

**Power Relay RM 5/6 3 mm**

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

**Applications**

Power supplies, pump control



F0164-B

**Approvals**

VDE REG.-Nr. 40003144, c RU us E214025  
 Technical data of approved types on request

Contact data	RM5	RM6
Contact configuration	2 NO	3 NO
Contact set	single contact	
Type of interruption	full disconnection	
Rated voltage / max. switching voltage AC	400 / 440 VAC	230 / 400 VAC
Rated current	16 A	10 A
Maximum breaking capacity AC	6000 VA	3800 VA
Limiting making capacity, max 20 ms	25 A	25 A
Contact material	AgCdO	
Contact gap	3 mm	
Rated frequency of operation with / without load	16/100 min <sup>-1</sup>	
Operate- / release time DC coil	max 15 / 10 ms	
Bounce time DC coil NO / NC contact	max 4 / 6 ms	

**Contact ratings**

Type	Contact	Load	Ambient temp. [°C]	Cycles
<b>IEC 61810</b>				
RM50	NO	16 A, 230 / 400 VAC, cosφ=1	35°C	100x10 <sup>3</sup>
RM50	NO	10 A, 48 VDC	70°C	30x10 <sup>3</sup>
RM60	NO	10 A, 230 / 400 VAC, cosφ=1	35°C	100x10 <sup>3</sup>
<b>UL 508</b>				
RM5	NO	16 A, 415 VAC, resistive	50°C	100x10 <sup>3</sup>
RM5	NO	16 A, 277 VAC, general purpose	50°C	30x10 <sup>3</sup>
RM6	NO	10 A, 415 VAC, resistive	50°C	100x10 <sup>3</sup>
RM6	NO	10 A, 277 VAC, general purpose	50°C	30x10 <sup>3</sup>

**Coil data**

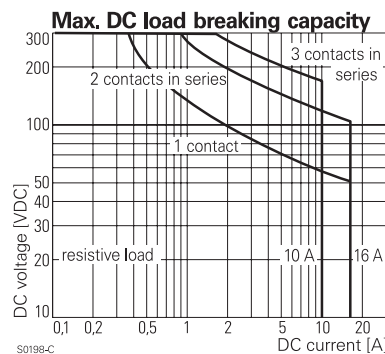
Rated coil voltage range DC coil	6...220 VDC
AC coil	6...400 VAC
Operative range to IEC 61810	90...100% U <sub>rtD</sub>

**Coil versions, DC-coil**

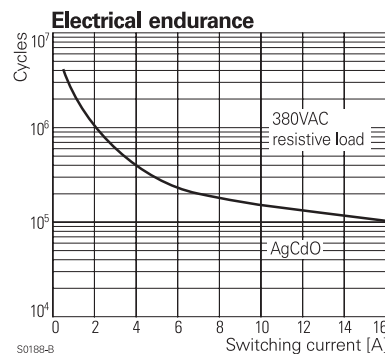
Coil code	STD	LED	PD*	LED+ PD*	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ohm	Rated coil power W
006	L06	0A6	LA6		6	4.5	0.6	24±10%	1.5
012	L12	0B2	LB2		12	9.0	1.2	86±10%	1.7
<b>024</b>	<b>L24</b>	<b>0C4</b>	<b>LC4</b>		<b>24</b>	<b>18.0</b>	<b>2.4</b>	<b>345±10%</b>	<b>1.7</b>
048	L48	0E8	LE8		48	36.0	4.8	1340±10%	1.7
060	L60	0G0	LG0		60	45.0	6.0	2200±10%	1.6
110	M10	1B0	MB0		110	82.5	11.0	7300±10%	1.7
221	N21	2C1	NC1		220	165.0	22.0	30000±15%	1.6

All figures are given for coil without preenergization, at ambient temperature +23°C

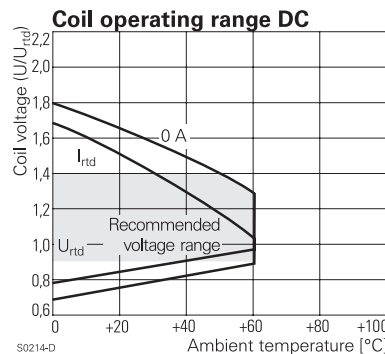
\*) Protection diode PD; standard polarity: +A1 / -A2



S0198-C



S0198-B



S0214-D

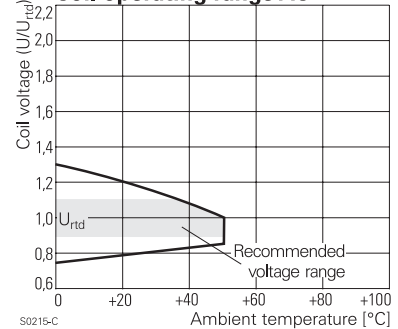
**Power Relay RM 5/6 3 mm (Continued)**

**Coil versions, AC-coil 50 / 60 Hz**

Coil code	LED	Rated voltage	Operate voltage	Release voltage	Coil resistance	Rated coil power
STD		VAC	50 / 60 Hz VAC	50 / 60 Hz VAC	Ohm	50 / 60 Hz VA
506	R06	6	4.8 / 5.1	2.4	4.7 ± 10%	2.86 / 2.36
512	R12	12	9.6 / 10.2	4.8	19.5 ± 10%	2.71 / 2.27
<b>524</b>	<b>R24</b>	<b>24</b>	<b>19.2 / 20.4</b>	<b>9.6</b>	<b>80 ± 10%</b>	<b>2.62 / 2.00</b>
548	R48	48	38.4 / 40.8	19.2	320 ± 10%	2.60 / 2.17
560	R60	60	48.0 / 51.0	24.0	500 ± 10%	2.62 / 2.20
615	S15	115	92.0 / 97.8	46.0	1850 ± 10%	2.65 / 2.22
<b>730</b>	<b>T30</b>	<b>230</b>	<b>184.0 / 195.5</b>	<b>92.0</b>	<b>7500 ± 10%</b>	<b>2.69 / 2.26</b>
900	V00	400	320.0 / 340.0	160.0	23500 ± 15%	2.61 / 2.20

All figures are given for coil without preenergization, at ambient temperature +23°C

**Coil operating range AC**



**Insulation**

Dielectric strength coil-contact circuit	2500 V <sub>rms</sub>
open contact circuit	2500 V <sub>rms</sub>
adjacent contact circuits	2500 V <sub>rms</sub>
Clearance / creepage coil-contact circuit	≥ 4/14.9 mm
adjacent contact circuits	≥ 6.1/7.3 mm
Material group of insulation parts	IIIa
Insulation to IEC 61810-1	
Type of insulation coil-contact circuit	basic
open contact circuit	full disconnection ≥ 3 mm
adjacent contact circuits	basic
Rated insulation voltage	250 / 400 V <sup>1)</sup>
Pollution degree	3
Rated voltage system	230 / 400 V
Overvoltage category	III

<sup>1)</sup> in combination with socket RM 78704 or isolated quick connects

**Other data**

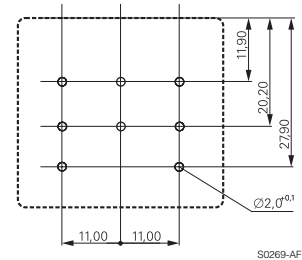
Mechanical endurance	20x10 <sup>6</sup> cycles
Material	
RoHS - Directive 2002/95/EC	compliant as per product date code 0415
Environment	
Ambient temperature range DC coil	-45...+60°C
AC coil	-45...+50°C
Vibration resistance (function) NO / NC contact	12 g, 30...150 Hz
Category of protection	RTI - dust protected
Processing	
Mounting position	versions with test button not to be mounted with button on top
Resistance to soldering heat	270°C / 10 s
Relay weight	81 g
Packaging unit	10/25 pcs

**Accessories**

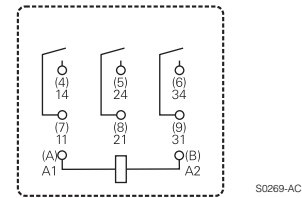
For details see datasheet	Accessories Power Relay RM
NOTE: indicated contact ratings and electrical endurance data for direct wiring of relays (according IEC 61810-1, table 12); for relays mounted on sockets deratings may apply.	

**PCB layout / terminal assignment**

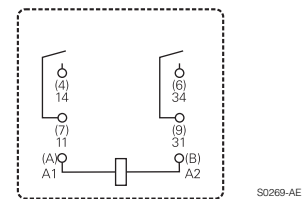
Bottom view on pins



**3 NO contacts**



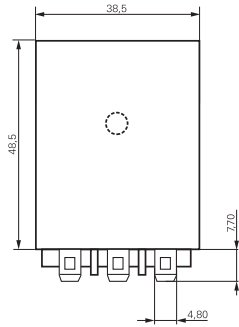
**2 NO contacts**



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

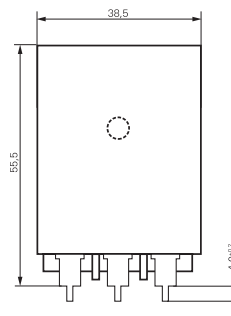
**Dimensions**

Plain cover, plug-in version



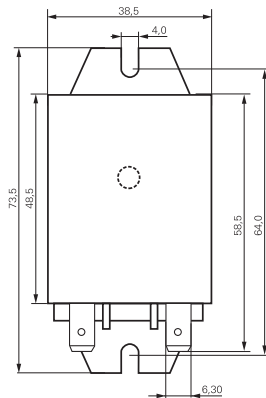
S0298-BF

PCB version



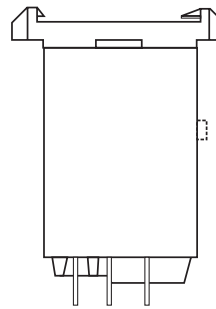
S0298-BG

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

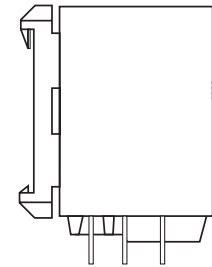


S0298-BH

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



S0298-BI



S0298-BJ

**Product key**

Typical product key

**RM 5 0 2 524**

**Type**

**RM** Power relay RM 5/6 3 mm

**Contact configuration**

**5** 2 NO contacts (2 form A), 16 A      **6** 3 NO contacts (3 form A), 10 A

**Version**

**0** AgCdO, without test button, without mechanical indicator  
**3** AgCdO, with test button, without mechanical indicator

**Enclosure**

- 2** plain cover, 4.8 mm quick connect terminals
- 3** cover with mounting brackets, 4.8 mm quick connect terminals
- 5** cover with mounting brackets, 6.3 mm quick connect terminals
- 7** PCB version
- 8** cover with DIN-snap-on attachment, horizontal, 6.3 mm quick connect terminals
- 9** cover with DIN-snap-on attachment, vertical, 6.3 mm quick connect terminals

**Coil**

Coil code: please refer to coil versions table, preferred types in bold print

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

Product key	Contacts	Version	Enclosure	Coil	Coil	Part number
RM502024	2 NO contacts	without	plain cover	DC-coil	24 VDC	6-1393146-1
RM502524	16 A	test button	quick c. 4.8 mm	AC-coil	24 VAC	6-1393146-2
RM502615		without			115 VAC	6-1393146-3
RM502730		mech.indicator			230 VAC	6-1393146-4
RM503024			mounting brackets	DC-coil	24 VDC	8-1393148-0
RM503615			quick c. 4.8 mm	AC-coil	115 VAC	6-1393146-5
RM505024			mounting brackets	DC-coil	24 VDC	8-1393148-3
RM505615			quick c. 6.3 mm	AC-coil	115 VAC	6-1393146-6
RM505730					230 VAC	9-1393149-9
RM507024			PCB version	DC-coil	24 VDC	1393844-1
RM507524				AC-coil	24 VAC	5-1415008-1
RM507615					115 VAC	6-1415015-1
RM507730					230 VAC	1415008-1
RM535024		with test button	mounting brackets	DC-coil	24 VDC	7-1393146-2
RM535524		w/o mech.indicator	quick c. 6.3 mm	AC-coil	24 VAC	9-1393148-0
RM602024	3 NO contacts	without	plain cover	DC-coil	24 VDC	1393844-4
RM602615	10 A	test button	quick c. 4.8 mm	AC-coil	115 VAC	9-1393148-7
RM605730		without	mount.br. q.c.6.3		230 VAC	7-1393146-6
RM607024		mechanical ind.	PCB version	DC-coil	24 VDC	1393844-6
RM607524				AC-coil	24 VAC	7-1393146-8
RM607615					115 VAC	8-1415015-1
RM607730					230 VAC	7-1393146-9
RM632024		with	plain cover	DC-coil	24 VDC	8-1393146-0
RM632730		test button	quick c. 4.8 mm	AC-coil	230 VAC	1393149-7
RM635024		without	mount.br. q.c.6.3	DC-coil	24 VDC	7-1393107-7
RM637024		mech.indicator	PCB version		24 VDC	1393149-9