

## Main

|                           |                     |
|---------------------------|---------------------|
| Range of Product          | Zelio Logic         |
| Product or Component Type | Modular smart relay |

## Complementary

|                                |  |
|--------------------------------|--|
| Local display                  | With   |
| Number of control scheme lines | 0...500 FBD<br>0...240 ladder  |
| Cycle time                     | 6...90 ms  |
| Backup time                    | 10 years 77 °F (25 °C)   |
| Clock drift                    | 12 min/year 32...131 °F (0...55 °C)<br>6 s/month 77 °F (25 °C)   |
| Checks                         | Program memory on each power up  |
| [Us] rated supply voltage      | 12 V   |
| Supply voltage limits          | 10.4...14.4 V  |
| Maximum supply current         | 250 mA without extension)<br>400 mA with extensions)   |
| Power dissipation in W         | 3 W without extension<br>5 W with extensions   |
| Reverse polarity protection    | With   |
| Discrete input number          | 16 EN/IEC 61131-2 type 1   |
| Discrete input type            | Resistive  |
| Discrete input voltage         | 12 V DC  |
| Discrete input current         | 4 mA   |
| Counting frequency             | 1 kHz discrete input   |
| Voltage state 1 guaranteed     | $\geq 7$ V IB...IG used as discrete input circuit<br>$\geq 5.6$ V I1...IA and IH...IR discrete input circuit       |
| Voltage state 0 guaranteed     | $\leq 3$ V IB...IG used as discrete input circuit<br>$\leq 2.4$ V I1...IA and IH...IR discrete input circuit       |
| Current state 1 guaranteed     | $\geq 2$ mA I1...IA and IH...IR discrete input circuit)<br>$\geq 0.5$ mA IB...IG used as discrete input circuit)   |
| Current state 0 guaranteed     | $\leq 0.2$ mA IB...IG used as discrete input circuit)<br>$\leq 0.9$ mA I1...IA and IH...IR discrete input circuit) |
| Input compatibility            | 3-wire proximity sensors PNP discrete input  |
| Analogue input number          | 6  |
| Analogue Input Type            | Common mode  |
| Analogue input range           | 0...12 V<br>0...10 V   |
| Maximum permissible voltage    | 14.4 V analogue input circuit  |
| Analogue input resolution      | 8 bits at maximum voltage  |
| LSB value                      | 39 mV analogue input circuit   |

|  |   |
|--|---|
| Conversion time                        | Smart relay cycle time analogue input circuit   |
| Conversion error                       | +/- 5 % 77 °F (25 °C) analogue input circuit<br>+/- 6.2 % 131 °F (55 °C) analogue input circuit   |
| Repeat accuracy                        | +/- 2 % 131 °F (55 °C) analogue input circuit   |
| Operating distance                     | 10 m between stations, with screened cable (sensor not isolated) analogue input circuit   |
| Input impedance                        | 14 kOhm IB...IG used as analogue input circuit<br>14 kOhm IB...IG used as discrete input circuit<br>2.7 kOhm I1...IA and IH...IR discrete input circuit   |
| Number of Outputs                      | 10 relay  |
| Output voltage limits                  | 24...250 V AC relay output)<br>5...30 V DC relay output)  |
| Contacts type and composition          | NO relay output   |
| Output thermal current                 | 5 A for 2 outputs relay output<br>8 A for 8 outputs relay output  |
| Electrical durability                  | AC-12 500000 cycles 230 V, 1.5 A relay output EN/IEC 60947-5-1<br>AC-15 500000 cycles 230 V, 0.9 A relay output EN/IEC 60947-5-1<br>DC-12 500000 cycles 24 V, 1.5 A relay output EN/IEC 60947-5-1<br>DC-13 500000 cycles 24 V, 0.6 A relay output EN/IEC 60947-5-1  |
| Switching capacity in mA               | >= 10 mA 12 V relay output)   |
| Operating rate in Hz                   | 0.1 Hz at le)relay output<br>10 Hz no load)relay output   |
| Mechanical durability                  | 10000000 cycles relay output  |
| [Uimp] rated impulse withstand voltage | 4 kV 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   |
| 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                      | 4.43 lbf.in (0.5 N.m)   |
| Overvoltage category                   | III EN/IEC 60664-1  |
| Net Weight                             | 0.88 lb(US) (0.4 kg)  |

## Environment

|                                       |   |
|---------------------------------------|---|
| Immunity to microbreaks               | 1 ms repeated 20 times  |
| Product Certifications                | C-tick<br>UL<br>CSA<br>GL<br>GOST   |
| Standards                             | EN/IEC 60068-2-6 Fc<br>EN/IEC 61000-4-12<br>EN/IEC 61000-4-3<br>EN/IEC 61000-4-6 level 3<br>EN/IEC 61000-4-5<br>EN/IEC 61000-4-11<br>EN/IEC 61000-4-2 level 3<br>EN/IEC 60068-2-27 Ea<br>EN/IEC 61000-4-4 level 3 |
| IP degree of protection               | IP20 IEC 60529 terminal block)<br>IP40 IEC 60529 front panel)   |
| Environmental characteristic          | EMC directive EN/IEC 61000-6-2<br>EMC directive EN/IEC 61000-6-3<br>EMC directive EN/IEC 61000-6-4<br>EMC directive EN/IEC 61131-2 zone B<br>Low voltage directive EN/IEC 61131-2                                 |
| Disturbance radiated/conducted        | Class B EN 55022-11 group 1   |
| Pollution degree                      | 2 EN/IEC 61131-2  |
| Ambient air temperature for operation | -4...104 °F (-20...40 °C) in non-ventilated enclosure IEC 60068-2-1 and IEC 60068-2-2<br>-4...131 °F (-20...55 °C) 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)                         |
| Maximum altitude transport | 10000.00 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                  | 3389119203920                |
| Nbr. of units in pkg. | 1                            |
| Package weight(Lbs)   | 13.51 oz (383 g)             |
| Returnability         | No                           |
| Country of origin     | FR                           |

### Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Package 1 Height             | 2.68 in (6.8 cm)        |
| Package 1 width              | 3.94 in (10 cm)         |
| Package 1 Length             | 5.24 in (13.3 cm)       |
| Unit Type of Package 2       | S03                     |
| Number of Units in Package 2 | 20                      |
| Package 2 Weight             | 18.33 lb(US) (8.313 kg) |
| Package 2 Height             | 11.81 in (30 cm)        |
| Package 2 width              | 11.81 in (30 cm)        |
| Package 2 Length             | 15.75 in (40 cm)        |

### Offer Sustainability

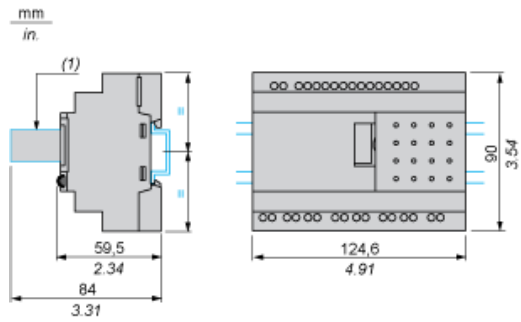
|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| 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 |
|----------|-----------|

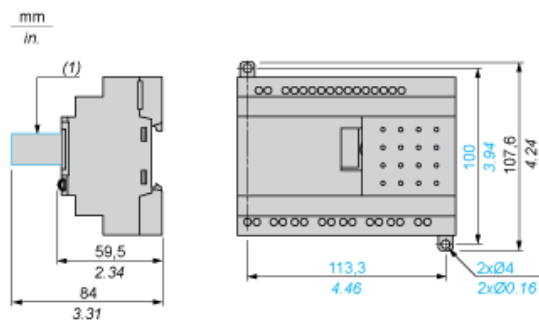
Compact and Modular Smart Relays

Mounting on 35 mm/1.38 in. DIN Rail



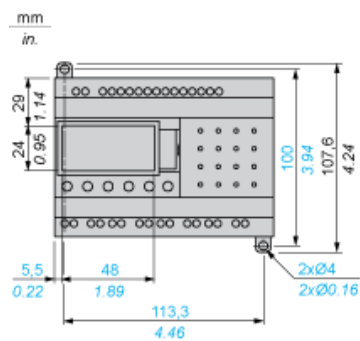
(1) With SR2USB01 or SR2BTC01

Screw Fixing (Retractable Lugs)



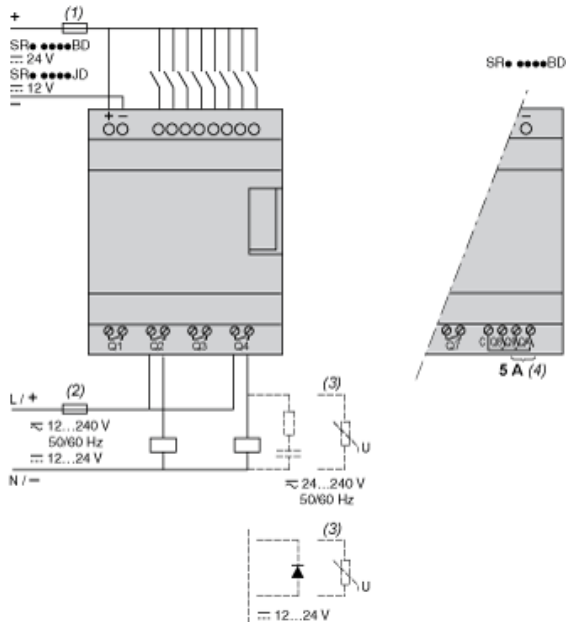
(1) With SR2USB01 or SR2BTC01

Position of Display



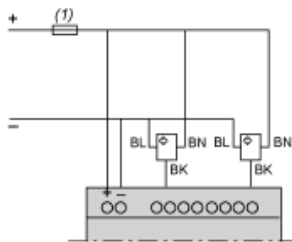
Compact and Modular Smart Relays

Connection of Smart Relays on DC Supply



- (1) 1 A quick-blow fuse or circuit-breaker.
- (2) Fuse or circuit-breaker.
- (3) Inductive load.
- (4) Q9 and Q4: 5 A (max. current in terminal C: 10 A).

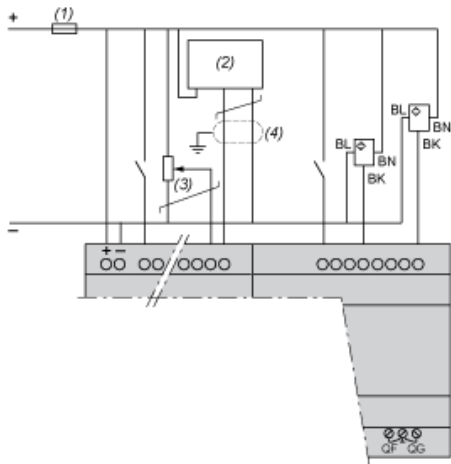
Discrete Input Used for 3-Wire Sensors



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

Connection of Smart Relays on DC Supply, with Discrete I/O Extension Modules

SR3B...JD + SR3XT...JD, SR3B...BD + SR3XT...BD



- (1) 1 A quick-blow fuse or circuit-breaker.
- (2) Ca: Analog sensor / Ta: Analog transmitter.
- (3) Recommended values: 2.2 kΩ / 0.5 W (10 kΩ max.)
- (4) Screened cables, maximum length 10 m / 32.80 feet.

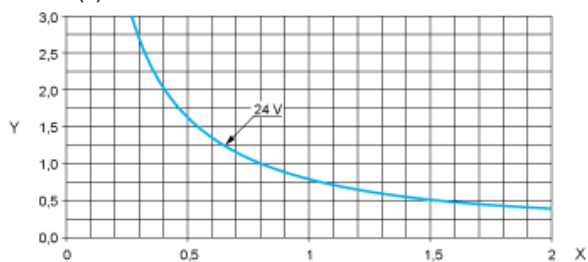
NOTE: QF and QG : 5 A for SR3XT141..

Compact and Modular Smart Relays

Electrical Durability of Relay Outputs

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

DC-12 (1)

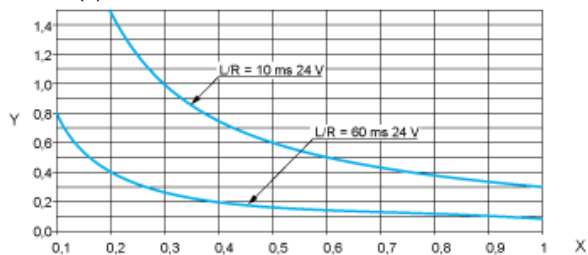


X: Current (A)

Y: Millions of operating cycles

(1) DC-12: control of resistive loads and of solid state loads isolated by opto-coupler,  $L/R \leq 1$  ms.

DC-13 (1)



X: Current (A)

Y: Millions of operating cycles

(1) DC-13: switching electromagnets,  $L/R \leq 2 \times (U_e \times I_e)$  in ms,  $U_e$ : rated operational voltage,  $I_e$ : rated operational current (with a protection diode on the load, DC-12 curves must be used with a coefficient of 0.9 applied to the number in millions of operating cycles).