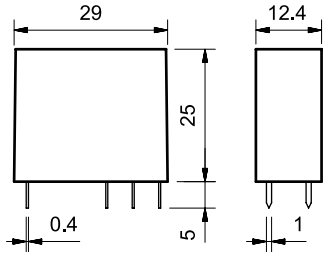
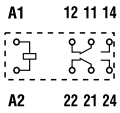
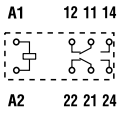
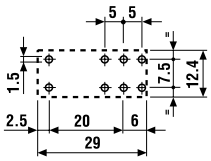
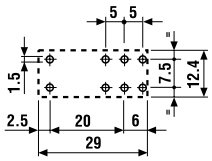
PCB Relay with forcibly guided contacts according to EN 50205 type B
2 CO contacts*

- High physical separation between adjacent contacts
- Cadmium Free contact materials
- 8 mm, 6 kV (1.2/50 µs) isolation, coil-contacts
- Flux proof: RT II



* According to E N 50205 only 1 NO and 1 NC (11-14 and 21-22 or 11-12 and 21-24) shall be used as forcibly guided contacts.

For UL ratings see:
"General technical information" page V

		50.12…1000	50.12…5000
			
		• For medium duty switching, suggested for DC loads • 2 Pole 8 A • 5 mm pinning • PCB mounting	• For safety applications • Gold plate contacts for low level switching capability • 5 mm pinning • PCB mounting
			
			
		Copper side view	Copper side view
Contact specification			
Contact configuration		2 CO (DPDT)	2 CO (DPDT)
Rated current/Maximum peak current	A	8/15	8/15
Rated voltage/ Maximum switching voltage	V AC	250/400	250/400
Rated load AC1	VA	2000	2000
Rated load AC15 (230 V AC)	VA	500	500
Single phase motor rating (230 V AC)	kW	0.37	0.37
Breaking capacity DC1: 30/110/220 V	A	8/0.65/0.2	8/0.65/0.2
Minimum switching load	mW (V/mA)	500 (10/10)	50 (5/5)
Standard contact material		AgNi	AgNi + Au
Coil specification			
Nominal voltage (U_N)	V AC (50/60 Hz)	—	—
	V DC	5 - 6 - 12 - 24 - 48 - 60 - 110 - 125	5 - 6 - 12 - 24 - 48 - 60 - 110 - 125
Rated power AC/DC	VA (50 Hz)/W	—/0.7	—/0.7
Operating range	AC (50 Hz)	—	—
	DC	(0.75…1.2)U_N	(0.75…1.2)U_N
Holding voltage	AC/DC	—/0.4 U_N	—/0.4 U_N
Must drop-out voltage	AC/DC	—/0.1 U_N	—/0.1 U_N
Technical data			
Mechanical life AC/DC	cycles	—/10 · 10^6	—/10 · 10^6
Electrical life at rated load AC1	cycles	100 · 10^3	100 · 10^3
Operate/release time	ms	10/4	10/4
Insulation between coil and contacts (1.2/50 µs)	kV	6 (8 mm)	6 (8 mm)
Dielectric strength between open contacts	V AC	1500	1500
Ambient temperature range	°C	–40…+70	–40…+70
Environmental protection		RT II	RT II
Approvals (according to type)			

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Ordering information

Example: 50 series forcibly guided contacts, 2 CO (DPDT) 8 A contacts, 24 V DC coil.

5 0	.	1	2	.	9	.	0 2 4	.	A: 5	B: 0	C: 0	D: 0

Series

Type
1 = PCB - 5 mm pinning

No. of poles
2 = 2 pole 8 A

Coil version
9 = DC

Coil voltage
See coil specifications

A: Contact material
1 = Standard AgNi
5 = AgNi + Au

B: Contact circuit
0 = CO (DPDT)

C: Options
0 = None

D: Special versions
0 = Flux proof (RT II)

Selecting features and options: only combinations in the same row are possible.
Preferred selections for best availability are shown in **bold.**

Type	Coil version	A	B	C	D
50.12	DC	**1** - 5	**0**	**0**	**0**

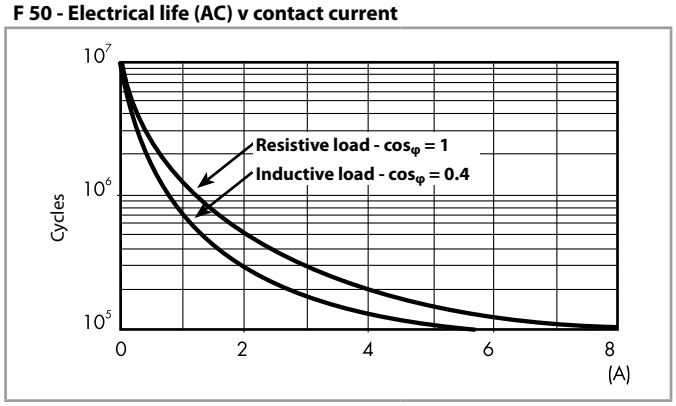
Technical data

Insulation according to EN 61810-1				
Nominal voltage of supply system		V AC	230/400	
Rated insulation voltage		V AC	250	400
Pollution degree			3	2
Insulation between coil and contact set				
Type of insulation			Reinforced (8 mm)	
Overvoltage category			III	
Rated impulse voltage		kV (1.2/50 µs)	6	
Dielectric strength		V AC	4000	
Insulation between adjacent contacts				
Type of insulation			Basic	
Overvoltage category			III	
Rated impulse voltage		kV (1.2/50 µs)	4	
Dielectric strength		V AC	3000	
Insulation between open contacts				
Type of disconnection			Micro-disconnection	
Dielectric strength		V AC/kV (1.2/50 µs)	1500/2.5	
Conducted disturbance immunity				
Burst (5…50)ns, 5 kHz, on A1 - A2			EN 61000-4-4	level 4 (4 kV)
Surge (1.2/50 µs) on A1 - A2 (differential mode)			EN 61000-4-5	level 3 (2 kV)
Other data				
Bounce time: NO/NC		ms	2/10	
Vibration resistance (10…200)Hz: NO/NC		g	20/6	
Shock resistance NO/NC		g	20/5	
Power lost to the environment	without contact current	W	0.7	
	with rated current	W	1.2	
Recommended distance between relays mounted on PCB		mm	≥ 5	

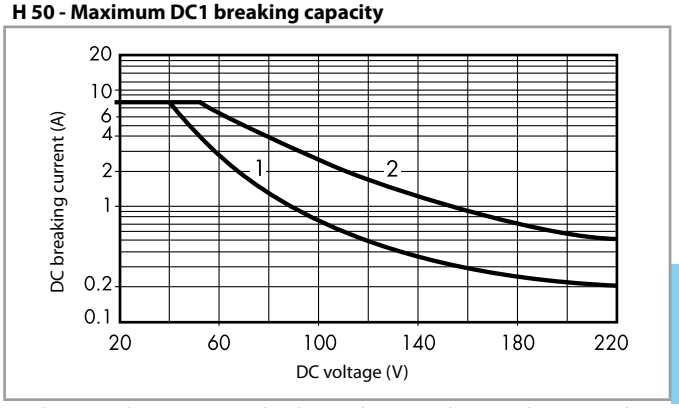
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Contact specification

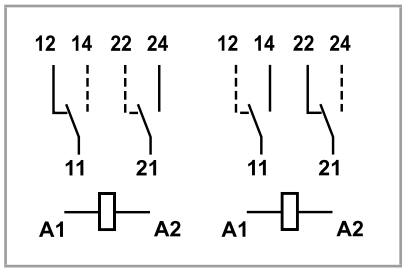
F 50 - Electrical life (AC) v contact current



H 50 - Maximum DC1 breaking capacity



- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of ≥ $100 \cdot 10^3$ can be expected.
- In the case of DC13 loads, the connection of a diode in parallel with the load will permit a similar electrical life as for a DC1 load.
  Note: the release time for the load will be increased.



Alternative selection of NO and NC contacts to provide Forcibly guided (mechanically linked) contacts, in accordance with EN 50205 (type B).

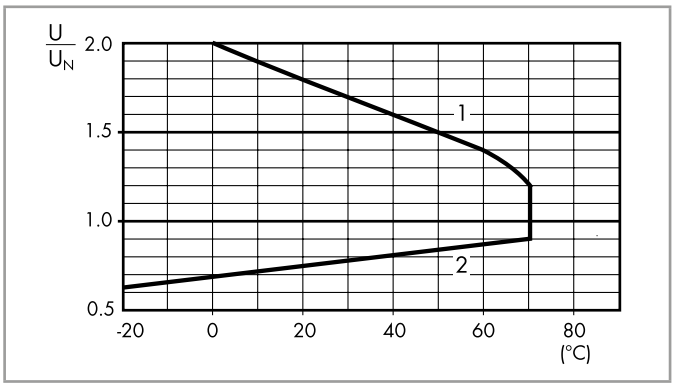
Coil specifications

DC coil data

Nominal voltage U_N	Coil code	Operating range U_{min}	Operating range U_{max}	Resistance R	Rated coil consumption I at U_N
V		V	V	Ω	mA
5	**9**.005	3.8	6	35	143
6	**9**.006	4.5	7.2	50	120
12	**9**.012	9	14.4	205	58.5
24	**9**.024	18	28.8	820	29.3
48	**9**.048	36	57.6	3280	14.4
60	**9**.060	45	72	5140	11.7
110	**9**.110	82.5	131	17250	6.4
125	**9**.125	93.7	150	22300	5.6

R 50 - DC coil operating range v ambient temperature

Standard coil



1 - Max. permitted coil voltage.
2 - Min. pick-up voltage with coil at ambient temperature.

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32.21.7.012.4000 406290240000 563291100040 093.08 20.28.8.230.0000 39.61.0.060.0060 563290600040
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