

# Product data sheet

Specifications



modular smart relay, Zelio Logic SR2 SR3, 10 IO, 24V DC, clock, display, 4 relay outputs

SR3B101BD

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

**Price\*:** 282.00 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 FBD 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) 6 s/month 77 °F (25 °C)
Checks	Program memory on each power up
[Us] Rated Supply Voltage	24 V
Supply Voltage Limits	19.2...30 V
Maximum Supply Current	100 mA with extensions) 100 mA without extension)
Power Dissipation In W	3 W without extension 8 W with extensions
Reverse Polarity Protection	With
Discrete Input Number	6 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 <= 5 V
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	<= 0.5 mA IB...IG used as discrete input circuit) <= 0.75 mA I1...IA and IH...IR discrete input circuit)
Input Compatibility	3-wire proximity sensors PNP discrete input
Analogue Input Number	4

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 Type</b>	Common mode
<b>Analogue Input Range</b>	0...10 V 0...24 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 relay
<b>Output Voltage Limits</b>	24...250 V AC relay output) 5...30 V DC relay output)
<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>	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>	4.43 lbf.in (0.5 N.m)
<b>Overvoltage Category</b>	III IEC 60664-1
<b>Net Weight</b>	0.55 lb(US) (0.25 kg)

## Environment

<b>Immunity To Microbreaks</b>	1 ms
--------------------------------	------

<b>Product Certifications</b>	GOST UL C-tick CSA GL
<b>Standards</b>	IEC 60068-2-6 Fc IEC 61000-4-11 IEC 60068-2-27 Ea IEC 61000-4-4 level 3 IEC 61000-4-3 IEC 61000-4-6 level 3 IEC 61000-4-2 level 3 IEC 61000-4-5 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 IEC 61000-6-2 EMC directive IEC 61000-6-3 EMC directive IEC 61000-6-4 EMC directive IEC 61131-2 zone B Low voltage directive 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>	10000.00 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>	3389110549898
<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>	2.68 in (6.800 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>	8.40 oz (238.000 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)

---

Package 2 Weight	16.90 lb(US) (7.665 kg)
------------------	-------------------------

## Contractual warranty

---

Warranty	18 months
----------	-----------

## 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](#)

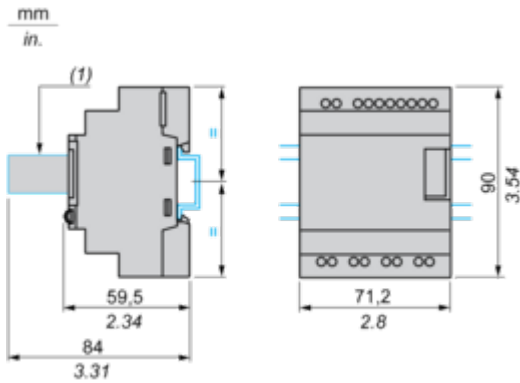
California Proposition 65

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)

Compact and Modular Smart Relays

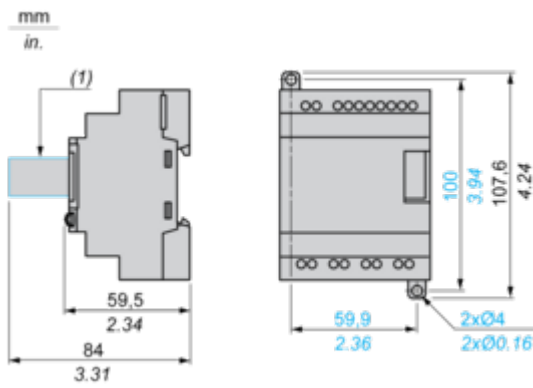
---

Mounting on 35 mm/1.38 in. DIN Rail



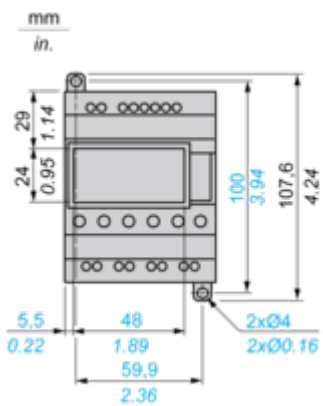
(1) With SR2USB01 or SR2BTC01

Screw Fixing (Retractable Lugs)



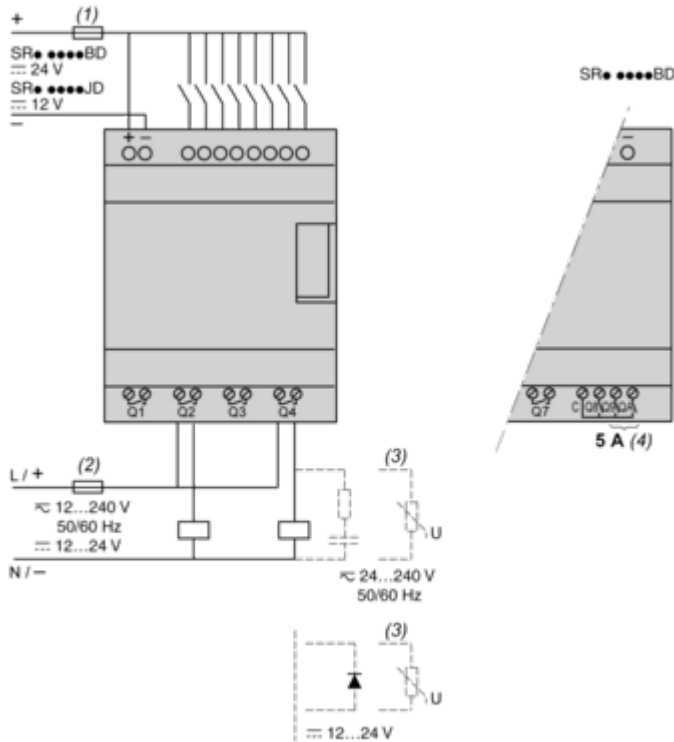
(1) With SR2USB01 or SR2BTC01

Position of Display



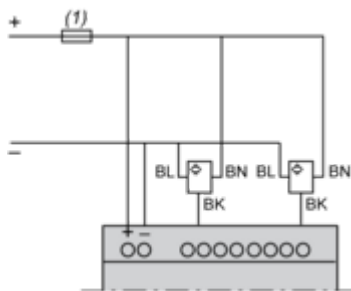
Compact and Modular Smart Relays

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 QA: 5 A (max. current in terminal C: 10 A).

Discrete Input Used for 3-Wire Sensors

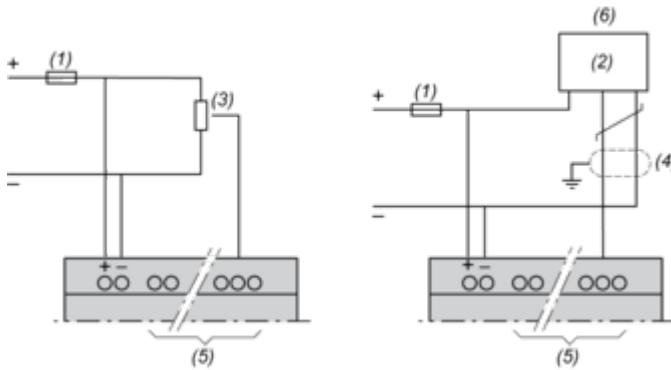


- (1) 1 A quick-blow fuse or circuit-breaker.

Connection of Smart Relays on DC Supply

---

Analog Inputs



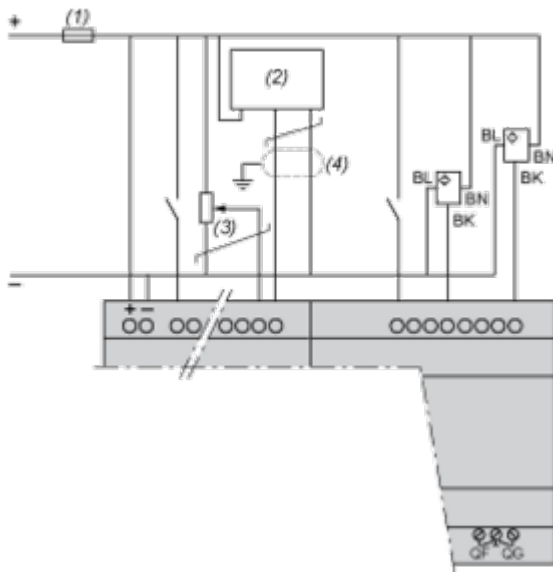
- (1) 1 A quick-blow fuse or circuit-breaker.
- (2) Ca: Analog sensor / Ta: Analog transmitter.
- (3) Recommended values: 2.2 kΩ / 0.5 W (10 kΩ max.)
- (4) Screened cables, maximum length 10 m / 32.80 feet.
- (5) Analog inputs according to Zelio Logic smart relay type (see table below)
- (6) 0-10 Vdc ANALOG

Smart Relays	Analog Inputs
SR2•12••D	IB...IE
SR2A201BD	IB and IC
SR2D201BD	IB and IC
SR2B20••D	IB...IG
SR2E201BD	IB...IG
SR3B10•BD	IB...IE
SR3B26••D	IB...IG



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

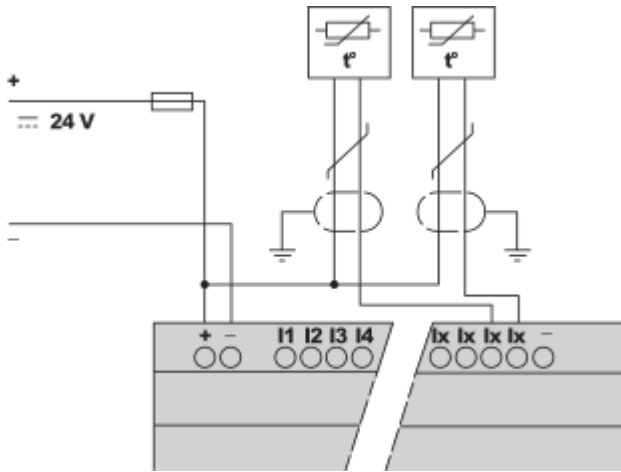
SR3B...JD + SR3XT...JD, SR3B...BD + SR3XT...BD



- (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..

Connection of Thermistor Input on DC Supply



NOTE: Ix = IB...IG

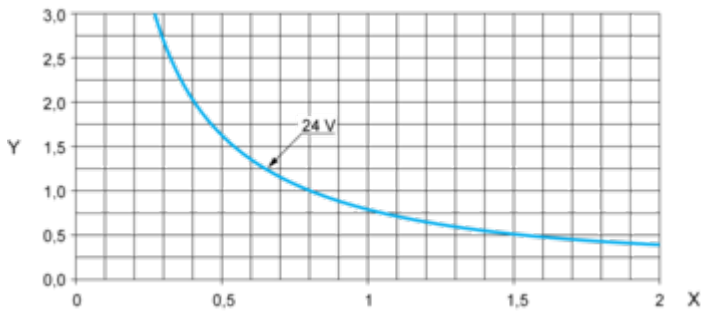
**Compact and Modular Smart Relays**

---

**Electrical Durability of Relay Outputs**

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

DC-12 (1)

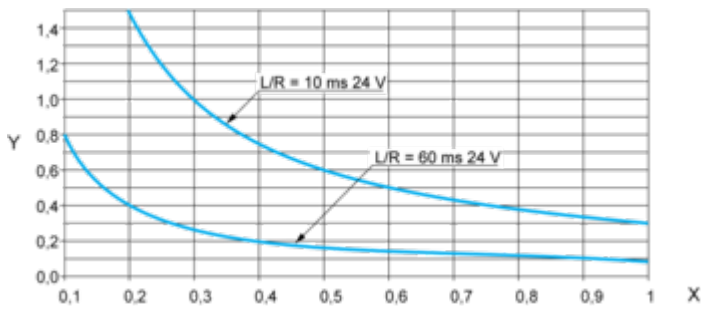


X: Current (A)

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).