

Power Relay RM 5/6/B 3mm

- 2 and 3 pole 10/16A, 2 form A (2 NO) or 3 form A (3 NO) contacts
- 3mm contact gap
- DC or AC coil
- Push-to-test button
- Plug-in version, PCB terminals, chassis or DIN rail mount

Typical applications
Power supplies, pump control.



Approvals

VDE Cert. No. 40003144, UL E214025
Technical data of approved types on request.

Contact Data	RM5	RM6	RMB
Contact arrangement	2 form A 2 NO	3 form A 3 NO	3 form A 3 NO
Contact gap	3mm	3mm	3mm
Rated voltage	400VAC	230VAC	230VAC
Max. switching voltage	440VAC	400VAC	400VAC
Rated current	16A	10A	16A
Limiting making current, max 20ms	30A	25A	30A
Switching power	6000VA	3800VA	6000VA
Contact material	AgNi90/10		
Min. recommended contact load	24VDC/100mA		
Frequency of operation, with/without load	960/6000h ⁻¹		
Operate/release time max., DC coil	20/5ms		
Bounce time max., form A, DC coil	4ms		

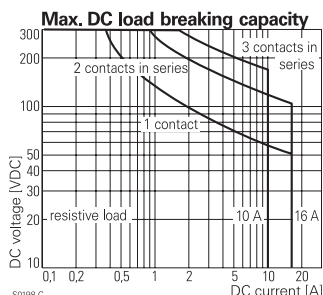
Contact ratings

Type	Contact	Load	Cycles
IEC 61810			
RM5	A (NO)	16A, 230/400VAC, cosφ=1, 35°C	100x10 ³
RM5 (DC)	A (NO)	12A, 400VAC, cosφ=1, same. pol., 70°C	100x10 ³
RM5	A (NO)	10A, 48VDC, 70°C	30x10 ³
RM5	A (NO)	10A, 400VAC, 70°C	30x10 ³
RM6	A (NO)	10A, 230/400VAC, cosφ=1, 35°C to 50°C	100x10 ³
RM6 (DC)	A (NO)	12A, 400VAC, cosφ=1, same. pol., 50°C	100x10 ³
RMB	A (NO)	16A, 400VAC same polarity, cosφ=1, 40°C	100x10 ³

UL 508

RM5	A (NO)	16A, 415VAC, resistive, 50°C	100x10 ³
RM5	A (NO)	16A, 277VAC, general purpose, 50°C	30x10 ³
RM6	A (NO)	10A, 415VAC, resistive, DC-coil, 70°C	100x10 ³
RM6	A (NO)	10A, 415VAC, resistive, AC-coil, 50°C	100x10 ³
RM6	A (NO)	10A, 277VAC, gen. purp., DC-coil, 70°C	30x10 ³
RM6	A (NO)	10A, 277VAC, gen. purp., AC-coil, 50°C	30x10 ³
RMB	A (NO)	16A, 277VAC, general purpose, 25°C	30x10 ³

Mechanical endurance	
DC coil	15x10 ⁶ operations
AC coil	10x10 ⁶ operations



Coil Data

Coil voltage range	6 to 220 VDC 12 to 400 VAC
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Operative range, IEC 61810	90 to 100% of rated coil voltage
Coil insulation system according UL	class 130 (B)

Coil versions, DC coil

STD	LED bipolar	Coil code PD ²⁾	LED+ PD ²⁾	Rated voltage VDC	Coil resistance Ω±10% ¹⁾	Rated power W
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Coil versions, DC coil, RM5, RM6

006	L06	0A6	LA6	6	24	1.5
012	L12	0B2	LB2	12	86	1.7
024	L24	0C4	LC4	24	345	1.7
048	L48	0E8	LE8	48	1340	1.7
060	L60	0G0	LG0	60	2200	1.6
110	M10	1B0	MB0	110	7300	1.7
221	N21	2C1	NC1	220	30000 ¹⁾	1.6

Coil versions, DC coil, RMB

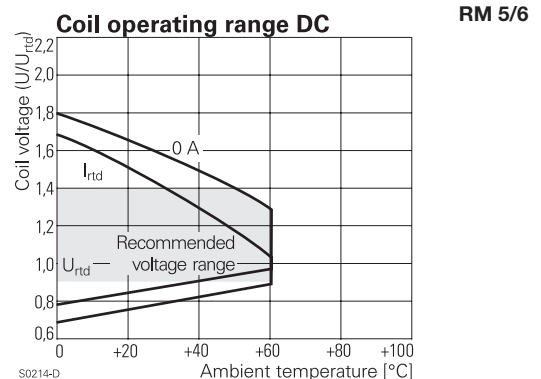
012	-	-	-	12	62.6	2.3
024	-	-	-	24	250	2.3

Operate voltage, DC coil	75% of rated coil voltage
Release voltage, DC coil	10% of rated coil voltage

1) Coil resistance ±15%,

2) Protection diode PD; standard polarity: +A1 / -A2.

All figures are given for coil without pre-energization, at ambient temperature +23°C.



Power Relay RM 5/6/B 3mm (Continued)

Coil Data (continued)

Coil versions, AC coil

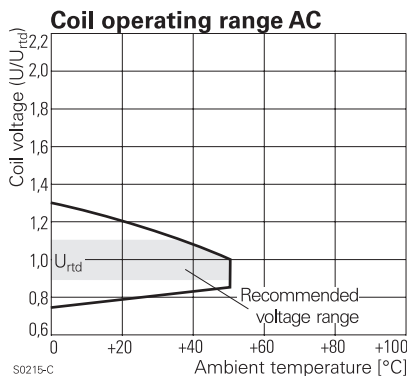
Coil code	Rated voltage	Operate voltage	Release voltage	Coil resistance	Rated coil power
STD LED	VAC	50/60Hz VAC	50/60Hz VAC	$\Omega \pm 10\%^{1)}$	50/60Hz VA

Coil versions, AC-coil, RM5, RM6

512	R12	12	9.6/10.2	3.6	19.5	2.71/2.27
524	R24	24	19.2/20.4	7.2	80	2.62/2.00
548	R48	48	38.4/40.8	14.4	320	2.60/2.17
560	R60	60	48.0/51.0	18.0	500	2.62/2.20
615	S15	115	92.0/97.8	34.5	1850	2.65/2.22
730	T30	230	184.0/195.5	69.0	7500	2.69/2.26
900	V00	400	320.0/340.0	120.0	23500 ¹⁾	2.61/2.20

1) Coil resistance $\pm 15\%$.

All figures are given for coil without pre-energization, at ambient temperature $+23^{\circ}\text{C}$.



Insulation Data	RM5	RM6	RMB
Initial dielectric strength			
between open contacts	2500Vrms	2500Vrms	2500Vrms
between contact and coil	2500Vrms	2500Vrms	2500Vrms
between adjacent contacts	2500Vrms	2500Vrms	2500Vrms
Initial surge withstand voltage	4000V	4000V	4000V
between contact and coil	5000V	4000V	4000V
between adjacent contacts, RM5	6000V	-	-
Clearance/creepage			
between contact and coil		$\geq 4.0/14.9\text{mm}$	
between adjacent contacts		$\geq 6.1/7.3\text{mm}$	
Material group of insulation parts		IIIa	

Other Data	RM5	RM6	RMB
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter			
Ambient temperature for mounting/handling		-20 to 40°C	
in operation			
DC coil	-40 to 50°C	-40 to 60°C	-40 to 40°C
AC coil	-40 to 50°C	-40 to 50°C	-
Category of environmental protection IEC 61810		RTI - dust protected	
Vibration resistance (functional)		12 g, 30 to 150 Hz	
Terminal type		PCB-THT, plug-in, quick-connect (QC)	
Cover retention, pull/push force		100/100N	
Mounting position		versions with test button not to be mounted with button on top	
Weight		81g	
Resistance to soldering heat THT IEC 60068-2-20		$270^{\circ}\text{C}/10\text{s}$	
Packaging unit		10/25 pcs.	

Accessories

Sockets for Plug-in version RM**2:

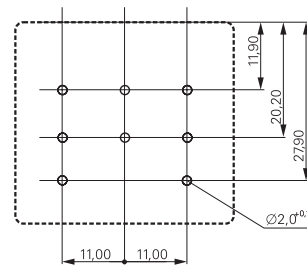
For details see datasheet

[Accessories Power Relay RM](#)

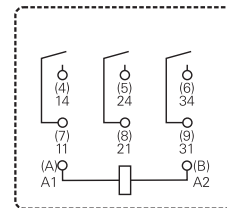
Note: indicated contact ratings and electrical endurance data for direct wiring of relays (according IEC 61810-1); for relays mounted on sockets deratings may apply.

PCB layout / terminal assignment

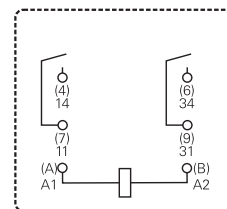
Bottom view on pins



3 form A (3 NO) contacts



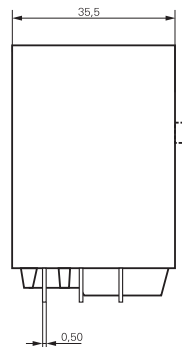
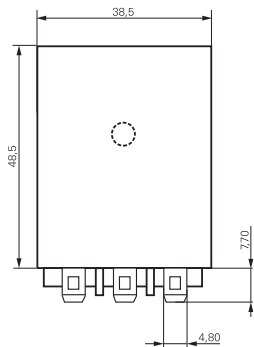
2 form A (2 NO) contacts



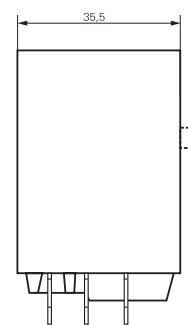
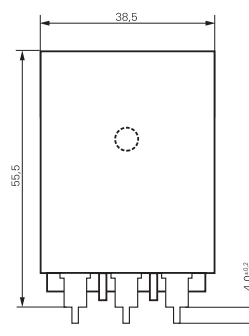
Power Relay RM 5/6/B 3mm (Continued)

Dimensions

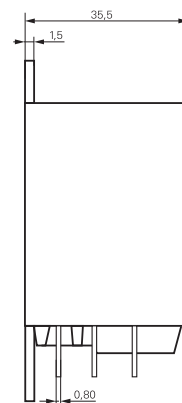
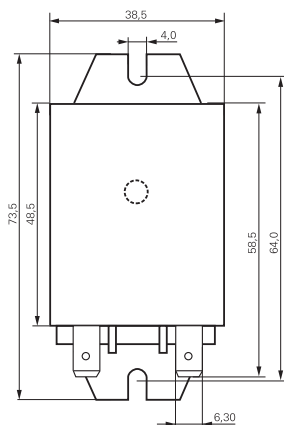
Plain cover, plug-in version



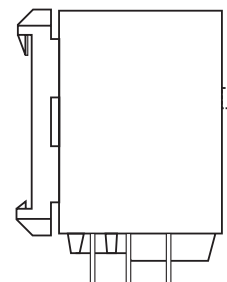
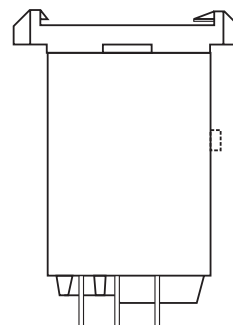
PCB version



Cover with mounting brackets, 6.3mm quick connect (4.8mm available)



Cover with DIN-snap-on attachment (6.3mm quick connect only)
horizontal vertical



Product code structure

Typical product code **RM 5 2 2 524**

Type		RM Power relay RM5/6/B 3mm	
Contact arrangement			
5	2 form A contacts (2 NO), 16A	6	3 form A contacts (3 NO), 10A
		B	3 form A contacts (3 NO), 16A
Version			
0	Discontinued: AgCdO, without test button, without mechanical indicator ¹⁾		
2	AgNi90/10, without test button, without mechanical indicator		
3	Discontinued: AgCdO, with test button, without mechanical indicator ¹⁾		
7	AgNi90/10, with test button, without mechanical indicator		
Enclosure			
2	Plain cover, 4.8mm quick connect terminals, Plug-in version (see Accessories Power Relay RM)		
3	Cover with mounting brackets, 4.8mm quick connect terminals		
5	Cover with mounting brackets, 6.3mm quick connect terminals		
7	PCB version		
8	Cover with DIN-snap-on attachment, horizontal, 6.3mm quick connect terminals		
9	Cover with DIN-snap-on attachment, vertical, 6.3mm quick connect terminals		
Coil			
Coil code: please refer to coil versions table			

¹⁾ AgCdO contacts are discontinued and replaced with AgNi contacts (see PCN E-18-003016)

Power Relay RM 5/6/B 3mm (Continued)

Product code	Contacts	Cont. material	Version	Enclosure	Coil	Coil voltage	Part number
RM522012	2 form A	AgNi	Without	Plain cover	DC-coil	12VDC	2-1415546-4
RM522024	2 NO contacts	AgNi	test button	4.8 mm terminal	DC-coil	24VDC	2-1415547-2
RM525012		AgNi		Mounting brackets	DC-coil	12VDC	5-1415544-6
RM525024		AgNi		quick con. 6.3 mm	DC-coil	24VDC	8-1415545-7
RM525730		AgNi			AC-coil	24VAC	2-1415546-5
RM527024		AgNi		PCB version	DC-coil	24VDC	2-1415546-6
RM528730		AgNi		DIN-snap-on	AC-coil	230VAC	2-1415546-7
				horizontal			
RM622024	3 form A	AgNi	Without	Plain cover	DC-coil	24VDC	2-1415546-8
	3 NO contacts		test button	4.8 mm terminal			
RM627012		AgNi		PCB version	DC-coil	12VDC	2-1415546-9
RM627024		AgNi			DC-coil	24VDC	5-1415538-2
RM627730		AgNi			AC-coil	230VAC	3-1415546-0
RMB27012	3 form A	AgNi	W/o test button	PCB version	DC-coil	12VDC	2-1415547-7
RMB27024	3 NO contacts	AgNi	W/o mech. Indicator	16A	DC-coil	24VDC	5-1415546-5

This list represents the most common types and does not show all variants covered by this datasheet.

Other types on request