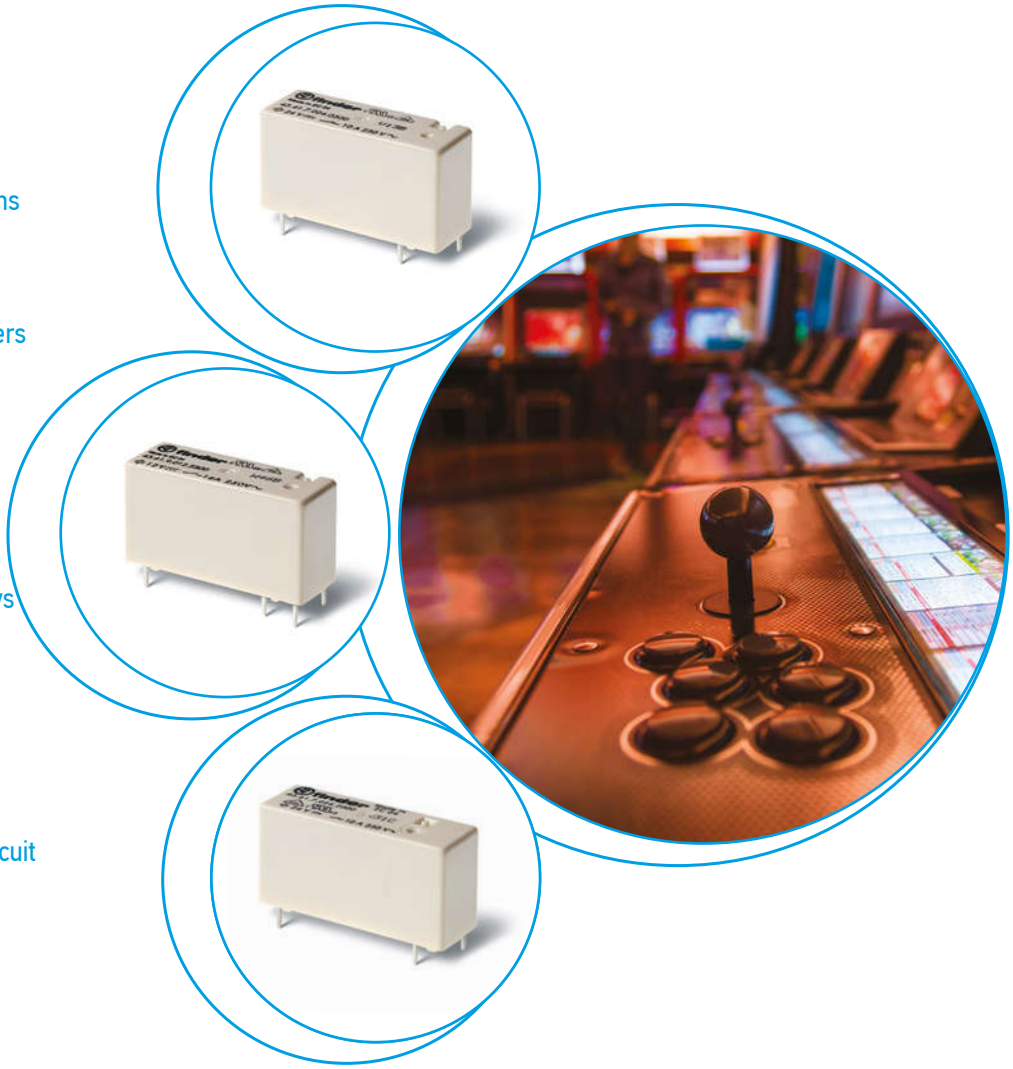
finder
SWITCH TO THE FUTURE

43
SERIES

Low profile PCB relays
10 - 16 A

- Medical and dentistry
- Alarm systems
- Air conditioners
- Burners, boilers and furnaces
- Electric and electronic toys and games
- Door and gate openers
- Electronic circuit boards
- Vending machines



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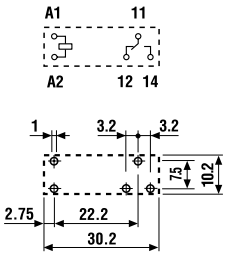
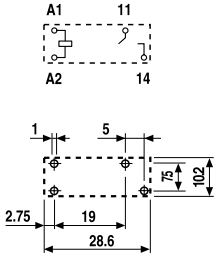
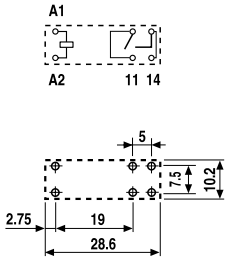
1 Pole - Low profile (15.4 mm height)
Type 43.41
- 1 Pole, 10 A (3.2 mm pin pitch)

Type 43.41-0300
- 1 Pole NO, 10 A (5 mm pin pitch)

Type 43.61-0300
- 1 Pole NO, 16 A (5 mm pin pitch)

PCB mount - direct or via PCB socket (43.41 version)

- Sensitive DC coil:
  - 250 mW (10 A version)
  - 400 mW (16 A version)
- Very high coil-contact isolation 10 mm, 6 kV (1.2/50 µs)
- Cadmium Free contacts (preferred version)
- Flux proof: RT II standard, (RT III option)

	43.41	43.41-0300	43.61-0300
			
	• 3.2 mm contact pin pitch • 1 Pole CO, 10 A • PCB direct or via socket	• 5.0 mm contact pin pitch • 1 Pole NO, 10 A • PCB mount	• 5.0 mm contact pin pitch • 1 Pole NO, 16 A • PCB mount
			
FOR UL RATINGS SEE: *"General technical information" page* V			
For outline drawing see page 5	Copper side view	Copper side view	Copper side view
Contact specification			
Contact configuration	1 CO (SPDT)	1 NO (SPST-NO)	1 NO (SPST-NO)
Rated current/Maximum peak current A	10/15	10/15	16/25
Rated voltage/ Maximum switching voltage V AC	250/400	250/400	250/400
Rated load AC1 VA	2500	2500	4000
Rated load AC15 (230 V AC) VA	500	500	750
Single phase motor rating (230 V AC) kW	—	—	—
Breaking capacity DC1: 30/110/220 V A	10/0.3/0.12	10/0.3/0.12	16/0.3/0.12
Minimum switching load mW (V/mA)	300 (5/5)	300 (5/5)	300 (5/5)
Standard contact material	AgNi	AgNi	AgNi
Coil specification			
Nominal voltage (U_N) V AC (50/60 Hz)	—	—	—
V DC	3 - 6 - 9 - 12 - 18 - 24 - 36 - 48	3 - 6 - 9 - 12 - 18 - 24 - 36 - 48	12 - 24 - 48
Rated power AC/DC VA (50 Hz)/W	—/0.25	—/0.25	—/0.4
Operating range AC	—	—	—
DC	(0.7…1.5)U_N	(0.7…1.5)U_N	(0.7…1.2)U_N
Holding voltage AC/DC	—/0.4 U_N	—/0.4 U_N	—/0.4 U_N
Must drop-out voltage AC/DC	—/0.05 U_N	—/0.05 U_N	—/0.05 U_N
Technical data			
Mechanical life AC/DC cycles	—/10 · 10^6	—/10 · 10^6	—/10 · 10^6
Electrical life at rated load AC1 cycles	100 · 10^3	100 · 10^3	50 · 10^3
Operate/release time ms	6/4	6/2	6/2
Insulation between coil and contacts (1.2/50 µs) kV	6 (10 mm)	6 (10 mm)	6 (10 mm)
Dielectric strength between open contacts V AC	1000	1000	1000
Ambient temperature range °C	–40…+85	–40…+85	–40…+85
Environmental protection	RT II	RT II	RT II
Approvals (according to type)			

Ordering information

A

Example: 43 series low-profile PCB relay, 1 CO (SPDT), 24 V DC coil.

								A	B	C	D	
4	3	.	4	1	.	7	.	0 2 4	.	2	0	0	0

Series

Type
4 = PCB - 3.2 mm pinning (CO/SPDT, 10 A)
PCB - 5 mm pinning (NO/SPST-NO, 10 A)
6 = PCB - 5 mm pinning (NO/SPST-NO, 16 A)

No. of poles
1 = 1 pole

Coil version
7 = Sensitive DC (only for 43.41)
9 = DC (only for 43.61)

Coil voltage
See coil specifications

A: Contact material
0 = AgNi
2 = AgCdO
4 = $AgSnO_2$
5 = AgNi + Au

B: Contact circuit
0 = CO (SPDT) - (for 43.41 only)
3 = NO (SPST)

C: Options
0 = None

D: Special versions
0 = Flux proof (RT II)
1 = Wash tight (RT III)

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
43.41	sensitive DC	**0** - 2 - 4 - 5	**0** - 3	**0**	**0** - 1
43.61	DC	**0** - 2 - 4	**3**	**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 (10 mm)	
Overvoltage category			III	
Rated impulse voltage		kV (1.2/50 µs)	6	
Dielectric strength		V AC	4000	
Insulation between open contacts				
Type of disconnection			Micro-disconnection	
Dielectric strength		V AC/kV (1.2/50 µs)	1000/1.5	
Insulation between coil terminals				
Rated impulse voltage (surge) differential mode (according to EN 61000-4-5)		kV (1.2/50 µs)	2	
Other data				
Bounce time: NO/NC		ms	3/6	
Vibration resistance (5…55)Hz: NO/NC		g	15/3	
Shock resistance		g	15	
Power lost to the environment	without contact current	W	0.25 (43.41)	0.4 (43.61)
	with rated current	W	1.3 (43.41)	2 (43.61)
Recommended distance between relays mounted on PCB		mm	≥ 5	

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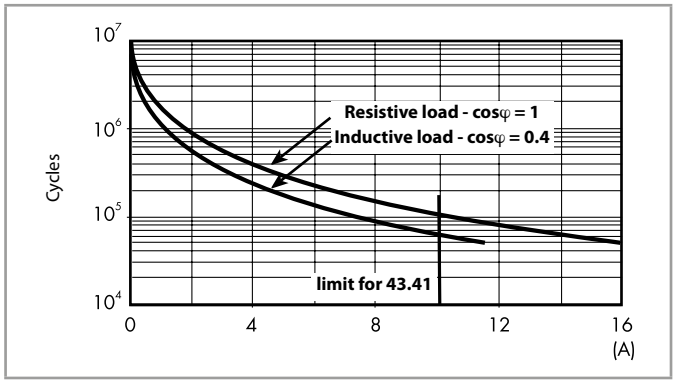
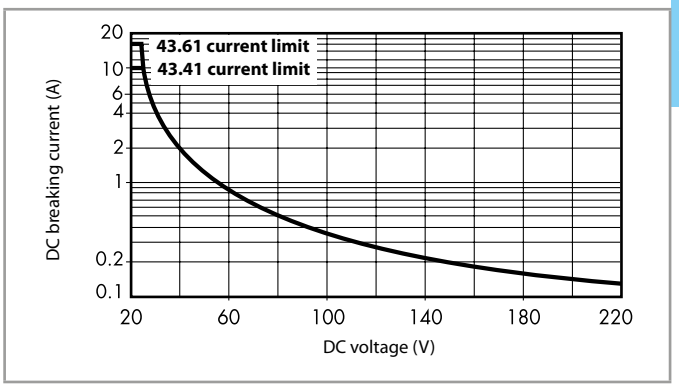
Contact specification

F 43 - Electrical life (AC) v contact current



H 43 - Maximum DC1 breaking capacity



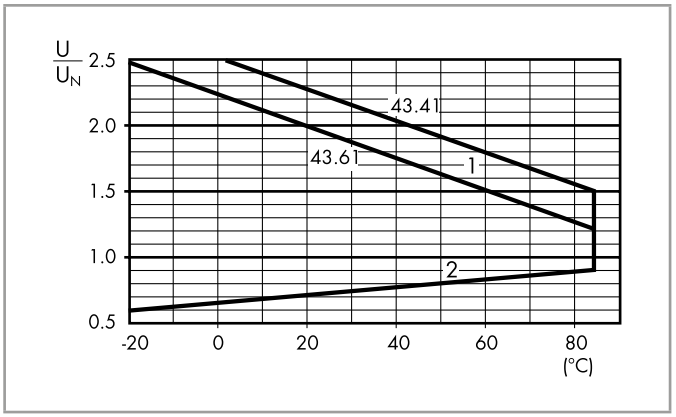
- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of ≥ 100 · 10^3 for 43.41 and ≥ 50 · 10^3 for 43.61 can be expected.
- In the case of DC13 loads, the connection of a diode in parallel with the load will permit a similar electrical life as for a DC1 load.
  Note: the release time for the load will be increased.

Coil specifications

DC coil data - 0.25 W sensitive (type 43.41)

Nominal voltage	Coil code	Operating range		Resistance	Rated coil consumption
U_N		U_{min}	U_{max}	R	I at U_N
V		V	V	Ω	mA
3	**7**.003	2.2	4.5	36	83.5
6	**7**.006	4.2	9	150	40
9	**7**.009	6.5	13.5	324	27.7
12	**7**.012	8.4	18	580	20.7
18	**7**.018	13	27	1300	13.8
24	**7**.024	16.8	36	2200	10.9
36	**7**.036	25.2	54	5200	6.9
48	**7**.048	33.6	72	9200	5.2

R 43 - DC coil operating range v ambient temperature



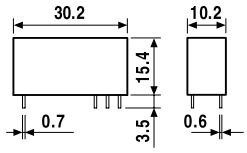
1 - Max. permitted coil voltage.
2 - Min. pick-up voltage with coil at ambient temperature.

DC coil data - 0.4 W standard (type 43.61)

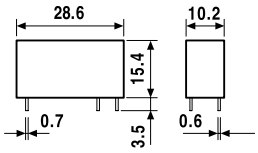
Nominal voltage	Coil code	Operating range		Resistance	Rated coil consumption
U_N		U_{min}	U_{max}	R	I at U_N
V		V	V	Ω	mA
12	**9**.012	8.4	14.4	360	33.3
24	**9**.024	16.8	28.8	1400	17.1
48	**9**.048	33.6	57.6	5760	8.3

Outline drawings

Type 43.41



Types 43.41-0300/43.61-0300



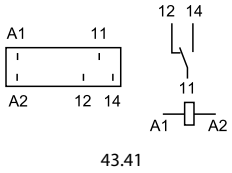
95 SERIES
Sockets and accessories for 43 series relays



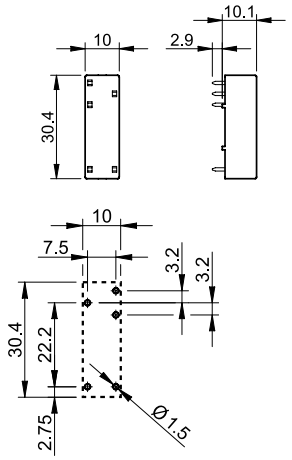
95.23

Approvals (according to type):

PCB socket (for changeover contacts only)	**95.23 (blue)**	**95.23.0 (black)**
For relay type	43.41	43.41
Accessories		
Metal retaining clip (supplied with socket - packaging code SNA)	095.43	
Technical data		
Rated values	10 A - 250 V	
Insulation	6 kV (1.2/50 µs) between coil and contacts	
Protection category	IP 20	
Ambient temperature °C	–40…+70	



43.41



Copper side view

Packaging codes

How to code and identify retaining clip and packaging options for sockets.

Example:

9	5	.	2	3	S	N	A

A Standard packaging

SN Metal retaining clip

9	5	.	2	3			

Without retaining clip

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Please see general technical information