

Miniature Power PCB Relay RY II

1 pole 8 A



F0142-C

Features

- Low component height 12.3 mm
- 1 C/O or 1 N/O or 1 N/C contact
- 5 kV / 8 mm coil-contact
- 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 N/O and N/C contacts

Applications

Heating control, interface technology, domestic appliances, timers, temperature control



Technical data of approved types on request

Contact data

Configuration	1 C/O contact, 1 N/O contact, 1 N/C contact
Type of contact	single contact
Rated current	8 A
Rated voltage / max.breaking voltage AC	250 Vac / 440 Vac
Maximum breaking capacity AC	2000 VA
Make current (max. 4 s at duty cycle 10%)	30 A
Contact material	AgCdO, AgNi 0.15, AgSnO ₂

Contact ratings

Type	Load	Operations	Standard
RY610	B 300, 120 Vac, 70 °C		UL 508
RY610	B 300, 240 Vac, 70 °C		UL 508
RY610	1 / 4 hp, 120 Vac, 70 °C		UL 508
RY610	1 / 2 hp, 240 Vac, 70 °C		UL 508
RY610	8 A, 28 Vdc, 70 °C	>3x10 ⁴	UL 508
RY610	0.28 A, 250 Vdc, 70 °C	>3x10 ⁴	UL 508
RY531	6 (4) A, 250 Vac, 85 °C	1x10 ⁵	VDE 0631

Coil data

Nominal voltage	5...48 Vdc
Nominal coil power	approx. 220 mW
Operate category	2 / b

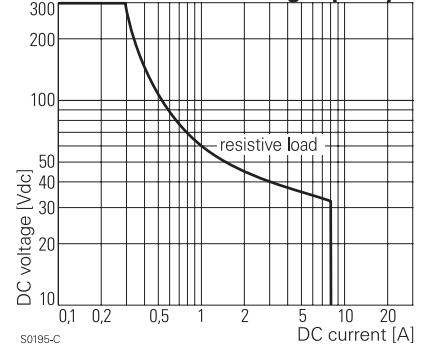
Coil versions

Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Release voltage Vdc	Maximum voltage Vdc	Coil resistance Ω	Coil current mA
005	5	3.5	0.5	11.8	113±10%	44.0
006	6	4.2	0.6	14.1	164±10%	36.7
012	12	8.4	1.2	28.2	620±10%	19.3
024	24	16.8	2.4	56.4	2350±10%	10.2
048	48	33.6	4.8	112.8	9600±10%	5.0

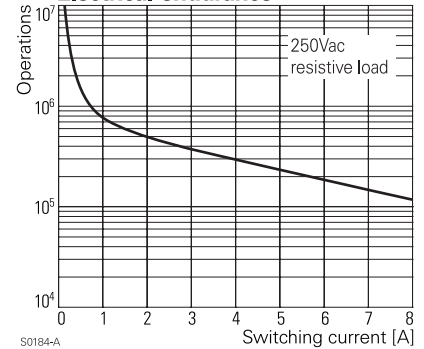
All figures are given for coil without preenergization, at ambient temperature +20°C

Other coil voltages on request

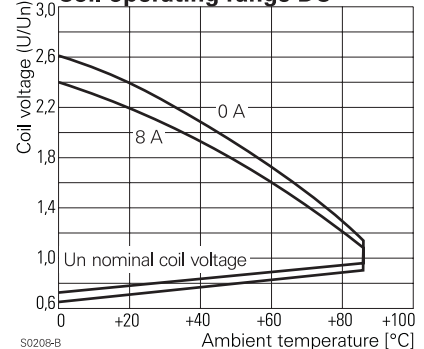
Max. DC load breaking capacity



Electrical endurance



Coil operating range DC



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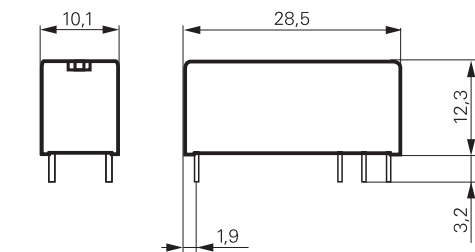
Insulation		
Dielectric strength	coil-contacts	5000 V _{rms}
	open contact circuit	1000 V _{rms}
Clearance / creepage		8 / 8 mm
Insulation to IEC 60664		
Voltage rating		250 V
Pollution degree		3
Overvoltage category		III
Insulation to VDE 0110b (2/79)		
Insulation category / reference voltage		C / 250
Tracking resistance of relay base		CTI 250

Other data	
Ambient temperature	-40...+70 °C (+85°C at 4 A)
Mechanical life	30x10 ⁶ operations
Max. switching rate at rated- / minimum load	6 min ⁻¹ / 20 s ⁻¹
Operate- / release time	7 / 3 ms
Bounce time N/O contact	1 ms
Vibration resistance N/O / N/C contact	20 / 5 g, 10...500 Hz
Shock resistance (destruction)	100 g
Category of protection (IEC 61810)	RT II - flux proof, RT III - wash tight
Relay weight	8 g
Packaging unit	20 / 500 pcs.
Accessories	see accessories RY

Dimensions

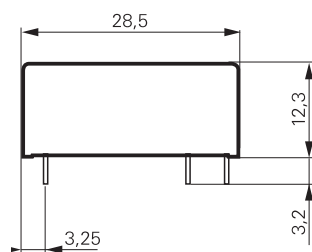
Dimensions in mm

Pinning 3.2 mm



S0274-AA

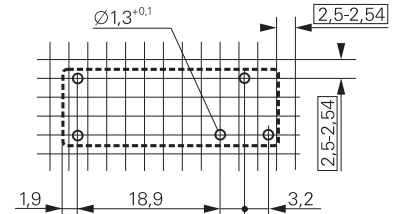
Pinning 5 mm



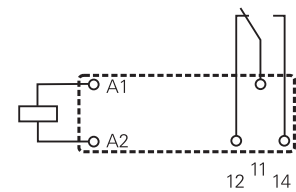
S0274-AB

PCB layout / terminal assignment

1 C/O contact, 3.2 mm

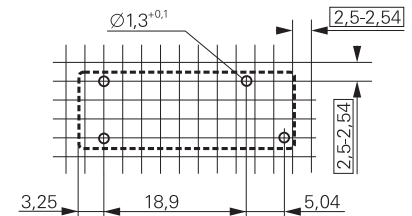


S0254-AA

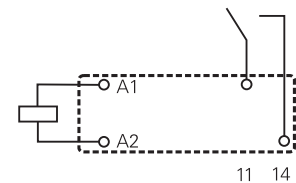


S0254-AB

1 N/O contact, 5 mm



S0254-AC



S0254-AD

View on solder pins
Dimensions in mm

Product key

Type

Version

2 pinning 3.2 mm, flux proof
5 pinning 5 mm, flux proof

6 pinning 3.2 mm, wash tight
A pinning 5 mm, wash tight

Contacts

1 1 C/O contact, pinning 3.2 mm

3 1 N/O contact, pinning 5 mm

Contact material

0 AgCdO

2 AgNi0.15 gold plated

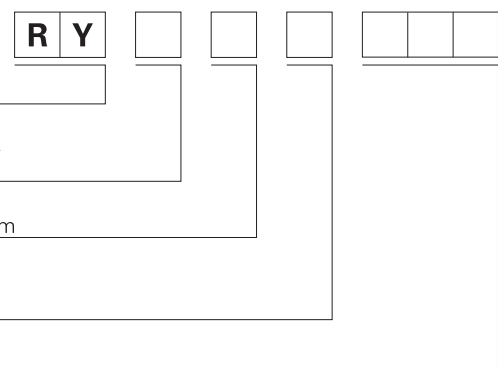
1 AgNi0.15

3 AgSnO₂

Coil

Coil code: please refer to coil versions table

Other types on request



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Product key	Version	Contacts	Contact material	Coil	Part number		
RY210005	pinning 3.2 mm flux proof	1 C/O 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	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 N/O 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 C/O 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	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 N/O 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	5 Vdc	1-1393224-9	
RYA33024			24 Vdc		2-1393224-1		