

## PRODUCT-DETAILS

# CM-SFS.21S

CM-SFS.21S Current monitoring relay 2c/o, B-C=3mA-1A RMS, 24-240VAC/DC



## General Information

|                       |                                                                        |
|-----------------------|------------------------------------------------------------------------|
| Extended Product Type | CM-SFS.21S                                                             |
| Product ID            | 1SVR730760R0400                                                        |
| EAN                   | 4016779852135                                                          |
| Catalog Description   | CM-SFS.21S Current monitoring relay 2c/o, B-C=3mA-1A RMS, 24-240VAC/DC |

### Long Description

The CM-SFS.21S is a single-functional current 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 2 c/o (SPDT) output with contacts rated at 250 V / 4 A. It provides a RMS measuring principle for DC and AC currents with 3 measuring ranges: 3-30 mA, 10-100 mA and 0.1-1 A. The CM-SFS.21S offers window (over- and undercurrent) monitoring as well as selection of ON- or OFF-delay, open- or closed-circuit operating principle, with or without latching function. The output contacts can be configured as 1x2 c/o (SPDT) (common signal) or 2x1 c/o (SPDT) (separate signal for minimum and maximum thresholds) operation. The hysteresis is fixed at 5 % of the threshold value. The tripping delay and the start-up delay are adjustable over a range of instantaneous to 30 s (0, 0.1-30 s). 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                    | 4016779852135 |
| Minimum Order Quantity | 1 piece       |
| Customs Tariff Number  | 85364900      |

## Popular Downloads

Data Sheet, Technical  
Information

2CDC112170D0201

Instructions and  
Manuals

1SVC730580M0000

## Dimensions

|                               |          |
|-------------------------------|----------|
| Product Net Width             | 22.5 mm  |
| Product Net Depth /<br>Length | 103.7 mm |
| Product Net Height            | 85.6 mm  |
| Product Net Weight            | 0.15 kg  |

## Technical

|                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Function                                               | Over- and undercurrent monitoring                                                                                                                                                                                                                                                                                                                                                                                    |
| Measuring Range                                        | 3 ... 30 mA<br>10 ... 100 mA<br>0.1 ... 1 A                                                                                                                                                                                                                                                                                                                                                                          |
| Rated Control Supply<br>Voltage (U <sub>s</sub> )      | 24 ... 240 V AC/DC                                                                                                                                                                                                                                                                                                                                                                                                   |
| Output                                                 | 2 x 1 c/o or 1 x 2 c/o contacts; operating principle selectable                                                                                                                                                                                                                                                                                                                                                      |
| Time Range                                             | 0 s or 0.1 ... 30 s start-up delay<br>0 s or 0.1 ... 30 s tripping delay (ON or OFF)                                                                                                                                                                                                                                                                                                                                 |
| Terminal Type                                          | Screw Terminals                                                                                                                                                                                                                                                                                                                                                                                                      |
| Rated Operational<br>Current AC-12 (I <sub>e</sub> )   | (230 V) 4 A                                                                                                                                                                                                                                                                                                                                                                                                          |
| Rated Operational<br>Current AC-15 (I <sub>e</sub> )   | (230 V) 3 A                                                                                                                                                                                                                                                                                                                                                                                                          |
| Rated Operational<br>Current DC-12 (I <sub>e</sub> )   | (24 V) 4 A                                                                                                                                                                                                                                                                                                                                                                                                           |
| Rated Operational<br>Current DC-13 (I <sub>e</sub> )   | (24 V) 2 A                                                                                                                                                                                                                                                                                                                                                                                                           |
| Minimum Switching<br>Capacity                          | 24 V<br>10 mA                                                                                                                                                                                                                                                                                                                                                                                                        |
| Rated Insulation Voltage<br>(U <sub>i</sub> )          | Measuring Circuit / Output Circuit 600 V<br>Output Circuit 1 / Output Circuit 2 250 V<br>Supply Circuit / Measuring Circuit 600 V<br>Supply Circuit / Output Circuit 250 V                                                                                                                                                                                                                                           |
| Rated Impulse<br>Withstand Voltage (U <sub>imp</sub> ) | Measuring Circuit / Output Circuit 6 kV<br>Output Circuit 1 / Output Circuit 2 4 kV<br>Supply Circuit / Measuring Circuit 6 kV<br>Supply Circuit / Output Circuit 4 kV                                                                                                                                                                                                                                               |
| Degree of Protection                                   | Housing IP50<br>Terminals IP20                                                                                                                                                                                                                                                                                                                                                                                       |
| Overvoltage Category                                   | III                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Pollution Degree                                       | 3                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Short-Circuit Protective<br>Devices                    | Output Circuit NC - F Type Fuses 6 A<br>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><br>Flexible with Ferrule 2x 0.5 ... 1.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1x 0.5 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 2x 0.5 ... 1.5 mm <sup>2</sup><br>Flexible 1x 0.5 ... 2.5 mm <sup>2</sup><br>Flexible 2x 0.5 ... 1.5 mm <sup>2</sup><br>Rigid 1x 0.5 ... 4 mm <sup>2</sup><br>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<br>Driver                            | Pozidriv 1<br>4.5                                                                                                                                                                                                                                                                                                                                                                                                    |

|                      |                                                                                                                |
|----------------------|----------------------------------------------------------------------------------------------------------------|
|                      | 0.8 x 4                                                                                                        |
| Mounting Position    | 1 ... 6                                                                                                        |
| Mounting on DIN Rail | TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715<br>TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 |
| Standards            | CAN/CSA C22.2 No.14<br>IEC/EN 63000<br>IEC/EN 60255-27<br>IEC/EN 61000-6-2<br>IEC/EN 61000-6-3<br>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<br>Flexible 2x 18-16 AWG<br>Rigid 1x 20-12 AWG<br>Rigid 2x 20-14 AWG |
| Tightening Torque UL/CSA         | 7.08 in·lb                                                                                 |

## Environmental

|                         |                                                    |
|-------------------------|----------------------------------------------------|
| Ambient Air Temperature | Operation -20 ... +60 °C<br>Storage -40 ... +85 °C |
| RoHS Status             | Following EU Directive 2011/65/EU                  |

## Certificates and Declarations (Document Number)

|                                   |                           |
|-----------------------------------|---------------------------|
| CB Certificate                    | CB_DK-28255-UL            |
| CCC Certificate                   | CCC_2007010303243843.pdf  |
| CQC Certificate                   | CQC2007010303243843       |
| cULus Certificate                 | cULus508_20120203-E140448 |
| Data Sheet, Technical Information | 2CDC112170D0201           |
| Declaration of Conformity - CCC   | 2020980303000196          |
| Declaration of Conformity - CE    | 1SVD981013-00             |
| Declaration of Conformity - UKCA  | 1SVD981013-10             |
| DNV GL Certificate                | DVN_GL_TAA0000293         |
| EAC Certificate                   | EAC_RU_C-DE.ME77.B.03424  |
| Instructions and Manuals          | 1SVC730580M0000           |
| RMRS Certificate                  | RMRS_1740020250           |
| RoHS Information                  | 1SVD981013-00             |

## Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | box 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   | 0.173 kg      |
| Package Level 1 EAN            | 4016779852135 |

| Classifications            |                                     |   |
|----------------------------|-------------------------------------|---|
| Object Classification Code |                                     | B |
| ETIM 4                     | EC001440 - Current monitoring relay |   |
| ETIM 5                     | EC001440 - Current monitoring relay |   |
| ETIM 6                     | EC001440 - Current monitoring relay |   |
| ETIM 7                     | EC001440 - Current monitoring relay |   |
| eClass                     | V11.0 : 27371802                    |   |
| UNSPSC                     | 39121514                            |   |
| E-Number (Finland)         | 2712298                             |   |
| E-Number (Sweden)          | 3860616                             |   |

Categories

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

