

# PLC-RPT-12DC/21-21/EX - Relay Module



2909513

<https://www.phoenixcontact.com/us/products/2909513>

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PLC-INTERFACE, consisting of DIN-rail-mountable basic terminal block in 14 mm with Push-in connection and plug-in relay with power contact, 2 changeover contacts, 12 V DC input voltage. Approved according to ATEX/IECEx (Zone 2) and Ex Zone Class I, Div. 2.

## Commercial data

Item number	2909513
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C461
Product key	CK6212
Catalog page	Page 386 (C-5-2019)
GTIN	4055626363165
Weight per piece (including packing)	72.81 g
Weight per piece (excluding packing)	64.29 g
Customs tariff number	85364190
Country of origin	DE

## Technical data

### Notes

#### Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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### Product properties

Product type	Relay Module
Product family	PLC-INTERFACE
Application	Class I, Division 2 potentially explosive areas
Operating mode	100% operating factor
Mechanical service life	3x 10 <sup>7</sup> cycles

#### Insulation characteristics

Insulation	Safe isolation, reinforced insulation
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#### Insulation characteristics: Standards/regulations

Insulation	Safe isolation, reinforced insulation
Overvoltage category	III
Pollution degree	3

### Electrical properties

Maximum power dissipation for nominal condition	0.4 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)

#### Standards/regulations

Rated insulation voltage	250 V AC
Rated surge voltage	6 kV

### Input data

#### Coil side

Nominal input voltage $U_N$	12 V DC
Input voltage range	10.3 V DC ... 16.8 V DC (20 °C)
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at $U_N$	33 mA
Typical response time	8 ms
Typical release time	10 ms
Protective circuit	Reverse polarity protection; Polarity protection diode Surge protection; Freewheeling diode

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Operating voltage display	Yellow LED
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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 (The separating plate PLC-ATP should be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal blocks in adjacent modules. Potential bridging is then carried out with FBST 8-PLC... or ...FBST 500...)
Minimum switching voltage	5 V AC/DC (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 (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 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	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

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)	-20 °C ... 60 °C (UL) -40 °C ... 60 °C (ATEX / IECEx)
Ambient temperature (storage/transport)	-40 °C ... 85 °C

## Approvals

### CE

Certificate	CE-compliant
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### ATEX

Identification	⊕ II 3G Ex ec nC IIC T4 Gc
Certificate	IBExU16ATEXB015 X

### IECEx

Identification	Ex ec nC IIC T4 Gc
Certificate	IECEx IBE 16.0029X

### UKCA Ex (UKEX)

Identification	⊕ II 3 G Ex ec nC IIC T4 Gc
Certificate	PxCIF21UKEX2909514X

### UL, USA

Identification	Class I, Zone 2, AEx nA nC IIC T6
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### UL, USA/Canada

Identification	Class I, Div. 2, Groups A, B, C, D
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### UL, Canada

Identification	Class I, Zone 2, Ex nA nC IIC Gc T6 X
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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
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### DNV GL data

Temperature	D
Humidity	A
Vibration	B/C
EMC	B
Enclosure	Required protection according to the Rules shall be provided upon installation on board

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## EMC data

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

## Standards and regulations

### Standards/regulations

Standards/regulations	IEC 60947-5-1
	EN 60079-0
	EN 60079-7
	EN 60079-15

## Mounting

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

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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

REACH SVHC	Lead 7439-92-1
	Hexahydromethylphthalic anhydride
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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