

- 8 - 11 pin plug-in
- AC or DC coils
- Lockable test button with mechanical flag indicator
- Bifurcated contact option
- Sockets and accessories: see 90, 99 and 86 series

| | 60.12 | 60.12-0200 | 60.13 |
|---|---|--|--|
| | | | |
| | - 2 pole - 8 pin - Plug-In for use with 90 series sockets | - 2 bifurcated contacts, for low level switching capability - 8 pin - Plug-In for use with 90 series sockets | - 3 pole - 11 pin - Plug-In for use with 90 series sockets |
| | | | |
| Contact specifications | | | |
| Contact configuration | 2 CO (DPDT) | 2 CO (DPDT) | 3 CO (3PDT) |
| Rated current/Maximum peak current A | 10/20 | 6/10 | 10/20 |
| Rated voltage/Maximum switching voltage V AC | 250/400* | 250/400* | 250/400* |
| Rated load in AC1 VA | 2,500 | 1,500 | 2,500 |
| Rated load in AC15 (230 V AC) VA | 500 | 250 | 500 |
| Single phase motor rating (230 V AC) kW | 0.37 | 0.185 | 0.37 |
| Breaking capacity in DC1: 30/110/220 V A | 10/0.4/0.15 | 6/0.3/0.12 | 10/0.4/0.15 |
| Minimum switching load mW (V/mA) | 500 (10/5) | 50 (5/5) | 500 (10/5) |
| Standard contact material | AgNi | AgNi+Au bifurcated contacts | AgNi |
| Coil specifications | | | |
| Nominal voltage (U _N) V AC (50/60 Hz) | 6 - 12 - 24 - 48 - 60 - 110 - 120 - 230 - 240 - 400 | | |
| V DC | 6 - 12 - 24 - 48 - 60 - 110 - 125 - 220 | | |
| Rated power AC/DC VA (50 Hz)/W | 2.2/1.3 | 2.2/1.3 | 2.2/1.3 |
| Operating range AC | (0.8...1.1)U _N | (0.8...1.1)U _N | (0.8...1.1)U _N |
| DC | (0.8...1.1)U _N | (0.8...1.1)U _N | (0.8...1.1)U _N |
| Holding voltage AC/DC | 0.8 U _N /0.5 U _N | 0.8 U _N /0.5 U _N | 0.8 U _N /0.5 U _N |
| Must drop-out voltage AC/DC | 0.2 U _N /0.1 U _N | 0.2 U _N /0.1 U _N | 0.2 U _N /0.1 U _N |
| Technical data | | | |
| Mechanical life AC/DC cycles | 20 · 10 ⁶ /50 · 10 ⁶ | 20 · 10 ⁶ /50 · 10 ⁶ | 20 · 10 ⁶ /50 · 10 ⁶ |
| Electrical life at rated load AC1 cycles | 200 · 10 ³ | 250 · 10 ³ | 200 · 10 ³ |
| Operate/release time ms | 9/9 | 9/9 | 9/9 |
| Insulation according to EN 61810-1 ed. 2 | 4 kV/3 | 4 kV/3 | 3.6 kV/3 |
| Insulation between coil and contacts (1.2/50 μs) kV | 3.6 | 3.6 | 3.6 |
| Dielectric strength between open contacts V AC | 1,000 | 1,000 | 1,000 |
| Ambient temperature range °C | -40...+70 | -40...+70 | -40...+70 |
| Environmental protection | RT I | RT I | RT I |
| Approvals: (according to type) | | | |

* For 400 V applications, where requirements for pollution degree 2 are met.

- 8 - 11 pin plug-in
- AC or DC coils
- Lockable test button with mechanical flag indicator
- Bifurcated contact option
- Sockets and accessories: see 90, 99 and 86 series

60

60.13-0200

60.62

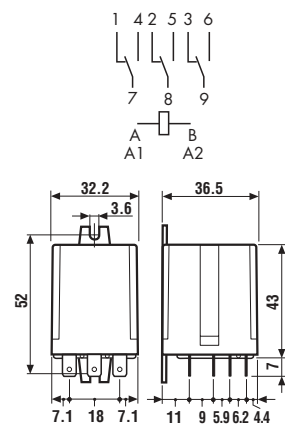
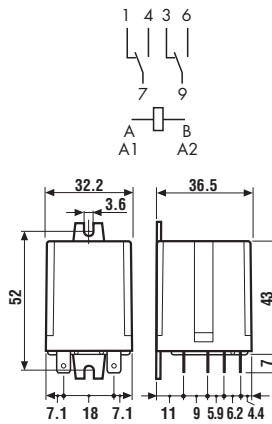
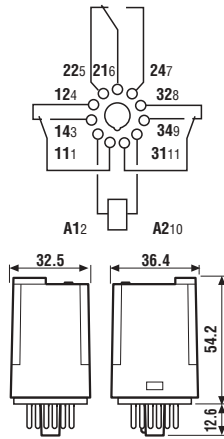
60.63



- 3 bifurcated contacts, for low level switching capability
- 11 pin
- Plug-In for use with 90 series sockets

- 2 pole
- Faston 187 (4.8x0.8 mm) with flange mount

- 3 pole
- Faston 187 (4.8x0.8 mm) with flange mount



* For 400 V applications, where requirements for pollution degree 2 are met.

| Contact specifications | | | | | |
|--|-----------------|--|---|--|--|
| Contact configuration | | | 3 CO (3PDT) | 2 CO (DPDT) | 3 CO (3PDT) |
| Rated current/Maximum peak current | A | | 6/10 | 10/20 | 10/20 |
| Rated voltage/Maximum switching voltage V AC | | | 250/400* | 250/400* | 250/400* |
| Rated load in AC1 | VA | | 1,500 | 2,500 | 2,500 |
| Rated load in AC15 (230 V AC) | VA | | 250 | 500 | 500 |
| Single phase motor rating (230 V AC) | kW | | 0.185 | 0.37 | 0.37 |
| Breaking capacity in DC1: 30/110/220 V | A | | 6/0.3/0.12 | 10/0.4/0.15 | 10/0.4/0.15 |
| Minimum switching load | mW (V/mA) | | 50 (5/5) | 500 (10/5) | 500 (10/5) |
| Standard contact material | | | AgNi+Au bifurcated contacts | AgNi | AgNi |
| Coil specifications | | | | | |
| Nominal voltage (U _N) | V AC (50/60 Hz) | | 6 - 12 - 24 - 48 - 60 - 110 - 120 - 230 - 240 - 400 | | |
| | V DC | | 6 - 12 - 24 - 48 - 60 - 110 - 125 - 220 | | |
| Rated power AC/DC | VA (50 Hz)/W | | 2.2/1.3 | 2.2/1.3 | 2.2/1.3 |
| Operating range | AC | | (0.8...1.1)U _N | (0.8...1.1)U _N | (0.8...1.1)U _N |
| | DC | | (0.8...1.1)U _N | (0.8...1.1)U _N | (0.8...1.1)U _N |
| Holding voltage | AC/DC | | 0.8 U _N /0.5 U _N | 0.8 U _N /0.5 U _N | 0.8 U _N /0.5 U _N |
| Must drop-out voltage | AC/DC | | 0.2 U _N /0.1 U _N | 0.2 U _N /0.1 U _N | 0.2 U _N /0.1 U _N |
| Technical data | | | | | |
| Mechanical life AC/DC | cycles | | 20 · 10 ⁶ /50 · 10 ⁶ | 20 · 10 ⁶ /50 · 10 ⁶ | 20 · 10 ⁶ /50 · 10 ⁶ |
| Electrical life at rated load AC1 | cycles | | 250 · 10 ³ | 200 · 10 ³ | 200 · 10 ³ |
| Operate/release time | ms | | 9/9 | 9/9 | 9/9 |
| Insulation according to EN 61810-1 ed. 2 | | | 3.6 kV/3 | 4 kV/3 | 3.6 kV/3 |
| Insulation between coil and contacts (1.2/50 μs) | kV | | 3.6 | 3.6 | 3.6 |
| Dielectric strength between open contacts | V AC | | 1,000 | 1,000 | 1,000 |
| Ambient temperature range | °C | | -40...+70 | -40...+70 | -40...+70 |
| Environmental protection | | | RT I | RT I | RT I |

Approvals: (according to type)



ORDERING INFORMATION

Example: a 60 series plug-in relay, 3 CO (3PDT) with coil rated 12 V DC, test button and mechanical indicator.

6 0 . 1 3 . 9 . 0 1 2 . 0 0 4 0

Series ———

Type ———
 1 = 8/11 pin plug-in
 6 = Faston 187 (4.8x0.8 mm) with flange mount

No. of poles ———
 2 = 2 pole
 3 = 3 pole

Coil version ———
 4 = Current sensing
 8 = AC (50/60 Hz)
 9 = DC

Coil voltage ———
 see coil specifications

A: Contact material
 0 = Standard
 2 = AgCdO
 5 = AgNi + Au (5 µm)

B: Contact circuit
 0 = CO (nPDT)
 2 = Bifurcated contacts
 60.12/13 - 6 A only

D: Special versions
 0 = Standard

C: Options
 0 = None
 2 = Mechanical indicator
 3 = LED (AC)
 4 = Lockable test button + mechanical indicator
 5 = Lockable test button + LED (AC)
 54 = Lockable test button + LED (AC) + mechanical indicator
 6 = LED + diode (positive to pin 2, DC)
 7 = Lockable test button + LED + diode (positive to pin 2)
 74 = Lockable test button + LED + diode (positive to pin 2) + mechanical indicator

Only combinations in the same row are possible

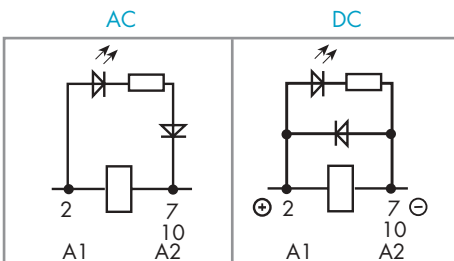
Preferred versions

| | coil version | A | B | C | D |
|----------|--------------|---|---|---|---|
| 60.12/13 | AC/DC | 0 | 0 | 4 | 0 |
| 60.62/63 | AC/DC | 0 | 0 | 0 | 0 |

All versions

| | coil version | A | B | C | D |
|----------|-----------------|-----------|-------|-------------------|---|
| 60.12/13 | AC | 0 - 2 | 0 | 0 - 2 - 3 - 4 - 5 | 0 |
| | AC | 0 - 2 | 0 | 54 | / |
| | AC | 5 | 0 - 2 | 0 - 2 - 3 - 4 - 5 | 0 |
| | AC | 5 | 0 - 2 | 54 | / |
| | DC | 0 - 2 | 0 | 0 - 2 - 4 - 6 - 7 | 0 |
| | DC | 0 - 2 | 0 | 74 | / |
| | DC | 5 | 0 - 2 | 0 - 2 - 4 - 6 - 7 | 0 |
| | DC | 5 | 0 - 2 | 74 | / |
| | current sensing | 0 | 0 | 4 | 0 |
| 60.62/63 | AC/DC | 0 - 2 - 5 | 0 | 0 | 0 |

POSSIBLE OPTIONS



Option = 0030
 0050
 0054

Option = 0060
 0070
 0074



LOCKABLE TEST BUTTON AND MECHANICAL FLAG INDICATOR (0040)

The dual-purpose Finder test button can be used in two ways:

Case 1) The plastic pip (located directly above the test button) remains intact. In this case, when the test button is pushed, the contacts operate. When the test button is released the contacts return to their former state.

Case 2) The plastic pip is broken-off (using an appropriate cutting tool). In this case, (in addition to the above function), when the test button is pushed and rotated, the contacts are latched in the operating state, and remain so until the test button is rotated back to its former position.

In both cases ensure that the test button actuation is swift and decisive.

ACCESSORIES



| | |
|---|--------|
| Sheet of marker tags for relay types 60.12 and 60.13 (72 tags), 6x12 mm | 060.72 |
|---|--------|

060.72

TECHNICAL DATA

INSULATION

| | | | |
|---|---------------------------------|-------|----------------------------|
| Insulation according to EN 61810-1 ed. 2 | insulation rated voltage | V | 250 |
| | rated impulse withstand voltage | kV | 4 (2 pole) 3.6 (3 pole) |
| | pollution degree | | 3 |
| | overvoltage category | | III |
| Dielectric strength between adjacent contacts | V AC | 2,000 | |

60

CONDUCTED DISTURBANCE IMMUNITY

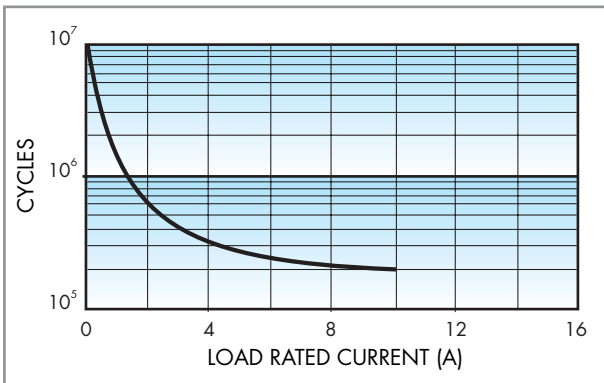
| | | |
|--|--------------|----------------|
| Burst (5...50)ns, 5 kHz, on A1 - A2 | EN 61000-4-4 | level 4 (4 kV) |
| Surge (1.2/50 μs) on A1 - A2 (differential mode) | EN 61000-4-5 | level 4 (4 kV) |

OTHER DATA

| | | | |
|--|-------------------------|--------------------|--------------------|
| Bounce time: NO/NC | ms | 2/4 | |
| Vibration resistance (10...55)Hz, max. ± 1 mm: NO/NC | g/g | 5/3 | |
| Power lost to the environment | | 2 CO (DPDT) | 3 CO (3PDT) |
| | without contact current | W | 1.3 |
| | with rated current | W | 2.7 |

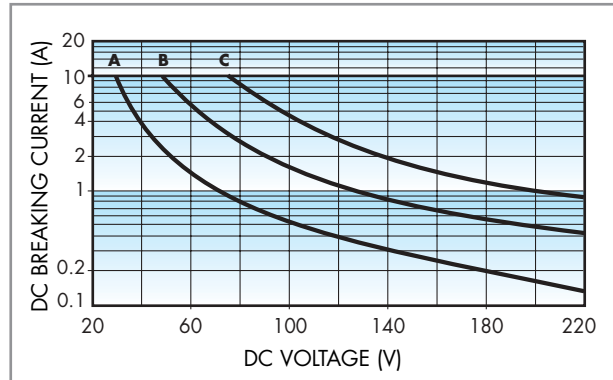
CONTACT SPECIFICATIONS

F 60



Electrical life vs AC1 load.

H 60



Breaking capacity for DC1 load.

- A** - Load applied to 1 contact
- B** - Load applied to 2 contacts in series
- C** - Load applied to 3 contacts in series

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

- In case of DC13 loads the connection of a diode in parallel with the load will permit the same electrical life as for a DC1 load.

Note: the release time of load will be increase.

COIL SPECIFICATIONS

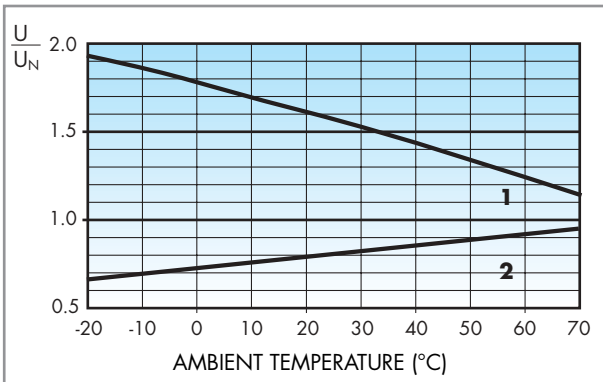
DC VERSION DATA

| Nominal voltage U_N V | Coil code | Operating range | | Resistance R Ω | Rated coil consumption I at U_N mA |
|-------------------------------|-----------|-----------------|----------------|-----------------------------|--|
| | | U_{min} V | U_{max} V | | |
| 6 | 9.006 | 4.8 | 6.6 | 28 | 214 |
| 12 | 9.012 | 9.6 | 13.2 | 110 | 109 |
| 24 | 9.024 | 19.2 | 26.4 | 445 | 53.9 |
| 48 | 9.048 | 38.4 | 52.8 | 1,770 | 27.1 |
| 60 | 9.060 | 48 | 66 | 2,760 | 21.7 |
| 110 | 9.110 | 88 | 121 | 9,420 | 11.7 |
| 125 | 9.125 | 100 | 137.5 | 12,000 | 10.4 |
| 220 | 9.220 | 176 | 242 | 37,300 | 5.8 |

AC VERSION DATA

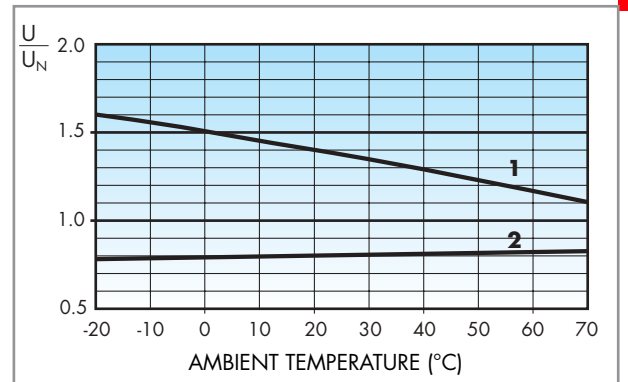
| Nominal voltage U_N V | Coil code | Operating range | | Resistance R Ω | Rated coil consumption I at U_N (50Hz) mA |
|-------------------------------|-----------|-----------------|----------------|-----------------------------|---|
| | | U_{min} V | U_{max} V | | |
| 6 | 8.006 | 4.8 | 6.6 | 4.6 | 367 |
| 12 | 8.012 | 9.6 | 13.2 | 19 | 183 |
| 24 | 8.024 | 19.2 | 26.4 | 74 | 90 |
| 48 | 8.048 | 38.4 | 52.8 | 290 | 47 |
| 60 | 8.060 | 48 | 66 | 450 | 37 |
| 110 | 8.110 | 88 | 121 | 1,600 | 20 |
| 120 | 8.120 | 96 | 132 | 1,940 | 18.6 |
| 230 | 8.230 | 184 | 253 | 7,250 | 10.5 |
| 240 | 8.240 | 192 | 264 | 8,500 | 9.2 |
| 400 | 8.400 | 320 | 440 | 19,800 | 6 |

R 60 DC



Operating range (DC version) vs ambient temperature.
1 - Max coil voltage permitted.
2 - Min pick-up voltage with coil at ambient temperature.

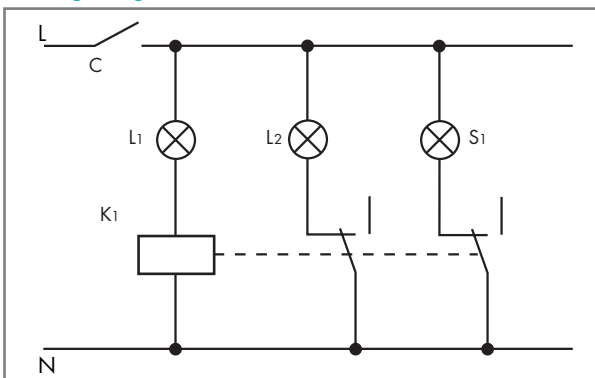
R 60 AC



Operating range (AC version) vs ambient temperature.
1 - Max coil voltage permitted.
2 - Min pick-up voltage with coil at ambient temperature.

CURRENT SENSING VERSION

Wiring Diagram



Typical application with current sensing relays.
 An open circuit filament of lamp L1 is detected by the current sensing relay coil (K1) which causes the back-up safety lamp L2 to be energised, and indication of failure at the control panel via lamp S1.

Example: navigation light.

- L1 = Light
- L2 = Safety light
- S1 = Control light
- K1 = Relay

CURRENT SENSING AC VERSION DATA

| Coil code | I_{min} (A) | I_N (A) | I_{max} (A) | R (Ω) |
|-----------|---------------|-----------|---------------|----------------|
| 4251 | 2.1 | 2.5 | 3.0 | 0.05 |
| 4181 | 1.5 | 1.8 | 2.2 | 0.10 |
| 4161 | 1.4 | 1.6 | 1.9 | 0.12 |
| 4121 | 1.0 | 1.2 | 1.4 | 0.22 |
| 4101 | 0.85 | 1.0 | 1.2 | 0.32 |
| 4051 | 0.42 | 0.5 | 0.6 | 1.28 |
| 4041 | 0.34 | 0.4 | 0.5 | 2.00 |
| 4031 | 0.25 | 0.3 | 0.4 | 3.57 |
| 4021 | 0.17 | 0.2 | 0.25 | 8.0 |
| 4011 | 0.085 | 0.1 | 0.15 | 32.1 |

CURRENT SENSING DC VERSION DATA

| Coil code | I_{min} (A) | I_N (A) | I_{max} (A) | R (Ω) |
|-----------|---------------|-----------|---------------|----------------|
| 4202 | 1.7 | 2.0 | 2.4 | 0.15 |
| 4182 | 1.5 | 1.8 | 2.2 | 0.19 |
| 4162 | 1.4 | 1.6 | 1.9 | 0.24 |
| 4142 | 1.2 | 1.4 | 1.7 | 0.31 |
| 4122 | 1.0 | 1.2 | 1.4 | 0.42 |
| 4102 | 0.85 | 1.0 | 1.2 | 0.61 |
| 4092 | 0.8 | 0.9 | 1.1 | 0.75 |
| 4062 | 0.5 | 0.6 | 0.7 | 1.70 |
| 4032 | 0.25 | 0.3 | 0.4 | 6.70 |
| 4012 | 0.085 | 0.1 | 0.15 | 61 |

Other types of current sensing relays are available on request.



90.03

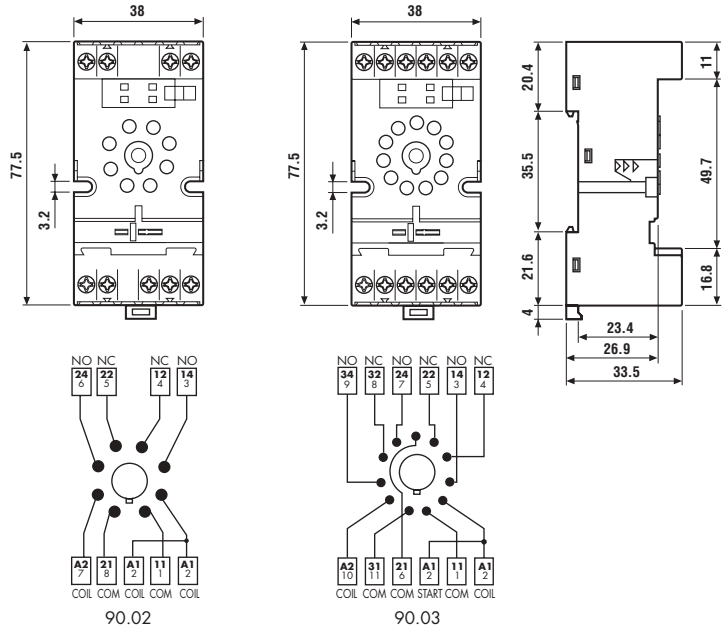
Approvals
(according to type):



- Double terminal A1 (for easy start connection)
- Rated values: 10 A - 250 V
- Dielectric strength: ≥ 2 kV AC
- Protection category: IP 20
- Ambient temperature: (-40...+70)°C
- Screw torque: 0.6 Nm
- Wire strip length: 10 mm
- Max wire size:

| | solid wire | stranded wire |
|-----------------|-------------|---------------|
| mm ² | 1x6 / 2x2.5 | 1x4 / 2x2.5 |
| AWG | 1x10 / 2x14 | 1x12 / 2x14 |

| Relay type | 60.12 | | 60.13 | |
|---|---------------------|---------|-------|---------|
| | BLUE | BLACK | BLUE | BLACK |
| Colour | BLUE | BLACK | BLUE | BLACK |
| Clamp terminal socket: panel or 35 mm rail (EN 50022) mount | 90.02 | 90.02.0 | 90.03 | 90.03.0 |
| Metal retaining clip | 090.33 | | | |
| Modules (see table below) | 99.02 | | | |
| Timer module (see table below) | 86.00, 86.10, 86.20 | | | |
| 6-way jumper link for 90.02 and 90.03 sockets | 090.06 | | | |



60

FOR 90.02 AND 90.03 SOCKETS:

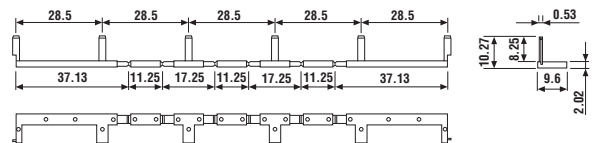


090.06

| | |
|--------------------------|--------|
| 6-way jumper link | 090.06 |
|--------------------------|--------|

- Rated values: 10 A - 250 V

Approvals
(according to type):



86.00

| 86 Series Module Timers (see technical data pages 150/151/154) | |
|---|------------------|
| Multi-voltage: (12...240)V AC/DC; | |
| Multi-functions: AI, DI, SW, BE, CE, DE, EE, FE; (0.05s...100h) | 86.00.0.240.0000 |
| Mono-function: (12...24)V AC/DC; function AI; (1.5s...60min) | 86.10.0.024.0000 |
| Mono-function: (12...24)V AC/DC; function DI; (1.5s...60min) | 86.20.0.024.0000 |

Approvals
(according to type):



99.02

Approvals
(according to type):

GOST

| 99.02 coil indication and EMC suppression modules (see technical data page 209) BLUE* | | |
|--|--------------------|----------------|
| Diode** (+A1, standard polarity) | (6...220)V DC | 99.02.3.000.00 |
| Diode (+A2, non standard polarity) | (6...220)V DC | 99.02.2.000.00 |
| 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 + Diode (+A2, non standard polarity) | (6...24)V DC | 99.02.9.024.79 |
| LED + Diode (+A2, non standard polarity) | (28...60)V DC | 99.02.9.060.79 |
| LED + Diode (+A2, non standard polarity) | (110...220)V DC | 99.02.9.220.79 |
| 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 (62 kΩ/1W) | (110...240)V AC | 99.02.8.230.07 |

* Modules in Black housing are available on request.

** For DC supply, apply the positive to terminal A1.



90.21

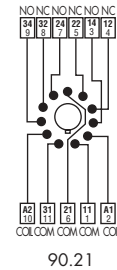
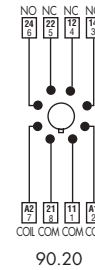
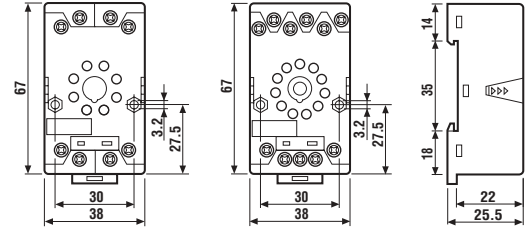
Approvals
(according to type):



- Rated values: 10 A - 250 V
- Dielectric strength: ≥ 2 kV AC
- Protection category: IP 20
- Ambient temperature: (-40...+70)°C
- Screw torque: 0.5 Nm
- Wire strip length: 10 mm
- Max wire size:

| | solid wire | stranded wire |
|-----------------|-------------|---------------|
| mm ² | 1x6 / 2x2.5 | 1x6 / 2x2.5 |
| AWG | 1x10 / 2x14 | 1x10 / 2x14 |

| Relay type | 60.12 | | 60.13 | |
|--|--------|---------|-------|---------|
| Colour | BLUE | BLACK | BLUE | BLACK |
| Clamp terminal socket: panel or 35 mm rail (EN 50022) mount retaining clip 090.33 supplied with socket packaging code SMA | 90.20 | 90.20.0 | 90.21 | 90.21.0 |
| Metal retaining clip | 090.33 | | | |
| Modules (see table below) | 99.01 | | | |



60

FOR 90.20 AND 90.21 SOCKETS:



99.01

Approvals
(according to type):

GOST

* Modules in Black housing are available on request.

**For DC supply, apply the positive to terminal A1.

Green LED is standard. Red LED available on request.

| 99.01 coil indication and EMC suppression modules (see technical data page 209) | | 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 (62 kΩ/1W) | (110...240)V AC | 99.01.8.230.07 |



90.23

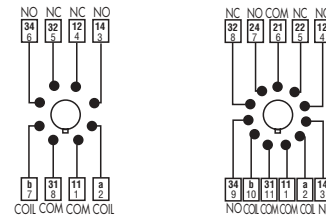
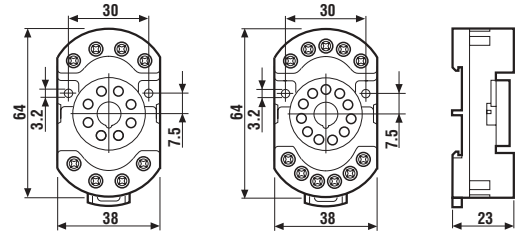
| Relay type | 60.12 | 60.13 |
|---|--------|-------|
| Colour | BLUE | BLUE |
| Clamp terminal socket: panel or 35 mm rail (EN 50022) mount (retaining clip 090.33 supplied with socket packaging code SMA) | 90.22 | 90.23 |
| Metal retaining clip | 090.33 | |

Approvals
(according to type):



- Rated values: 10 A - 250 V
- Dielectric strength: ≥ 2 kV AC
- Protection category: IP 20
- Ambient temperature: (-40...+70)°C
- Screw torque: 0.5 Nm
- Wire strip length: 7 mm
- Max wire size:

| | solid wire | stranded wire |
|-----------------|-------------|---------------|
| mm ² | 1x6 / 2x2.5 | 1x6 / 2x2.5 |
| AWG | 1x10 / 2x14 | 1x10 / 2x14 |



90.22

90.23

60



90.26

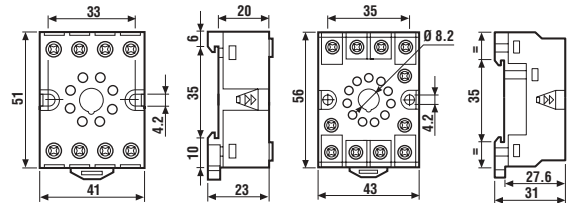
| Relay type | 60.12 | | 60.13 | |
|---|--------|---------|-------|---------|
| Colour | BLUE | BLACK | BLUE | BLACK |
| Screw terminal socket: panel or 35 mm rail (EN 50022) mount retaining clip 090.33 supplied with socket packaging code SMA | 90.26 | 90.26.0 | 90.27 | 90.27.0 |
| Metal retaining clip | 090.33 | | | |

Approvals
(according to type):

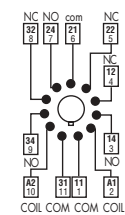


- Rated values: 10 A - 250 V
- Dielectric strength: ≥ 2 kV AC
- Protection category: IP 20
- Ambient temperature: (-40...+70)°C
- Screw torque: 0.8 Nm
- Wire strip length: 10 mm
- Max wire size:

| | solid wire | stranded wire |
|-----------------|-------------|---------------|
| mm ² | 1x4 / 2x2.5 | 1x4 / 2x2.5 |
| AWG | 1x12 / 2x14 | 1x12 / 2x14 |



90.26



90.27



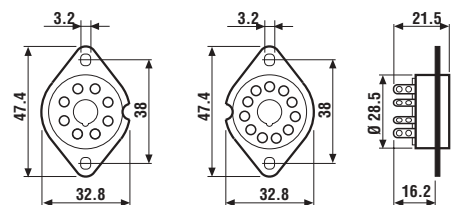
90.12

| Relay type | 60.12 | 60.13 |
|---|-------|-------|
| Colour | BLACK | BLACK |
| Flange mount solder socket mount with M3 screw | 90.12 | 90.13 |

Approvals
(according to type):



- Rated values: 10 A - 250 V
- Dielectric strength: ≥ 2 kV AC
- Ambient temperature: (-40...+70)°C



90.12

90.13

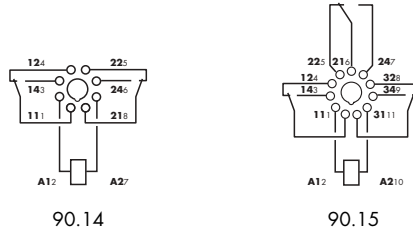
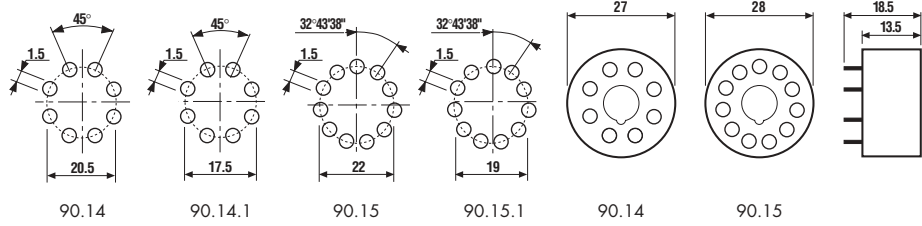


| Relay type | 60.12 | 60.13 |
|---------------|-------------------------|------------------|
| P.C.B. socket | BLUE 90.14 | 90.15 |
| | BLUE 90.14.1 (Ø 17.5mm) | 90.15.1 (Ø 19mm) |

Approvals
(according to type):



- Rated values: 10 A - 250 V
- Dielectric strength: ≥ 2 kV AC
- Ambient temperature: (-40...+70)°C



PACKAGING CODES

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

Code options according to the last three letters:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|-------------------------|----------------------|
| 9 | 0 | . | 2 | 1 | S | M | A | | A Standard packaging |
| | | | | | | | | SM Metal retaining clip | |
| 9 | 0 | . | 2 | 1 | | | | Without retaining clip | |

