## Product data sheet

Characteristics

SR3B101BD
modular smart relay Zelio Logic－10 I O－24 V DC －clock－display

Product availability ：Stock－Normally stocked in distribution facility

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| :---: | :---: | :---: |
| 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 $0 . . .240$ with ladder programming | 寺 |
| Cycle time | $6 . . .90 \mathrm{~ms}$ |  |
| Backup time | 10 yearsat $77^{\circ} \mathrm{F}\left(25^{\circ} \mathrm{C}\right)$ |  |
| Clock drift | $\begin{aligned} & 6 \mathrm{~s} / \text { monthat } 77^{\circ} \mathrm{F}\left(25^{\circ} \mathrm{C}\right) \\ & 12 \mathrm{~min} / \text { yearat } 32 \ldots . .131^{\circ} \mathrm{F}\left(0 . . .55^{\circ} \mathrm{C}\right) \end{aligned}$ | \％ |
| Checks | Program memory on each power up | \％ |
| ［Us］rated supply voltage | 24 V | $\stackrel{8}{0}$ |
| Supply voltage limits | $19.2 \ldots 30 \mathrm{~V}$ | 항 |
| Supply current | 100 mA （with extensions） 100 mA （without extension） | － |
| Power dissipation in W | 3 W without extension 8 W with extensions | \％ |
| Reverse polarity protection | With |  |
| Discrete input number | 6 conforming to EN／IEC 61131－2 type 1 | \％ |
| Discrete input type | Resistive | ． |
| Discrete input voltage | 24 V DC | 항 |
| Discrete input current | 4 mA | ． |
| Counting frequency | 1 kHzfor discrete input |  |
| Voltage state 1 guaranteed | ＞＝ 15 Vfor I1．．．IA and IH．．．IR discrete input circuit $>=15$ Vfor IB．．．IG used as discrete input circuit | \％ |
| Voltage state 0 guaranteed | $<=5 \mathrm{~V}$ <br> ＜＝ 5 Vfor I1．．．IA and IH．．．IR discrete input circuit <br> ＜＝ 5 Vfor IB．．．IG used as discrete input circuit | ． |


| Current state 1 guaranteed | >= 1.2 mA for IB...IG used as discrete input circuit $>=2.2 \mathrm{~mA}$ for I1...IA and IH...IR discrete input circuit |
| :---: | :---: |
| Current state 0 guaranteed | <= 0.5 mA for IB...IG used as discrete input circuit <br> $<=0.75 \mathrm{~mA}$ for I1...IA and IH...IR discrete input circuit |
| Input compatibility | 3 -wire proximity sensors PNP (discrete input) |
| Analogue input number | 4 |
| Analogue input type | Common mode |
| Analogue input range | $\begin{aligned} & 0 \ldots . .10 \mathrm{~V} \\ & 0 \ldots 24 \mathrm{~V} \end{aligned}$ |
| Maximum permissible voltage | 30 V (analogue input circuit) |
| Analogue input resolution | 8 bits |
| LSB value | 39 mV (analogue input circuit) |
| Conversion time | Smart relay cycle time analogue input circuit |
| Conversion error | $+/-5 \%$ at $77^{\circ} \mathrm{F}\left(25^{\circ} \mathrm{C}\right)$ for analogue input circuit <br> $+/-6.2 \%$ at $131^{\circ} \mathrm{F}\left(55^{\circ} \mathrm{C}\right)$ for analogue input circuit |
| Repeat accuracy | +/- 2 \%at $131{ }^{\circ} \mathrm{F}\left(55^{\circ} \mathrm{C}\right)$ for analogue input circuit |
| Operating distance | 10 m between stations, with screened cable (sensor not isolated) analogue input circuit |
| Input impedance | 12 kOhm (IB...IG used as analogue input circuit) <br> 12 kOhm (IB...IG used as discrete input circuit) <br> 7.4 kOhm (I1...IA and IH...IR discrete input circuit) |
| Number of outputs | 4 relay output(s) |
| Output voltage limits | 24... 250 V AC (relay output) <br> 5... 30 V DC (relay output) |
| Contacts type and composition | NO relay output |
| Output thermal current | 8 A for all 4 outputs (relay output) |
| Electrical durability | 500000 cycles AC-12at $230 \mathrm{~V}, 1.5$ Afor relay output conforming to EN/IEC 60947-5-1 500000 cycles AC-15at $230 \mathrm{~V}, 0.9$ Afor relay output conforming to EN/IEC 60947-5-1 500000 cycles DC-12at $24 \mathrm{~V}, 1.5$ Afor relay output conforming to EN/IEC 60947-5-1 500000 cycles DC-13at $24 \mathrm{~V}, 0.6$ Afor relay output conforming to EN/IEC 60947-5-1 |
| Switching capacity in mA | >= 10 mAat 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 (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 ) relay output 5 ms (from state 1 to state 0 ) relay output |
| Connections - terminals | Screw terminals, clamping capacity: $1 \times 0.2 \ldots 1 \times 2.5 \mathrm{~mm}^{2}$ AWG $25 \ldots$...AWG 14 semi-solid <br> Screw terminals, clamping capacity: $1 \times 0.2 \ldots 1 \times 2.5 \mathrm{~mm}^{2}$ AWG 25 ...AWG 14 solid <br> Screw terminals, clamping capacity: $1 \times 0.25 \ldots 1 \times 2.5 \mathrm{~mm}^{2}$ AWG $24 \ldots$...AWG 14 flexible with cable end Screw terminals, clamping capacity: $2 \times 0.2 \ldots 2 \times 1.5 \mathrm{~mm}^{2}$ AWG $24 \ldots$...AWG 16 solid Screw terminals, clamping capacity: $2 \times 0.25 \ldots 2 \times 0.75 \mathrm{~mm}^{2}$ AWG $24 \ldots$...AWG 18 flexible with cable end |
| Tightening torque | $4.42 \mathrm{lbf.in} \mathrm{(0.5} \mathrm{N.m)}$ |
| Overvoltage category | III conforming to EN/IEC 60664-1 |
| Product weight | 0.55 lb (US) ( 0.25 kg ) |

## Environment

| Immunity to microbreaks | $<=1 \mathrm{~ms}$ |
| :--- | :--- |
| Product certifications | C-Tick |
|  | GL |
|  | GOST |
|  | CSA |
| UL |  |
| Standards | EN/IEC 61000-4-3 |
|  | EN/IEC 60068-2-6 Fc |
|  | EN/IEC 61000-4-12 |
|  | EN/IEC 61000-4-5 |
|  | EN/IEC 61000-4-6 level 3 |
|  | EN/IEC 61000-4-4 level 3 |
|  | EN/IEC 60068-2-27 Ea |


|  | EN/IEC 61000-4-11 <br>  <br> EN/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 EN/IEC 61000-6-2 |
|  | EMC directive conforming to EN/IEC 61000-6-3 |
|  | EMC directive conforming to EN/IEC 61000-6-4 |
|  | EMC directive conforming to EN/IEC 61131-2 zone B |
|  | Low voltage directive conforming to EN/IEC 61131-2 |
| Disturbance radiated/conducted | Class B conforming to EN 55022-11 group 1 |
| Pollution degree | 2 conforming to EN/IEC 61131-2 |
| Ambient air temperature for operation | $-4 \ldots 104^{\circ} \mathrm{F}\left(-20 \ldots . .40^{\circ} \mathrm{C}\right)$ in non-ventilated enclosure conforming to IEC 60068-2-1 and IEC 60068-2-2 |
|  | $-4 \ldots 131^{\circ} \mathrm{F}\left(-20 \ldots . .55^{\circ} \mathrm{C}\right)$ conforming to IEC 60068-2-1 and IEC 60068-2-2 |
| Ambient air temperature for storage | $-40 \ldots 158^{\circ} \mathrm{F}\left(-40 \ldots . .70{ }^{\circ} \mathrm{C}\right)$ |
| Operating altitude | $6561.68 \mathrm{ft}(2000 \mathrm{~m})$ |
| Altitude transport | $<=10000 \mathrm{ft}(3048 \mathrm{~m})$ |
| Relative humidity | $95 \%$ without condensation or dripping water |

Ordering and shipping details

| Category | $22378-$ SR2,3 ZELIO 2 RELAYS |
| :--- | :--- |
| Discount Schedule | I |
| GTIN | 00785901693963 |
| Nbr. of units in pkg. | 1 |
| Package weight(Lbs) | 0.53000000000000003 |
| Returnability | Y |
| Country of origin | FR |

Contractual warranty
Warranty period 18 months

