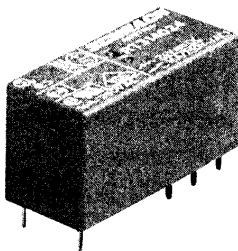


Power PCB Relay RT1

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	1.2x10 ³
RT314	16 A, 250 Vac, cosφ=1, N/C contact	53x10 ³
RT314	10 A, 250 Vac, cosφ=0.6, C/O contact	2x10 ⁵
RT314	5 A / 2 A, 250 Vac, cosφ=1, tumble-drier motor, N/O contact	1.1x10 ⁶
RT314	0.26A _{peak} / 0.01 A, 230 Vac, cosφ=0.38, valve, N/O contact	7.6x10 ⁶

Coil data

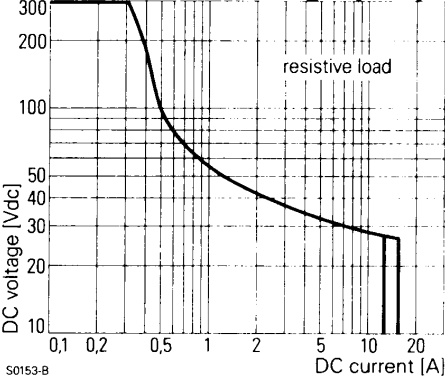
Nominal voltage	DC coil	5...110 Vdc
	AC coil	24...230 Vac
Nominal coil power	DC coil	400 mW
	AC coil	0.75 VA
Operate category	2 / b	

Coil versions, DC-coil

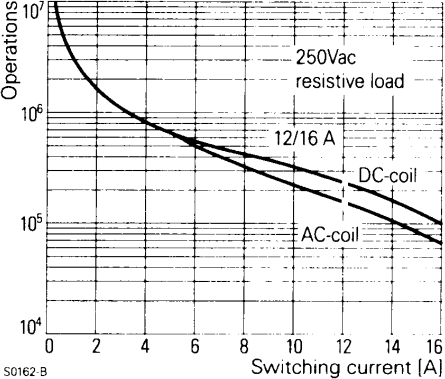
Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Release voltage Vdc	Maximum voltage Vdc	Coil resistance Ω	Coil current mA
005	5	3.5	0.5	12.7	62±10%	80.0
006	6	4.2	0.6	15.3	90±10%	66.7
012	12	8.4	1.2	30.6	360±10%	33.3
024	24	16.8	2.4	61.2	1440±10%	16.7
048	48	33.6	4.8	122.4	5520±10%	8.7
060	60	42.0	6.0	153.0	7340±12%	8.1
110	110	77.0	11.0	280.5	26600±12%	4.1

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

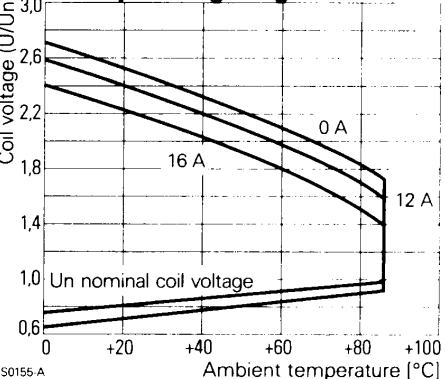
Max. DC load breaking capacity



Electrical endurance



Coil operating range DC



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±10%	31.6
615	115	86.3	17.3	172.5	8100±15%	6.6
730	230	172.5	34.5	345.0	32500±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

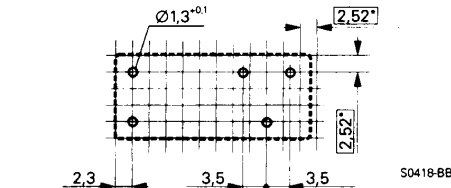
Other data

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

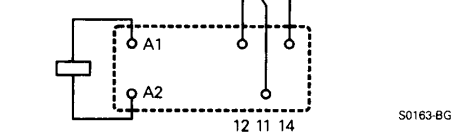
Max. switching rate at rated- / minimum load	6 min ⁻¹ / 1200 min ⁻¹
Operate- / release time DC-coil	typ. 7 / 3 ms
Bounce time N/O contact/N/C contact	typ. 1 / 3 ms
Vibration resistance N/O / N/C contact	20 / 5 g, 30...500 Hz
Shock resistance (destruction)	100 g
Category of protection (IEC 61810)	RT II,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

PCB layout / terminal assigment

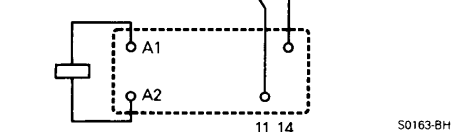
12 A, pinning 3.5 mm



1 C/O contact

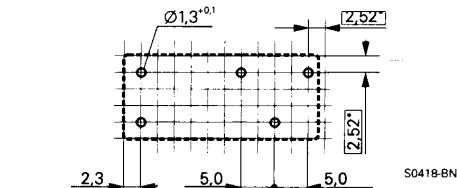


1 N/O contact

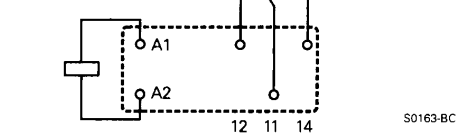


View on solder pins
Dimensions in mm

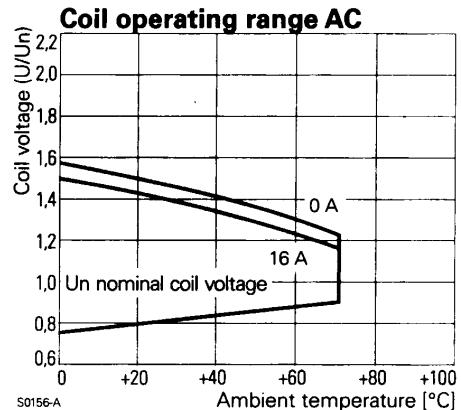
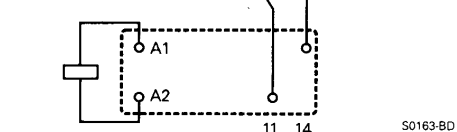
12 A, pinning 5 mm



1 C/O contact

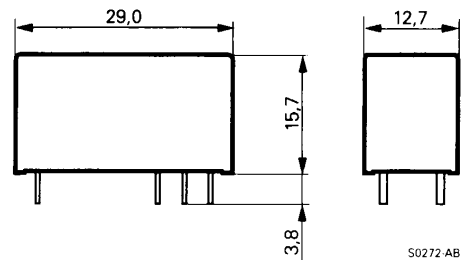


1 N/O contact



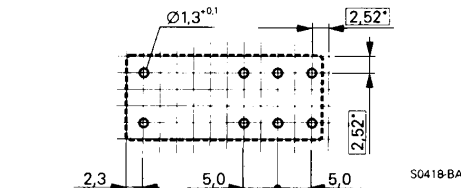
Dimensions

Dimensions in mm

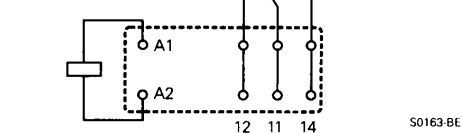


*) With the recommended PCB hole sizes a grid pattern from 2.5 mm to 2.54 mm can be used.

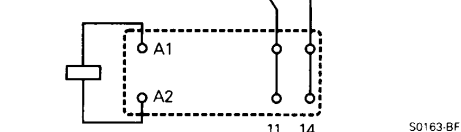
16 A, pinning 5 mm



1 C/O contact



1 N/O contact



Power PCB Relay RT1

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

R	T					
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Type					
Version	1 12 A, pinning 3.5 mm, flux proof 2 12 A, pinning 5 mm, flux proof *) 3 16 A, pinning 5 mm, flux proof B 12 A, pinning 3.5 mm, wash tight 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			
	RT114110					110 Vdc	1-1393239-6			
4/7565	RT114524	12 A, pinning 5mm flux proof	1 C/O contact	AgNi 90/10	AC-coil	24 Vac	1-1393239-7			
4/7567	RT114615					115 Vac	1-1393239-8			
	RT114730					230 Vac	1-1393239-9			
	RT134012					12 Vdc	2-1393239-6			
	RT134024					24 Vdc	3-1393239-0			
4/7566 4/7568	RT214012					16 A pinning 5 mm flux proof	1 C/O contact	AgNi 90/10	DC-coil	12 Vdc
	RT214024	24 Vdc	5-1393239-5							
	RT314005	5 Vdc	9-1393239-1							
	RT314006	6 Vdc	9-1393239-3							
	RT314012	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	AC-coil	24 Vac	0-1393240-4						
	RT314615	115 Vac	0-1393240-6							
	RT314730	230 Vac	0-1393240-7							
	RT315012	DC-coil	12 Vdc	1-1393240-1						
	RT315024	24 Vdc	1-1393240-4							
	RT315730	AC-coil	230 Vac	1-1419108-1						
	RT334012	1 N/O contact	AgNi 90/10	DC-coil	12 Vdc					4-1393240-5
	RT334024	24 Vdc			4-1393240-8					
	RT334048	48 Vdc			5-1393240-0					
RTB14005	12 A pinning 3.5 mm wash tight	1 C/O contact			5 Vdc	1-1393238-2				
RTB14012					12 Vdc	1-1393238-5				
RTB14024					24 Vdc	1-1393238-9				
RTB14048					48 Vdc	2-1393238-1				
RTD14005					16 A pinning 5 mm wash tight	5 Vdc	5-1393238-9			
RTD14006						6 Vdc	6-1393238-0			
RTD14012	12 Vdc	6-1393238-2								
RTD14015	15 Vdc	6-1393238-4								
RTD14024	24 Vdc	6-1393238-8								
RTD14048	48 Vdc	6-1393238-9								
RTD34005	1 N/O contact	5 Vdc			8-1393238-3					
RTD34012		12 Vdc			3-1419108-5					
RTD34024		24 Vdc			3-1419108-8					