

# PLC-RSC-230UC/21-21/SO46 - Relay module



2980500

<https://www.phoenixcontact.com/us/products/2980500>

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PLC-INTERFACE with protection against interference currents/voltages on the control side, consisting of PLC-BSC.../21 basic terminal block with screw connection and plug-in miniature relay with power contact, 2 changeover contacts, input voltage 230 V AC

## Commercial data

Item number	2980500
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C461
Product key	DK623M
GTIN	4046356051293
Weight per piece (including packing)	75.65 g
Weight per piece (excluding packing)	70.96 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	Filter to prevent interference
Operating mode	100% operating factor
Mechanical service life	3x 10 <sup>7</sup> cycles

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

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	3

Data management status

Date of last data management	01.04.2026
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### Electrical properties

Maximum power dissipation for nominal condition	1.04 W
Test voltage (Winding/contact)	4 kV AC (50 Hz, 1 min., winding/contact)
Test voltage (Changeover contact/changeover contact)	2.5 kV AC (50 Hz, 1 min., changeover contact/changeover contact)

Air clearances and creepage distances between the power circuits

Rated insulation voltage	250 V AC
Rated surge voltage	4 kV (Safe isolation, reinforced insulation, and 6 kV between input circuit and output contact current paths)

### Input data

Coil side

Nominal input voltage U <sub>N</sub>	230 V AC
	220 V DC
Input voltage range	179.4 V AC ... 264.5 V AC (20 °C)
	171.6 V DC ... 253 V DC (20 °C)
Nominal voltage (plugged-in electromechanical relay)	110 V DC
Mains frequency	50/60 Hz
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U <sub>N</sub>	9 mA
Typical response time	7 ms
Typical release time	10 ms
Typical release voltage	60 V AC/DC
Protective circuit	Bridge rectifier
Status display	LED (yellow)

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## 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
Minimum switching voltage	5 V (10 mA)
Limiting continuous current	6 A
Maximum inrush current	15 A (300 ms)
Min. switching current	10 mA (5 V)
Interrupting rating (ohmic load) max.	140 W (24 V DC)
	85 W (48 V DC)
	60 W (60 V DC)
	44 W (110 V DC)
	60 W (220 V DC)
	1500 VA (250 V AC)
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 250 V, DC13)
	3 A (at 24 V, AC15)
	3 A (at 120 V, AC15)
	3 A (at 250 V, AC15)

## Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
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>
	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Single ferrule)
	2x 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (TWIN ferrule)
Conductor cross-section AWG	26 ... 14
Tightening torque	0.6 Nm ... 0.8 Nm

## Dimensions

### Item 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)	-40 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

## Approvals

### CE

Certificate	CE-compliant
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### UKCA

Certificate	UKCA-compliant
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### Shipbuilding approval

Certificate	TAE0000196
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### 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

### Air clearances and creepage distances between the power circuits

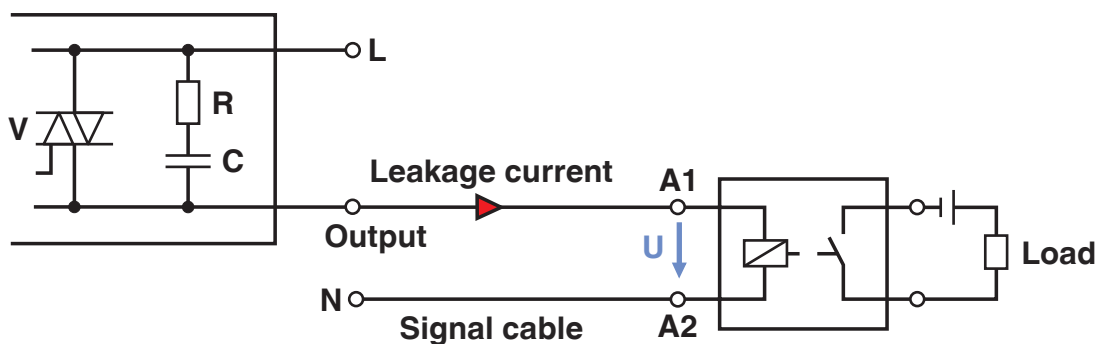
Standards/regulations	IEC 60947-5-1
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## Mounting

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

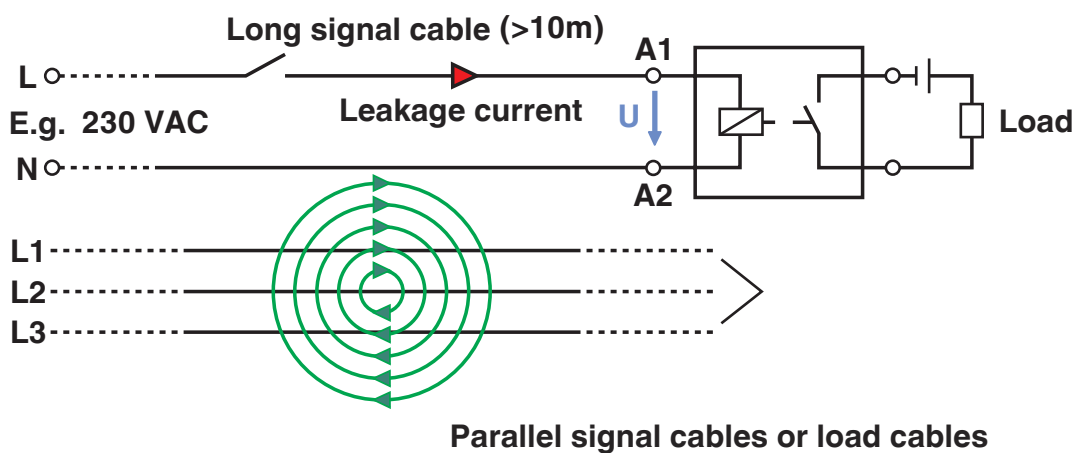
Drawings

Application drawing

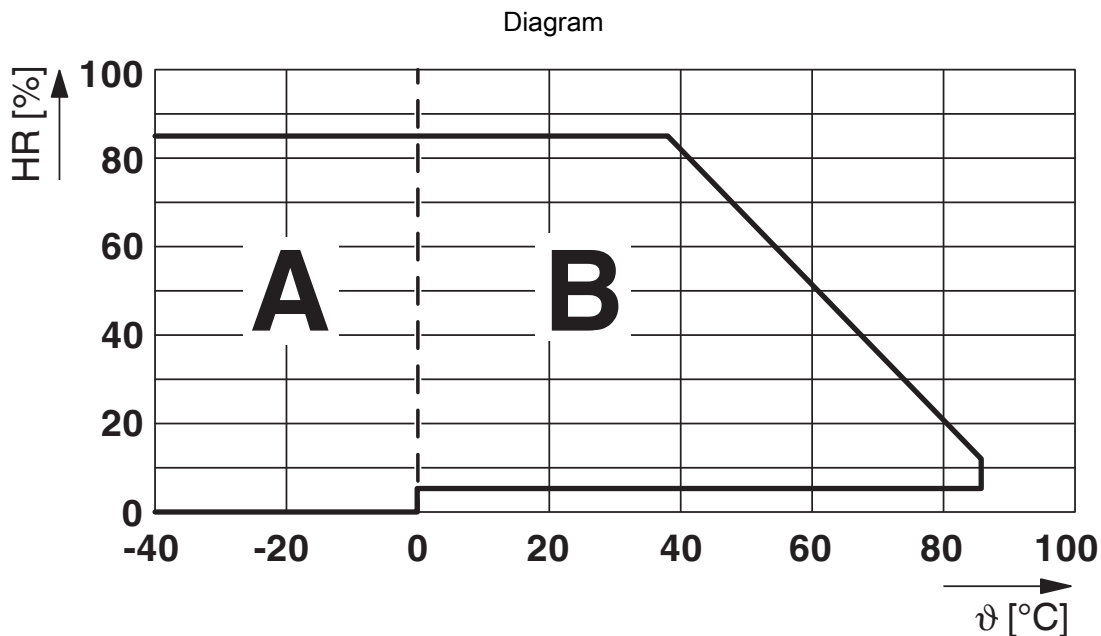


Occurrence of interference signals  
Scenario 1: controller - AC output card

Application drawing



Occurrence of interference signals  
Scenario 2: long signal cables



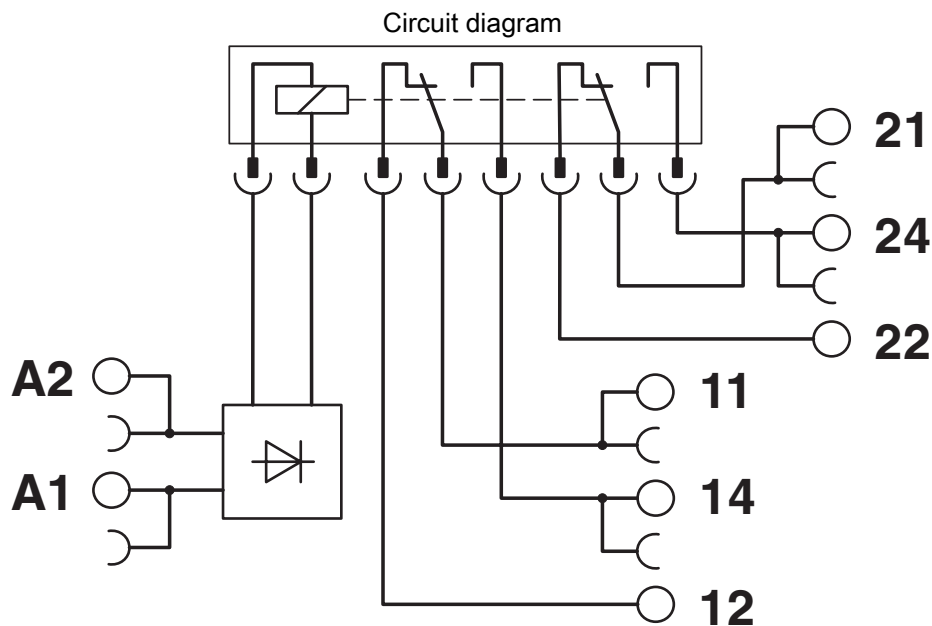
Permissible humidity for operation and storage.

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  $\leq 25^\circ\text{C}$ .



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2980500>



**EAC**

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



**DNV GL**

Approval ID: TAE0000196



**cULus Listed**

Approval ID: E140324



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## Classifications

### ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

### ETIM

ETIM 10.0	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.)	Hexahydromethylphthalic anhydride(CAS: n/a)
	Lead(CAS: 7439-92-1)
SCIP	7738d3d6-169f-4c86-a4aa-90fa1da788d3

### EF3.1 Climate Change

CO2e kg	1.212 kg CO2e
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