

Miniature Power PCB Relay RY II

- 1 pole 8 A, 1 CO or 1 NO or 1 NC contact
- Low component height 12.3 mm
- 5 kV / 8 mm coil-contact
- Reinforced insulation (protection class II)
- Pinnings: 3.2 and 5 mm
- Sockets with PCB-type or screw-type terminals
- Especially suitable for resistive and inductive loads on NO and NC contacts
- Plastic materials according to IEC60335-1 (domestic appliances)
- Versions with AgNi 0.15 or AgSnO₂ contact material:
RoHS compliant (Directive 2002 / 95 / EC) as per product date code 0403

Applications: heating control, interface technology, domestic appliances, timers, temperature control



F0142-C

Approvals

VDE REG.-Nr. 5358, **us** E214025
Technical data of approved types on request

Contact data

Contact configuration	1CO or 1NO or 1NC
Contact set	single contact
Type of interruption	micro disconnection
Rated current	8 A
Rated voltage / max.switching voltage AC	240/400 VAC
Maximum breaking capacity AC	2000 VA
Contact material	AgNi0,15, AgSnO ₂ , AgCdO
Mechanical endurance	30x10 ⁶ cycles
Rated frequency of operation with / without load	6 / 1200 min ⁻¹

Contact ratings

Type	Load	Cycles
RY610	B300, 120 VAC, 70°C, UL508	
RY610	B300, 240 VAC, 70°C, UL508	
RY610	1/4 hp, 120 VAC, 70°C, UL508	
RY610	1/2 hp, 240 VAC, 70°C, UL508	
RY610	8 A, 28 VDC, 70°C, UL508	>3x10 ⁴
RY610	0.28 A, 250 VDC, 70°C, UL508	>3x10 ⁴
RY531	6 (4) A, 250 VAC, 85°C, VDE 0631	1x10 ⁵

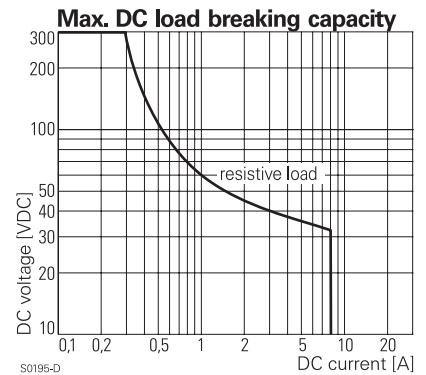
Coil data

Rated coil voltage range DC coil	5...60 VDC
Coil power DC coil	typ. 220 mW
Operative range	2

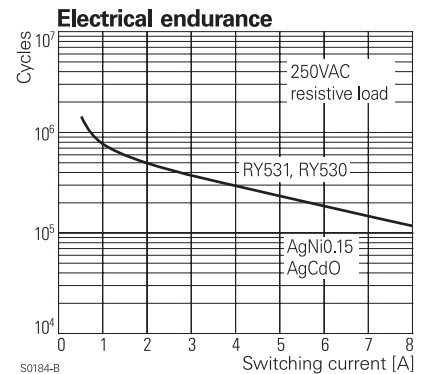
Coil versions, DC-coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ohm	Rated coil power mW
005	5	3.5	0.5	112±10%	223
006	6	4.2	0.6	162±10%	222
009	9	6.3	0.9	320±10%	253
012	12	8.4	1.2	627±10%	230
024	24	16.8	2.4	2350±10%	245
048	48	33.6	4.8	9391±10%	245
060	60	42.0	6.0	14000±10%	257

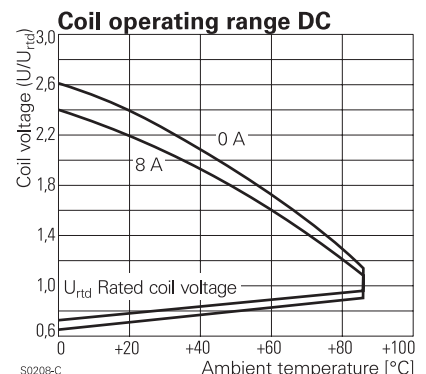
All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request



S0195-D



S0184-B



S0208-C

Miniature Power PCB Relay RY II (Continued)

Insulation	CO contact	NO contact
Dielectric strength coil-contact circuit		5000 V _{rms}
open contact circuit		1000 V _{rms}
Clearance / creepage coil-contact circuit	≥ 8 / 8 mm	≥ 8 / 8 mm
Material group of insulation parts	IIIa	IIIa
Tracking index of relay base	PTI250	PTI250
Insulation to IEC 60664-1		
Type of insulation coil-contact circuit	reinforced	reinforced
open contact circuit	functional	functional
Rated insulation voltage	250 V	250 V
Pollution degree	3	2
Rated voltage system	230 V	400 V
Overvoltage category	III	III

Other data

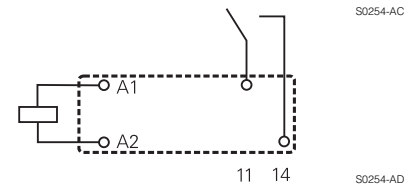
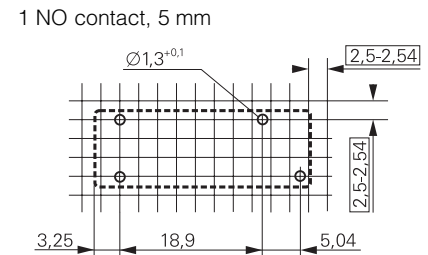
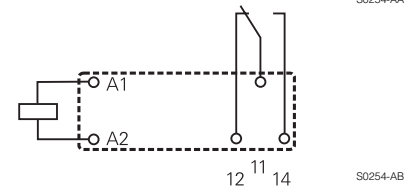
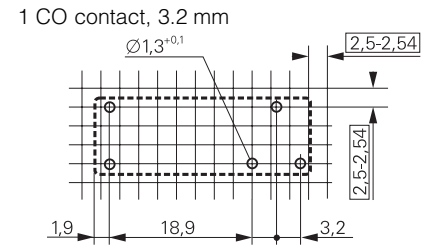
RoHS - Directive 2002/95/EC	
Versions with AgNi 0.15 or AgSnO ₂ contact material:	
RoHS compliant as per product date code 0403	
Flammability class according to UL94	V-0
For WG version: GWFI to IEC 60335-1	> 850 °C
GWT to IEC 60335-1	> 750 °C
Ambient temperature range	-40...+70°C
Ambient temperature max.	85°C at 6A
Operate- / release time	typ. 7 / 3 ms
Bounce time NO / NC contact	2,5 / 4,5 ms
Vibration resistance (function) NO / NC contact	20 / 5 g
Shock resistance (function) NO / NC contact	20 / 5 g
Shock resistance (destruction)	100 g
Category of protection	RTII-flux proof, RTIII- wash tight
Mounting	pcb
Mounting position	any
Minimum mounting distance	0 mm
Resistance to soldering heat flux-proof version	270°C / 10 s
wash-tight version	260°C / 5 s
Relay weight	8 g
Packaging unit	20 / 500 pcs

Accessories

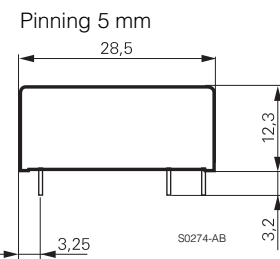
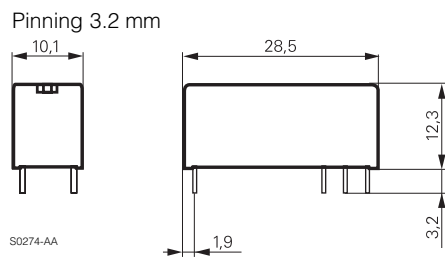
For details see datasheet Accessories RYII

PCB layout / terminal assignment

Bottom view on solder pins



Dimensions



Product key

Type		
Version		
2	pinning 3.2 mm, flux proof	6
5	pinning 5 mm, flux proof	A
3	pinning 3.2 mm, wash tight	
4	pinning 5 mm, wash tight	
Contact configuration		
1	1 CO contact, pinning 3.2 mm	3
2	1 NO contact, pinning 5 mm	
Contact material		
0	AgCdO	2
1	AgNi 0.15	3
	AgNi 0.15 gold plated	
	AgSnO ₂	
Coil		
Coil code: please refer to coil versions table		

Other types on request

Miniature Power PCB Relay RY II (Continued)

Product key	Version	Contacts	Contact material	Coil	Part number		
RY210005	pinning 3.2 mm flux proof	1 CO contact	AgCdO	5 VDC	3-1393224-1		
RY210012				12 VDC	3-1393224-5		
RY210024				24 VDC	3-1393224-8		
RY210048				48 VDC	4-1393224-1		
RY211005			AgNi 0.15	5 VDC	4-1393224-2		
RY211012				12 VDC	4-1393224-6		
RY211024				24 VDC	4-1393224-9		
RY211048				48 VDC	5-1393224-1		
RY212005			AgNi 0.15 gold plated	5 VDC	5-1393224-2		
RY212012				12 VDC	5-1393224-5		
RY212024				24 VDC	5-1393224-8		
RY212048				48 VDC	5-1393224-9		
RY213005			AgSnO ₂	5 VDC	6-1393224-0		
RY213012				12 VDC	6-1393224-1		
RY213024				24 VDC	6-1393224-2		
RY213048				48 VDC	6-1393224-3		
RY530005	pinning 5 mm flux proof	1 NO contact	AgCdO	5 VDC	6-1393224-6		
RY530012				12 VDC	6-1393224-9		
RY530024				24 VDC	7-1393224-2		
RY530048				48 VDC	7-1393224-4		
RY531005			AgNi 0.15	5 VDC	7-1393224-6		
RY531012				12 VDC	7-1393224-9		
RY531024				24 VDC	8-1393224-2		
RY531048				48 VDC	8-1393224-3		
RY532012			AgNi 0.15 gold plated	12 VDC	8-1393224-4		
RY532024				24 VDC	8-1393224-5		
RY533012				AgSnO ₂	12 VDC	8-1393224-8	
RY533024					24 VDC	8-1393224-9	
RY533048			48 VDC	9-1393224-0			
RY610005			pinning 3.2 mm wash tight	1 CO contact	AgCdO	5 VDC	0-1393225-7
RY610012						12 VDC	1-1393225-0
RY610024						24 VDC	1-1393225-4
RY610048	48 VDC	1-1393225-5					
RY611005	AgNi 0.15	5 VDC			1-1393225-7		
RY611012		12 VDC			1-1393225-9		
RY611024		24 VDC			2-1393225-1		
RY611048		48 VDC			2-1393225-2		
RY612005	AgNi 0.15 gold plated	5 VDC			2-1393225-3		
RY612012		12 VDC			2-1393225-6		
RY612024		24 VDC			2-1393225-9		
RY612048		48 VDC			3-1393225-0		
RY613005	AgSnO ₂	5 VDC			5-1419136-2		
RY613012		12 VDC			3-1393225-1		
RY613024		24 VDC			3-1393225-3		
RY613048		48 VDC			3-1393225-4		
RYA30005	pinning 5 mm wash tight	1 NO contact	AgCdO	5 VDC	0-1393224-1		
RYA30012				12 VDC	0-1393224-4		
RYA30024				24 VDC	0-1393224-6		
RYA30048				48 VDC	7-1393225-7		
RYA31005			AgNi 0.15	5 VDC	0-1393224-7		
RYA31012				12 VDC	0-1393224-9		
RYA31024				24 VDC	1-1393224-2		
RYA31048				48 VDC	1-1393224-3		
RYA32005			AgNi 0.15 gold plated	5 VDC	1-1393224-4		
RYA32012				12 VDC	1-1393224-6		
RYA32024				24 VDC	1-1393224-8		
RYA33005				AgSnO ₂	5 VDC	1-1393224-9	
RYA33024			24 VDC		2-1393224-1		