PLC-RPT-230UC/21-21AU/RWF - Relay module

2900345

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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: 0.75 x UN to 1.15 x UN, nominal input frequency 16.7 Hz, 2 changeover contacts, input voltage 230 V AC

Your advantages

- Vibration and shock resistance in accordance with EN 50155
- Safe isolation between coil and contact side
- Nominal input frequency of 16.7 Hz
- Screw- and Push-in connection

Commercial data

Item number	2900345
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C461
Product key	DK62BL
GTIN	4046356507547
Weight per piece (including packing)	62.41 g
Weight per piece (excluding packing)	60.2 g
Customs tariff number	85364900
Country of origin	DE

Technical data

Product properties

Product type	Relay Module
Product family	PLC-INTERFACE
Application	Railway applications
Operating mode	100% operating factor
Mechanical service life	approx. 3x 10^7 cycles

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

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

Data management status

Date of last data management	21.03.2025

Electrical properties

Maximum power dissipation for nominal condition	1.1 W
Test voltage (Winding/contact)	6 kV (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	230 V AC
Input voltage range	172.5 V AC ... 264.5 V AC (20 °C)
Nominal voltage (plugged-in electromechanical relay)	110 V DC
Mains frequency	16.67 Hz
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U_N	4.8 mA (with AC)
Typical response time	20 ms
Typical release time	60 ms
Protective circuit	Bridge rectifier
Operating voltage display	Yellow LED

Output data

Switching

Contact switching type	2 changeover contacts
Type of switch contact	Single contact
Contact material	AgNi, hard gold-plated

Note	If the specified maximum values are exceeded, the gold plating is destroyed. The AgNi contact values are then valid for further operation; a reduction in length of service life is to be expected.
Maximum switching voltage	30 V AC
	36 V DC
Minimum switching voltage	100 mV
Limiting continuous current	50 mA
Maximum inrush current	50 mA
Min. switching current	1 mA
Interrupting rating (ohmic load) max.	1.2 W (24 V DC)
Switching capacity	2 A (24 V (DC13), in acc. with DIN VDE 0660/IEC 60947)
	0.2 A (220 V DC / 230 V AC (DC13), in acc. with DIN VDE 0660/IEC 60947)
	3 A (220 V DC / 230 V AC (AC15), in acc. with DIN EVDE 0660/IEC 60947)

Switching: when the gold layer is destroyed

Note	the following values are applicable if a gold layer is destroyed
Contact material	AgNi
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	5 V AC/DC
Limiting continuous current	6 A
Maximum inrush current	8 A
Min. switching current	10 mA
Interrupting rating (ohmic load) max.	140 W (at 24 V DC)
	85 W (at 48 V DC)
	60 W (at 60 V DC)
	44 W (at 110 V DC)
	60 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)
	0.2 A (at 250 V, DC13)
	2 A (at 24 V, AC15)
	2 A (at 120 V, AC15)
	2 A (at 250 V, AC15)

Connection data

Connection method	Push-in connection
Stripping length	10 mm
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 mm² (TWIN ferrule)
Conductor cross-section AWG	26 ... 14

Dimensions

Width	14 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)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Approvals

CE

Certificate	CE-compliant

Corrosive gas test

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

EMC data

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

Standards and regulations

Air clearances and creepage distances between the power circuits

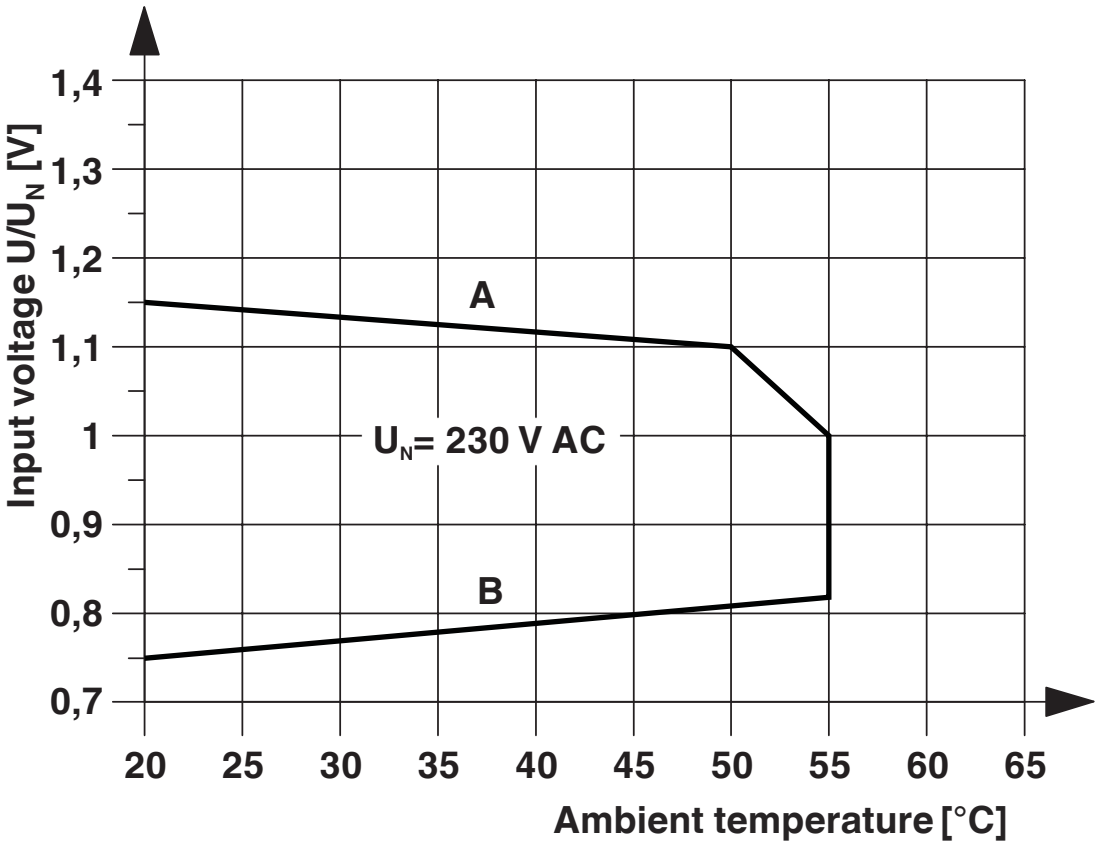
Standards/regulations	IEC 60947-5-1

Mounting

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

Drawings

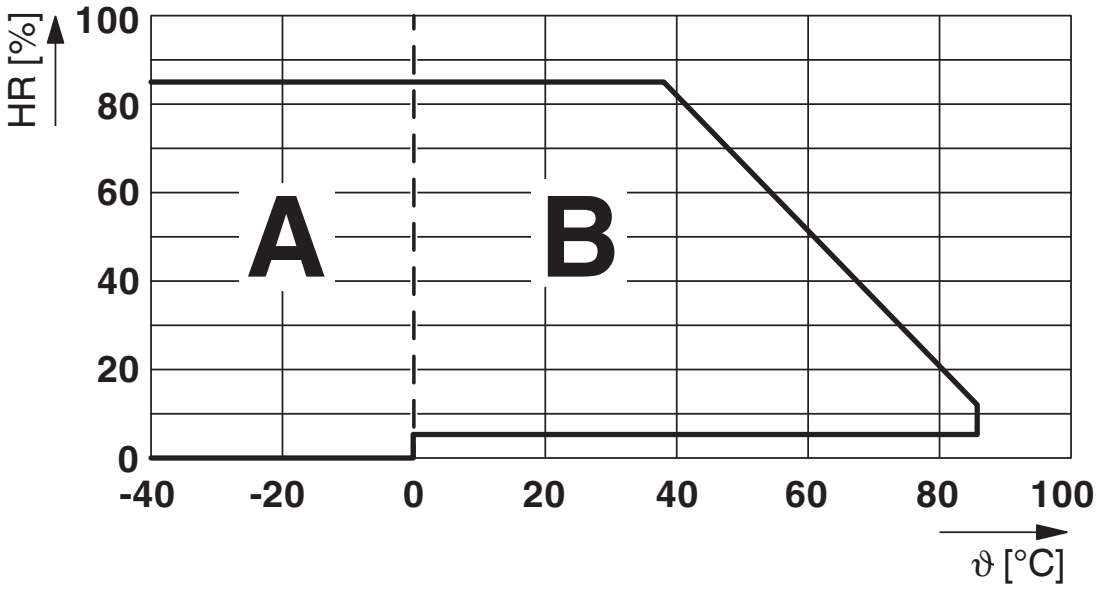
Diagram



Curve A:
Maximum continuous operating voltage at limiting continuous current = 6 A

Curve B:
Minimum relay operating voltage at initial trigger with U_N and limiting continuous current = 6 A

Diagram

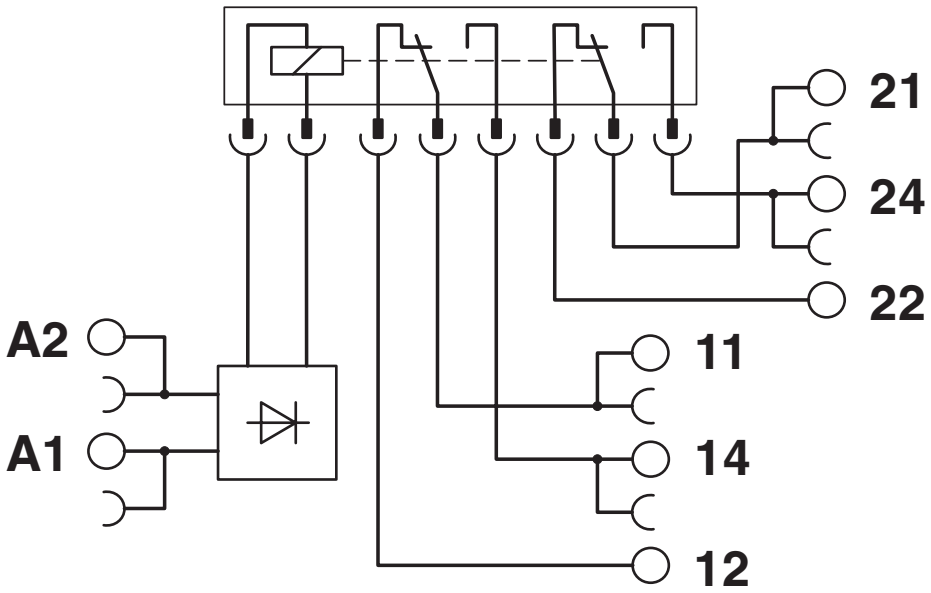


Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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.

Circuit diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2900345

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

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

Classifications

ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	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.)	Lead(CAS: 7439-92-1)
SCIP	51af4727-bf83-4f82-b09c-b61dc7728466

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