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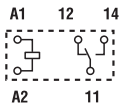
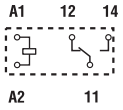
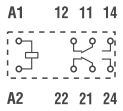
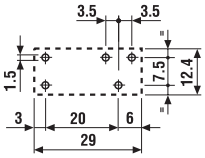
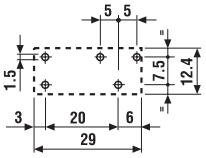
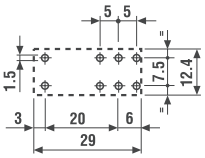
**Power relays 1 and 2 pole for direct PCB or socket mount**

**Type 40.31**
- 1 CO 10 A (3.5 mm pin pitch)

**Type 40.51**
- 1 CO 10 A (5 mm pin pitch)

**Type 40.52**
- 2 CO 8 A (5 mm pin pitch)

- DC coils (standard or sensitive) or AC coils
- Cadmium-free contact material
- 8 mm Creepage and Clearance, 6 kV (1.2/50µs) between coil and contact
- 95 series sockets for PCB or 35 mm rail mounting (EN 60715) with Screw, Screwless or Push-in terminals
- Coil Indication and EMC suppression modules 99 series and Timer module 86.30 options
- Environmental protection:
  RT II - flux proof (Standard)
  RT III - wash tight (Option)

| | 40.31 | 40.51 | 40.52 |
|---|---|---|---|
| | | | |
| | • 1 CO 10 A<br>• 3.5 mm pin pitch<br>• PCB or 95 Series socket mount | • 1 CO 10 A<br>• 5.0 mm pin pitch<br>• PCB or 95 Series socket mount | • 2 CO 8 A<br>• 5.0 mm pin pitch<br>• PCB or 95 Series socket mount |
| |  |  |  |
| |  |  |  |
| | Copper side view<br>Pin length 5.3 mm for PCB or sockets | Copper side view<br>Pin length 5.3 mm for PCB or sockets | Copper side view<br>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 | 2500 | 2500 | 2000 |
| 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 | 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) | | | | |

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

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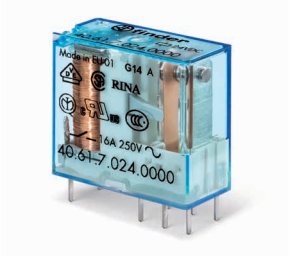
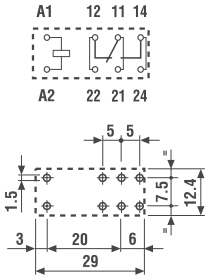
A

**Power relays 1 and 2 pole for direct PCB or socket mount**

**Type 40.61**
- 1 CO 16 A (5.0 mm pin pitch)
- DC coils (standard or sensitive) or AC coils

**Type 40.xx.6**
- Bistable versions of the types 40.31, 40.51, 40.52 and 40.61
- Bistable (single coil) DC or AC coils

- Cadmium-free contact material available
- 8 mm Creepage and Clearance, 6 kV (1.2/50µs) between coil and contact
- 95 series sockets for PCB or 35 mm rail mounting (EN 60715) with Screw, Screwless or Push-in terminals
- Coil Indication and EMC suppression modules 99 series and Timer module 86.30 options
- Environmental protection:
  RT II - flux proof (Standard)
  RT III - wash tight (Option)

| | 40.61 | 40.xx.6 |
|---|---|---|
| |  | |
| | • 1 CO 16 A<br>• 5.0 mm pin pitch<br>• PCB or 95 Series socket mount | • Bistable (single coil)<br>• 3.5 or 5.0 mm pin pitch<br>• PCB or 95 Series socket mount |
| |  | Bistable version (1 coil) types:<br>40.31.6…<br>40.51.6…<br>40.52.6…<br>40.61.6…<br>For wiring diagrams see page 9 |
| | Copper side view | |
| | Pin length 5.3 mm for PCB or sockets | 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 | 4000 | 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 | 1000 | 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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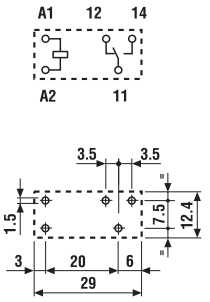
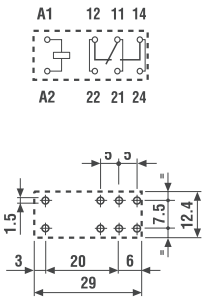
**Power relays 1 pole for direct PCB or socket mount**

**Type 40.31**
- 1 CO 12 A (3.5 mm pin pitch)

**Type 40.61**
- 1 CO 16 A (5.0 mm pin pitch)

- Pin length 3.5 mm for PCB mount
- Pin length 5.3 mm for Plug-in mount
- DC coils (650 mW or 500 mW)
- Cadmium-free contact material available
- 8 mm Creepage and Clearance, 6 kV (1.2/50µs) between coil and contact
- Meets EN 60335-1 glow wire requirements
- 95 series sockets for PCB or 35 mm rail mounting (EN 60715) with Screw, Screwless or Push-in terminals
- Coil Indication and EMC suppression modules 99 series and Timer module 86.30 options
- Environmental protection:
  RT II - flux proof (Standard)
  RT III - wash tight (Option)

| | 40.31 | 40.61 |
|---|---|---|
| | | |
| | • 1 CO 12 A on PCB, 10 A with socket<br>• 3.5 mm pin pitch<br>• PCB or 95 Series socket mount | • 1 CO 16 A<br>• 5.0 mm pin pitch<br>• PCB or 95 Series socket mount |
| |  |  |
| | Copper side view<br>Pin length 3.5 mm for PCB only<br>Pin length 5.3 mm for PCB or sockets | Copper side view<br>Pin length 3.5 mm for PCB only<br>Pin length 5.3 mm for PCB or sockets |
| * mounted on sockets ≤ 10 A<br>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 | 3000 | 4000 |
| Rated load AC15 (230 V AC) | VA | 1000 | 1000 |
| 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 | 1000 | 1000 |
| 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.

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A

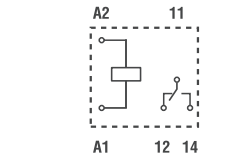
**PCB relay**

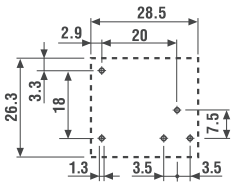
**Type 40.11**
- 1 CO 10 A - flat pack

- DC (sensitive) coils
- Cadmium-free contact material available
- 8 mm Creepage and Clearance, 6 kV (1.2/50µs) between coil and contact

**40.11**

- 1 CO 10 A
- PCB mount 12.7 mm high




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 | 2500 |
| 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 | 1000 |
| Ambient temperature range | °C | –40…+70 |
| Environmental protection | | RT I |
| **Approvals** (according to type) | | EAC cULus VDE |



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## Ordering information

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

| 4 0 | . | 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 = Pin length 5.3 mm (Plug-in relays)
2 = Pin 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** | **40.31 New** | **40.61** | **40.61 New** |
|---|---|---|---|
| 1 pole 10 A | 1 pole 12 A | 1 pole 16 A | 1 pole 16 A |
| | | | |
| 3.5 mm pin pitch<br>For socket** or PCB mount<br>pin length 5.3 mm | | 5 mm pin pitch<br>For socket or PCB mount pin<br>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.

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## Technical data

A

| Insulation according to EN 61810-1 | | | | | | |
|---|---|---|---|---|---|---|
| | | | 1 pole | | 2 pole | |
| 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 | 4000 | | 4000 | |
| **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 | — | | 2000 | |
| **Insulation between open contacts** | | | | | | |
| Type of disconnection | | | Micro-disconnection | | Micro-disconnection | |
| Dielectric strength | | V AC/kV (1.2/50 µs) | 1000/1.5 | | 1000/1.5 | |
| **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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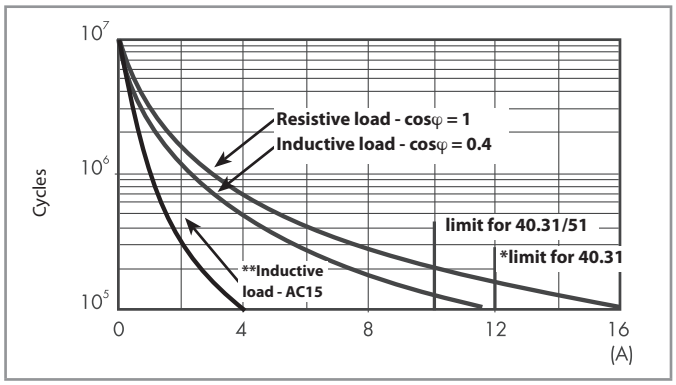
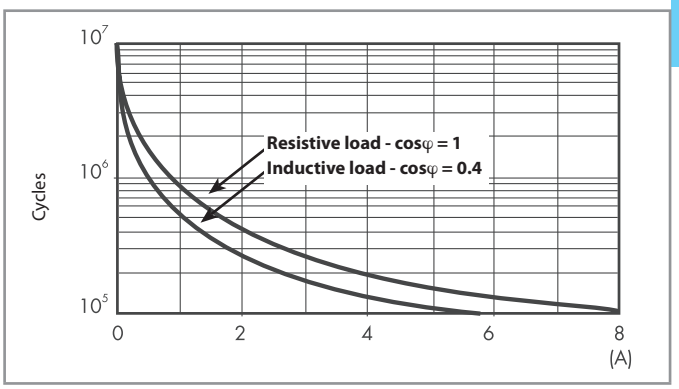
## Contact specification

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

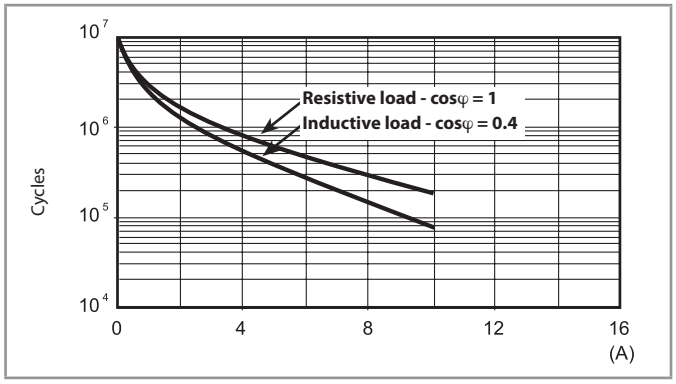



**F 40 - Electrical life (AC) v contact current**
Types 40.52

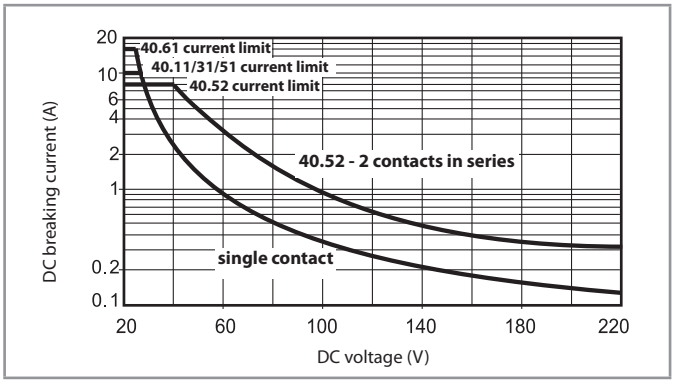



* limit for 40.31, see page 3
** Inductive load - AC15 for 40.31/61, see page 3

**F 40 - Electrical life (AC) v contact current**
Types 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.

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## Coil specifications



**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 | 1200 | 23 |
| 36 | **9**.036 | 26.3 | 54 | 2000 | 18 |
| 48 | **9**.048 | 35 | 72 | 3500 | 14 |
| 60 | **9**.060 | 43.8 | 90 | 5500 | 11 |
| 90 | **9**.090 | 65.7 | 135 | 12500 | 7.2 |
| 110 | **9**.110 | 80.3 | 165 | 18000 | 6.2 |
| 125 | **9**.125 | 91.2 | 188 | 23500 | 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 | 1150 | 21 |
| 28 | **7**.028 | 20.5 | 42 | 1600 | 17.5 |
| 36 | **7**.036 | 26.3 | 54 | 2600 | 13.8 |
| 48 | **7**.048 | 35 | 72 | 4800 | 10 |
| 60 | **7**.060 | 43.8 | 90 | 7200 | 8.4 |
| 90 | **7**.090 | 65.7 | 135 | 16200 | 5.6 |
| 110 | **7**.110 | 80.3 | 165 | 23500 | 4.7 |
| 125 | **7**.125 | 91.2 | 188 | 32000 | 3.9 |

* $U_{min}$ = 0.8 $U_N$ for 40.61

**DC coil data - 0.5 W sensitive** (types 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 | 1200 | 20 |
| 48 | **7**.048 | 35 | 84 | 4600 | 10.4 |
| 60 | **7**.060 | 43.8 | 105 | 7200 | 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 $U_N$ (50 Hz) |
|---|---|---|---|---|---|
| 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 | 1350 | 21 |
| 60 | **8**.060 | 48 | 66 | 2100 | 16.8 |
| 110 | **8**.110 | 88 | 121 | 6900 | 9.4 |
| 120 | **8**.120 | 96 | 132 | 9000 | 8.4 |
| 230 | **8**.230 | 184 | 253 | 28000 | 5 |
| 240 | **8**.240 | 192 | 264 | 31500 | 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 | 2100 | 21 | 3,600 |
| 110 | **6**.110 | 88 | 121 | 11000 | 10 | 16,500 |

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

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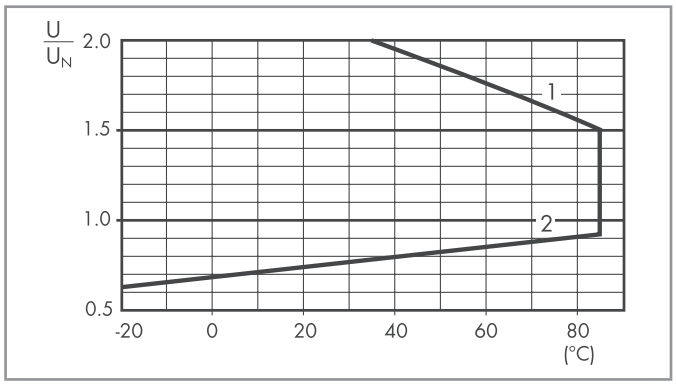
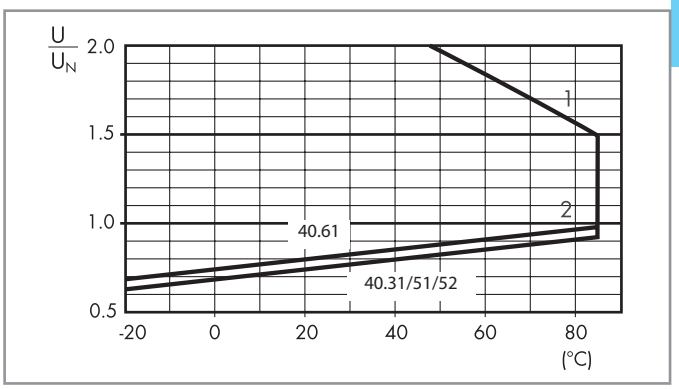
## Contact specification

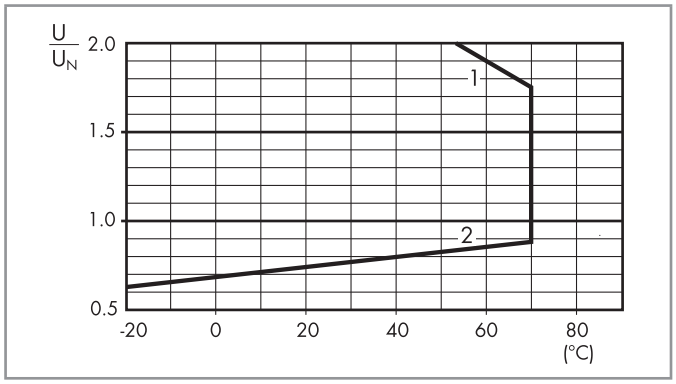
**R 40 - DC coil operating range v ambient temperature**
Standard coil




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

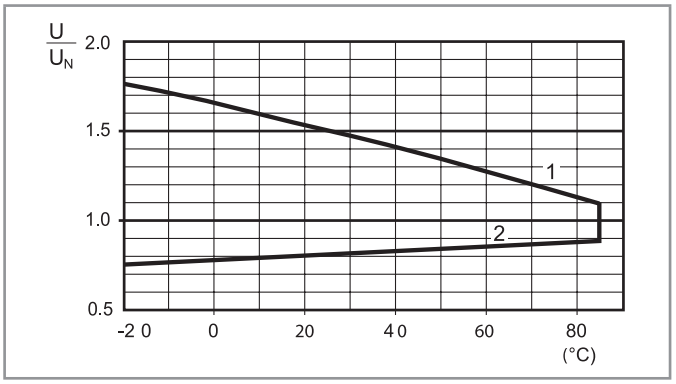



**R 40 - DC coil operating range v ambient temperature**
Sensitive coil, type 40.11




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

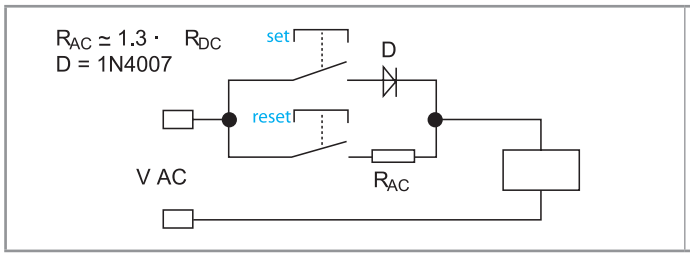
**R 40 - AC coil operating range v ambient temperature**




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

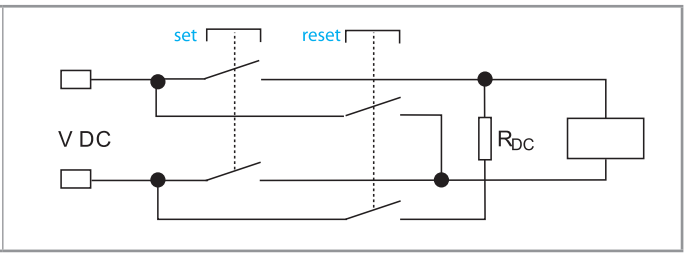
### Wiring diagram for 40 series bistable coil version

**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.

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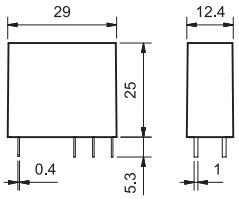
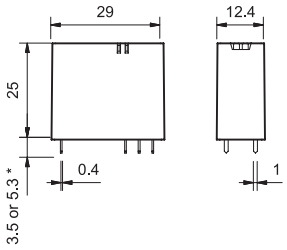
## Outline drawings

A

Type 40.31/51/52/61

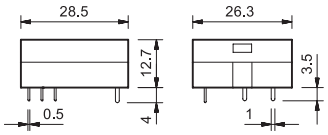



Type 40.31/61




* (3.5 or 5.3 mm) see ordering code

Type 40.11





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See page 12

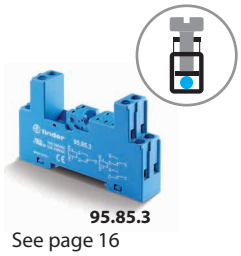
| Module | Socket | Relay | Description | Mounting | Accessories |
|---|---|---|---|---|---|
| 99.02 | 95.P3 | 40.31 | **Push-in terminal sockets**<br>- For fast cable connection<br>- Top terminals - Contacts<br>- Bottom terminals - Coil | Panel or 35 mm rail (EN 60715) mount | - Coil indication and EMC suppression modules<br>- Jumper link<br>- Timer modules<br>- Plastic retaining and release clip |
| | 95.P5 | 40.51<br>40.52<br>40.61 | | | |

See page 14

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

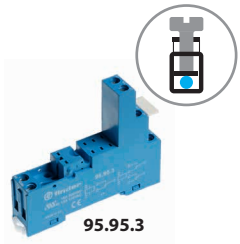
See page 15

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



See page 16

| Module | Socket | Relay | Description | Mounting | Accessories |
|---|---|---|---|---|---|
| 99.80 | 95.83.3 | 40.31 | **Screw terminal (Box clamp) socket**<br>- Top terminals - NO and COM Contacts<br>- Bottom terminals - Coil and NC Contacts | Panel or 35 mm rail (EN 60715) mount | - Coil indication and EMC suppression modules<br>- Jumper link<br>- Plastic retaining and release clip |
| | 95.85.3 | 40.51<br>40.52<br>40.61 | | | |



See page 17

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

See page 18

| Module | Socket | Relay | Description | Mounting | Accessories |
|---|---|---|---|---|---|
| 99.01 | 95.63 | 40.31 | **Screw terminal (Box clamp) socket**<br>- Top terminals - Contacts<br>- Bottom terminals - Coil | Panel or 35 mm rail (EN 60715) mount | - Metal retaining clip |
| | 95.65 | 40.51<br>40.52<br>40.61 | | | |

See page 19

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

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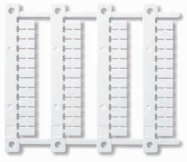
A

**95.P5**
Approvals
(according to type):

RINA

**095.91.3**

**060.72**

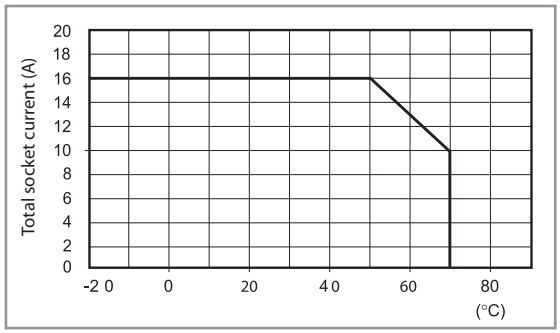


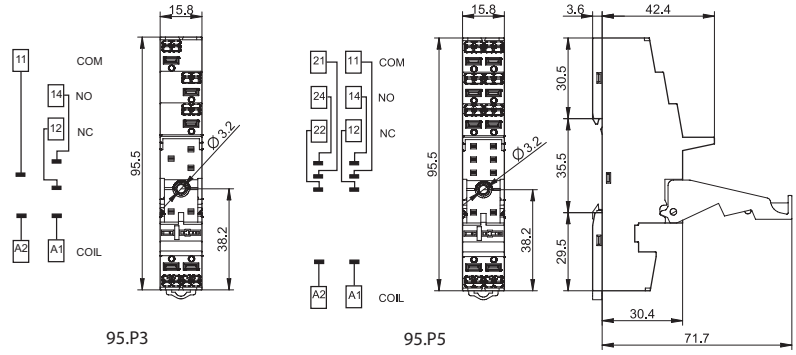
**060.48**

| **Push-in terminals socket** panel or 35 mm rail mount | | **95.P3** | **95.P5** |
|---|---|---|---|
| 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 | |
| 8-way jumper link | | 097.58 | |
| 2-way jumper link (12.5 mm pitch) | | 097.52 | |
| 2-way jumper link (4.6 mm pitch) | | 097.42 | |
| Marker tag holder (for tags 060.48 and 060.72 types) | | 097.00 | |
| Identification tag | | 095.00.4 | |
| Modules (see table below) | | 99.02 | |
| Timer modules (see table below) | | 86.30 | |
| Sheet of marker tags for plastic retaining and release clip 095.91.3 and for marker tag holder 097.00, 48 tags, 6 x 12 mm, for CEMBRE's thermal transfert printer | | 060.48 | |
| Sheet of marker tags for plastic retaining and release clip 095.91.3 and for marker tag holder 097.00, 72 tags, 6 x 12 mm, for plotter printing | | 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) | |
| Wire strip length | mm | 8 | |
| Min. wire size for 95.P3 and 95.P5 sockets | | solid wire | stranded wire |
| | mm² | 0.5 | 0.5 |
| | AWG | 21 | 21 |
| Max. wire size for 95.P3 and 95.P5 sockets | | solid wire | stranded wire |
| | mm² | 2 x 1.5 / 1 x 2.5 | 2 x 1.5 / 1 x 2.5 |
| | AWG | 2 x 18 / 1 x 14 | 2 x 18 / 1 x 14 |

* 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**

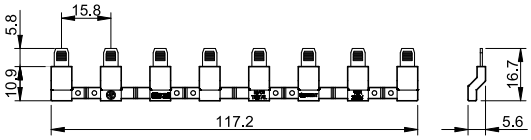



95.P3 95.P5

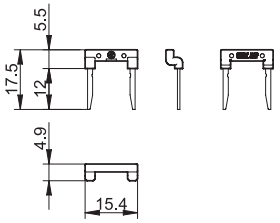
**097.58**

| **8-way jumper link** for 95.P3 and 95.P5 sockets | 097.58 |
|---|---|
| Rated values | 10 A - 250 V |



**097.52**

| **2-way jumper link** for 95.P3 and 95.P5 sockets | 097.52 |
|---|---|
| Rated values | 10 A - 250 V |

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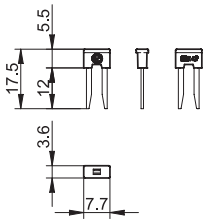
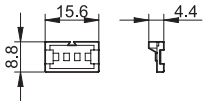
**097.42**

| **2-way jumper link** for 95.P3 and 95.P5 sockets | 097.42 |
|---|---|
| Rated values | 10 A - 250 V |



**097.00**

| **Marker tag holder** for 95.P3 and 95.P5 sockets | 097.00 |
|---|---|



**86.30**

| **86 series timer modules** | |
|---|---|
| (12…24)V AC/DC; Bi-function: AI, DI; (0.05 s…100 h) | 86.30.0.024.0000 |
| (110…125)V AC; Bi-function: AI, DI; (0.05 s…100 h) | 86.30.8.120.0000 |
| (230…240)V AC; Bi-function: AI, DI; (0.05 s…100 h) | 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.P3 and 95.P5 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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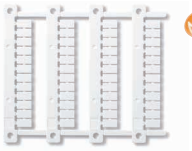
A

95.05

Approvals (according to type):

Certain relay/socket combinations

095.01

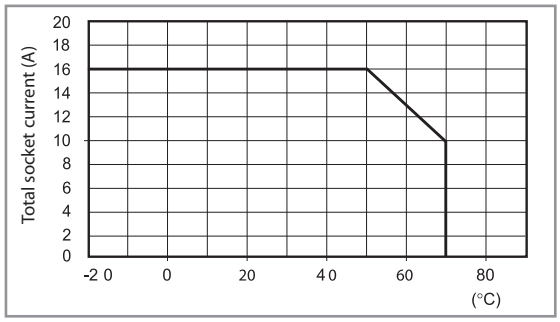


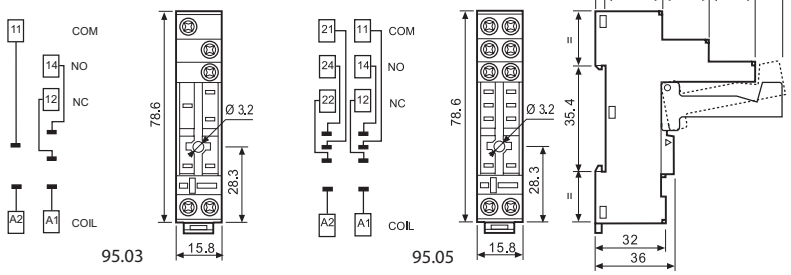
060.48

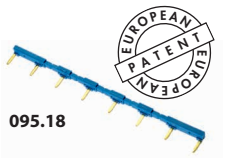
| **Screw terminal (Box clamp) socket** panel or 35 mm rail mount | | **95.03 (blue)** | **95.03.0 (black)** | **95.05 (blue)** | **95.05.0 (black)** |
|---|---|---|---|---|---|
| For relay type | | 40.31 | | 40.51, 40.52, 40.61 | |
| **Accessories** | | | | | |
| Metal retaining clip | | 095.71 | | | |
| 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 |
| Marker tag holder (for tags 060.48 and 060.72 types) | | 097.00 | | | |
| Identification tag | | 095.00.4 | | | |
| Modules (see table below) | | 99.02 | | | |
| Timer modules (see table below) | | 86.30 | | | |
| Sheet of marker tags for plastic retaining and release clip 095.01 and for marker tag holder 097.00, 48 tags, 6 x 12 mm, for CEMBRE's thermal transfer printers | | 060.48 | | | |
| Sheet of marker tags for plastic retaining and release clip 095.01 and for marker tag holder 097.00, 72 tags, 6 x 12 mm, for plotter printing | | 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 | |
| | mm² | 1 x 6 / 2 x 2.5 | | 1 x 4 / 2 x 2.5 | |
| | AWG | 1 x 10 / 2 x 14 | | 1 x 12 / 2 x 14 | |

* 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**

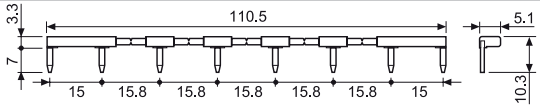


095.18

| **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; (0.05 s…100 h) | 86.30.0.024.0000 |
| (110…125)V AC; Bi-function: AI, DI; (0.05 s…100 h) | 86.30.8.120.0000 |
| (230…240)V AC; Bi-function: AI, DI; (0.05 s…100 h) | 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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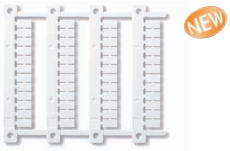
95.55

Approvals (according to type):

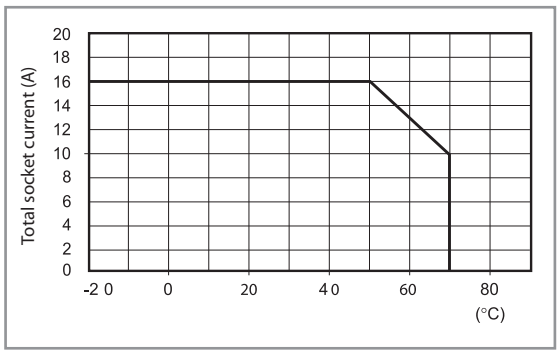
095.91.3

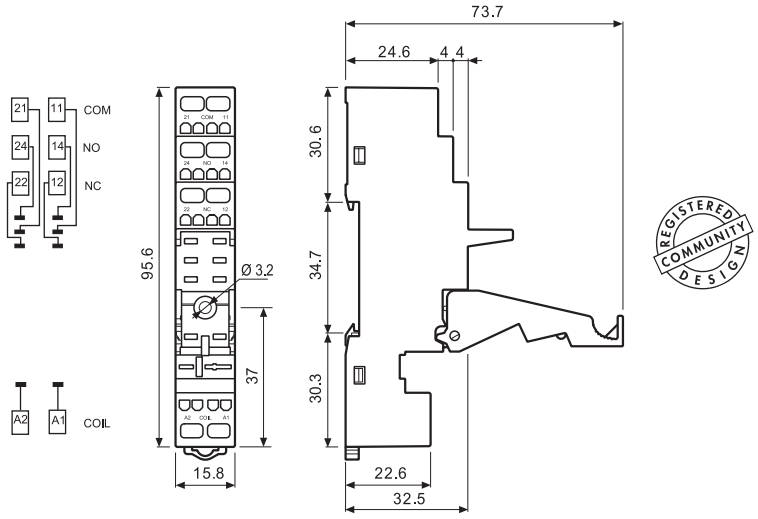

060.48

| **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 plastic retaining and release clip 095.91.3, 48 tags, 6 x 12 mm, for CEMBRE's thermal transfer printers | | 060.48 | |
| Sheet of marker tags for plastic retaining and release clip 095.91.3, 72 tags, 6 x 12 mm for plotter printing | | 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 | 2 x (0.5…1.5) | 2 x (0.5…1.5) |
| | AWG | 2 x (21…18) | 2 x (21…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**



86.30

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

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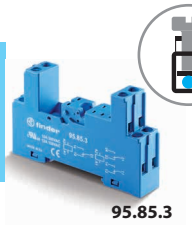
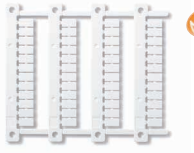

95.85.3

Approvals (according to type):

095.91.3

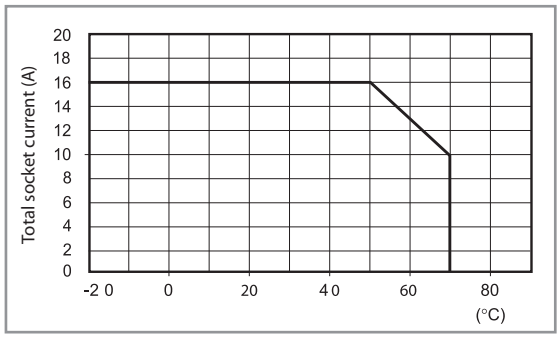
060.72

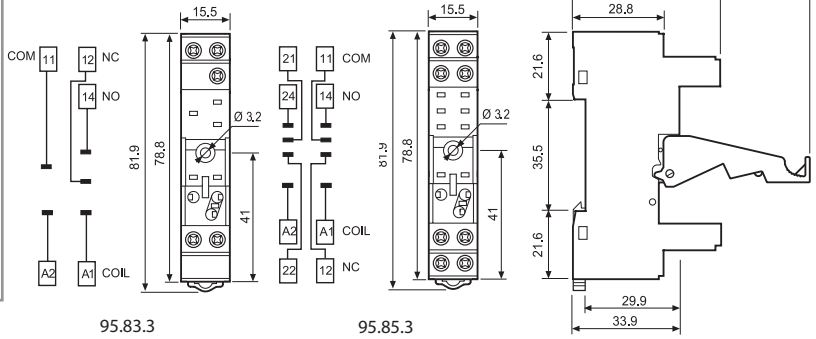

060.48

| **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 | | 095.00.4 | | | |
| Modules (see table below) | | 99.80 | | | |
| Marker tag holder | | 097.00 | | | |
| Sheet of marker tags for plastic retaining and release clip 095.91.3, 48 tags, 6 x 12 mm, for CEMBRE's thermal transfert printer | | 060.48 | | | |
| Sheet of marker tags for plastic retaining and release clip 095.91.3, 72 tags, 6 x 12 mm, for plotter printing | | 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 | |
| | mm² | 1 x 6 / 2 x 2.5 | | 1 x 4 / 2 x 2.5 | |
| | AWG | 1 x 10 / 2 x 14 | | 1 x 12 / 2 x 14 | |

* 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**

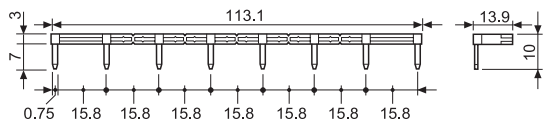


95.83.3 95.85.3

| **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 | |

095.08



99.80

Approvals (according to type):

| **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 |

* Modules in Black housing are available on request.

Green LED is standard. Red LED available on request.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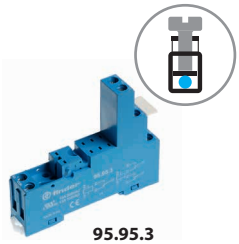
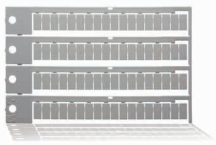
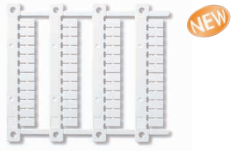

95.95.3

Approvals (according to type):

095.91.3

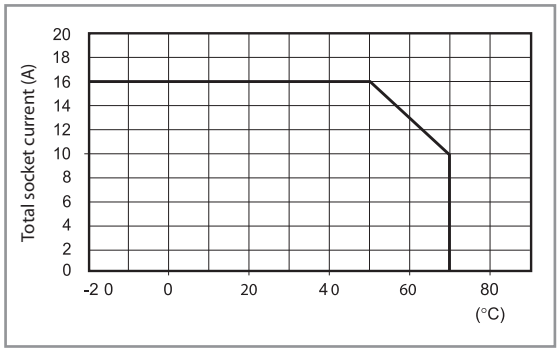

060.72

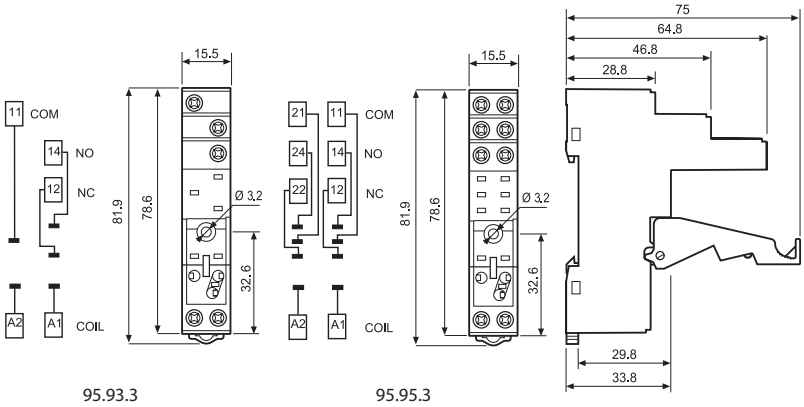

060.48

| **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 (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 | | 095.00.4 | | | |
| Modules (see table below) | | 99.80 | | | |
| Sheet of marker tags for plastic retaining and release clip 095.91.3 and for marker tag holder 097.00, 48 tags, 6 x 12 mm, for CEMBRE's thermal transfer printers | | 060.48 | | | |
| Sheet of marker tags for plastic retaining and release clip 095.91.3 and for marker tag holder 097.00, 72 tags, 6 x 12 mm for plotter printing | | 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 | |
| | mm² | 1 x 6 / 2 x 2.5 | | 1 x 4 / 2 x 2.5 | |
| | AWG | 1 x 10 / 2 x 14 | | 1 x 12 / 2 x 14 | |

* 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.

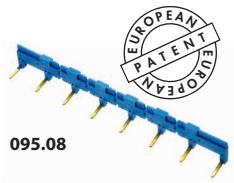
**L 95 - Total socket current vs ambient temperature**

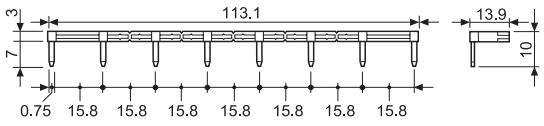



95.93.3 95.95.3

| **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 | |


095.08



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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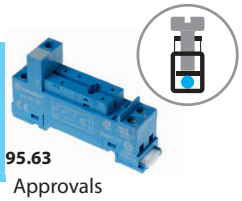
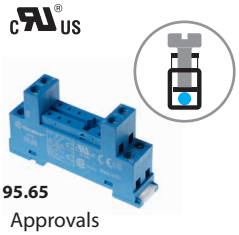


95.63

Approvals (according to type):



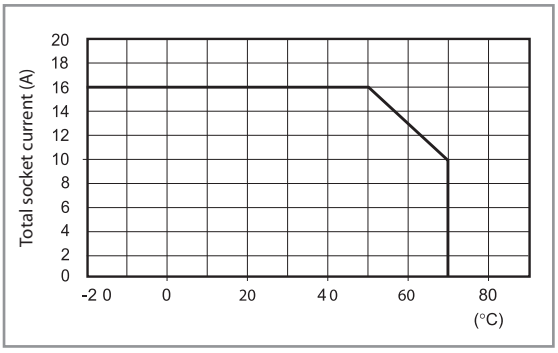
95.65

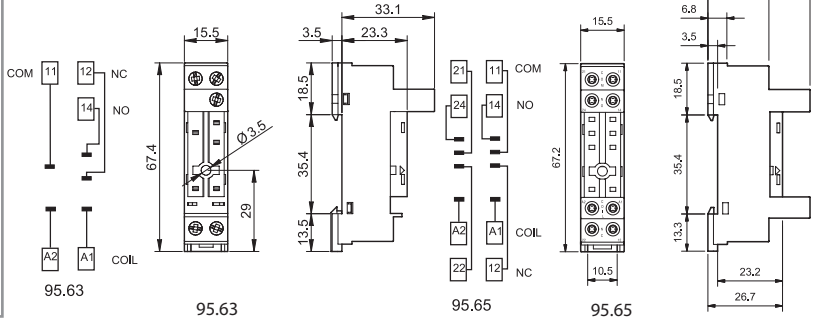
Approvals (according to type):

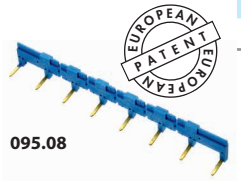
| **Screw terminal (Box clamp) socket** panel or 35 mm rail mount | | **95.63** | **95.65** |
|---|---|---|---|
| For relay type | | 40.31 | 40.51, 40.52, 40.61 |
| **Accessories** | | | |
| Metal retaining clip | | 095.71 | |
| 8-way jumper link | | 095.08 | 095.08 |
| Modules (see table below) | | 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 |
| | mm² | 1 x 6 / 2 x 2.5 | 1 x 4 / 2 x 2.5 |
| | AWG | 1 x 10 / 2 x 14 | 1 x 12 / 2 x 14 |

* 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**

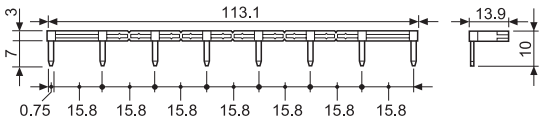


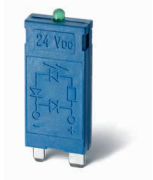




095.08

| **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):

* Modules in Black housing are available on request.

Green LED is standard. Red LED available on request.

| **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 |

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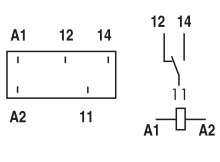
95.13.2

95.15.2

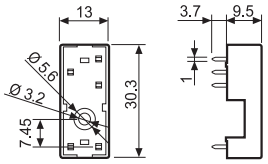
Approvals (according to type):

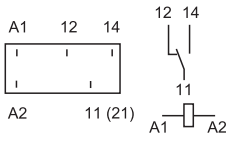
| PCB socket | 95.13.2 (blue) | 95.13.20 (black) | 95.15.2 (blue) | 95.15.20 (black) |
|---|---|---|---|---|
| For relay type | 40.31 | | 40.51, 40.52, 40.61 | |
| **Accessories** | | | | |
| Metal retaining clip (supplied with socket - packaging code SMA) | 095.51 | | | |
| Plastic retaining clip | 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.

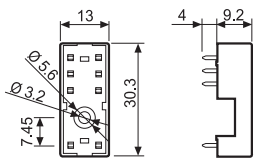


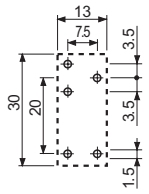

40.31



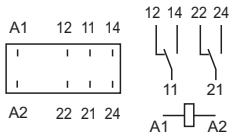

40.51



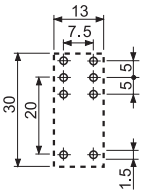




95.13.2

Copper side view

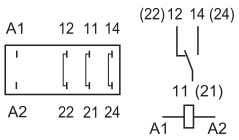



40.52




95.15.2

Copper side view




40.61

## Packaging codes

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

Example:

| 9 | 5 | . | P | 5 | S | P | A |
|---|---|---|---|---|---|---|---|

**A** Standard packaging

**SM** Metal retaining clip
**SP** Plastic retaining clip

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