

## 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 <sub>N</sub> )	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 <sub>N</sub>	(0.8...1.1)U <sub>N</sub>	(0.8...1.1)U <sub>N</sub>
	DC	(0.8...1.1)U <sub>N</sub>	(0.8...1.1)U <sub>N</sub>	(0.8...1.1)U <sub>N</sub>
Holding voltage	AC/DC	0.8 U <sub>N</sub> /0.5 U <sub>N</sub>	0.8 U <sub>N</sub> /0.5 U <sub>N</sub>	0.8 U <sub>N</sub> /0.5 U <sub>N</sub>
Must drop-out voltage	AC/DC	0.2 U <sub>N</sub> /0.1 U <sub>N</sub>	0.2 U <sub>N</sub> /0.1 U <sub>N</sub>	0.2 U <sub>N</sub> /0.1 U <sub>N</sub>

### Technical data

Mechanical life AC/DC	cycles	20 · 10 <sup>6</sup> /50 · 10 <sup>6</sup>	20 · 10 <sup>6</sup> /50 · 10 <sup>6</sup>	20 · 10 <sup>6</sup> /50 · 10 <sup>6</sup>
Electrical life at rated load AC1	cycles	200 · 10 <sup>3</sup>	150 · 10 <sup>3</sup>	150 · 10 <sup>3</sup>
Operate/release time	ms	9/3 (AC) - 9/15 (DC)	9/3 (AC) - 9/15 (DC)	9/3 (AC) - 9/15 (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"> <li>• 2 pole, 10 A</li> <li>• Screw terminals</li> <li>• 35 mm rail (EN 60715) mount</li> </ul>	<ul style="list-style-type: none"> <li>• 4 pole, 7 A</li> <li>• Screw terminals</li> <li>• 35 mm rail (EN 60715) mount</li> </ul>	<ul style="list-style-type: none"> <li>• 4 pole, 7 A</li> <li>• Screwless terminals</li> <li>• 35 mm rail (EN 60715) mount</li> </ul>	
	  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 <sub>N</sub> )	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 <sub>N</sub>	(0.8...1.1)U <sub>N</sub>	(0.8...1.1)U <sub>N</sub>
	DC	(0.8...1.1)U <sub>N</sub>	(0.8...1.1)U <sub>N</sub>	(0.8...1.1)U <sub>N</sub>
Holding voltage	AC/DC	0.8 U <sub>N</sub> /0.5 U <sub>N</sub>	0.8 U <sub>N</sub> /0.5 U <sub>N</sub>	0.8 U <sub>N</sub> /0.5 U <sub>N</sub>
Must drop-out voltage	AC/DC	0.2 U <sub>N</sub> /0.1 U <sub>N</sub>	0.2 U <sub>N</sub> /0.1 U <sub>N</sub>	0.2 U <sub>N</sub> /0.1 U <sub>N</sub>
Mechanical life AC/DC	cycles	20 · 10 <sup>6</sup> /50 · 10 <sup>6</sup>	20 · 10 <sup>6</sup> /50 · 10 <sup>6</sup>	20 · 10 <sup>6</sup> /50 · 10 <sup>6</sup>
Electrical life at rated load AC1	cycles	200 · 10 <sup>3</sup>	150 · 10 <sup>3</sup>	150 · 10 <sup>3</sup>
Operate/release time	ms	9/3 (AC) - 9/15 (DC)	9/3 (AC) - 9/15 (DC)	9/3 (AC) - 9/15 (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

## 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						
<b>Series</b>			<b>Type</b>			<b>A: Contact material</b>			<b>B: Contact circuit</b>			<b>C: Options</b>			<b>D: Special versions</b>		
			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														
			<b>Coil version</b>														
			8 = AC (50/60 Hz)														
			9 = DC														
			<b>Coil voltage</b>														
			See coil specifications														

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

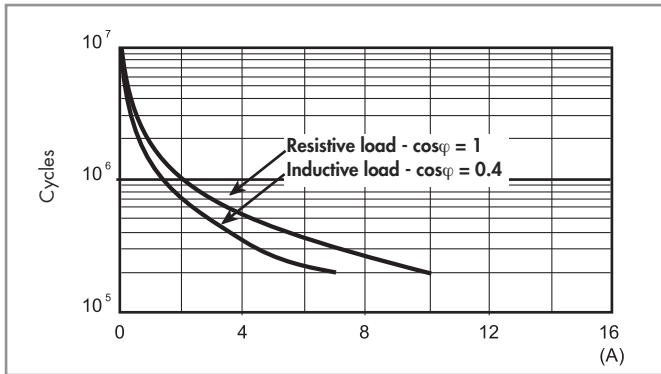
Type	Coil version	A	B	C	D
59.32/33/34/54	AC	<b>0</b> - 2 - 5	0	<b>6</b>	0
59.32/33/34/54	DC	<b>0</b> - 2 - 5	0	<b>5</b>	0

## Technical data

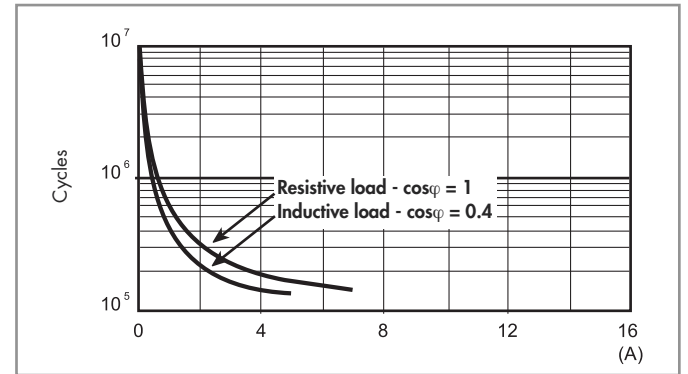
Insulation					
Insulation according to EN 61810-1	insulation rated voltage	V	400 (2 pole)		250 (4 pole)
	rated impulse withstand voltage	kV	3.6 (2 pole)		2.5 (4 pole)
	pollution degree		2		2
	overvoltage category		III		II
Insulation between coil and contacts (1.2/50 µs)		kV	3.6		
Dielectric strength 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	1/4		
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		
			<b>59.32/34 (screw terminals)</b>		<b>59.54 (screwless terminals)</b>
Wire strip length	mm	8		8	
Screw torque	Nm	0.5		—	
Max. wire size		solid cable	stranded cable	solid cable	stranded cable
	mm <sup>2</sup>	1x6 / 2x2.5	1x4 / 2x2.5	1x2.5	1x1.5
	AWG	1x10 / 2x14	1x12 / 2x14	1x14	1x16

## Contact specification

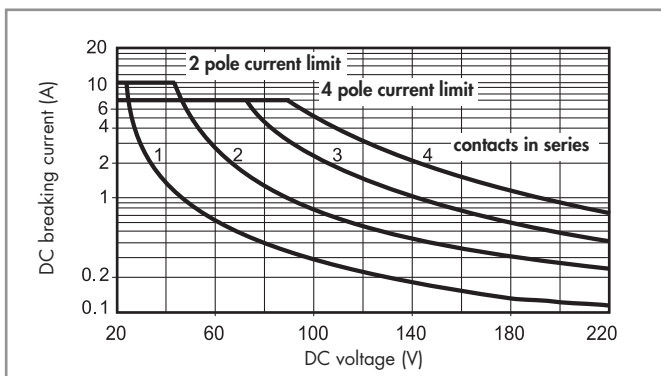
**F 59 - Electrical life (AC) v contact current**  
2 pole relay



**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

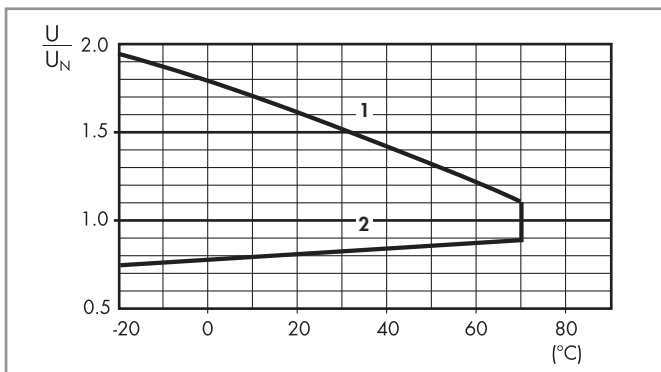
### DC coil data

Nominal voltage $U_N$ V	Coil code	Operating range		Resistance R $\Omega$	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

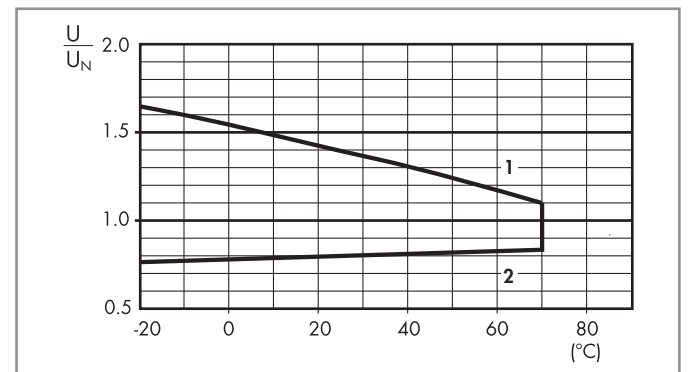
Nominal voltage $U_N$ V	Coil code	Operating range		Resistance R $\Omega$	Rated coil absorption I at $U_N$ (50Hz) mA
		$U_{min}$ V	$U_{max}$ V		
12	8.012	9.6	13.2	50	97
24	8.024	19.2	26.4	190	53
230	8.230	184	253	17,000	6

**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**

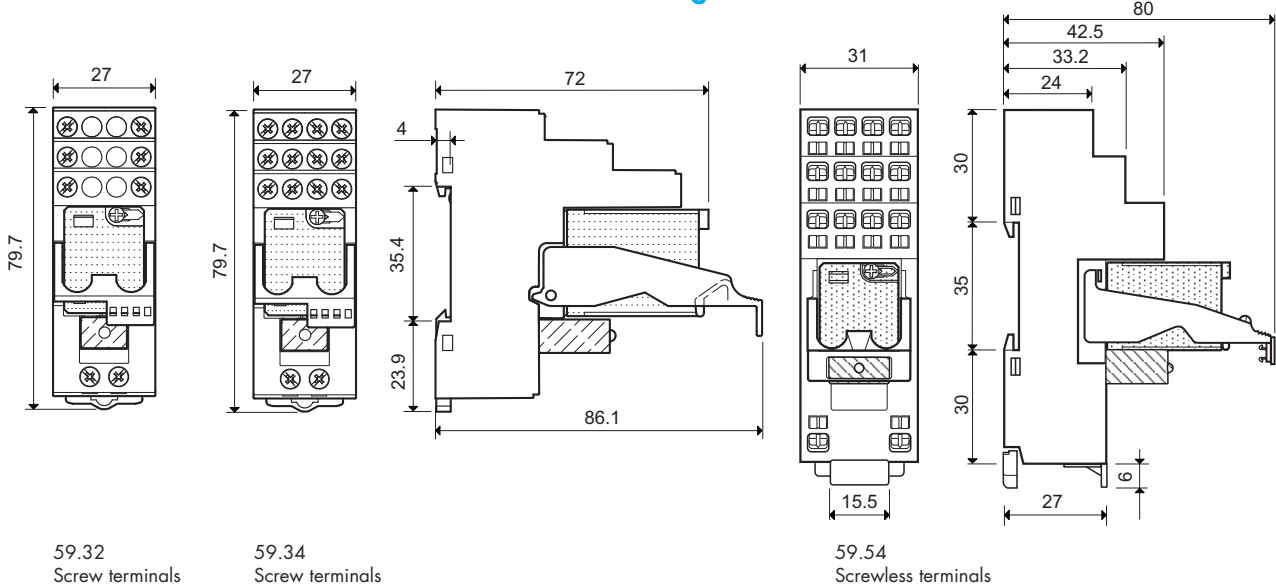


- 1 - Max. permitted coil voltage.  
2 - Min. pick-up voltage with coil at ambient temperature.

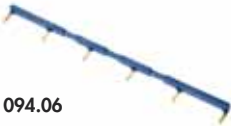
## Combinations

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

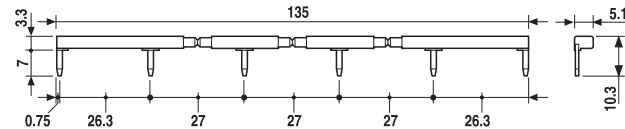


## Accessories



094.06

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



060.72

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

<b>Sheet of marker tags</b> 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