

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (http://phoenixcontact.com/download)



PLC-INTERFACE for high continuous currents, consisting of PLC-BPT.../21 HC basic terminal block with push-in connection and plug-in miniature relay, for mounting on DIN rail NS 35/7,5, limiting continuous current up to 10 A, 1 PDT, input voltage 230 V AC/DC

#### Why buy this product

- ✓ All common input voltages of 12 V DC to 230 V AC

- ☑ Safe isolation according to DIN EN 50178 between coil and contact
- Max. continuous current of 10 A



### **Key Commercial Data**

Packing unit	10 STK
GTIN	4 046356 507189
GTIN	4046356507189

#### Technical data

#### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
-------------------------	---

### Dimensions

Width	14 mm
Height	80 mm
Depth	94 mm

#### Ambient conditions

Ambient temperature (operation)	-40 °C 55 °C
Ambient temperature (storage/transport)	-40 °C 85 °C



# Technical data

### Coil side

Nominal input voltage U <sub>N</sub>	230 V AC
	220 V DC
Typical input current at U <sub>N</sub>	4.3 mA (at 220 V DC)
	4.5 mA (for 230 V AC)
Typical response time	7 ms
Typical release time	10 ms
Protective circuit	Bridge rectifier Bridge rectifier
Operating voltage display	Yellow LED
Power dissipation for nominal condition	0.99 W

#### Contact side

Contact type	1 PDT
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC (The separating plate PLC-ATP should be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal blocks in adjacent modules. Potential bridging is then carried out with FBST 8-PLC orFBST 500)
Minimum switching voltage	12 V (at 10 mA)
Min. switching current	10 mA (at 12 V)
Maximum inrush current	30 A (300 ms)
Limiting continuous current	10 A
	6 A (value applies to connections 12. If connections 12 are bridged, the normal value applies.)
Interrupting rating (ohmic load) max.	240 W (at 24 V DC)
	58 W (at 48 V DC)
	48 W (at 60 V DC)
	50 W (at 110 V DC)
	80 W (at 220 V DC)
	2500 VA (for 250 V AC)
Interrupting rating (ohmic load) max. bridged	144 W (for 24 V DC. Value applies to connections 12. If connections 12 are bridged, the normal value applies.)
	1500 VA (for 250 V AC. Value applies to connections 12. If connections 12 are bridged, the normal value applies.)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.2 A (at 250 V, DC13)
	6 A (at 24 V, AC15)
	6 A (at 120 V, AC15)
	6 A (at 250 V, AC15)

# Connection data input side

Connection name	Coil side
Connection method	Push-in connection



# Technical data

### Connection data input side

Stripping length	8 mm
Conductor cross section solid	0.14 mm² 2.5 mm²
Conductor cross section flexible	0.14 mm² 2.5 mm²
	0.2 mm <sup>2</sup> 2.5 mm <sup>2</sup> ()
	2x 0.5 mm² 1 mm² ()
Conductor cross section AWG	26 14

### Connection data output side

Connection name	Contact side
Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid	0.14 mm² 2.5 mm²
Conductor cross section flexible	0.14 mm² 2.5 mm²
	0.2 mm² 2.5 mm² ()
	2x 0.5 mm² 1 mm² ()
Conductor cross section AWG	26 14

#### General

Operating mode	100% operating factor
Degree of protection	RT II (Relay)
	IP20 (Relay base)
Mechanical service life	3x 10 <sup>7</sup> cycles
Mounting position	any
Assembly instructions	In rows with zero spacing

# Standards and Regulations

Connection in acc. with standard	CUL
Designation	Standards/regulations
Standards/regulations	IEC 60664
	EN 50178
Rated surge voltage	6 kV
Insulation	Safe isolation, reinforced insulation
Degree of pollution	2
Overvoltage category	III
Flammability rating according to UL 94	V0

### **Environmental Product Compliance**

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

# Drawings



Diagram

UN 1,4

1,3

1,2

1,1

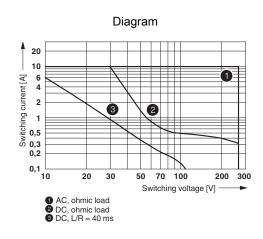
UN=220 V DC

1,1

UN=230 V AC

1,1

UN=230 V AC

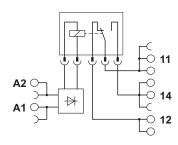


Interrupting rating

Curve A Maximum permissible continuous voltage  $U_{\text{max}}$  with limiting continuous current on the contact side (see relevant technical data) Curve B

Minimum permissible operate voltage  $U_{\text{op}}$  after pre-excitation (see relevant technical data)

#### Circuit diagram



#### Articles in set

Relay base - PLC-BPT-230UC/21HC - 2900259



14 mm PLC basic terminal block for high continuous currents with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7.5, 1 PDT, input voltage 230 V AC/DC

#### Single relay - REL-MR-110DC/21HC - 2961338



Plug-in miniature power relay, with power contact for high continuous currents, 1 PDT, input voltage 110 V DC

cULus Listed



Relay Module - PLC-RPT-230UC/21HC - 2900297			
Approvals			
Approvals			
Approvals			
UL Listed / cUL Listed / UL R	ecognized / cUL Reco	ognized / EAC / RC FRT / DNV GL / cULus Recognized / cULus Listed	
Ex Approvals			
Approval details			
UL Listed	LISTED	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
cUL Listed	CUL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
UL Recognized	<b>7.</b>	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cUL Recognized	. <b>91</b>	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
EAC	ERE		RU C- DE.A*30.B.01082
RC FRT	<b>СЕКТ</b>	http://www.rsfgt.ru/en/web/guest/english	B.00094
DNV GL		http://exchange.dnv.com/tari/	TAE0000196-01
cULus Recognized	C (UL) US	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	



Phoenix Contact 2018 © - all rights reserved http://www.phoenixcontact.com

PHOENIX CONTACT GmbH & Co. KG Flachsmarktstr. 8 32825 Blomberg Germany Tel. +49 5235 300 Fax +49 5235 3 41200

http://www.phoenixcontact.com