

# Product data sheet

## Characteristics

# SR3B101FU

modular smart relay Zelio Logic - 10 I O -  
100..240 V AC - clock - display

Product availability : Stock - Normally stocked in distribution facility

Price\* : 292.00 USD



### Main

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

### Complementary

|                                |  |
|--------------------------------|--|
| Local display                  | With   |
| Number or control scheme lines | 0...500 with FBD programming<br>0...240 with ladder programming  |
| Cycle time                     | 6...90 ms  |
| Backup time                    | 10 years at 77 °F (25 °C)  |
| Clock drift                    | 6 s/month at 77 °F (25 °C)<br>12 min/year at 32...131 °F (0...55 °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   |
| Supply current                 | 30 mA at 240 V (without extension)<br>40 mA at 240 V (with extensions)<br>80 mA at 100 V (with extensions)<br>80 mA at 100 V (without extension) |
| Power consumption in VA        | 12 VA with extensions<br>7 VA without extension  |
| Isolation voltage              | 1780 V   |
| Protection type                | Against inversion of terminals (control instructions not executed)   |
| Discrete input number          | 6  |
| 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 for discrete input  |
| Current state 0 guaranteed     | $\leq 0.5$ mA for discrete input   |

|  |   |
|--|---|
| Input impedance                        | 350 kOhm (discrete input)   |
| Number of outputs                      | 4 relay output(s)   |
| Output voltage limits                  | 24...250 V AC<br>5...30 V DC (relay output)   |
| Contacts type and composition          | NO relay output   |
| Output thermal current                 | 8 A for all 4 outputs (relay output)  |
| Electrical durability                  | 500000 cycles AC-12at 230 V, 1.5 A for relay output conforming to EN/IEC 60947-5-1<br>500000 cycles AC-15at 230 V, 0.9 A for relay output conforming to EN/IEC 60947-5-1<br>500000 cycles DC-12at 24 V, 1.5 A for relay output conforming to EN/IEC 60947-5-1<br>500000 cycles DC-13at 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 (relay output)  |
| [Uimp] rated impulse withstand voltage | 4 kV conforming to EN/IEC 60947-1 and EN/IEC 60664-1  |
| Clock                                  | With  |
| Response time                          | 10 ms (from state 0 to state 1) relay output<br>5 ms (from state 1 to state 0) relay output<br>50 ms with ladder programming (from state 0 to state 1) discrete input<br>50 ms with ladder programming (from state 1 to state 0) discrete input<br>50...255 ms with FBD programming (from state 0 to state 1) discrete input<br>50...255 ms with FBD programming (from state 1 to state 0) discrete input   |
| Connections - terminals                | Screw terminals, clamping capacity: 1 x 0.2...1 x 2.5 mm <sup>2</sup> AWG 25...AWG 14 semi-solid<br>Screw terminals, clamping capacity: 1 x 0.2...1 x 2.5 mm <sup>2</sup> AWG 25...AWG 14 solid<br>Screw terminals, clamping capacity: 1 x 0.25...1 x 2.5 mm <sup>2</sup> AWG 24...AWG 14 flexible with cable end<br>Screw terminals, clamping capacity: 2 x 0.2...2 x 1.5 mm <sup>2</sup> AWG 24...AWG 16 solid<br>Screw terminals, clamping capacity: 2 x 0.25...2 x 0.75 mm <sup>2</sup> AWG 24...AWG 18 flexible with cable end |
| Tightening torque                      | 4.42 lbf.in (0.5 N.m)   |
| Overvoltage category                   | III conforming to EN/IEC 60664-1  |
| Product weight                         | 0.55 lb(US) (0.25 kg)   |

## Environment

|                                       |   |
|---------------------------------------|---|
| Immunity to microbreaks               | <= 10 ms  |
| Product certifications                | CSA<br>C-Tick<br>GL<br>GOST<br>UL   |
| Standards                             | EN/IEC 60068-2-27 Ea<br>EN/IEC 60068-2-6 Fc<br>EN/IEC 61000-4-11<br>EN/IEC 61000-4-12<br>EN/IEC 61000-4-2 level 3<br>EN/IEC 61000-4-3<br>EN/IEC 61000-4-4 level 3<br>EN/IEC 61000-4-5<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 | -4...104 °F (-20...40 °C) in non-ventilated enclosure conforming to IEC 60068-2-1 and IEC 60068-2-2<br>-4...131 °F (-20...55 °C) conforming to IEC 60068-2-1 and IEC 60068-2-2  |
| Ambient air temperature for storage   | -40...158 °F (-40...70 °C)  |
| Operating altitude                    | 6561.68 ft (2000 m)   |
| Altitude transport                    | <= 10000 ft (3048 m)  |

|                   |   |
|-------------------|---|
| Relative humidity | 95 % without condensation or dripping water |
|-------------------|---|

### Ordering and shipping details

|                       |                              |
|-----------------------|------------------------------|
| Category              | 22378 - SR2,3 ZELIO 2 RELAYS |
| Discount Schedule     | I                            |
| GTIN                  | 00785901422648               |
| Nbr. of units in pkg. | 1                            |
| Package weight(Lbs)   | 0.5300000000000003           |
| Returnability         | Y                            |
| Country of origin     | FR                           |

### Offer Sustainability

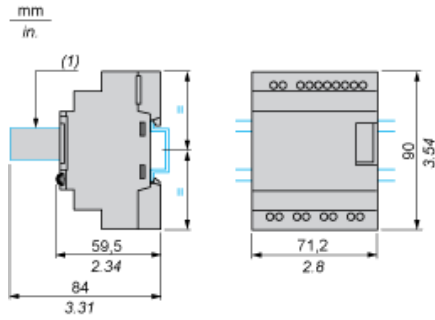
|                            |  |
|----------------------------|--|
| California proposition 65  | WARNING: This product can expose you to chemicals including:   |
| - - - - - Substance 1      | Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. |
| - - - - - More information | For more information go to <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a>                                    |

### Contractual warranty

|                 |           |
|-----------------|-----------|
| Warranty period | 18 months |
|-----------------|-----------|

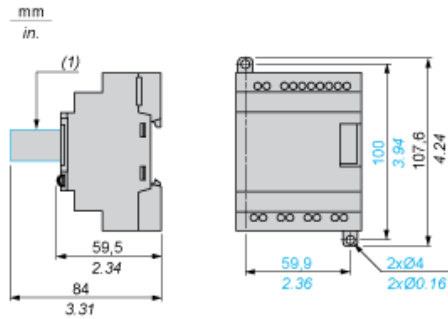
Compact and Modular Smart Relays

Mounting on 35 mm/1.38 in. DIN Rail



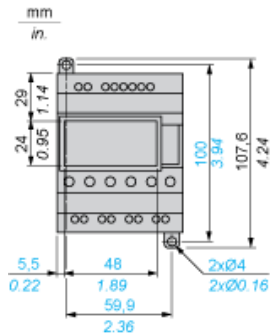
(1) With SR2USB01 or SR2BTC01

Screw Fixing (Retractable Lugs)



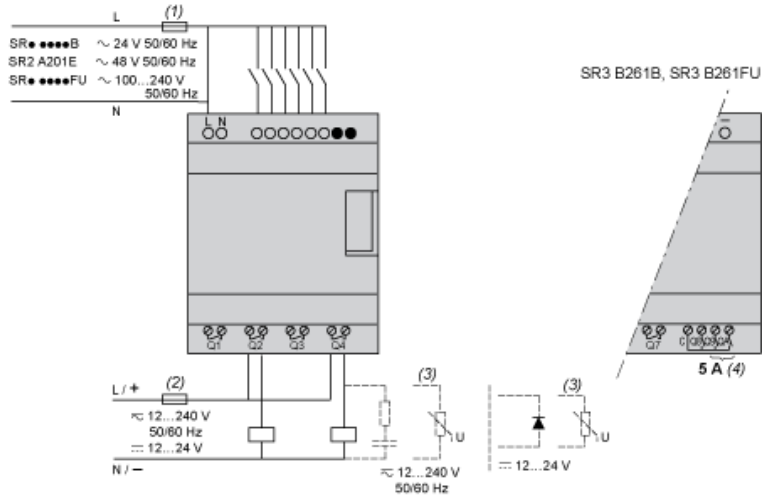
(1) With SR2USB01 or SR2BTC01

Position of Display



Connection of Smart Relays on AC Supply

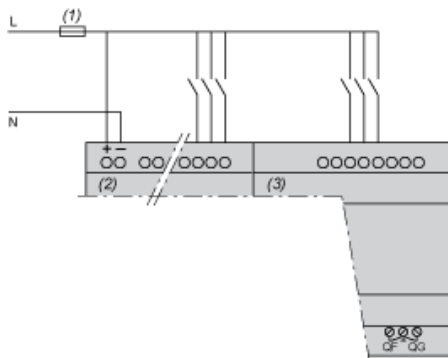
SR...1B, SR...1FU



- (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.

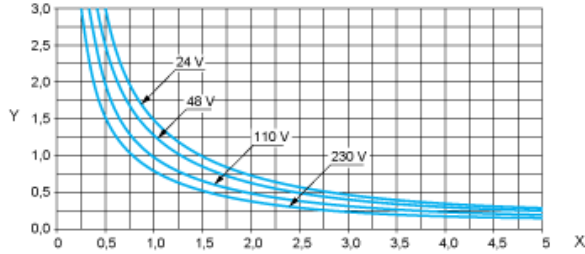
NOTE: QF and QG: 5 A for SR3XT141..

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)

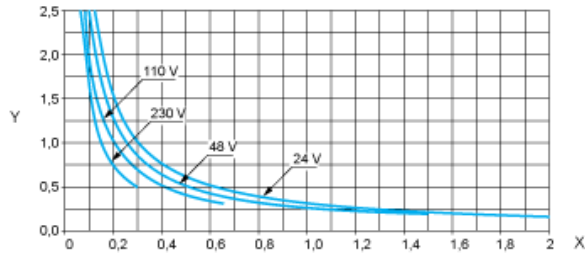


X: Current (A)

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)

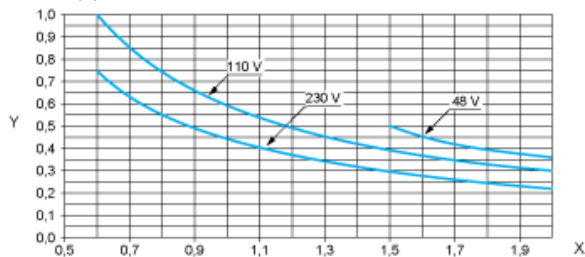


X: Current (A)

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:  $\cos = 0.4$ .