

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
- RoHS compliant (Directive 2002/95/EC) as per product date code 0415

Applications

Power supplies, pump control



F0164-A

Approvals

VDE REG.-Nr. 40003144, **UL** 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 current	16 A	10 A
Rated voltage / max.switching voltage AC	400/440 VAC	230/400 VAC
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	
Mechanical endurance	20x10 ⁶ cycles	
Rated frequency of operation with / without load	16/100 min ⁻¹	

Contact ratings

Type	Load	Cycles
RM5.	16 A, 415 VAC, UL	100x10 ³
RM50	16 A, 230/400 VAC, cosφ=1, 35°C, VDE	100x10 ³
RM5.	16 A, 250 VAC, general purpose, UL	30x10 ³
RM50	10 A, 48 VDC, 70°C, VDE, UL	30x10 ³
RM6.	5 A, 400 VAC, resistive, UL	100x10 ³
RM60	10 A, 230/400 VAC, cosφ=1, 35°C, VDE	100x10 ³
RM6.	10 A, 300 VAC, resistive, UL	100x10 ³
RM6.	10 A, 250 VAC, general purpose, UL	30x10 ³

Coil data

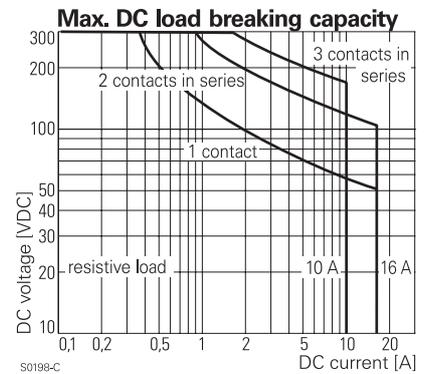
Rated coil voltage range DC coil	6...220 VDC
AC coil	6...400 VAC
Coil power DC coil	1.6 W
AC coil	2.8 VA
Operative range	90...100% U _{rtid}

Coil versions, DC-coil

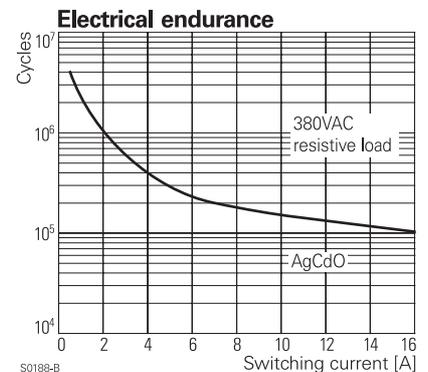
Coil code	STD	LED	PD*	LED+	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ohm	Rated coil power W
006	L06	0A6	LA6	6	4.5	0.6	24±10%	1.5	
012	L12	0B2	LB2	12	9.0	1.2	86±10%	1.7	
024	L24	0C4	LC4	24	18.0	2.4	345±10%	1.7	
048	L48	0E8	LE8	48	36.0	4.8	1340±10%	1.7	
060	L60	0G0	LG0	60	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

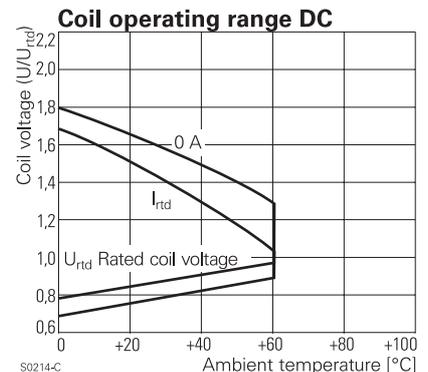
*) Protection diode PD; standard polarity: +A1 / -A2



S0198-C



S0188-B



S0214-C

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Coil versions, AC-coil 50/60 Hz

Coil code	LED	Rated voltage	Operate voltage	Release voltage	Coil resistance	Rated coil power
STD	LED	VAC	50/60Hz	50/60Hz	Ohm	50/60Hz 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
524	R24	24	19.2/20.4	9.6	80±10%	2.62/2.00
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
730	T30	230	184.0/195.5	92.0	7500±10%	2.69/2.26
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

Insulation

Dielectric strength coil-contact circuit	2500 V _{rms}
open contact circuit	2500 V _{rms}
adjacent contact circuits	2500 V _{rms}
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 60664-1	
Type of insulation coil-contact circuit	basic
open contact circuit	basic
adjacent contact circuits	basic
Rated insulation voltage	250 / 400 V ¹⁾
Pollution degree	3
Rated voltage system	240/400 V
Overvoltage category	III

¹⁾ in combination with socket RM 78704 or isolated quick connects

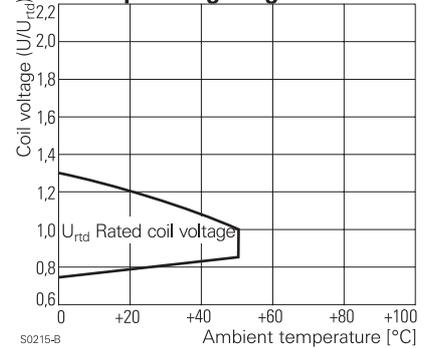
Other data

RoHS - Directive 2002/95/EC	compliant as per product date code 0415
Ambient temperature range DC coil	-45...+60°C
AC coil	-45...+50°C
Operate- / release time	15/10 ms
Bounce time NO / NC contact	4 ms
Vibration resistance (function) NO / NC contact	12 g, 30...150 Hz
Category of protection	RTI - dust protected
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

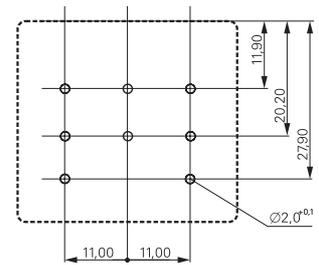
For details see datasheet Accessories Power Relay RM

Coil operating range AC

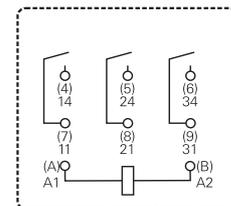


PCB layout / terminal assignment

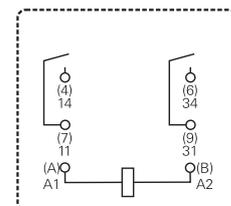
Bottom view on pins



3 NO contacts



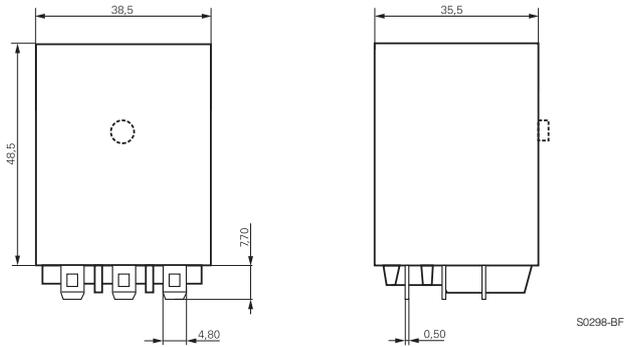
2 NO contacts



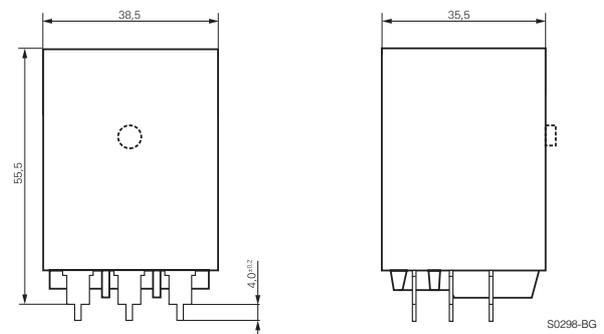
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Dimensions

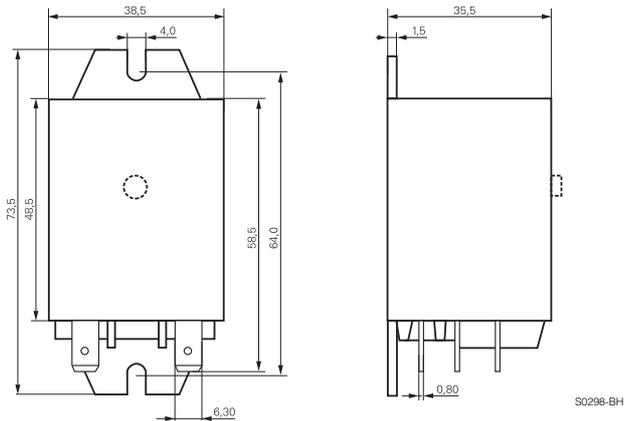
Plain cover, plug-in version



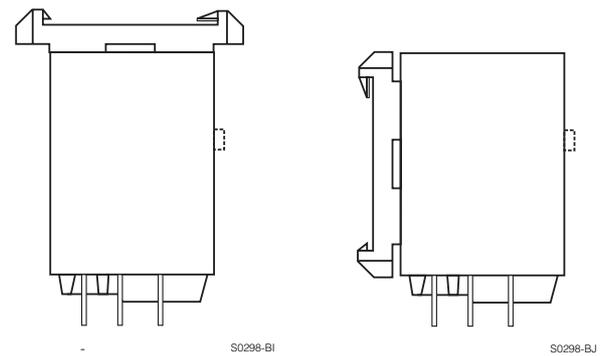
PCB version



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



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



Product key

Type	R	M				
Contact configuration	5 2 NO contacts, 16 A		6 3 NO contacts, 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					

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Product key	Contacts	Version	Enclosure	Coil	Coil	Part number
RM502024	2 NO contacts 16 A	without	plain cover	DC-coil	24 VDC	6-1393146-1
RM502524		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	0-1393844-1
RM507524				AC-coil	24 VAC	5-1415008-1
RM507615					115 VAC	6-1415015-1
RM507730					230 VAC	0-1415008-1
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 10 A	without	plain cover	DC-coil	24 VDC	0-1393844-4
RM602615		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	0-1393844-6
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	0-1393149-7
RM635024		without	mount.br. q.c.6.3	DC-coil	24 VDC	7-1393107-7
RM637024		mech.indicator	PCB version		24 VDC	0-1393149-9