

Solid-state relay module - PLC-OSC- 24DC/ 24DC/ 10/R



2982702

<https://www.phoenixcontact.com/us/products/2982702>

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PLC-INTERFACE with checkback contact, consisting of basic terminal block with screw connection and integrated miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 3 ... 33 V DC/10 A

Your advantages

- Resistant to vibrations and shocks
- Wear-free switching with no contact bounce
- Protective circuit in input and output
- Status indicator
- DC voltage outputs up to 24 V DC/10 A
- Option of bridging adjacent modules

Commercial Data

Item number	2982702
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Sales Key	C05
Product Key	CK6213
Catalog Page	Page 409 (C-5-2019)
GTIN	4046356155748
Weight per Piece (including packing)	41.3 g
Weight per Piece (excluding packing)	37.64 g
Customs tariff number	85364190
Country of origin	DE

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Technical Data

Notes

Notes on operation	The PLC-ATP partition plate must be installed for voltages greater than 250 V (L1, L2, L3) between identical terminal blocks on adjacent modules.
Notes on operation	The PLC-ATP separating plate should be installed for safe isolation between adjacent modules
Notes on operation	Do not connect adjacent channels to SELV/ PELV and voltages dangerous to the touch.
Notes on operation	The system installer must ensure the touch protection of the product (at voltages > 25 V AC/60 V DC). The product is a built-in device without protection against direct contact.
Notes on operation	At least one functional insulation against adjacent modules is complied with in the support rail direction. If the application has higher requirements on the insulation (basic or reinforced insulation), then these must be realized through suitable measures (e. g., partition plates).
Notes on operation	Do not use to separate SELV / PELV circuits from other circuits, because safe isolation is not guaranteed.

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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Product properties

Product type	Solid-state relay module
Application	With integrated solid-state relay
Operating mode	100% operating factor

Insulation characteristics

Overvoltage category	II
Pollution degree	2
Insulation	Basic insulation

Electrical properties

Maximum power dissipation for nominal condition	0.07 W
Rated insulation voltage	50 V DC
Rated surge voltage	0.5 kV

Input data

Rated actuating voltage U_C	24 V DC
Rated actuating current I_C	3.5 mA
Switching threshold "0" signal in reference to U_N	< 0.4
Switching threshold "1" signal in reference to U_N	> 0.8
Typical response time	100 μ s
Typical turn-off time	500 μ s
Operating voltage display	Yellow LED

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Protective circuit	Reverse polarity protection; Polarity protection diode
	Surge protection
Surge voltage protection	> 33 V
Transmission frequency	100 Hz

Output data

Designation	DC voltage output
Contact type	1 N/O contact
Design of digital output	electronic
Type of contact	Power contact
Output voltage range	8 V DC ... 33 V DC
Limiting continuous current	10 A (see derating curve)
Quiescent current	5.2 mA
Voltage drop at max. limiting continuous current	< 50 mV
Output circuit	3-conductor, ground-referenced
Protective circuit	Inverse diode
	Surge protection
Designation	Alarm output
Output voltage range	3 V DC ... 33 V DC
Limiting continuous current	100 mA
Surge voltage protection	> 33 V
Voltage drop at max. limiting continuous current	< 1.2 V
Output circuit	2-conductor, floating
Error indication	Red LED
Protective circuit	Reverse polarity protection; Polarity protection diode
	Surge protection; Suppressor diode

Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	0.14 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 2.5 mm ²
	0.2 mm ² ... 2.5 mm ² (Single ferrule)
	2x 0.5 mm ² ... 1.5 mm ² (TWIN ferrule)
Conductor cross section AWG	26 ... 14
Tightening torque	0.6 Nm ... 0.8 Nm

Dimensions

Width	6.2 mm
Height	80 mm
Depth	86 mm

Material specifications

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Flammability rating according to UL 94	V0 (Housing)
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Degree of protection Installation location	IP54 (Installation location)
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m

Approval data

Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

Standards and regulations

Air clearances and creepage distances between the power circuits

Standards/regulations	IEC 60947-5-1
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Mounting

Mounting type	DIN rail mounting
Assembly instructions	in rows with zero spacing
Mounting position	any

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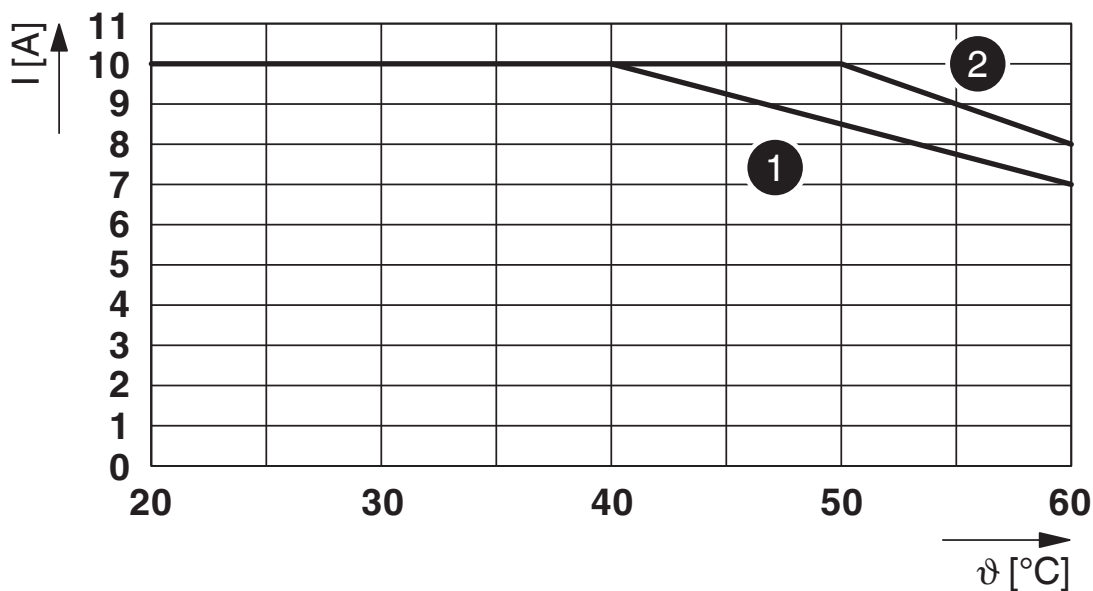


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Drawings

Diagram

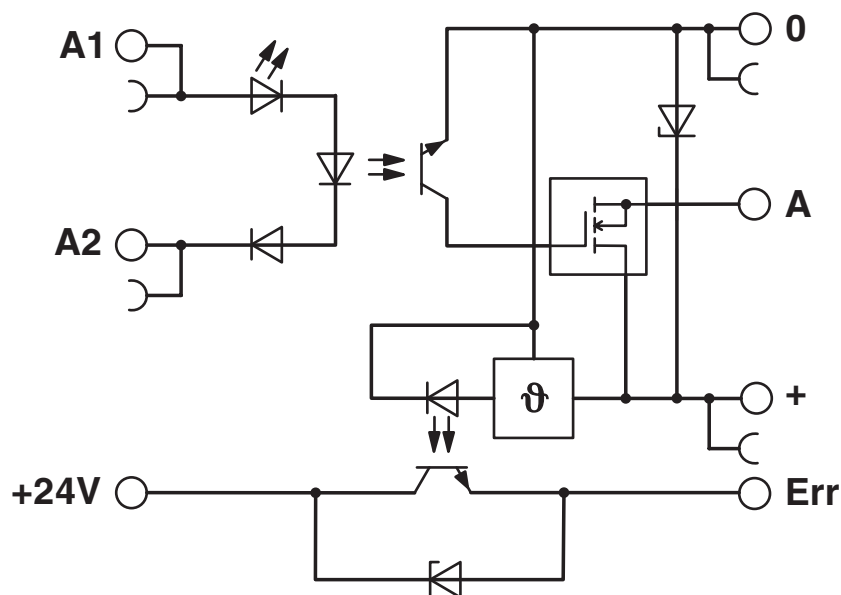


Limiting continuous current

1) Aligned without spacing

2) Aligned with >6 mm spacing

Circuit diagram




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Approvals




cUL Recognized
Approval ID: FILE E 238705



UL Recognized
Approval ID: FILE E 238705



EAC
Approval ID: TR_TS_D_00573_c


	DNV GL			
	Approval ID: TAE0000196			
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
			-	-



PRS
Approval ID: TE/2109/880590/16



UL Listed
Approval ID: FILE E 172140



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cULus Recognized

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Classifications

ECLASS

ECLASS-9.0	27371604
ECLASS-10.0.1	27371604
ECLASS-11.0	27371604

ETIM

ETIM 8.0	EC001504
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UNSPSC

UNSPSC 21.0	39122300
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"


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Accessories

 Note: Applying some accessories below might limit this product.


Continuous plug-in bridge

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

<https://www.phoenixcontact.com/us/products/2966786>



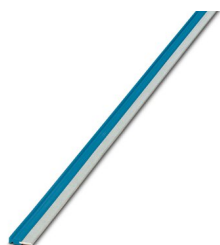
Continuous plug-in bridge, color: red

 Max. current carrying capacity: 32 A

Continuous plug-in bridge

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

<https://www.phoenixcontact.com/us/products/2966692>



Continuous plug-in bridge, color: blue

 Max. current carrying capacity: 32 A

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Continuous plug-in bridge

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

<https://www.phoenixcontact.com/us/products/2966838>



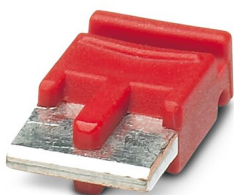
Continuous plug-in bridge, color: gray

 Max. current carrying capacity: 32 A

Single plug-in bridge

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

<https://www.phoenixcontact.com/us/products/2966236>



Single plug-in bridge, color: red

 Max. current carrying capacity: 6 A

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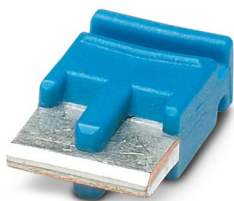
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Single plug-in bridge

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

<https://www.phoenixcontact.com/us/products/2966812>

Single plug-in bridge, color: blue



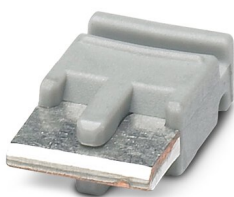
 Max. current carrying capacity: 6 A

Single plug-in bridge

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

<https://www.phoenixcontact.com/us/products/2966825>

Single plug-in bridge, color: gray



 Max. current carrying capacity: 6 A

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Single plug-in bridge

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

<https://www.phoenixcontact.com/us/products/2967688>

Single plug-in bridge, color: gray



 Max. current carrying capacity: 6 A

Power terminal block

Power terminal block - PLC-ESK GY - 2966508

<https://www.phoenixcontact.com/us/products/2966508>

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



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Separating plate

Separating plate - PLC-ATP BK - 2966841

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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

Screwdriver

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

<https://www.phoenixcontact.com/us/products/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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System connection

System connection - PLC-V8/FLK14/OUT - 2295554

<https://www.phoenixcontact.com/us/products/2295554>



V8 adapter for 8 x PLC-INTERFACE (6.2 mm), controller: PLC system cabling of output cards, connection 1: Screw connection 1x, connection 2: IDC/FLK pin strip 1x 14-position, connection 3: Plug-in connection (Can be snapped onto 8x PLC-INTERFACE terminals), number of channels: 8, control logic: plusschaltend

System connection

System connection - PLC-V8/FLK14/OUT/M - 2304102

<https://www.phoenixcontact.com/us/products/2304102>



V8 adapter for 8 x PLC-INTERFACE (6.2 mm), controller: PLC system cabling of output cards, connection 1: Screw connection 1x, connection 2: IDC/FLK pin strip 1x 14-position, connection 3: Plug-in connection (Can be snapped onto 8x PLC-INTERFACE terminals), number of channels: 8, control logic: minusschaltend

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Adapter module

Adapter module - PLC-V8/D15S/OUT - 2296058

<https://www.phoenixcontact.com/us/products/2296058>

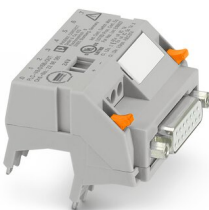


V8 adapter for 8 x PLC-INTERFACE (6.2 mm), controller: PLC system cabling of output cards, connection 1: Screw connection 1x, connection 2: D-SUB pin strip 1x 15-position, connection 3: Plug-in connection (Can be snapped onto 8x PLC-INTERFACE terminals), number of channels: 8, control logic: plusschaltend

System connection

System connection - PLC-V8/D15B/OUT - 2296061

<https://www.phoenixcontact.com/us/products/2296061>



V8 adapter for 8 x PLC-INTERFACE (6.2 mm), controller: PLC system cabling of output cards, connection 1: Screw connection 1x, connection 2: D-SUB socket strip 1x 15-position, connection 3: Plug-in connection (Can be snapped onto 8x PLC-INTERFACE terminals), number of channels: 8, control logic: plusschaltend

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DIN rail perforated

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

<https://www.phoenixcontact.com/us/products/0801733>



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail, unperforated

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

<https://www.phoenixcontact.com/us/products/0801681>



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 25 (50 m)

Solid-state relay module - PLC-OSC- 24DC/ 24DC/ 10/R



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DIN rail perforated

DIN rail perforated - NS 35/ 7,5 WH PERF 2000MM - 1204119

<https://www.phoenixcontact.com/us/products/1204119>



DIN rail perforated, acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail, unperforated

DIN rail, unperforated - NS 35/ 7,5 WH UNPERF 2000MM-VPE 10 - 1204122

<https://www.phoenixcontact.com/us/products/1204122>



DIN rail, unperforated, acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver, Pack of 10 (20 m)

Solid-state relay module - PLC-OSC- 24DC/ 24DC/ 10/R



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DIN rail, unperforated

DIN rail, unperforated - NS 35/ 7,5 AL UNPERF 2000MM - 0801704

<https://www.phoenixcontact.com/us/products/0801704>



DIN rail, unperforated, acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail perforated

DIN rail perforated - NS 35/ 7,5 ZN PERF 2000MM - 1206421

<https://www.phoenixcontact.com/us/products/1206421>



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver, Pack of 25 (50 m)

Solid-state relay module - PLC-OSC- 24DC/ 24DC/ 10/R



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DIN rail, unperforated

DIN rail, unperforated - NS 35/ 7,5 ZN UNPERF 2000MM - 1206434

<https://www.phoenixcontact.com/us/products/1206434>



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail, unperforated

DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM-VPE 10 - 0801762

<https://www.phoenixcontact.com/us/products/0801762>



DIN rail, unperforated, acc. to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored, Pack of 10 (20 m)

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End cap

End cap - NS 35/ 7,5 CAP - 1206560

<https://www.phoenixcontact.com/us/products/1206560>

DIN rail end piece, for DIN rail NS 35/7.5



DIN rail perforated

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

<https://www.phoenixcontact.com/us/products/1201730>



DIN rail perforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 25 (50 m)

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DIN rail, unperforated

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

<https://www.phoenixcontact.com/us/products/1201714>



DIN rail, unperforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail perforated

DIN rail perforated - NS 35/15 WH PERF 2000MM - 0806602

<https://www.phoenixcontact.com/us/products/0806602>



DIN rail perforated, similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: white, Pack of 25 (50 m)

Solid-state relay module - PLC-OSC- 24DC/ 24DC/ 10/R



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DIN rail, unperforated

DIN rail, unperforated - NS 35/15 WH UNPERF 2000MM-VPE 10 - 1204135

<https://www.phoenixcontact.com/us/products/1204135>



DIN rail, unperforated, similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver, Pack of 10 (20 m)

DIN rail, unperforated

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

<https://www.phoenixcontact.com/us/products/1201756>



DIN rail, unperforated, similar to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

Solid-state relay module - PLC-OSC- 24DC/ 24DC/ 10/R



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DIN rail perforated

DIN rail perforated - NS 35/15 ZN PERF 2000MM - 1206599

<https://www.phoenixcontact.com/us/products/1206599>



DIN rail perforated, similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail, unperforated

DIN rail, unperforated - NS 35/15 ZN UNPERF 2000MM - 1206586

<https://www.phoenixcontact.com/us/products/1206586>



DIN rail, unperforated, similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver, Pack of 25 (50 m)

Solid-state relay module - PLC-OSC- 24DC/ 24DC/ 10/R



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DIN rail, unperforated

DIN rail, unperforated - NS 35/15 CU UNPERF 2000MM-VPE 10 - 1201895

<https://www.phoenixcontact.com/us/products/1201895>



DIN rail, unperforated, similar to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored, Pack of 10 (20 m)

End cap

End cap - NS 35/15 CAP - 1206573

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DIN rail end piece, for DIN rail NS 35/15



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DIN rail, unperforated

DIN rail, unperforated - NS 35/15-2,3 UNPERF 2000MM-VPE 10 - 1201798

<https://www.phoenixcontact.com/us/products/1201798>



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile 2.3 mm, color: silver, Pack of 10 (20 m)

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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com

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