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## Solid-state relay module - PLC-OPT-110DC/ 24DC/3RW - 2900380

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PLC-INTERFACE for railway applications, consisting of basic terminal block with push-in connection and integrated miniature solid-state relay, range:  $0.7 \times U_N$  to  $1.25 \times U_N$ , temperature range:  $-25^\circ\text{C}$  to  $+70^\circ\text{C}$ , 1 N/O contact, input: 110 V DC, output: 3 - 33 V DC/3 A

The figure shows the version with spring-cage connection

### Why buy this product

- Shock resistance according to DIN 50155 (requirements according to EN 61373)
- Temperature range of  $-25^\circ\text{C}$  to  $+70^\circ\text{C}$
- Input voltage range of  $0.7 - 1.25 \times U_N$



### Key Commercial Data

Packing unit	10 STK
GTIN	4 046356 508940

### 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
Depth	86 mm

#### Ambient conditions

Ambient temperature (operation)	$-25^\circ\text{C} \dots 70^\circ\text{C}$
Ambient temperature (storage/transport)	$-40^\circ\text{C} \dots 85^\circ\text{C}$
Degree of protection	IP20

#### Input data

Nominal input voltage $U_N$	110 V DC
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## Technical data

### Input data

Input voltage range in reference to $U_N$	0.7 ... 1.25 ( $t < 1 \text{ s} = 0.6 \dots 1.4 \times U_N$ )
Input voltage range	77 V DC ... 137.5 V DC
Switching threshold "0" signal in reference to $U_N$	$\leq 0.3$
Switching threshold "1" signal in reference to $U_N$	$\geq 0.6$
Typical input current at $U_N$	3 mA
Typical response time	80 $\mu\text{s}$
Typical turn-off time	600 $\mu\text{s}$
Operating voltage display	Yellow LED
Type of protection	Protection against polarity reversal
Protective circuit/component	Polarity protection diode
Transmission frequency	100 Hz

### Output data

Output nominal voltage	24 V DC
Output voltage range	3 V DC ... 33 V DC ( $t < 1 \text{ s} = 1.40 \times U_N$ )
Limiting continuous current	3 A (see derating curve)
Surge voltage protection	> 33 V DC
Voltage drop at max. limiting continuous current	< 200 mV
Output circuit	2-wire, floating
Type of protection	Protection against polarity reversal
	Surge protection
Protective circuit/component	Polarity protection diode
	Suppressor diode

### Connection data, input side

Connection name	Input side
Connection method	Push-in connection
Stripping length	8 mm
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
Connection method	Push-in connection
Stripping length	8 mm
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

Mounting position	any
Assembly instructions	In rows with zero spacing

# Solid-state relay module - PLC-OPT-110DC/ 24DC/3RW - 2900380

## Technical data

### General

Operating mode	100% operating factor
Flammability rating according to UL 94	V0
Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	IEC 60664
	EN 50178
	IEC 62103
Rated surge voltage/insulation	4 kV / basic insulation
Rated insulation voltage	250 V
Degree of pollution	2
Overvoltage category	III

### Standards and Regulations

Connection in acc. with standard	CUL
Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	IEC 60664
	EN 50178
	IEC 62103
Rated insulation voltage	250 V
Rated surge voltage/insulation	4 kV / basic insulation
Degree of pollution	2
Overvoltage category	III
Flammability rating according to UL 94	V0

## Classifications

### eCl@ss

eCl@ss 4.0	27371102
eCl@ss 4.1	27371102
eCl@ss 5.0	27371001
eCl@ss 5.1	27371001
eCl@ss 6.0	27371001
eCl@ss 7.0	27371001
eCl@ss 8.0	27371604

### ETIM

ETIM 2.0	EC001504
ETIM 3.0	EC001504
ETIM 4.0	EC000196
ETIM 5.0	EC001504

### UNSPSC

UNSPSC 6.01	30211916
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# Solid-state relay module - PLC-OPT-110DC/ 24DC/3RW - 2900380

## Classifications

### UNSPSC

UNSPSC 7.0901	39121542
UNSPSC 11	39121542
UNSPSC 12.01	39121542
UNSPSC 13.2	39121542

## Approvals

### Approvals

#### Approvals

UL Listed / cUL Listed / UL Recognized / cUL Recognized / EAC / EAC / cULus Recognized / cULus Listed

#### Ex Approvals

#### Approvals submitted

### Approval details

UL Listed

cUL Listed

UL Recognized


cUL Recognized

EAC

EAC

# Solid-state relay module - PLC-OPT-110DC/ 24DC/3RW - 2900380

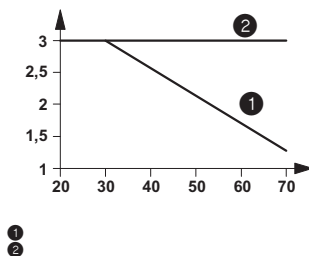
## Approvals

cULus Recognized 

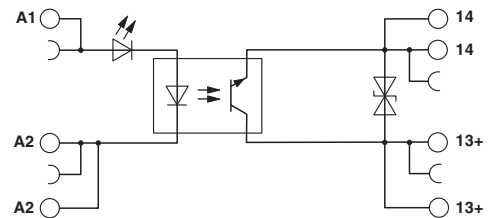
cULus Listed 

## Drawings

Diagram



Circuit diagram



The illustration shows the load current as function of the ambient temperature range PLC-OSP-.../24DC/3RW. Duty cycle: 100% operating factor

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Product	Code	Reference	Product link
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