

## Solid-state relay module - PLC-OSC-120UC/ 48DC/100/SEN - 2966799

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PLC-INTERFACE for input functions, consisting of PLC-BSC.../SEN basic terminal block with screw connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 120 V AC/110 V DC, output: 3 - 48 V DC/100 mA

### Why buy this product

- ✓ Time savings of up to 60 %
- ✓ Efficient connection to system cabling using V8 adapter
- ✓ No need for additional modular terminal blocks
- ✓ Relay modules with safe isolation according to DIN EN 50178 between coil and contact
- ✓ Space savings of up to 80 %
- ✓ Functional plug-in bridges
- ✓ Sensor connected directly to relay module



### Key Commercial Data

Packing unit	10 STK
GTIN	 4 017918 130619
GTIN	4017918130619
Weight per Piece (excluding packing)	38.120 g
Custom tariff number	85364900
Country of origin	Germany
Sales Key	08

### Technical data

#### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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#### Dimensions

Width	6.2 mm
Height	80 mm

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## Technical data

### Dimensions

Depth	94 mm
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### Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 70 °C

### Input data

Nominal input voltage $U_N$	120 V AC
	110 V DC
Input voltage range in reference to $U_N$	0.8 ... 1.1
Input voltage range	96 V AC ... 132 V AC
	88 V DC ... 121 V DC
Switching threshold "0" signal in reference to $U_N$	$\leq 0.3$
Switching threshold "1" signal in reference to $U_N$	$\geq 0.8$
Typical input current at $U_N$	3.5 mA
Typical response time	6 ms (at $U_N$ )
Typical turn-off time	10 ms (at $U_N$ )
Operating voltage display	Yellow LED
Type of protection	Bridge rectifier
Protective circuit/component	Bridge rectifier
Transmission frequency	10 Hz
Power dissipation for nominal condition	0.42 W

### Output data

Output voltage range	3 V DC ... 48 V DC
Limiting continuous current	100 mA
Voltage drop at max. limiting continuous current	$\leq 1$ V
Output circuit	2-wire, floating
Type of protection	Reverse polarity protection
	Surge protection
Protective circuit/component	Polarity protection diode

### Connection data, input side

Connection name	Input side
Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	26 ... 14

### Connection data, output side

Connection name	Output side
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## Technical data

### Connection data, output side

Connection method	Screw connection
Stripping length	8 mm
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Conductor cross section solid	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	26 ... 14

### General

Test voltage input/output	2.5 kV (50 Hz, 1 min.)
Mounting position	any
Assembly instructions	In rows with zero spacing
Operating mode	100% operating factor
Flammability rating according to UL 94	V0
Designation	Standards/regulations
Standards/regulations	IEC 60664
	EN 50178
Degree of pollution	2
Overvoltage category	III

### Standards and Regulations

Connection in acc. with standard	CUL
Designation	Standards/regulations
Standards/regulations	IEC 60664
	EN 50178
Insulation	Basic insulation
Degree of pollution	2
Overvoltage category	III
Flammability rating according to UL 94	V0

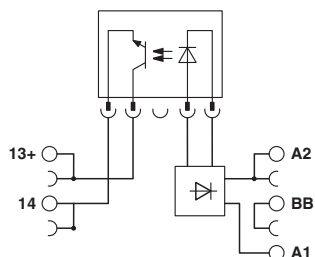
### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

# Solid-state relay module - PLC-OSC-120UC/ 48DC/100/SEN - 2966799

Circuit diagram



## Classifications

### eCl@ss

eCl@ss 5.0	27371001
eCl@ss 5.1	27371001
eCl@ss 6.0	27371604
eCl@ss 7.0	27371604
eCl@ss 8.0	27371604
eCl@ss 9.0	27371604

### ETIM

ETIM 2.0	EC001504
ETIM 3.0	EC001504
ETIM 4.0	EC001504
ETIM 5.0	EC001504
ETIM 6.0	EC001504

### UNSPSC

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121542
UNSPSC 11	39121542
UNSPSC 12.01	39121542
UNSPSC 13.2	39122326

## Approvals

### Approvals

#### Approvals

UL Recognized / UL Listed / cUL Recognized / cUL Listed / GL / EAC / PRS / cULus Recognized / cULus Listed

#### Ex Approvals

### Approval details

# Solid-state relay module - PLC-OSC-120UC/ 48DC/100/SEN - 2966799

## Approvals

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 172140
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cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 172140
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GL		<a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a>	46016-03 HH
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EAC			RU C- DE.A*30.B.01082
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PRS		<a href="http://www.prs.pl/">http://www.prs.pl/</a>	TE/2109/880590/16
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cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	
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cULus Listed			
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## Accessories

Accessories

Bridge

## Solid-state relay module - PLC-OSC-120UC/ 48DC/100/SEN - 2966799

### Accessories

Continuous plug-in bridge - FBST 500-PLC RD - 2966786



Continuous plug-in bridge, length: 500 mm, color: red

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Continuous plug-in bridge - FBST 500-PLC BU - 2966692



Continuous plug-in bridge, length: 500 mm, color: blue

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Continuous plug-in bridge - FBST 500-PLC GY - 2966838



Continuous plug-in bridge, length: 500 mm, color: gray

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Single plug-in bridge - FBST 6-PLC RD - 2966236



Single plug-in bridge, length: 6 mm, number of positions: 2, color: red

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Single plug-in bridge - FBST 6-PLC BU - 2966812



Single plug-in bridge, length: 6 mm, number of positions: 2, color: blue

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## Solid-state relay module - PLC-OSC-120UC/ 48DC/100/SEN - 2966799

### Accessories

Single plug-in bridge - FBST 6-PLC GY - 2966825



Single plug-in bridge, length: 6 mm, number of positions: 2, color: gray

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Single plug-in bridge - FBST 8-PLC GY - 2967688



Single plug-in bridge, length: 8 mm, number of positions: 2, color: gray

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### Controller board

System connection - PLC-V8/FLK14/IN - 2296553



V8 adapter for 8 x PLC-INTERFACE (6.2 mm); Controller: PLC system cabling of input cards; connection 1: Plug connection; connection 2: 1x IDC/FLK pin strip (14-position); number of channels: 8; control logic: positive switching

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System connection - PLC-V8/FLK14/IN/M - 2304115



V8 adapter for 8 x PLC-INTERFACE (6.2 mm); Controller: PLC system cabling of input cards; connection 1: Plug connection; connection 2: 1x IDC/FLK pin strip (14-position); number of channels: 8; control logic: negative switching

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System connection - PLC-V8/D15S/IN - 2296074



V8 adapter for 8 x PLC-INTERFACE (6.2 mm); Controller: PLC system cabling of input cards; connection 1: Plug connection; connection 2: 1x D-SUB pin strip (15-position); number of channels: 8; control logic: positive switching

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## Solid-state relay module - PLC-OSC-120UC/ 48DC/100/SEN - 2966799

### Accessories

System connection - PLC-V8/D15B/IN - 2296087



V8 adapter for 8 x PLC-INTERFACE (6.2 mm); Controller: PLC system cabling of input cards; connection 1: Plug connection; connection 2: 1x D-SUB socket strip (15-position); number of channels: 8; control logic: positive switching

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### DIN rail

DIN rail, unperforated - NS 35/ 7,5 V2A UNPERF 2000MM - 0801377

DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, in acc. with EN 60715: 2001, material: Stainless steel V2A, uncoated, length: 2000 mm, color: silver

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DIN rail perforated - NS 35/ 7,5 PERF 2000MM - 0801733



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, in acc. with EN 60715: 2001, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM - 0801762



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, in acc. with EN 60715: 2001, material: Copper, uncoated, length: 2000 mm, color: copper-colored

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DIN rail, unperforated - NS 35/15 UNPERF 2000MM - 1201714



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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DIN rail, unperforated - NS 35/15 CU UNPERF 2000MM - 1201895



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Copper, uncoated, length: 2000 mm, color: copper-colored



## Solid-state relay module - PLC-OSC-120UC/ 48DC/100/SEN - 2966799

### Accessories

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DIN rail, unperforated - NS 35/15-2,3 UNPERF 2000MM - 1201798



DIN rail, unperforated, Standard profile 2.3 mm, width: 35 mm, height: 15 mm, in acc. with EN 60715: 2001, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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DIN rail, unperforated - NS 35/15 AL UNPERF 2000MM - 1201756



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Aluminum, uncoated, length: 2000 mm, color: silver

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DIN rail perforated - NS 35/15 PERF 2000MM - 1201730



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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DIN rail, unperforated - NS 35/ 7,5 UNPERF 2000MM - 0801681



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, in acc. with EN 60715: 2001, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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### Labeled terminal marker

Zack marker strip - ZB 6,LGS:FORTL.ZAHLEN - 1051016



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: consecutive numbers 1 - 10, 11 - 20, etc. up to 491 - 500, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm

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### Partition plate

## Solid-state relay module - PLC-OSC-120UC/ 48DC/100/SEN - 2966799

### Accessories

Separating plate - PLC-ATP BK - 2966841



Separating plate, 2 mm thick, required at the start and end of a PLC terminal strip. Furthermore, it is used for: visual separation of groups, safe isolation of different voltages of neighboring PLC relays in acc. with DIN VDE 0106-101, isolation

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### Power module

Power terminal block - PLC-ESK GY - 2966508



Power terminal block, for the input of up to four potentials, for mounting on NS 35/7.5

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### Relay socket

Relay base - PLC-BSC-120UC/ 1/SEN - 2966074



6.2 mm PLC basic terminal block for input functions with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with sensor supply voltage distribution (BB), 1 N/O contact, input voltage 120 V AC/ DC

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### Screwdriver tools

Screwdriver - SZF 1-0,6X3,5 - 1204517



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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### Single solid-state relay

Miniature solid-state relay - OPT-60DC/ 48DC/100 - 2966621



Plug-in miniature solid-state relay, input solid-state relay, 1 N/O contact, input: 60 V DC, output: 3 - 48 V DC/100 mA

## Solid-state relay module - PLC-OSC-120UC/ 48DC/100/SEN - 2966799

### Accessories

#### Terminal marking

Zack marker strip - ZB 6/WH-100:UNBEDRUCKT - 5060935



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm

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Zack marker strip - ZB 6:UNBEDRUCKT - 1051003



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm

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Marker for terminal blocks - UC-TM 6 - 0818085



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm

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Marker for terminal blocks - UCT-TM 6 - 0828736



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, BLUEMARK CLED, BLUEMARK LED, TOPMARK LASER, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm

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### Spare parts

Relay base - PLC-BSC-120UC/ 1/SEN - 2966074



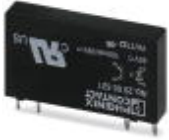
6.2 mm PLC basic terminal block for input functions with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with sensor supply voltage distribution (BB), 1 N/O contact, input voltage 120 V AC/DC

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## Solid-state relay module - PLC-OSC-120UC/ 48DC/100/SEN - 2966799

### Accessories

Miniature solid-state relay - OPT-60DC/ 48DC/100 - 2966621



Plug-in miniature solid-state relay, input solid-state relay, 1 N/O contact, input: 60 V DC, output: 3 - 48 V DC/100 mA

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