PLC-RSC- 48DC/21-21/MS - Relay module

2910504

https://www.phoenixcontact.com/us/products/2910504

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PLC-INTERFACE, consisting of a relay base and pluggable power contact relay with manual operation, integrated status LED and freewheeling diode, Screw connection, 2 changeover contacts, Bridge rectifier, Input voltage: 48 V DC

Commercial data

Item number	2910504
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	C461
Product key	CK623C
Catalog page	Page 368 (C-5-2019)
GTIN	4055626486093
Weight per piece (including packing)	81 g
Weight per piece (excluding packing)	67 g
Customs tariff number	85364190
Country of origin	DE

Technical data

Product properties

Product type	Relay Module
Product family	PLC-INTERFACE
Application	Palm switch
Operating mode	100% operating factor
Mechanical service life	5x 10^6 cycles

Data management status

Date of last data management	01.08.2024
Article revision	02

Insulation characteristics: Standards/regulations

Insulation	Safe isolation, reinforced insulation
Overvoltage category	III
Pollution degree	2

Electrical properties

Maximum power dissipation for nominal condition	0.92 W
Test voltage (Winding/contact)	4 kV_{rms} (50 Hz, 1 min., winding/contact)
Test voltage (Changeover contact/changeover contact)	2.5 kV_{rms} (50 Hz, 1 min., changeover contact/changeover contact)

Standards/regulations

Rated insulation voltage	250 V AC
Rated surge voltage	6 kV

Input data

Coil side

Nominal input voltage U_N	48 V DC
Input voltage range	40.3 V DC ... 62.4 V DC (20 °C)
Nominal voltage (plugged-in electromechanical relay)	24 V DC
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U_N	19 mA
Typical response time	6 ms
Typical release time	10 ms
Protective circuit	Bridge rectifier
Operating voltage display	yes

Output data

Switching

Contact switching type	2 changeover contacts

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... or ...FBST 500...)
Minimum switching voltage	12 V (10 mA)
Limiting continuous current	6 A
Maximum inrush current	12 A (20 ms)
Min. switching current	10 mA (12 V)
Interrupting rating (ohmic load) max.	192 W (24 V DC)
	62 W (48 V DC)
	42 W (60 V DC)
	55 W (110 V DC)
	66 W (220 V DC)
	2000 VA (250 V AC)
Switching capacity	1 A (24 V, DC13)
	1.5 A (230 V, AC15)

Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	0.14 mm² ... 2.5 mm²
Conductor cross section flexible	0.14 mm² ... 2.5 mm²
	0.2 mm² ... 2.5 mm² (Single ferrule)
	2x 0.5 mm² ... 1.5 mm² (TWIN ferrule)
Conductor cross section AWG	26 ... 14
Tightening torque	0.6 Nm ... 0.8 Nm

Dimensions

Width	14 mm
Height	80 mm
Depth	104 mm

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V0 (Housing)

Environmental and real-life conditions

Ambient conditions

Degree of protection (Relay)	RT II (Relay)
Degree of protection (Relay base)	IP20 (Relay base)
Degree of protection (Installation location)	≥ IP54 (Installation location)
Ambient temperature (operation)	-20 °C ... 60 °C

Ambient temperature (storage/transport)	-20 °C ... 85 °C
Altitude	≤ 2000 m

Approvals

CE

Certificate	CE-compliant

UKCA

Certificate	UKCA-compliant

UL, USA

Identification	UL 508
	UL 508 Recognized

UL, USA/Canada

Identification	UL 508
	UL 508 Recognized

Shipbuilding approval

Certificate	TAE0000196

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

Standards and regulations

Standards/regulations

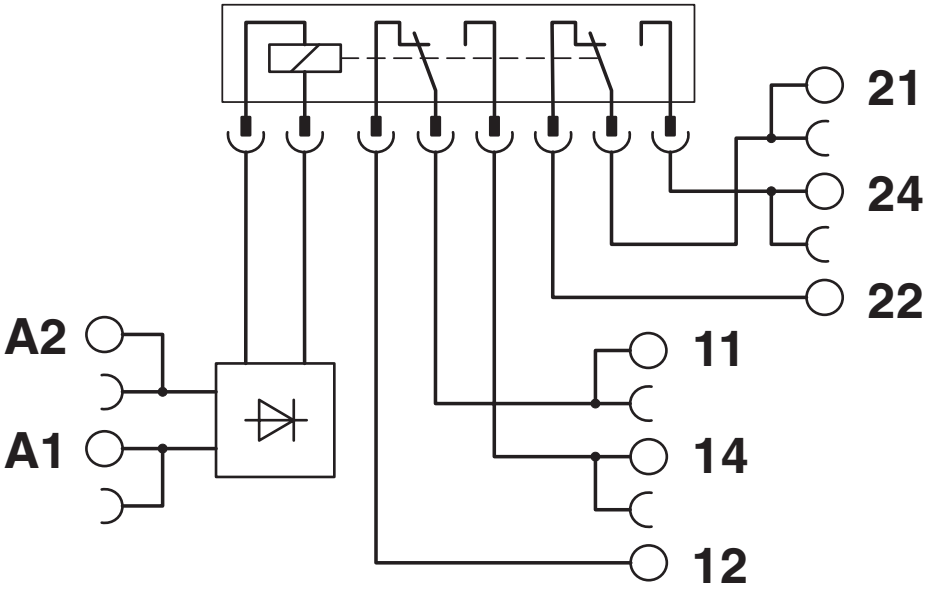
Standards/regulations	EN 50178

Mounting

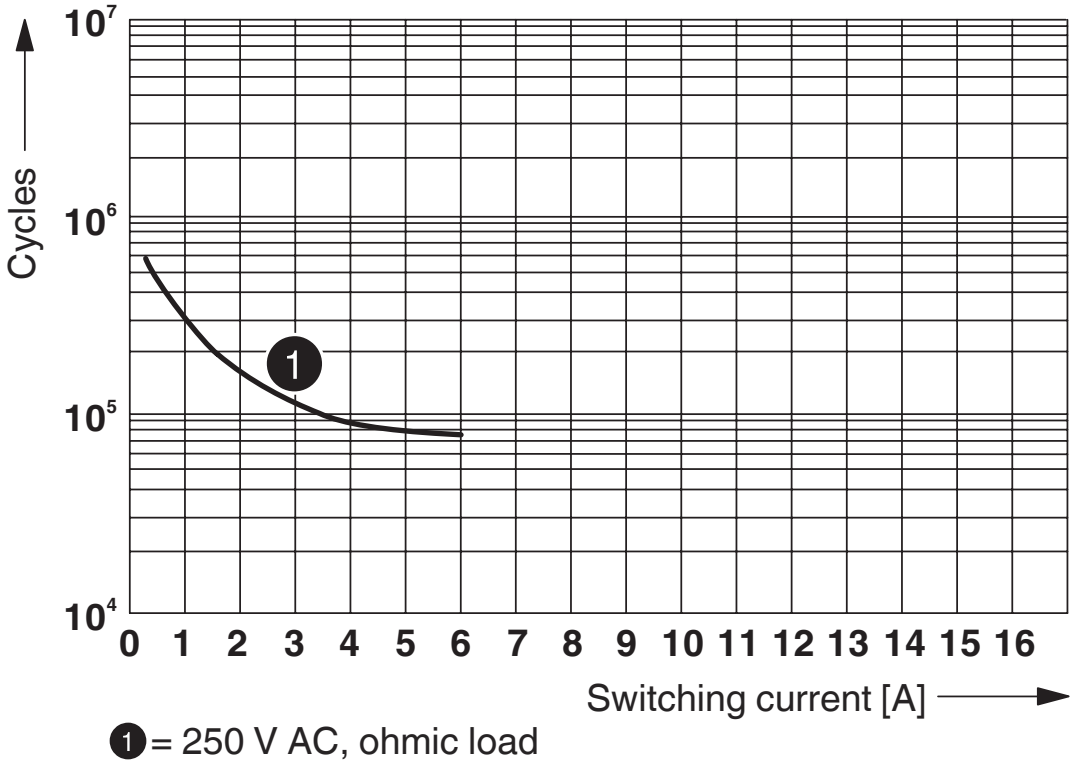
Mounting type	DIN rail mounting
Assembly note	in rows with zero spacing
Mounting position	any

Drawings

Circuit diagram

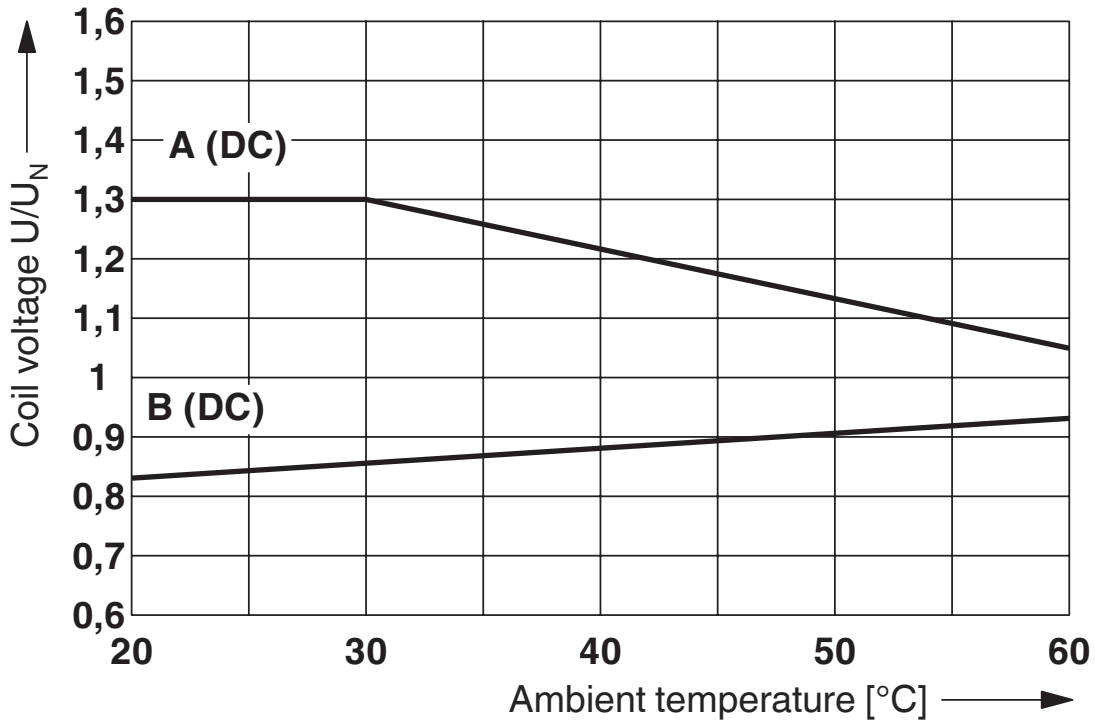


Diagram



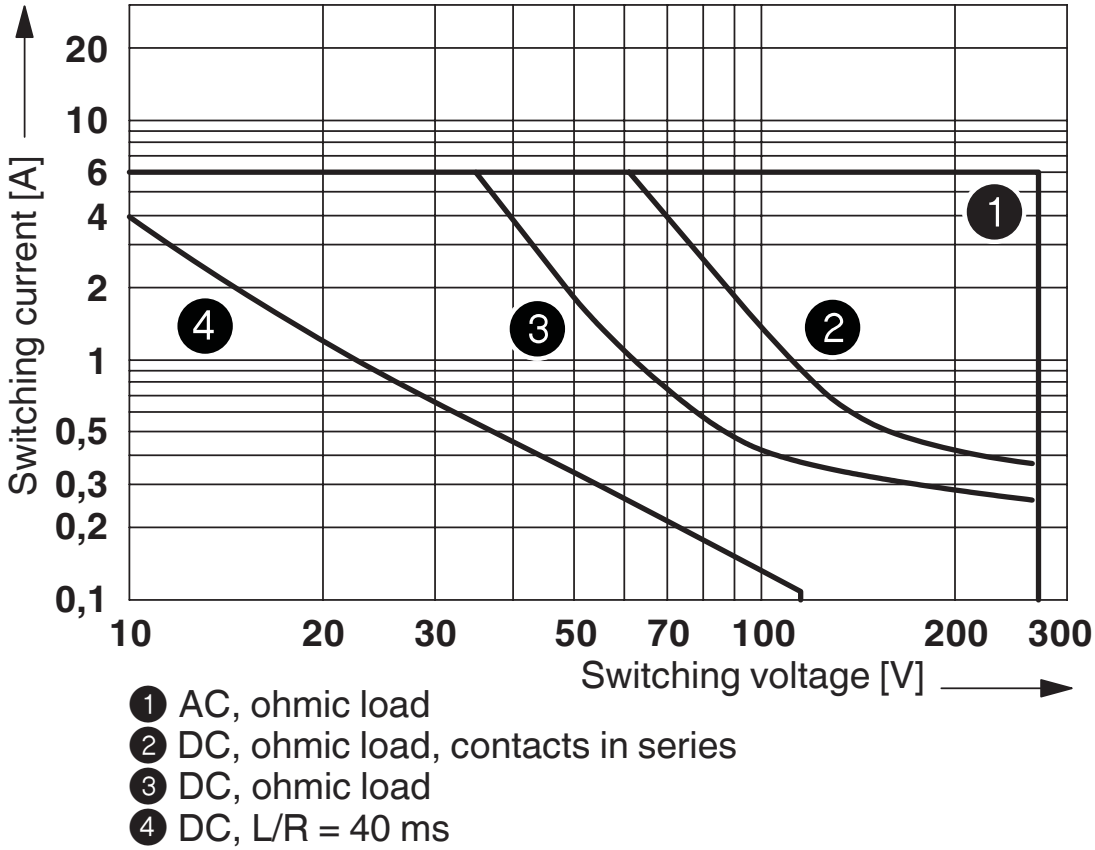
Electrical service life

Diagram



Curve A: maximum continuous voltage at limiting continuous current
Curve B: minimum pick-up voltage for pre-excitation with U_N and limiting continuous current

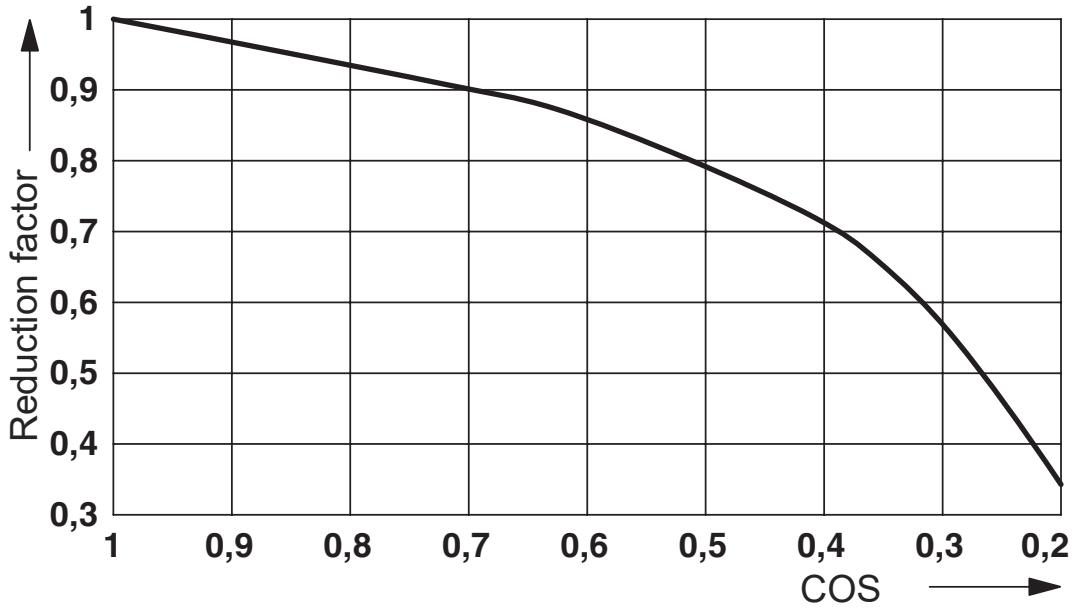
Diagram



1 AC, ohmic load
2 DC, ohmic load, contacts in series
3 DC, ohmic load
4 DC, L/R = 40 ms

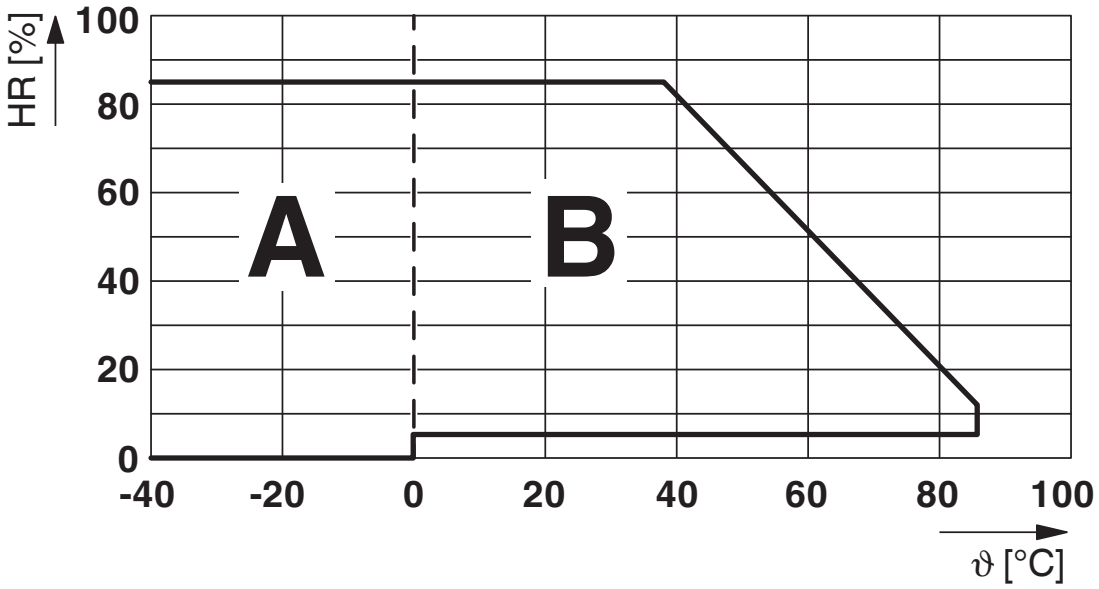
Interrupting rating

Diagram



Service life reduction factor

Diagram



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 ≤ 0°C must be prevented
Area B: Condensation at ambient temperatures > 0°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 ≤ 25°C.

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2910504

EAC
Approval ID: TR_TS_D_00573_c

DNV GL
Approval ID: TAE0000196

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

cULus Listed
Approval ID: E140324

Classifications

ECLASS

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

ETIM

ETIM 9.0	EC001437

UNSPSC

UNSPSC 21.0	39122300

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.)	Hexahydromethylphthalic anhydride(CAS: n/a)
	Lead(CAS: 7439-92-1)
SCIP	a186b8b5-d0f7-4cc3-8c7f-9ae3b71d2bab

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