

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, **CE** 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, 120VAC, 70°C, UL508	
RY610	B300, 240VAC, 70°C, UL508	
RY610	1/4 hp, 120VAC, 70°C, UL508	
RY610	1/2 hp, 240VAC, 70°C, UL508	
RY610	8A, 28VDC, 70°C, UL508	>3x10 ⁴
RY610	0,28A;250VDC, 70°C, UL508	>3x10 ⁴
RY531	6 (4) A,250VAC, 85°C, VDE 0631	1x10 ⁵

Coil data

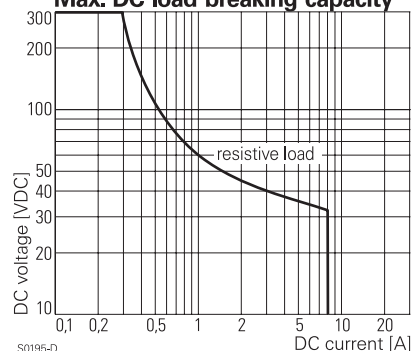
Rated voltage range DC coil	5...60 VDC
Coil power DC coil	typ. 220 mW
Operative range	2

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

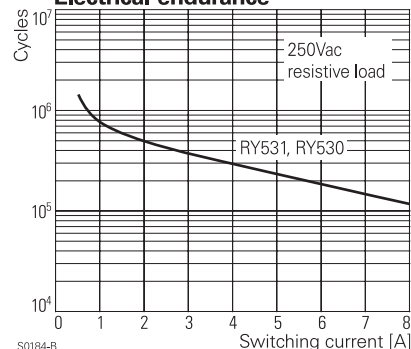
All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request

Max. DC load breaking capacity



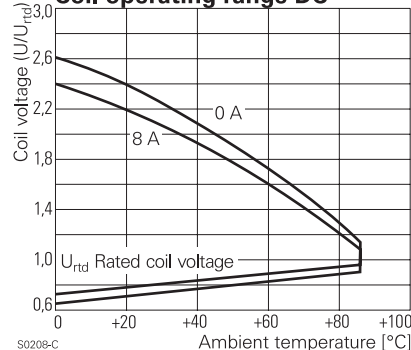
S0195-D

Electrical endurance



S0184-B

Coil operating range DC



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

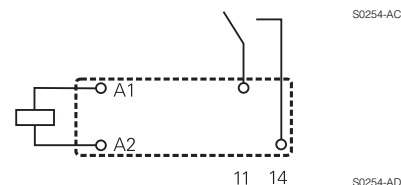
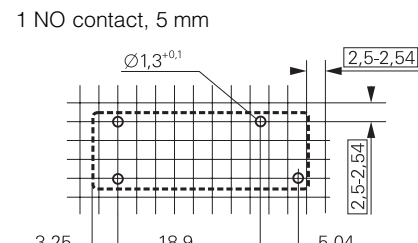
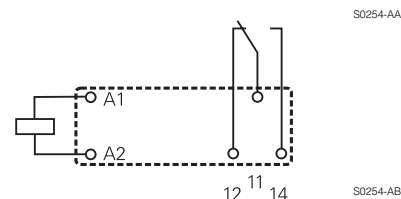
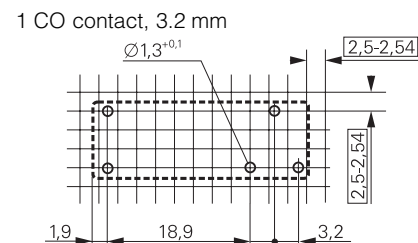
Other data

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

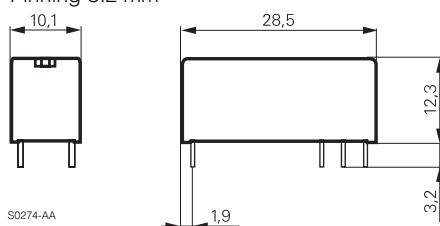
For details see datasheet Accessories RYII

PCB layout / terminal assignment
Bottom view on solder pins

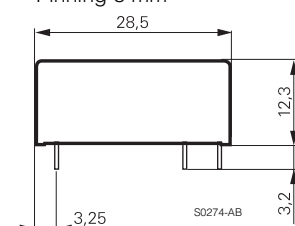


Dimensions

Pinning 3.2 mm



Pinning 5 mm



Product key

Type

Version

2	pinning 3.2 mm, flux proof	6	pinning 3.2 mm, wash tight
5	pinning 5 mm, flux proof	A	pinning 5 mm, wash tight

Contact configuration

1	1 CO contact, pinning 3.2 mm	3	1 NO contact, pinning 5 mm
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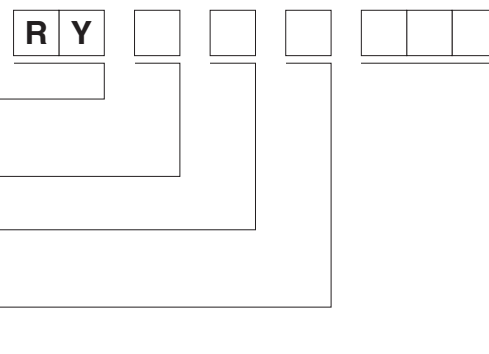
Contact material

0	AgCdO	2	AgNi 0.15 gold plated
1	AgNi 0.15	3	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