



PRODUCT-DETAILS

CM-ESS.1S

CM-ESS.1S Voltage monitoring relay 1c/o, B-C=3-600VRMS, 110-130VAC



General Information	
Extended Product Type	CM-ESS.1S
Product ID	1SVR730831R0300
EAN	4016779852180
Catalog Description	CM-ESS.1S Voltage monitoring relay 1c/o, B-C=3-600VRMS, 110-130VAC
Long Description	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 110 - 130 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	4016779852180
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	0.164 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)	110 ... 130 V AC
Output	1 c/o (SPDT) contact
Terminal Type	Screw Terminals
Rated Operational Current AC-12 (I _θ)	(230 V) 4 A
Rated Operational Current AC-15 (I _θ)	(230 V) 3 A
Rated Operational Current DC-12 (I _θ)	(24 V) 4 A
Rated Operational Current DC-13 (I _θ)	(24 V) 2 A
Minimum Switching Capacity	24 V 10 mA
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
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
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 mm² Flexible with Ferrule 2x 0.5 ... 1.5 mm² Flexible with Insulated Ferrule 1x 0.5 ... 2.5 mm² Flexible with Insulated Ferrule 2x 0.5 ... 1.5 mm² Flexible 1x 0.5 ... 2.5 mm² Flexible 2x 0.5 ... 1.5 mm² Rigid 1x 0.5 ... 4 mm² Rigid 2x 0.5 ... 2.5 mm²
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

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	DVN_GL_TAA0000292
EAC Certificate	EAC_RU_C-DE.ME77.B.03424

Container Information

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	0.186 kg
Package Level 1 EAN	4016779852180

Classifications

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)	2712245
E-Number (Sweden)	3860621

Categories

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

