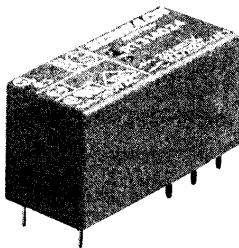


Power PCB Relay RT1

1 pole 12 / 16 A, DC- or AC-coil



F0144 B

Features

- 1 C/O or 1 N/O contact
- Sensitive coil 400 mW
- 5 kV / 10 mm coil-contact, Protection class II (VDE 0700)
- Ambient temperature 85°C (DC-coil)
- Height 15.7 mm
- Sockets with PCB-type or screw-type terminals
- Gold plated contacts available

Applications

Boiler control, timers, garage door control, POS automation, interface modules



Technical data of approved types on request

Contact data

Configuration	1 C/O contact or 1 N/O contact	
Type of contact	single contact	
Rated current	12 A	16 A
Rated voltage / max.breaking voltage AC	250 Vac / 440 Vac	
Maximum breaking capacity AC	3000 VA	4000 VA
Make current (max. 4 s at duty cycle 10%)	25 A	30 A
Contact material	AgNi 90/10, AgNi 90/10 gold plated	

Contact ratings

Type	Load	Operations
RT314	1000 W, 250 Vac, incandescent lamps	1.2×10^3
RT314	16 A, 250 Vac, $\cos\phi=1$, N/C contact	53×10^3
RT314	10 A, 250 Vac, $\cos\phi=0.6$, C/O contact	2×10^5
RT314	5 A / 2 A, 250 Vac, $\cos\phi=1$, tumble-drier motor, N/O contact	1.1×10^6
RT314	0.26A _{peak} / 0.01 A, 230 Vac, $\cos\phi=0.38$, valve, N/O contact	7.6×10^6

Coil data

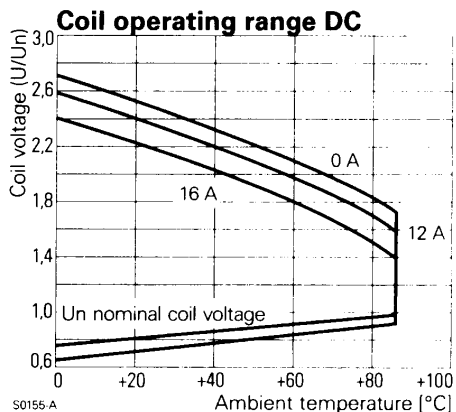
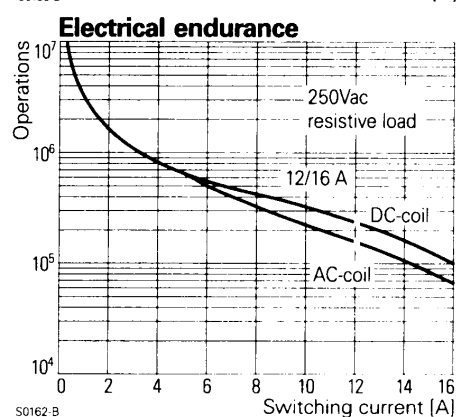
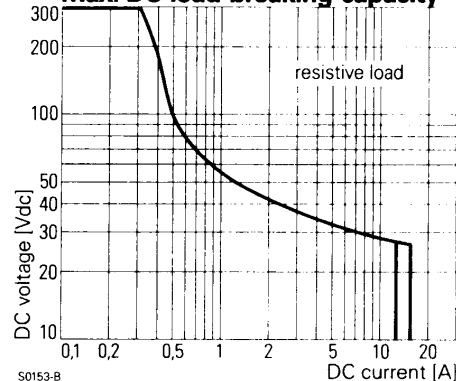
Nominal voltage	DC coil	5...110 Vdc
	AC coil	24...230 Vac
Nominal coil power	DC coil	400 mW
	AC coil	0.75 VA
Operate category	2 / b	

Coil versions, DC-coil

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	12.7	$62 \pm 10\%$	80.0
006	6	4.2	0.6	15.3	$90 \pm 10\%$	66.7
012	12	8.4	1.2	30.6	$360 \pm 10\%$	33.3
024	24	16.8	2.4	61.2	$1440 \pm 10\%$	16.7
048	48	33.6	4.8	122.4	$5520 \pm 10\%$	8.7
060	60	42.0	6.0	153.0	$7340 \pm 12\%$	8.1
110	110	77.0	11.0	280.5	$26600 \pm 12\%$	4.1

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

Max. DC load breaking capacity



Power PCB Relay RT1

1 pole 12 / 16 A, DC- or AC-coil

Coil versions, AC-coil

Coil code	Nominal voltage Vac	Pull-in voltage Vac	Release voltage Vac	Maximum voltage Vac	Coil resistance Ω	Coil current mA
524	24	18.0	3.6	36.0	$350 \pm 10\%$	31.6
615	115	86.3	17.3	172.5	$8100 \pm 15\%$	6.6
730	230	172.5	34.5	345.0	$32500 \pm 15\%$	3.2

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

Insulation

Dielectric strength	coil-contacts	5000 V_{rms}
	open contact circuit	1000 V_{rms}
Clearance / creepage		10 / 10 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

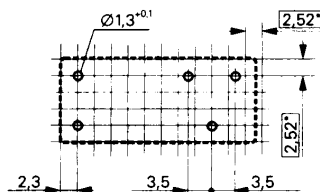
Other data

Flammability class according to UL 94	V-0
Coil insulation system according to UL 1446	Class F
Ambient temperature	DC-coil -40...+85 °C AC-coil -40...+70 °C
Mechanical life	DC-coil >30x10 ⁶ operations AC-coil >10x10 ⁶ operations

Max. switching rate at rated- / minimum load	6 min ⁻¹ / 1200 min ⁻¹
Operate- / release time DC-coil	typ. 7 / 3 ms
Bounce time N/O contact/N/C contact	typ. 1 / 3 ms
Vibration resistance N/O / N/C contact	20 / 5 g, 30...500 Hz
Shock resistance (destruction)	100 g
Category of protection (IEC 61810)	RT II, RT III
Relay weight	14 g
Packaging unit	20 / 500 pcs.
Accessories	see accessories RT

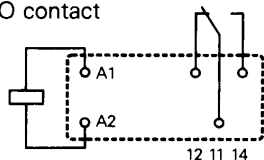
PCB layout / terminal assignment

12 A, pinning 3.5 mm



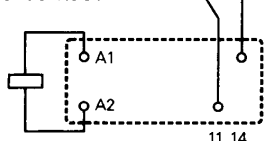
S0418-BB

1 C/O contact



S0163-BG

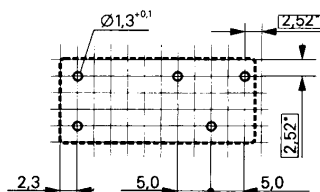
1 N/O contact



S0163-BH

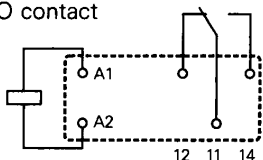
View on solder pins
Dimensions in mm

12 A, pinning 5 mm



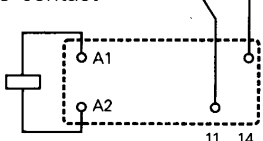
S0418-BN

1 C/O contact



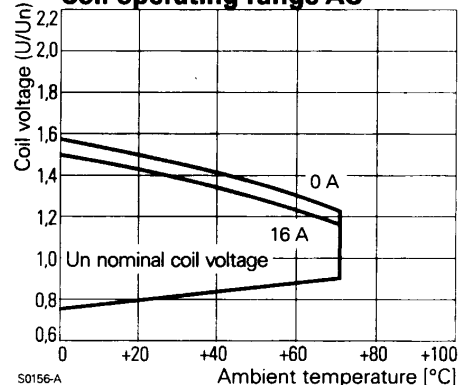
S0163-BC

1 N/O contact



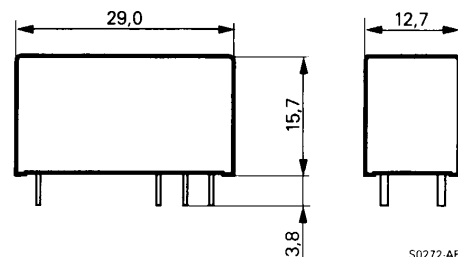
S0163-BD

Coil operating range AC



Dimensions

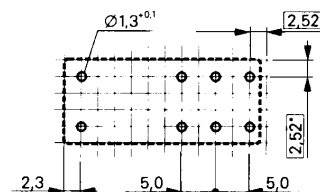
Dimensions in mm



S0272-AB

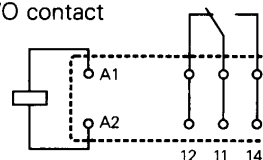
*) With the recommended PCB hole sizes a grid pattern from 2.5 mm to 2.54 mm can be used.

16 A, pinning 5 mm



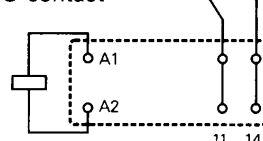
S0418-BA

1 C/O contact



S0163-BE

1 N/O contact



S0163-BF

Power PCB Relay RT1

1 pole 12 / 16 A, DC- or AC-coil

Product key

Type

Version

- | | |
|--|---|
| 1 12 A, pinning 3.5 mm, flux proof | B 12 A, pinning 3.5 mm, wash tight |
| 2 12 A, pinning 5 mm, flux proof *) | |
| 3 16 A, pinning 5 mm, flux proof | D 16 A, pinning 5 mm, wash tight |

Contacts

- | | |
|------------------------|------------------------|
| 1 1 C/O contact | 3 1 N/O contact |
|------------------------|------------------------|

Contact material

- | | |
|---------------------|--|
| 4 AgNi 90/10 | 5 AgNi 90/10 gold plated (for type RT31.) |
|---------------------|--|

Coil

Coil code: please refer to coil versions table

Preferred types in bold print

*) Washable version on request

	Product key	Version	Contacts	Cont. material	Coil	Coil	Part number
4/7561 4/7563	RT114005	12 A pinning 3.5 mm flux proof	1 C/O contact	AgNi 90/10	DC-coil	5 Vdc	0-1393239-7
	RT114006					6 Vdc	0-1393239-8
	RT114012					12 Vdc	0-1419108-1
	RT114024					24 Vdc	1-1393239-3
	RT114048					48 Vdc	1-1393239-4
4/7565	RT114110	12 A, pinning 5mm flux proof	1 C/O contact	AgNi 90/10	DC-coil	110 Vdc	1-1393239-6
	RT114524					24 Vac	1-1393239-7
	RT114615					115 Vac	1-1393239-8
	RT114730					230 Vac	1-1393239-9
	RT114012					12 Vdc	2-1393239-6
4/7566 4/7568	RT134024	16 A pinning 5 mm flux proof	1 C/O contact	AgNi 90/10 gold plated	DC-coil	24 Vdc	3-1393239-0
	RT214012					12 Vdc	5-1393239-4
	RT214024					24 Vdc	5-1393239-5
	RT314005					5 Vdc	9-1393239-1
	RT314006					6 Vdc	9-1393239-3
	RT314012	12 A pinning 3.5 mm wash tight	1 C/O contact	AgNi 90/10	DC-coil	12 Vdc	9-1393239-5
	RT314024					24 Vdc	9-1393239-8
	RT314048					48 Vdc	0-1393240-1
	RT314060					60 Vdc	0-1393240-2
	RT314110					110 Vdc	0-1393240-3
	RT314524	16 A pinning 5 mm wash tight	1 C/O contact	AgNi 90/10	AC-coil	24 Vac	0-1393240-4
	RT314615					115 Vac	0-1393240-6
	RT314730					230 Vac	0-1393240-7
	RT315012					12 Vdc	1-1393240-1
	RT315024					24 Vdc	1-1393240-4
	RT315730	12 A pinning 3.5 mm wash tight	1 N/O contact	AgNi 90/10	DC-coil	230 Vac	1-1419108-1
	RT334012					12 Vdc	4-1393240-5
	RT334024					24 Vdc	4-1393240-8
	RT334048					48 Vdc	5-1393240-0
	RTB14005					5 Vdc	1-1393238-2
	RTB14012	16 A pinning 5 mm wash tight	1 C/O contact	AgNi 90/10	DC-coil	12 Vdc	1-1393238-5
	RTB14024					24 Vdc	1-1393238-9
	RTB14048					48 Vdc	2-1393238-1
	RTD14005					5 Vdc	5-1393238-9
	RTD14006					6 Vdc	6-1393238-0
	RTD14012	12 A pinning 3.5 mm wash tight	1 N/O contact	AgNi 90/10	DC-coil	12 Vdc	6-1393238-2
	RTD14015					15 Vdc	6-1393238-4
	RTD14024					24 Vdc	6-1393238-8
	RTD14048					48 Vdc	6-1393238-9
	RTD34005					5 Vdc	8-1393238-3
	RTD34012	16 A pinning 5 mm wash tight	1 N/O contact	AgNi 90/10	DC-coil	12 Vdc	3-1419108-5
	RTD34024					24 Vdc	3-1419108-8