# 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 or screw-type terminals**
- **Especially suitable for resistive and inductive loads on NO and NC contacts**
- **Plastic materials according to IEC60335-1 (domestic appliances) (not at reflow-solderable version)**
- **RoHS compliant (Directive 2002/95/EC) as per product date code 0403**
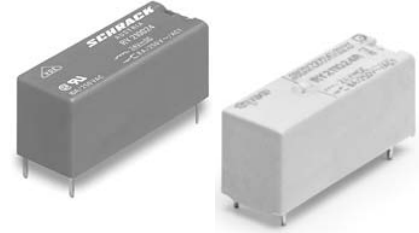
Applications: heating control, interface technology, domestic appliances, timers, temperature control

F0142-C

Approvals

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

Contact data
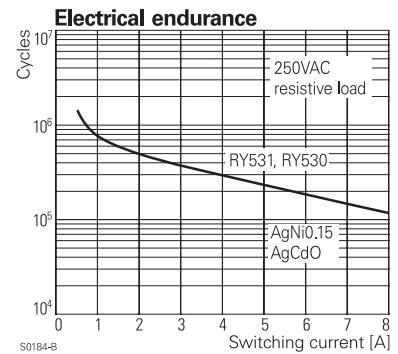
Contact configuration	1 CO or 1NO or 1NC
Contact set	single contact
Type of interruption	micro disconnection
Rated current	8 A
Rated voltage / max. switching voltage AC	250/400 VAC
Maximum breaking capacity AC	2000 VA
Contact material	AgNi0.15, AgSnO$_2$, AgCdO
Mechanical endurance	30×10^6 cycles
Rated frequency of operation with / without load	6 / 1200 min^{-1}

Max. DC load breaking capacity

resistive load

S0195-D

DC voltage [VDC] / DC current [A]
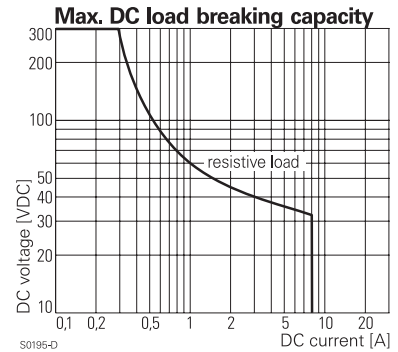
Contact ratings

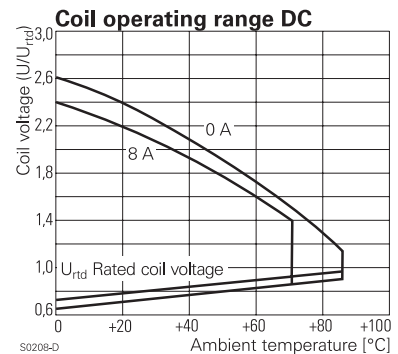| Type	Load	Cycles
RY**1***	NO, 8 A, 250 VAC, resistive, 70°C	1×10^5
RY**1***	NC, 8 A, 250 VAC, resistive, 70°C	5×10^4
RY**(0,1,2)***	8 A, 30 VDC, UL 508	3×10^4
RY**(0,1,2)***	0,28 A, 250 VDC, UL 508	3×10^4
RY**(0,1,2)***	1/2 HP, 240 VDC, UL 508	
RY**(0,1,2)***	1/4 HP, 120 VDC, UL 508	
RY**(0)***	8 A, 415 VAC, resistive, UL 508	6×10^3
RY**(0,1,2)***	Pilot duty - B300, UL 508	6000
RY*** ***	CO, 8 A, 250 VAC, resistive, 70°C	5×10^3
RY**1 ***	6(4)A, 250 VAC, 85°C, EN60730	1×10^5

Electrical endurance

250VAC resistive load

RY531, RY530

AgNi0.15 AgCdO

S0184-B

Cycles / Switching current [A]

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

Coil operating range DC

0 A

8 A

U$_{rtd}$ Rated coil voltage

S0208-D

Coil voltage (U/U$_{rtd}$) / Ambient temperature [°C]

1

Dimensions are in mm unless otherwise specified and are shown for reference purposes only.

Product specification according to IEC 61810-1. Product data, technical parameters, test conditions and

processing information only to be used together with the 'Definitions' at schrackrelays.com in the

'Schrack' section.

Specifications subject to change.

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

Insulation

Insulation	CO contact	NO contact
Dielectric strength coil-contact circuit	5000 V$_{eff}$	
open contact circuit	1000 V$_{eff}$	
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 60664-1		
Type of insulation coil-contact circuit	reinforced	
open contact circuit	functional	
Rated insulation voltage	250 V	250 V
Pollution degree	3 2	3
Rated voltage system	230 V 400 V	230 / 400 V
Overvoltage category	III	III

Other data

RoHS - Directive 2002/95/EC	compliant as per product date code 0403
Flammability class according to UL94	V-0
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	typ. 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
Soldering heat resistance flux proof version	270°C / 10 s
wash tight version	260°C / 5 s
Relay weight	8 g
Packaging unit	20 / 500 pcs

Accessoires

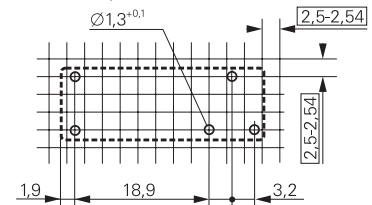|	
For technical details see datasheet	Accessoires RYII

* reflow-solderable version
** not as reflow-solderable version

Dimensions

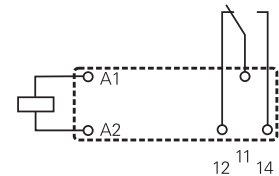Pinning 3.2 mm

S0274-CA

Pinning 5 mm

S0274-CB

PCB layout / terminal assignment
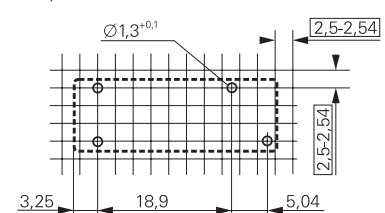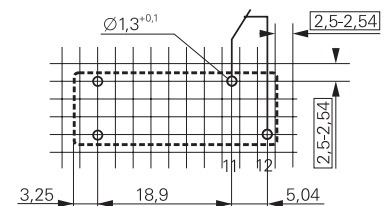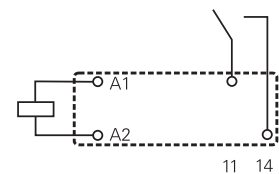Bottom view on solder pins

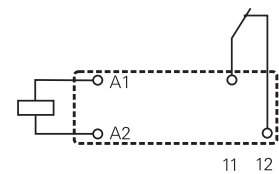1 CO contact, 3.2 mm

S0254-AA

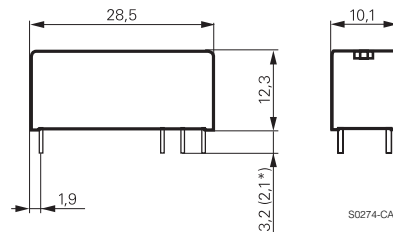S0254-AB

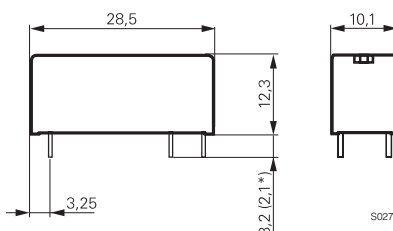1 NO, 1 NC contact 5 mm

S0254-AC

S0254-AE

S0254-AD
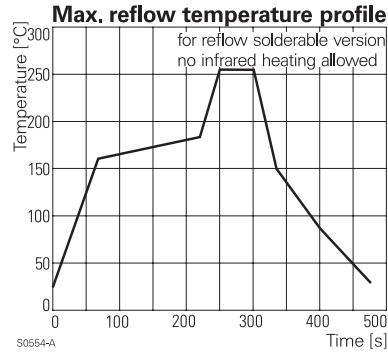

S0254-AF

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

Soldering profile for reflow-solderable version

Max. reflow temperature profile

for reflow solderable version
no infrared heating allowed

S0554-A

Product key

| | R | Y | | | | | | |

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 |
| | | **5** | 1 NC 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