

**Miniature Power PCB RY II & RY II reflow solderable**

- 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
- Reflow-solderable version
- Sockets with PCB-type terminals
- Especially suitable for resistive and inductive loads on NO and NC contacts
- Plastic materials according to IEC60335-1 (domestic appliances, not in reflow-solderable version)



F0142-E

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

**Approvals**

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

**Contact data**

Contact configuration	1 CO or 1NO or 1NC
Contact set	single contact
Type of interruption	micro disconnection
Rated voltage / max. switching voltage AC	250 / 400 VAC
Rated current	8 A
Maximum breaking capacity AC	2000 VA
Contact material	AgNi0.15, AgSnO <sub>2</sub>
Rated frequency of operation with / without load	6 / 1200 min <sup>-1</sup>
Operate- / release time	max. 9 / 5 ms
Bounce time NO / NC contact	max. 6 / 10 ms

**Contact ratings**

Type	Contact	Load	Ambient temp. [°C]	Cycles
<b>IEC 61810</b>				
RY531	NO	8 A, 250 VAC	70°C	100x10 <sup>3</sup>
RY211	NO	8 A, 250 VAC	70°C	75x10 <sup>3</sup>
RY211	NC	8 A, 250 VAC	70°C	50x10 <sup>3</sup>
<b>UL 508</b>				
RY211	NO / NC	10 A, 250 VAC, general purpose	70°C	30x10 <sup>3</sup>
RY211	NO	1/2 hp, 240 VAC	85°C	30x10 <sup>3</sup>
RY211	NO / NC	B300	70°C	6x10 <sup>3</sup>
<b>EN60730-1</b>				
RY211	NO / NC	6(4)A, 250 VAC	85°C	100x10 <sup>3</sup>
RY211	NO	8(4)A, 250 VAC	75°C	100x10 <sup>3</sup>

**Coil data**

Rated coil voltage range DC coil	5...60 VDC
Operative range to IEC 61810	2

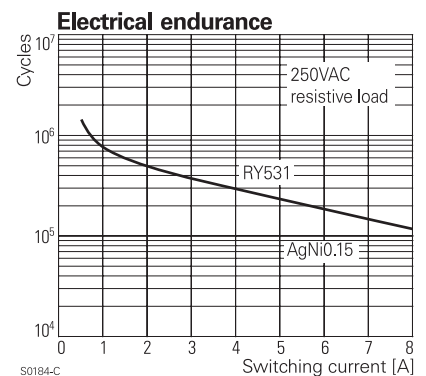
**Coil versions, DC-coil**

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

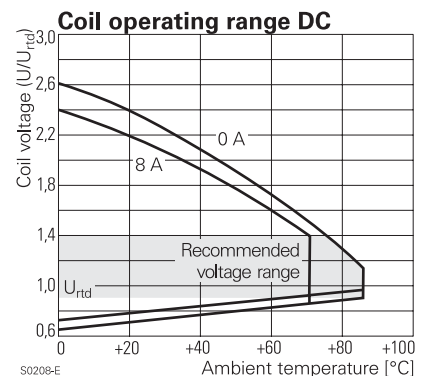
All figures are given for coil without preenergization, at ambient temperature +23°C  
 Other coil voltages on request



S0195-D



S0184-C



S0208-E

**Miniature Power PCB RY II & RY II reflow solderable (Continued)**

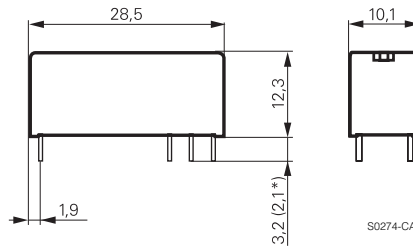
Insulation	CO contact	NO contact
Dielectric strength coil-contact circuit		5000 V <sub>eff</sub>
open contact circuit		1000 V <sub>eff</sub>
Clearance / creepage coil-contact circuit		≥ 8 / 8 mm
Material group of insulation parts		IIIa
Tracking index of relay base		PTI250, PTI 175*
Insulation to IEC 61810-1		
Type of insulation coil-contact circuit		reinforced
open contact circuit		micro disconnection
Rated insulation voltage	250 V	250 V
Pollution degree	3	2
Rated voltage system	230 V	230 / 400 V
V		3
Overvoltage category	III	III

Other data		
Mechanical endurance	30x10 <sup>6</sup> cycles	
Material		
RoHS - Directive 2002/95/EC	compliant as per product date code 0403	
Resistance to heat and fire	according EN60335, par.30**	
Environment		
Ambient temperature range	-40...+70°C	
Ambient temperature max.	85°C at 6A	
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**	
Processing		
Mounting	pcb	
Mounting position	any	
Minimum mounting distance	≥ 0 mm	
Soldering heat resistance flux proof version	270°C / 10 s	
wash tight version	260°C / 5 s	
Relay weight	8 g	
Packaging unit, standard version	20 / 500 pcs	
reflow version	1120 pcs	

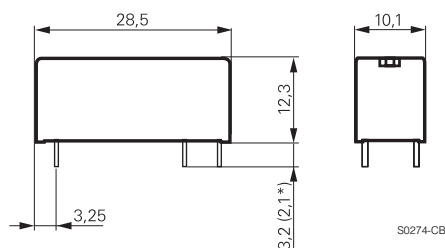
Accessoires	
For technical details see datasheet	Accessoires RYII
* reflow-solderable version	
** not as reflow-solderable version	

**Dimensions**

Pinning 3.2 mm

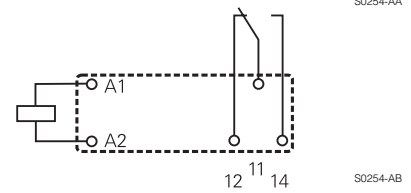
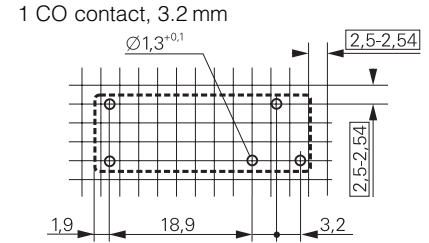


Pinning 5 mm

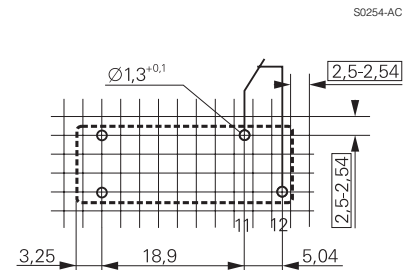
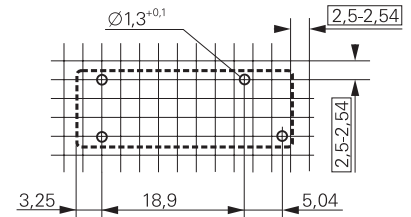


**PCB layout / terminal assignment**

Bottom view on solder pins

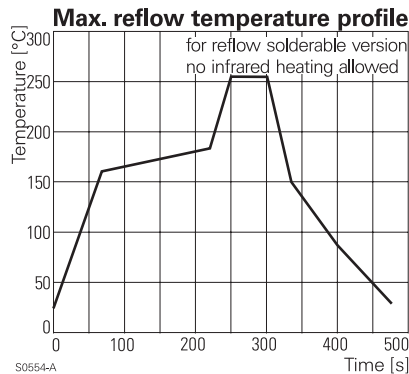


1 NO, 1 NC contact 5 mm



**Miniature Power PCB RY II & RY II reflow solderable** (Continued)

**Soldering profile for reflow-solderable version**



**Product key**

Typical product key

**RY 6 1 1 012**

**Type**

**RY** Miniature Power PCB Relay RY II & RY II reflow-solderable

**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 \*\*)

**Contact configuration**

**1** 1 CO contact (1 form C), pinning 3.2 mm

**3** 1 NO contact (1 form A), pinning 5 mm

**Contact material**

**1** AgNi 0.15  
**3** AgSnO<sub>2</sub>

**2** AgNi 0.15 gold plated

**Coil**

Coil code: please refer to coil versions table

**Version**

**Blank** standard version  
**R** reflow-solderable

\*\* ) not as reflow-solderable version  
Other types on request

**Referencias Electrónica Embajadores:**

(1 circuito no conmutado de 8A - 4 pines)

RY610005: RL3A605                    5 VCC  
RY610012: RL3A612                    12 VCC  
RY610024: RL3A624                    24 VCC  
RY610048: RL3A648                    48 VCC

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Product key	Version	Contacts	Contact material	Coil	Part number			
RY211005	pinning 3.2 mm flux proof	1 CO contact	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			
RY531005			pinning 5 mm flux proof	1 NO contact	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	AgSnO <sub>2</sub>	48 VDC			9-1393224-0			
RY611005		pinning 3.2 mm wash tight			1 CO contact	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				
RYA31005	pinning 5 mm wash tight		1 NO contact	AgNi 0.15		5 VDC	1393224-7	
RYA31012						12 VDC	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			

**Referencias Electrónica Embajadores:**

(1 circuito no conmutado de 8A - 4 pines)

RY610005: RL3A605	5 VCC
RY610012: RL3A612	12 VCC
RY610024: RL3A624	24 VCC
RY610048: RL3A648	48 VCC