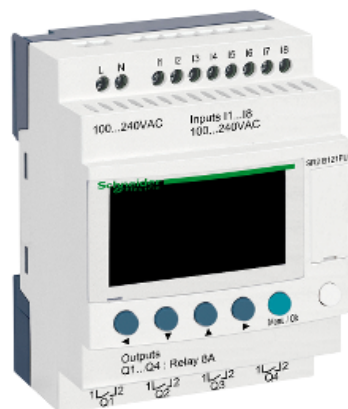




## Main

|                           |                     |
|---------------------------|---------------------|
| Range of product          | Zelio Logic         |
| Product or component type | Compact smart relay |

## Complementary

|                                |                                                                          |
|--------------------------------|--------------------------------------------------------------------------|
| Local display                  | With                                                                     |
| Number or control scheme lines | 0...240 with ladder programming<br>0...500 with FBD programming          |
| Cycle time                     | 6...90 ms                                                                |
| Backup time                    | 10 years at 25 °C                                                        |
| Clock drift                    | 12 min/year at 0...55 °C<br>6 s/month at 25 °C                           |
| Checks                         | Program memory on each power up                                          |
| [Us] rated supply voltage      | 100...240 V AC                                                           |
| Supply voltage limits          | 85...264 V                                                               |
| Supply frequency               | 50/60 Hz                                                                 |
| Maximum supply current         | 30 mA at 240 V (without extension)<br>80 mA at 100 V (without extension) |
| Power consumption in VA        | 7 VA without extension                                                   |
| Isolation voltage              | 1780 V                                                                   |
| Protection type                | Against inversion of terminals (control instructions not executed)       |
| Discrete input number          | 8                                                                        |
| Discrete input voltage         | 100...240 V AC                                                           |
| Discrete input current         | 0.6 mA                                                                   |
| Discrete input frequency       | 47...53 Hz<br>57...63 Hz                                                 |
| Voltage state 1 guaranteed     | >= 79 V for discrete input                                               |
| Voltage state 0 guaranteed     | <= 40 V for discrete input                                               |

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Current state 1 guaranteed             | $\geq 0.17$ mA (discrete input)                                                                                                                                                                                                                                                                                                                                                                                                                |
| Current state 0 guaranteed             | $\leq 0.5$ mA (discrete input)                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Input impedance                        | 350 kOhm for discrete input                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Number of outputs                      | 4 relay                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Output voltage limits                  | 5...30 V DC (relay output)<br>24...250 V AC                                                                                                                                                                                                                                                                                                                                                                                                    |
| Contacts type and composition          | NO for relay output                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Output thermal current                 | 8 A for all 4 outputs for relay output                                                                                                                                                                                                                                                                                                                                                                                                         |
| Electrical durability                  | AC-12: 500000 cycles at 230 V, 1.5 A for relay output conforming to EN/IEC 60947-5-1<br>AC-15: 500000 cycles at 230 V, 0.9 A for relay output conforming to EN/IEC 60947-5-1<br>DC-12: 500000 cycles at 24 V, 1.5 A for relay output conforming to EN/IEC 60947-5-1<br>DC-13: 500000 cycles at 24 V, 0.6 A for relay output conforming to EN/IEC 60947-5-1                                                                                     |
| Switching capacity in mA               | $\geq 10$ mA at 12 V (relay output)                                                                                                                                                                                                                                                                                                                                                                                                            |
| Operating rate in Hz                   | 0.1 Hz (at I <sub>e</sub> ) for relay output<br>10 Hz (no load) for relay output                                                                                                                                                                                                                                                                                                                                                               |
| Mechanical durability                  | 10000000 cycles for relay output                                                                                                                                                                                                                                                                                                                                                                                                               |
| [Uimp] rated impulse withstand voltage | EN/IEC 60947-1 and EN/IEC 60664-1 4 kV                                                                                                                                                                                                                                                                                                                                                                                                         |
| Clock                                  | With                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Response time                          | 50 ms with ladder programming (from state 0 to state 1) for discrete input<br>50 ms with ladder programming (from state 1 to state 0) for discrete input<br>50...255 ms with FBD programming (from state 0 to state 1) for discrete input<br>50...255 ms with FBD programming (from state 1 to state 0) for discrete input<br>10 ms (from state 0 to state 1) for relay output<br>5 ms (from state 1 to state 0) for relay output              |
| Connections - terminals                | Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> (AWG 25...AWG 14) semi-solid<br>Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> (AWG 25...AWG 14) solid<br>Screw terminals, 1 x 0.25...1 x 2.5 mm <sup>2</sup> (AWG 24...AWG 14) flexible with cable end<br>Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> (AWG 24...AWG 16) solid<br>Screw terminals, 2 x 0.25...2 x 0.75 mm <sup>2</sup> (AWG 24...AWG 18) flexible with cable end |
| Tightening torque                      | 0.5 N.m                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Overvoltage category                   | III conforming to EN/IEC 60664-1                                                                                                                                                                                                                                                                                                                                                                                                               |
| Net weight                             | 0.25 kg                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## Environment

|                                       |                                                                                                                                                                                                                                                         |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunity to microbreaks               | 10 ms                                                                                                                                                                                                                                                   |
| Product certifications                | GL<br>GOST<br>UL<br>CSA<br>C-Tick                                                                                                                                                                                                                       |
| Standards                             | EN/IEC 61000-4-4 level 3<br>EN/IEC 60068-2-27 Ea<br>EN/IEC 61000-4-5<br>EN/IEC 61000-4-11<br>EN/IEC 61000-4-12<br>EN/IEC 61000-4-3<br>EN/IEC 60068-2-6 Fc<br>EN/IEC 61000-4-2 level 3<br>EN/IEC 61000-4-6 level 3                                       |
| IP degree of protection               | IP20 (terminal block) conforming to IEC 60529<br>IP40 (front panel) conforming to IEC 60529                                                                                                                                                             |
| Environmental characteristic          | EMC directive conforming to EN/IEC 61000-6-2<br>EMC directive conforming to EN/IEC 61000-6-3<br>EMC directive conforming to EN/IEC 61000-6-4<br>EMC directive conforming to EN/IEC 61131-2 zone B<br>Low voltage directive conforming to EN/IEC 61131-2 |
| Disturbance radiated/conducted        | Class B conforming to EN 55022-11 group 1                                                                                                                                                                                                               |
| Pollution degree                      | 2 conforming to EN/IEC 61131-2                                                                                                                                                                                                                          |
| Ambient air temperature for operation | -20...40 °C in non-ventilated enclosure conforming to IEC 60068-2-1 and IEC 60068-2-2<br>-20...55 °C conforming to IEC 60068-2-1 and IEC 60068-2-2                                                                                                      |
| Ambient air temperature for storage   | -40...70 °C                                                                                                                                                                                                                                             |
| Operating altitude                    | 2000 m                                                                                                                                                                                                                                                  |

|                            |                                             |
|----------------------------|---------------------------------------------|
| Maximum altitude transport | 3048 m                                      |
| Relative humidity          | 95 % without condensation or dripping water |

### Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 249 g    |
| Package 1 Height             | 6.8 cm   |
| Package 1 width              | 8.8 cm   |
| Package 1 Length             | 10 cm    |
| Unit Type of Package 2       | S03      |
| Number of Units in Package 2 | 30       |
| Package 2 Weight             | 7.902 kg |
| Package 2 Height             | 30 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |

### Offer Sustainability

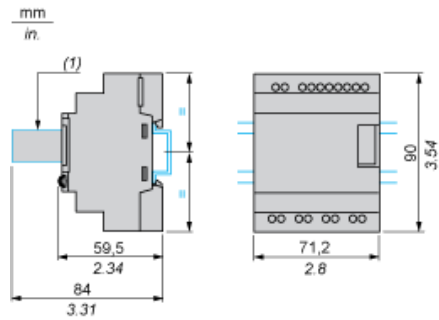
|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                       |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                           |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)<br><a href="#">EU RoHS Declaration</a>                           |
| Mercury free               | Yes                                                                                                                         |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                         |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a>                                                                                      |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                                               |
| Circularity Profile        | <a href="#">End of Life Information</a>                                                                                     |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| PVC free                   | Yes                                                                                                                         |

### Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 12 months |
|----------|-----------|

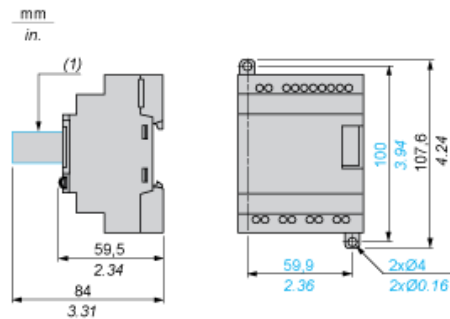
## Compact and Modular Smart Relays

### Mounting on 35 mm/1.38 in. DIN Rail



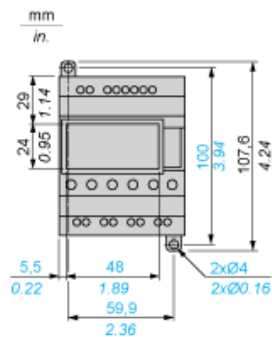
(1) With SR2USB01 or SR2BTC01

### Screw Fixing (Retractable Lugs)



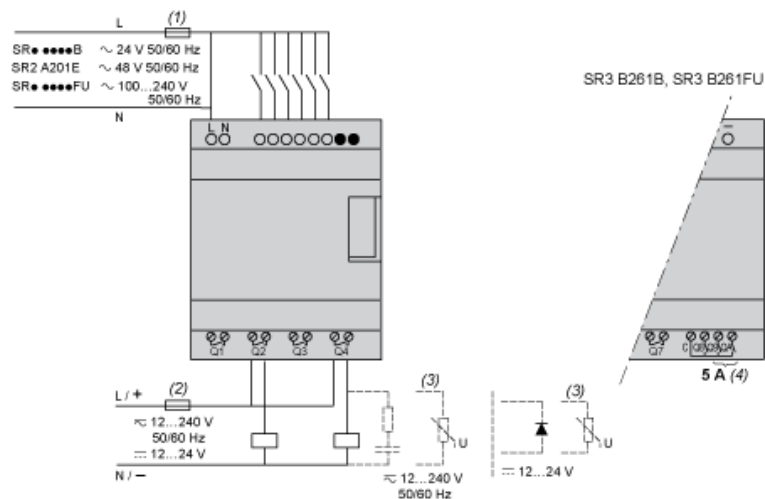
(1) With SR2USB01 or SR2BTC01

### Position of Display



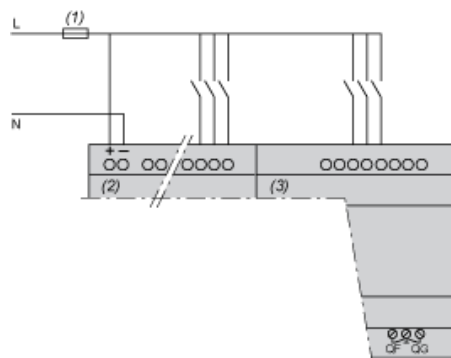
## Connection of Smart Relays on AC Supply

### SR...1B, SR...1FU



### With Discrete I/O Extension Module

SR3B...B + SR3XT...B, SR3B...FU + SR3XT...FU



(1) 1 A quick-blow fuse or circuit-breaker.

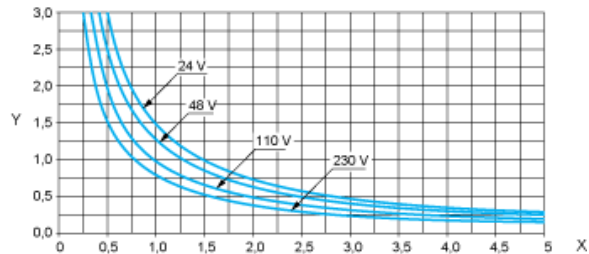
NOTE: QF and QG: 5 A for SR3XT141..

## Compact and Modular Smart Relays

### Electrical Durability of Relay Outputs

(in millions of operating cycles, conforming to IEC/EN 60947-5-1)

#### AC-12 (1)

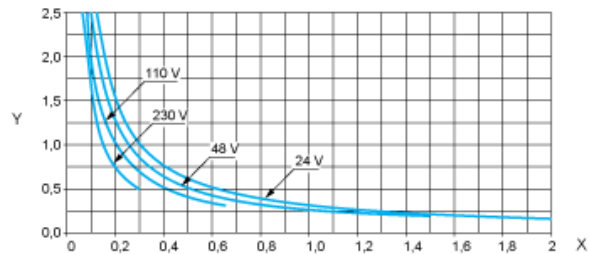


X: Current (A)

Y: Millions of operating cycles

(1) AC-12: switching resistive loads and opto-coupler isolated solid-state loads,  $\cos \geq 0.9$ .

#### AC-14 (1)

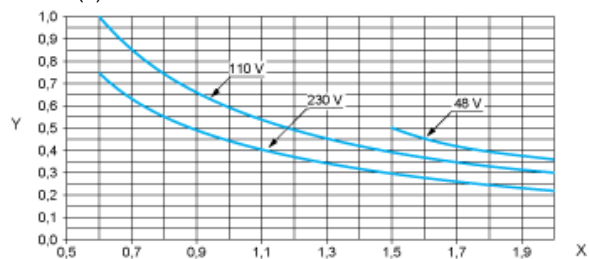


X: Current (A)

Y: Millions of operating cycles

(1) AC-14: switching small electromagnetic loads  $\leq 72$  VA, make:  $\cos = 0.3$ , break:  $\cos = 0.3$ .

#### AC-15 (1)



X: Current (A)

Y: Millions of operating cycles

(1) AC-15: switching electromagnetic loads  $\geq 72$  VA, make:  $\cos = 0.7$ , break:  $\cos = 0.4$ .