

## Features

Ultra-slim 1 Pole - 6 A relay

Printed circuit mount

- direct or via PCB socket

35 mm rail mount

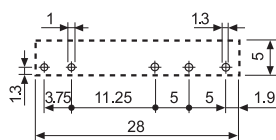
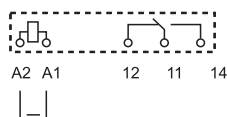
- via screw, screwless or push-in terminal sockets

- 1 Pole changeover contacts or 1 Pole normally open contact
- Ultra slim, 5 mm, package
- Sensitive DC coil - 170 mW (Dual AC/DC coil drive possible using 93 series sockets)
- UL Listing (certain relay/socket combinations)
- Cadmium Free contact materials
- 8/8 mm clearance/creepage distance
- 6 kV (1.2/50  $\mu$ s) insulation, coil-contacts

## 34.51



- 5 mm wide
- Low coil power
- PCB or 93 series sockets



Copper side view

FOR UL RATINGS SEE:

"General technical information" page V

For outline drawing see page 5

### Contact specification

|                                              |                       |
|----------------------------------------------|-----------------------|
| Contact configuration                        | 1 CO (SPDT)           |
| Rated current/Maximum peak current           | A 6/10                |
| Rated voltage/Maximum switching voltage V AC | 250/400               |
| Rated load AC1                               | VA 1,500              |
| Rated load AC15 (230 V AC)                   | VA 300                |
| Single phase motor rating (230 V AC)         | kW 0.185              |
| Breaking capacity DC1: 30/110/220 V          | A 6/0.2/0.12          |
| Minimum switching load                       | mW (V/mA) 500 (12/10) |
| Standard contact material                    | AgNi                  |

### Coil specification

|                           |                 |                       |
|---------------------------|-----------------|-----------------------|
| Nominal voltage ( $U_N$ ) | V AC (50/60 Hz) | —                     |
|                           | V DC            | 5 - 12 - 24 - 48 - 60 |
| Rated power AC/DC         | VA (50 Hz)/W    | —/0.17                |
| Operating range           | AC              | —                     |
|                           | DC              | (0.7...1.5) $U_N$     |
| Holding voltage           | AC/DC           | —/0.4 $U_N$           |
| Must drop-out voltage     | AC/DC           | —/0.05 $U_N$          |

### Technical data

|                                                       |        |                        |
|-------------------------------------------------------|--------|------------------------|
| Mechanical life AC/DC                                 | cycles | —/10 · 10 <sup>6</sup> |
| Electrical life at rated load AC1                     | cycles | 60 · 10 <sup>3</sup>   |
| Operate/release time                                  | ms     | 5/3                    |
| Insulation between coil and contacts (1.2/50 $\mu$ s) | kV     | 6 (8 mm)               |
| Dielectric strength between open contacts V AC        |        | 1,000                  |
| Ambient temperature range                             | °C     | −40...+85              |
| Environmental protection                              |        | RT II                  |

### Approvals (according to type)



## 34 Series - Slim solid state PCB relays (SSR) 0.1 - 2 A

## Features

## Ultra-slim - Solid State Relays

## Printed circuit mount

- direct or via PCB socket

## 35 mm rail mount

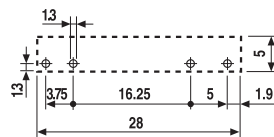
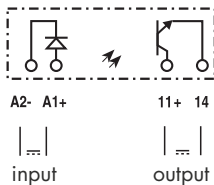
- via screw, screwless or push-in terminal sockets

- Single circuit output switching options
  - 2 A 24 V DC
  - 0.1 A 48 V DC
  - 2 A 240 V AC
- Silent, high speed switching with long electrical life
- Ultra slim, 5 mm, package
- Sensitive DC Input circuits (Dual AC/DC input drive possible using 93 series sockets)
- UL Listing (certain relay/socket combinations)
- Wash tight: RT III
- 2,500 V insulation, input-output

## 34.81-9024



- 2 A, 24 V DC output switching
- PCB or 93 series sockets

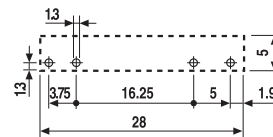
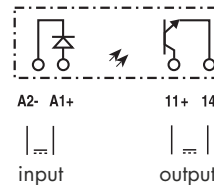


Copper side view

## 34.81-7048



- 0.1 A, 48 V DC output switching
- PCB or 93 series sockets

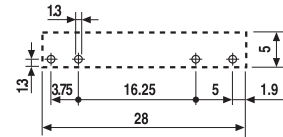
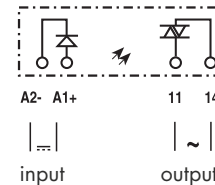


Copper side view

## 34.81-8240



- 2 A, 240 V AC output switching
- Zero crossing switching
- PCB or 93 series sockets



Copper side view

For outline drawing see page 5

## Output circuit

Contact configuration

1 NO (SPST-NO)

1 NO (SPST-NO)

1 NO (SPST-NO)

Rated current/Maximum peak current (10 ms) A

2/20

0.1/0.5

2/40

Rated voltage/Maximum blocking voltage V

(24/33)DC

(48/60)DC

(240/—)AC

Switching voltage range V

(1.5...24)DC

(1.5...48)DC

(12...275)AC

Repetitive peak off-state voltage  $V_{pk}$ 

—

—

600

Minimum switching current mA

1

0.05

22

Max. "OFF-state" leakage current mA

0.001

0.001

1.5

Max. "ON-state" voltage drop V

0.12

1

1.6

## Input circuit

Nominal voltage V DC

5

12

24

60

24

60

5

12

24

60

Rated power AC/DC W

0.035

0.087

0.17

0.18

0.17

0.18

0.060

0.087

0.17

0.18

Operating range V DC

3.5...12

8...17

16...30

35...72

16...30

35...72

3.5...10

8...17

16...30

35...72

Control current mA

7

7.2

7

3

7

3

12

7.2

7

3

Release voltage V DC

1

4

10

20

10

20

1

4

10

20

Impedance  $\Omega$ 

715

1,940

3,200

21,300

3,200

21,300

416

1,940

3,200

21,300

## Technical data

Operate/release time ms

0.1/0.6\*

0.04/0.6\*

12/12\*

Dielectric strength between input/output V

2,500

2,500

2,500

Ambient temperature range °C

-20...+60

-20...+60

-20...+60

Environmental protection

RT III

RT III

RT III

Approvals (according to type)



\* Note: all technical data relates to using the relay directly on PCB or PCB socket type 93.11.

If the relay is used with 35 mm rail socket type 93.51, refer to the technical data of 38 Series; if used with types 93.60, 93.61, 93.62, 93.63, 93.64, 93.65, 93.66, 93.67, 93.68 and 93.69, refer to the technical data of the MasterINTERFACE 39 Series.

## Ordering information

### Electromechanical relay (EMR)

Example: 34 series slim electromechanical relay, 1 CO (SPDT) 6 A contacts, 24 V sensitive DC coil.

|                         |          |          |                                                              |          |          |                                |          |          |                                            |          |          |
|-------------------------|----------|----------|--------------------------------------------------------------|----------|----------|--------------------------------|----------|----------|--------------------------------------------|----------|----------|
| <b>3</b>                | <b>4</b> | <b>5</b> | <b>1</b>                                                     | <b>7</b> | <b>0</b> | <b>2</b>                       | <b>4</b> | <b>0</b> | <b>0</b>                                   | <b>1</b> | <b>0</b> |
| <b>Series</b>           |          |          | <b>Type</b>                                                  |          |          | <b>No. of poles</b>            |          |          | <b>Coil version</b>                        |          |          |
| 34                      |          |          | 5 = Electromechanical type                                   |          |          | 1 = 1 pole, 6 A                |          |          | 7 = Sensitive DC                           |          |          |
| <b>Coil voltage</b>     |          |          | <b>A: Contact material</b>                                   |          |          | <b>B: Contact circuit</b>      |          |          | <b>C: Options</b>                          |          |          |
| See coil specifications |          |          | 0 = Standard AgNi<br>4 = AgSnO <sub>2</sub><br>5 = AgNi + Au |          |          | 0 = CO (SPDT)<br>3 = NO (SPST) |          |          | 0 = Flux proof (RT II)<br>9 = Flat version |          |          |

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

| Type  | Coil version | A                | B            | C        | D        |
|-------|--------------|------------------|--------------|----------|----------|
| 34.51 | sens. DC     | <b>0</b> - 4 - 5 | <b>0</b> - 3 | <b>1</b> | <b>0</b> |
| 34.51 | sens. DC     | 0 - 4 - 5        | 0            | 1        | 9        |

### Solid state relay (SSR)

Example: 34 series SSR relay, 2 A output, 24 V DC supply.

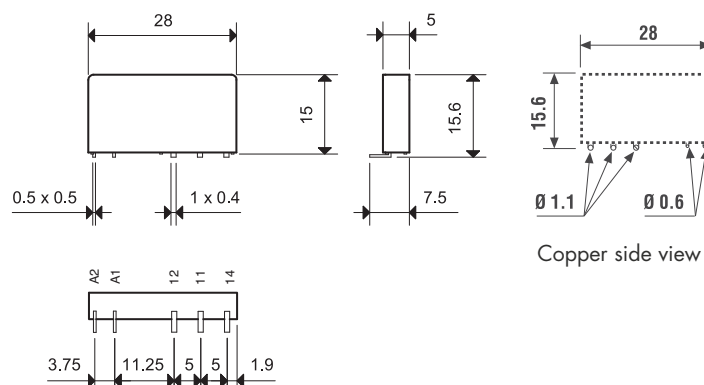
|               |          |          |              |          |          |                    |          |          |                                                                         |          |          |
|---------------|----------|----------|--------------|----------|----------|--------------------|----------|----------|-------------------------------------------------------------------------|----------|----------|
| <b>3</b>      | <b>4</b> | <b>8</b> | <b>1</b>     | <b>7</b> | <b>0</b> | <b>2</b>           | <b>4</b> | <b>9</b> | <b>0</b>                                                                | <b>2</b> | <b>4</b> |
| <b>Series</b> |          |          | <b>Type</b>  |          |          | <b>Output</b>      |          |          | <b>Input circuit</b>                                                    |          |          |
| 34            |          |          | 8 = SSR type |          |          | 1 = 1 NO (SPST-NO) |          |          | See input specifications                                                |          |          |
|               |          |          |              |          |          |                    |          |          | <b>Output circuit</b>                                                   |          |          |
|               |          |          |              |          |          |                    |          |          | 9024 = 2 A - 24 V DC<br>7048 = 0.1 A - 48 V DC<br>8240 = 2 A - 240 V AC |          |          |

## Flat pack version



Option = 34.51.7xxx.x019

Environmental protection RT I



Electromechanical relay

## Technical data

A

## Insulation according to EN 61810-1

|                                  |      |         |     |
|----------------------------------|------|---------|-----|
| Nominal voltage of supply system | V AC | 230/400 |     |
| Rated insulation voltage         | V AC | 250     | 400 |
| Pollution degree                 |      | 3       | 2   |

## Insulation between coil and contact set

|                       |                     |            |  |
|-----------------------|---------------------|------------|--|
| Type of insulation    |                     | Reinforced |  |
| Overvoltage category  |                     | III        |  |
| Rated impulse voltage | kV (1.2/50 $\mu$ s) | 6          |  |
| Dielectric strength   | V AC                | 4,000      |  |

## Insulation between open contacts

|                       |                          |                     |  |
|-----------------------|--------------------------|---------------------|--|
| Type of disconnection |                          | Micro-disconnection |  |
| Dielectric strength   | V AC/kV (1.2/50 $\mu$ s) | 1,000/1.5           |  |

## Conducted disturbance immunity

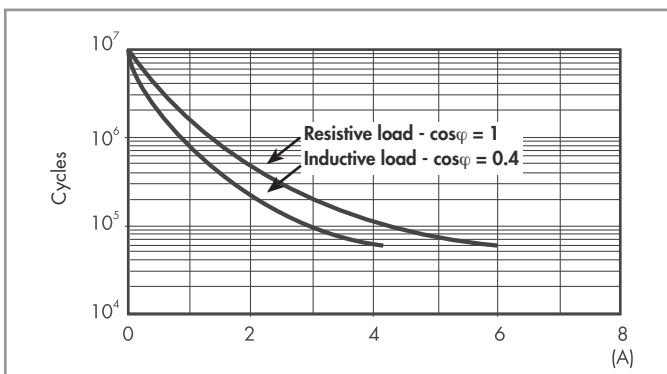
|                                                       |              |                |
|-------------------------------------------------------|--------------|----------------|
| Burst (5...50)ns, 5 kHz, on A1 - A2                   | EN 61000-4-4 | level 4 (4 kV) |
| Surge (1.2/50 $\mu$ s) on A1 - A2 (differential mode) | EN 61000-4-5 | level 3 (2 kV) |

## Other data

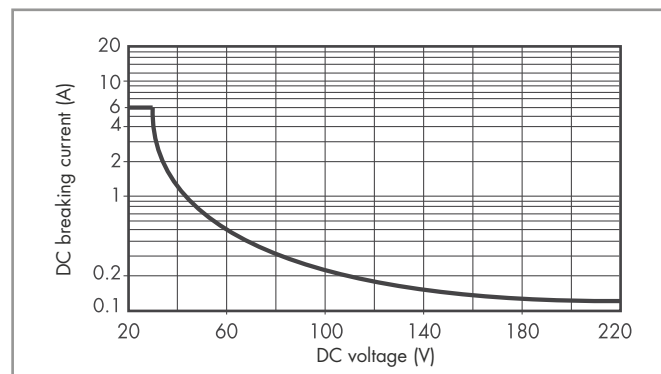
|                                                    |                         |    |       |
|----------------------------------------------------|-------------------------|----|-------|
| Bounce time: NO/NC                                 |                         | ms | 1/6   |
| Vibration resistance (5...55)Hz: NO/NC             |                         | g  | 10/5  |
| Shock resistance                                   |                         | g  | 20/14 |
| Power lost to the environment                      | without contact current | W  | 0.2   |
|                                                    | with rated current      | W  | 0.5   |
| Recommended distance between relays mounted on PCB |                         | mm | ≥ 5   |

## Contact specification

## F 34 - Electrical life (AC) v contact current



## H 34 - Maximum DC1 breaking capacity



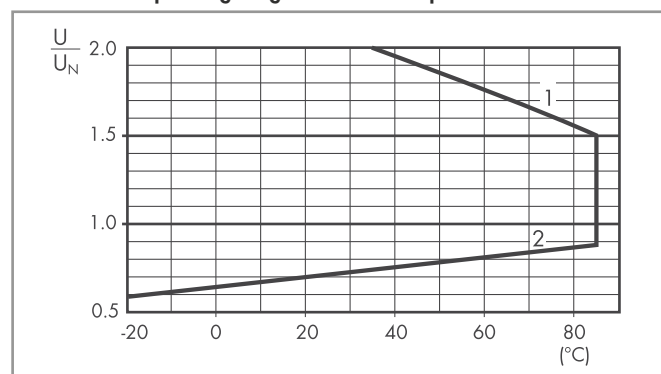
- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of  $\geq 60 \cdot 10^3$  can be expected.
- In the case of DC13 loads, the connection of a diode in parallel with the load will permit a similar electrical life as for a DC1 load.  
Note: the release time for the load will be increased.

## Coil specifications

## DC coil data

| Nominal voltage<br>$U_N$ | Coil code | Operating range |                | Resistance    | Rated coil consumption |
|--------------------------|-----------|-----------------|----------------|---------------|------------------------|
| V                        |           | $U_{min}$<br>V  | $U_{max}$<br>V | R<br>$\Omega$ | I at $U_N$<br>mA       |
| 5                        | 7.005     | 3.5             | 7.5            | 130           | 38.4                   |
| 12                       | 7.012     | 8.4             | 18             | 840           | 14.2                   |
| 24                       | 7.024     | 16.8            | 36             | 3,350         | 7.1                    |
| 48                       | 7.048     | 33.6            | 72             | 12,300        | 3.9                    |
| 60                       | 7.060     | 42              | 90             | 19,700        | 3                      |

## R 34 - DC coil operating range v ambient temperature



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

## Solid state relay

### Technical data

| EMC specifications                                         |                        | Reference standard |        |
|------------------------------------------------------------|------------------------|--------------------|--------|
| Electrostatic discharge                                    | contact discharge      | EN 61000-4-2       | 4 kV   |
|                                                            | air discharge          | EN 61000-4-2       | 8 kV   |
| Fast transients on supply terminals (burst 5/50 ns, 5 kHz) |                        | EN 61000-4-4       | 2 kV   |
| Voltage pulses on supply terminals (surge 1.2/50 µs)       | common mode            | EN 61000-4-5       | 0.5 kV |
|                                                            | differential mode      | EN 61000-4-5       | 0.5 kV |
| Other data                                                 |                        |                    |        |
| Power lost to the environment                              | without output current | W                  | 0.17   |
|                                                            | with rated current     | W                  | 0.4    |

### Input specification

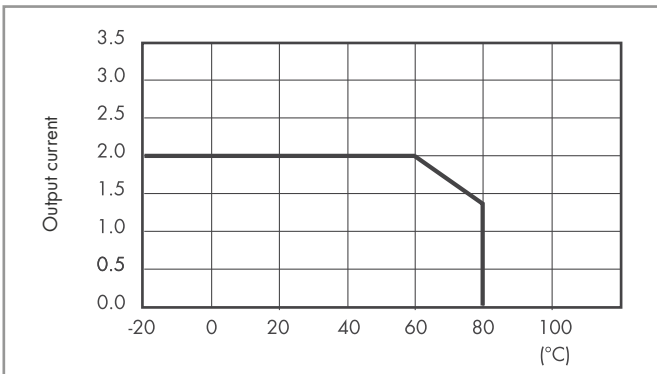
#### Input data - DC types

| Nominal voltage<br>$U_N$<br>V | Input code | Operating range |                | Release voltage<br>V | Impedance<br>$\Omega$ | Control current<br>I at $U_N$<br>mA |
|-------------------------------|------------|-----------------|----------------|----------------------|-----------------------|-------------------------------------|
|                               |            | $U_{min}$<br>V  | $U_{max}$<br>V |                      |                       |                                     |
| 5                             | 7.005      | 3.5             | 12 (10*)       | 1                    | 715 (416*)            | 7 (12*)                             |
| 12                            | 7.012      | 8               | 17             | 4                    | 1,940                 | 7.2                                 |
| 24                            | 7.024      | 16              | 30             | 10                   | 3,200                 | 7                                   |
| 60                            | 7.060      | 35              | 72             | 20                   | 21,300                | 3                                   |

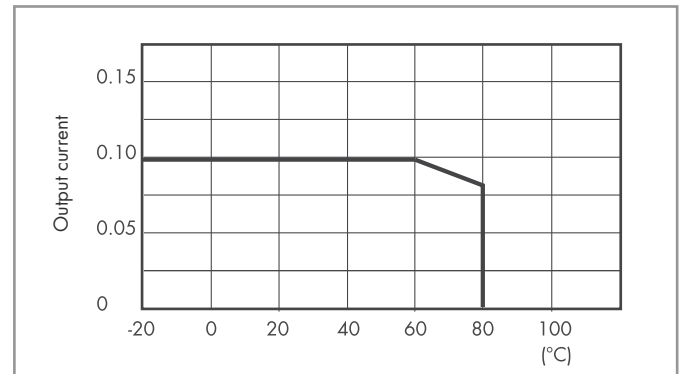
\* AC Output version.

### Output specification

#### L 34 - Output current v ambient temperature SSR - 2 A DC & AC output types

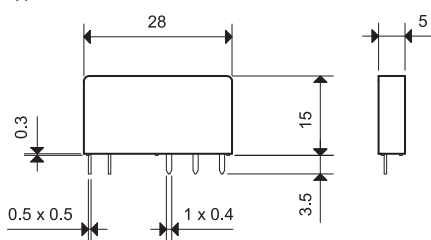


#### L 34 - Output current v ambient temperature SSR - 0.1 A DC output types

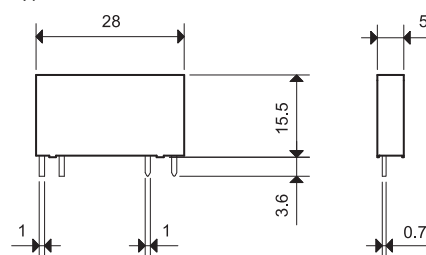


### Outline drawings

#### Type 34.51



#### Type 34.81





A



93.61

**Screw terminal socket 35mm rail mounting (EN 60715)** **NEW****Common features**

- Space saving 6.2 mm wide
- Connections for 16-way jumper link
- Integral coil indication and protection circuit
- Secure retention and easy ejection by plastic clip
- Dual screw head (blade+cross) terminals



93.62

For technical data and supply versions, refer to the **MasterINTERFACE 39 Series** – "Relay interface module"**Electromechanical Relay - EMR**

| Supply voltage      | Relay type       | Socket type (reference with the 39 Series) |                                    |                                     |                                      |                                     |
|---------------------|------------------|--------------------------------------------|------------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|
|                     |                  | Master <b>BASIC</b><br>(39.11.....)        | Master <b>PLUS</b><br>(39.31.....) | Master <b>INPUT</b><br>(39.41.....) | Master <b>OUTPUT</b><br>(39.21.....) | Master <b>TIMER</b><br>(39.81.....) |
| 6 V AC/DC           | 34.51.7.005.xx10 | 93.61.7.024                                | 93.63.7.024                        | 93.64.7.024                         | 93.62.7.024                          | —                                   |
| 12 V AC/DC          | 34.51.7.012.xx10 | 93.61.7.024                                | 93.63.7.024                        | 93.64.7.024                         | 93.62.7.024                          | 93.68.0.024                         |
| 24 V AC/DC          | 34.51.7.024.xx10 | 93.61.7.024                                | 93.63.7.024                        | 93.64.7.024                         | 93.62.7.024                          | 93.68.0.024                         |
| 60 V AC/DC          | 34.51.7.060.xx10 | —                                          | 93.63.7.060                        | —                                   | —                                    | —                                   |
| (110...125)V AC/DC* | 34.51.7.060.xx10 | —                                          | 93.63.3.125                        | —                                   | —                                    | —                                   |
| (220...240)V AC*    | 34.51.7.060.xx10 | —                                          | 93.63.3.230                        | —                                   | —                                    | —                                   |
| (110...125)V AC/DC  | 34.51.7.060.xx10 | 93.61.0.125                                | 93.63.0.125                        | 93.64.0.125                         | 93.62.0.125                          | —                                   |
| (220...240)V AC     | 34.51.7.060.xx10 | 93.61.8.230                                | 93.63.8.230                        | 93.64.8.230                         | 93.62.8.230                          | —                                   |
| (110...125) V DC    | 34.51.7.060.xx10 | —                                          | 93.63.7.125                        | —                                   | —                                    | —                                   |
| 220 V DC            | 34.51.7.060.xx10 | —                                          | 93.63.7.220                        | —                                   | —                                    | —                                   |

\* Leakage current suppression



93.63



93.64

**Solid State Relay - SSR**

| Supply voltage      | Relay type       | Socket type (reference with the 39 Series) |                                    |                                     |                                      |                                     |
|---------------------|------------------|--------------------------------------------|------------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|
|                     |                  | Master <b>BASIC</b><br>(39.10.....)        | Master <b>PLUS</b><br>(39.30.....) | Master <b>INPUT</b><br>(39.40.....) | Master <b>OUTPUT</b><br>(39.20.....) | Master <b>TIMER</b><br>(39.80.....) |
| 12 V AC/DC          | 34.81.7.012.xxxx | —                                          | —                                  | —                                   | —                                    | 93.68.0.024                         |
| 24 V AC/DC          | 34.81.7.024.xxxx | —                                          | 93.63.0.024                        | 93.64.0.024                         | —                                    | 93.68.0.024                         |
| (110...125)V AC/DC* | 34.81.7.060.xxxx | —                                          | 93.63.3.125                        | —                                   | —                                    | —                                   |
| (220...240)V AC*    | 34.81.7.060.xxxx | —                                          | 93.63.3.230                        | —                                   | —                                    | —                                   |
| (110...125)V AC/DC  | 34.81.7.060.xxxx | 93.61.0.125                                | 93.63.0.125                        | 93.64.0.125                         | 93.62.0.125                          | —                                   |
| (220...240)V AC     | 34.81.7.060.xxxx | 93.61.8.230                                | 93.63.8.230                        | 93.64.8.230                         | 93.62.8.230                          | —                                   |
| 6 V DC              | 34.81.7.005.xxxx | 93.61.7.024                                | 93.63.7.024                        | 93.64.7.024                         | 93.62.7.024                          | —                                   |
| 12 V DC             | 34.81.7.012.xxxx | 93.61.7.024                                | 93.63.7.024                        | 93.64.7.024                         | 93.62.7.024                          | —                                   |
| 24 V DC             | 34.81.7.024.xxxx | 93.61.7.024                                | 93.63.7.024                        | 93.64.7.024                         | 93.62.7.024                          | —                                   |
| 60 V DC             | 34.81.7.060.xxxx | —                                          | 93.63.7.060                        | —                                   | —                                    | —                                   |
| (110...125) V DC    | 34.81.7.060.xxxx | —                                          | 93.63.7.125                        | —                                   | —                                    | —                                   |
| 220 V DC            | 34.81.7.060.xxxx | —                                          | 93.63.7.220                        | —                                   | —                                    | —                                   |

\* Leakage current suppression

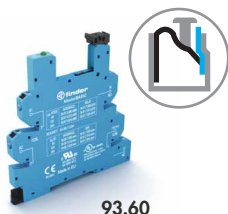
**Accessories**

|                                |                                                 |
|--------------------------------|-------------------------------------------------|
| 16-way jumper link             | 093.16 (blue), 093.16.0 (black), 093.16.1 (red) |
| Dual-purpose plastic separator | 093.60                                          |
| Sheet of marker tags           | 060.72                                          |

**Technical data**

|                     |                                            |
|---------------------|--------------------------------------------|
| Rated values        | 6 A – 250 V                                |
| Dielectric strength | 6 kV (1.2/50 µs) between coil and contacts |
| Protection category | IP20                                       |
| Ambient temperature | °C –40...+70                               |
| Screw torque        | Nm 0.5                                     |
| Wire strip length   | mm 10                                      |
| Max wire size       | Solid wire and stranded wire               |
|                     | mm <sup>2</sup> 1 x (0.2...2.5) / 2 x 1.5  |
|                     | AWG 1 x (24...14) / 2 x 16                 |

Approvals  
(according to type):



93.60

## Push-In terminal socket 35mm rail mounting (EN 60715) **NEW**

### Common features

- Space saving 6.2 mm wide
- Connections for 16-way jumper link
- Integral coil indication and protection circuit
- Secure retention and easy ejection by plastic clip

For technical data and supply versions, refer to the **MasterINTERFACE 39 Series** – “Relay interface module”

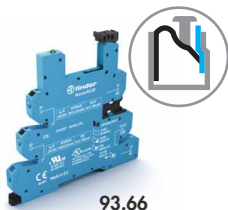


93.65

## Electromechanical Relay - EMR

| Supply voltage      | Relay type       | Socket type (reference with the 39 Series) |                            |                             |                              |                             |
|---------------------|------------------|--------------------------------------------|----------------------------|-----------------------------|------------------------------|-----------------------------|
|                     |                  | MasterBASIC<br>(39.01.....)                | MasterPLUS<br>(39.61.....) | MasterINPUT<br>(39.71.....) | MasterOUTPUT<br>(39.51.....) | MasterTIMER<br>(39.91.....) |
| 6 V AC/DC           | 34.51.7.005.xx10 | 93.60.7.024                                | 93.66.7.024                | 93.67.7.024                 | 93.65.7.024                  | —                           |
| 12 V AC/DC          | 34.51.7.012.xx10 | 93.60.7.024                                | 93.66.7.024                | 93.67.7.024                 | 93.65.7.024                  | 93.69.0.024                 |
| 24 V AC/DC          | 34.51.7.024.xx10 | 93.60.7.024                                | 93.66.7.024                | 93.67.7.024                 | 93.65.7.024                  | 93.69.0.024                 |
| 60 V AC/DC          | 34.51.7.060.xx10 | —                                          | 93.66.7.060                | —                           | —                            | —                           |
| (110...125)V AC/DC* | 34.51.7.060.xx10 | —                                          | 93.66.3.125                | —                           | —                            | —                           |
| (220...240)V AC*    | 34.51.7.060.xx10 | —                                          | 93.66.3.230                | —                           | —                            | —                           |
| (110...125)V AC/DC  | 34.51.7.060.xx10 | 93.60.0.125                                | 93.66.0.125                | 93.67.0.125                 | 93.65.0.125                  | —                           |
| (220...240)V AC     | 34.51.7.060.xx10 | 93.60.8.230                                | 93.66.8.230                | 93.67.8.230                 | 93.65.8.230                  | —                           |
| (110...125) V DC    | 34.51.7.060.xx10 | —                                          | 93.66.7.125                | —                           | —                            | —                           |
| 220 V DC            | 34.51.7.060.xx10 | —                                          | 93.66.7.220                | —                           | —                            | —                           |

\* Leakage current suppression



93.66

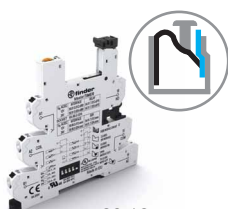
## Solid State Relay - SSR

| Supply voltage      | Relay type       | Socket type (reference with the 39 Series) |                            |                             |                              |                             |
|---------------------|------------------|--------------------------------------------|----------------------------|-----------------------------|------------------------------|-----------------------------|
|                     |                  | MasterBASIC<br>(39.00.....)                | MasterPLUS<br>(39.60.....) | MasterINPUT<br>(39.70.....) | MasterOUTPUT<br>(39.50.....) | MasterTIMER<br>(39.90.....) |
| 12 V AC/DC          | 34.81.7.012.xxxx | —                                          | —                          | —                           | —                            | 93.69.0.024                 |
| 24 V AC/DC          | 34.81.7.024.xxxx | —                                          | 93.66.0.024                | 93.67.0.024                 | —                            | 93.69.0.024                 |
| (110...125)V AC/DC* | 34.81.7.060.xxxx | —                                          | 93.66.3.125                | —                           | —                            | —                           |
| (220...240)V AC*    | 34.81.7.060.xxxx | —                                          | 93.66.3.230                | —                           | —                            | —                           |
| (110...125)V AC/DC  | 34.81.7.060.xxxx | 93.60.0.125                                | 93.66.0.125                | 93.67.0.125                 | 93.65.0.125                  | —                           |
| (220...240)V AC     | 34.81.7.060.xxxx | 93.60.8.230                                | 93.66.8.230                | 93.67.8.230                 | 93.65.8.230                  | —                           |
| 6 V DC              | 34.81.7.005.xxxx | 93.60.7.024                                | 93.66.7.024                | 93.67.7.024                 | 93.65.7.024                  | —                           |
| 12 V DC             | 34.81.7.012.xxxx | 93.60.7.024                                | 93.66.7.024                | 93.67.7.024                 | 93.65.7.024                  | —                           |
| 24 V DC             | 34.81.7.024.xxxx | 93.60.7.024                                | 93.66.7.024                | 93.67.7.024                 | 93.65.7.024                  | —                           |
| 60 V DC             | 34.81.7.060.xxxx | —                                          | 93.66.7.060                | —                           | —                            | —                           |
| (110...125) V DC    | 34.81.7.060.xxxx | —                                          | 93.66.7.125                | —                           | —                            | —                           |
| 220 V DC            | 34.81.7.060.xxxx | —                                          | 93.66.7.220                | —                           | —                            | —                           |

\* Leakage current suppression



93.67



93.69

Approvals  
(according to type):



### Accessories

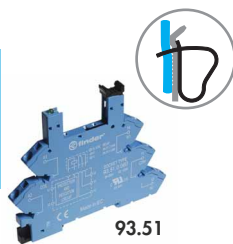
|                                |                                                 |
|--------------------------------|-------------------------------------------------|
| 16-way jumper link             | 093.16 (blue), 093.16.0 (black), 093.16.1 (red) |
| Dual-purpose plastic separator | 093.60                                          |
| Sheet of marker tags           | 060.72                                          |

### Technical data

|                     |                                            |
|---------------------|--------------------------------------------|
| Rated values        | 6 A – 250 V                                |
| Dielectric strength | 6 kV (1.2/50 µs) between coil and contacts |
| Protection category | IP20                                       |
| Ambient temperature | °C –40...+70                               |
| Wire strip length   | mm 8                                       |
| Max wire size       | Solid wire and stranded wire               |
|                     | mm <sup>2</sup> 1 x (0.2...2.5)            |
|                     | AWG 1 x (24...14)                          |

## 93 Series - Sockets and accessories for 34 series relays

A



93.51

Approvals  
(according to type):



RINA US

US Certain relay/socket  
combinations

**Screw less terminal socket** 35mm rail mounting (EN 60715)

**Common features**

- Space saving 6.2 mm wide
- Connections for 20-way jumper link
- Integral coil indication and protection circuit
- Secure retention and easy ejection by plastic clip

For technical data and supply versions, refer to the **38 Series** – “Relay interface module”

**Electromechanical Relay - EMR and Solid State Relay - SSR**

| Supply voltage       | Relay type (reference with the 38 Series)     |                                         | Socket type |
|----------------------|-----------------------------------------------|-----------------------------------------|-------------|
|                      | Electromechanical relay - EMR<br>(38.61.....) | Solid State Relay - SSR<br>(38.81.....) |             |
| 12 V AC/DC           | 34.51.7.012.xx10                              | —                                       | 93.51.0.024 |
| 24 V AC/DC           | 34.51.7.024.xx10                              | —                                       | 93.51.0.024 |
| (110...125)V AC/DC   | 34.51.7.060.xx10                              | 34.81.7.060.xxxx                        | 93.51.0.125 |
| (220...240)V AC/DC   | 34.51.7.060.xx10                              | 34.81.7.060.xxxx                        | 93.51.0.240 |
| (110...125)V AC/DC * | 34.51.7.060.xx10                              | 34.81.7.060.xxxx                        | 93.51.3.125 |
| (220...240)V AC *    | 34.51.7.060.xx10                              | 34.81.7.060.xxxx                        | 93.51.3.240 |
| (220...240)V AC      | 34.51.7.060.xx10                              | 34.81.7.060.xxxx                        | 93.51.8.240 |
| 12 V DC              | 34.51.7.012.xx10                              | 34.81.7.012.xxxx                        | 93.51.7.024 |
| 24 V DC              | 34.51.7.024.xx10                              | 34.81.7.024.xxxx                        | 93.51.7.024 |
| 60 V DC              | 34.51.7.060.xx10                              | 34.81.7.060.xxxx                        | 93.51.7.060 |

\* Leakage current suppression

**Accessories**

|                      |        |
|----------------------|--------|
| 20-way jumper link   | 093.20 |
| Plastic separator    | 093.01 |
| Sheet of marker tags | 093.64 |

**Technical data**

|                                                   |                                            |
|---------------------------------------------------|--------------------------------------------|
| Rated values                                      | 6 A – 250 V                                |
| Dielectric strength                               | 6 kV (1.2/50 µs) between coil and contacts |
| Protection category                               | IP20                                       |
| Ambient temperature ( $U_N \leq 60$ V / $> 60$ V) | °C –40...+70 / –40...+55                   |
| Wire strip length                                 | mm 10                                      |
| Max wire size                                     | Solid wire and stranded wire               |
|                                                   | mm <sup>2</sup> 1 x 2.5 / 2 x 1.5          |
|                                                   | AWG 1 x 14 / 2 x 16                        |



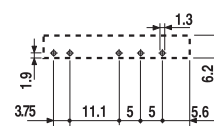
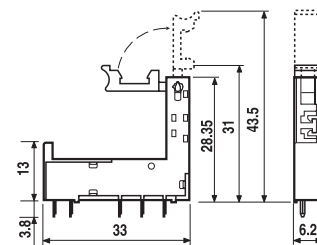
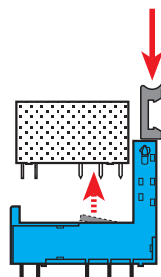
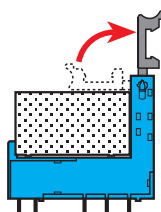
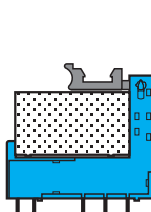
93.11

Approvals  
(according to type):



|                                                   |                                              |
|---------------------------------------------------|----------------------------------------------|
| <b>PCB socket</b> with retaining and release clip | <b>93.11 (blue)</b>                          |
| For relay type                                    | 34.51, 34.81                                 |
| <b>Technical data</b>                             |                                              |
| Rated values                                      | 6 A - 250 V                                  |
| Dielectric strength                               | ≥ 6 kV (1.2/50 μs) between coil and contacts |
| Protection category                               | IP 20                                        |
| Ambient temperature                               | °C -40...+70                                 |

**Retaining and release clip use:**



Copper side view

