



**Electric Automation**  
Automation specialists

Reference: CM-ESS.1S  
Code: 1SVR730831R1300

CM-ESS.1S Voltage monitoring relay 1c/o,  
B-C=3-600VRMS, 220-240VAC

Buy it at [Electric Automation Network](#)



The CM-ESS.1S is a single-functional voltage monitoring relay from the CM single-phase monitors range. This monitoring relay operates with a rated control supply voltage of 220 - 240 V AC and has a 1 c/o (SPDT) output contact rated at 250 V / 4 A. It provides a RMS measuring principle for DC and AC voltages with 4 measuring ranges: 3-30 V, 3-60 A, 30-300 V and 60-600 V and works according to the open-circuit principle. The CM-ESS.1S is configurable for over- or undervoltage monitoring, the hysteresis is adjustable within a range of 3 to 30 % of the threshold value. A sealable transparent cover for protection against unauthorized changes is available as accessory. The device offers screw connection technology with double-chamber cage connection terminals.

### Ordering

EAN:	4016779852203
Minimum Order Quantity:	1 piece
Customs Tariff Number:	85364900

### Container Information

Package Level 1 Units:	1 piece
Package Level 1 Width:	97 mm
Package Level 1 Height:	109 mm
Package Level 1 Length:	30 mm
Package Level 1 Gross Weight:	0.186 kg

## Dimensions

Product Net Width:	22.5 mm
Product Net Depth:	103.7 mm
Product Net Height:	85.6 mm
Product Net Weight:	0.164 kg

## Technical

Function:	Over- or undervoltage monitoring
Measuring Range:	3 ... 30 V 6 ... 60 V 30 ... 300 V 60 ... 600 V
Rated Control Supply Voltage ( $U_s$ ):	220 ... 240 V AC
Output:	1 c/o (SPDT) contact
Terminal Type:	Screw Terminals
Rated Operational Current AC-12 ( $I_e$ ):	(230 V) 4 A
Rated Operational Current AC-15 ( $I_e$ ):	(230 V) 3 A
Rated Operational Current DC-12 ( $I_e$ ):	(24 V) 4 A
Rated Operational Current DC-13 ( $I_e$ ):	(24 V) 2 A
Minimum Switching Capacity:	24 V 10 mA
Rated Insulation Voltage ( $U_i$ ):	Measuring Circuit / Output Circuit 600 V Output Circuit 1 / Output Circuit 2 250 V Supply Circuit / Measuring Circuit 600 V Supply Circuit / Output Circuit 250 V
Rated Impulse Withstand Voltage ( $U_{imp}$ ):	Measuring Circuit / Output Circuit 6 kV Output Circuit 1 / Output Circuit 2 4 kV Supply Circuit / Measuring Circuit 6 kV Supply Circuit / Output Circuit 4 kV
Degree of Protection:	Housing IP50 Terminals IP20
Overvoltage Category:	III
Pollution Degree:	3
Short-Circuit Protective Devices:	Output Circuit NC - F Type Fuses 6 A Output Circuit NO - F Type Fuses 10 A
Electrical Durability:	AC-12 100000 cycle
Mechanical Durability:	30000000 cycle

Connecting Capacity:	Flexible with Ferrule 1x 0.5 ... 2.5 mm <sup>2</sup> Flexible with Ferrule 2x 0.5 ... 1.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.5 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.5 ... 1.5 mm <sup>2</sup> Flexible 1x 0.5 ... 2.5 mm <sup>2</sup> Flexible 2x 0.5 ... 1.5 mm <sup>2</sup> Rigid 1x 0.5 ... 4 mm <sup>2</sup> Rigid 2x 0.5 ... 2.5 mm <sup>2</sup>
Tightening Torque:	0.6 ... 0.8 N·m
Wire Stripping Length:	8 mm
Mounting Position:	Any
Mounting on DIN Rail:	TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715
Standards:	IEC/EN 60255-1 IEC/EN 60255-27 EN 50178

## Environmental

Ambient Air Temperature:	Operation -20 ... +60 °C Storage -40 ... +85 °C
RoHS Status:	Following EU Directive 2002/95/EC August 18, 2005 and amendment

## Technical UL/CSA

Maximum Operating Voltage UL/CSA:	Output Circuit 300 V AC
Contact Rating UL/CSA:	B300
Connecting Capacity UL/CSA:	Flexible 1x 18 ... 14 AWG Flexible 2x 18 ... 16 AWG Rigid 1x 20 ... 12 AWG Rigid 2x 20 ... 14 AWG
Tightening Torque UL/CSA:	7.08 in·lb

## Certificates and Declarations (Document Number)

CB Certificate:	CB_DK-28255-UL
CCC Certificate:	CCC_2007010303243843.pdf
cULus Certificate:	cULus508_20120203-E140448
Declaration of Conformity - CE:	1SAD938500-0202
EAC Certificate:	EAC_RU_C-DE.ME77.B.01012
GL Certificate:	GL_61765-14HH
RMRS Certificate:	RMRS_12.04009.250
RoHS Information:	1SAA981056-4401

## Classifications

Object Classification Code:	B
E-nummer:	3860623
ETIM 4:	EC001438 - Voltage monitoring relay
ETIM 5:	EC001438 - Voltage monitoring relay
eClass:	7.0 27371801