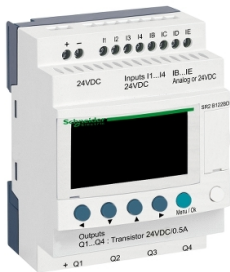


Product datasheet

Specifications



Compact smart relay. Zelio Logic. 12 I/O. 24 V DC. clock. display

SR2B122BD

Price: 5,929.36 ZAR

Main

| | |
|---------------------------|---------------------|
| Range Of Product | Zelio Logic |
| Product Or Component Type | 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 | 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 conforming to IEC 61131-2 Type 1 |
| Discrete Input Type | Resistive |
| Discrete Input Voltage | 24 V DC |
| Discrete Input Current | 4 mA |
| Counting Frequency | 1 kHz for discrete input |
| Voltage State 1 Guaranteed | >= 15 V for I1...IA and IH...IR discrete input circuit >= 15 V for IB...IG used as discrete input circuit |
| Voltage State 0 Guaranteed | <= 5 V for I1...IA and IH...IR discrete input circuit <= 5 V for 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 for discrete input |
| Analogue Input Number | 4 |
| Analogue Input Type | Common mode |
| Analogue Input Range | 0...24 V 0...10 V |

Excluding VAT and subject to change. Please check with your local distributor through "Where to buy"

| | |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Temperature Probe Type | NTC 10k at 25 °C NTC 1000k at 25 °C KTY81 210/220/221/222/250 Pt 500 |
| Maximum Permissible Voltage | 30 V for analogue input circuit |
| Analogue Input Resolution | 8 bits |
| Lsb Value | 39 mV for analogue input circuit |
| Conversion Time | Smart relay cycle time for analogue input circuit |
| Conversion Error | +/- 5 % at 25 °C for analogue input circuit +/- 6.2 % at 55 °C for analogue input circuit |
| Repeat Accuracy | +/- 2 % at 55 °C for analogue input circuit |
| Operating Distance | 10 m between stations, with screened cable (sensor not isolated) for analogue input circuit |
| Input Impedance | 12 kOhm for IB...IG used as analogue input circuit 12 kOhm for IB...IG used as discrete input circuit 7.4 kOhm for I1...IA and IH...IR discrete input circuit |
| Number Of Outputs | 4 transistor |
| Output Voltage | 24 V transistor output |
| Output Voltage Limits | 19.2...30 V DC (transistor output) |
| Load Current | 0.5...0.625 A transistor output |
| [Ures] Residual Voltage | 2 V at state 1 transistor output |
| Overload Protection | With overload protection for transistor output |
| Short-Circuit Protection | With transistor output |
| Overvoltage Protection | With overvoltage protection for transistor output |
| Clock | With |
| Response Time | <= 1 ms (from state 0 to state 1) for transistor output <= 1 ms (from state 1 to state 0) for transistor output |
| Connections - Terminals | Screw terminals, 1 x 0.2...1 x 2.5 mm ² (AWG 25...AWG 14) semi-solid Screw terminals, 1 x 0.2...1 x 2.5 mm ² (AWG 25...AWG 14) solid Screw terminals, 1 x 0.25...1 x 2.5 mm ² (AWG 24...AWG 14) flexible with cable end Screw terminals, 2 x 0.2...2 x 1.5 mm ² (AWG 24...AWG 16) solid Screw terminals, 2 x 0.25...2 x 0.75 mm ² (AWG 24...AWG 18) flexible with cable end |
| Tightening Torque | 0.5 N.m |
| Overvoltage Category | III conforming to IEC 60664-1 |
| Net Weight | 0.22 kg |

Environment

| | |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunity To Microbreaks | 1 ms |
| Product Certifications | C-Tick UL GL CSA GOST |
| Standards | 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 |

| | |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ip Degree Of Protection | IP20 (terminal block) conforming to IEC 60529 IP40 (front panel) conforming to IEC 60529 |
| Environmental Characteristic | 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 |
| Disturbance Radiated/Conducted | Class B conforming to EN 55022-11 group 1 |
| Pollution Degree | 2 conforming to IEC 61131-2 |
| Ambient Air Temperature For Operation | -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 |
| Ambient Air Temperature For Storage | -40...70 °C |
| Operating Altitude | 2000 m |
| Maximum Altitude Transport | 3048 m |
| Relative Humidity | 95 % without condensation or dripping water |

Packing Units

| | |
|-------------------------------------|-----------|
| Unit Type Of Package 1 | PCE |
| Number Of Units In Package 1 | 1 |
| Package 1 Height | 6.900 cm |
| Package 1 Width | 9.000 cm |
| Package 1 Length | 10.000 cm |
| Package 1 Weight | 208.000 g |
| Unit Type Of Package 2 | S02 |
| Number Of Units In Package 2 | 30 |
| Package 2 Height | 15.000 cm |
| Package 2 Width | 30.000 cm |
| Package 2 Length | 40.000 cm |
| Package 2 Weight | 6.720 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-CO₂ 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](#)

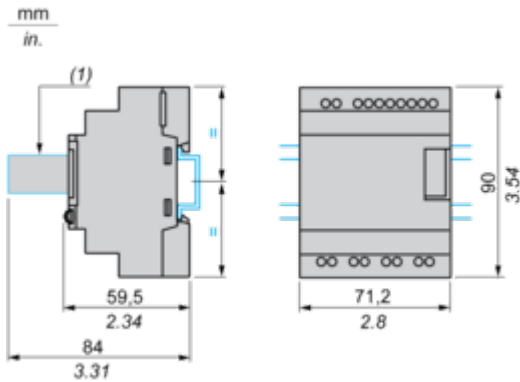
Weee The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Circularity Profile [End of Life Information](#)

Dimensions Drawings

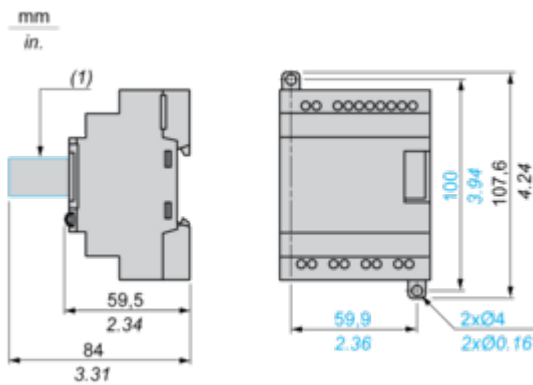
Compact and Modular Smart Relays

Mounting on 35 mm/1.38 in. DIN Rail



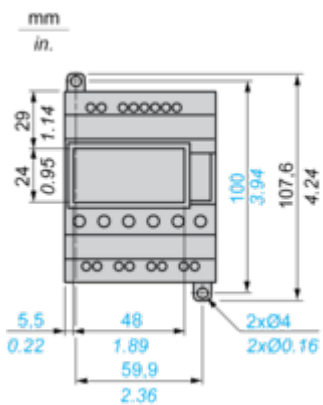
(1) With SR2USB01 or SR2BTC01

Screw Fixing (Retractable Lugs)



(1) With SR2USB01 or SR2BTC01

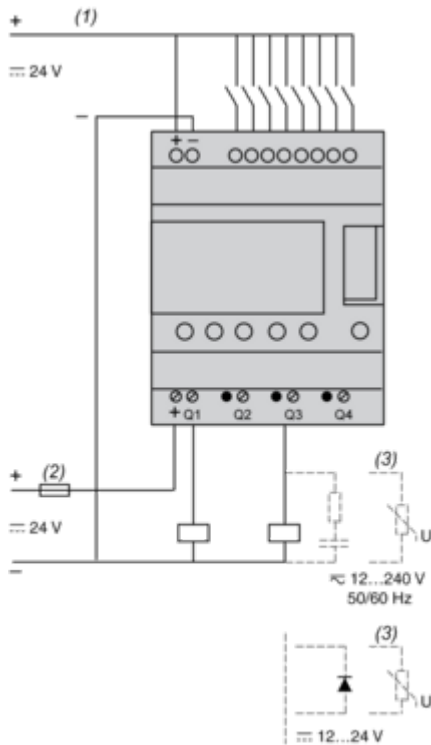
Position of Display



Connections and Schema

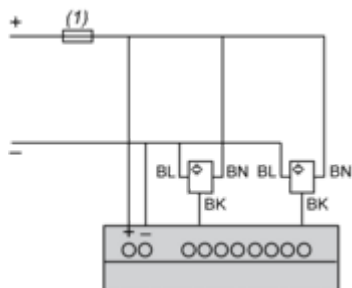
Compact and Modular Smart Relays

Connection of Smart Relays on DC Supply



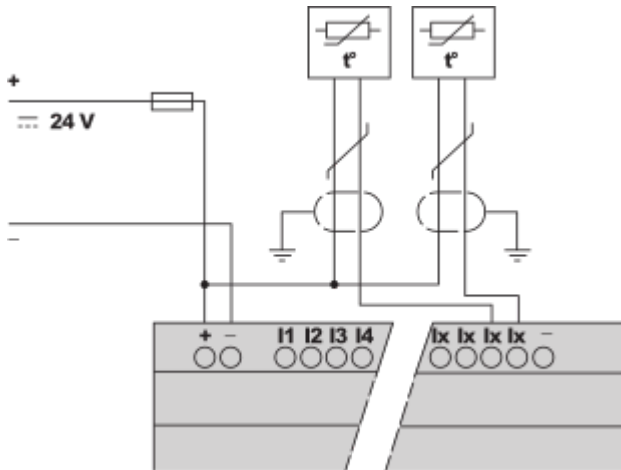
- (1) 1 A quick-blow fuse or circuit-breaker.
- (2) Fuse or circuit-breaker.
- (3) Inductive load.
- (4) Q9 and QA: 5 A (max. current in terminal C: 10 A).

Discrete Input Used for 3-Wire Sensors



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

Connection of Thermistor Input on DC Supply



NOTE: Ix = IB...IG

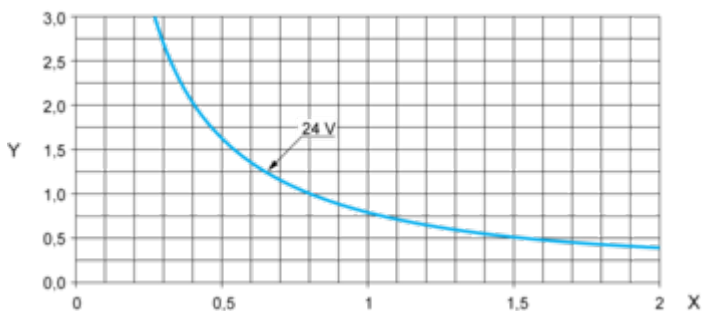
Performance Curves

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)

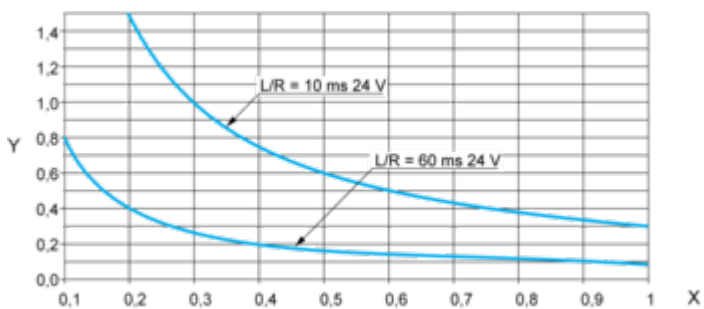


X: Current (A)

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).