
	O 1 A
	P 5 A
Output	Connecting voltage
1 1 changer	1 Measuring circuit
2 2 changers	2 24...240 Vac/dc
3 1 NC contact / 1 NO contact	3 230 Vac

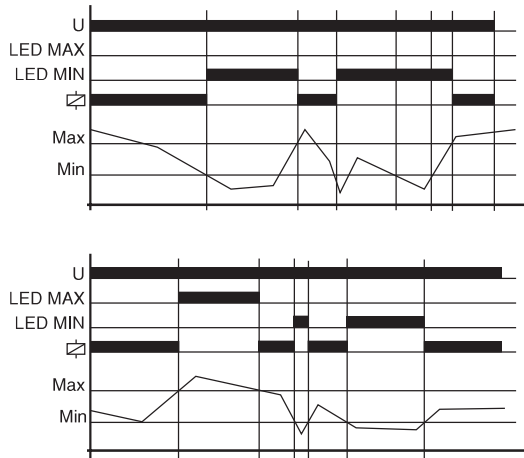
1-phase direct-current voltage monitoring relay

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Function description

For all the functions the LEDs MIN and MAX are flashing alternating, when the minimum value for the measured voltage was chosen to be greater than the maximum value.

If a failure already exists when the device is activated, the output relays remain in off-position and the LED for the corresponding threshold is illuminated.



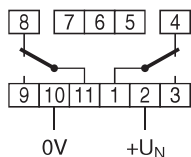
Under voltage monitoring (UNDER)

When the measured voltage falls below the value adjusted at the MIN-regulator, the output relays switch into off-position (yellow LED not illuminated). The output relays again switch into on-position (yellow LED illuminated), when the measured voltage exceeds the value adjusted at the MAX-regulator.

Window function (WIN)

The output relays switch into on-position (yellow LED illuminated) when the measured voltage exceeds the value adjusted at the MIN-regulator. When the measured voltage exceeds the value adjusted at the MAX-regulator, the output relays switch into off-position (yellow LED not illuminated). The output relays again switch into on-position (yellow LED illuminated) when the measured voltage falls below the value adjusted at the MAX-regulator (red LED MAX not illuminated). When the measured voltage falls below the value adjusted at the MIN-regulator, the output relays switch into off-position (yellow LED not illuminated).

Connection



Measuring range 12, 24, 36 or 48 Vdc
Supply voltage = measuring range

Dimensions

