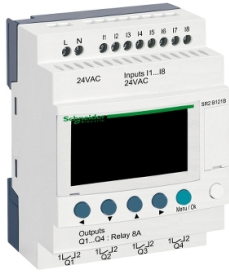


# Product data sheet

Specifications



compact smart relay, Zelio Logic  
SR2 SR3, 12 IO, 24V AC, clock,  
display

SR2B121B

**Product availability: Stock - Normally stocked in distribution facility**

## Main

Range of Product	Zelio Logic
Product or Component Type	Compact smart relay

## Complementary

Local display	With
Number of control scheme lines	0...240 ladder 0...500 FBD
Cycle time	6...90 ms
Backup time	10 years 77 °F (25 °C)
Clock drift	12 min/year 32...131 °F (0...55 °C) 6 s/month 77 °F (25 °C)
Checks	Program memory on each power up
[Us] rated supply voltage	24 V AC
Supply voltage limits	20.4...28.8 V
Supply frequency	50/60 Hz
Maximum supply current	145 mA without extension)
Power consumption in VA	4 VA without extension
Isolation voltage	1780 V
Protection Type	Against inversion of terminals (control instructions not executed)
Discrete input number	8
Discrete input voltage	24 V AC
Discrete input current	4.4 mA
Discrete input frequency	57...63 Hz 47...53 Hz
Voltage state 1 guaranteed	>= 14 V discrete input
Voltage state 0 guaranteed	<= 5 V discrete input
Current state 1 guaranteed	>= 2 mA discrete input)
Current state 0 guaranteed	<= 0.5 mA discrete input)
Analogue input number	0
Input impedance	4.6 kOhm discrete input
Number of Outputs	4 relay
Output voltage limits	5...30 V DC relay output) 24...250 V AC

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

<b>Contacts type and composition</b>	NO relay output
<b>Output thermal current</b>	8 A for all 4 outputs relay output
<b>Electrical durability</b>	AC-12 500000 cycles 230 V, 1.5 A relay output IEC 60947-5-1 AC-15 500000 cycles 230 V, 0.9 A relay output IEC 60947-5-1 DC-12 500000 cycles 24 V, 1.5 A relay output IEC 60947-5-1 DC-13 500000 cycles 24 V, 0.6 A relay output IEC 60947-5-1
<b>Switching capacity in mA</b>	>= 10 mA 12 V relay output)
<b>Operating rate in Hz</b>	0.1 Hz at le)relay output 10 Hz no load)relay output
<b>Mechanical durability</b>	10000000 cycles relay output
<b>[Uimp] rated impulse withstand voltage</b>	4 kV EN/IEC 60947-1 and EN/IEC 60664-1
<b>Clock</b>	With
<b>Response time</b>	50 ms ladder from state 0 to state 1)discrete input 50 ms ladder from state 1 to state 0)discrete input 50...255 ms FBD from state 0 to state 1)discrete input 50...255 ms FBD from state 1 to state 0)discrete input 10 ms from state 0 to state 1)relay output 5 ms from state 1 to state 0)relay output
<b>Connections - terminals</b>	Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> AWG 25...AWG 14) semi-solid Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> AWG 25...AWG 14) solid Screw terminals, 1 x 0.25...1 x 2.5 mm <sup>2</sup> AWG 24...AWG 14) flexible with cable end Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> AWG 24...AWG 16) solid Screw terminals, 2 x 0.25...2 x 0.75 mm <sup>2</sup> AWG 24...AWG 18) flexible with cable end
<b>Tightening torque</b>	4.4 lbf.in (0.5 N.m)
<b>Overvoltage category</b>	III conforming to IEC 60664-1
<b>Net Weight</b>	0.55 lb(US) (0.25 kg)

## Environment

<b>Immunity to microbreaks</b>	10 ms repeated 20 times
<b>Product Certifications</b>	C-tick CSA GL UL GOST
<b>Standards</b>	IEC 61000-4-3 IEC 61000-4-4 level 3 IEC 61000-4-11 IEC 60068-2-27 Ea IEC 61000-4-5 IEC 61000-4-6 level 3 IEC 61000-4-2 level 3 IEC 60068-2-6 Fc IEC 61000-4-12
<b>IP degree of protection</b>	IP20 IEC 60529 terminal block) IP40 IEC 60529 front panel)
<b>Environmental characteristic</b>	EMC directive conforming to IEC 61000-6-2 EMC directive conforming to IEC 61000-6-3 EMC directive conforming to IEC 61000-6-4 EMC directive conforming to IEC 61131-2 zone B Low voltage directive conforming to IEC 61131-2
<b>Disturbance radiated/conducted</b>	Class B EN 55022-11 group 1
<b>Pollution degree</b>	2 IEC 61131-2
<b>Ambient air temperature for operation</b>	-4...104 °F (-20...40 °C) in non-ventilated enclosure IEC 60068-2-1 and IEC 60068-2-2 -4...131 °F (-20...55 °C) IEC 60068-2-1 and IEC 60068-2-2
<b>Ambient Air Temperature for Storage</b>	-40...158 °F (-40...70 °C)

<b>Operating altitude</b>	6561.68 ft (2000 m)
<b>Maximum altitude transport</b>	10000 ft (3048 m)
<b>Relative Humidity</b>	95 % without condensation or dripping water

## Ordering and shipping details

<b>Category</b>	US1000I22378
<b>Discount Schedule</b>	000I
<b>GTIN</b>	3389110549157
<b>Returnability</b>	Yes
<b>Country of origin</b>	FR

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	2.60 in (6.600 cm)
<b>Package 1 Width</b>	3.58 in (9.100 cm)
<b>Package 1 Length</b>	3.94 in (10.000 cm)
<b>Package 1 Weight</b>	8.571 oz (243.000 g)
<b>Unit Type of Package 2</b>	S03
<b>Number of Units in Package 2</b>	30
<b>Package 2 Height</b>	11.81 in (30.000 cm)
<b>Package 2 Width</b>	11.81 in (30.000 cm)
<b>Package 2 Length</b>	15.75 in (40.000 cm)
<b>Package 2 Weight</b>	17.114 lb(US) (7.763 kg)

## Contractual warranty

<b>Warranty</b>	18 months
-----------------	-----------



## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Environmental footprint

Carbon footprint (kg CO2 eq, Total Life cycle) 122

Environmental Disclosure [Product Environmental Profile](#)

## Use Better

### Materials and Substances

Packaging made with recycled cardboard Yes

Packaging without single use plastic Yes

[EU RoHS Directive](#) Pro-active compliance (Product out of EU RoHS legal scope)

SCIP Number Eee2fc35-1620-4b70-b1d5-206e9240044e

REACH Regulation [REACH Declaration](#)

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 [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

PVC free Yes

## Use Again

### Repack and remanufacture

Circularity Profile [End of Life Information](#)

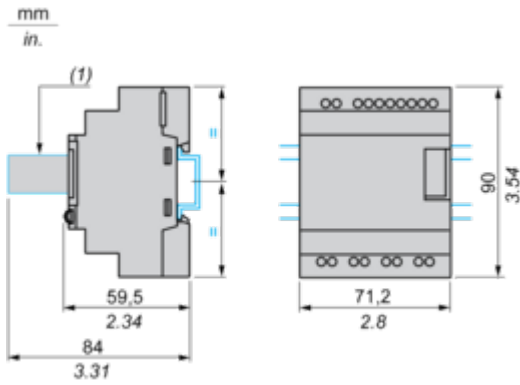
Take-back No

WEEE  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Dimensions Drawings

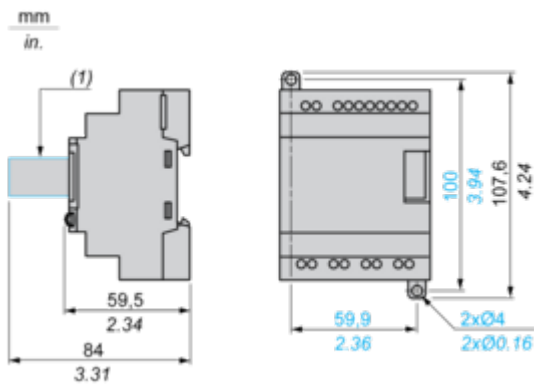
Compact and Modular Smart Relays

Mounting on 35 mm/1.38 in. DIN Rail



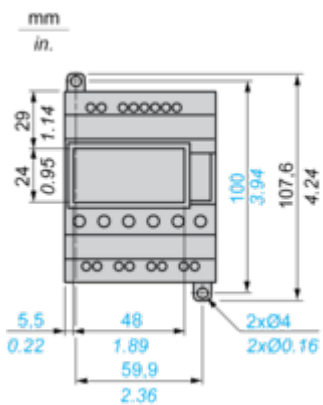
(1) With SR2USB01 or SR2BTC01

Screw Fixing (Retractable Lugs)



(1) With SR2USB01 or SR2BTC01

Position of Display



Connections and Schema

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.

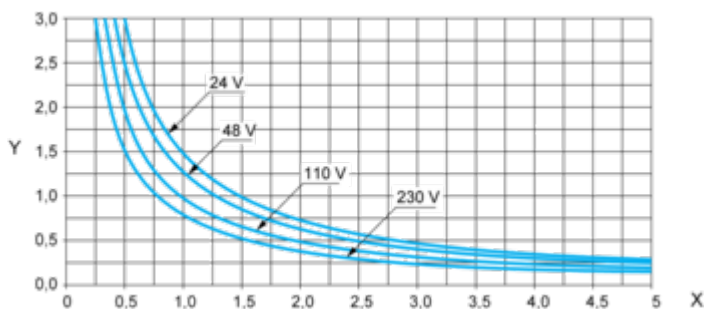
**NOTE:** QF and QG: 5 A for SR3XT141••

Performance Curves

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:  $\cos = 0.4$ .

Image of product / Alternate images

Alternative

---



