

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



2968001

<https://www.phoenixcontact.com/us/products/2968001>

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PLC-INTERFACE for railway applications, consisting of basic terminal block with spring-cage connection and plug-in miniature relay with multi-layer gold contact, range:  $0.75 \times U_N$  to  $1.15 \times U_N$ , 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	2968001
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C461
Product key	DK622D
GTIN	4046356138666
Weight per piece (including packing)	65.47 g
Weight per piece (excluding packing)	65.47 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. $3 \times 10^7$ 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	12.09.2025
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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
	220 V DC
Input voltage range	179.4 V AC/DC ... 264.5 V AC/DC
Input voltage range in reference to $U_N$	see diagram
Mains frequency	16.67 Hz
Drive and function	monostable
Typical input current at $U_N$	4.8 mA (with AC)
Typical response time	20 ms
Typical release time	60 ms
Coil voltage	110 V DC
Protective circuit	Bridge rectifier
Operating voltage display	Yellow LED

### Output data

Switching

Contact switching type	2 changeover contacts
Type of switch contact	Single contact

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Contact material	AgNi + Au
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: when the gold layer is destroyed

Note	<b>the following values are applicable if a gold layer is destroyed</b>
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

Coil side

Connection method	Spring-cage connection
Stripping length	8 mm
Conductor cross-section rigid	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	26 ... 14

Contact side

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Conductor cross-section AWG	26 ... 14

## Dimensions

Width	14 mm
Height	80 mm
Depth	94 mm

## Material specifications

Color	green (RAL 6021)
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
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## 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

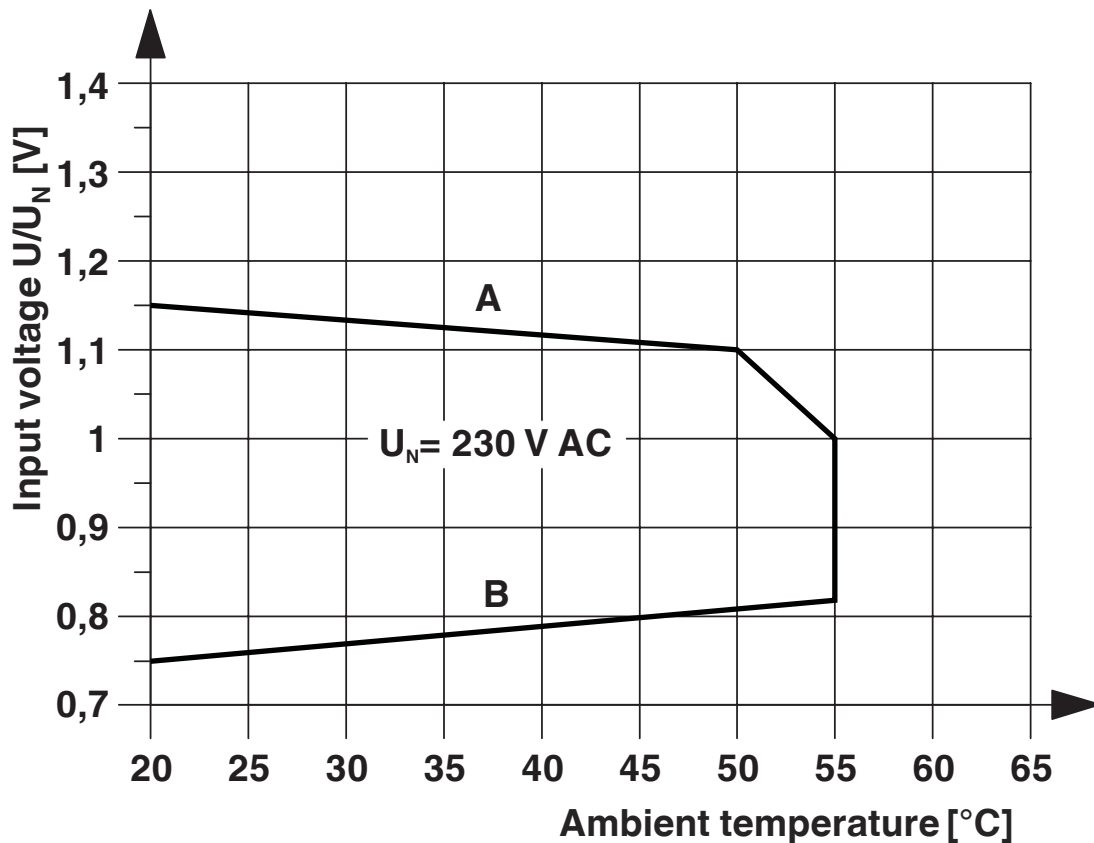
Standards/regulations	IEC 60664
	IEC 60947-5-1

## 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

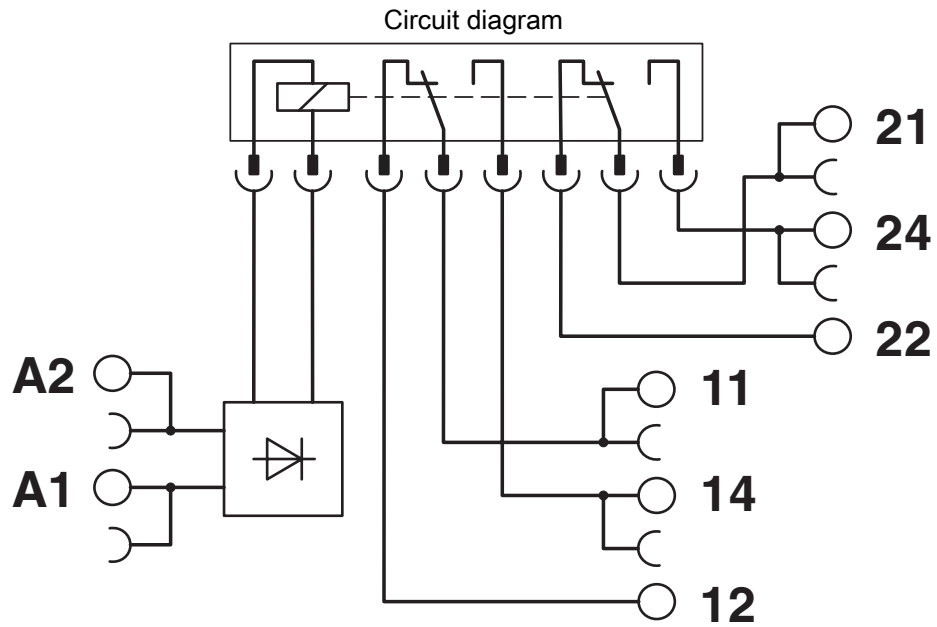
**Curve B:**  
 Minimum relay operating voltage at initial  
 trigger with  $U_N$  and limiting continuous current = 6 A

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## Environmental product compliance

### 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.)	No substance above 0.1 wt%
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