

## Main

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

## Complementary

|                                |   |
|--------------------------------|---|
| Local display                  | With  |
| Number of control scheme lines | 0...500 with FBD programming<br>0...240 with ladder 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   |
| Supply voltage limits          | 85...264 V  |
| Supply frequency               | 50/60 Hz  |
| Maximum supply current         | 100 mA at 100 V (without extension)<br>50 mA at 240 V (without extension)<br>60 mA at 240 V (with extensions)<br>80 mA at 100 V (with extensions) |
| Power consumption in VA        | 12 VA without extension<br>17 VA with extensions  |
| Isolation voltage              | 1780 V  |
| Protection type                | Against inversion of terminals (control instructions not executed)  |
| Discrete input number          | 16  |
| 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     | $\geq 79$ V for discrete input  |
| Voltage state 0 guaranteed     | $\leq 40$ 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              | 10 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         | 5 A for 2 outputs for relay output<br>8 A for 8 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               | >= 10 mA at 12 V (relay output)  |
| Operating rate in Hz                   | 0.1 Hz (at Ie) for relay output<br>10 Hz (no load) for relay output  |
| Mechanical durability                  | 10000000 cycles for relay output   |
| [Uimp] rated impulse withstand voltage | 4 kV conforming to EN/IEC 60947-1 and EN/IEC 60664-1   |
| 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                             | 0.4 kg   |

## Environment

|                                       |   |
|---------------------------------------|---|
| Immunity to microbreaks               | 10 ms   |
| Product certifications                | GOST<br>GL<br>CSA<br>UL<br>C-Tick   |
| Standards                             | EN/IEC 61000-4-12<br>EN/IEC 60068-2-27 Ea<br>EN/IEC 60068-2-6 Fc<br>EN/IEC 61000-4-6 level 3<br>EN/IEC 61000-4-5<br>EN/IEC 61000-4-11<br>EN/IEC 61000-4-3<br>EN/IEC 61000-4-2 level 3<br>EN/IEC 61000-4-4 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             | 390.0 g  |
| Package 1 Height             | 6.8 cm   |
| Package 1 width              | 13.5 cm  |
| Package 1 Length             | 10.0 cm  |
| Unit Type of Package 2       | S03      |
| Number of Units in Package 2 | 20       |
| Package 2 Weight             | 8.302 kg |
| Package 2 Height             | 30.0 cm  |
| Package 2 width              | 30.0 cm  |
| Package 2 Length             | 40.0 cm  |

## Offer Sustainability

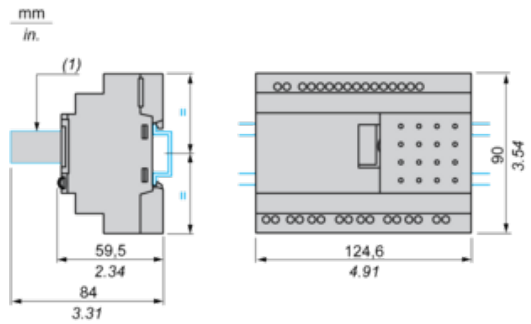
|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU 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 | 18 months |
|----------|-----------|

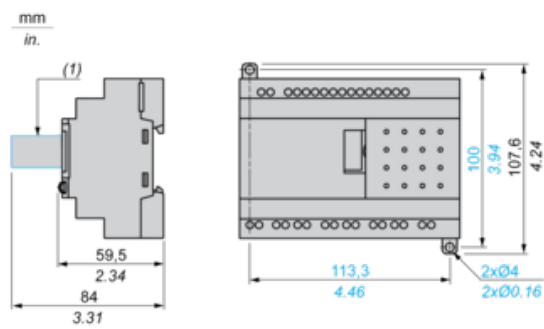
Compact and Modular Smart Relays

Mounting on 35 mm/1.38 in. DIN Rail



(1) With SR2USB01 or SR2BTC01

Screw Fixing (Retractable Lugs)



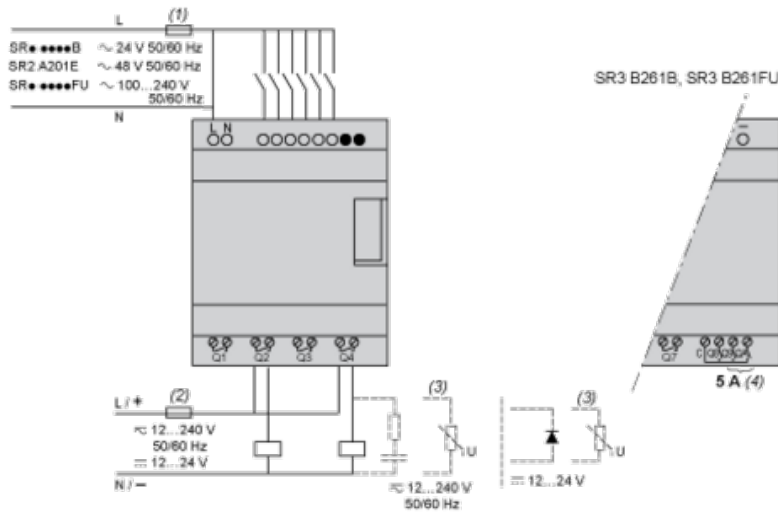
(1) With SR2USB01 or SR2BTC01

Position of Display



Connection of Smart Relays on AC Supply

SR•••1B, SR•••1FU



- (1) 1 A quick-blow fuse or circuit-breaker.
- (2) Fuse or circuit-breaker.
- (3) Inductive load.
- (4) Q9 and QA: 5 A (max. current in terminal C: 10 A).

With Discrete I/O Extension Module

SR3B•••B + SR3XT•••B, SR3B•••FU + SR3XT•••FU



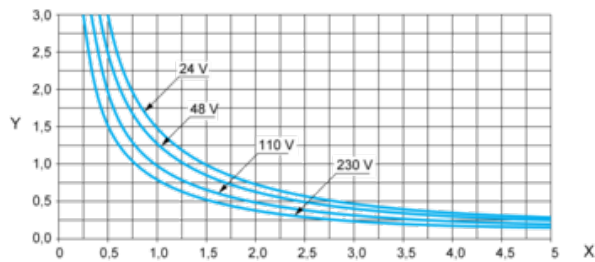
- (1) 1 A quick-blow fuse or circuit-breaker.
- NOTE: QF and QG: 5 A for SR3XT141••

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)

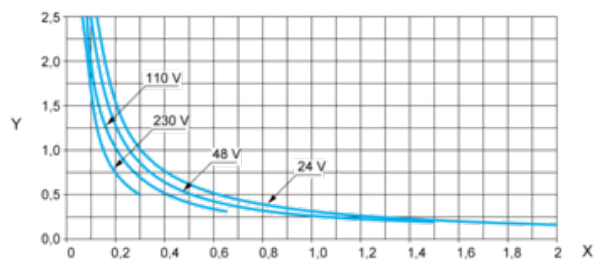


X: Current (A)

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)

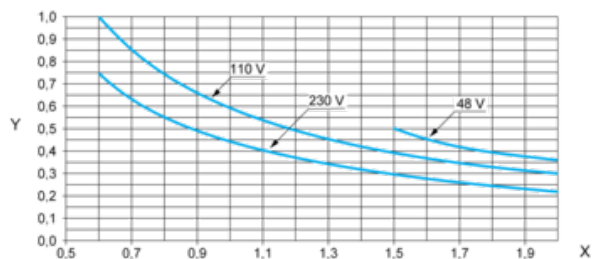


X: Current (A)

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:  $\cos = 0.4$ .