

Relay Module - PLC-RPT- 24UC/21AU/RW - 2900321

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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°C to $+70^\circ\text{C}$, 1 PDT, input voltage 24 V DC

Your advantages

- ✓ Optimum relay operation thanks to wide-range electronics
- ✓ Certified according to EN 50155
- ✓ Vibration and shock resistance according to EN 50155
- ✓ Safe isolation according to DIN EN 50178 between coil and contact
- ✓ Spring-cage and Push-in connection technology
- ✓ Temperature range from -40°C to $+70^\circ\text{C}$ ($+85^\circ\text{C}$ briefly)
- ✓ Input voltage range of 0.7 to $1.25 \times U_N$ ($1.4 \times U_N$ briefly)



Key Commercial Data

Packing unit	10 pc
GTIN	
GTIN	4046356510042

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	6.2 mm
Height	80 mm
Depth	94 mm

Ambient conditions

Ambient temperature (operation)	-40°C ... 70°C (Temperature class TX)
Ambient temperature (storage/transport)	-40°C ... 85°C

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Technical data

Ambient conditions

Degree of protection	RT III (Relay)
	IP20 (Relay base)

Coil side

Nominal input voltage U_N	24 V DC
Input voltage range in reference to U_N	0.7 ... 1.25
Typical input current at U_N	9 mA
Typical response time	4 ms
Typical release time	4 ms
Coil voltage	12 V DC
Protective circuit	Bridge rectifier Bridge rectifier
	Free-wheeling diode Damping diode
	Surge protection
	RCZ filter
	Wide-range electronics
Operating voltage display	Yellow LED
Power dissipation for nominal condition	0.22 W

Contact side

Contact type	1 PDT
Type of switch contact	Single contact
Contact material	AgSnO, hard gold-plated
Maximum switching voltage	30 V AC
	36 V DC
Minimum switching voltage	100 mV (at 10 mA)
Min. switching current	1 mA (at 24 V)
Maximum inrush current	50 mA
Limiting continuous current	50 mA
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)
Switching capacity	1 A (24 V (DC13))
	0.2 A (110 V (DC13))
	0.1 A (220 V (DC13))
	3 A (24 V (AC15))
	3 A (120 V (AC15))
	3 A (230 V (AC 15))

Contact side (with destroyed gold layer)

Note	the following values are applicable if a gold layer is destroyed
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

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Contact side (with destroyed gold layer)

Min. switching current	10 mA
Interrupting rating (ohmic load) max.	140 W (at 24 V DC)
	20 W (at 48 V DC)
	18 W (at 60 V DC)
	23 W (at 110 V DC)
	40 W (at 220 V DC)
	1500 VA (for 250 V AC)
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.1 A (at 220 V, DC13)
	3 A (at 24 V, AC15)
	3 A (at 120 V, AC15)
	3 A (at 230 V, AC15)

Connection data

Connection name	Coil side
Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid	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 mm ² (TWIN ferrule)
Conductor cross section AWG	26 ... 14

Connection data 2

Connection name	Contact side
Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid	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 mm ² (TWIN ferrule)
Conductor cross section AWG	26 ... 14

General

Test voltage relay winding/relay contact	4 kV _{rms} (50 Hz, 1 min.)
Operating mode	100% operating factor
Degree of protection	RT III (Relay)
	IP20 (Relay base)
Mechanical service life	approx. 2x 10 ⁷ cycles
Mounting position	any
Assembly instructions	In rows with zero spacing

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Technical data

Standards and Regulations

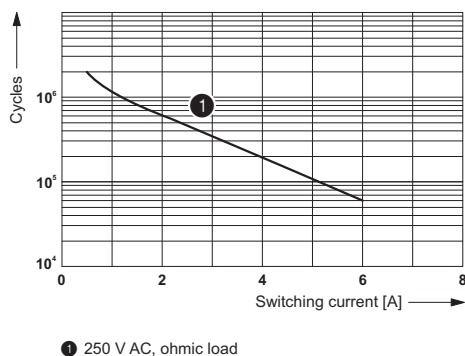
Connection in acc. with standard	CUL
Standards/regulations	EN 50155 (VDE 0115 part 200)
	EN 50178
	EN 61373
	EN 50121
Rated insulation voltage	250 V AC
Rated surge voltage	6 kV
Degree of pollution	2
Overvoltage category	III
Flammability rating according to UL 94	V0

Environmental Product Compliance

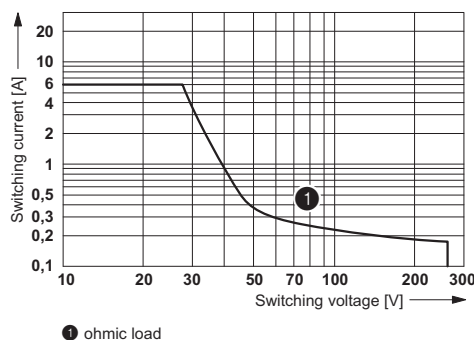
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Diagram



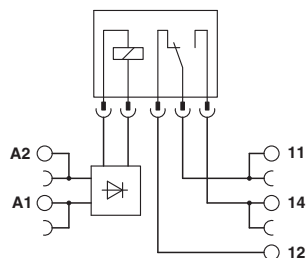
Diagram



Electrical service life

DC interrupting rating

Circuit diagram



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Approvals

Approvals

Approvals

DNV GL / UL Listed / UL Recognized / cUL Recognized / cUL Listed / EAC / RC FRT / cULus Recognized / cULus Listed

Ex Approvals

Approval details

DNV GL		https://approvalfinder.dnvgl.com/	TAE0000196-02
UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
EAC			RU C- DE.A*30.B.01082
RC FRT			B.00094
cULus Recognized			

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Approvals

cULus Listed



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