



PRODUCT-DETAILS

# CM-ESS.1S

## CM-ESS.1S Voltage monitoring relay 1c/o, B-C=3-600VRMS, 24-240VAC/DC



### General Information

Extended Product Type	CM-ESS.1S
Product ID	1SVR730830R0300
EAN	4016779852159
Catalog Description	CM-ESS.1S Voltage monitoring relay 1c/o, B-C=3-600VRMS, 24-240VAC/DC

Long Description	<p>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 24 - 240 V AC / DC 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.</p>
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### Ordering

EAN	4016779852159
Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

### Popular Downloads

Data Sheet, Technical Information	2CDC112171D0201
Instructions and Manuals	1SVC730710M1000 1SVC730710M0000
CAD Dimensional Drawing	2CDC001079B0201

### Dimensions

Product Net Width	22.5 mm
Product Net Height	85.6 mm
Product Net Depth / Length	103.7 mm
Product Net Weight	0.135 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 <sub>s</sub> )	24 ... 240 V AC/DC
Output	1 c/o (SPDT) contact
Terminal Type	Screw Terminals
Rated Operational Current AC-12 (I <sub>e</sub> )	(230 V) 4 A
Rated Operational Current AC-15 (I <sub>e</sub> )	(230 V) 3 A
Rated Operational Current DC-12 (I <sub>e</sub> )	(24 V) 4 A
Rated Operational Current DC-13 (I <sub>e</sub> )	(24 V) 2 A
Minimum Switching Capacity	24 V 10 mA
Rated Impulse Withstand Voltage (U <sub>imp</sub> )	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
Rated Insulation Voltage (U <sub>i</sub> )	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
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
Recommended Screw Driver	0.8 x 4 4.5 Pozidriv 1
Mounting Position	1 ... 6
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	CAN/CSA C22.2 No.14 IEC/EN 63000 IEC/EN 60255-27 IEC/EN 61000-6-2 IEC/EN 61000-6-3 UL 508

### 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
Pilot Duty UL/CSA	B300
Flammability According to UL94	V-0

### Environmental

Ambient Air Temperature	Operation -20 ... +60 °C Storage -40 ... +85 °C
Maximum Operating Altitude Permissible	Without Derating 2000 m

### Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	1SVD981001-4501
RoHS Information	1SVD981001-4401
RoHS Status	Following EU Directive 2011/65/EU
Toxic Substances Control Act - TSCA	2CMT2023-006536

### Circular Value

End of Life Instructions	1SAC200290H0001
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## Certificates and Declarations

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CB Certificate	CB_DK-28255-UL
CQC Certificate	CQC2007010303243843
cULus Certificate	cULus508_20120203-E140448
Declaration of Conformity - CCC	2020980303000196
Declaration of Conformity - CE	1SVD981013-00
Declaration of Conformity - UKCA	1SVD981013-10
DNV GL Certificate	DNV_GL_TAA0000292
EAC Certificate	EAC_RU_C-DE.ME77.B.03424

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## Container Information

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Package Level 1 Units	box 1 piece
Package Level 1 Width	97 mm
Package Level 1 Depth / Length	30 mm
Package Level 1 Height	109 mm
Package Level 1 Gross Weight	0.157 kg
Package Level 1 EAN	4016779852159

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## Classifications

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Object Classification Code	B
ETIM 7	EC001438 - Voltage monitoring relay
ETIM 8	EC001438 - Voltage monitoring relay
ETIM 9	EC001438 - Voltage monitoring relay
eClass	V11.0 : 27371801
UNSPSC	39122332
E-Number (Finland)	2712244
E-Number (Sweden)	3860618

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## Categories

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Low Voltage Products and Systems → Control Products → Electronic Relays and Controls → Single Phase Monitors

Medium Voltage Products and Systems → Service → Spares and Consumables → Parts → All Spare Parts (Relays-SWG-CB)

