

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



FD142-C

Approvals

VDE REG.-Nr. 5358, **UL** 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

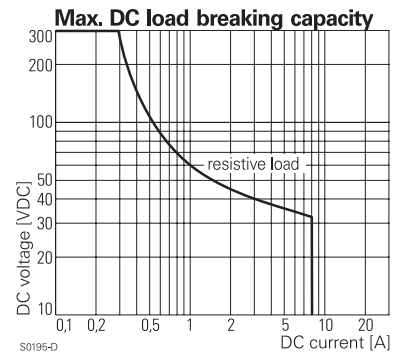
Coil data

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

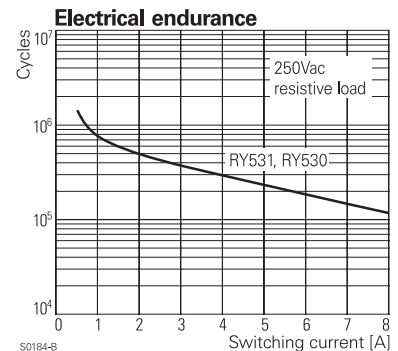
Coil versions, DC-coil

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

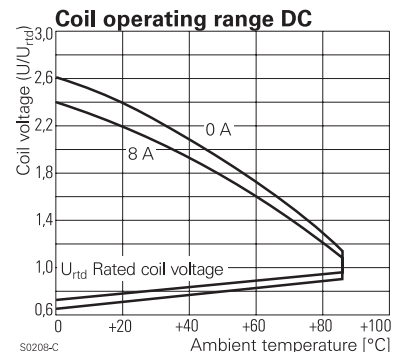
All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request



S0195-D



S0184-B



S0208-C

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

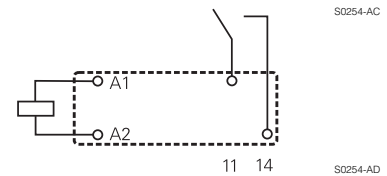
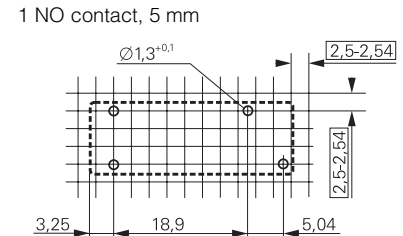
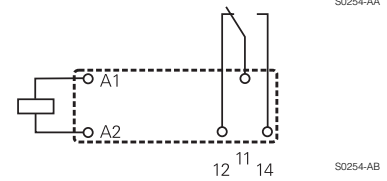
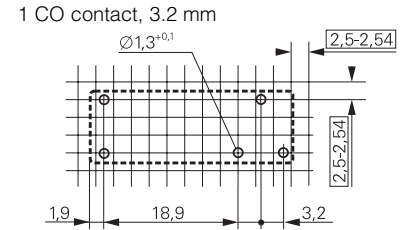
RoHS - Directive 2002/95/EC	
Versions with AgNi 0.15 or AgSnO ₂ contact material:	
RoHS compliant as per product date code 0403	
Flammability class according to UL94	V-0
For WG version: GWFI to IEC 60335-1	> 850 °C
GWT to IEC 60335-1	> 750 °C
Ambient temperature range	-40...+70°C
Ambient temperature 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
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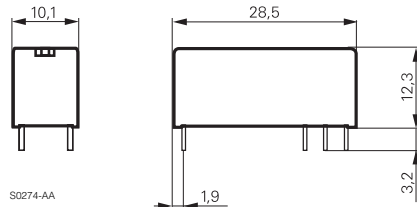
PCB layout / terminal assignment

Bottom view on solder pins

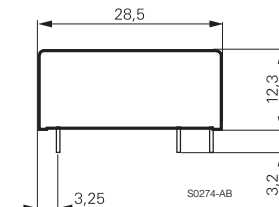


Dimensions

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 |
|--------------------------------|------------------------------|

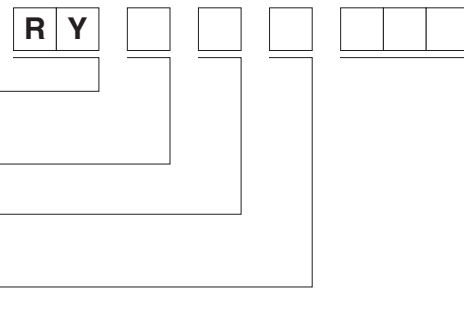
Contact material

- | | |
|-------------|-------------------------|
| 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



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			12 VDC		8-1393224-8	
RY533024				AgSnO ₂	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			