

2900323

<https://www.phoenixcontact.com/us/products/2900323>

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PLC-INTERFACE for railway applications, consisting of basic terminal block with Push-in connection and plug-in miniature relay with multi-layer gold contact, range: $0.7 \times U_N$ to $1.25 \times U_N$, temperature class TX: -40°C to $+70^\circ\text{C}$, 1 changeover contact, input voltage 110 V DC

Your advantages

- Optimum relay operation thanks to wide-range electronics
- Safe isolation between coil and contact side
- Vibration and shock resistance in accordance with EN 50155
- Certified in accordance with EN 50155
- Input voltage range of 0.7 to $1.25 \times U_N$ (1.4 $\times U_N$ briefly)
- Temperature range: $-40^\circ\text{C} \dots +70^\circ\text{C}$ (short-term 85°C)

Commercial data

Item number	2900323
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C461
Product key	DK62AL
GTIN	4046356510066
Weight per piece (including packing)	33.67 g
Weight per piece (excluding packing)	33.67 g
Customs tariff number	85364900
Country of origin	DE

PLC-RPT-110UC/21AU/RW - Relay module

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Technical data

Product properties

Product type	Relay Module
Product family	PLC-INTERFACE
Application	Railway applications
Installation location	Attached to the vehicle body
Operating mode	100% operating factor
Mechanical service life	approx. 2×10^7 cycles

Insulation characteristics

Overvoltage category	III
Pollution degree	2

Data management status

Date of last data management	12.09.2025
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Electrical properties

Maximum power dissipation for nominal condition	0.22 W
Test voltage (Winding/contact)	4 kV _{rms} (50 Hz, 1 min., winding/contact)
Rated insulation voltage	250 V AC
Rated surge voltage	6 kV

Input data

Coil side

Nominal input voltage U _N	110 V DC
Input voltage range	77 V DC ... 137.5 V DC
Input voltage range in reference to U _N	0.7 ... 1.25
Nominal voltage (plugged-in electromechanical relay)	60 V DC
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U _N	2 mA
Typical response time	4 ms
Typical release time	4 ms
Protective circuit	Surge protection; Freewheeling diode
	RCZ filter
	Wide-range electronics
Operating voltage display	Yellow LED

Output data

Switching

Contact switching type	1 changeover contact
Type of switch contact	Single contact

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Contact material	AgSnO, hard gold-plated
Maximum switching voltage	30 V AC
	36 V DC
Minimum switching voltage	100 mV (10 mA)
Limiting continuous current	50 mA
Maximum inrush current	50 mA
Min. switching current	1 mA (24 V)
Short-circuit current	200 A (conditional short-circuit current)
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)
Output fuse	4 A gL/gG NEOZED
Switching capacity	1 A (24 V (DC13))
	0.2 A (110 V (DC13))
	0.1 A (220 V (DC13))
	3 A (24 V (AC15))
	3 A (120 V (AC15))
	3 A (230 V (AC 15))

Switching: when the gold layer is destroyed

Note	the following values are applicable if a gold layer is destroyed
Maximum switching voltage	250 V AC/DC (Separating plate PLC-ATP must be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal blocks in adjacent modules.)
Minimum switching voltage	12 V AC/DC
Limiting continuous current	6 A (see derating curve)
Min. switching current	10 mA
Interrupting rating (ohmic load) max.	140 W (at 24 V DC) 20 W (at 48 V DC) 18 W (at 60 V DC) 23 W (at 110 V DC) 40 W (at 220 V DC) 1500 VA (for 250 V AC)
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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Conductor cross-section AWG	2x 0.5 mm ² ... 1 mm ² (TWIN ferrule)
	26 ... 14

Dimensions

Width	6.2 mm
Height	80 mm
Depth	94 mm

Material specifications

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

Environmental and real-life conditions

Ambient conditions

Degree of protection (Relay)	RT III (Relay)
Degree of protection (Relay base)	IP20 (Relay base)
Ambient temperature (operation)	-40 °C ... 70 °C (Temperature class TX)
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Approvals

CE	
Certificate	CE-compliant

UKCA	
Certificate	UKCA-compliant

Shipbuilding approval	
Certificate	TAE0000196

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

Shipbuilding 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

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

Standards and regulations

PLC-RPT-110UC/21AU/RW - Relay module

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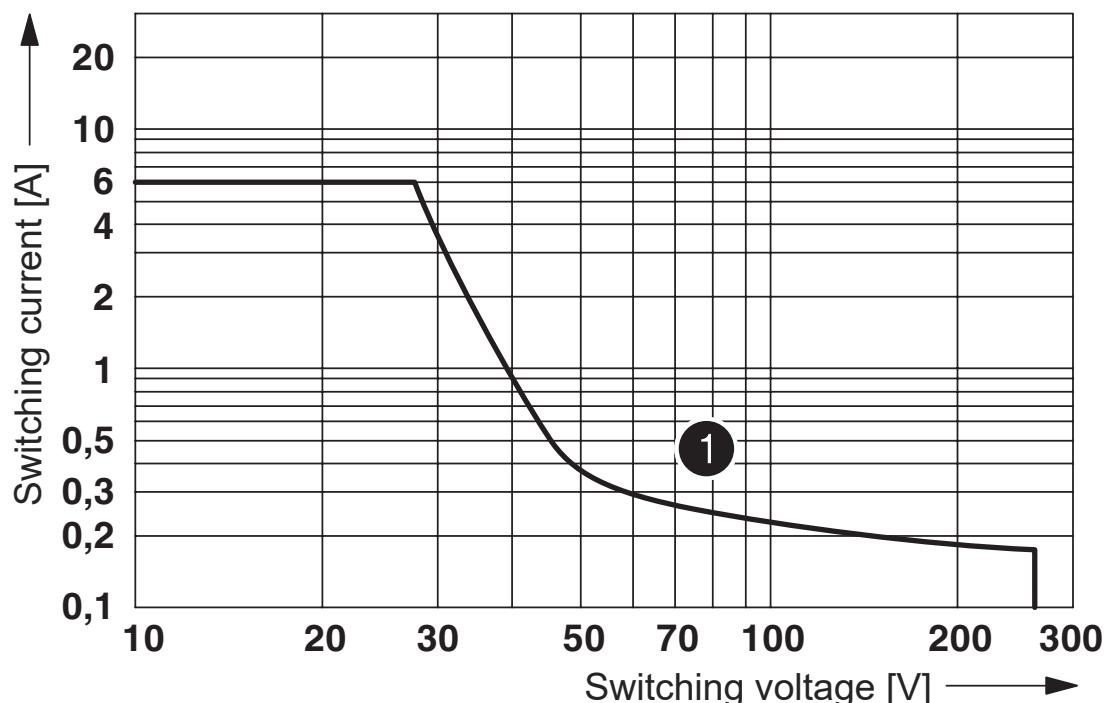
Standards/regulations	IEC 60947-5-1
	EN 50155 (VDE 0115 part 200)
	EN 61373
	EN 50121

Mounting

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

Drawings

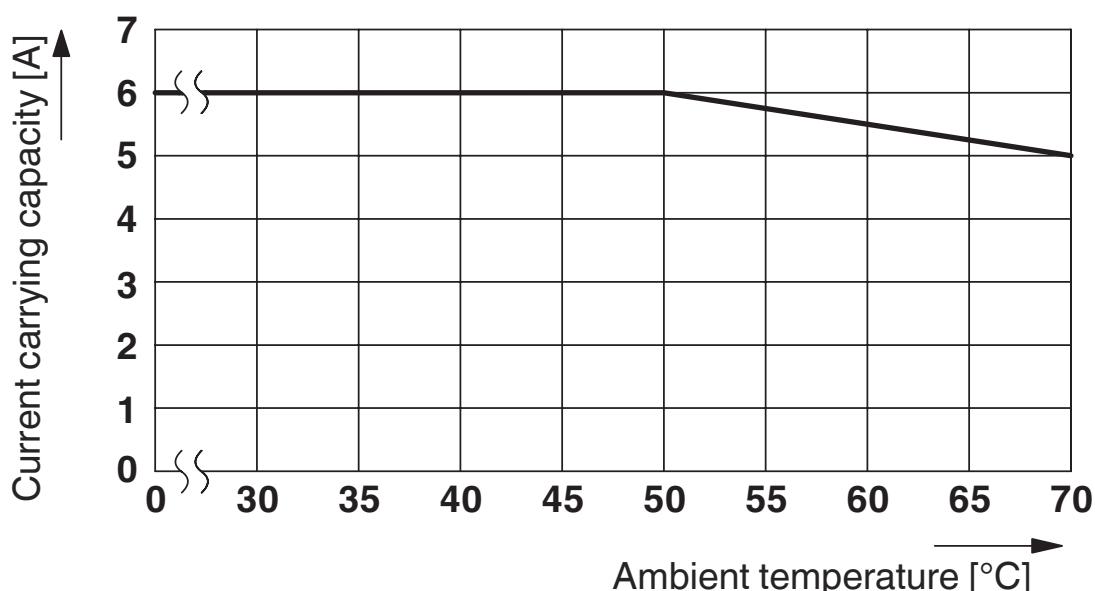
Diagram



① ohmic load

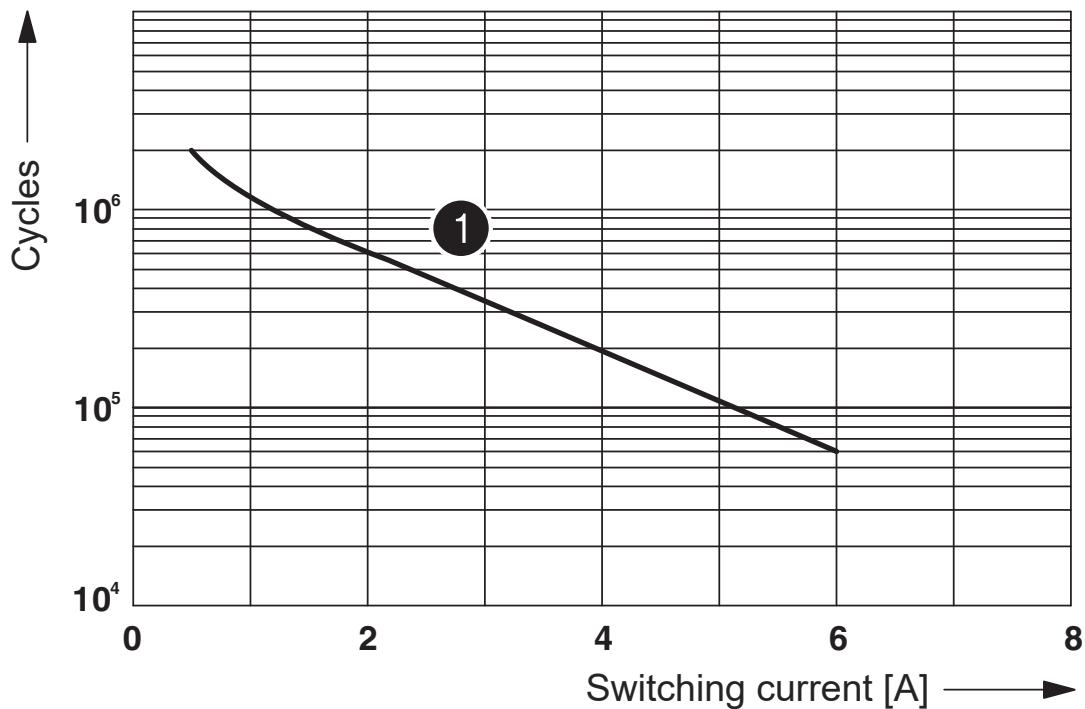
DC interrupting rating

Diagram



Derating diagram

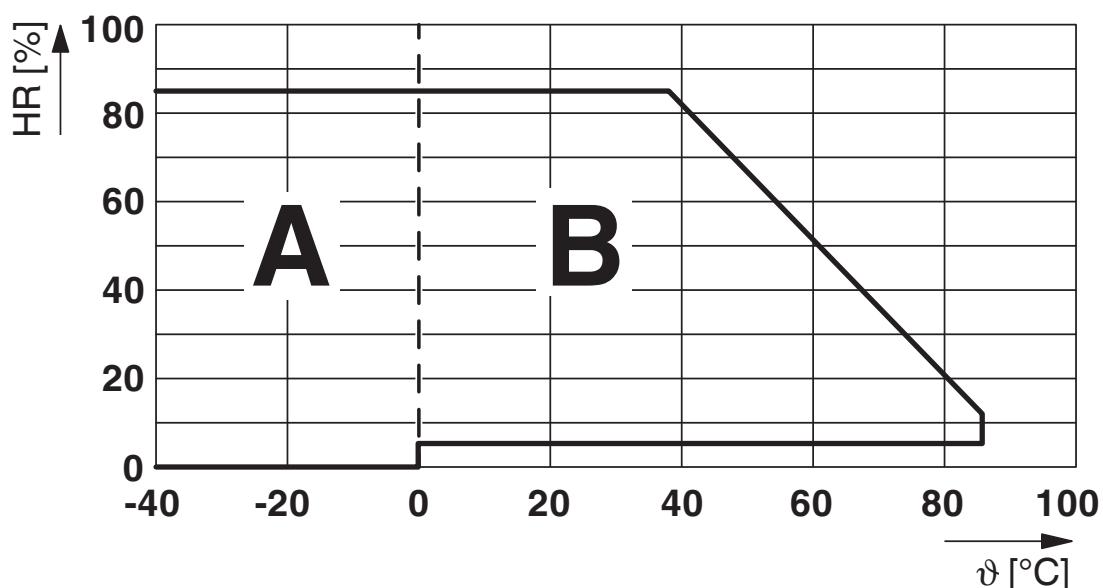
Diagram



① 250 V AC, ohmic load

Electrical service life

Diagram



Permissible humidity for operation and storage.

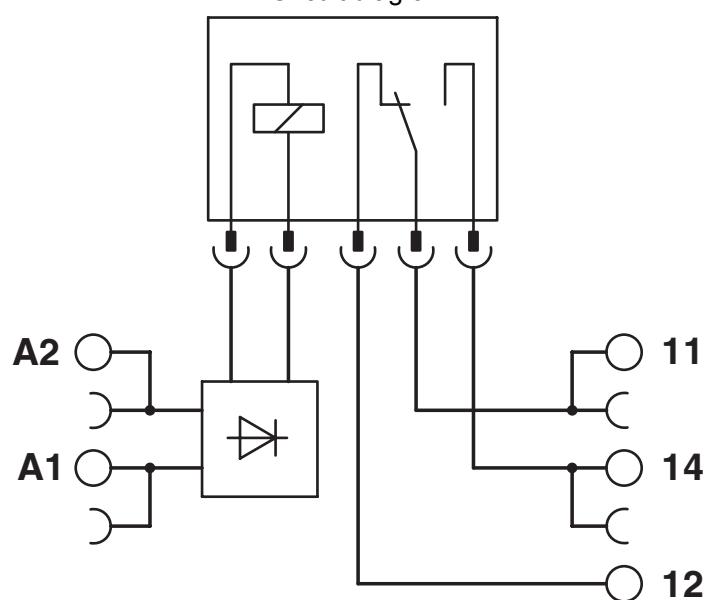
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures $\leq 0^{\circ}\text{C}$ 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 $\leq 25^{\circ}\text{C}$.

Circuit diagram



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Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2900323>



EAC

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



DNV GL

Approval ID: TAE0000196



cULus Listed

Approval ID: E140324



cUL Recognized

Approval ID: E238705



UL Recognized

Approval ID: E238705



UL Listed

Approval ID: FILE E 172140



cUL Listed

Approval ID: FILE E 172140

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Classifications

ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	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	09c33db8-8ca0-41a7-8cef-2cdd1a1f68f3

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