Industrial Plugin Electromagnetic Relays

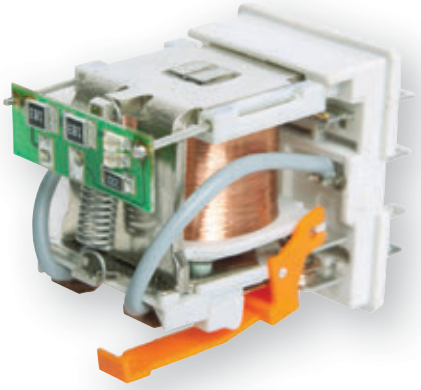
Description

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

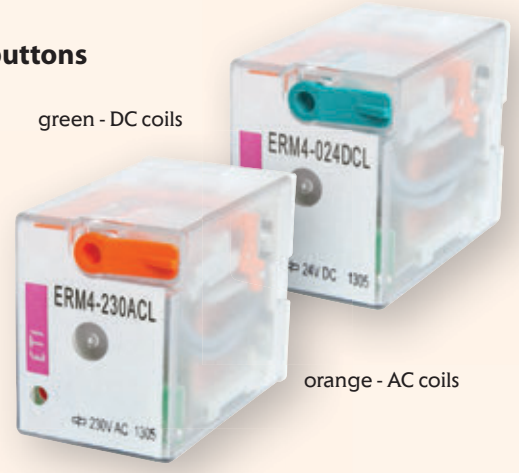
- Mechanical indicator with lockable test button as a standard version
- Optional: Light indication (with built in smd LED)
- Mounting on panel or 35 mm rail in accordance with EN60715
- Improved electromagnet efficiency
- Strong insulation between contacts (applied polyamide PA66)
- Cadmium - free contacts



Robust design

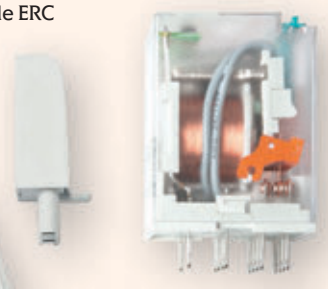
Test buttons

green - DC coils



orange - AC coils

Protecting module ERC



Electromagnetic relay ERM

Retainer / retractor clip - ER-CLIP

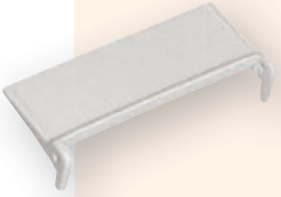
Description plate ER-PLATE

Screw terminals plug-in socket ERB

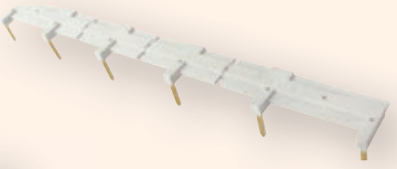
*All parts must be ordered separately

Accessories				
Type	Code	For use with	Single product weight [g]	Packaging [pcs]
ER-CLIP	002473016	ERB-T & ERB-M	4,5	10/300
ER-PLATE	002473017	ERB-T & ERB-M	0,5	10/400
ER-TERMINAL	002473018	ERB-T & ERB-M	1,3	2/20
ERC-024AC	002473019	ERB-T & ERB-M $U_c \leq 24V$ AC	2,6	20/100
ERC-230AC	002473020	ERB-T & ERB-M $U_c \leq 230V$ AC	2,6	20/100
ERC-024ACDCL	002473040	ERB-T & ERB-M $U_c = 6 \ldots 24$ V AC/DC	2,9	20/100
ERC-060ACDCL	002473041	ERB-T & ERB-M $U_c = 24 \ldots 60$ V AC/DC	2,9	20/100
ERC-230ACDCL	002473042	ERB-T & ERB-M $U_c = 110 \ldots 230$ V AC/DC	2,9	20/100

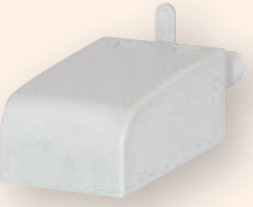
ER-CLIP
Mechanical lock of relay in socket



ER-PLATE
description

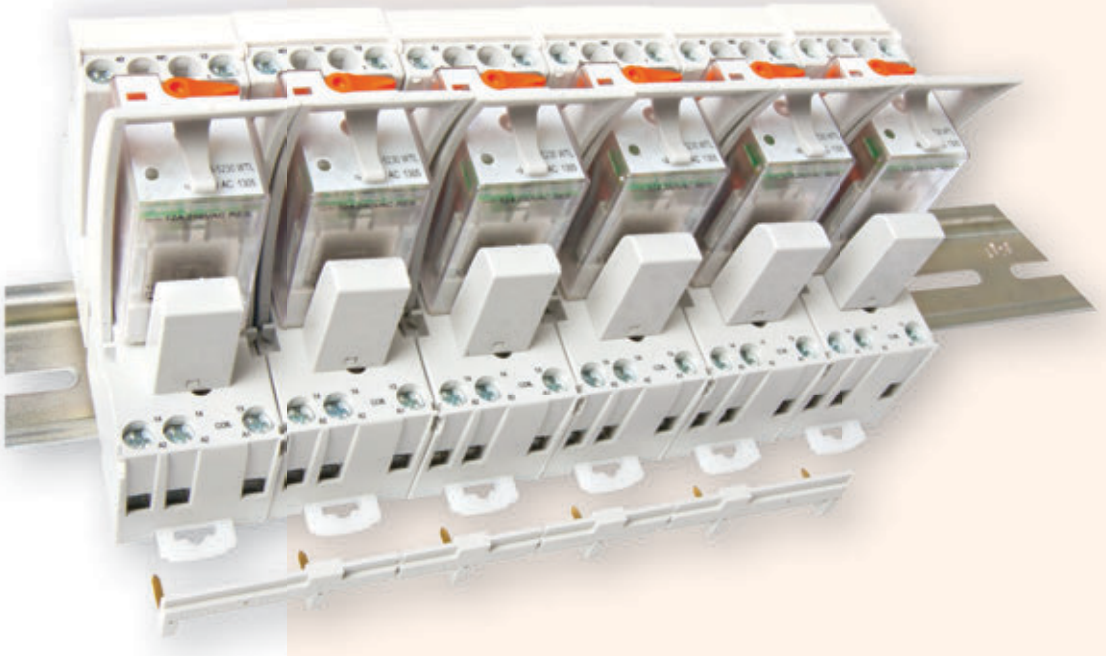


ER-TERMINAL
bridges common input signals (coil terminals A1 or A2) up to 6 relays



ERC
protection module

ERC-(024…230)ACDCL
MOV protection module with indication AC and DC.



Industrial plugin electromagnetic relays

Relays for general application

For plug-in sockets: 35 mm rail mount acc. to EN 60715; panel mounting
Miniature dimensions
Cadmium - free contacts
AC and DC coils
Recognitions, certifications, directives: RoHS, CE
Standards: EN61810-1:2008 (electromechanical relays); EN61984:2002, EN60998-2-1:2001, EN60664-1:2003 (sockets)

Table 1: Technical data

	ERM2	ERM4
Number and type of contacts	2 CO	4 CO
Contact material	AgNi	
Rated / max. switching voltage AC	250 V / 440 V	250 V / 250 V
Min. switching voltage	10 V	10 V AgNi, 10 V AgNi/Au 0,2 µm, 5 V AgNi/Au 5 µm
Rated load (capacity) AC1 AC15 AC3 DC1 DC13	 12 A / 250 V AC 3 A / 120 V 1,5 A / 240 V 370 W (single-phase motor) 12 A / 24 V DC (see Fig. 3) 0,22 A / 120 V 0,1 A / 250 V	 6 A / 250 V AC 1,5 A / 120 V 0,75 A / 240 V (C300) 125 W (single-phase motor) 6 A / 24 V DC (see Fig. 3) 0,22 A / 120 V 0,1 A / 250 V (R300)
Min. switching current	5 mA	
Max. inrush current	24 A	12 A
Rated current	12 A	6 A
Max. breaking capacity AC1	3 000 VA	1 500 VA
Min. breaking capacity	0,3 W	0,3 W AgNi, 0,3 W AgNi/Au 0,2 µm, 0,1 W AgNi/Au 5 µm
Contact resistance	≤ 100 mΩ	
Max. operating frequency (cycles/hour) • at rated load AC1 • no load	 1 200 18 000	
Coil data		
Rated voltage 50/60 Hz AC DC	See table 2	
Must release voltage	AC: ≥ 0,2 Un DC: ≥ 0,1 Un	
Operating range of supply voltage	see Table 2	
Rated power consumption AC DC	1,6 VA 0,9 W	
Insulation according to EN 60664-1		
Insulation rated voltage	250 V AC	
Rated surge voltage	4 000 V 1,2 / 50 µs	2 500 V 1,2 / 50 µs
Overvoltage category	III	II
Insulation pollution degree	3	2
Dielectric strength • between coil and contacts • contact clearance • pole - pole	 2 500 V AC type of insulation: basic 1 500 V AC type of clearance: micro-disconnection 2 500 V AC type of insulation: basic	
Contact - coil distance • clearance • creepage	 ≥ 2,5 mm ≥ 4 mm	 ≥ 1,6 mm ≥ 3,2 mm
General data		
Operating / release time (typical values)	AC: 10 ms / 8 ms DC: 13 ms / 3 ms	
Electrical life • resistive AC1 • cosΦ	 $> 10^5$ 12 A, 250 V AC see Fig. 2	 $> 10^5$ 6 A, 250 V AC see Fig. 2
Mechanical life (cycles)	> 2 x 107	
Dimensions (L x W x H)	27,5 x 21,2 x 35,6 mm	
Weight	35 g	
Ambient temperature • storage • operating	 -40...+85 °C AC: -40...+55 °C DC: -40...+70 °C	
Cover protection category	IP 40 EN 60529	
Environmental protection	RTI EN 116000-3	
Shock resistance (NO/NC)	10 g / 5 g	
Vibration resistance	5 g 10...150 Hz	