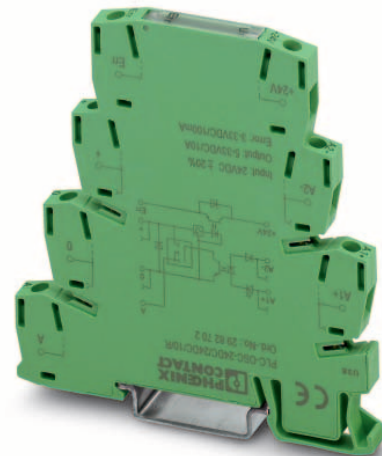


PLC-OS...-24DC/24DC/10/R

PLC INTERFACE With Integrated Solid-State Relay and Short-Circuit-Proof DC Voltage Output



INTERFACE

Data Sheet
103176_00_en

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Description

The 6.2 mm **PLC-OS...-24DC/24DC/10/R** PLC INTERFACE module with screw or spring-cage connection has an integrated solid-state relay.

The module uses an input voltage of 24 V DC. A further advantage is the ready-integrated input circuit. It consists of a status indicator, protection against polarity reversal function, and surge protection function and ensures that the operating state is displayed clearly, also preventing destruction of the optical electronics should the polarity be accidentally reversed.

Plug-In Bridges Save Wiring

The PLC INTERFACE module achieves maximum efficiency with the user-friendly FBST plug-in bridge system. PLC-OS...-24DC/24DC/10/R makes effective use of the bridging options for the A1/A2 connection on the control side and for the supply at connections 0 and + on the load side. Especially efficient here are the 500 mm long color-insulated continuous plug-in bridges that can easily be cut to the required length and quickly inserted in the bridge shafts. They eliminate the need for complicated and time-consuming loop bridges.

Additional Advantages

- Switching power of up to 24 V DC/10 A, depending on the type
- Overload and short-circuit-proof with active "High" reply output and alarm LED
- Integrated input circuit
- Wear-resistant switching
- Resistant to vibrations and shocks
- Inflammability class V0 according to UL94



Make sure you always use the latest documentation.
It can be downloaded at www.download.phoenixcontact.com.



A conversion table is available on the Internet at
www.download.phoenixcontact.com/general/7000_en_00.pdf.



This data sheet is valid for all products listed on the following page:

Ordering Data

PLC INTERFACE

Description	Type	Order No.	Pcs./Pck.
PLC INTERFACE with integrated solid-state relay, 24 V DC input voltage, for assembly on  , housing open on one side, short-circuit-proof, with screw connection	PLC-OSC-24DC/24DC/10/R	2982702	10
PLC INTERFACE with integrated solid-state relay, 24 V DC input voltage, for assembly on  , housing open on one side, short-circuit-proof, with spring-cage connection	PLC-OSP-24DC/24DC/10/R	2982715	10



Use the PLC-ATP BK insulating plate to cover the open housing.
For the protection of input and output, inductive loads must be dampened with an effective protective circuit.

Accessories

Description	Type	Order No.	Pcs./Pck.
Insulating plate	PLC-ATP BK	2966841	25



The PLC-ATP BK insulating plate should be used in the following cases: always fit at the start and end of a PLC terminal strip for voltages greater than 250 V (L1, L2, L3) between the same terminal points on adjacent modules (FBST 8-PLC... or FBST 500... can be used for potential bridging) and for safe isolation between adjacent modules.

For additional accessories such as power terminal blocks and plug-in bridges, please refer to the INTERFACE catalog or www.phoenixcontact.com.

Technical Data

Input Data

Nominal input voltage	24 V DC
Permissible range (with reference to U_N)	0.8 ... 1.2 x U_N
Switching level	
1 signal ("H")	$\geq 0.8 \times U_N$
0 signal ("L")	$\leq 0.4 \times U_N$
Typical input current at U_N	3 mA
Typical response time at U_N	150 μ s
Typical release time at U_N	1 ms
Transmission frequency f_{limit}	100 Hz
Input circuit	Yellow LED operating indicator, protection against polarity reversal, surge protection

Alarm Output

Operating voltage range	3 V DC ... 33 V DC (active "High")
Continuous load current	100 mA
Residual voltage drop at "H"	< 1.2 V
Output circuit	Red alarm LED, polarity protection diode, surge protection diode

Output Data

Maximum switching voltage	33 V DC
Minimum switching voltage	5 V DC
Limiting continuous current	10 A (see "Derating Curve" on page 3)
Maximum inrush current	100 A (t = 20 ms)
Output configuration	3-wire, ground referenced
Output circuit	Protection against polarity reversal, surge protection
Voltage drop at maximum limiting continuous current	≤ 50 mV

General Data

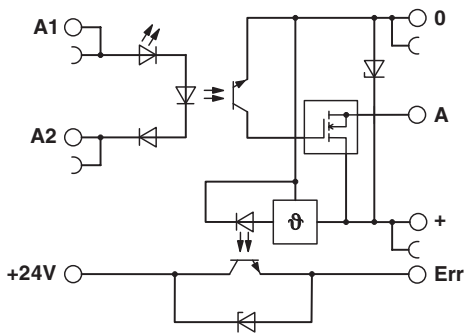
Rated insulation voltage	300 V
Impulse voltage withstand level	4 kV, 50 Hz, 1 minute
Ambient temperature range	-20°C ... 60°C
Nominal operating mode	100% operating factor
Inflammability class according to UL 94 (housing)	V0
Air and creepage distances between the circuits	
Basic insulation ¹	DIN EN 50178
Pollution degree	2
Surge voltage category	III
Mounting position	Any
Assembly	Can be aligned without spacing
Conductor cross section (solid and stranded)	
Screw connection	0.14 mm ² ... 2.5 mm ²
Spring-cage connection	0.2 mm ² ... 2.5 mm ²
Stripping length	8 mm
Dimensions (W x H x D)	6.2 mm x 86 mm x 80 mm
Housing material	Polyamide PA, color: green

¹ The PLC-ATP BK insulating plate must be installed for safe isolation between adjacent modules (see "Accessories"). FBST 8-PLC... or FBST 500... is then used for potential bridging.

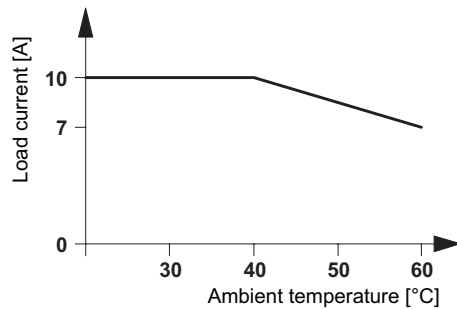
Tests/Approvals

CE	CE
UL	Applied for
GL	Planned

Block Diagram



Derating Curve



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