

Voltage Monitoring Relays

CM-ESS.1 and CM-ESS.2 Series

Single Phase AC/DC DIN Relay Mount



CM-ESS.1



CM-ESS.2



- 1 Hysteresis Adjustment
- 2 Adjustable Trip Point
- 3 U: Red LED - Over/Under Voltage
- 4 R: Yellow LED - Relay Status
- 5 U/T: Green LED - Input Voltage, Timing
- 6 Adjustable Trip Delay T_V (CM-ESS.2)
- 7 Sensing Range Selection
- 8 DIP Switches (see functions)
- 9 Compact Package

22.5mm

Position	2	1	DIP Switch Functions
ON \uparrow			1 - ON OFF Delay - OFF ON Delay
OFF			

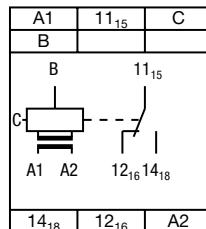
- 3 ... 600 V AC or DC Voltage Monitoring in 4 Ranges
- RMS Measuring
- Each Unit Includes 4 Measuring Ranges
- Selectable Over or Under Voltage
- Hysteresis Adjustable 3 ... 30%
- CM-ESS.2: Adjustable Trip Delay T_V 0.1-30 s
- Universal 24 ... 240V AC/DC Voltage
- CM-ESS.1: SPDT (c/o) Contact
- CM-ESS.2: 2 SPDT (2 c/o) Contacts
- 22.5 mm Width
- 3 LEDs for Status Indication

Complete Product Details:
<http://www.ssac.com/pp1.htm>

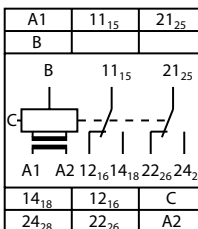


Connection Diagrams

CM-ESS.1



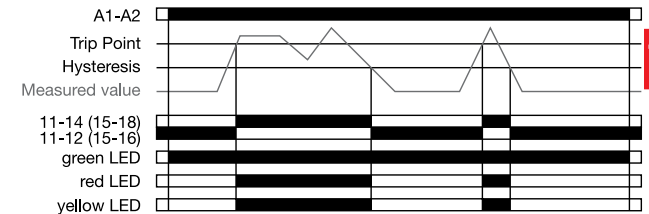
CM-ESS.2



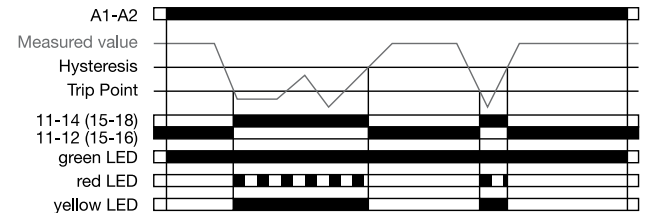
CM-ESS.1 and CM-ESS.2 are used for over or under voltage monitoring in single-phase AC and/or DC systems. The voltage to be monitored (measured value) is applied to terminals B-C. The output relay is normally de-energized.

If the monitored RMS voltage exceeds/drops below the adjusted threshold value, the output relay(s) energize(s) on the CM-ESS.1 immediately. The CM-ESS.2 changes state after the set trip delay T_V . If the monitored RMS voltage exceeds/drops below the threshold value plus/minus the adjusted hysteresis, the output relay(s) de-energize(s). The hysteresis is adjustable within a range of 3 to 30 % of the threshold value.

Overcurrent monitoring



Undercurrent monitoring



Note: CM-ESS.2 has second set of SPDT contacts. See the on-line data sheet for a complete set of function diagrams.

A1-A2	Input Voltage
B-C	Measuring Ranges 3-30 V; 6-60 V; 30-300 V; 60-600 V
11 ₁₅ - 12 ₁₆ / 14 ₁₈	Output Contacts
21 ₂₅ - 22 ₂₆ / 24 ₂₈	

Technical Data

Measuring Circuit	
Repeat Accuracy (constant parameters)	+/- 0.07% of Full Scale
Output	
AC12 (resistive) at 230 V	4 A
AC15 (inductive) at 230 V	3 A
Mechanical	
Dimensions W x H x D	.89 x 3.93 x 3.07 in. (22.5 x 100 x 78 mm)
Mounting	35 mm DIN Rail, no tools required
Degree of Protection	Enclosure IP50 / Terminals IP20

Ordering Table

Series	Part Number	Input Voltage - 50/60 Hz	Trip Delay T_V	Sensing Range	Output Form
CM-ESS.1	1SVR 430 830 R0300	24-240 V AC/DC	Without	3-30 V; 6-60 V	SPDT (c/o)
	1SVR 430 831 R0300	110-130 V AC			
CM-ESS.2	1SVR 430 830 R0400	24-240 V AC/DC	Adjustable 0 or 0.1 - 30 s	30-300 V; 60 600 V	2 SPDT (2 c/o)
	1SVR 430 831 R0400	110-130 V AC			