## Product datasheet

Specifications
Yereen
Premium

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

SR3B261BD

| Main |  |
| :--- | :--- |
| Range Of Produc | Zelio Logic |
| Product Or Component Type | Modular smart relay |

Complementary

| Local Display | With |
| :---: | :---: |
| Number Or Control Scheme Lines | $0 . .500$ with FBD programming |
|  | 0... 240 with ladder programming |
| Cycle Time | $6 . . .90 \mathrm{~ms}$ |
| Backup Time | 10 years at $25^{\circ} \mathrm{C}$ |
| Clock Drift | $\begin{aligned} & 12 \mathrm{~min} / y \text { year at } 0 \ldots . .55^{\circ} \mathrm{C} \\ & 6 \mathrm{~s} / \text { month at } 25^{\circ} \mathrm{C} \end{aligned}$ |
| 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) 300 mA (with extensions) |
| Power Dissipation In W | 10 W with extensions 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> $>=15 \mathrm{~V}$ 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 | $>=1.2 \mathrm{~mA}$ (IB...IG used as discrete input circuit) <br> $>=2.2 \mathrm{~mA}$ (I1...IA and IH...IR discrete input circuit) |
| Current State 0 Guaranteed | $<=0.5 \mathrm{~mA}$ (IB...IG used as discrete input circuit) $<=0.75 \mathrm{~mA}$ (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 |


| Analogue Input Range | $\begin{aligned} & 0 . . .10 \mathrm{~V} \\ & 0 . . .24 \mathrm{~V} \end{aligned}$ |
| :---: | :---: |
| Temperature Probe Type | NTC 10 k at $25^{\circ} \mathrm{C}$ <br> NTC 1000 k at $25^{\circ} \mathrm{C}$ <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 $25^{\circ} \mathrm{C}$ for analogue input circuit <br> $+/-6.2 \%$ at $55^{\circ} \mathrm{C}$ for analogue input circuit |
| Repeat Accuracy | $+/-2 \%$ at $55^{\circ} \mathrm{C}$ 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 | 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 8 A for 8 outputs for relay output |
| Electrical Durability | AC-12: 500000 cycles at $230 \mathrm{~V}, 1.5 \mathrm{~A}$ for relay output conforming to IEC 60947-5-1 AC-15: 500000 cycles at $230 \mathrm{~V}, 0.9 \mathrm{~A}$ for relay output conforming to IEC 60947-5-1 DC-12: 500000 cycles at $24 \mathrm{~V}, 1.5 \mathrm{~A}$ for relay output conforming to IEC 60947-5-1 DC-13: 500000 cycles at $24 \mathrm{~V}, 0.6 \mathrm{~A}$ 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 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 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 5 ms (from state 1 to state 0 ) for relay output |
| Connections - Terminals | Screw terminals, $1 \times 0.2 \ldots 1 \times 2.5 \mathrm{~mm}^{2}$ (AWG 25...AWG 14) semi-solid <br> Screw terminals, $1 \times 0.2 \ldots .1 \times 2.5 \mathrm{~mm}^{2}$ (AWG $25 \ldots$..AWG 14) solid <br> Screw terminals, $1 \times 0.25 \ldots 1 \times 2.5 \mathrm{~mm}^{2}$ (AWG $24 \ldots$ AWG 14) flexible with cable end <br> Screw terminals, $2 \times 0.2 \ldots 2 \times 1.5 \mathrm{~mm}^{2}$ (AWG $24 \ldots$ AWG 16) solid <br> Screw terminals, $2 \times 0.25 \ldots 2 \times 0.75 \mathrm{~mm}^{2}$ (AWG $24 \ldots$ AWG 18) flexible with cable end |
| Tightening Torque | 0.5 N.m |
| Overvoltage Category | III conforming to IEC 60664-1 |
| Net 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 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 | $-20 \ldots 40^{\circ} \mathrm{C}$ in non-ventilated enclosure conforming to IEC 60068-2-1 and IEC 60068-2-2 <br> $-20 \ldots 55^{\circ} \mathrm{C}$ conforming to IEC 60068-2-1 and IEC 60068-2-2 |
| Ambient Air Temperature For Storage | $-40 \ldots .70^{\circ} \mathrm{C}$ |
| 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 | 6.8 cm |
| Package 1 Width | 10.0 cm |
| Package 1 Length | 13.5 cm |
| Package 1 Weight | 381.0 g |
| Unit Type Of Package 2 | S03 |
| Number Of Units In Package 2 | 20 |
| Package 2 Height | 30.0 cm |
| Package 2 Width | 30.0 cm |
| Package 2 Length | 40.0 cm |
| Package 2 Weight | 8.094 kg |
| Contractual warranty |  |
| Warranty | 18 months |

## Sustainability Flirenum

Green Premium ${ }^{\text {TM }}$ label is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low- $\mathrm{CO}_{2}$ 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 >
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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 <br> collection and never end up in rubbish bins |
| :--- | :--- |
| Circularity Profile |  |

Dimensions Drawings

Compact and Modular Smart Relays

Mounting on $35 \mathrm{~mm} / 1.38 \mathrm{in}$. 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: $2.2 \mathrm{k} \Omega / 0.5 \mathrm{~W}$ (10 k $\Omega$ max.)
(4) Screened cables, maximum length $10 \mathrm{~m} / 32.80$ feet.
(5) Analog inputs according to Zelio Logic smart relay type (see table below)
(6) $0-10 \mathrm{Vdc}$ 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 $\cdots \cdot J D+S R 3 X T \cdots \cdots J D, S R 3 B \cdots \cdot \bullet B D+S R 3 X T \cdots \cdot \bullet B D$

(1) 1 A quick-blow fuse or circuit-breaker.
(2) Ca: Analog sensor / Ta: Analog transmitter.
(3) Recommended values: $2.2 \mathrm{k} \Omega / 0.5 \mathrm{~W}$ ( $10 \mathrm{k} \Omega$ max.)
(4) Screened cables, maximum length $10 \mathrm{~m} / 32.80$ 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, $L / R \leq 1 \mathrm{~ms}$.

DC-13 (1)


X: Current (A)
Y: Millions of operating cycles
(1) DC-13: switching electromagnets, $L / R \leq 2 \times(\mathrm{Ue} \times \mathrm{le}$ ) in ms , Ue: rated operational voltage, le: 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).

