

# PLC-RPT- 72UC/21-21AU/RW - Relay Module



2900350

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PLC-INTERFACE for railway applications, consisting of basic terminal block with Push-in connection and plug-in miniature relay with multi-layer gold contact, range:  $0.7 \times U_N$  to  $1.25 \times U_N$ , temperature class TX:  $-40^\circ\text{C}$  to  $+70^\circ\text{C}$ , 2 changeover contacts, input voltage 72 V DC

## Your advantages

- Optimum relay operation thanks to wide-range electronics
- Safe isolation between coil and contact side
- Vibration and shock resistance in accordance with EN 50155
- Certified in accordance with EN 50155
- Input voltage range of 0.7 to 1.25 x UN (1.4 x UN briefly)
- Temperature range:  $-40^\circ\text{C}$  ...  $+70^\circ\text{C}$  (short-term  $85^\circ\text{C}$ )

## Commercial data

Item number	2900350
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	C461
Product key	CK623D
Catalog page	Page 421 (C-5-2019)
GTIN	4046356510080
Weight per piece (including packing)	64.42 g
Weight per piece (excluding packing)	60.49 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
Installation location	Attached to the vehicle body
Application	Railway applications
Operating mode	100% operating factor
Mechanical service life	approx. $3 \times 10^7$ cycles

### Insulation characteristics

Insulation	Basic insulation
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### Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

### Electrical properties

Maximum power dissipation for nominal condition	0.43 W
Test voltage (Winding/contact)	5 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)
Rated insulation voltage	250 V AC
Rated surge voltage	6 kV

### Input data

#### Coil side

Nominal input voltage $U_N$	72 V DC
Input voltage range	50.4 V DC ... 90 V DC
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at $U_N$	6 mA
Typical response time	5 ms
Typical release time	11 ms
Coil voltage	48 V DC
Protective circuit	Bridge rectifier
	Surge protection; Freewheeling diode
	RCZ filter
	Wide-range electronics
Operating voltage display	Yellow LED

### Output data

#### Switching

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Contact switching type	2 changeover contacts
Type of switch contact	Single contact
Contact material	AgNi, hard gold-plated
Maximum switching voltage	30 V AC
	36 V DC
Minimum switching voltage	100 mV (10 mA)
Limiting continuous current	50 mA
Maximum inrush current	50 mA
Min. switching current	1 mA (24 V)
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)

Switching: when the gold layer is destroyed

Note	<b>the following values are applicable if a gold layer is destroyed</b>
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	12 V AC/DC
Limiting continuous current	6 A
Maximum inrush current	15 A (300 ms)
Min. switching current	10 mA
Interrupting rating (ohmic load) max.	140 W (at 24 V DC)
	100 W (at 48 V DC)
	60 W (at 60 V DC)
	44 W (at 110 V DC)
	60 W (at 220 V DC)
Switching capacity	1500 VA (for 250□V□AC)
	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

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
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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)	-40 °C ... 70 °C (Temperature class TX)
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
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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

## EMC data

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

## Standards and regulations

Standards/regulations	IEC 60947-5-1
	EN 50155 (VDE 0115 part 200)
	EN 61373
	EN 50121

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## 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
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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