

## PRODUCT-DETAILS

# CM-MSS.51S

CM-MSS.51S Therm. motor protec. relay  
2x1c/o, 24-240VAC/DC



## General Information

Extended Product Type	CM-MSS.51S
Product ID	1SVR730712R1300
EAN	4013614496660
Catalog Description	CM-MSS.51S Therm. motor protec. relay 2x1c/o, 24-240VAC/DC

### Long Description

The CM-MSS.51S belongs to the CM thermistor motor protection relay range. It operates with a rated control supply voltage of 24 - 240 V AC / DC and has a 2 c/o (SPDT) output with contacts rated at 250 V / 4 A. It features two sensor circuit to monitor PTC temperature sensors (single or accumulative evaluation, configurable) and works according to the closed-circuit principle. The sensor circuits of this CM-MSS.51S are short-circuit (configurable), as well as interrupted-wire monitored and can be reset automatically, manually or remotely after the failure has been removed. This protection relay is certified according to the ATEX directive 94/9/EC and is equipped with a reset / test button. The non-volatile fault storage, the short circuit detection and the accumulative evaluation can be enabled/disabled via DIP switches. 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	4013614496660
Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

## Dimensions

Product Net Width	22.5 mm
Product Net Height	85.6 mm
Product Net Depth / Length	103.7 mm
Product Net Weight	0.145 kg

## Container Information

Package Level 1 Units	1 piece
Package Level 1 Width	97 mm
Package Level 1 Height	109 mm
Package Level 1 Depth / Length	30 mm
Package Level 1 Gross Weight	0.172 kg
Package Level 1 EAN	4013614496660

## Technical

Function	2 sensor circuits Short-circuit detection, configurable Non-volatile fault storage, configurable Single or accumulative evaluation, configurable Dynamic interrupted wire detection Auto, manual or remote reset ATEX approved
Rated Control Supply Voltage (U <sub>s</sub> )	24 ... 240 V AC/DC
Output	2 x 1 c/o or 1 x 2 c/o contacts, configurable
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 Insulation Voltage (U <sub>i</sub> )	Measuring Circuit / Output Circuit 300 V Output Circuit 1 / Output Circuit 2 300 V Supply Circuit / Measuring Circuit 300 V Supply Circuit / Output Circuit 300 V
Rated Impulse Withstand Voltage (U <sub>imp</sub> )	Output Circuit 1 / Output Circuit 2 4 kV 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 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

CAN/CSA C22.2 No.14

EN 50495

EN 50581

IEC/EN 60079-7

IEC/EN 60947-5-1

IEC/EN 60947-8

UL 508

**Environmental**Ambient Air  
Temperature

Operation -25 ... +60 °C

Storage -40 ... +85 °C

RoHS Status

Following EU Directive 2011/65/EU

**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)**

ATEX Certificate

EU Type Examination Certificate\_TPS\_18\_ATEX\_044254\_0018\_X

CB Certificate

CB\_DK-40837-UL

CCC Certificate

CCC\_2005010303165479

cULus Certificate

cULus508\_20140912-E140448

Data Sheet, Technical  
Information

2CDC112214D0201

Declaration of  
Conformity - CE

1SVD981007-0002

DNV GL Certificate

DNVGL\_TAE00003W4

EAC Certificate

EAC\_RU\_C-DE.ME77.B.01825

Environmental  
Information

1SAA981024-2401

GL Certificate

GL\_13759-14HH

Instructions and  
Manuals

1SVC730670M0000

Instructions and  
Manuals (Part 2)

1SVC730640M9000

RMRS Certificate

RMRS\_1740020250

RoHS Information

1SVD981007-0002

**Classifications**Object Classification  
Code

B

ETIM 5

EC002568 - Temperature monitor (motor protection)

ETIM 6

EC002568 - Relay for thermistor protection (PTC)

ETIM 7

EC002568 - Relay for thermistor protection (PTC)

eClass

7.0 27371503

E-Number (Sweden)

3860777

---

## Categories

---

Low Voltage Products and Systems → Control Products → Electronic Relays and Controls → Thermistor Motor Protection Relays

