

Power PCB Relay RPII/1

- 1 pole 8/12/16A, 1 form C (CO) or 1 form A (NO) contact
- 4kV/8mm coil-contact
- Pinning 3.5 or 5mm (8/12A) and 5mm (16A)
- RoHS compliant (Directive 2011/65/EC)

Typical applications
Power supplies, domestic appliances, heating control, installation



Approvals

VDE Cert. No. 40025448, UL E214025 (VDE and UL for AgNi 90/10 in preparation)

Technical data of approved types on request

Contact Data	8A	12A	16A
Contact arrangement	1 form C (CO) or 1 form A (NO)		
Rated voltage	250VAC		
Max. switching voltage	400VAC		
Rated current	8A	12A	16A
Limiting making current	16A	20A	25A
Breaking capacity max.	2000VA	3000VA	4000VA
Contact material	AgNi0.15	AgCdO, AgNi 90/10	AgCdO, AgNi 90/10
Frequency of operation, with/without load	600/72000h ⁻¹		
Operate/release time typ.	8/2ms		
Bounce time typ., form A/form B	2/4ms		

Contact ratings

Type	Contact	Load	Cycles
IEC61810			
RP310	A (NO)	16A, 250VAC resistive, 35°C	100x10 ³
RP410/418	A (NO)	12A, 250VAC resistive, 35°C	100x10 ³
RP410/418	C (CO)	10A, 250VAC resistive, 70°C	100x10 ³
RP411/418	A (NO)	8A, 250VAC resistive, 35°C	100x10 ³

Mechanical endurance
DC-coil version: >20x10⁶ operations
REM/bistable version: >1x10⁶ operations

Coil Data

Coil voltage range	5 to 110VDC
Operative range, IEC 61810	2

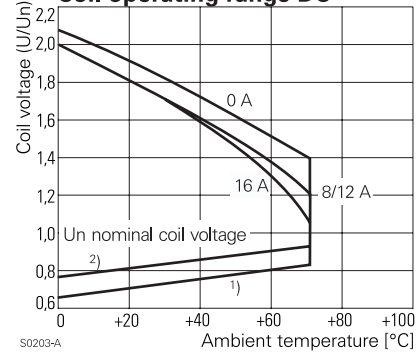
Coil versions, DC coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance $\Omega \pm 10\%^{1)}$	Rated coil power mW
005	5	3.5	0.5	54	500
006	6	4.2	0.6	68	500
012	12	8.4	1.2	270	500
024	24	16.8	2.4	1100 ¹⁾	500
048	48	33.6	4.8	4400 ¹⁾	500
060	60	42.0	6.0	6540 ¹⁾	500
110	110	77.0	11.0	23100 ¹⁾	500

1) Coil resistance $\pm 15\%$.

All figures are given for coil without pre-energization, at ambient temperature +20°C. Other coil voltages on request.

Coil operating range DC



Insulation Data

Initial dielectric strength	
between open contacts	1000V _{rms}
between contact and coil	4000V _{rms}
Clearance/creepage	
between contact and coil	≥8/8mm
Material group of insulation parts	IIIa

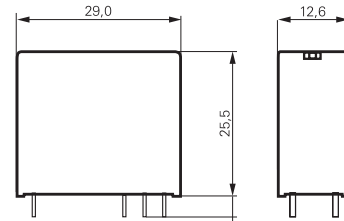
Power PCB Relay RPII/1 (Continued)

Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter	
Ambient temperature	-40 to +70°C
Category of environmental protection	RTII - flux proof, RTIII - wash tight
Vibration resistance (functional), form A/form B, 30 to 300Hz	10/2g
Shock resistance (destructive)	100g
Terminal type	PCB-THT
Weight	18g
Resistance to soldering heat THT, IEC 60068-2-20	
flux proof version	270°C/10s
wash tight version	260°C/5s
Packaging/unit	tube/20 pcs., box/500 pcs.

Dimensions

Dimensions in mm



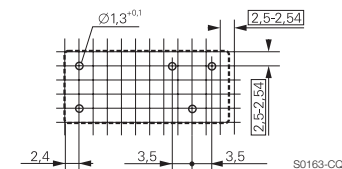
S0273-AA

PCB layout / terminal assignment

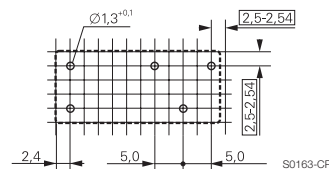
8/12A, pinning 3.5 mm

8/12A, pinning 5 mm

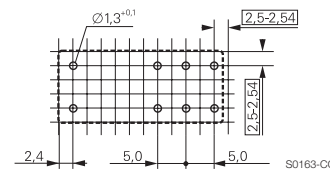
16A, pinning 5 mm



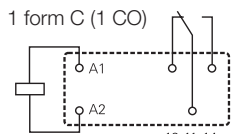
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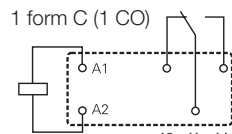
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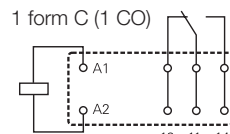
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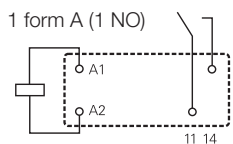
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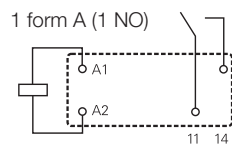
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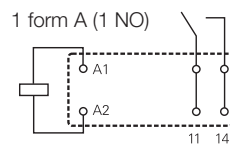
S0163-BE



S0163-BH



S0163-BD



S0163-BF

Product code structure

Typical product code **RP 3 1 0 024**

Type	RP Power PCB Relay RPII/1				
Version	3 16A, flux proof	7 16A, wash tight	1	0	024
	4 8/12A, flux proof	8 8/12A, wash tight			
Contact arrangement	1 1 form C contact (1 CO)	3 1 form A contact (1 NO)	5 1 form B contact (1 NC)		
Contact material and pinning	1 AgNi0.15, 8A, pinning 5mm	0 AgCdO, 12/16A, pinning 5mm	4 AgNi 90/10, pinning 5mm		
	2 AgNi0.15, 8A, pinning 3.5mm	8 AgCdO, 12A, pinning 3.5mm	N AgNi 90/10, pinning 3.5mm		
Coil	Coil code: please refer to coil versions table				

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Product Code	Version	Contacts	Cont. Material	Pinning	Coil Version	Coil	Part Number
RP310012	16A, flux proof	1 form C (CO) contact	AgCdO	5mm	monostable	12VDC	2-1393230-9
RP310024						24VDC	3-1393230-2
RP310048						48VDC	3-1393230-3
RP330012		1 form A (NO) contact				12VDC	4-1393230-7
RP330024						24VDC	4-1393230-9
RP330048						48VDC	5-1393230-1
RP410024	12A, flux proof	1 form C (CO) contact				24VDC	8-1393230-2
RP411024	8A, flux proof		AgNi0.15			24VDC	9-1393230-5
RP412024				3,5mm		24VDC	1-1393231-2
RP418012	12A, flux proof		AgCdO			12VDC	2-1393231-5
RP418024						24VDC	2-1393231-8
RP438012		1 form A (NO) contact				12VDC	5-1393231-0
RP710012	16A, wash tight	1 form C (CO) contact		5mm		12VDC	7-1393231-2
RP710024						24VDC	7-1393231-5
RP730012		1 form A (NO) contact				12VDC	8-1393231-2
RP818012	12A, wash tight			3,5mm		12VDC	1-1393232-7
RP314005	16A, flux proof	1 form C (CO) contact	AgNi 90/10	5mm		5VDC	8-1415546-4
RP314006						6VDC	8-1415546-5
RP314010						10VDC	8-1415546-6
RP314012						12VDC	8-1415546-7
RP314024						24VDC	8-1415546-8
RP314048						48VDC	8-1415546-9
RP314110						110VDC	9-1415546-0
RP314F12					REM II	12VDC	8-1415546-1
RP314F24						24VDC	8-1415546-2
RP334012		1 form A (NO) contact			monostable	12VDC	9-1415546-1
RP334024						24VDC	9-1415546-2
RP334048						48VDC	9-1415546-4
RP354012		1 form B (NC) contact				12VDC	9-1415546-5
RP414012	12A, flux proof	1 form C (CO) contact				12VDC	1415546-4
RP414024						24VDC	1415546-5
RP414A24					REM I	24VDC	9-1415546-6
RP414F24					REM II	24VDC	9-1415546-7
RP434024		1 form A (NO) contact			monostable	24VDC	9-1415546-3
RP714006	16A, wash tight	1 form C (CO) contact				6VDC	9-1415546-8
RP714012						12VDC	9-1415546-9
RP714024						24VDC	1415546-1
RP714048						48VDC	1415546-2
RP734012		1 form A (NO) contact				12VDC	1415546-6
RP734020						20VDC	1415546-7
RP734024						24VDC	1415546-8
RP734036						36VDC	1415546-9
RP734A12					REM I	12VDC	1415546-3
RP814012	12A, wash tight	1 form C (CO) contact			monostable	12VDC	1-1415547-0
RP814024						24VDC	1-1415547-1
RP814048						48VDC	1-1415547-2

Note. This list represents the most common types and does not show all variants covered by this datasheet. Other types on request.