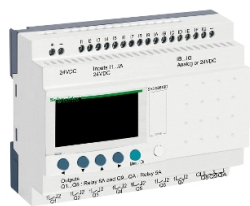


# Product datasheet

Specifications



## modular smart relay Zelio Logic - 26 I O - 24 V DC - clock - display

Local distributor code:

389538112

SR3B261BD

EAN Code: 3389110549980

### Main

|                           |                     |
|---------------------------|---------------------|
| Range of product          | Zelio Logic         |
| Product or component type | Modular smart relay |

### Complementary

|                                |                                                                                                               |
|--------------------------------|---------------------------------------------------------------------------------------------------------------|
| Local display                  | With                                                                                                          |
| Number or control scheme lines | 0...500 with FBD programming<br>0...240 with ladder programming                                               |
| Cycle time                     | 6...90 ms                                                                                                     |
| Backup time                    | 10 years at 25 °C                                                                                             |
| Clock drift                    | 12 min/year at 0...55 °C<br>6 s/month at 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         | 190 mA (without extension)<br>300 mA (with extensions)                                                        |
| Power dissipation in W         | 10 W with extensions<br>6 W without extension                                                                 |
| Reverse polarity protection    | With                                                                                                          |
| Discrete input number          | 16 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<br>>= 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<br><= 5 V for IB...IG used as discrete input circuit    |
| Current state 1 guaranteed     | >= 1.2 mA (IB...IG used as discrete input circuit)<br>>= 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)<br><= 0.75 mA (I1...IA and IH...IR discrete input circuit) |
| Input compatibility            | 3-wire proximity sensors PNP for discrete input                                                               |
| Analogue input number          | 6                                                                                                             |
| Analogue input type            | Common mode                                                                                                   |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                        |                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Analogue input range                   | 0...10 V<br>0...24 V                                                                                                                                                                                                                                                                                                                                                               |
| Temperature probe type                 | NTC 10k at 25 °C<br>NTC 1000k at 25 °C<br>KTY81 210/220/221/222/250<br>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<br>+/- 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<br>12 kOhm for IB...IG used as discrete input circuit<br>7.4 kOhm for I1...IA and IH...IR discrete input circuit                                                                                                                                                                                                                |
| Number of outputs                      | 10 relay                                                                                                                                                                                                                                                                                                                                                                           |
| Output voltage limits                  | 24...250 V AC (relay output)<br>5...30 V DC (relay output)                                                                                                                                                                                                                                                                                                                         |
| Contacts type and composition          | NO for relay output                                                                                                                                                                                                                                                                                                                                                                |
| Output thermal current                 | 5 A for 2 outputs for relay output<br>8 A for 8 outputs for relay output                                                                                                                                                                                                                                                                                                           |
| Electrical durability                  | AC-12: 500000 cycles at 230 V, 1.5 A for relay output conforming to IEC 60947-5-1<br>AC-15: 500000 cycles at 230 V, 0.9 A for relay output conforming to IEC 60947-5-1<br>DC-12: 500000 cycles at 24 V, 1.5 A for relay output conforming to IEC 60947-5-1<br>DC-13: 500000 cycles at 24 V, 0.6 A for relay output conforming to IEC 60947-5-1                                     |
| Switching capacity in mA               | >= 10 mA at 12 V (relay output)                                                                                                                                                                                                                                                                                                                                                    |
| Operating rate in Hz                   | 0.1 Hz (at Ie) for relay output<br>10 Hz (no load) for relay output                                                                                                                                                                                                                                                                                                                |
| Mechanical durability                  | 10000000 cycles for relay output                                                                                                                                                                                                                                                                                                                                                   |
| [Uimp] rated impulse withstand voltage | 4 kV conforming to EN/IEC 60947-1 and EN/IEC 60664-1                                                                                                                                                                                                                                                                                                                               |
| Clock                                  | With                                                                                                                                                                                                                                                                                                                                                                               |
| Response time                          | 10 ms (from state 0 to state 1) for relay output<br>5 ms (from state 1 to state 0) for relay output                                                                                                                                                                                                                                                                                |
| Connections - terminals                | Screw terminals, 1 x 0.2...1 x 2.5 mm² (25 AWG...14 AWG) semi-solid<br>Screw terminals, 1 x 0.2...1 x 2.5 mm² (25 AWG...14 AWG) solid<br>Screw terminals, 1 x 0.25...1 x 2.5 mm² (24 AWG...14 AWG) flexible with cable end<br>Screw terminals, 2 x 0.2...2 x 1.5 mm² (24 AWG...16 AWG) solid<br>Screw terminals, 2 x 0.25...2 x 0.75 mm² (24 AWG...18 AWG) flexible with cable end |
| Tightening torque                      | 0.5 N.m                                                                                                                                                                                                                                                                                                                                                                            |
| Overvoltage category                   | III conforming to IEC 60664-1                                                                                                                                                                                                                                                                                                                                                      |
| Product weight                         | 0.4 kg                                                                                                                                                                                                                                                                                                                                                                             |

## Environment

|                         |                                   |
|-------------------------|-----------------------------------|
| Immunity to microbreaks | 1 ms                              |
| Product certifications  | GL<br>C-Tick<br>CSA<br>UL<br>GOST |

|                                       |                                                                                                                                                                                                                                          |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                             | IEC 61000-4-2 level 3<br>IEC 61000-4-5<br>IEC 61000-4-6 level 3<br>IEC 61000-4-11<br>IEC 61000-4-3<br>IEC 60068-2-27 Ea<br>IEC 61000-4-12<br>IEC 60068-2-6 Fc<br>IEC 61000-4-4 level 3                                                   |
| IP degree of protection               | IP20 (terminal block) conforming to IEC 60529<br>IP40 (front panel) conforming to IEC 60529                                                                                                                                              |
| Environmental characteristic          | EMC directive conforming to IEC 61000-6-2<br>EMC directive conforming to IEC 61000-6-3<br>EMC directive conforming to IEC 61000-6-4<br>EMC directive conforming to IEC 61131-2 zone B<br>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<br>-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             | 6.800 cm  |
| Package 1 Width              | 10.000 cm |
| Package 1 Length             | 13.300 cm |
| Package 1 Weight             | 379.000 g |
| Unit Type of Package 2       | S03       |
| Number of Units in Package 2 | 20        |
| Package 2 Height             | 30.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 8.064 kg  |
| Unit Type of Package 3       | P06       |
| Number of Units in Package 3 | 160       |
| Package 3 Height             | 75.000 cm |
| Package 3 Width              | 60.000 cm |
| Package 3 Length             | 80.000 cm |
| Package 3 Weight             | 73.012 kg |

## Logistical informations

|                   |    |
|-------------------|----|
| Country of origin | FR |
|-------------------|----|

# Contractual warranty

|                      |    |
|----------------------|----|
| Warranty (in months) | 18 |
|----------------------|----|



## 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

|                                                        |                                               |
|--------------------------------------------------------|-----------------------------------------------|
| Total lifecycle Carbon footprint                       | 253 kg CO2 eq.                                |
| Carbon footprint of the manufacturing phase [A1 to A3] | 49 kg CO2 eq.                                 |
| Carbon footprint of the distribution phase [A4]        | 0.8 kg CO2 eq.                                |
| Carbon footprint of the installation phase [A5]        | 0.1 kg CO2 eq.                                |
| Carbon footprint of the use phase [B2, B3, B4, B6]     | 202 kg CO2 eq.                                |
| Carbon footprint of the end-of-life phase [C1 to C4]   | 1 kg CO2 eq.                                  |
| Environmental Disclosure                               | <a href="#">Product Environmental Profile</a> |

## Use Better



### Materials and Substances

|                                        |                                                                                        |
|----------------------------------------|----------------------------------------------------------------------------------------|
| Packaging made with recycled cardboard | Yes                                                                                    |
| Packaging without single use plastic   | Yes                                                                                    |
| SCIP Number                            | Eee2fc35-1620-4b70-b1d5-206e9240044e                                                   |
| EU RoHS Directive                      | <a href="#">Compliant By Exemption</a>                                                 |
| REACH Regulation                       | <a href="#">Reference contains Substances of Very High Concern above the threshold</a> |
| PVC free                               | Yes                                                                                    |

## Use Longer



### Lifetime extension

|        |    |
|--------|----|
| Repair | No |
|--------|----|

## Use Again



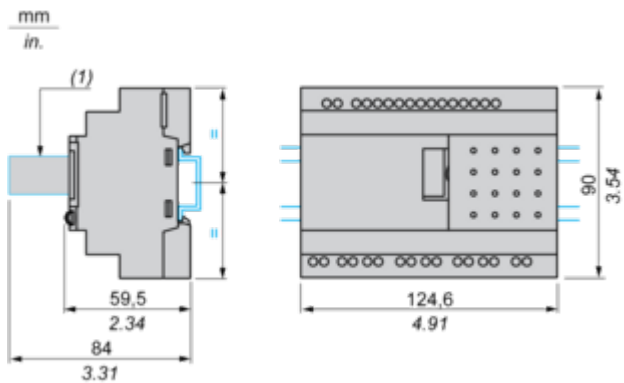
### Repack and remanufacture

|                                 |                                                                                                                                                                                                                 |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recyclability potential, in %   | 0                                                                                                                                                                                                               |
| End of life manual availability | <a href="#">End of Life Information</a>                                                                                                                                                                         |
| Take-back                       | No                                                                                                                                                                                                              |
| WEEE Label                      |  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Dimensions Drawings

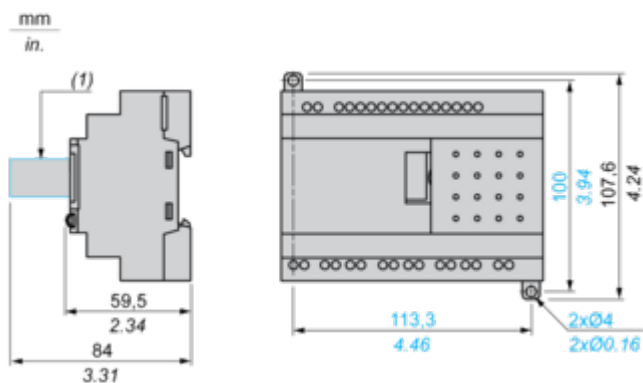
Compact and Modular Smart Relays

Mounting on 35 mm/1.38 in. DIN Rail



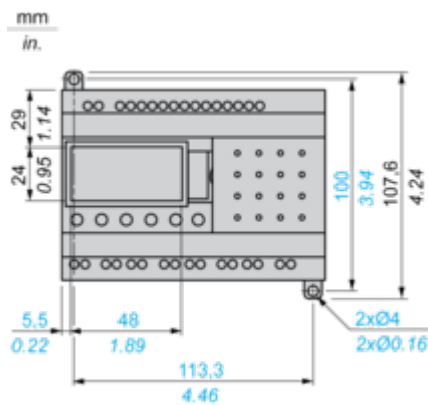
(1) With SR2USB01 or SR2BTC01

Screw Fixing (Retractable Lugs)



(1) With SR2USB01 or SR2BTC01

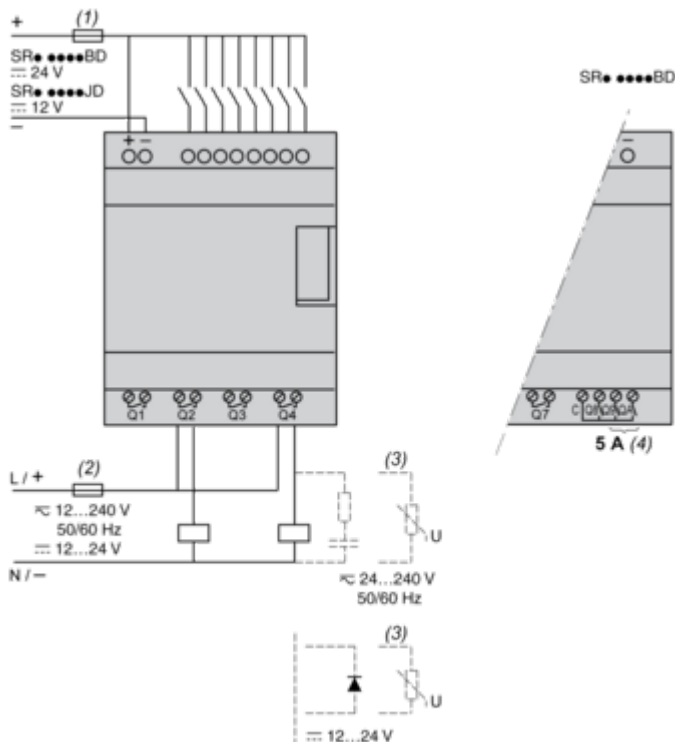
Position of Display



## Connections and Schema

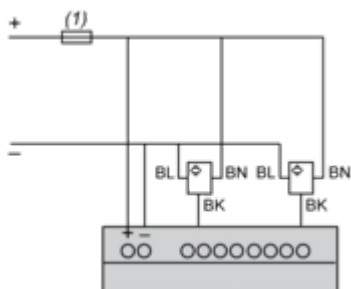
### Compact and Modular Smart Relays

## 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).

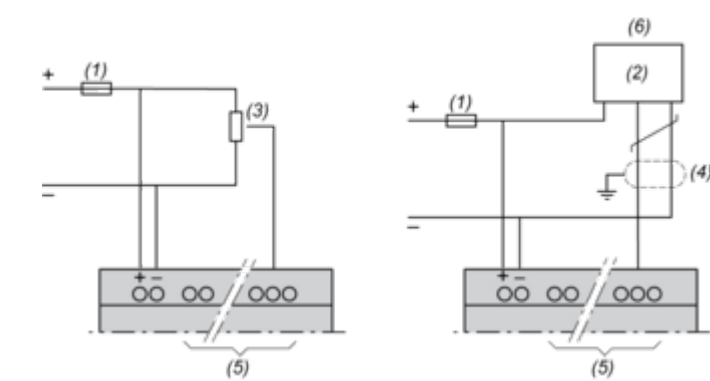
### Discrete Input Used for 3-Wire Sensors



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

Connection of Smart Relays on DC Supply

Analog Inputs

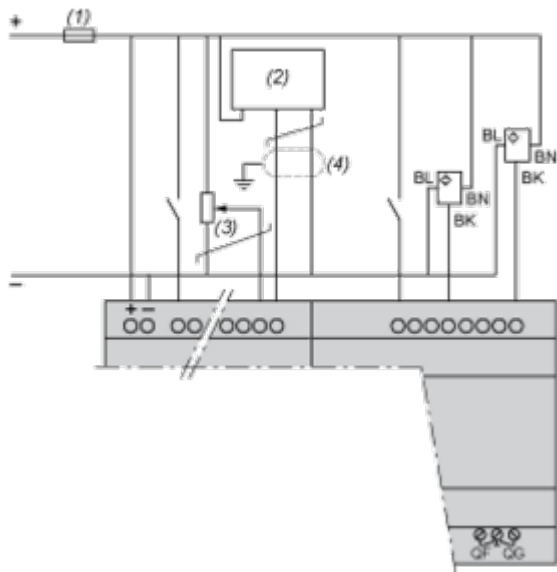


- (1) 1 A quick-blow fuse or circuit-breaker.
- (2) Ca: Analog sensor / Ta: Analog transmitter.
- (3) Recommended values: 2.2 kΩ / 0.5 W (10 kΩ max.)
- (4) Screened cables, maximum length 10 m / 32.80 feet.
- (5) Analog inputs according to Zelio Logic smart relay type (see table below)
- (6) 0-10 Vdc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

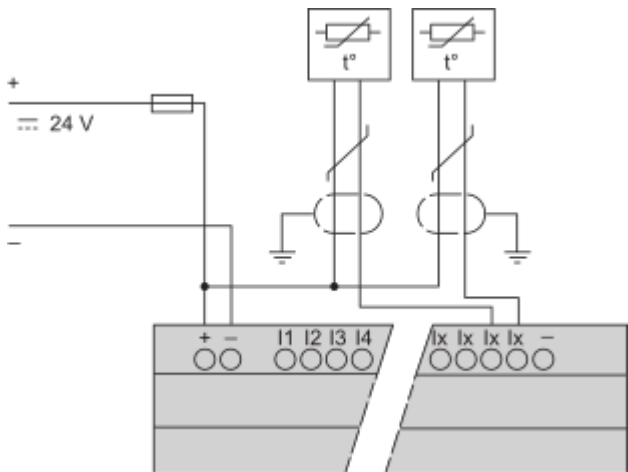
SR3B...JD + SR3XT...JD, SR3B...BD + SR3XT...BD



- (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



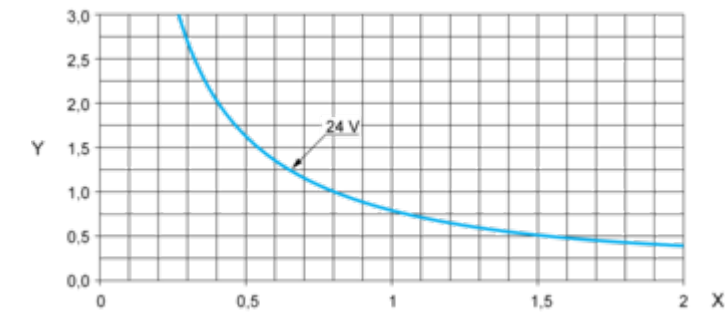
NOTE: Ix = IB...IG

Performance Curves

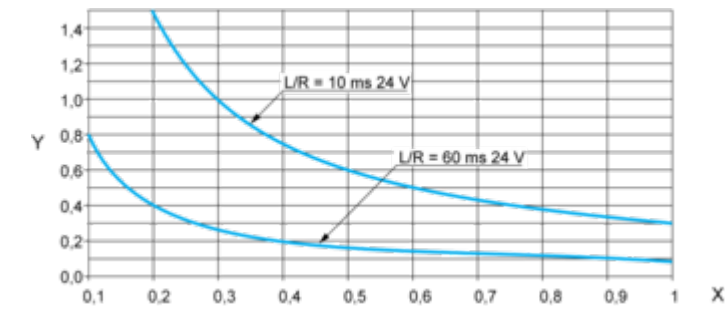
Compact and Modular Smart Relays

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).

Technical Illustration

Dimensions

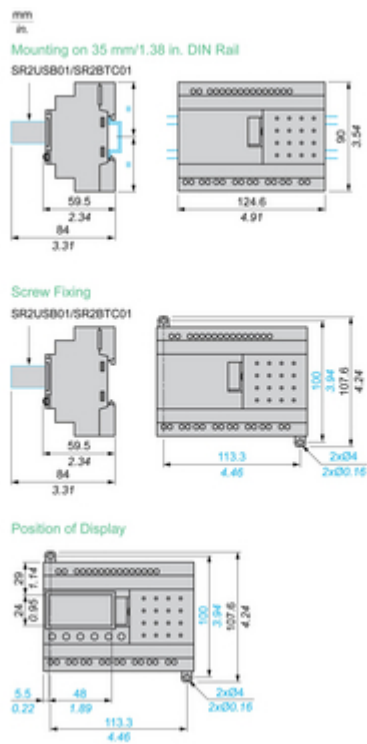


Image of product / Alternate images

Alternative

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