

M4 Series - Miniature plug-in power relays



- Cadmium free contacts
- Miniature plug-in relay
- Standard with mechanical indicator
- Standard with test/latching button

Contact	
Contact number & arrangement	4 C/O
Contact material	AgNi
Voltage	
Max. switching voltage AC/DC	250V/250V
Min. switching voltage AC/DC	5V
Current	
Rated load AC1	6A/250 VAC
DC1	6A/24 VDC
Min. Switching current	5mA
Max. inrush current	12A
Rated current	6A
Max. breaking capacity AC1	1500 VA
Min. breaking capacity	0,3 W
Resistance	≤ 100mOhm
Max. operating frequency	
- at rated load AC1	1200 cycles/hour
- no load	18000 cycles/hour

Coil	
Voltage	
Rated voltage	6 ... 240 V AC 50/60Hz 5 ... 220 V DC
Must release voltage	≥ 0,2 Un (AC); ≥ 0,1 Un (DC)
Operating range of supply voltage	see tables 1 & 2 (other on request)
Rated power consumption	1,6VA (AC) 0,9 W (DC)

Insulation	
Insulation category	B 250
Voltage	
Insulation rated voltage	250 VAC
Dielectric strength	
- coil contact	2500 VAC
- contact-contact	1500 VAC
- pole-pole	2500 VAC
Contact-coil distance	
- clearance	≥ 1,6 mm
- creepage	≥ 3,2 mm

General data	
Operating time (typical value)	10 ms (AC), 13 ms (DC)
Release time (typical value)	8 ms (AC), 3 ms (DC)
Electrical life	
- resistive AC1	≥ 10 ⁵ 12A, 250 VAC
- cos φ	see fig 2
Mechanical life (cycles)	≥ 2x 10 ⁷
Dimensions (l x w x h)	27,5 x 21,2 x 35,6 mm
Weight	35 g
Ambient temperature	
- storing	-40 ... +85 °C
- operating	-40 ... +55 °C (AC) -40 ... +70 °C (DC)
Cover protection category	IP 40
Shock resistance (NO/NC)	10 g / 5 g
Vibration resistance	5 g for 10 ... 150Hz



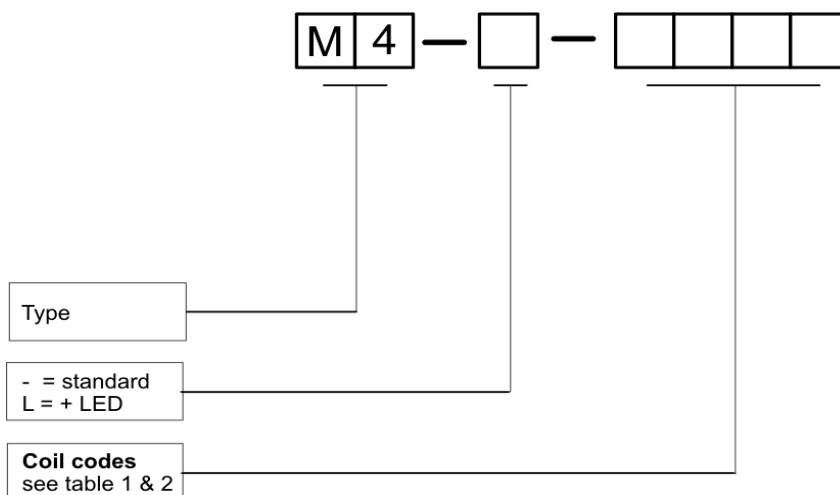
Coil data DC - Version **Table 1**

Coil code	Rated voltage V DC	Coil resistance (±10%) at 20 °C Ohm	Coil operating range at 20 °C V DC	
			Min.	Max.
D012	12	160	9,6	13,2
D024	24	640	19,2	26,4
D048	48	2600	38,4	52,8
D110	110	13600	88,0	121,0
D125	125	16000	100,0	137,5
D220	220	54000	176,0	242,0

Coil data AC 50/60Hz - Version **Table 2**

Coil code	Rated voltage V AC	Coil resistance (±10%) at 20 °C Ohm	Coil operating range at 20 °C V AC	
			Min.	Max.
A012	12	38	9,6	13,2
A024	24	150	19,2	26,4
A048	48	635	38,4	52,8
A110	110	3100	88,0	121,0
A230	230	15400	184,0	253,0

Ordering codes

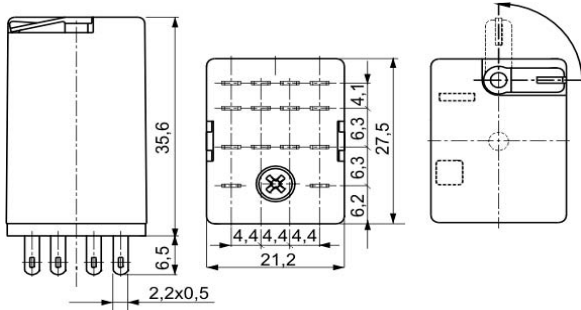


Example: **M4-L-A024**

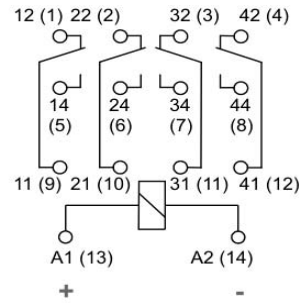
M4-serie relay, with LED, coil: 24V AC



Dimensions

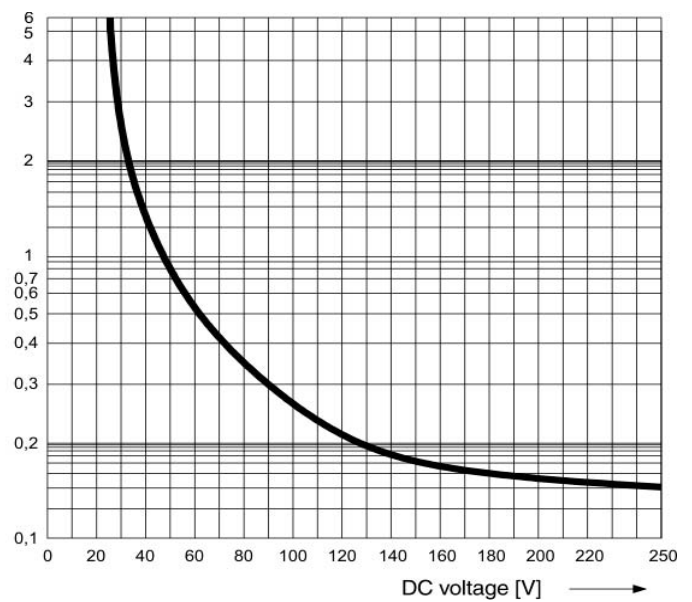
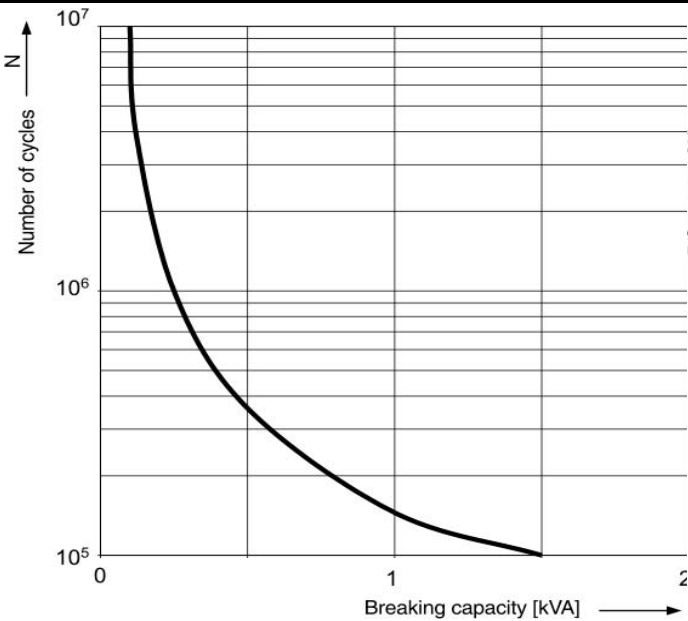


Connection diagram (pin side view)

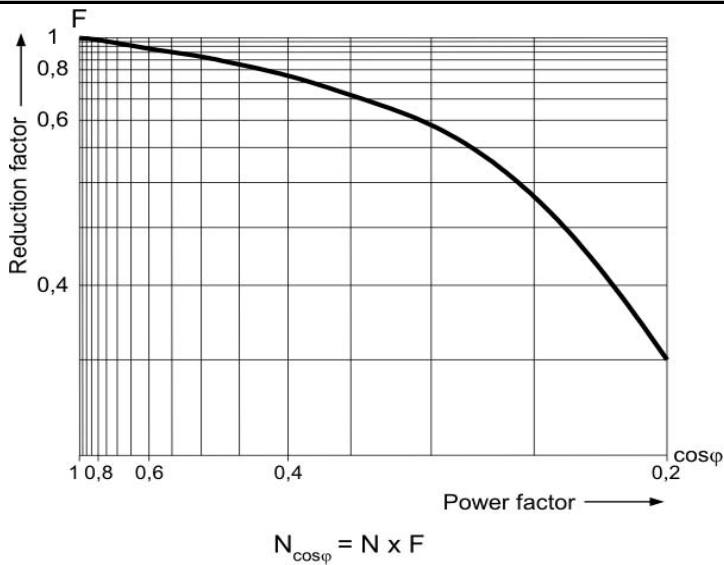


Electrical life at AC resistive load - Fig. 1

DC resistive load breaking capacity - Fig. 2



Electrical life reduction factor at AC inductive load - Fig. 3





Mounting sockets

VM-4T



- Mounting socket for M2-relays
- Screw terminals
- DIN-rail mounting

VM-4L



- Mounting socket for M2-relays
- Screw terminals
- Coil / Contact terminals on each side of the socket
- DIN-rail mounting

VM-4CC



- Mounting socket for M2-relays
- Cage clamp / spring terminals
- Coil / Contact terminals on each side of the socket
- DIN-rail mounting

VM-2PCB



- Mounting socket for M2-relays
- PCB / soldering terminals

Accessories

MS 35



- Relays retaining spring
- Applicable for VM-4T, VM-4L and VM-4CC sockets
- Relay 'easy eject'

DM-1



- Block -EMF-diode module
- Pluggable in VM-4T, VM-4L and VM-4CC sockets

CM-1



- Metal relay retaining spring
- Applicable for VM-4T, VM-4L and VM-CC sockets

Australian Distributor



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