

# Solid-state relay module - PLC-OPT- 48DC/110DC/3RW - 2900393

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6.2 mm PLC solid-state relay with Push-in connection for railway applications, input voltage: 48 V DC, input voltage range from 0.7 x UN to 1.25 x UN, temperature range from -25°C to +70°C

The figure shows a version with a screw connection

## Product Features

- Shock resistance according to DIN 50155 (requirements according to EN 61373)
- Temperature range of -25°C to +70°C
- Input voltage range of 0.7 - 1.25 x UN



## Key commercial data

package_quantity	10
GTIN	4046356508988

## 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 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20

### Input data

Nominal input voltage $U_N$	48 V DC
Input voltage range in reference to $U_N$	0.7 ... 1.25 ( $t < 1 \text{ s} = 0.6 \dots 1.4 \times U_N$ )
Switching threshold "0" signal in reference to $U_N$	< 0.3
Switching threshold "1" signal in reference to $U_N$	> 0.6
Typical input current at $U_N$	5.5 mA

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## Technical data

### Input data

Typical response time	40 µs
Typical turn-off time	200 µs
Operating voltage display	Yellow LED
Type of protection	Protection against polarity reversal
Type of protection	Surge protection
Protective circuit/component	Series polarity protection diode
Surge voltage protection	> 150 V
Transmission frequency	300 Hz

### Output data

Output nominal voltage	110 V DC
Output voltage range	12 V DC ... 140 V DC (t < 1 s = 1.40 x U <sub>N</sub> )
Limiting continuous current	3 A (see derating curve)
Surge voltage protection	> 150 V
Voltage drop at max. limiting continuous current	< 150 mV
Output circuit	2-wire, floating
Type of protection	Protection against polarity reversal
Type of protection	Surge protection
Protective circuit/component	Parallel polarity protection diode

### Connection data

Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.14 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	14

### General

Test voltage input/output	2.5 kV <sub>rms</sub>
Mounting position	Any
Assembly instructions	In rows with zero spacing
Operating mode	100% operating factor
Inflammability class according to UL 94	V0
Name	Air and creepage distances between the power circuits
Standards/regulations	IEC 60664
Standards/regulations	EN 50178
Standards/regulations	IEC 62103
Rated surge voltage / insulation	4 kV / basic insulation
Rated insulation voltage	160 V DC
Pollution degree	2

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## Technical data

### General

Surge voltage category	III
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### 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	27371001

#### ETIM

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

#### UNSPSC

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

### approvals

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

#### Approval details



# Solid-state relay module - PLC-OPT- 48DC/110DC/3RW - 2900393

approvals

cUL Recognized 

cULus Recognized 

cULus Listed 

accessories

## Mounting rail

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



NS 35/ 7,5 PERF 2000MM - 0801733



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



## Solid-state relay module - PLC-OPT- 48DC/110DC/3RW - 2900393

### accessories

NS 35/15 UNPERF 2000MM - 1201714



NS 35/15 CU UNPERF 2000MM - 1201895



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



NS 35/15 AL UNPERF 2000MM - 1201756



NS 35/15 PERF 2000MM - 1201730



NS 35/ 7,5 UNPERF 2000MM - 0801681



# Solid-state relay module - PLC-OPT- 48DC/110DC/3RW - 2900393

accessories

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## Power module

PLC-ESK GY - 2966508



## Partition plate

PLC-ATP BK - 2966841



## Screwdriver tools

SZF 1-0,6X3,5 - 1204517



## Bridge

FBST 500-PLC RD - 2966786



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### accessories

FBST 500-PLC BU - 2966692



FBST 500-PLC GY - 2966838



FBST 6-PLC RD - 2966236



FBST 6-PLC BU - 2966812



FBST 6-PLC GY - 2966825



FBST 8-PLC GY - 2967688



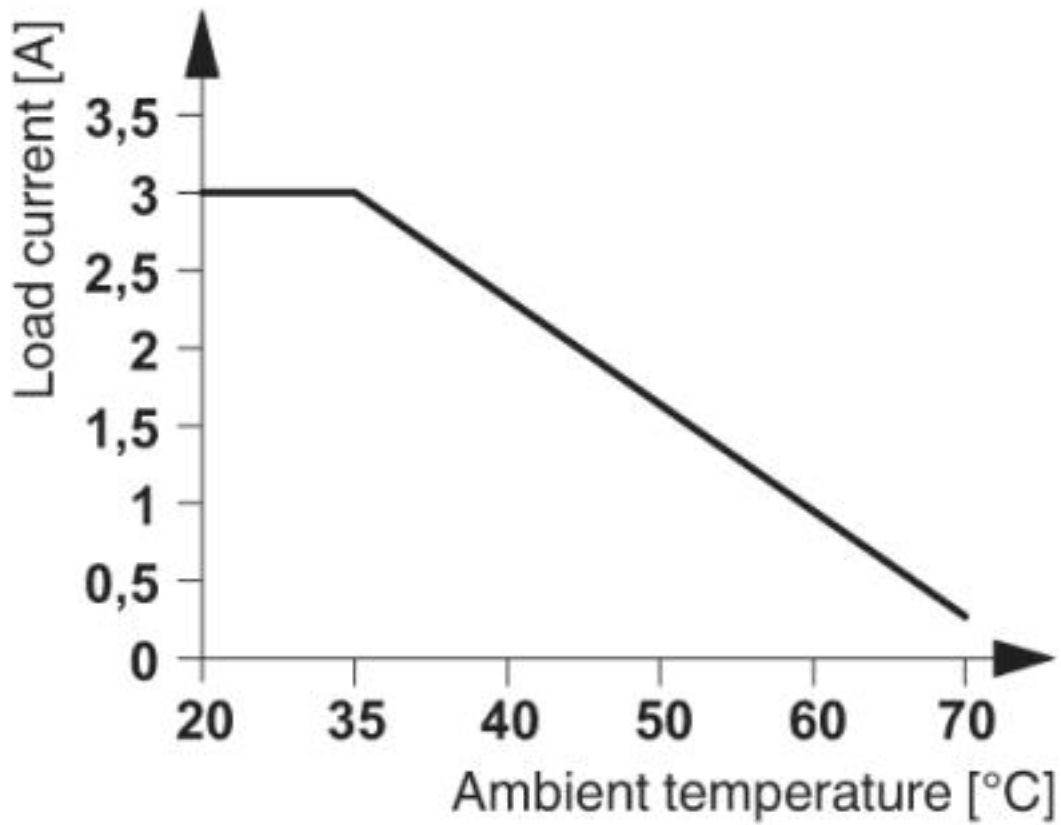
# Solid-state relay module - PLC-OPT- 48DC/110DC/3RW - 2900393

accessories

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## Drawings

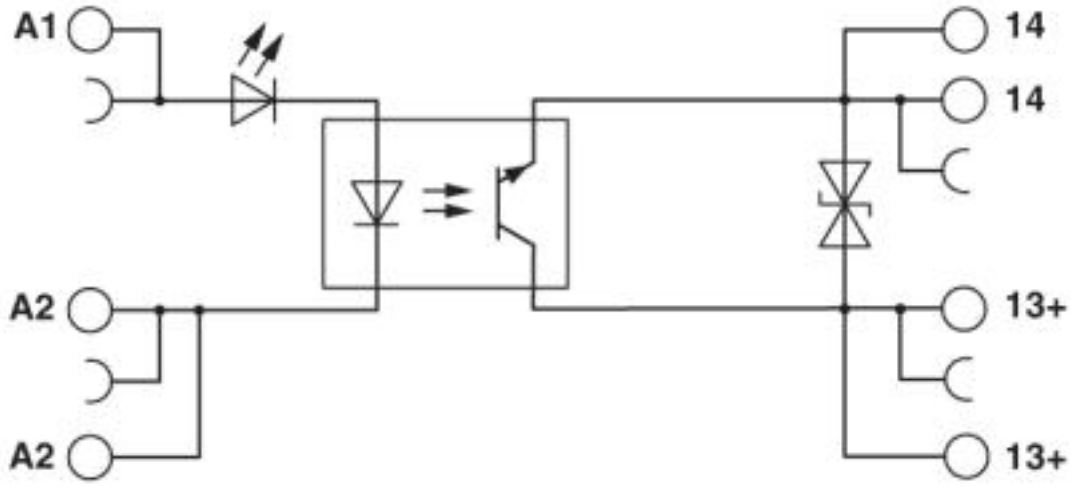
### Diagram





# Solid-state relay module - PLC-OPT- 48DC/110DC/3RW - 2900393

Circuit diagram



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