

**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)
- Pinings: 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 AgSnO<sub>2</sub> 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**

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 <sub>2</sub> , AgCdO
Mechanical endurance	30x10 <sup>6</sup> cycles
Rated frequency of operation with / without load	6 / 1200 min <sup>-1</sup>

**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 <sup>4</sup>
RY610	0.28 A, 250 VDC, 70°C, UL508	>3x10 <sup>4</sup>
RY531	6 (4) A, 250 VAC, 85°C, VDE 0631	1x10 <sup>5</sup>

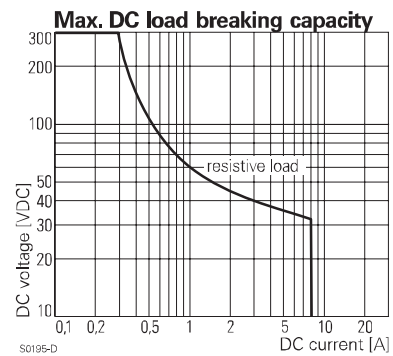
**Coil data**

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

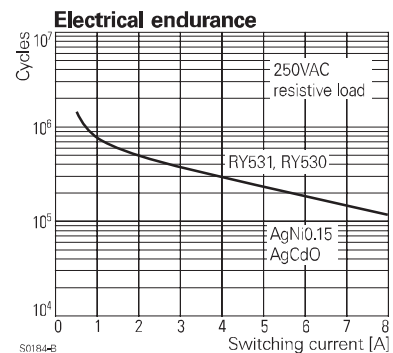
**Coil versions, DC-coil**

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

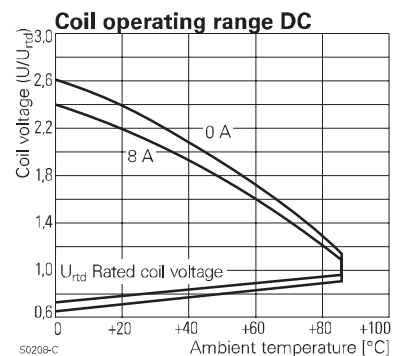
All figures are given for coil without preenergization, at ambient temperature +23°C  
Other coil voltages on request



S0195-D



S0184-B



S0208-C

Insulation	CO contact	NO contact
Dielectric strength coil-contact circuit		5000 V <sub>rms</sub>
open contact circuit		1000 V <sub>rms</sub>
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**

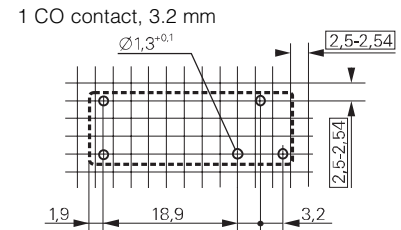
RoHS - Directive 2002/95/EC	
Versions with AgNi 0.15 or AgSnO <sub>2</sub> contact material:	
RoHS compliant as per product date code 0403	
Flammability class according to UL94	V-0
For WG version: GWFI to IEC 60335-1	> 850 °C
GWT to IEC 60335-1	> 750 °C
Ambient temperature range	-40...+70°C
Ambient temperature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

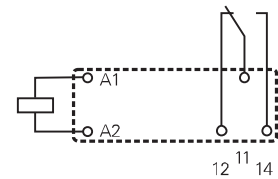
For details see datasheet Accessories RYII

**PCB layout / terminal assignment**

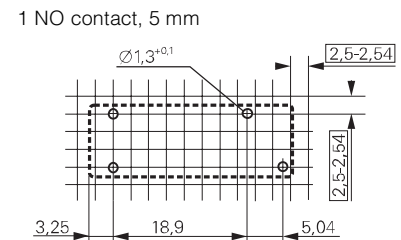
Bottom view on solder pins



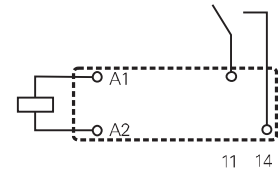
S0254-AA



S0254-AB

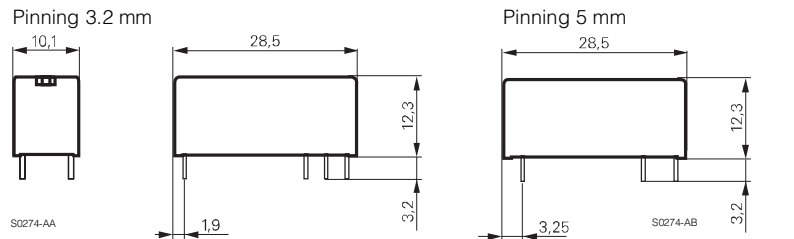


S0254-AC



S0254-AD

**Dimensions**



**Product key**

Type	Version		Contact configuration		Contact material		Coil
Version	2	pinning 3.2 mm, flux proof	6	pinning 3.2 mm, wash tight	3	1 NO contact, pinning 5 mm	0 AgCdO
	5	pinning 5 mm, flux proof	A	pinning 5 mm, wash tight			
Version	1	1 CO contact, pinning 3.2 mm	3	1 NO contact, pinning 5 mm	3	AgSnO <sub>2</sub>	
Version	0	AgCdO	2	AgNi 0.15 gold plated			
Version	1	AgNi 0.15	3	AgSnO <sub>2</sub>			
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 <sub>2</sub>	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				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 <sub>2</sub>	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 <sub>2</sub>	5 VDC	1-1393224-9	
RYA33024			24 VDC		2-1393224-1		