

# PLC-RPT- 24UC/2X21/FG - Relay module



2910539

<https://www.phoenixcontact.com/us/products/2910539>

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PLC-INTERFACE, consisting of a relay base and plug-in relay with force-guided contacts in accordance with DIN EN 61810-3, Push-in connection, 2 changeover contacts, forcibly actuated, Bridge rectifier, Input voltage: 24 V AC/DC

## Product description

The force-guided coupling relay module is approved for industrial control equipment in accordance with UL 508 (cULus listed). The requirements for type A in accordance with DIN EN 61810-3 are satisfied if the circuit is designed as 1 N/O contact / 1 N/C contact.

## Commercial data

Item number	2910539
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C461
Product key	DK62BJ
GTIN	4055626486062
Weight per piece (including packing)	76 g
Weight per piece (excluding packing)	64 g
Customs tariff number	85364190
Country of origin	DE

## Technical data

### Product properties

Product type	Relay Module
Product family	PLC-INTERFACE
Application	Forcibly guided contacts
Operating mode	100% operating factor
Mechanical service life	approx. $10^7$ cycles
B <sub>10d</sub> (AC1)	600000 Cycles (250 V / 6 A; 1 NO)
	900000 Cycles (250 V / 3 A; 1 NO)
	1800000 Cycles (250 V / 1,5 A; 1 NO)
B <sub>10d</sub> (AC15)	180000 Cycles (250 V / 3 A; 1 NO)
	560000 Cycles (250 V / 2 A; 1 NO)
	4600000 Cycles (250 V / 0,75 A; 1 NO)
B <sub>10d</sub> (DC13)	360000 Cycles (24 V / 3 A; 1 NO)
	740000 Cycles (24 V / 1,5 A; 1 NO)
	4200000 Cycles (24 V / 0,75 A; 1 NO)

### Insulation characteristics: Standards/regulations

Insulation	Safe isolation, reinforced insulation
Overvoltage category	III
Pollution degree	2

### Data management status

Date of last data management	01.04.2026
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### Electrical properties

Maximum power dissipation for nominal condition	0.72 W
Test voltage (Winding/contact)	4 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)
Test voltage (Changeover contact/changeover contact)	2.5 kV <sub>rms</sub> (50 Hz, 1 min., changeover contact/changeover contact)

### Standards/regulations

Rated insulation voltage	250 V AC
Rated surge voltage	6 kV

### Input data

#### Coil side

Nominal input voltage U <sub>N</sub>	24 V AC/DC
Input voltage range	20.9 V DC ... 32.4 V DC (20 °C)
Input voltage range in reference to U <sub>N</sub>	see diagram
Nominal voltage (plugged-in electromechanical relay)	24 V DC
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U <sub>N</sub>	30 mA

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Typical response time	3 ms ... 15 ms
Typical release time range	3 ms ... 15 ms
Protective circuit	Bridge rectifier
Operating voltage display	Yellow LED

## Output data

### Switching

Contact switching type	2 changeover contacts, forcibly actuated
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	6 A
Min. switching current	10 mA (5 V)
Interrupting rating (ohmic load) max.	144 W (24 V DC) 288 W (48 V DC) 88 W (110 V DC) 110 W (220 V DC) 1500 VA (250 V AC)
Switching power min.	150 mW
Switching capacity	3 A (24 V (DC13)) 3 A (230 V, AC15)
Force-guided contacts in accordance with EN 61810-3	Type B

## Connection data

Connection method	Push-in connection
Stripping length	10 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> 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Single ferrule) 2x 0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup> (TWIN ferrule)
Conductor cross-section AWG	26 ... 14

## Dimensions

### Item dimensions

Width	14 mm
Height	80 mm
Depth	104 mm

## Material specifications

Color	gray (RAL 7042)
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## Environmental and real-life conditions

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## Ambient conditions

Degree of protection (Relay)	RT II (Relay)
Degree of protection (Relay base)	IP20 (Relay base)
Degree of protection (Installation location)	≥ IP54 (Installation location)
Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-20 °C ... 85 °C
Altitude	≤ 2000 m

## Approvals

### CE

Certificate	CE-compliant
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### UKCA

Certificate	UKCA-compliant
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### UL, USA

Identification	UL 508
	UL 508 Recognized

### UL, USA/Canada

Identification	UL 508
	UL 508 Recognized

### 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

### Standards/regulations

Standards/regulations	IEC 60947-5-1
	DIN EN 61810-3

# PLC-RPT- 24UC/2X21/FG - Relay module



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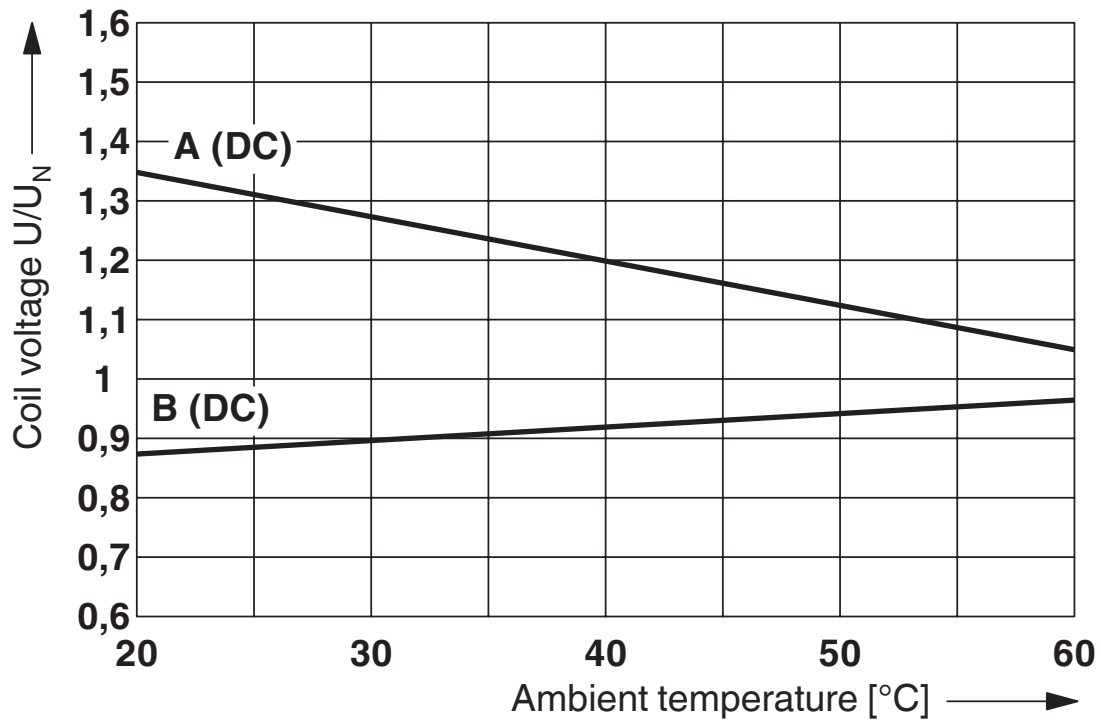
<https://www.phoenixcontact.com/us/products/2910539>

## Mounting

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

Drawings

Diagram



Curve A: maximum continuous voltage at limiting continuous current

Curve B: minimum pick-up voltage for pre-excitation with  $U_N$  and limiting continuous current

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Diagram



Permissible humidity for operation and storage.

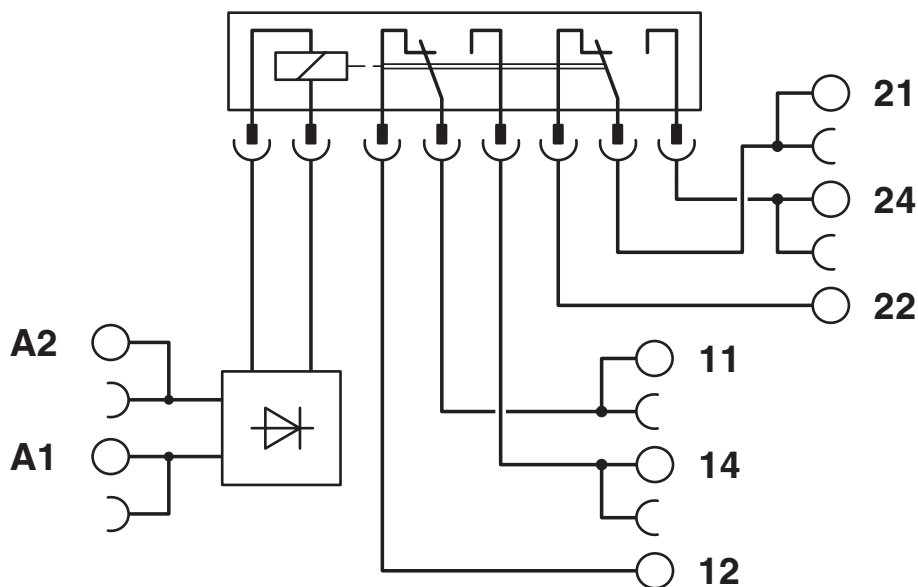
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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/2910539>



**EAC**

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



**cULus Listed**

Approval ID: E140324



**cULus Listed**

Approval ID: E140324



**cULus Listed**

Approval ID: E140324

**DNV**

Approval ID: TAE0000196

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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	e0c4bf8d-59a1-4c7a-b62e-b9898c36560e

### EF3.1 Climate Change

CO2e kg	0.98 kg CO2e
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