PLC INTERFACE for high continuous load current and/or long electrical service life

PLC INTERFACE, the ultra-narrow, pluggable, modular and flexible interfaces with the convenient plug-in bridge system are now offering an extended range of relay interfaces for special load applications, such as loads with high continuous current and/or increased requirements with respect to the service life of the electrical contacts.

Loads with high continuous current

A number of applications, such as electrical heating systems, require higher continuous load currents than miniature relays can carry and switch. The **High Current Version, PLC-RSC-.../21HC** of the same shape as the proven 6.2 mm PLC series is 14 mm wide, provides a PDT contact and tolerates continuous load current of up to 10 A. The modern 16 A power relay provides sufficient reserve to survive inrush currents or short-term overloads without damage.

Additional ease of wiring is provided by the double contact connections, should more than one conductor have to be connected per contact.

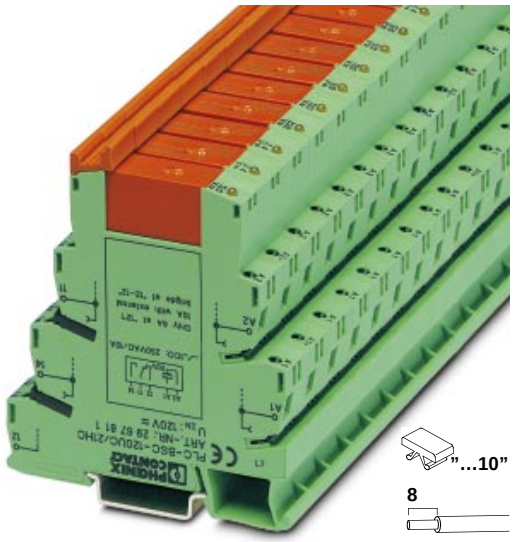
Long electrical service life

A further positive side effect of the powerful relay is the above average length of service life of the contacts that is most noticeable, particularly in the medium load range, compared with less powerful relays. Intervals between services can be doubled or trebled, thus saving costs.

All further PLC advantages

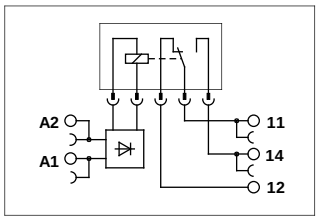
It goes without saying that the PLC-RSC-.../21HC series has the usual features of the PLC range:

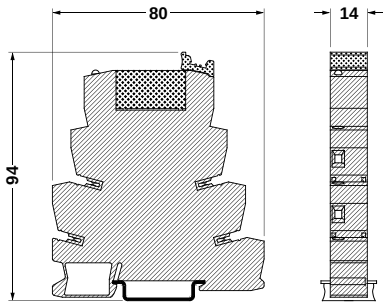
– Convenient plug-in bridge system
– Integrated input circuit
– The relay can be quickly removed using the engagement lever,
– Protective separation between input and output
– Marker tags from the standard modular terminal block range
– All common input voltages from 12 V DC to 230 V AC
– Inexpensive



	(IEC) [mm²]	rigid solid	flexible stranded	AWG	I [A]	U [V]
Connection data		0.14-2.5	0.14-2.5	26-14	*	*

* The electrical data are determined by the relay.





Headquarters: © Phoenix Contact GmbH & Co. KG • Flachsmarktstraße 8-28 • 32825 Blomberg • Germany
Phone +49-(0) 52 35-3-00 • Fax +49-(0) 52 35-3-4 12 00 • http://www.phoenixcontact.com

PLC INTERFACE for high continuous current and long electrical service life

Description	Input voltage U_N[1])	Type	Order No.	Pcs./ Pkt.
PLC interface, consisting of base terminal block PLC-BSC…/21HC and pluggable power relay for mounting on ⊔	24 V DC	equipped with relay for high continuous current **PLC-RSC- 24DC/21HC**	**29 67 62 0**	10
	24 V AC/DC	**PLC-RSC- 24UC/21HC**	**29 67 63 3**	10
	120 V AC/110 V DC	**PLC-RSC-120UC/21HC**	**29 67 66 2**	10
	230 V AC/220 V DC [2])	**PLC-RSC-230UC/21HC**	**29 67 67 5**	10

Technical data

Input data				
Nominal input voltage U_N	24 V DC	24 V AC/DC	120 V AC/ 110 V DC	230 V AC/ 220 V DC[2])
Permissible input voltage range	see diagram, INTERFACE catalog			
Typ. input current at U_N	18 mA	17.5 mA	4.5/4 mA	4.5 mA
Typ. response time at U_N	8 ms	8 ms	7 ms	7 ms
Typ. release time at U_N	10 ms	10 ms	10 ms10 ms	
Input circuit: 24 V DC	operation indicator, polarity protection diode, damping diode			
24, 120, 230 V AC/DC	operation indicator, bridge rectifier			

Output data		**PLC-R…/21HC**
Contact type		single contact, 1 PDT
Contact material		AgNi
Max. switching voltage		250 V AC/DC [2])
Min. switching voltage		12 V AC/DC
Limiting continuous current		10 (6) A[3])
Max. inrush current		16 A for 20 ms
Min. switching current		100 mA
Max. power rating, ohmic load:	24 V DC	240 (144) W[3])
	48 V DC	144 W
	60 V DC	48 W
	110 V DC	50 W
	220 V DC	80 W
	250 V AC	2500 (1500) VA[3])
Min. switching capacity		1.2 W

General data	
Test voltage input/output	4 kV, 50 Hz, 1 min.
Ambient temperature range	– 20 °C to + 55 °C (24 V types to + 60 °C)
Duty type rating	100 % ED
Inflammability class	V0 in acc. with UL 94
Mechanical service life	3 x 10^7 cycles
Standards/regulations	IEC 664/IEC 664 A/DIN VDE 0110, contamination class 3, Surge voltage category III, DIN VDE 0160 (in relev. parts), IEC 255/DIN VDE 0435 (in relev. parts), DIN VDE 0106-101: 1986-11, increased insulation I/O[4])
Installation position/assembly	as desired, in rows with zero spacing
Type of connection	screw connection

[1]) Further input voltages available on request.

[2]) For voltages higher than 250 V (e.g. L1, L2, L3) between identical terminal blocks of adjacent modules, the PLC-ATP separating plate (see INTERFACE catalog) should be installed.

[3]) The values given in parentheses are valid for the connections 12. If the connections 12 are bridged, then the values before the parentheses are valid.

[4]) For protective isolation between identical terminal blocks of adjacent modules, the PLC-ATP separating plate (see INTERFACE catalog) should be installed. Potential bridging is then carried out with FBST 8-PLC... or FBST 500... .

Notes:

Type of housing: polyamide PA non-reinforced, Color: green, see INTERFACE catalog.

Marking systems and mounting material, see CLIPLINE catalog.

The rated cross section (see INTERFACE catalog) refers to untreated conductors without ferrules.

For the protection of input and output, inductive loads must be dampened with an effective protection circuit.

Due to the input circuit integrated in the base terminal block, a 110 V relay REL-MR-110DC/21HC is used with the 120 V and 230 V modules.

The PLC-ATP separating plate (see INTERFACE catalog) must always be installed at the beginning and end of a PLC terminal strip.

© PHOENIX CONTACT 01.04.00 TNR: 5104215-01 http://www.phoenixcontact.com