

# Product data sheet

Specifications



compact smart relay, Zelio Logic SR2 SR3, 12 IO, 24V DC, clock, display, 4 transistor outputs

SR2B122BD

Product availability: Stock - Normally stocked in distribution facility

Price\*: 276.00 USD

## 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 DC
Supply voltage limits	19.2...30 V
Maximum supply current	100 mA without extension)
Power dissipation in W	3 W without extension
Reverse polarity protection	With
Discrete input number	8 IEC 61131-2 Type 1
Discrete input type	Resistive
Discrete input voltage	24 V DC
Discrete input current	4 mA
Counting frequency	1 kHz discrete input
Voltage state 1 guaranteed	>= 15 V I1...IA and IH...IR discrete input circuit >= 15 V IB...IG used as discrete input circuit
Voltage state 0 guaranteed	<= 5 V I1...IA and IH...IR discrete input circuit <= 5 V IB...IG used as discrete input circuit
Current state 1 guaranteed	>= 1.2 mA IB...IG used as discrete input circuit) >= 2.2 mA I1...IA and IH...IR discrete input circuit)
Current state 0 guaranteed	<= 0.75 mA I1...IA and IH...IR discrete input circuit)
Input compatibility	3-wire proximity sensors PNP discrete input
Analogue input number	4
Analogue Input Type	Common mode

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

<b>Analogue input range</b>	0...24 V 0...10 V
<b>Temperature probe type</b>	NTC 10k 77 °F (25 °C) NTC 1000k 77 °F (25 °C) KTY81 210/220/221/222/250 Pt 500
<b>Maximum permissible voltage</b>	30 V analogue input circuit
<b>Analogue input resolution</b>	8 bits
<b>LSB value</b>	39 mV analogue input circuit
<b>Conversion time</b>	Smart relay cycle time analogue input circuit
<b>Conversion error</b>	+/- 5 % 77 °F (25 °C) analogue input circuit +/- 6.2 % 131 °F (55 °C) analogue input circuit
<b>Repeat accuracy</b>	+/- 2 % 131 °F (55 °C) analogue input circuit
<b>Operating distance</b>	10 m between stations, with screened cable (sensor not isolated) analogue input circuit
<b>Input impedance</b>	12 kOhm IB...IG used as analogue input circuit 12 kOhm IB...IG used as discrete input circuit 7.4 kOhm I1...IA and IH...IR discrete input circuit
<b>Number of Outputs</b>	4 transistor
<b>Output voltage</b>	24 V transistor output
<b>Output voltage limits</b>	19.2...30 V DC transistor output)
<b>Load current</b>	0.5...0.625 A transistor output
<b>[Ures] residual voltage</b>	2 V at state 1 transistor output
<b>Overload protection</b>	With transistor output
<b>Short-circuit protection</b>	With transistor output
<b>Overvoltage protection</b>	With transistor output
<b>Clock</b>	With
<b>Response time</b>	<= 1 ms from state 0 to state 1)transistor output <= 1 ms from state 1 to state 0)transistor 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>	0.49 lb(US) (0.22 kg)

## Environment

<b>Immunity to microbreaks</b>	1 ms
<b>Product Certifications</b>	C-tick UL GL CSA GOST

<b>Standards</b>	IEC 60068-2-6 Fc IEC 61000-4-12 IEC 60068-2-27 Ea IEC 61000-4-6 level 3 IEC 61000-4-4 level 3 IEC 61000-4-5 IEC 61000-4-11 IEC 61000-4-3 IEC 61000-4-2 level 3
<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>	10000.0000000000 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>	3389110547610
<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>	2.72 in (6.900 cm)
<b>Package 1 Width</b>	3.54 in (9.000 cm)
<b>Package 1 Length</b>	3.94 in (10.000 cm)
<b>Package 1 Weight</b>	7.337 oz (208.000 g)
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	30
<b>Package 2 Height</b>	5.91 in (15.000 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>	14.815 lb(US) (6.720 kg)

## Contractual warranty

<b>Warranty</b>	18 months
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## 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)	72
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Environmental Disclosure	<a href="#">Product Environmental Profile</a>
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## Use Better

### Materials and Substances

Packaging made with recycled cardboard	No
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Packaging without single use plastic	Yes
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EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
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SCIP Number	Eee2fc35-1620-4b70-b1d5-206e9240044e
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REACH Regulation	<a href="#">REACH Declaration</a>
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China RoHS Regulation	<a href="#">China RoHS declaration</a>
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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](#)

WEEE



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

Take-back

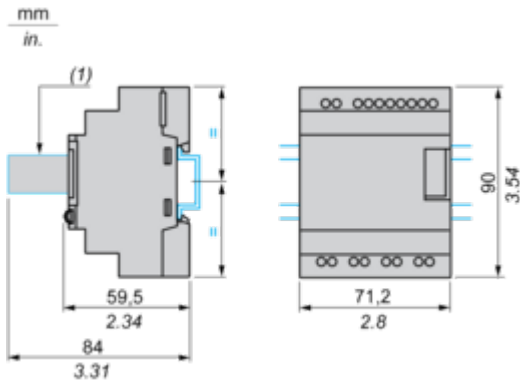
No

Dimensions Drawings

Compact and Modular Smart Relays

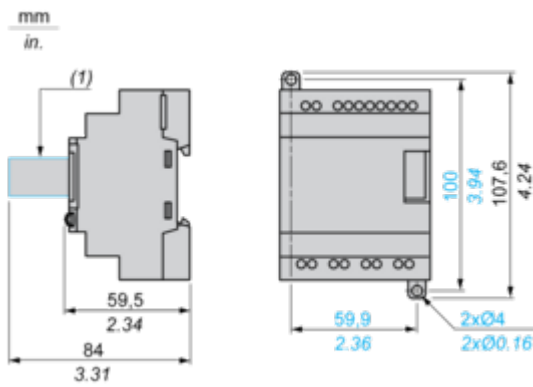
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Mounting on 35 mm/1.38 in. DIN Rail



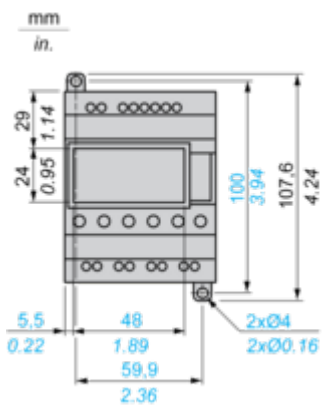
(1) With SR2USB01 or SR2BTC01

Screw Fixing (Retractable Lugs)



(1) With SR2USB01 or SR2BTC01

Position of Display

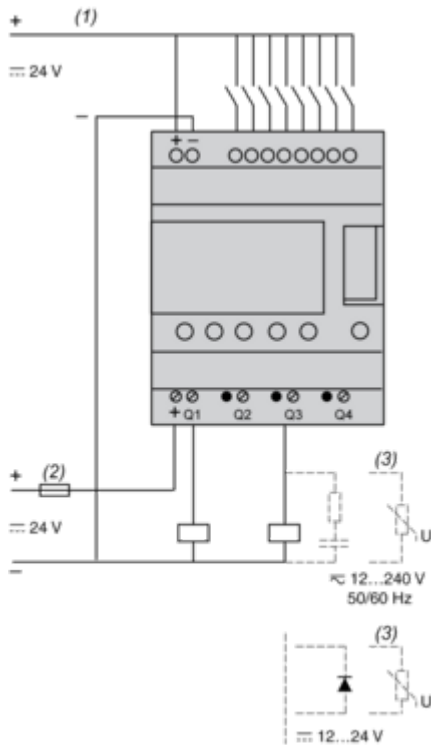


Connections and Schema

Compact and Modular Smart Relays

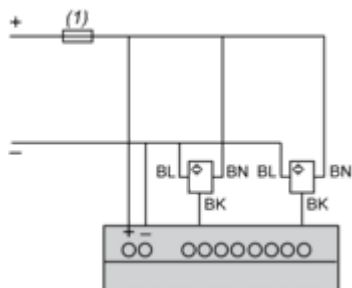
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Connection of Smart Relays on DC Supply



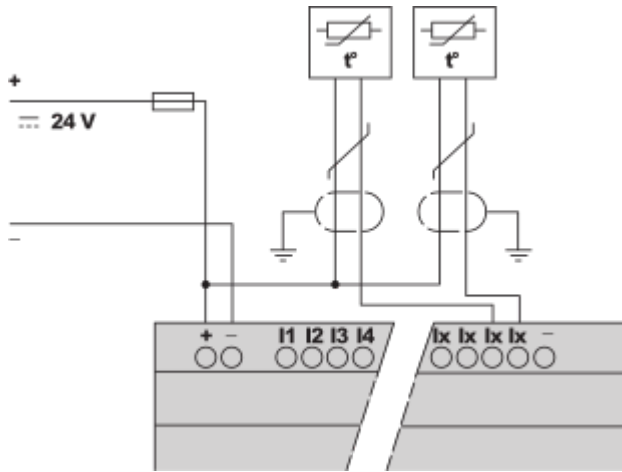
- (1) 1 A quick-blow fuse or circuit-breaker.
- (2) Fuse or circuit-breaker.
- (3) Inductive load.
- (4) Q9 and QA: 5 A (max. current in terminal C: 10 A).

Discrete Input Used for 3-Wire Sensors



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

Connection of Thermistor Input on DC Supply



NOTE: Ix = IB...IG

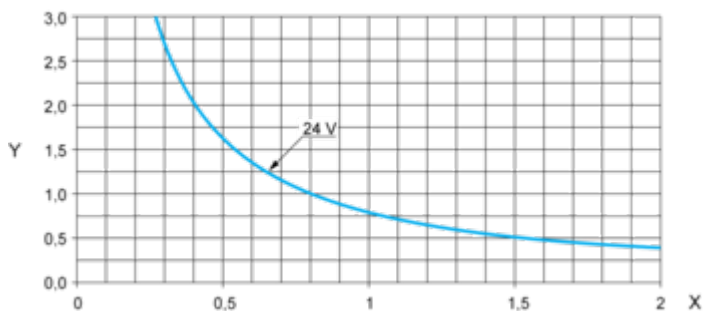
Performance Curves

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)

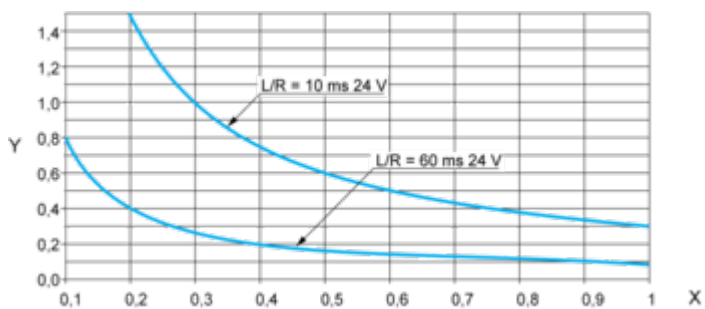


X: Current (A)

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).

Image of product / Alternate images

Alternative

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