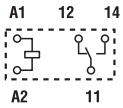
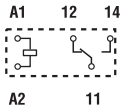
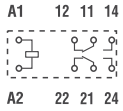
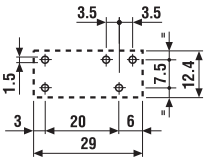
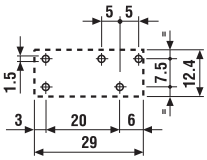
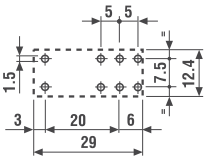
Features

1 & 2 Pole relay range
40.31 - 1 Pole 10 A (3.5 mm pin pitch)
40.51 - 1 Pole 10 A (5 mm pin pitch)
40.52 - 2 Pole 8 A (5 mm pin pitch)

PCB mount
- direct or via PCB socket
35 mm rail mount
- via screw and screwless sockets

- DC coils (standard or sensitive) & AC coils
- Cadmium Free contact material
- 8 mm, 6 kV (1.2/50 µs) isolation, coil-contacts
- UL Listing (certain relay/socket combinations)
- Flux proof: RT II standard, (RT III option)
- 95 series sockets
- Coil EMC suppression
- Timer accessories 86 series

	40.31	40.51	40.52
	• 3.5 mm contact pin pitch • 1 Pole 10 A • PCB or 95 series sockets	• 5 mm contact pin pitch • 1 Pole 10 A • PCB or 95 series sockets	• 5 mm contact pin pitch • 2 Pole 8 A • PCB or 95 series sockets
			
			
	Copper side view Pin length 5.3 mm for PCB or sockets	Copper side view Pin length 5.3 mm for PCB or sockets	Copper side view Pin length 5.3 mm for PCB or sockets

FOR UL RATINGS SEE:
"General technical information" page V

For outline drawing see page 10

Contact specification				
Contact configuration		1 CO (SPDT)	1 CO (SPDT)	2 CO (DPDT)
Rated current/Maximum peak current	A	10/20	10/20	8/15
Rated voltage/Maximum switching voltage	V AC	250/400	250/400	250/400
Rated load AC1	VA	2,500	2,500	2,000
Rated load AC15 (230 V AC)	VA	500	500	400
Single phase motor rating (230 V AC)	kW	0.37	0.37	0.3
Breaking capacity DC1: 30/110/220 V	A	10/0.3/0.12	10/0.3/0.12	8/0.3/0.12
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)	6 - 12 - 24 - 48 - 60 - 110 - 120 - 230 - 240		
	V DC	5 - 6 - 7 - 9 - 12 - 14 - 18 - 21 - 24 - 28 - 36 - 48 - 60 - 90 - 110 - 125		
Rated power AC/DC/sens. DC	VA (50 Hz)/W/W	1.2/0.65/0.5	1.2/0.65/0.5	1.2/0.65/0.5
Operating range	AC	$(0.8...1.1)U_N$	$(0.8...1.1)U_N$	$(0.8...1.1)U_N$
	DC/sens. DC	$(0.73...1.5)U_N/(0.73...1.5)U_N$	$(0.73...1.5)U_N/(0.73...1.5)U_N$	$(0.73...1.5)U_N/(0.73...1.5)U_N$
Holding voltage	AC/DC	0.8 U_N /0.4 U_N	0.8 U_N /0.4 U_N	0.8 U_N /0.4 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	cycles	$10 \cdot 10^6$	$10 \cdot 10^6$	$10 \cdot 10^6$
Electrical life at rated load AC1	cycles	$200 \cdot 10^3$	$200 \cdot 10^3$	$100 \cdot 10^3$
Operate/release time	ms	7/3 - (12/4 sensitive)	7/3 - (12/4 sensitive)	7/3 - (12/4 sensitive)
Insulation between coil and contacts (1.2/50 µs)	kV	6 (8 mm)	6 (8 mm)	6 (8 mm)
Dielectric strength between open contacts	V AC	1,000	1,000	1,000
Ambient temperature range	°C	–40...+85	–40...+85	–40...+85
Environmental protection		RT II**	RT II**	RT II**
Approvals (according to type)				

** See general technical information "Guidelines for automatic flow solder processes" page II .

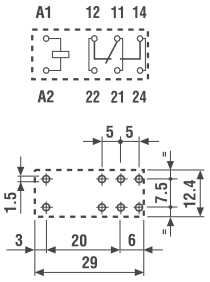
A

Features

40.61 - 1 Pole 16 A (5 mm pin pitch)
40.xx.6 - Bistable versions of the 40.31, 40.51, 40.52 & 40.61 relays

PCB mount
- direct or via PCB socket
35 mm rail mount
- via screw and screwless sockets

- DC coils & AC coils
- Cadmium Free option available
- 8 mm, 6 kV (1.2/50 µs) isolation, coil-contacts
- UL Listing (certain 40.61 relay/socket combinations)
- Flux proof: RT II standard, (RT III option)
- 95 series sockets
- Coil EMC suppression
- Timer accessories 86 series

	40.61	40.xx.6
	• 5 mm contact pin pitch • 1 Pole 16 A • PCB or 95 series sockets	• Bistable (single coil) versions of 40.31/51/52/61 • PCB or 95 series sockets
	 Copper side view Pin length 5.3 mm for PCB or sockets	Bistable version (1 coil) types: 40.31.6... 40.51.6... 40.52.6... 40.61.6... For wiring diagrams see page 9 Pin length 5.3 mm for PCB or sockets

FOR UL RATINGS SEE:
"General technical information" page V

For outline drawing see page 10

Contact specification			
Contact configuration		1 CO (SPDT)	
Rated current/Maximum peak current	A	16/30*	
Rated voltage/Maximum switching voltage	V AC	250/400	See relays
Rated load AC1	VA	4,000	40.31
Rated load AC15 (230 V AC)	VA	750	40.51
Single phase motor rating (230 V AC)	kW	0.55	40.52
Breaking capacity DC1: 30/110/220 V	A	16/0.3/0.12	40.61
Minimum switching load	mW (V/mA)	500 (10/5)	
Standard contact material		AgCdO	
Coil specification			
Nominal voltage (U_N)	V AC (50/60 Hz)	6-12-24-48-60-110-120-230-240	5 - 6 - 12 - 24 - 48 - 110
	V DC	***See table	5 - 6 - 12 - 24 - 48 - 110
Rated power AC/DC/sens. DC	VA (50 Hz)/W/W	1.2/0.65/0.5	1.0/1.0/—
Operating range	AC	$(0.8...1.1)U_N$	$(0.8...1.1)U_N$
	DC/sens. DC	$(0.73...1.5)U_N/(0.8...1.5)U_N$	$(0.8...1.1)U_N/—$
Holding voltage	AC/DC	0.8 U_N /0.4 U_N	—
Must drop-out voltage	AC/DC	0.2 U_N /0.1 U_N	—
Technical data			
Mechanical life	cycles	$10 \cdot 10^6$	See relays
Electrical life at rated load AC1	cycles	$100 \cdot 10^3$	40.31
Operate/release time	ms	7/3 - (12/4 sensitive)	40.51
Insulation between coil and contacts (1.2/50 µs)	kV	6 (8 mm)	40.52
Dielectric strength between open contacts	V AC	1,000	40.61
Ambient temperature range	°C	–40...+85	Min. impulse duration
Environmental protection		RT II**	≥ 20 ms
Approvals (according to type)			

* With the $AgSnO_2$ material the maximum peak current is 120 A - 5 ms on normally open contact.

*** Nominal voltage (U_N): 5 - 6 - 7 - 9 - 12 - 14 - 18 - 21 - 24 - 28 - 36 - 48 - 60 - 90 - 110 - 125 V DC

** See general technical information "Guidelines for automatic flow solder processes" page II.

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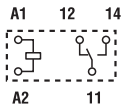
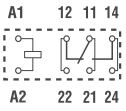
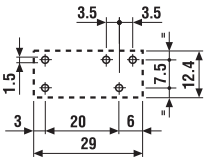
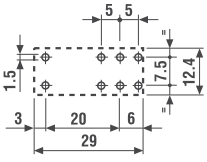
Features

1 Pole relay range
40.31 - 1 Pole 12 A (3.5 mm pin pitch)
40.61 - 1 Pole 16 A (5 mm pin pitch)

- Pin length 3.5 mm for pcb mount
- Pin length 5.3 mm as Plug-in relay
- DC standard (0.65 W) or sensitive (0.5 W) coils available
- Cadmium Free contact material available
- 6 kV (1.2/50 µs) isolation coil-contacts
- 8 mm creepage and clearance distances between coil and contacts
- Meets EN 60335-1 glow wire requirements
- Flux proof: RT II standard or wash tight RT III
- AC inductive load rating (related to AC15 utilisation category) 4 A 250 V approved according to EN 61810-1:2008 (Annex B tables B1, B2, B3)

	40.31	40.61
	• 3.5 mm contact pin pitch • 1 Pole 12 A (on PCB; 10 A with socket) • PCB or 95 series sockets	• 5 mm contact pin pitch • 1 Pole 16 A • PCB or 95 series sockets
		
		
	Copper side view	Copper side view
	Pin length 3,5 mm for PCB only Pin length 5.3 mm for PCB or sockets	Pin length 3,5 mm for PCB only Pin length 5.3 mm for PCB or sockets
* mounted on sockets ≤ 10 A		
For outline drawing see page 10	See ordering information	See ordering information
Contact specification		
Contact configuration	1 CO (SPDT)	1 CO (SPDT)
Rated current/Maximum peak current A	12*/20	16/30
Rated voltage/Maximum switching voltage V AC	250/400	250/400
Rated load AC1 VA	3,000	4,000
Rated load AC15 (230 V AC) VA	1,000	1,000
Single phase motor rating (230 V AC) kW	0.55	0.55
Breaking capacity DC1: 30/110/220 V A	12/0.3/0.12	16/0.3/0.12
Minimum switching load mW (V/mA)	300 (5/5)	500 (10/5)
Standard contact material	AgNi	AgCdO
Coil specification		
Nominal voltage (U_N) V AC (50/60 Hz)	—	—
V DC	12 - 24	12 - 24
Rated power DC/sensitive DC W	0.65/0.5	0.65/0.5
Operating range AC	—	—
DC/sensitive DC	(0.73…1.5)U_N/(0.73…1.5)U_N	(0.73…1.5)U_N/(0.8…1.5)U_N
Holding voltage DC	0.4 U_N	0.4 U_N
Must drop-out voltage DC	0.1 U_N	0.1 U_N
Technical data		
Mechanical life cycles	$10 \cdot 10^6$	$10 \cdot 10^6$
Electrical life at rated load AC1 cycles	$200 \cdot 10^3$	$100 \cdot 10^3$
Operate/release time ms	7/3 (10/3 sensitive)	7/3 (10/3 sensitive)
Insulation between coil and contacts (1.2/50 µs) kV	6 (8 mm)	6 (8 mm)
Dielectric strength between open contacts V AC	1,000	1,000
Ambient temperature range °C	–40…+85	–40…+85
Environmental protection	RT II**	RT II**
Approvals (according to type)		

** See general technical information "Guidelines for automatic flow solder processes" page II.

Features

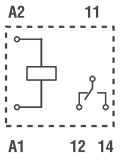
A

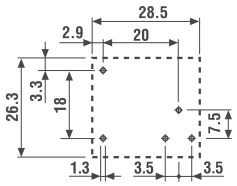
1 Pole relay range
- 1 Pole 10 A (Flat pack)

- DC coils
- Cadmium Free option available
- 8 mm, 6 kV (1.2/50 µs) isolation, coil-contacts

40.11

- 1 Pole 10 A
- Flat pack
- PCB mount





Copper side view

FOR UL RATINGS SEE:
"General technical information" page V

For outline drawing see page 10

Pin length 3.5 mm for PCB only

Contact specification		
Contact configuration		1 CO (SPDT)
Rated current/Maximum peak current	A	10/20
Rated voltage/Maximum switching voltage	V AC	250/400
Rated load AC1	VA	2,500
Rated load AC15 (230 V AC)	VA	500
Single phase motor rating (230 V AC)	kW	0.37
Breaking capacity DC1: 30/110/220 V	A	10/0.3/0.12
Minimum switching load	mW (V/mA)	300 (5/5)
Standard contact material		AgCdO
Coil specification		
Nominal voltage (U_N)	V AC (50/60 Hz)	—
	V DC	6 - 12 - 24 - 48 - 60
Rated power AC/DC/sens. DC	VA (50 Hz)/W/W	—/—/0.5
Operating range	AC	—
	DC/sens. DC	—/(0.73...1.75)U_N
Holding voltage	AC/DC	—/0.4 U_N
Must drop-out voltage	AC/DC	—/0.1 U_N
Technical data		
Mechanical life	cycles	$20 \cdot 10^6$
Electrical life at rated load AC1	cycles	$200 \cdot 10^3$
Operate/release time	ms	12/4
Insulation between coil and contacts (1.2/50 µs)	kV	6 (8 mm)
Dielectric strength between open contacts	V AC	1,000
Ambient temperature range	°C	–40...+70
Environmental protection		RT I
Approvals (according to type)		EAC PG cULus VDE

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A

Ordering information

Example: 40 series PCB relay, 2 CO (DPDT), 230 V AC coil.

40	.	5	2	.	8	.	2	3	0	.	A: 0	B: 0	C: 0	D: 0

Series

Type
1 = PCB - 3.5 mm pinning, flat
3 = PCB/Plug-in - 3.5 mm pinning
5 = PCB/Plug-in - 5 mm pinning
6 = PCB/Plug-in - 5 mm pinning

No. of poles
1 = 1 pole
2 = 2 pole

Coil version
6 = AC/DC bistable
7 = Sensitive DC, 0.5 W
8 = AC (50/60 Hz)
9 = Standard DC, 0.65 W

Coil voltage
See coil specifications

A: Contact material
See table below

B: Contact circuit
0 = CO (nPDT)
3 = NO (nPST)

C: Options
0 = Pins length 5.3 mm (Plug-in relays)
2 = Pins length 3.5 mm (PCB relays)

D: Special versions
0 = Standard
1 = Wash tight (RT III)
3 = High temperature (+ 125 °C) wash tight

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

Terminal pin	Type	Coil version	A	B	C	D
PCB relay, pin length 3.5 mm	40.11	Sensitive DC	**2** (AgCdO) - 4 ($AgSnO_2$)	**0**	**0**	**0**
	40.31*	Standard DC/sensitive DC	**1** (AgNi)	**0** - 3	**2**	**0** - 1
	40.61*	Standard DC/sensitive DC	1 (AgNi) - **2** (AgCdO)	**0** - 3	**2**	**0** - 1
PCB/Plug-in relay, pin length 5.3 mm	40.31*/51	AC/sensitive DC	**0** (AgNi) - 2 (AgCdO) - 5 (AgNi+Au)	**0** - 3	**0**	**0** - 1
	40.31*/51	Standard DC	**0** (AgNi) - 2 (AgCdO) - 5 (AgNi+Au)	**0** - 3	**0**	**0** - 1 - 3
	40.52	AC/sensitive DC	**0** (AgNi) - 2 (AgCdO) - 5 (AgNi+Au)	**0** - 3	**0**	**0** - 1
	40.52	Standard DC	**0** (AgNi) - 2 (AgCdO) - 5 (AgNi+Au)	**0** - 3	**0**	**0** - 1 - 3
	40.61*	AC/sensitive DC	**0** (AgCdO) - 4 ($AgSnO_2$)	**0** - 3	**0**	**0** - 1
	40.61*	Standard DC	**0** (AgCdO) - 4 ($AgSnO_2$)	**0** - 3	**0**	**0** - 1 - 3
	40.31/51/52	Bistable	**0** (AgNi)	**0**	**0**	**0**
	40.61	Bistable	**0** (AgCdO)	**0**	**0**	**0**

40.31 1 pole 10 A	**40.31** **New** 1 pole 12 A	**40.61** 1 pole 16 A	**40.61** **New** 1 pole 16 A
3.5 mm pin pitch For socket** or pcb mount pin length 5.3 mm		5 mm pin pitch For socket or pcb mount pin length 5.3 mm	

* As the result of new production lines and increased production capacity, the design/specification of the DC versions with standard contact material is being changed to align with PCB relay versions 40.x1...20. For full technical data refer to page 3.
** For 40.31 relays mounted on sockets, the maximum rated current must be limited to 10 A.

Technical data

A

			1 pole		2 pole	
Insulation according to EN 61810-1						
Nominal voltage of supply system		V AC	230/400		230/400	
Rated insulation voltage		V AC	250	400	250	400
Pollution degree			3	2	3	2
Insulation between coil and contact set						
Type of insulation			Reinforced (8 mm)		Reinforced (8 mm)	
Overvoltage category			III		III	
Rated impulse voltage		kV (1.2/50 µs)	6		6	
Dielectric strength		V AC	4,000		4,000	
Insulation between adjacent contacts						
Type of insulation			—		Basic	
Overvoltage category			—		II	
Rated impulse voltage		kV (1.2/50 µs)	—		2.5	
Dielectric strength		V AC	—		2,000	
Insulation between open contacts						
Type of disconnection			Micro-disconnection		Micro-disconnection	
Dielectric strength		V AC/kV (1.2/50 µs)	1,000/1.5		1,000/1.5	
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	2/5			
Vibration resistance (10...150)Hz: NO/NC		g	20/5 (1 changeover)		14/2 (2 changeover)	
Shock resistance NO/NC		g	20/13 (1 changeover)		20/12 (2 changeover)	
Power lost to the environment	without contact current	W	0.65			
	with rated current	W	1.2 (40.11/31/51)		2 (40.61/52)	
Recommended distance between relays mounted on PCB		mm	≥ 5			

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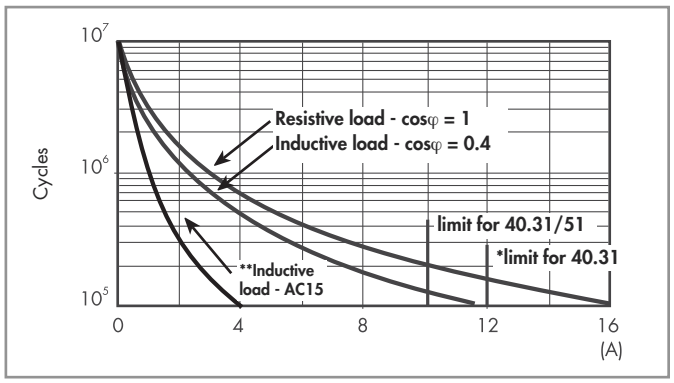
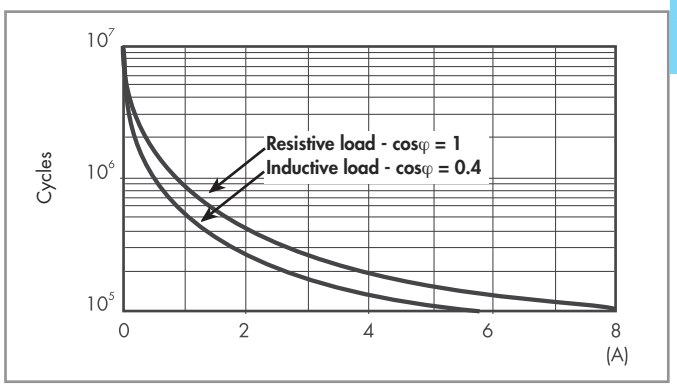
Contact specification

F 40 - Electrical life (AC) v contact current
Types 40.31/51/61

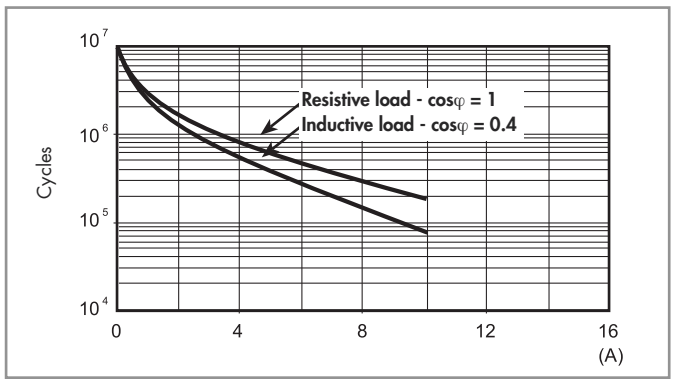


F 40 - Electrical life (AC) v contact current
Type 40.52

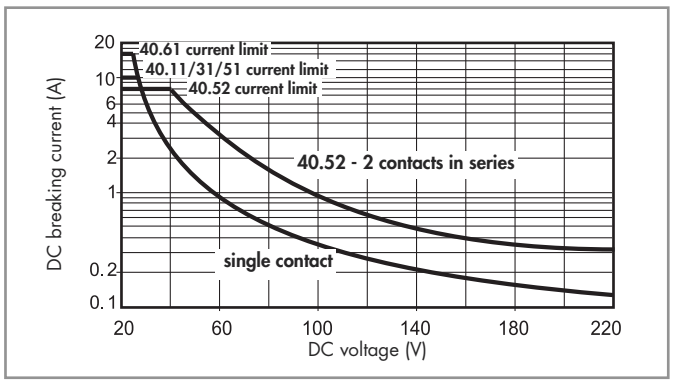


* limit for 40.31, see page 3
** Inductive load - AC15 for 40.31/61, see page 3

F 40 - Electrical life (AC) v contact current
Type 40.11



H 40 - 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.

Coil specifications

A

DC coil data - 0.65 W standard (types 40.31/51/52/61)

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	3.65	7.5	38	130
6	**9**.006	4.4	9	55	109
7	**9**.007	5.1	10.5	75	94
9	**9**.009	6.6	13.5	125	72
12	**9**.012	8.8	18	220	55
14	**9**.014	10.2	21	300	47
18	**9**.018	13.1	27	500	36
21	**9**.021	15.3	31.5	700	30
24	**9**.024	17.5	36	900	27
28	**9**.028	20.5	42	1,200	23
36	**9**.036	26.3	54	2,000	18
48	**9**.048	35	72	3,500	14
60	**9**.060	43.8	90	5,500	11
90	**9**.090	65.7	135	12,500	7.2
110	**9**.110	80.3	165	18,000	6.2
125	**9**.125	91.2	188	23,500	5.3

DC coil data - 0.5 W sensitive (types 40.31/51/52/61)

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	**7**.005	3.7	7.5	50	100
6	**7**.006	4.4	9	75	80
7	**7**.007	5.1	10.5	100	70
9	**7**.009	6.6	13.5	160	56
12	**7**.012	8.8	18	288	42
14	**7**.014	10.2	21	400	35
18	**7**.018	13.2	27	650	27.7
21	**7**.021	15.4	31.5	900	23.4
24	**7**.024	17.5	36	1,150	21
28	**7**.028	20.5	42	1,600	17.5
36	**7**.036	26.3	54	2,600	13.8
48	**7**.048	35	72	4,800	10
60	**7**.060	43.8	90	7,200	8.4
90	**7**.090	65.7	135	16,200	5.6
110	**7**.110	80.3	165	23,500	4.7
125	**7**.125	91.2	188	32,000	3.9

*U_{min} = 0.8 U_N for 40.61

DC coil data - 0.5 W sensitive (type 40.11)

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
6	**7**.006	4.4	10.5	75	80
12	**7**.012	8.8	21	300	40
24	**7**.024	17.5	42	1,200	20
48	**7**.048	35	84	4,600	10.4
60	**7**.060	43.8	105	7,200	8.3

AC coil data (types 40.31/51/52/61)

Nominal voltage U_N	Coil code	Operating range U_{min}	Operating range U_{max}	Resistance R	Rated coil consumption I at U_N (50Hz)
V		V	V	Ω	mA
6	**8**.006	4.8	6.6	21	168
12	**8**.012	9.6	13.2	80	90
24	**8**.024	19.2	26.4	320	45
48	**8**.048	38.4	52.8	1,350	21
60	**8**.060	48	66	2,100	16.8
110	**8**.110	88	121	6,900	9.4
120	**8**.120	96	132	9,000	8.4
230	**8**.230	184	253	28,000	5
240	**8**.240	192	264	31,500	4.1

AC/DC coil data - bistable (types 40.31/51/52/61)

Nominal voltage U_N	Coil code	Operating range U_{min}	Operating range U_{max}	Resistance R	Rated coil consumption I at U_N	DC: Release resistance** R_{DC}
V		V	V	Ω	mA	Ω
5	**6**.005	4	5.5	23	215	37
6	**6**.006	4.8	6.6	33	165	62
12	**6**.012	9.6	13.2	130	83	220
24	**6**.024	19.2	26.4	520	40	910
48	**6**.048	38.4	52.8	2,100	21	3,600
110	**6**.110	88	121	11,000	10	16,500

** R_{DC} = Resistance in DC, R_{AC} = 1.3 x R_{DC} 1W

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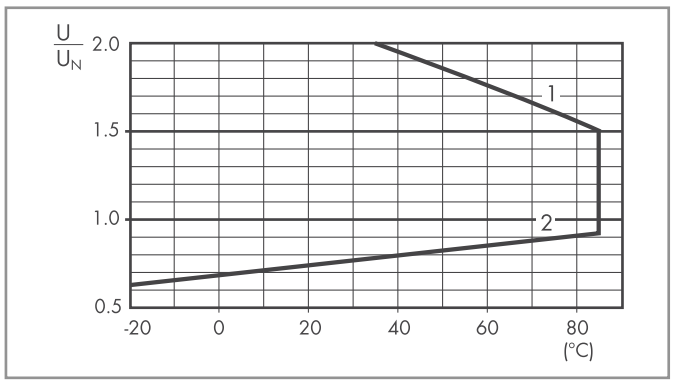
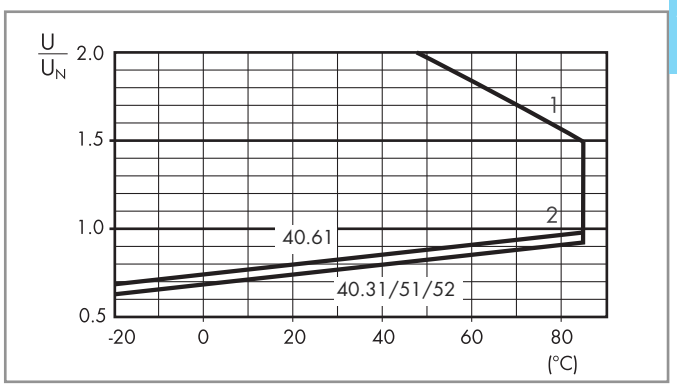
Coil specifications

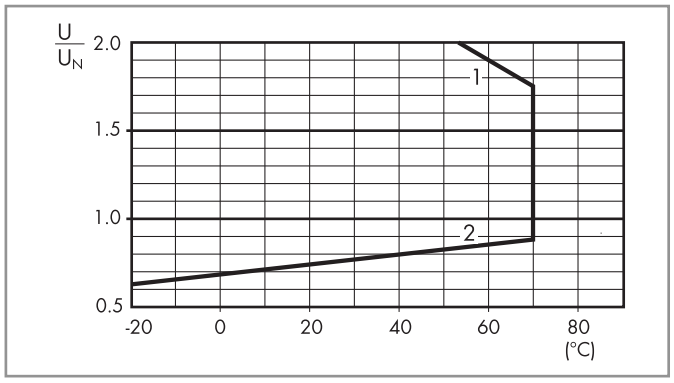
R 40 - DC coil operating range v ambient temperature
Standard coil



R 40 - DC coil operating range v ambient temperature
Sensitive coil, types 40.31/51/52/61

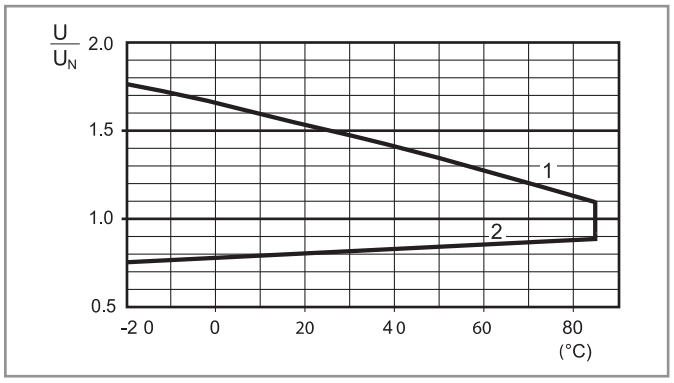


R 40 - DC coil operating range v ambient temperature
Sensitive coil, type 40.11



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

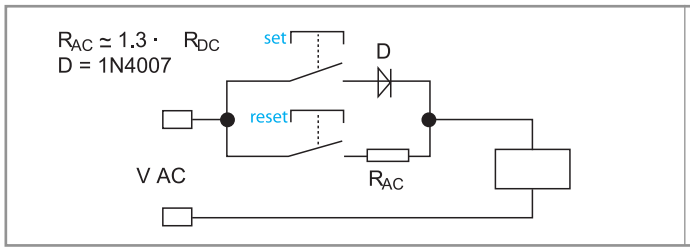
R 40 - AC coil operating range v ambient temperature



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

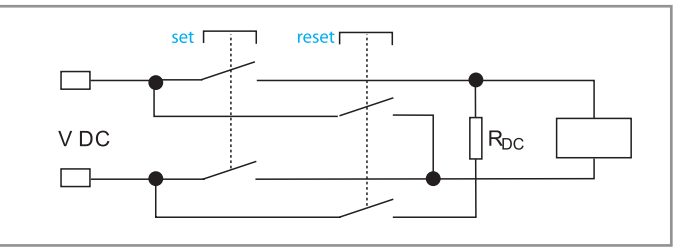
Wiring diagram for 40 series bistable coil version

AC Operation



On momentary closure of the SET switch the relay is magnetised through the diode and the relay contacts transfer to the set position and remain in this position.
On momentary closure of the RESET switch the relay is demagnetised through limiting resistor (R_{AC}) and the contacts return to the reset position.

DC Operation



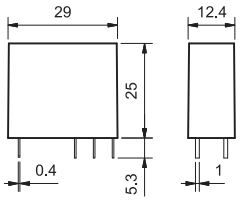
On momentary closure of the SET switch the relay is magnetised and the relay contacts transfer to the set position and remain in this position.
On momentary closure of the RESET switch the relay is demagnetised through limiting resistor (R_{DC}) and the contacts return to the reset position.

Notes: The minimum SET or RESET impulse time is 20 ms. The maximum time can be continuous. In practice, always ensure that the SET and RESET contacts cannot be operated simultaneously.

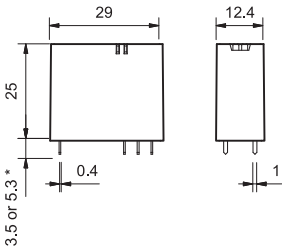
A

Outline drawings

Type 40.31/51/52/61

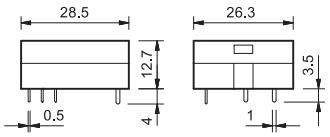


Type 40.31/61



* (3.5 or 5.3) mm see ordering code

Type 40.11



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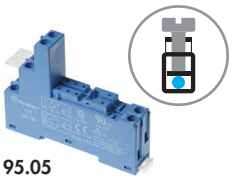
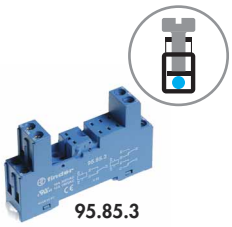


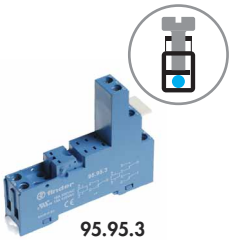
95.05
See page 12

Module	Socket	Relay	Description	Mounting	Accessories
99.02	95.03	40.31	**Screw terminal (Box clamp) socket**	Panel or 35 mm rail (EN 60715) mount	- Coil indication and EMC suppression modules - Jumper link - Timer modules - Plastic retaining and release clip
	95.05	40.51 40.52 40.61	- Top terminals - Contacts - Bottom terminals - Coil		



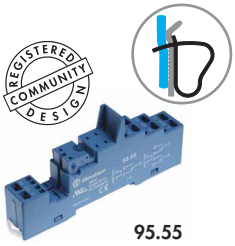
95.85.3
See page 13

Module	Socket	Relay	Description	Mounting	Accessories
99.80	95.83.3	40.31	**Screw terminal (Box clamp) socket**	Panel or 35 mm rail (EN 60715) mount	- Coil indication and EMC suppression modules - Jumper link - Plastic retaining and release clip
	95.85.3	40.51 40.52 40.61	95.83.3 wiring: - Top terminals - Contacts - Bottom terminals - Coil		



95.95.3
See page 14

Module	Socket	Relay	Description	Mounting	Accessories
99.80	95.93.3	40.31	**Screw terminal (Box clamp) socket**	Panel or 35 mm rail (EN 60715) mount	- Coil indication and EMC suppression modules - Jumper link - Plastic retaining and release clip
	95.95.3	40.51 40.52 40.61	- Top terminals - Contacts - Bottom terminals - Coil		

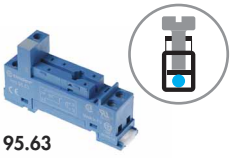


95.55
See page 15

Module	Socket	Relay	Description	Mounting	Accessories
99.02	95.55	40.51 40.52 40.61	**Screwless terminal socket** - For fast cable connections - Top terminals - Contacts - Bottom terminals - Coil	Panel or 35 mm rail (EN 60715) mount	- Coil indication and EMC suppression modules - Timer modules - Plastic retaining and release clip

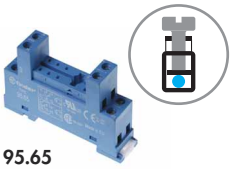
95.55.3
See page 16

Module	Socket	Relay	Description	Mounting	Accessories
99.80	95.55.3	40.51 40.52 40.61	**Screwless terminal socket** For fast cable connections - Top terminals - Contacts - Bottom terminals - Coil	Panel or 35 mm rail (EN 60715) mount	- Coil indication and EMC suppression modules - Plastic retaining and release clip



95.63
See page 17

Module	Socket	Relay	Description	Mounting	Accessories
99.01	95.63	40.31	**Screw terminal (Box clamp) socket** - Top terminals - Contacts - Bottom terminals - Coil	Panel or 35 mm rail (EN 60715) mount	- Coil indication and EMC suppression modules - Metal retaining clip



95.65
See page 17

Module	Socket	Relay	Description	Mounting	Accessories
—	95.65	40.51 40.52 40.61	**Screw terminal (Box clamp) socket**	Panel or 35 mm rail (EN 60715) mount	- Metal retaining clip

95.13.2
See page 18

Module	Socket	Relay	Description	Mounting	Accessories
—	95.13.2	40.31	**PCB socket**	PCB mounting	- Metal retaining clip - Plastic retaining clip
—	95.15.2	40.51 40.52 40.61			

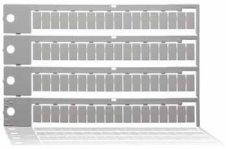
A

95.05

Approvals (according to type):

Certain relay/socket combinations

095.01

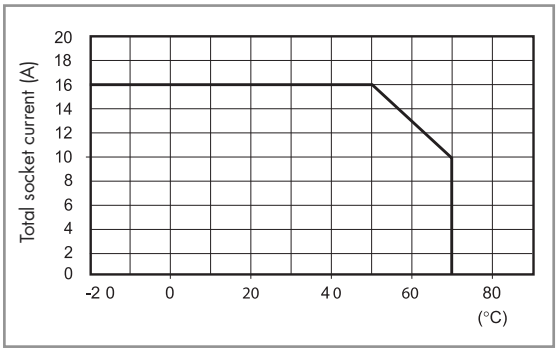


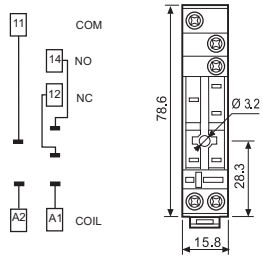
060.72

Screw terminal (Box clamp) socket panel or 35 mm rail mount		**95.03 (blue)**	**95.03.0 (black)**	**95.05 (blue)**	**95.05.0 (black)**
For relay type		40.31		40.51, 40.52, 40.61	
Accessories					
Metal retaining clip		095.71			
Plastic retaining and release clip (supplied with socket - packaging code SPA)		095.01	095.01.0	095.01	095.01.0
8-way jumper link		095.18	095.18.0	095.18	095.18.0
Identification tag		095.00.4			
Modules (see table below)		99.02			
Timer modules (see table below)		86.30			
Sheet of marker tags for retaining and release clip 095.01 plastic, 72 tags, 6x12 mm		060.72			
Technical data					
Rated values		10 A - 250 V *			
Dielectric strength		6 kV (1.2/50 µs) between coil and contacts			
Protection category		IP 20			
Ambient temperature	°C	–40...+70 (see diagram L95)			
Screw torque	Nm	0.5			
Wire strip length	mm	8			
Max. wire size for 95.03 and 95.05 sockets		solid wire		stranded wire	
	mm^2	1x6 / 2x2.5		1x4 / 2x2.5	
	AWG	1x10 / 2x14		1x12 / 2x14	

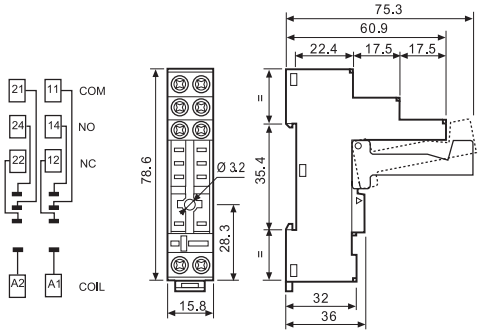
* For currents >10 A, contact terminals must be connected in parallel (21 with 11, 24 with 14, 22 with 12). With the relay 40.51 the change-over contact will be 21-12-14.

L 95 - Total socket current vs ambient temperature (95.05)

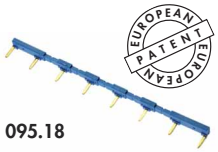




95.03

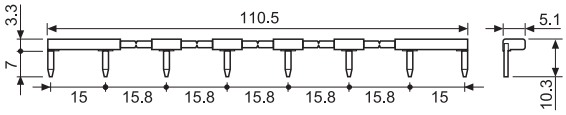


95.05



095.18

8-way jumper link for 95.03 and 95.05 sockets	095.18 (blue)	095.18.0 (black)
Rated values	10 A - 250 V	



86.30

86 series timer modules	
(12...24)V AC/DC; Bi-function: AI, DI; (0.05s...100h)	86.30.0.024.0000
(110...125)V AC; Bi-function: AI, DI; (0.05s...100h)	86.30.8.120.0000
(230...240)V AC; Bi-function: AI, DI; (0.05s...100h)	86.30.8.240.0000

Approvals (according to type):

99.02

Approvals (according to type):

DC Modules with non-standard polarity (+A2) on request.

99.02 coil indication and EMC suppression modules for 95.03 and 95.05 sockets		
Diode (+A1, standard polarity)	(6...220)V DC	99.02.3.000.00
LED	(6...24)V DC/AC	99.02.0.024.59
LED	(28...60)V DC/AC	99.02.0.060.59
LED	(110...240)V DC/AC	99.02.0.230.59
LED + Diode (+A1, standard polarity)	(6...24)V DC	99.02.9.024.99
LED + Diode (+A1, standard polarity)	(28...60)V DC	99.02.9.060.99
LED + Diode (+A1, standard polarity)	(110...220)V DC	99.02.9.220.99
LED + Varistor	(6...24)V DC/AC	99.02.0.024.98
LED + Varistor	(28...60)V DC/AC	99.02.0.060.98
LED + Varistor	(110...240)V DC/AC	99.02.0.230.98
RC circuit	(6...24)V DC/AC	99.02.0.024.09
RC circuit	(28...60)V DC/AC	99.02.0.060.09
RC circuit	(110...240)V DC/AC	99.02.0.230.09
Residual current by-pass	(110...240)V AC	99.02.8.230.07

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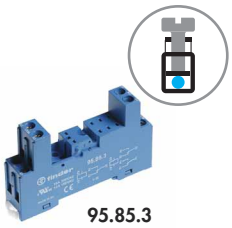
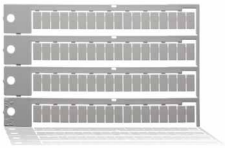

95.85.3

Approvals (according to type):

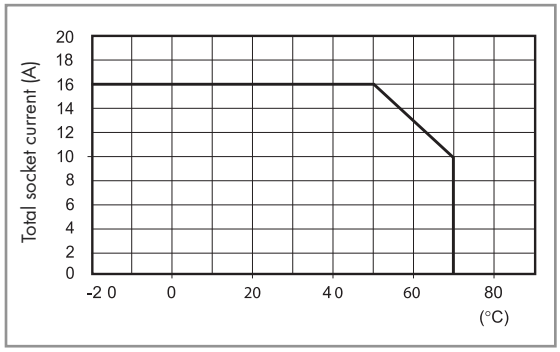
095.91.3

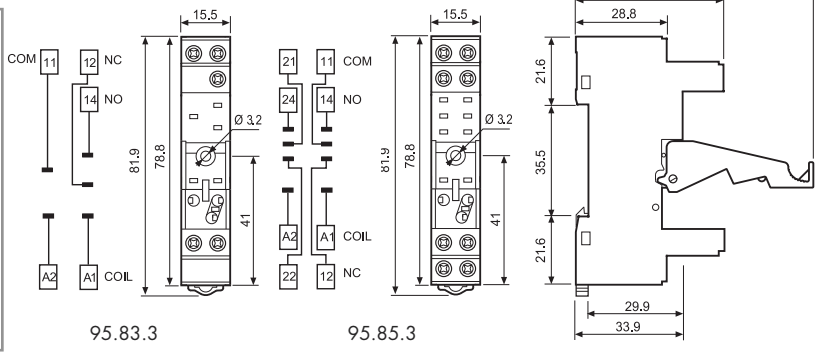

060.72

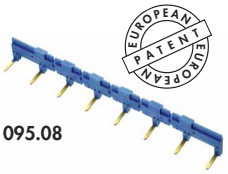
Screw terminal (Box clamp) socket panel or 35 mm rail mount		**95.83.3 (blue)**	**95.83.30 (black)**	**95.85.3 (blue)**	**95.85.30 (black)**
For relay type		40.31		40.51, 40.52, 40.61	
Accessories					
Metal retaining clip		095.71			
Plastic retaining and release clip (supplied with socket - packaging code SPA)		095.91.3	095.91.30	095.91.3	095.91.30
8-way jumper link		095.08	095.08.0	095.08	095.08.0
Identification tag		095.80.3			
Modules (see table below)		99.80			
Sheet of marker tags for retaining and release clip 095.91.3 plastic, 72 tags, 6x12 mm		060.72			
Technical data					
Rated values		10 A - 250 V *			
Dielectric strength		6 kV (1.2/50 µs) between coil and contacts (95.83.3 only)			
Protection category		IP 20			
Ambient temperature	°C	–40...+70 (see diagram L95)			
Screw torque	Nm	0.5			
Wire strip length	mm	7			
Max. wire size for 95.83.3 and 95.85.3 sockets		solid wire		stranded wire	
	mm^2	1x6 / 2x2.5		1x4 / 2x2.5	
	AWG	1x10 / 2x14		1x12 / 2x14	

* For currents >10 A, contact terminals must be connected in parallel (21 with 11, 24 with 14, 22 with 12). With the relay 40.51 the change-over contact will be 21-12-14.

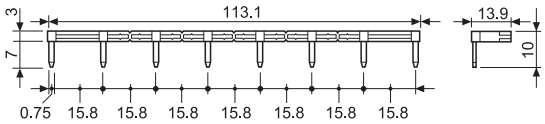
L 95 - Total socket current vs ambient temperature (95.85.3)






095.08

8-way jumper link for 95.83.3 and 95.85.3 sockets	095.08 (blue)	095.08.0 (black)
Rated values	10 A - 250 V	



99.80

Approvals (according to type):

* Modules in Black housing are available on request.

Green LED is standard. Red LED available on request.

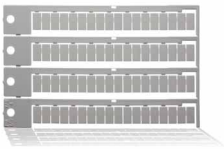
99.80 coil indication and EMC suppression modules for 95.83.3 and 95.85.3 sockets		
		Blue*
Diode (+A1, standard polarity)	(6...220)V DC	99.80.3.000.00
LED	(6...24)V DC/AC	99.80.0.024.59
LED	(28...60)V DC/AC	99.80.0.060.59
LED	(110...240)V DC/AC	99.80.0.230.59
LED + Diode (+A1, standard polarity)	(6...24)V DC	99.80.9.024.99
LED + Diode (+A1, standard polarity)	(28...60)V DC	99.80.9.060.99
LED + Diode (+A1, standard polarity)	(110...220)V DC	99.80.9.220.99
LED + Varistor	(6...24)V DC/AC	99.80.0.024.98
LED + Varistor	(28...60)V DC/AC	99.80.0.060.98
LED + Varistor	(110...240)V DC/AC	99.80.0.230.98
RC circuit	(6...24)V DC/AC	99.80.0.024.09
RC circuit	(28...60)V DC/AC	99.80.0.060.09
RC circuit	(110...240)V DC/AC	99.80.0.230.09
Residual current by-pass	(110...240)V AC	99.80.8.230.07

95.95.3

Approvals (according to type):

Screw (Box clamp) terminal socket panel or 35 mm rail mount		**95.93.3 (blue)**	**95.93.30 (black)**	**95.95.3 (blue)**	**95.95.30 (black)**
For relay type		40.31		40.51, 40.52, 40.61	
Accessories					
Metal retaining clip		095.71			
Plastic retaining and release clip		095.91.3	095.91.30	095.91.3	095.91.30
8-way jumper link		095.08	095.08.0	095.08	095.08.0
Identification tag		095.80.3			
Modules (see table below)		99.80			
Sheet of marker tags for retaining and release clip 095.91.3 plastic, 72 tags, 6x12 mm		060.72			
Technical data					
Rated values		10 A - 250 V *			
Dielectric strength		6 kV (1.2/50 µs) between coil and contacts			
Protection category		IP 20			
Ambient temperature	°C	–40...+70 (see diagram L95)			
Screw torque	Nm	0.5			
Wire strip length	mm	8			
Max. wire size for 95.93.3 and 95.95.3 sockets		solid wire		stranded wire	
	mm^2	1x6 / 2x2.5		1x4 / 2x2.5	
	AWG	1x10 / 2x14		1x12 / 2x14	

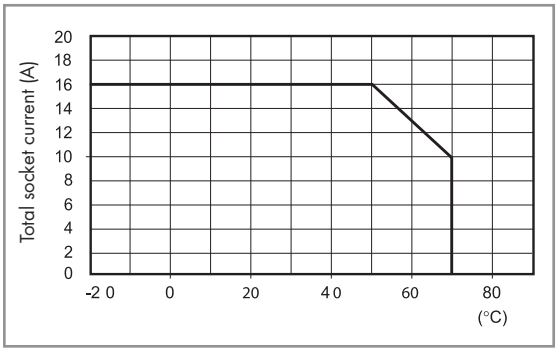
095.91.3

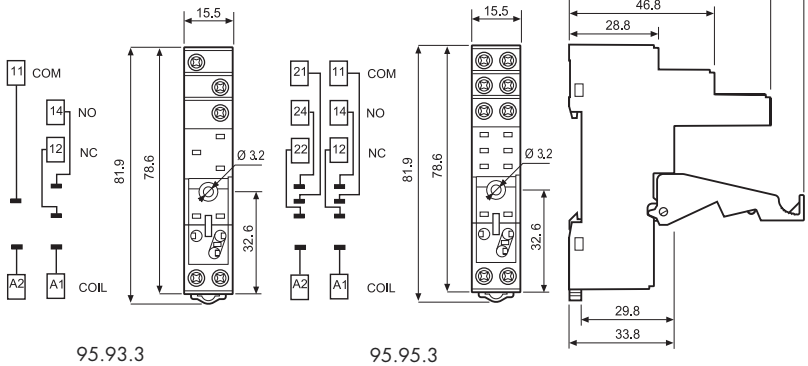


060.72

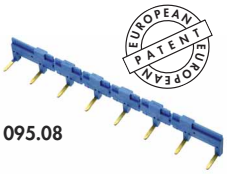
* For currents >10 A, contact terminals must be connected in parallel (21 with 11, 24 with 14, 22 with 12). With the relay 40.51 the change-over contact will be 21-12-14.

L 95 - Total socket current vs ambient temperature (95.95.3)



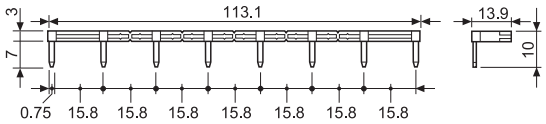


95.93.3 95.95.3



095.08

8-way jumper link for 95.93.3 and 95.95.3 sockets	095.08 (blue)	095.08.0 (black)
Rated values	10 A - 250 V	



99.80

Approvals (according to type):

* Modules in Black housing are available on request.

Green LED is standard. Red LED available on request.

99.80 coil indication and EMC suppression modules for 95.93.3 and 95.95.3 sockets		**Blue***
Diode (+A1, standard polarity)	(6...220)V DC	99.80.3.000.00
LED	(6...24)V DC/AC	99.80.0.024.59
LED	(28...60)V DC/AC	99.80.0.060.59
LED	(110...240)V DC/AC	99.80.0.230.59
LED + Diode (+A1, standard polarity)	(6...24)V DC	99.80.9.024.99
LED + Diode (+A1, standard polarity)	(28...60)V DC	99.80.9.060.99
LED + Diode (+A1, standard polarity)	(110...220)V DC	99.80.9.220.99
LED + Varistor	(6...24)V DC/AC	99.80.0.024.98
LED + Varistor	(28...60)V DC/AC	99.80.0.060.98
LED + Varistor	(110...240)V DC/AC	99.80.0.230.98
RC circuit	(6...24)V DC/AC	99.80.0.024.09
RC circuit	(28...60)V DC/AC	99.80.0.060.09
RC circuit	(110...240)V DC/AC	99.80.0.230.09
Residual current by-pass	(110...240)V AC	99.80.8.230.07

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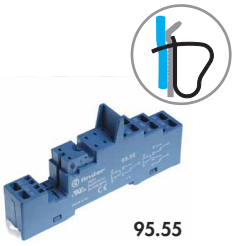
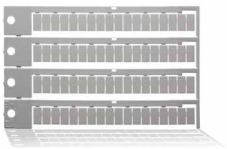

95.55

Approvals (according to type):

095.91.3

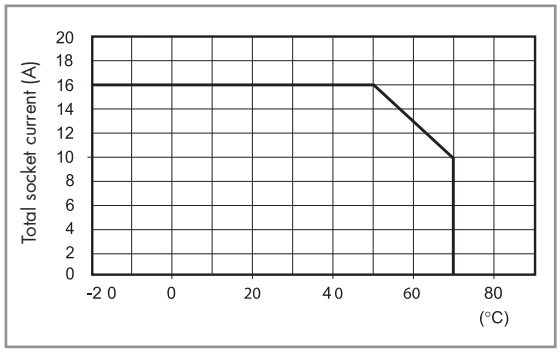

060.72

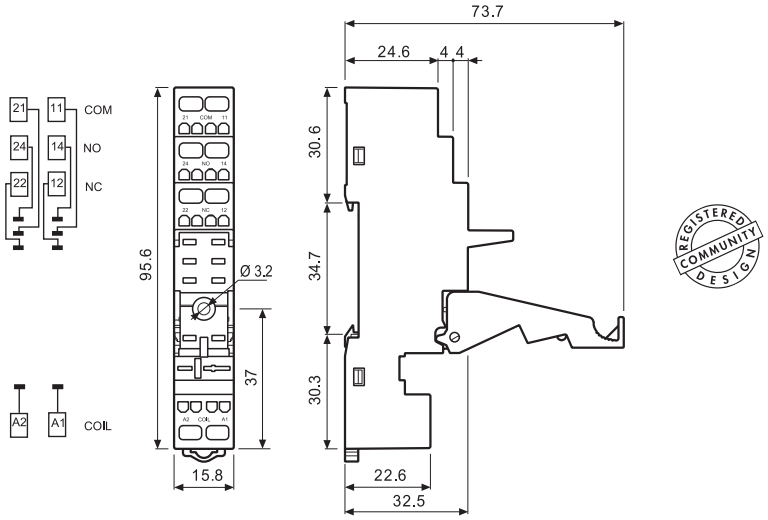
Screwless terminal socket panel or 35 mm rail mount		**95.55 (blue)**	**95.55.0 (black)**
For relay type		40.51, 40.52, 40.61	
Accessories			
Metal retaining clip		095.71	
Plastic retaining and release clip (supplied with socket - packaging code SPA)		095.91.3	
Modules (see table below)		99.02	
Timer modules (see table below)		86.30	
Sheet of marker tags for retaining and release clip 095.91.3 plastic, 72 tags, 6x12 mm		060.72	
Technical data			
Rated values		10 A - 250 V *	
Dielectric strength		6 kV (1.2/50 µs) between coil and contacts	
Protection category		IP 20	
Ambient temperature	°C	–25…+70 (see diagram L95)	
Wire strip length	mm	8	
Max. wire size for 95.55 socket		solid wire	stranded wire
	mm²	2x(0.2…1.5)	2x(0.2…1.5)
	AWG	2x(24…18)	2x(24…18)

* For currents >10 A, contact terminals must be connected in parallel (21 with 11, 24 with 14, 22 with 12). With the relay 40.51 the change-over contact will be 21-12-14.

060.72

L 95 - Total socket current vs ambient temperature





86.30

86 series timer modules	
(12…24)V AC/DC; Bi-function: AI, DI; (0.05s…100h)	86.30.0.024.0000
(110…125)V AC; Bi-function: AI, DI; (0.05s…100h)	86.30.8.120.0000
(230…240)V AC; Bi-function: AI, DI; (0.05s…100h)	86.30.8.240.0000

Approvals (according to type):

99.02

Approvals (according to type):

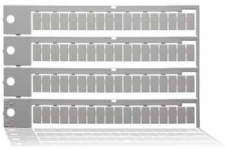
99.02 coil indication and EMC suppression modules for 95.55 socket		
Diode (+A1, standard polarity)	(6…220)V DC	99.02.3.000.00
LED	(6…24)V DC/AC	99.02.0.024.59
LED	(28…60)V DC/AC	99.02.0.060.59
LED	(110…240)V DC/AC	99.02.0.230.59
LED + Diode (+A1, standard polarity)	(6…24)V DC	99.02.9.024.99
LED + Diode (+A1, standard polarity)	(28…60)V DC	99.02.9.060.99
LED + Diode (+A1, standard polarity)	(110…220)V DC	99.02.9.220.99
LED + Varistor	(6…24)V DC/AC	99.02.0.024.98
LED + Varistor	(28…60)V DC/AC	99.02.0.060.98
LED + Varistor	(110…240)V DC/AC	99.02.0.230.98
RC circuit	(6…24)V DC/AC	99.02.0.024.09
RC circuit	(28…60)V DC/AC	99.02.0.060.09
RC circuit	(110…240)V DC/AC	99.02.0.230.09
Residual current by-pass	(110…240)V AC	99.02.8.230.07

DC Modules with non-standard polarity (+A2) on request.

95.55.3

Approvals (according to type):

095.91.3

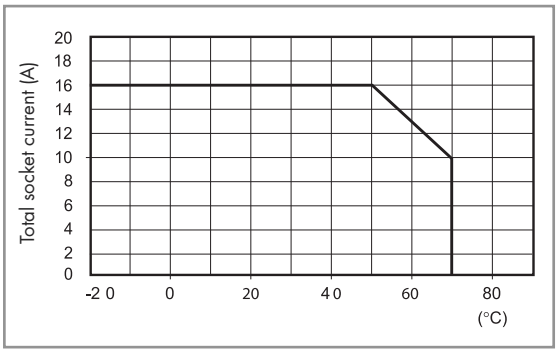


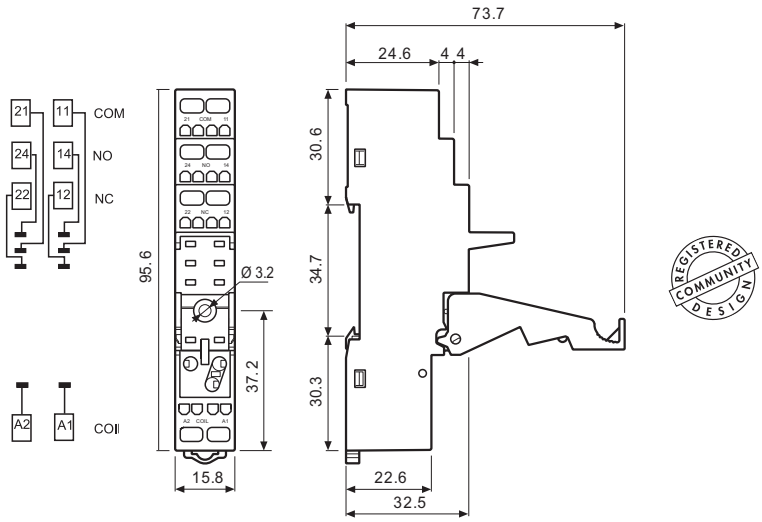
060.72

Screwless terminal socket panel or 35 mm rail mount		**95.55.3 (blue)**	**95.55.30 (black)**
For relay type		40.51, 40.52, 40.61	
Accessories			
Metal retaining clip		095.71	
Plastic retaining and release clip (supplied with socket - packaging code SPA)		095.91.3	
Modules (see table below)		99.80	
Sheet of marker tags for retaining and release clip 095.91.3 plastic, 72 tags, 6x12 mm		060.72	
Technical data			
Rated values		10 A - 250 V *	
Dielectric strength		6 kV (1.2/50 µs) between coil and contacts	
Protection category		IP 20	
Ambient temperature	°C	–25...+70 (see diagram L95)	
Wire strip length	mm	8	
Max. wire size for 95.55.3 socket		solid wire	stranded wire
	mm²	2x(0.2...1.5)	2x(0.2...1.5)
	AWG	2x(24...18)	2x(24...18)

* For currents >10 A, contact terminals must be connected in parallel (21 with 11, 24 with 14, 22 with 12). With the relay 40.51 the change-over contact will be 21-12-14.

L 95 - Total socket current vs ambient temperature





99.80

Approvals (according to type):

99.80 coil indication and EMC suppression modules for 95.55.3 socket

		Blue*
Diode (+A1, standard polarity)	(6...220)V DC	99.80.3.000.00
LED	(6...24)V DC/AC	99.80.0.024.59
LED	(28...60)V DC/AC	99.80.0.060.59
LED	(110...240)V DC/AC	99.80.0.230.59
LED + Diode (+A1, standard polarity)	(6...24)V DC	99.80.9.024.99
LED + Diode (+A1, standard polarity)	(28...60)V DC	99.80.9.060.99
LED + Diode (+A1, standard polarity)	(110...220)V DC	99.80.9.220.99
LED + Varistor	(6...24)V DC/AC	99.80.0.024.98
LED + Varistor	(28...60)V DC/AC	99.80.0.060.98
LED + Varistor	(110...240)V DC/AC	99.80.0.230.98
RC circuit	(6...24)V DC/AC	99.80.0.024.09
RC circuit	(28...60)V DC/AC	99.80.0.060.09
RC circuit	(110...240)V DC/AC	99.80.0.230.09
Residual current by-pass	(110...240)V AC	99.80.8.230.07

* Modules in Black housing are available on request.

Green LED is standard. Red LED available on request.

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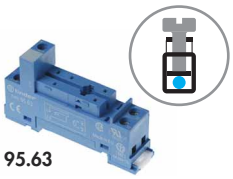
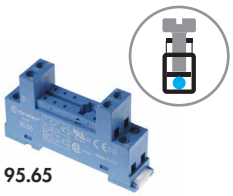


95.63

Approvals (according to type):



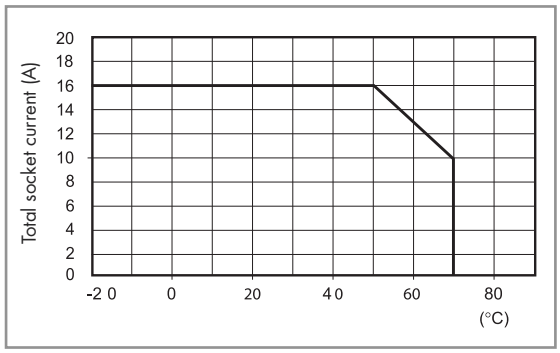
95.65

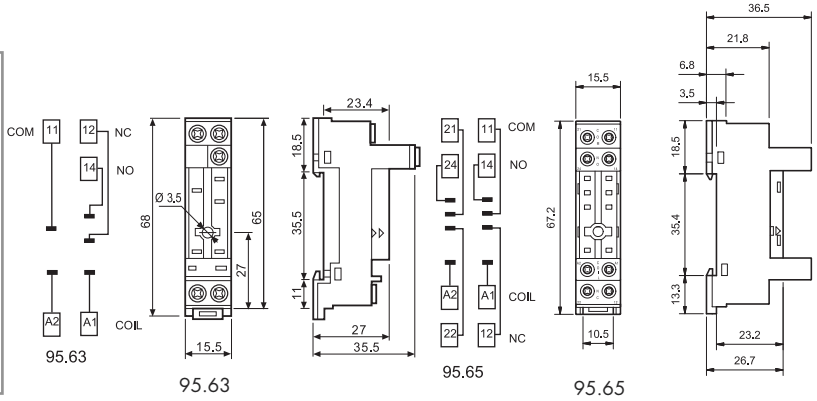
Approvals (according to type):

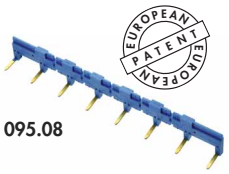
Screw terminal (Box clamp) socket panel or 35 mm rail mount		**95.63 (blue)**	**95.65 (blue)**
For relay type		40.31	40.51, 40.52, 40.61
Accessories			
Metal retaining clip		095.71	
8-way jumper link		095.08	095.08
Modules (see table below)		99.01	—
Technical data			
Rated values		10 A - 250 V *	
Dielectric strength (between coil and contacts)		6 kV (1.2/50 µs)	2 kV AC
Protection category		IP 20	
Ambient temperature	°C	–40...+70 (see diagram L95)	
Screw torque	Nm	0.5	
Wire strip length	mm	7	
Max. wire size for 95.63 and 95.65 sockets		solid wire	stranded wire
	mm^2	1x6 / 2x2.5	1x4 / 2x2.5
	AWG	1x10 / 2x14	1x12 / 2x14

* For currents >10 A, contact terminals must be connected in parallel (21 with 11, 24 with 14, 22 with 12). With the relay 40.51 the change-over contact will be 21-12-14.

L 95 - Total socket current vs ambient temperature

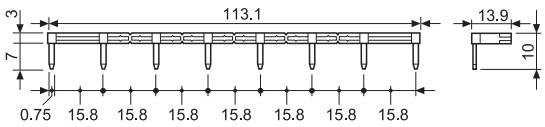






095.08

8-way jumper link for 95.63 and 95.65 sockets	095.08 (blue)
Rated values	10 A - 250 V



99.01

Approvals (according to type):

99.01 coil indication and EMC suppression modules for type 95.63 socket

		Blue*
Diode (+A1, standard polarity)	(6...220)V DC	99.01.3.000.00
Diode (+A2, non-standard polarity)	(6...220)V DC	99.01.2.000.00
LED	(6...24)V DC/AC	99.01.0.024.59
LED	(28...60)V DC/AC	99.01.0.060.59
LED	(110...240)V DC/AC	99.01.0.230.59
LED + Diode (+A1, standard polarity)	(6...24)V DC	99.01.9.024.99
LED + Diode (+A1, standard polarity)	(28...60)V DC	99.01.9.060.99
LED + Diode (+A1, standard polarity)	(110...220)V DC	99.01.9.220.99
LED + Diode (+A2, non-standard polarity)	(6...24)V DC	99.01.9.024.79
LED + Diode (+A2, non-standard polarity)	(28...60)V DC	99.01.9.060.79
LED + Diode (+A2, non-standard polarity)	(110...220)V DC	99.01.9.220.79
LED + Varistor	(6...24)V DC/AC	99.01.0.024.98
LED + Varistor	(28...60)V DC/AC	99.01.0.060.98
LED + Varistor	(110...240)V DC/AC	99.01.0.230.98
RC circuit	(6...24)V DC/AC	99.01.0.024.09
RC circuit	(28...60)V DC/AC	99.01.0.060.09
RC circuit	(110...240)V DC/AC	99.01.0.230.09
Residual current by-pass	(110...240)V AC	99.01.8.230.07

* Modules in Black housing are available on request.

Green LED is standard. Red LED available on request.

A

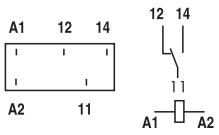
95.13.2

95.15.2

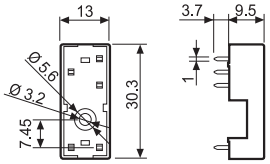
Approvals (according to type):

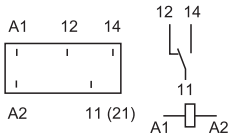
PCB socket	95.13.2 (blue)	95.13.20 (black)	95.15.2 (blue)	95.15.20 (black)
For relay type	40.31		40.51, 40.52, 40.61	
Accessories				
Metal retaining clip (supplied with socket - packaging code SMA)	095.51			
Plastic retaining clip	095.52			
Technical data				
Rated values	12 A - 250 V		10 A - 250 V *	
Dielectric strength	6 kV (1.2/50 µs) between coil and contacts			
Protection category	IP 20			
Ambient temperature °C	–40...+70			

* For currents >10 A, contact terminals must be connected in parallel (21 with 11, 24 with 14, 22 with 12). With the relay 40.51 the change-over contact will be 21-12-14.

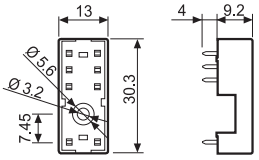


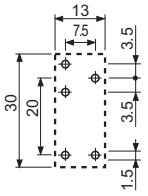
40.31





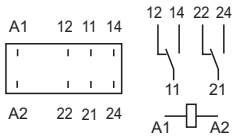
40.51



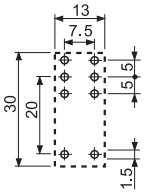


95.13.2

Copper side view

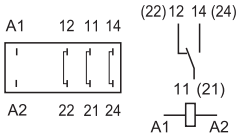


40.52



95.15.2

Copper side view

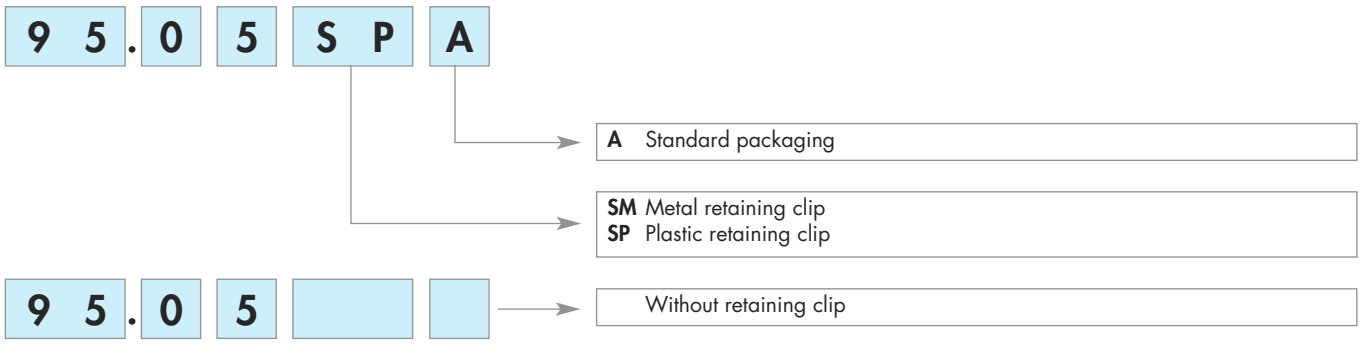


40.61

Packaging codes

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

Example:



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