

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



2900345

<https://www.phoenixcontact.com/us/products/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
Catalog page	Page 419 (C-5-2019)
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

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## Technical data

### Product properties

Product type	Relay Module
Product family	PLC-INTERFACE
Application	Railway applications
Operating mode	100% operating factor
Mechanical service life	approx. $3 \times 10^7$ 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	06.02.2025
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### 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

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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)

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	2x 0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup> (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	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
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### 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

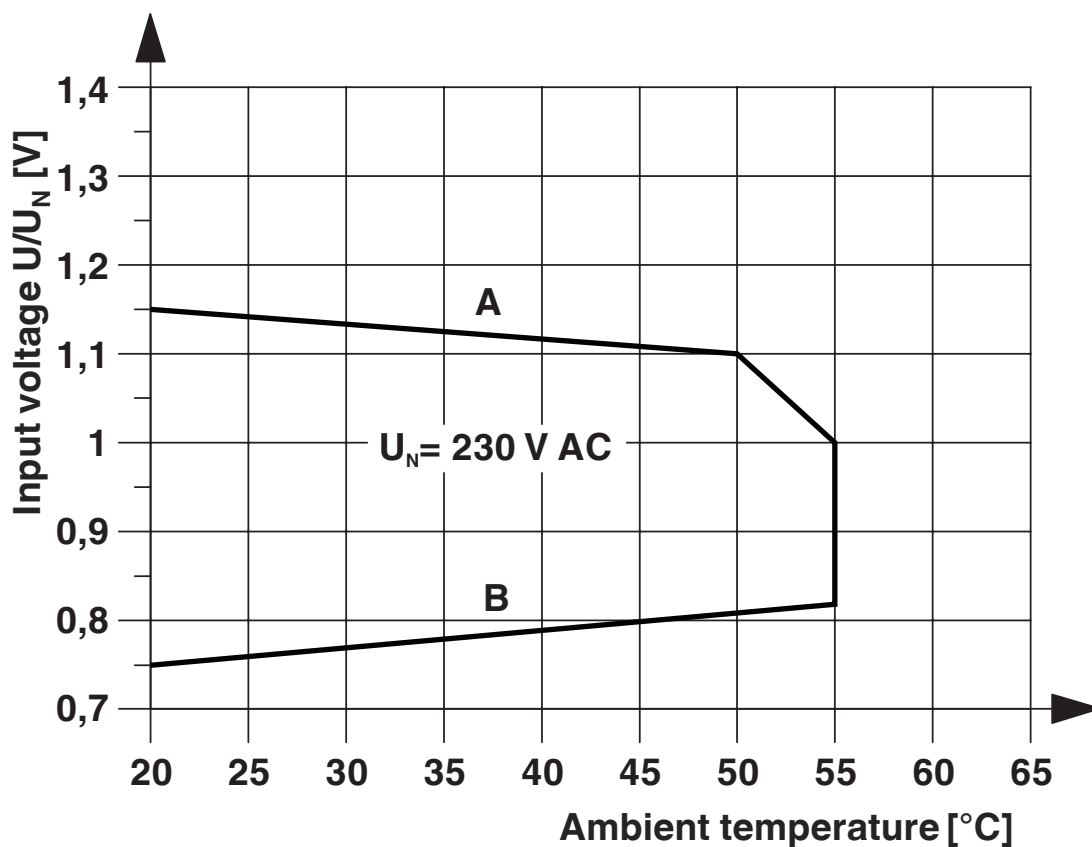
Standards/regulations	IEC 60947-5-1
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## Mounting

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

## Drawings

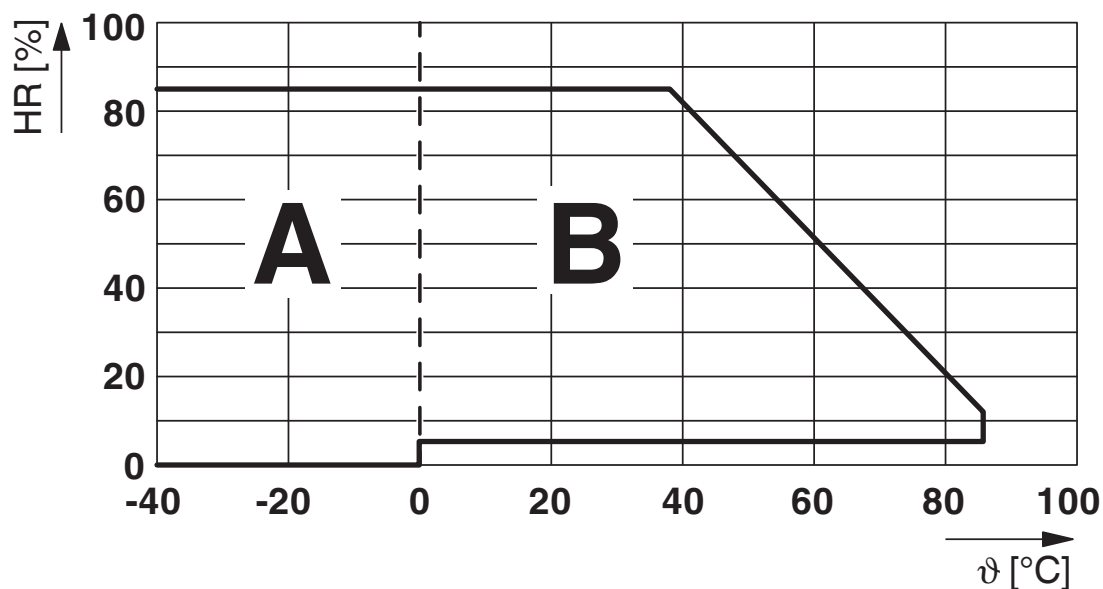
Diagram



**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.

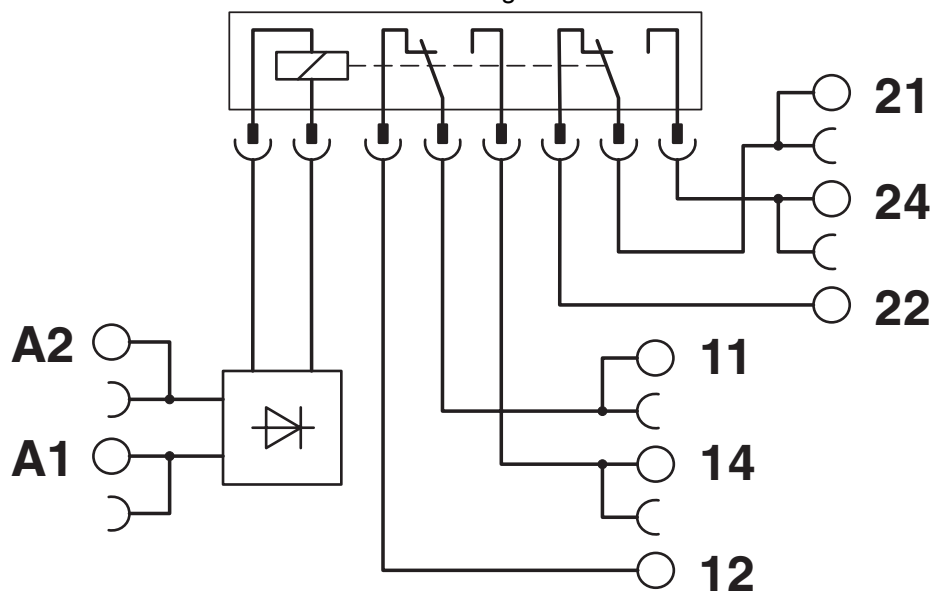
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures  $\leq 0^{\circ}\text{C}$  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/2900345>



**EAC**

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



**cULus Listed**

Approval ID: E140324



**cUL Recognized**

Approval ID: E238705



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**UL Listed**

Approval ID: FILE E 172140



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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	51af4727-bf83-4f82-b09c-b61dc7728466