

PLC-RSC-120UC/21HC/EX - Relay Module



2909520

<https://www.phoenixcontact.com/us/products/2909520>

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PLC-INTERFACE, consisting of DIN-rail-mountable basic terminal block in 14 mm with screw connection and plug-in relay with 10 A power contact, 1 changeover contact, 120 V AC/110 V DC input voltage. Approved according to ATEX/IECEx (Zone 2) and Ex Zone Class I, Div. 2.

Commercial data

| | |
|--------------------------------------|---------------------|
| Item number | 2909520 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | C461 |
| Product key | CK621A |
| Catalog page | Page 387 (C-5-2019) |
| GTIN | 4055626363486 |
| Weight per piece (including packing) | 78.6 g |
| Weight per piece (excluding packing) | 70.63 g |
| Customs tariff number | 85364900 |
| Country of origin | DE |

Technical data

Notes

Utilization restriction

| | |
|----------|---------------------------------------------------------------------------|
| EMC note | EMC: class A product, see manufacturer's declaration in the download area |
|----------|---------------------------------------------------------------------------|

Product properties

| | |
|-------------------------|---------------------------------------------------------|
| Product type | Relay Module |
| Product family | PLC-INTERFACE |
| Application | High continuous currents potentially explosive areas |
| Operating mode | 100% operating factor |
| Mechanical service life | 3x 10 ⁷ cycles |

Insulation characteristics

| | |
|------------|---------------------------------------|
| Insulation | Safe isolation, reinforced insulation |
|------------|---------------------------------------|

Insulation characteristics: Standards/regulations

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

Electrical properties

| | |
|-------------------------------------------------|------------------------------------------|
| Maximum power dissipation for nominal condition | 0.54 W |
| Test voltage (Winding/contact) | 4 kV AC (50 Hz, 1 min., winding/contact) |

Standards/regulations

| | |
|--------------------------|----------|
| Rated insulation voltage | 250 V AC |
| Rated surge voltage | 6 kV |

Input data

Coil side

| | |
|--------------------------------|------------------------------------|
| Nominal input voltage U_N | 120 V AC |
| | 110 V DC |
| Input voltage range | 102 V AC ... 168 V AC (20 °C) |
| | 85.8 V DC ... 154 V DC (20 °C) |
| Drive and function | monostable |
| Drive (polarity) | polarized |
| Typical input current at U_N | 4.5 mA |
| Typical response time | 7 ms |
| Typical release time | 10 ms |
| Protective circuit | Bridge rectifier; Bridge rectifier |
| Operating voltage display | Yellow LED |

Output data

Switching

| | |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Contact switching type | 1 changeover contact |
| 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 | 12 V AC/DC (10 mA) |
| Limiting continuous current | 10 A |
| | 6 A (value applies to connections 12. If connections 12 are bridged, the normal value applies.) |
| Maximum inrush current | 30 A (300 ms) |
| Min. switching current | 10 mA (12 V) |
| Interrupting rating (ohmic load) max. | 240 W (at 24 V DC) |
| | 58 W (at 48 V DC) |
| | 48 W (at 60 V DC) |
| | 50 W (at 110 V DC) |
| | 80 W (at 220 V DC) |
| | 2500 VA (for 250 V AC) |
| Interrupting rating (ohmic load) max. bridged | 144 W (for 24 V DC. Value applies to connections 12. If connections 12 are bridged, the normal value applies.) |
| | 1500 VA (for 250 V AC. Value applies to connections 12. If connections 12 are bridged, the normal value applies.) |
| Switching capacity | 2 A (at 24 V, DC13) |
| | 0.2 A (at 110 V, DC13) |
| | 0.2 A (at 250 V, DC13) |
| | 6 A (at 24 V, AC15) |
| | 6 A (at 120 V, AC15) |
| | 6 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 ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.14 mm ² ... 2.5 mm ² |
| | 0.2 mm ² ... 2.5 mm ² (Single ferrule) |
| | 2x 0.5 mm ² ... 1.5 mm ² (TWIN ferrule) |
| Conductor cross section AWG | 26 ... 14 |
| Tightening torque | 0.6 Nm ... 0.8 Nm |

Dimensions

| | |
|-------|-------|
| Width | 14 mm |
|-------|-------|

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| | |
|--------|-------|
| 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 |
|-------------|--------------|

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 |
|----------------|-----------------------------------|

UL, USA/Canada

| | |
|----------------|------------------------------------|
| Identification | Class I, Div. 2, Groups A, B, C, D |
|----------------|------------------------------------|

UL, Canada

| | |
|----------------|---------------------------------------|
| Identification | Class I, Zone 2, Ex nA nC IIC Gc T6 X |
|----------------|---------------------------------------|

Shipbuilding approval

| | |
|-------------|------------|
| Certificate | TAE0000196 |
|-------------|------------|

Corrosive gas test

| | |
|----------------|---------------------------------------------|
| Identification | ISA-S71.04. G3 Harsh Group EN 60068-2-60 |
|----------------|---------------------------------------------|

DNV GL data

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| | |
|-------------|-----------------------------------------------------------------------------------------|
| 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

| | |
|-------------------------------|----------------------------------------|
| 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 |
|----------|----------|

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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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com