

Features

2 & 4 Pole relay interface modules,
27 mm wide.

Ideal interface for PLC and electronic systems

- 59.32 - 2 Pole 10 A (screw terminals)
- 59.34 - 4 Pole 7 A (screw terminals)
- 59.54 - 4 Pole 7 A (screwless terminals)

- AC coils and DC coils
- Supply status indication and coil suppression module as standard
- Identification labels
- Cadmium Free contact material options
- 35 mm rail (EN 60715) mount

59.32 / 59.34
Screw terminals



59.54
Screwless terminals



For outline drawing see page 4

Contact specification

Contact configuration	2 CO (DPDT)	4 CO (4PDT)	4 CO (4PDT)
Rated current/Maximum peak current	A 10/20	7/10	7/10
Rated voltage/Maximum switching voltage V AC	250/400	250/250	250/250
Rated load AC1	VA 2,500	1,750	1,750
Rated load AC15 (230 V AC)	VA 500	350	350
Single phase motor rating (230 V AC)	kW 0.37	0.125	0.125
Breaking capacity DC1: 30/110/220V	A 10/0.25/0.12	7/0.25/0.12	7/0.25/0.12
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)	12 - 24 - 230	12 - 24 - 230	12 - 24 - 230
	V DC	12 - 24	12 - 24	12 - 24
Rated power AC/DC	VA (50 Hz)/W	1.5/1	1.5/1	1.5/1
Operating range	AC	(0.8...1.1)U _N	(0.8...1.1)U _N	(0.8...1.1)U _N
	DC	(0.8...1.1)U _N	(0.8...1.1)U _N	(0.8...1.1)U _N
Holding voltage	AC/DC	0.8 U _N /0.5 U _N	0.8 U _N /0.5 U _N	0.8 U _N /0.5 U _N
Must drop-out voltage	AC/DC	0.2 U _N /0.1 U _N	0.2 U _N /0.1 U _N	0.2 U _N /0.1 U _N

Technical data

Mechanical life AC/DC	cycles	20 · 10 ⁶ /50 · 10 ⁶	20 · 10 ⁶ /50 · 10 ⁶	20 · 10 ⁶ /50 · 10 ⁶
Electrical life at rated load AC1	cycles	200 · 10 ³	150 · 10 ³	150 · 10 ³
Operate/release time	ms	10/5 (AC) - 9/15 (DC)	10/5 (AC) - 9/15 (DC)	11/3 (AC) - 11/15 (DC)
Insulation between coil and contacts (1.2/50 μs)	kV	3.6	3.6	3.6
Dielectric strength between open contacts	V AC	1,000	1,000	1,000
Ambient temperature range	°C	-40...+70	-40...+70	-40...+70
Protection category		IP 20	IP 20	IP 20

Approvals relay (according to type)

	59.32	59.34	59.54
	<ul style="list-style-type: none"> • 2 pole, 10 A • Screw terminals • 35 mm rail (EN 60715) mount 	<ul style="list-style-type: none"> • 4 pole, 7 A • Screw terminals • 35 mm rail (EN 60715) mount 	<ul style="list-style-type: none"> • 4 pole, 7 A • Screwless terminals • 35 mm rail (EN 60715) mount
	 Example: AC	 Example: DC	 Example: AC
	2 CO (DPDT)	4 CO (4PDT)	4 CO (4PDT)
Rated current/Maximum peak current	A 10/20	7/10	7/10
Rated voltage/Maximum switching voltage V AC	250/400	250/250	250/250
Rated load AC1	VA 2,500	1,750	1,750
Rated load AC15 (230 V AC)	VA 500	350	350
Single phase motor rating (230 V AC)	kW 0.37	0.125	0.125
Breaking capacity DC1: 30/110/220V	A 10/0.25/0.12	7/0.25/0.12	7/0.25/0.12
Minimum switching load	mW (V/mA) 300 (5/5)	300 (5/5)	300 (5/5)
Standard contact material	AgNi	AgNi	AgNi
Nominal voltage (U _N)	V AC (50/60 Hz)	12 - 24 - 230	12 - 24 - 230
	V DC	12 - 24	12 - 24
Rated power AC/DC	VA (50 Hz)/W	1.5/1	1.5/1
Operating range	AC	(0.8...1.1)U _N	(0.8...1.1)U _N
	DC	(0.8...1.1)U _N	(0.8...1.1)U _N
Holding voltage	AC/DC	0.8 U _N /0.5 U _N	0.8 U _N /0.5 U _N
Must drop-out voltage	AC/DC	0.2 U _N /0.1 U _N	0.2 U _N /0.1 U _N
Mechanical life AC/DC	cycles	20 · 10 ⁶ /50 · 10 ⁶	20 · 10 ⁶ /50 · 10 ⁶
Electrical life at rated load AC1	cycles	200 · 10 ³	150 · 10 ³
Operate/release time	ms	10/5 (AC) - 9/15 (DC)	10/5 (AC) - 9/15 (DC)
Insulation between coil and contacts (1.2/50 μs)	kV	3.6	3.6
Dielectric strength between open contacts	V AC	1,000	1,000
Ambient temperature range	°C	-40...+70	-40...+70
Protection category		IP 20	IP 20

Ordering information

Example: 59 series 35 mm rail (EN 60715) mounting, screw terminal, interface module, 4 CO (4PDT), 24 V DC coil, green LED + diode.

5	9	3	4	9	0	2	4	0	0	5	0						
Series			Type			A: Contact material			B: Contact circuit			C: Options			D: Special versions		
			3 = Screw terminals, 35 mm rail (EN 60715) mount			0 = AgNi Standard			0 = CO (nPDT)			5 = Standard DC: green LED + diode (polarity +A1)			0 = Standard		
			5 = Screwless terminals, 35 mm rail (EN 60715) mount			2 = AgCdO						6 = Standard AC: green LED + Varistor					
			No. of poles			5 = AgNi + Au (5 µm)											
			2 = 2 pole, 10 A														
			4 = 4 pole, 7 A														
			Coil version														
			8 = AC (50/60 Hz)														
			9 = DC														
			Coil voltage														
			See coil specifications														

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

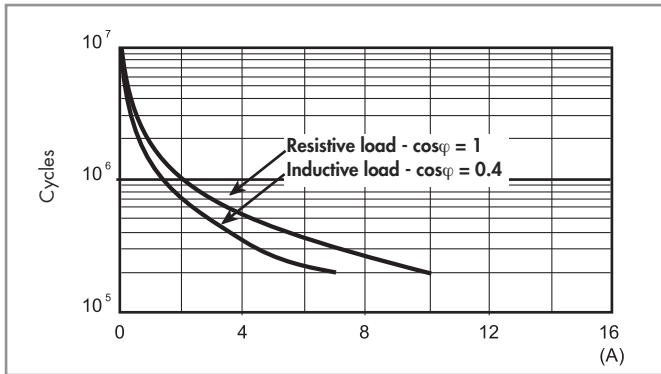
Type	Coil version	A	B	C	D
59.32/33/34/54	AC	0 - 2 - 5	0	6	0
59.32/33/34/54	DC	0 - 2 - 5	0	5	0

Technical data

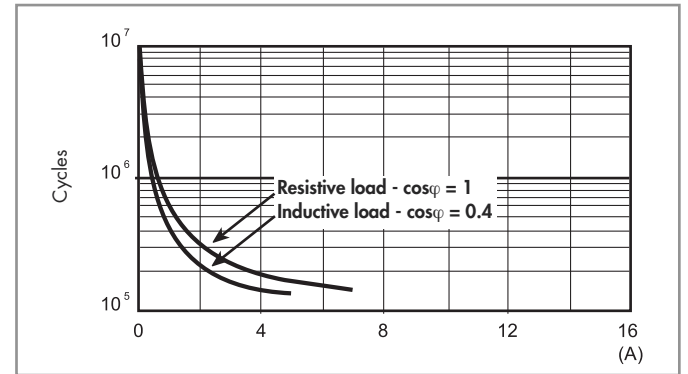
Insulation					
Insulation according to EN 61810-1	insulation rated voltage	V	400 (2 pole)		250 (4 pole)
	rated impulse withstand voltage	kV	3.6 (2 pole)		2.5 (4 pole)
	pollution degree		2		2
	overvoltage category		III		II
Insulation between coil and contacts (1.2/50 µs)		kV	3.6		
Dielectric strength between open contacts		V AC	1,000		
Dielectric strength between adjacent contacts		V AC	2,000 (59.32)		1,550 (59.34/54)
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 4 (4 kV)
Other data					
Bounce time: NO/NC		ms	1/3		
Vibration resistance (10...55)Hz: NO/NC		g	6/6		
Power lost to the environment	without contact current	W	1		
	with rated current	W	3		
			59.32/34 (screw terminals)		59.54 (screwless terminals)
Wire strip length	mm	8		8	
Screw torque	Nm	0.5		—	
Max. wire size		solid cable	stranded cable	solid cable	stranded cable
	mm ²	1x6 / 2x2.5	1x4 / 2x2.5	1x2.5	1x1.5
	AWG	1x10 / 2x14	1x12 / 2x14	1x14	1x16

Contact specification

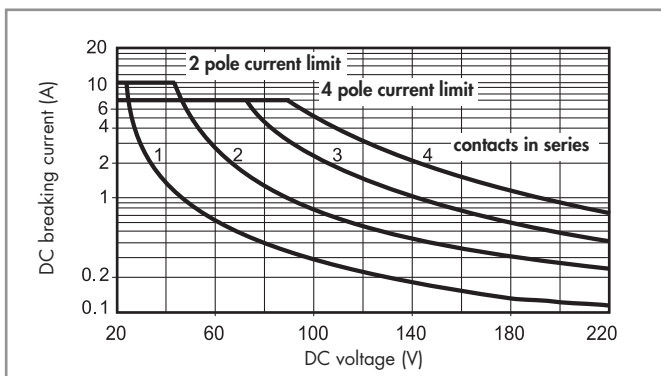
F 59 - Electrical life (AC) v contact current
2 pole relay



F 59 - Electrical life (AC) v contact current
4 pole relay



H 59 - Maximum DC1 breaking capacity



- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of $\geq 100 \cdot 10^3$ 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.

Coil specifications

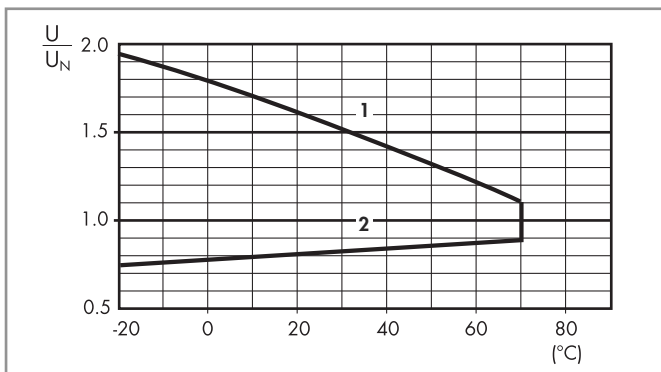
DC coil data

Nominal voltage U_N V	Coil code	Operating range		Resistance R Ω	Rated coil absorption I at U_N mA
		U_{min} V	U_{max} V		
12	9.012	9.6	13.2	140	86
24	9.024	19.2	26.4	600	40

AC coil data

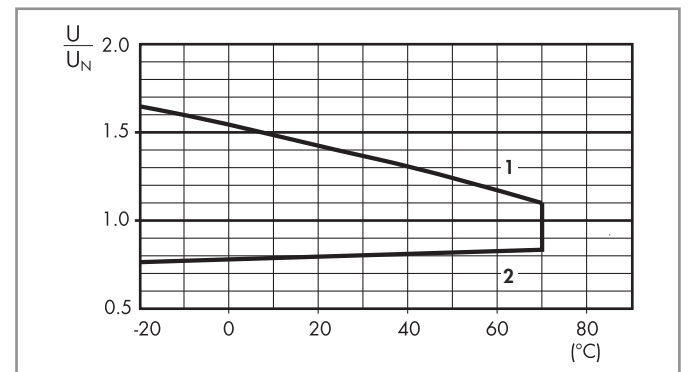
Nominal voltage U_N V	Coil code	Operating range		Resistance R Ω	Rated coil absorption I at U_N (50Hz) mA
		U_{min} V	U_{max} V		
12	8.012	9.6	13.2	50	97
24	8.024	19.2	26.4	190	53
230	8.230	184	253	17,000	6

R 59 - DC coil operating range v ambient temperature



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

R 59 - AC coil operating range v ambient temperature

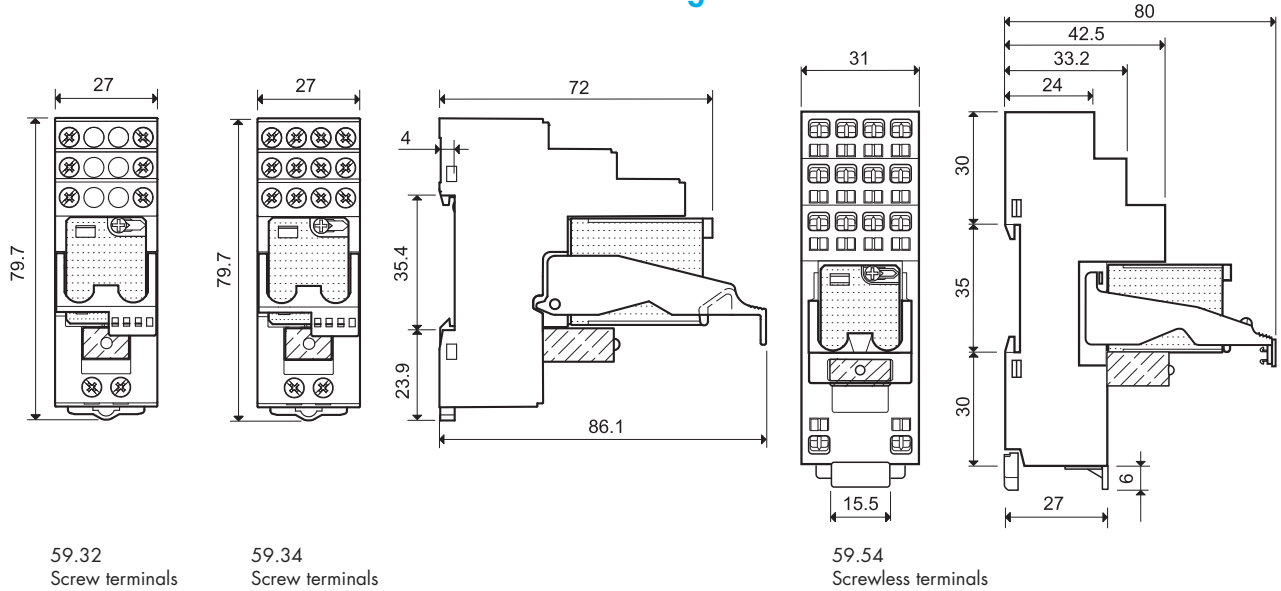


- 1 - Max. permitted coil voltage.
2 - Min. pick-up voltage with coil at ambient temperature.

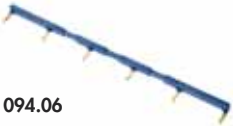
Combinations

Code	Type of socket	Type of relay	Module	Retaining clip
59.32	94.94.3	55.32	99.80	094.91.3
59.34	94.94.3	55.34	99.80	094.91.3
59.54	94.54.1	55.34	99.80	094.92

Outline drawing

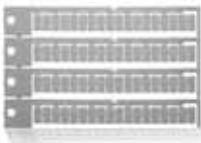
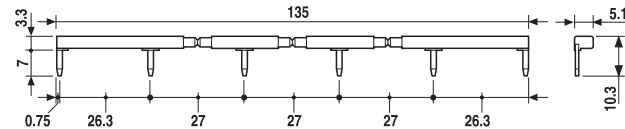


Accessories



094.06

6-way jumper link for 59.32 and 59.34	094.06 (blue)	094.06.0 (black)
Rated values	10 A - 250 V	



060.72

Sheet of marker tags for retaining and release clip 094.91.3 plastic, 72 tags, 6x12 mm	060.72
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020.24

Sheet of marker tags for retaining and release clip 094.91 plastic, 24 tags, 9x17 mm	020.24
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Packaging codes

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

Example:

5 9 . 3 4 . 9 . 0 2 4 . 0 0 5 0 S P A

A Standard packaging
B Blister packaging

SP Plastic retaining clip