

# Product data sheet

Specifications



compact smart relay, Zelio Logic  
SR2 SR3, 10 IO, 24V DC, no clock,  
no display

SR2D101BD

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

## Main

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

## Complementary

Local display	Without
Number or control scheme lines	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 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	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	$\geq 15$ V I1...IA and IH...IR discrete input circuit $\geq 15$ V IB...IG used as discrete input circuit
Voltage state 0 guaranteed	$\leq 5$ V I1...IA and IH...IR discrete input circuit $\leq 5$ V IB...IG used as discrete input circuit
Current state 1 guaranteed	$\geq 1.2$ mA IB...IG used as discrete input circuit) $\geq 2.2$ mA I1...IA and IH...IR discrete input circuit)
Current state 0 guaranteed	$\leq 0.5$ mA IB...IG used as discrete input circuit) $\leq 0.75$ mA I1...IA and IH...IR discrete input circuit)
Input compatibility	3-wire proximity sensors PNP discrete input
Analogue input number	0
Input impedance	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
Number of Outputs	4 relay

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

<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 (e)relay output 10 Hz no load)relay output
<b>Mechanical durability</b>	10000000 cycles relay output
<b>[Uiimp] rated impulse withstand voltage</b>	4 kV EN/IEC 60947-1 and EN/IEC 60664-1
<b>Clock</b>	Without
<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>	4.4 lbf.in (0.5 N.m)
<b>Overvoltage category</b>	III conforming to IEC 60664-1
<b>Product Weight</b>	0.49 lb(US) (0.22 kg)

## Environment

<b>Immunity to microbreaks</b>	1 ms
<b>Product Certifications</b>	CSA UL GL GOST C-tick
<b>Standards</b>	IEC 61000-4-5 IEC 61000-4-12 IEC 60068-2-27 Ea IEC 61000-4-2 level 3 IEC 60068-2-6 Fc IEC 61000-4-11 IEC 61000-4-4 level 3 IEC 61000-4-6 level 3 IEC 61000-4-3
<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)

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Maximum altitude transport	10000 ft (3048 m)
Relative Humidity	95 % without condensation or dripping water

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## Ordering and shipping details

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Category	US1000I22378
Discount Schedule	000I
GTIN	3389110549751
Returnability	Yes
Country of origin	FR

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## Packing Units

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Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	2.64 in (6.700 cm)
Package 1 Width	3.54 in (9.000 cm)
Package 1 Length	3.94 in (10.000 cm)
Package weight(Lbs)	7.055 oz (200.000 g)
Unit Type of Package 2	S03
Number of Units in Package 2	30
Package 2 Height	11.81 in (30.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	14.286 lb(US) (6.480 kg)

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## Contractual warranty

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Warranty	18 months
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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)	154
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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	Yes
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Packaging without single use plastic	Yes
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<a href="#">EU RoHS Directive</a>	Pro-active compliance (Product out of EU RoHS legal scope)
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SCIP Number	91701a78-5972-4eb5-b11f-2737d556b9de
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REACH Regulation	<a href="#">REACH Declaration</a>
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California proposition 65	<b>WARNING:</b> 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>
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PVC free	Yes
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## Use Again

### Repack and remanufacture

Circularity Profile	<a href="#">End of Life Information</a>
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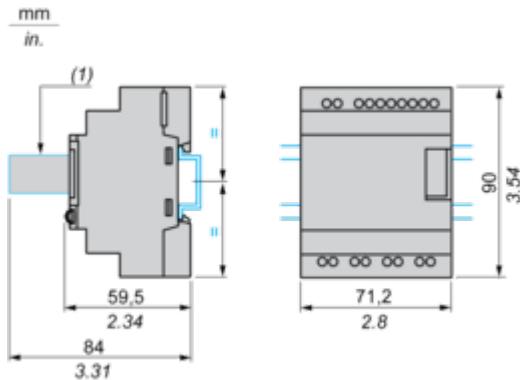
Take-back	No
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WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
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## Dimensions Drawings

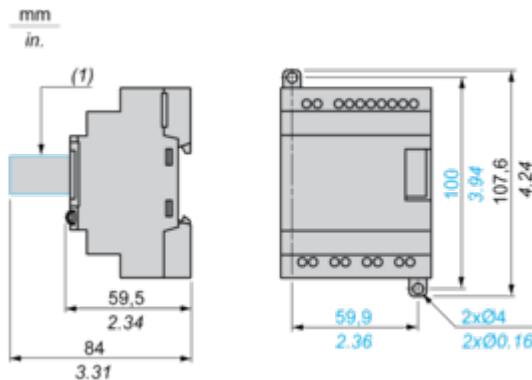
Compact and Modular Smart Relays

## Mounting on 35 mm/1.38 in. DIN Rail



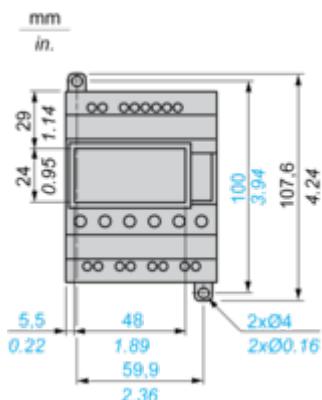
(1) With SR2USB01 or SR2BTC01

## Screw Fixing (Retractable Lugs)



(1) With SR2USB01 or SR2BTC01

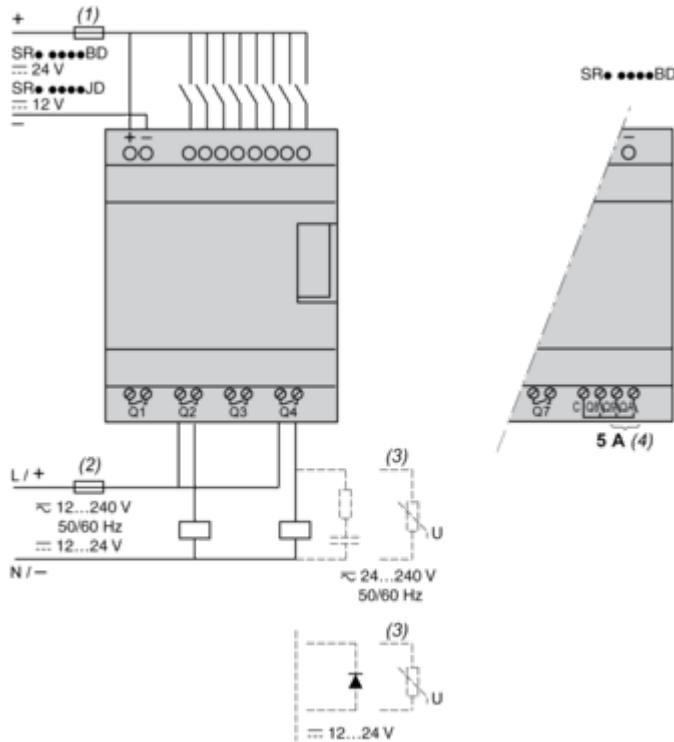
## Position of Display



## Connections and Schema

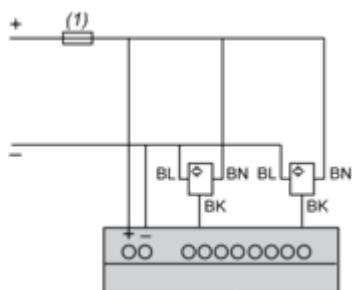
## Compact and Modular Smart Relays

## 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

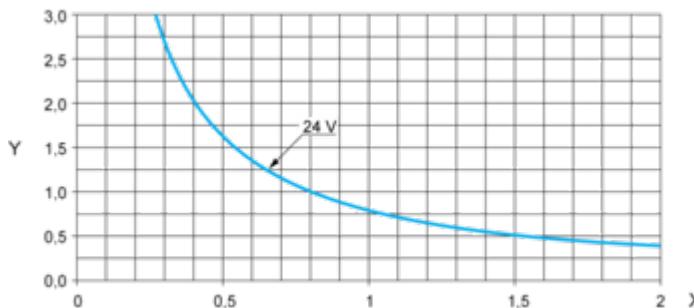


(1) 1 A quick-blow fuse or circuit-breaker.

## 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)

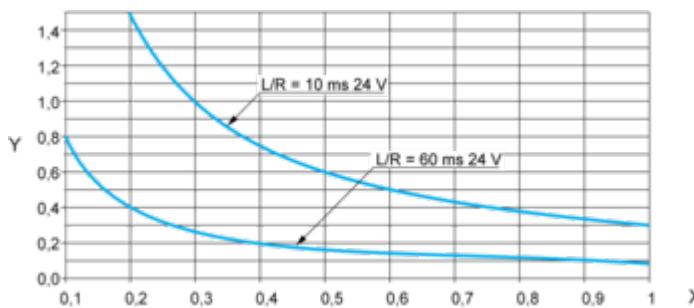


X: Current (A)

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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