

## Industrial Plugin Electromagnetic Relays

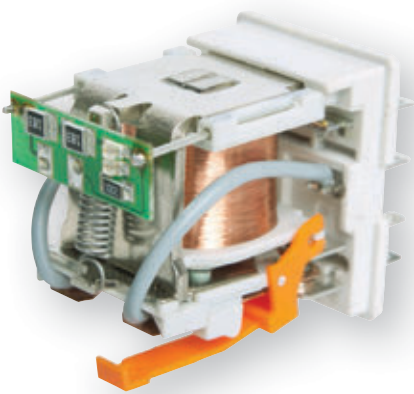
### Description

Relays of general application - the new relays are distinguished by a modern design, high reliability and functionality. Modern technology ensures high quality and effectiveness

- ERM2 (2 pole CO »change over contact«) and ERM4 (4 pole CO »change over contact«)
- AC and DC coils (12, 24V), 230V AC only
- Two types of plug-in sockets (M type and T type)
- Accessories ( connection terminals, retainer/retractor clips, description plates, RC modules...)
- Colour: grey

### Features

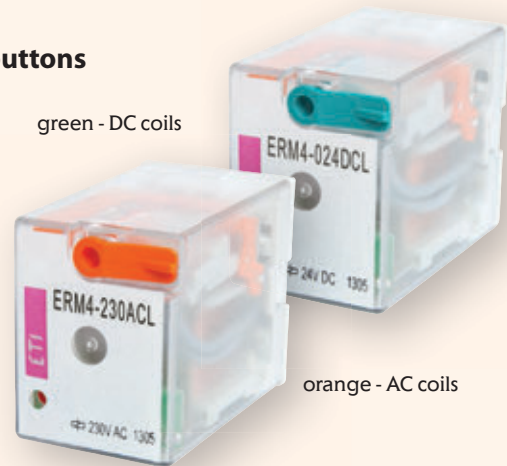
- Mechanical indicator with lockable test button as a standard version
- Optional: Light indication (with built in smd LED)
- Mounting on panel or 35 mm rail in accordance with EN60715
- Improved electromagnet efficiency
- Strong insulation between contacts ( applied polyamide PA66)
- Cadmium - free contacts



Robust design

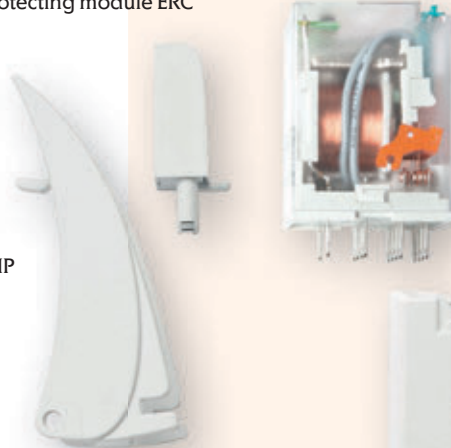
### Test buttons

green - DC coils



orange - AC coils

Protecting module ERC



Electromagnetic relay ERM

Retainer / retractor clip - ER-CLIP



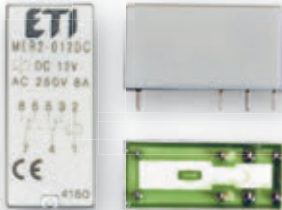
Description plate ER-PLATE



Screw terminals plug-in socket ERB



\* All parts must be ordered separately



MERB-T



MERB-M

**Miniature electromagnetic relays**

Type	Code	Uc rated coil voltage [V]	No. Of contacts	Weight [g]	Packaging [pcs]
MER2-005DC	002473030	5 V DC	2xCO (8A, AC1)	13	20/1000
MER2-012DC	002473031	12 V DC			
MER2-024DC	002473032	24 V DC			
MER2-024AC	002473033	24 V AC			
MER2-230AC	002473034	230 V AC			

By parallel connection of relay main circuit (joining 2 CO contacts), the nominal current of output is increased to 16A.

Other coil (control) voltages available upon special request:

V DC: 3, 6, 9, 18, 36, 48, 60, 110

V AC: 12, 48, 60, 110, 115, 120, 220, 240

**Ordering designation**

MER2-YYYYY

X – Number of contacts:

2: 2 CO (2 changeover)

YYYYY – Coil code:

024AC: 24 V AC 50/60 Hz

230AC: 230 V AC 50/60 Hz

005DC: 5 V DC

012DC: 12 V DC

024DC: 24 V DC

Example:

MER2-024DC

Miniature electromagnetic relay, two changeover contacts, coil voltage 24 V DC.

**Plug-in Sockets (Base)**

Type	Code	For use with	Single product weight [g]	Packaging [pcs]
MERB-T	002473035	MER2	44	10/100
MERB-M	002473036			10/80

T - T type

M - M type

## Miniature Electromagnetic Relays

Table 1: Technical data		MER2
Number and type of contacts		2 CO
Contact material		AgNi
Rated / max. switching voltage AC		250 V / 440 V
Min. switching voltage		5 V AgNi
Rated load (capacity)		
AC1		8 A / 250 V AC
AC15		3 A / 120 V 1,5 A / 240 V (B300)
AC3		550 W (single-phase motor)
DC1		8 A / 24 V DC (see Fig. 3)
DC13		0,22 A / 120 V 0,1 A / 250 V (R300)
Min. switching current		5 mA AgNi
Rated current		8 A
Max. breaking capacity AC1		2000 VA
Min. breaking capacity		0,3 W AgNi
Contact resistance		≤ 100 mΩ
Max. operating frequency (cycles/hour)		
• at rated load AC1		600
• no load		72 000
<b>Coil data</b>		
Rated voltage	50/60 Hz AC DC	12 ... 240 V 3 ... 110 V
Must release voltage		AC: ≥ 0,15 U <sub>n</sub> DC: ≥ 0,1 U <sub>n</sub>
Operating range of supply voltage		See Tables 1, 2 and Fig. 4, 5
Rated power consumption	AC DC	0,75 VA 0,4 ... 0,48 W
<b>Insulation according to EN 60664-1</b>		
Insulation rated voltage		400 V AC
Rated surge voltage		4000 V 1,2 / 50 μs
Overtoltage category		III
Insulation pollution degree		3
Dielectric strength		
• between coil and contacts		5000 V AC type of insulation: reinforced
• pole - pole		2500 V AC type of insulation: basic
Contact - coil distance		
• clearance		≥ 10 mm
• creepage		≥ 10 mm
<b>General data</b>		
Operating / release time (typical values)		7 ms / 3 ms
Electrical life		
• resistive AC1		> 10 <sup>5</sup> 8 A, 250 V AC
• cosΦ		see Fig. 2
• DC L/R = 40 ms		> 10 <sup>5</sup> 0,15 A, 220 V DC
Mechanical life (cycles)		> 3x10 <sup>7</sup>
Dimensions (L x W x H)		29 x 12,7 x 15,7 mm
Weight		14 g
Ambient temperature		
• storage		-40 ... +85 °C
• operating		AC: -40 ... +70 °C DC: -40 ... +85 °C
Cover protection category		IP40 / IP67
Environmental protection		RTII / RTIII
Shock resistance (NC)		20 g
Vibration resistance		5 g 10 ... 150 Hz
Solder bath temperature/ soldering time		max. 270 °C / max. 5 s