





- Miniature dimensions • General purpose relays
- **Version 1 NO AgSnO₂ for special loads:**
resistance to inrush current 120 A (20 ms)
- Protection category IP 40 or IP 67
- For PCB and plug-in sockets
- DC coils - standard and sensitive
- Recognitions, certifications, directives: RoHS,    

Contact data

Number and type of contacts	1 C/O, 1 NO, 1 NC	
Contact material	AgSnO₂ , AgCdO, AgCdO/Au 0,2 μm	
Rated / max. switching voltage	AC	250 V / 440 V
Min. switching voltage	10 V AgSnO ₂ , 10 V AgCdO, 10 V AgCdO/Au 0,2 μm	
Rated load (capacity)	AC1	16 A / 250 V AC
	AC15	6 A / 120 V 3 A / 240 V (A300)
	AC3	550 W (single-phase motor)
	DC1	16 A / 24 V DC (see Fig. 3)
	DC13	0,22 A / 120 V 0,1 A / 250 V (R300)
Min. switching current	10 mA AgSnO ₂ , 5 mA AgCdO, 5 mA AgCdO/Au 0,2 μm	
Max. inrush current	30 A 1 NO, AgSnO ₂	
Rated current	16 A	
Max. breaking capacity	AC1	4 000 VA
Min. breaking capacity	1 W AgSnO ₂ , 0,5 W AgCdO, 0,5 W AgCdO/Au 0,2 μm	
Contact resistance	≤ 100 mΩ	
Max. operating frequency		
• at rated load	AC1	600 cycles/hour
• no load		72 000 cycles/hour

Coil data

Rated voltage	DC	5 ... 110 V standard version 110 V sensitive version
Must release voltage	DC: ≥ 0,1 U _n	
Operating range of supply voltage	see Table 1	
Rated power consumption	DC	0,6 W 5 ... 60 V standard version 0,6 W 110 V sensitive version 0,9 W 110 V standard version

Insulation according to PN-EN 60664-1

Insulation rated voltage	400 V AC	
Dielectric strength		
• between coil and contacts	4 000 V AC	type of insulation: reinforced
• contact clearance	1 000 V AC	type of clearance: micro-disconnection
Contact - coil distance		
• clearance	≥ 8 mm	
• creepage	≥ 8 mm	

General data

Operating / release time (typical values)	7 ms / 3 ms	
Electrical life		
• resistive AC1	> 10 ⁵	16 A, 250 V AC
• at incandescent lamp load	> 10 ⁵	1000 W, 230 V AC 1 NO, AgSnO ₂
	> 3 x 10 ⁴	3000 W, 230 V AC 1 NO, AgSnO ₂
• at halogen lamp load	> 10 ⁴	2500 W, 230 V AC 1 NO, AgSnO ₂
• cos φ	see Fig. 2	
• L/R=40 ms	> 10 ⁵	0,12 A, 220 V DC
Mechanical life (cycles)	> 3 x 10 ⁷	
Dimensions (L x W x H)	IP 40: 29,2 x 13,1 x 25,1 mm IP 67: 29,2 x 13,1 x 25,6 mm	
Weight	18 g	
Ambient temperature	• storage	-40...+85 °C
	• operating	-40...+70 °C
Cover protection category	IP 40 or IP 67	PN-EN 60529
Shock resistance	20 g	
Vibration resistance	10 g 10...150 Hz	
Solder bath temperature	max. 270 °C	
Soldering time	max. 5 s	

The data in bold type pertain to the standard versions of the relays.

❶ Special version available: relays in transparent cover - see "Ordering codes".

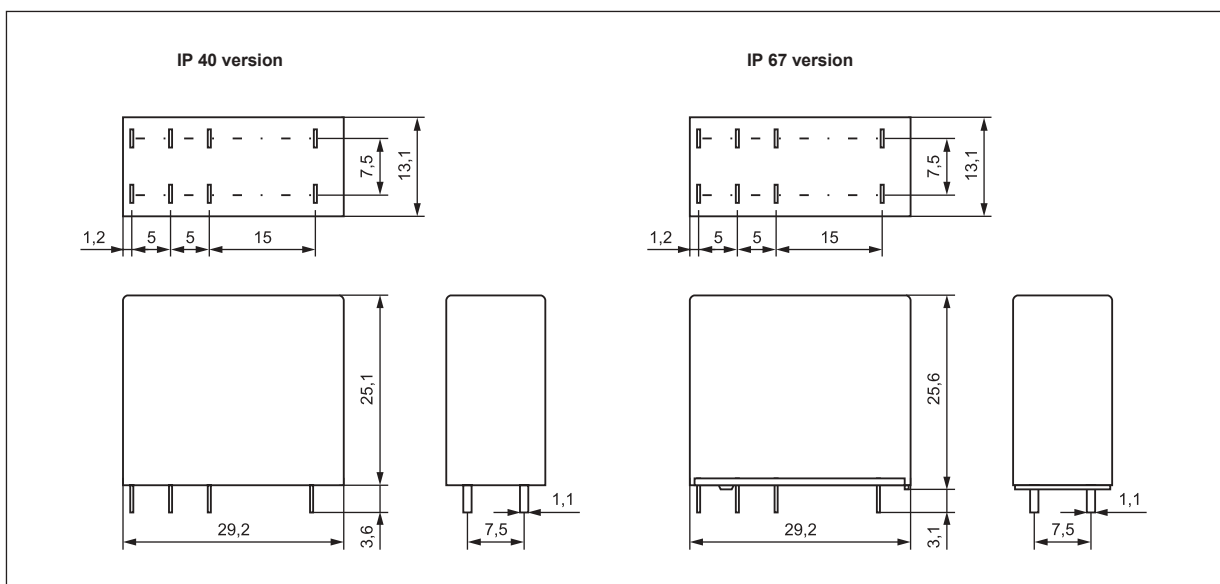
Coil data - DC voltage version

Table 1

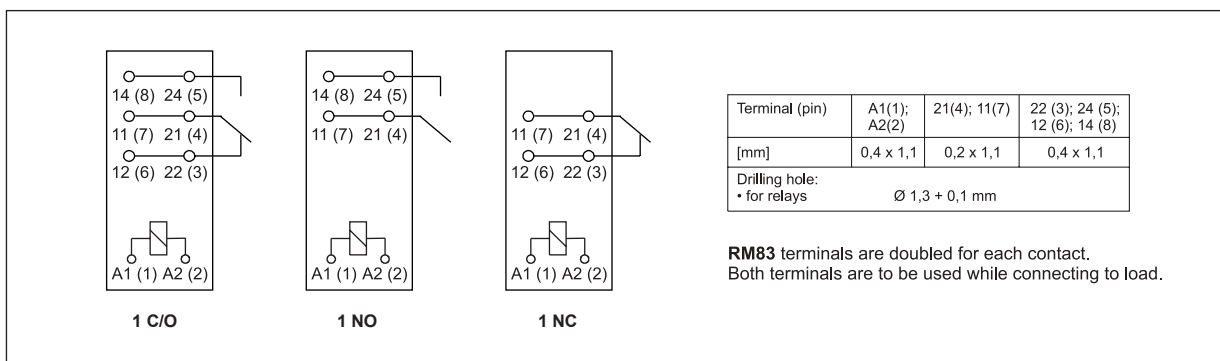
Coil code		Rated voltage V DC	Coil resistance ± 10% at 20 °C Ω	Coil operating range at 20 °C V DC	
standard version	sensitive version			min.	max.
1005	–	5	49	3,5	8,9
1006	–	6	68	4,2	10,6
1009	–	9	110	6,3	15,9
1012	–	12	260	8,4	21,2
1018	–	18	550	12,6	31,8
1024	–	24	1 100	16,8	42,5
1036	–	36	2 100	25,2	63,7
1048	–	48	4 400	33,6	85,0
1060	–	60	7 000	42,0	106,2
1110	–	110	13 000	77,0	140,0
–	S110	110	20 500	77,0	188,0

The data in bold type pertain to the standard versions of the relays.

Dimensions

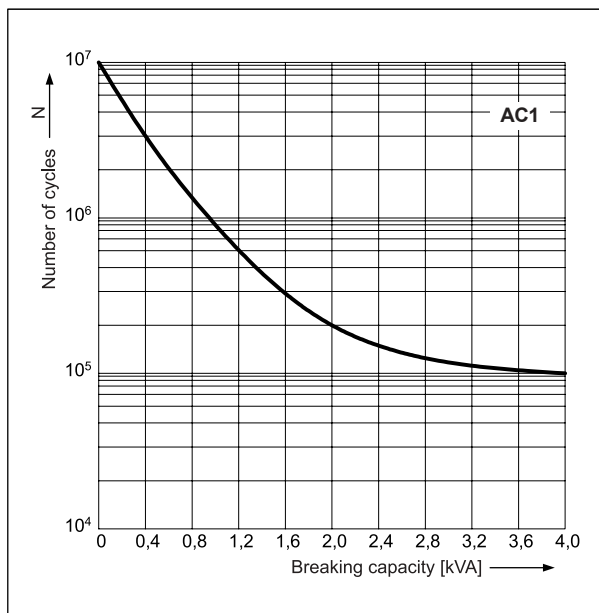


Connection diagrams (pin side view)



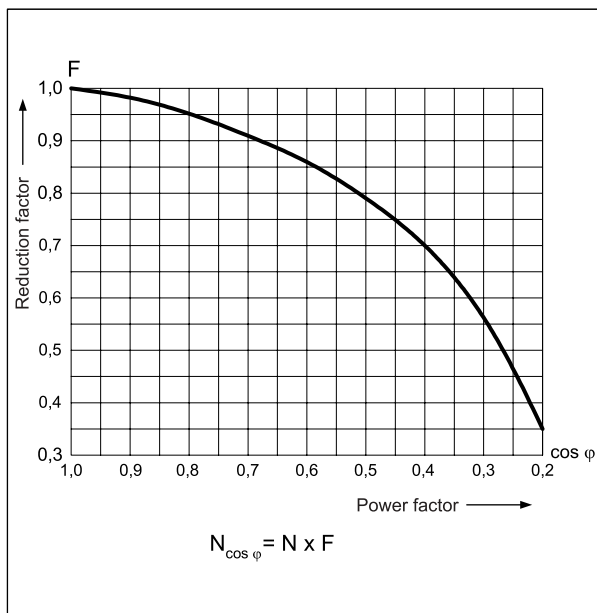
Electrical life at AC resistive load.
Switching frequency: 600 cycles/hour

Fig. 1



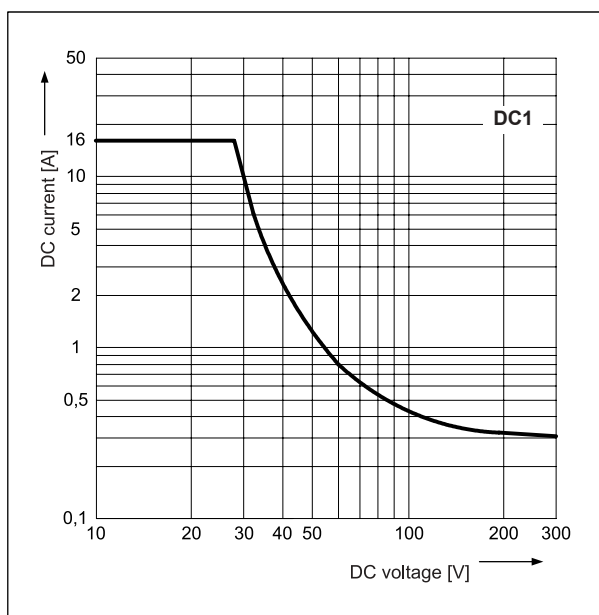
Electrical life reduction factor at AC inductive load

Fig. 2



Max. DC resistive load breaking capacity

Fig. 3

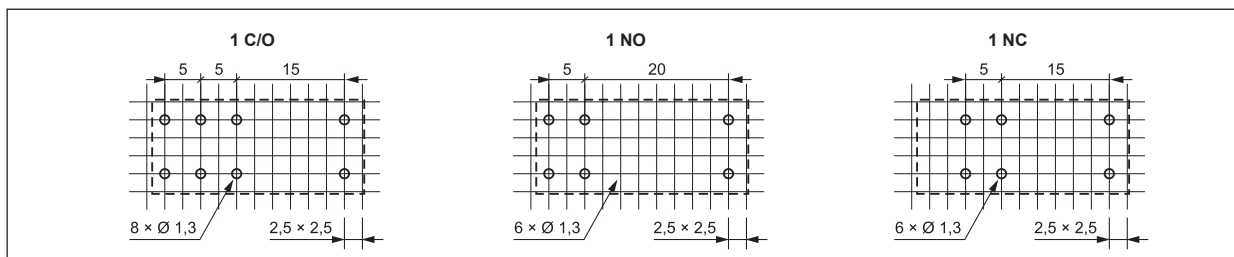


Mounting

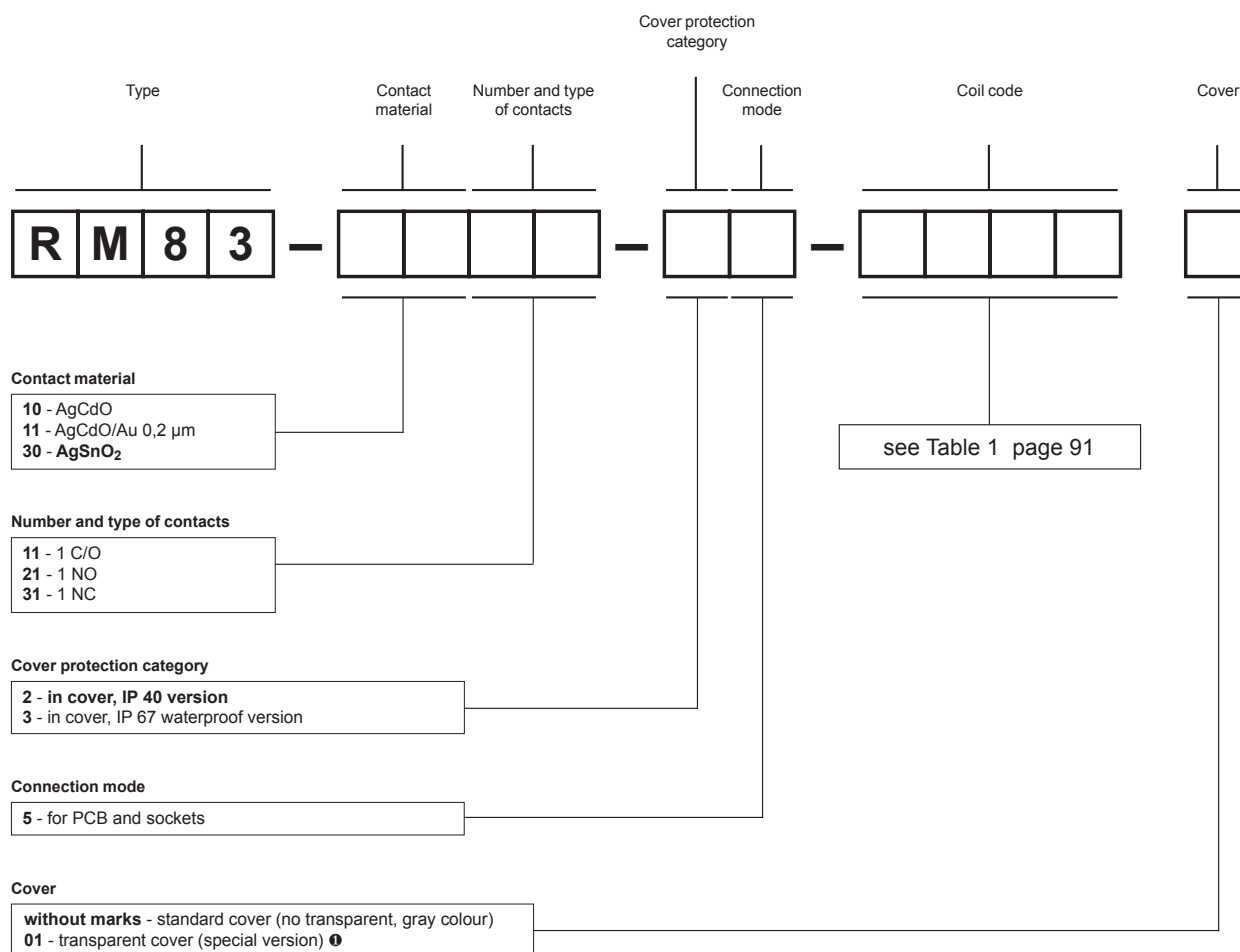
Relays **RM83** are designed for:

- direct PCB mounting
- plug-in sockets for PCB mounting **EC50** with clip **MP25-2**, MH25-2, GD-0025, RM81-0001; plug-in sockets **PW80** with clip **MH25-2**, GD-0025, RM81-0001; plug-in sockets **GD50** with clip **MP25-2**, GD-0025, MH25-2, RM81-0001.

Pinout (solder side view)



Ordering codes



Examples of ordering code:

- RM83-3011-25-1024** relay **RM83**, contact material AgSnO₂, with one changeover contact, in standard cover (no transparent, gray colour) IP 40, for PCB and sockets, voltage version 24 V DC
- RM83-3011-25-S110** relay **RM83**, contact material AgSnO₂, with one changeover contact, in standard cover (no transparent, gray colour) IP 40, for PCB and sockets, sensitive voltage version 110 V DC
- RM83-3021-35-1012-01** relay **RM83**, contact material AgSnO₂, with one normally open contact, in transparent cover (special version) ● IP 67, for PCB and sockets, voltage version 12 V DC

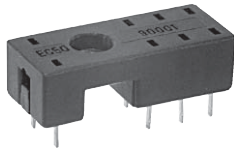
Plug-in sockets and accessories

for relays RM84, RM85, RM87L, RM87P, RM83, RM94

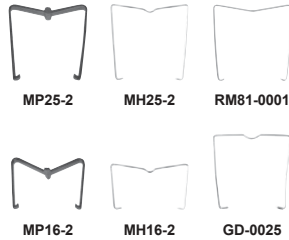
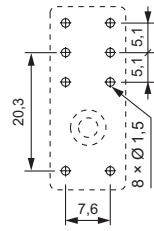
EC50

For RM84, RM85, RM85 inrush, RM85 105 °C sensitive, RM87L, RM87L sensitive, RM87P, RM87P sensitive, RM83, RM94

For PCB
31,3 x 12,7 x 9 mm
Two poles, 5 mm pinout
8 A, 300 V AC

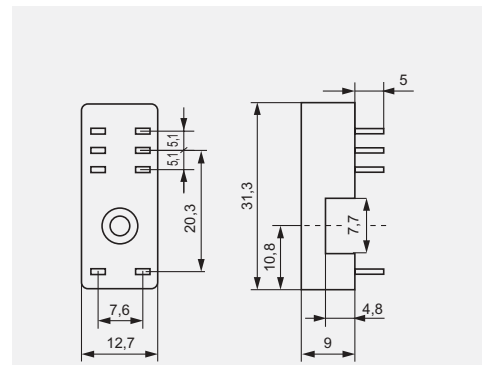


Pinout



Accessories

Dimensions



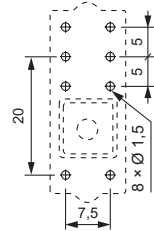
PW80

For RM84, RM85, RM85 inrush, RM85 105 °C sensitive, RM87L, RM87L sensitive, RM87P, RM87P sensitive, RM83, RM94

For PCB
34,6 x 12,9 x 6,6 mm
Two poles, 5 mm pinout
8 A, 250 V AC

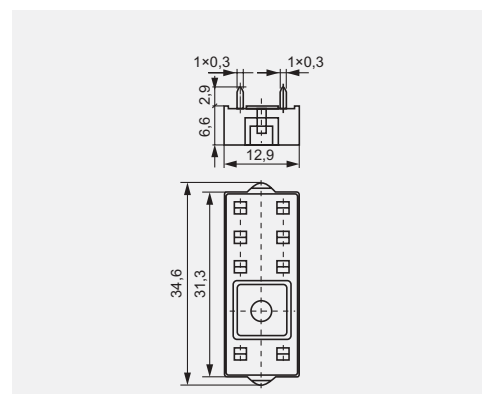


Pinout



Accessories

Dimensions

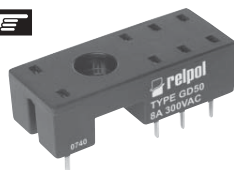


GD50

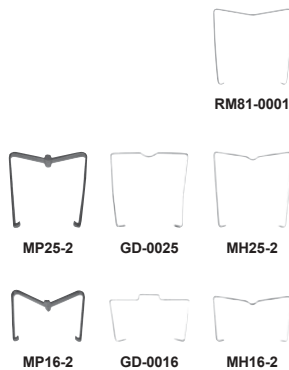
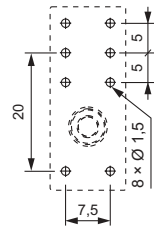
For RM84, RM85, RM85 inrush, RM85 105 °C sensitive, RM87L, RM87L sensitive, RM87P, RM87P sensitive, RM83, RM94

For PCB
31,5 x 13 x 9 mm
Two poles, 5 mm pinout
8 A, 300 V AC

NEW product



Pinout



Accessories

Dimensions

