SR2B201BD
compact smart relay Zelio Logic - 20 I O - 24 V DC - clock - display

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: 6 W without extension
Reverse polarity protection: With
Discrete input number: 12 conforming to EN/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)

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.

Apr 10, 2020
### Input Compatibility
- <= 0.75 mA (IB...IG used as discrete input circuit)

### Analogue Input Number
- 3-wire proximity sensors PNP for discrete input
- 6

### Analogue Input Type
- Common mode

### Analogue Input Range
- 0...24 V
- 0...10 V

### 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
- 8 relay

### Output Voltage Limits
- 24...250 V AC (relay output)
- 5...30 V DC (relay output)

### Contacts Type and Composition
- NO for relay output

### Output Thermal Current
- 8 A for all 8 outputs for relay output

### Electrical Durability
- AC-12: 500000 cycles at 230 V, 1.5 A for relay output conforming to EN/IEC 60947-5-1
- AC-15: 500000 cycles at 230 V, 0.9 A for relay output conforming to EN/IEC 60947-5-1
- DC-12: 500000 cycles at 24 V, 1.5 A for relay output conforming to EN/IEC 60947-5-1
- DC-13: 500000 cycles at 24 V, 0.8 A for relay output conforming to EN/IEC 60947-5-1

### Switching Capacity in mA
- >= 10 mA at 12 V (relay output)

### Operating Rate in Hz
- 0.1 Hz (at le) for relay output
- 10 Hz (no load) for relay output

### Mechanical Durability
- 10000000 cycles for relay output

### [Uimp] Rated Impulse Withstand Voltage
- 4 kV EN/IEC 60947-1 and EN/IEC 60664-1

### Clock
- With

### Response Time
- 10 ms (from state 0 to state 1) for relay output
- 5 ms (from state 1 to state 0) for relay output

### Connections - Terminals
- Screw terminals, 1 x 0.2...1 x 2.5 mm² (AWG 25...AWG 14) semi-solid
- Screw terminals, 1 x 0.2...1 x 2.5 mm² (AWG 25...AWG 14) solid
- Screw terminals, 1 x 0.25...1 x 2.5 mm² (AWG 24...AWG 14) flexible with cable end
- Screw terminals, 2 x 0.2...2 x 1.5 mm² (AWG 24...AWG 16) solid
- Screw terminals, 2 x 0.25...2 x 0.75 mm² (AWG 24...AWG 18) flexible with cable end

### Tightening Torque
- 0.5 N.m

### Overvoltage Category
- III conforming to EN/IEC 60664-1

### Net Weight
- 0.38 kg

### Environment

#### Immunity to Microbreaks
- 10 ms

#### Product Certifications
- GOST
- UL
- CSA
- C-Tick
- GL

#### Standards
- EN/IEC 61000-4-2 level 3
- EN/IEC 61000-4-5
- EN/IEC 60068-2-27 Ea
- EN/IEC 61000-4-12
- EN/IEC 61000-4-3
- EN/IEC 60068-2-6 Fc
- EN/IEC 61000-4-6 level 3
- EN/IEC 61000-4-4 level 3
- EN/IEC 61000-4-11

#### IP Degree of Protection
- IP20 (terminal block) conforming to IEC 60529
- IP40 (front panel) conforming to IEC 60529
<table>
<thead>
<tr>
<th>Environmental characteristic</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMC directive conforming to EN/IEC 61000-6-2</td>
<td></td>
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<tr>
<td>EMC directive conforming to EN/IEC 61000-6-3</td>
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<tr>
<td>EMC directive conforming to EN/IEC 61000-6-4</td>
<td></td>
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<tr>
<td>EMC directive conforming to EN/IEC 61131-2 zone B</td>
<td></td>
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<tr>
<td>Low voltage directive conforming to EN/IEC 61131-2</td>
<td></td>
</tr>
<tr>
<td>Disturbance radiated/conducted</td>
<td>Class B conforming to EN 55022-11 group 1</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>2 conforming to EN/IEC 61131-2</td>
</tr>
<tr>
<td>Ambient air temperature for operation</td>
<td>-20…40 °C in non-ventilated enclosure conforming to IEC 60068-2-1 and IEC 60068-2-2</td>
</tr>
<tr>
<td></td>
<td>-20…55 °C conforming to IEC 60068-2-1 and IEC 60068-2-2</td>
</tr>
<tr>
<td>Ambient air temperature for storage</td>
<td>-40…70 °C</td>
</tr>
<tr>
<td>Operating altitude</td>
<td>2000 m</td>
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<tr>
<td>Maximum altitude transport</td>
<td>3048 m</td>
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<tr>
<td>Relative humidity</td>
<td>95 % without condensation or dripping water</td>
</tr>
</tbody>
</table>

**Offer Sustainability**

- **Sustainable offer status**: Green Premium product
- **REACH Regulation**: REACH Declaration
- **EU RoHS Directive**: Pro-active compliance (Product out of EU RoHS legal scope) REACH Declaration
- **Mercury free**: Yes
- **RoHS exemption information**: Yes
- **China RoHS Regulation**: China RoHS declaration
- **Environmental Disclosure**: Product Environmental Profile
- **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

**Contractual warranty**

- **Warranty**: 18 months