

**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.



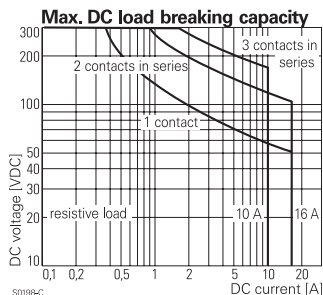
**Approvals**

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 <sup>-1</sup>		
Operate/release time max., DC coil	20/5ms		
Bounce time max., form A, DC coil	4ms		

**Contact ratings**

Type	Contact	Load	Cycles
<b>IEC 61810</b>			
RM5	A (NO)	16A, 230/400VAC, cosφ=1, 35°C	100x10 <sup>3</sup>
RM5 (DC)	A (NO)	12A, 400VAC, cosφ=1, same. pol., 70°C	100x10 <sup>3</sup>
RM5	A (NO)	10A, 48VDC, 70°C	30x10 <sup>3</sup>
RM5	A (NO)	10A, 400VAC, 70°C	30x10 <sup>3</sup>
RM6	A (NO)	10A, 230/400VAC, cosφ=1, 35°C to 50°C	100x10 <sup>3</sup>
RM6 (DC)	A (NO)	12A, 400VAC, cosφ=1, same. pol., 50°C	100x10 <sup>3</sup>
RMB	A (NO)	16A, 400VAC same polarity, cosφ=1, 40°C	100x10 <sup>3</sup>
<b>UL 508</b>			
RM5	A (NO)	16A, 415VAC, resistive, 50°C	100x10 <sup>3</sup>
RM5	A (NO)	16A, 277VAC, general purpose, 50°C	30x10 <sup>3</sup>
RM6	A (NO)	10A, 415VAC, resistive, DC-coil, 70°C	100x10 <sup>3</sup>
RM6	A (NO)	10A, 415VAC, resistive, AC-coil, 50°C	100x10 <sup>3</sup>
RM6	A (NO)	10A, 277VAC, gen. purp., DC-coil, 70°C	30x10 <sup>3</sup>
RM6	A (NO)	10A, 277VAC, gen. purp., AC-coil, 50°C	30x10 <sup>3</sup>
RMB	A (NO)	16A, 277VAC, general purpose, 25°C	30x10 <sup>3</sup>
<b>Mechanical endurance</b>			
DC coil			15x10 <sup>6</sup> operations
AC coil			10x10 <sup>6</sup> operations



**Coil Data**

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

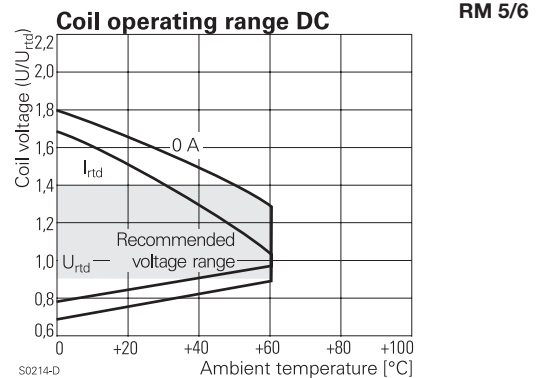
**Coil versions, DC coil**

STD	LED bipolar	Coil code	Rated voltage VDC	Coil resistance Ω±10% <sup>1)</sup>	Rated power W
		PD <sup>2)</sup>			
		LED+			
		PD <sup>2)</sup>			
<b>Coil versions, DC coil, RM5, RM6</b>					
006	L06	0A6	6	24	1.5
012	L12	0B2	12	86	1.7
024	L24	0C4	24	345	1.7
048	L48	0E8	48	1340	1.7
060	L60	0G0	60	2200	1.6
110	M10	1B0	110	7300	1.7
221	N21	2C1	220	30000 <sup>1)</sup>	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**

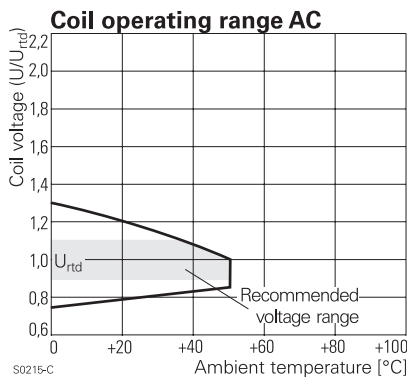
Coil code	Rated voltage	Operate voltage	Release voltage	Coil resistance	Rated coil power
STD	LED	VAC	VAC	VAC	50/60Hz
				$\Omega \pm 10\%^{1)}$	VA

**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 <sup>1)</sup>	2.61/2.20

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

All figures are given for coil without pre-energization, at ambient temperature +23°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			
between contact and coil	4000V	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 <a href="http://www.te.com/customer-support/rohssupportcenter">www.te.com/customer-support/rohssupportcenter</a>			
Ambient temperature for mounting/handling in operation		-20 to 40°C	
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		RT1 - 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°C/10s	
Packaging unit		10/25 pcs.	

**Accessories**

Sockets for Plug-in version RM\*\*2:

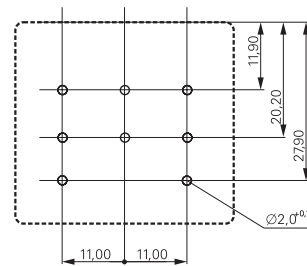
For details see datasheet

[Accessories Power Relay RM](#)

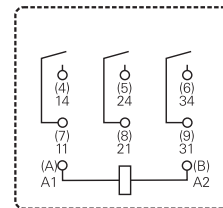
Note: indicated contact ratings and electrical endurance data for direct wiring of relays (according IEC 61810-1); for relays mounted on sockets deratings may apply.

**PCB layout / terminal assignment**

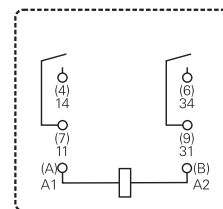
Bottom view on pins



3 form A (3 NO) contacts



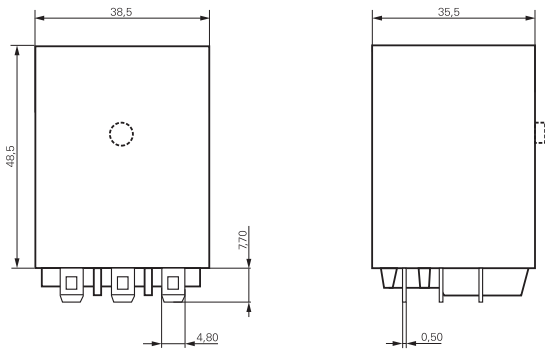
2 form A (2 NO) contacts



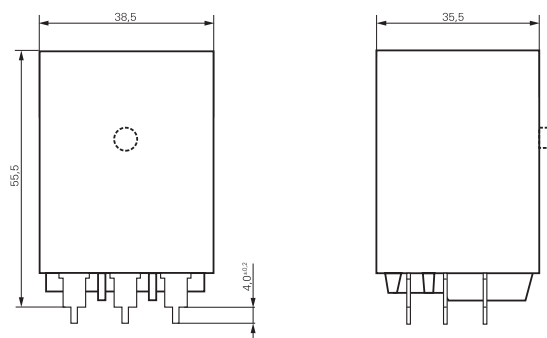
**Power Relay RM 5/6/B 3mm** (Continued)

**Dimensions**

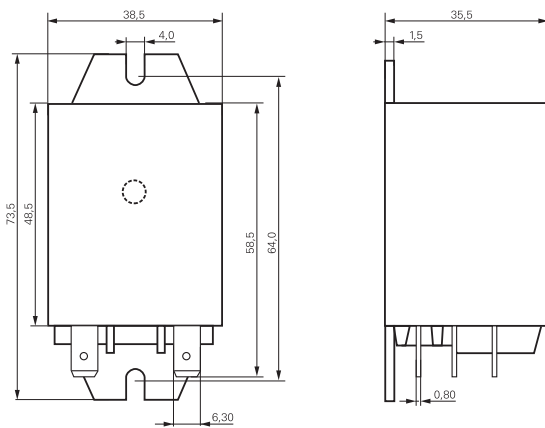
Plain cover, plug-in version



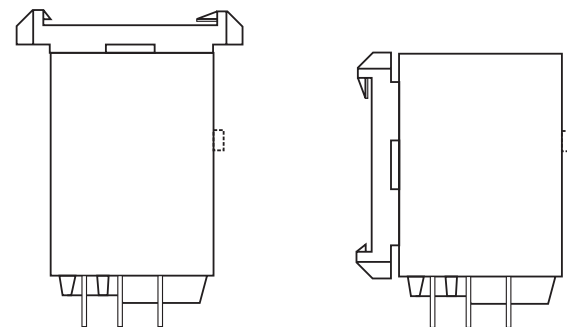
PCB version



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**

<b>Type</b>	RM Power relay RM5/6/B 3mm				<b>524</b>
<b>Contact arrangement</b>	<b>5</b> 2 form A contacts (2 NO), 16A	<b>6</b> 3 form A contacts (3 NO), 10A	<b>2</b>	<b>2</b>	
		<b>B</b> 3 form A contacts (3 NO), 16A			
<b>Version</b>	<b>0</b> Discontinued: AgCdO, without test button, without mechanical indicator <sup>1)</sup> <b>2</b> AgNi90/10, without test button, without mechanical indicator <b>3</b> Discontinued: AgCdO, with test button, without mechanical indicator <sup>1)</sup> <b>7</b> AgNi90/10, with test button, without mechanical indicator				
<b>Enclosure</b>	<b>2</b> Plain cover, 4.8mm quick connect terminals, Plug-in version (see Accessories Power Relay RM) <b>3</b> Cover with mounting brackets, 4.8mm quick connect terminals <b>5</b> Cover with mounting brackets, 6.3mm quick connect terminals <b>7</b> PCB version <b>8</b> Cover with DIN-snap-on attachment, horizontal, 6.3mm quick connect terminals <b>9</b> Cover with DIN-snap-on attachment, vertical, 6.3mm quick connect terminals				
<b>Coil</b>	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 quick con. 6.3 mm	DC-coil	12VDC	5-1415544-6
RM525024		AgNi			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 horizontal	AC-coil	230VAC	2-1415546-7
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

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