

# Product datasheet

Specifications



## compact smart relay Zelio Logic - 12 I O - 100..240 V AC - clock - display

SR2B121FU

### Main

Range Of Product	Zelio Logic
Product Or Component Typee	Compact smart relay

### Complementary

Local Display	With
Number Or Control Scheme Lines	0...240 with ladder programming 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 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) 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 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	>= 0.17 mA (discrete input)
Current State 0 Guaranteed	<= 0.5 mA (discrete input)
Analogue Input Number	0
Input Impedance	350 kOhm for 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 for relay output
<b>Output Thermal Current</b>	8 A for all 4 outputs for relay output
<b>Electrical Durability</b>	AC-12: 500000 cycles at 230 V, 1.5 A for relay output conforming to IEC 60947-5-1 AC-15: 500000 cycles at 230 V, 0.9 A for relay output conforming to IEC 60947-5-1 DC-12: 500000 cycles at 24 V, 1.5 A for relay output conforming to IEC 60947-5-1 DC-13: 500000 cycles at 24 V, 0.6 A for relay output conforming to IEC 60947-5-1
<b>Switching Capacity In Ma</b>	>= 10 mA at 12 V (relay output)
<b>Operating Rate In Hz</b>	0.1 Hz (at Ie) for relay output 10 Hz (no load) for relay output
<b>Mechanical Durability</b>	10000000 cycles for relay output
<b>[Uimp] Rated Impulse Withstand Voltage</b>	4 kV conforming to EN/IEC 60947-1 and EN/IEC 60664-1
<b>Clock</b>	With
<b>Response Time</b>	50 ms with ladder programming (from state 0 to state 1) for discrete input 50 ms with ladder programming (from state 1 to state 0) for discrete input 50...255 ms with FBD programming (from state 0 to state 1) for discrete input 50...255 ms with FBD programming (from state 1 to state 0) for discrete input 10 ms (from state 0 to state 1) for relay output 5 ms (from state 1 to state 0) for 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>	0.5 N.m
<b>Overvoltage Category</b>	III conforming to IEC 60664-1
<b>Net Weight</b>	0.25 kg

## Environment

<b>Immunity To Microbreaks</b>	10 ms
<b>Product Certifications</b>	GL GOST UL CSA C-Tick
<b>Standards</b>	IEC 61000-4-4 level 3 IEC 60068-2-27 Ea IEC 61000-4-5 IEC 61000-4-11 IEC 61000-4-12 IEC 61000-4-3 IEC 60068-2-6 Fc IEC 61000-4-2 level 3 IEC 61000-4-6 level 3
<b>Ip Degree Of Protection</b>	IP20 (terminal block) conforming to IEC 60529 IP40 (front panel) conforming to IEC 60529
<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 conforming to EN 55022-11 group 1
<b>Pollution Degree</b>	2 conforming to IEC 61131-2
<b>Ambient Air Temperature For Operation</b>	-20...40 °C in non-ventilated enclosure conforming to IEC 60068-2-1 and IEC 60068-2-2 -20...55 °C conforming to IEC 60068-2-1 and IEC 60068-2-2
<b>Ambient Air Temperature For Storage</b>	-40...70 °C

<b>Operating Altitude</b>	2000 m
<b>Maximum Altitude Transport</b>	3048 m
<b>Relative Humidity</b>	95 % without condensation or dripping water

## Packing Units

<b>Unit Type Of Package 1</b>	PCE
<b>Number Of Units In Package 1</b>	1
<b>Package 1 Height</b>	6.8 cm
<b>Package 1 Width</b>	8.8 cm
<b>Package 1 Length</b>	10.0 cm
<b>Package 1 Weight</b>	246.0 g
<b>Unit Type Of Package 2</b>	S03
<b>Number Of Units In Package 2</b>	30
<b>Package 2 Height</b>	30.0 cm
<b>Package 2 Width</b>	30.0 cm
<b>Package 2 Length</b>	40.0 cm
<b>Package 2 Weight</b>	7.892 kg

## Contractual warranty

<b>Warranty</b>	18 months
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## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency RoHS/REACH

## Well-being performance

Mercury Free

Rohs Exemption Information Yes

Pvc Free

## Certifications & Standards

Reach Regulation

[REACH Declaration](#)

Eu Rohs Directive

Pro-active compliance (Product out of EU RoHS legal scope)

China Rohs Regulation

[China RoHS declaration](#)

Environmental Disclosure

[Product Environmental Profile](#)

Weee

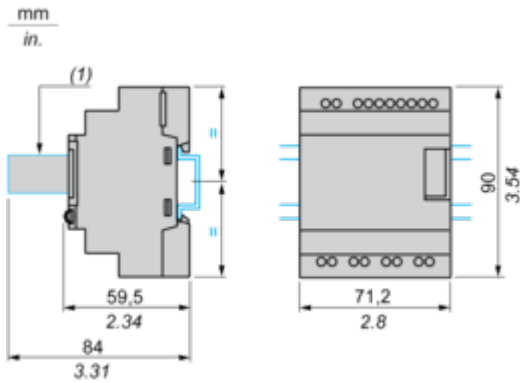
The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Circularity Profile

[End of Life Information](#)

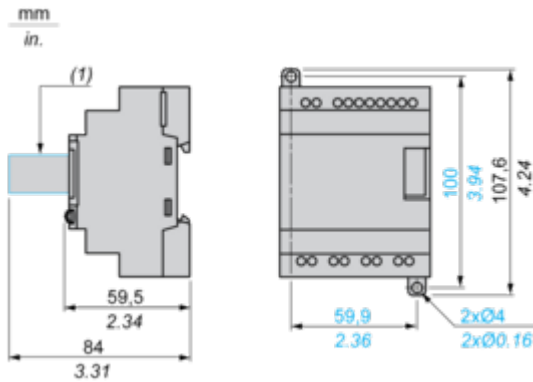
Compact and Modular Smart Relays

Mounting on 35 mm/1.38 in. DIN Rail



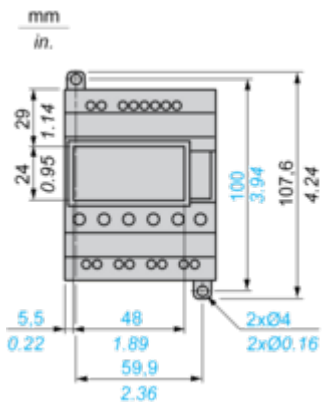
(1) With SR2USB01 or SR2BTC01

Screw Fixing (Retractable Lugs)



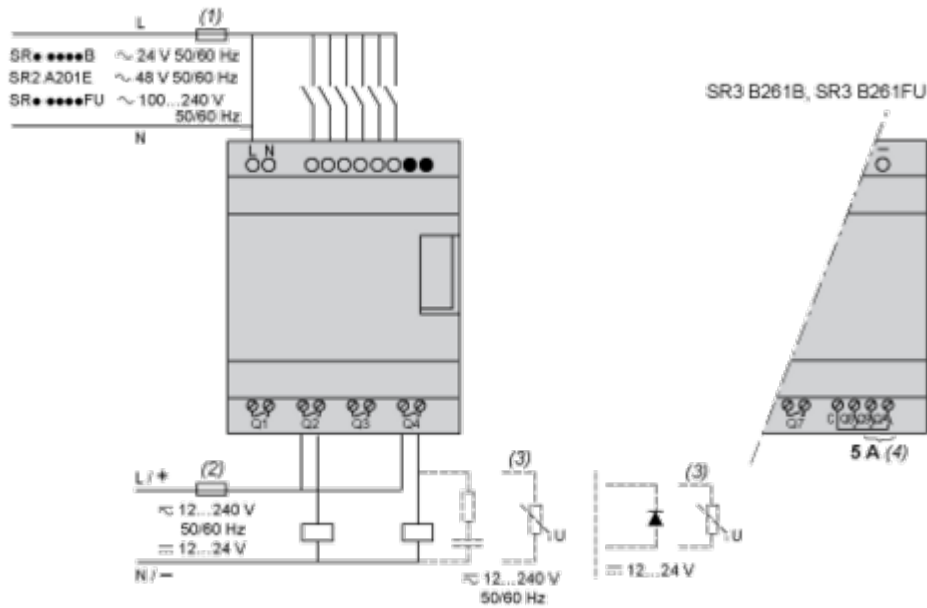
(1) With SR2USB01 or SR2BTC01

Position of Display



Connection of Smart Relays on AC Supply

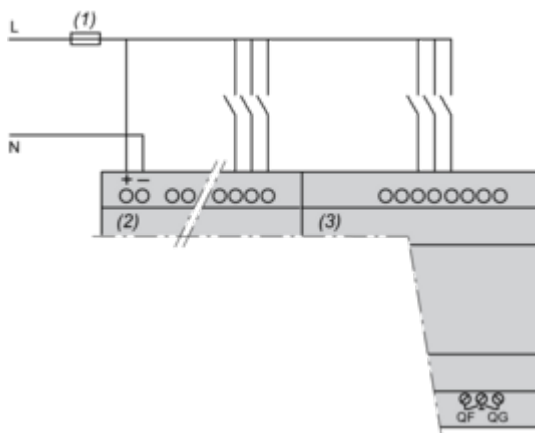
SR...1B, SR...1FU



- (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..

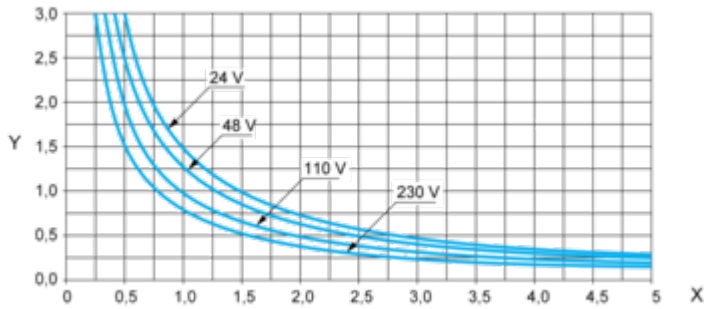
**Compact and Modular Smart Relays**

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**Electrical Durability of Relay Outputs**

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

AC-12 (1)

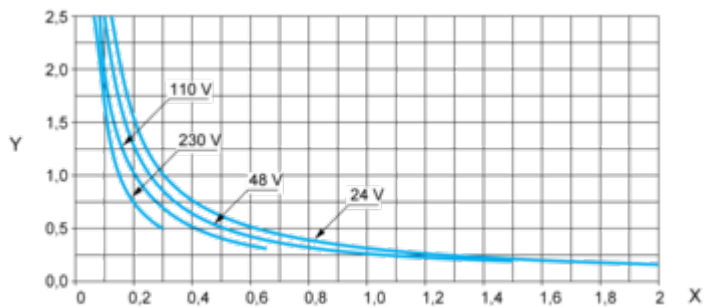


X: Current (A)

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)

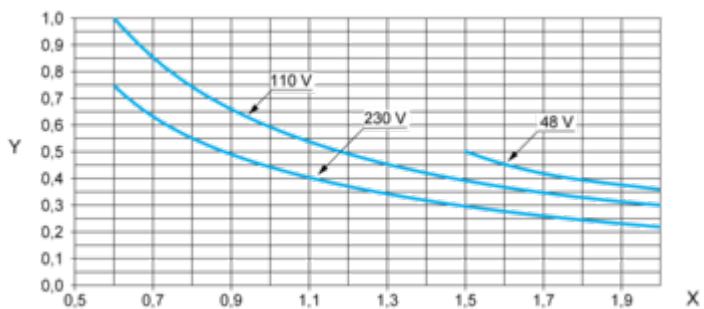


X: Current (A)

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:  $\cos = 0.4$ .