

PLC-RPT-120UC/21/SO46 - Relay module



1125988

<https://www.phoenixcontact.com/us/products/1125988>

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PLC-INTERFACE for protection against interference currents/voltages on the control side. Consisting of PLC-BPT-120UC/21/SO46 basic terminal block with Push-in connection and plug-in miniature relay with power contact up to 6 A, 1 changeover contact, 120 V AC input voltage

Commercial data

Item number	1125988
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C461
Product key	CK62AM
GTIN	4063151053024
Weight per piece (including packing)	31.88 g
Weight per piece (excluding packing)	28.14 g
Customs tariff number	85364900
Country of origin	DE

Technical data

Notes

Notes on operation	Separating plate PLC-ATP must 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... or FBST 500....
Notes on operation	The PLC-ATP separating plate should be installed for safe isolation between adjacent modules
Assembly note	The PLC-ATP separating plate is required at the start and end of every PLC terminal strip.
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.

Product properties

Product type	Relay Module
Product family	PLC-INTERFACE
Application	Filter to prevent interference
Operating mode	100% operating factor
Mechanical service life	2x 10 ⁷ cycles

Data management status

Date of last data management	08.07.2024
Article revision	01

Insulation characteristics: Air clearances and creepage distances between the power circuits

Insulation	Safe isolation, reinforced insulation
Overvoltage category	III
Pollution degree	3

Electrical properties

Maximum power dissipation for nominal condition	0.84 W
Test voltage (Winding/contact)	4 kV _{rms} (50 Hz, 1 min., winding/contact)

Air clearances and creepage distances between the power circuits

Rated insulation voltage	250 V AC
Rated surge voltage	6 kV

Input data

Coil side

Nominal input voltage U _N	120 V AC
	110 V DC
Input voltage range	93.6 V AC ... 168 V AC (20 °C)
	85.8 V DC ... 154 V DC (20 °C)
Nominal voltage (plugged-in electromechanical relay)	60 V DC

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Mains frequency	50/60 Hz
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U_N	7 mA (50 Hz)
	8 mA (60 Hz)
Typical response time	7 ms
Typical release time	20 ms
Typical release voltage	50 V AC
Protective circuit	Bridge rectifier
	RC element
Status display	LED (yellow)

Output data

Switching

Contact switching type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgSnO, hard gold-plated
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (100 mA)
Limiting continuous current	6 A
Maximum inrush current	10 A (4 s)
Min. switching current	10 mA (12 V)
Short-circuit current	200 A (conditional short-circuit current)
Interrupting rating (ohmic load) max.	140 W (24 V DC)
	20 W (48 V DC)
	18 W (60 V DC)
	23 W (110 V DC)
	40 W (220 V DC)
	1500 VA (250 V AC)
Switching capacity min.	0.12 W
Output fuse	4 A gL/gG NEOZED
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.1 A (at 220 V, DC13)
	3 A (at 24 V, AC15)
	3 A (at 120 V, AC15)
	3 A (at 230 V, AC15)

Connection data

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section rigid	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)

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	2x 0.5 mm ² ... 1 mm ² (TWIN ferrule)
Conductor cross section AWG	26 ... 14

Dimensions

Width	6.2 mm
Height	80 mm
Depth	94 mm

Material specifications

Color	gray (RAL 7042)
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Environmental and real-life conditions

Ambient conditions

Degree of protection (Relay)	RT III (Relay)
Degree of protection (Relay base)	IP20 (Relay base)
Degree of protection (Installation location)	IP54 (Installation location)
Ambient temperature (operation)	-40 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m

Approvals

CE

Certificate	CE-compliant
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UKCA

Certificate	UKCA-compliant
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Shipbuilding approval

Certificate	TAE0000196
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Corrosive gas test

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

DNV GL data

Temperature	D
Humidity	A
Vibration	B/C
EMC	B
Enclosure	Required protection according to the Rules shall be provided upon installation on board

EMC data

Low Voltage Directive	Conformance with Low Voltage Directive
Electromagnetic compatibility	Conformance with EMC directive

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Standards and regulations

Air clearances and creepage distances between the power circuits

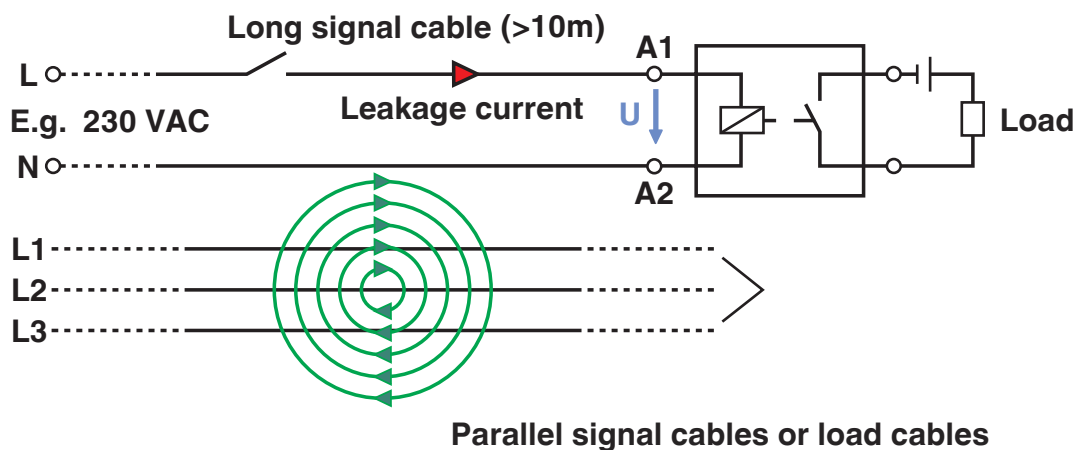
Standards/regulations	IEC 60947-5-1
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Mounting

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

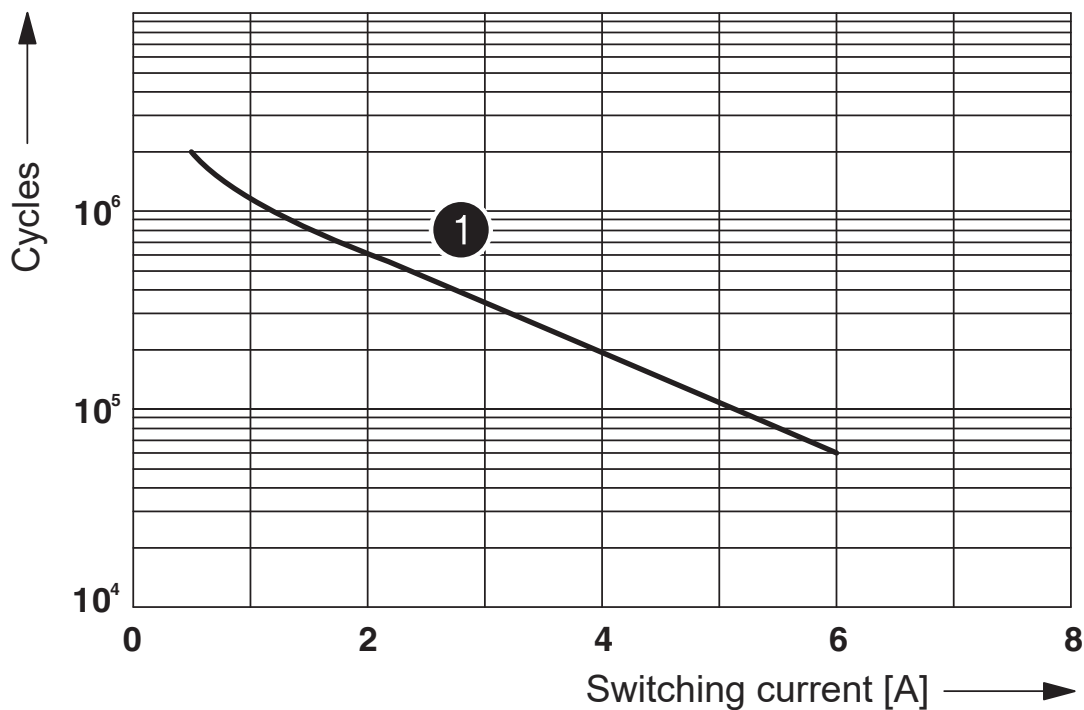
Drawings

Application drawing



Occurrence of interference signals
Scenario 2: long signal cables

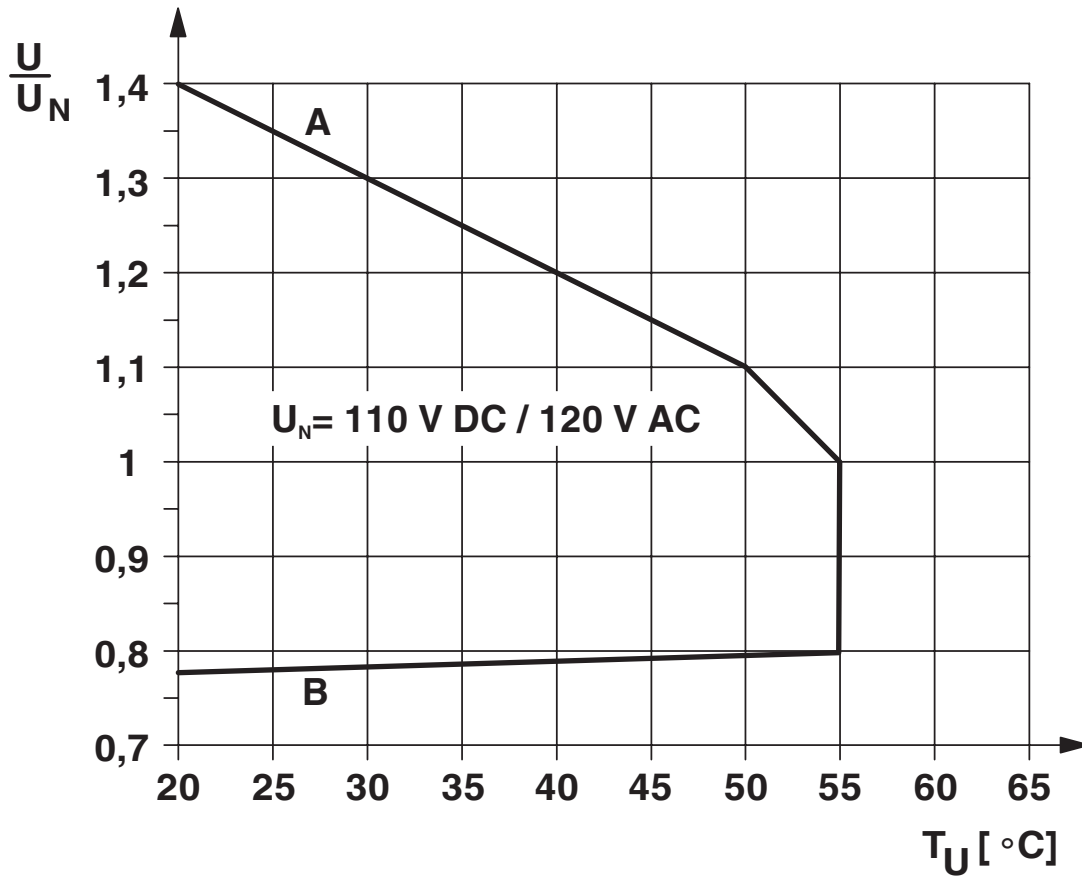
Diagram



① 250 V AC, ohmic load

Electrical service life

Diagram



Curve A

Maximum permissible continuous voltage U_{max} with limiting continuous current on the contact side (see relevant technical data)

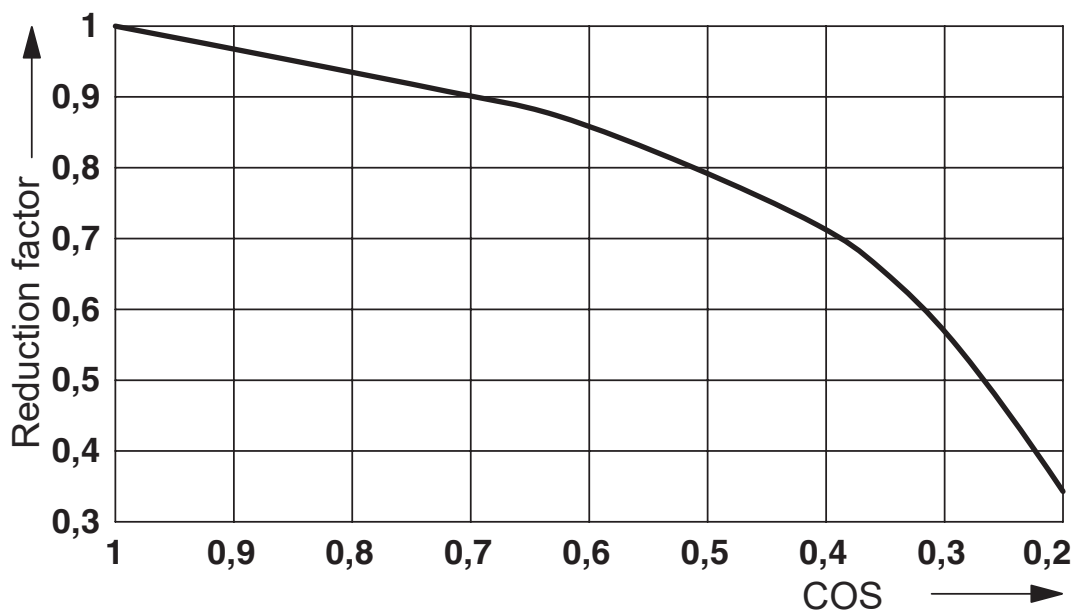
Curve B

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

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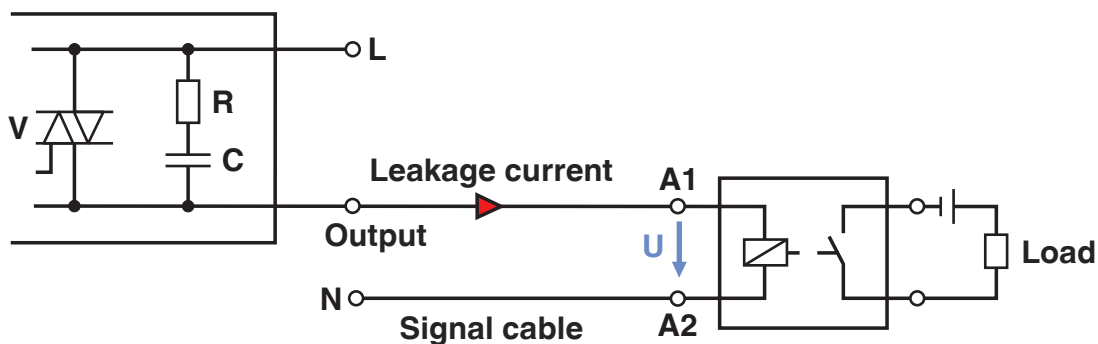
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Diagram

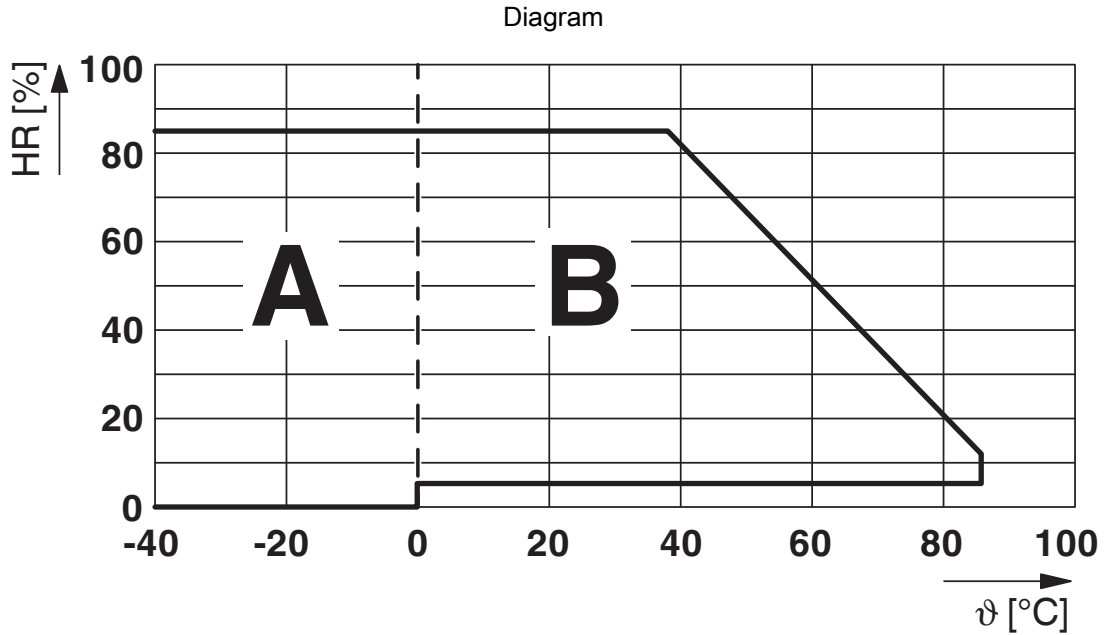


Service life reduction factor

Application drawing



Occurrence of interference signals
Scenario 1: controller - AC output card



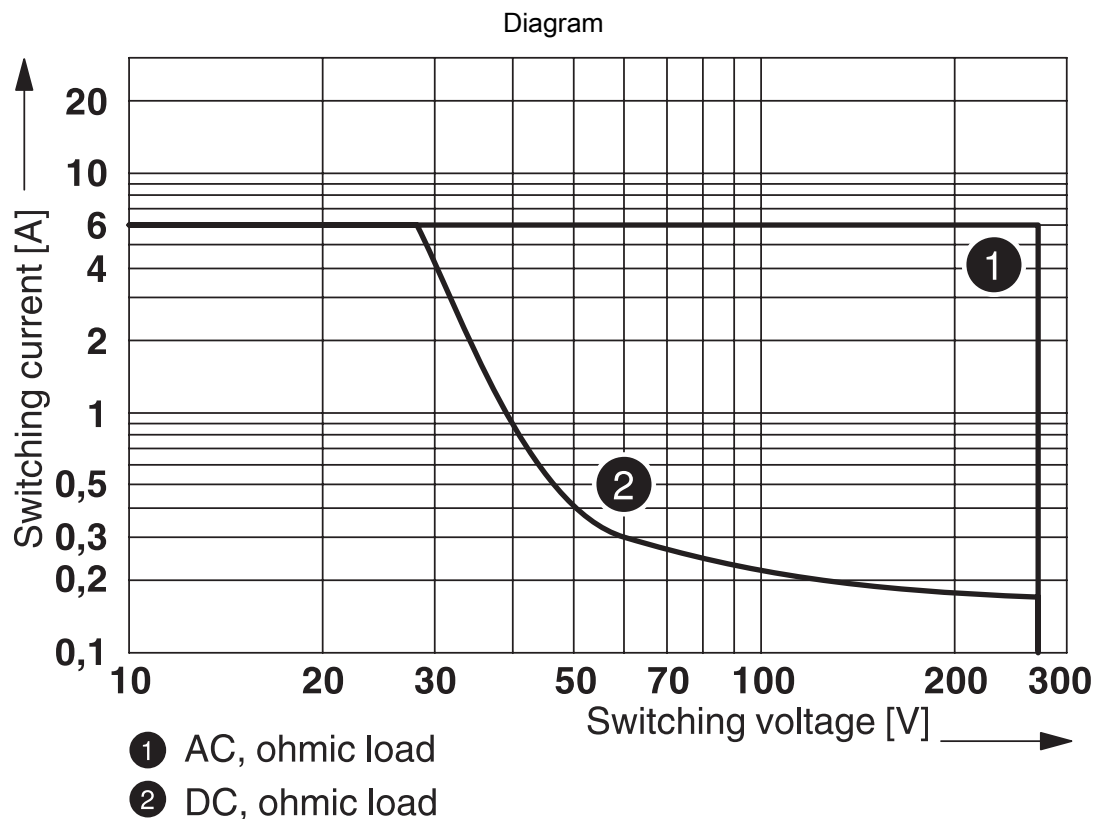
Permissible humidity for operation and storage.

The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures $\leq 0^\circ\text{C}$ must be prevented

Area B: Condensation at ambient temperatures $> 0^\circ\text{C}$ must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature $\leq 25^\circ\text{C}$.



Interrupting rating

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Approvals

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EAC

Approval ID: RU*C-DE.*08.B.00010



DNV GL

Approval ID: TAE0000196



EAC

Approval ID: RU D-DE.B*00573/18



cULus Listed

Approval ID: E140324

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Classifications

ECLASS

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	27371601

ETIM

ETIM 9.0	EC001437
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UNSPSC

UNSPSC 21.0	39122300
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	ce82dd14-d0b0-4fea-bc9d-d01f68f43ea0

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