



### 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      | 12 V   |
| Supply voltage limits          | 10.4...14.4 V  |
| Maximum supply current         | 250 MA (without extension)<br>400 MA (with extensions)   |
| Power dissipation in W         | 3 W without extension<br>5 W with extensions   |
| Reverse polarity protection    | With   |
| Discrete input number          | 16 conforming to EN/IEC 61131-2 type 1   |
| Discrete input type            | Resistive  |
| Discrete input voltage         | 12 V DC  |
| Discrete input current         | 4 MA   |
| Counting frequency             | 1 KHz for discrete input   |
| Voltage state 1 guaranteed     | $\geq 7$ V for IB...IG used as discrete input circuit<br>$\geq 5.6$ V for I1...IA and IH...IR discrete input circuit |
| Voltage state 0 guaranteed     | $\leq 3$ V for IB...IG used as discrete input circuit<br>$\leq 2.4$ V for I1...IA and IH...IR discrete input circuit |
| Current state 1 guaranteed     | $\geq 2$ mA (I1...IA and IH...IR discrete input circuit)<br>$\geq 0.5$ mA (IB...IG used as discrete input circuit)   |
| Current state 0 guaranteed     | $\leq 0.2$ mA (IB...IG used as discrete input circuit)<br>$\leq 0.9$ 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           | 0...12 V<br>0...10 V   |
| Maximum permissible voltage    | 14.4 V for analogue input circuit  |
| Analogue input resolution      | 8 bits at maximum voltage  |
| LSB value                      | 39 mV for analogue input circuit   |

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|--|--|
| 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                        | 14 kOhm for IB...IG used as analogue input circuit<br>14 kOhm for IB...IG used as discrete input circuit<br>2.7 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 EN/IEC 60947-5-1<br>AC-15: 500000 cycles at 230 V, 0.9 A for relay output conforming to EN/IEC 60947-5-1<br>DC-12: 500000 cycles at 24 V, 1.5 A for relay output conforming to EN/IEC 60947-5-1<br>DC-13: 500000 cycles at 24 V, 0.6 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 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 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 mm <sup>2</sup> (AWG 25...AWG 14) semi-solid<br>Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> (AWG 25...AWG 14) solid<br>Screw terminals, 1 x 0.25...1 x 2.5 mm <sup>2</sup> (AWG 24...AWG 14) flexible with cable end<br>Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> (AWG 24...AWG 16) solid<br>Screw terminals, 2 x 0.25...2 x 0.75 mm <sup>2</sup> (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                             | 0.4 Kg   |

## Environment

|                                |   |
|--------------------------------|---|
| Immunity to microbreaks        | 1 Ms repeated 20 times  |
| Product certifications         | C-Tick<br>UL<br>CSA<br>GL<br>GOST   |
| Standards                      | EN/IEC 60068-2-6 Fc<br>EN/IEC 61000-4-12<br>EN/IEC 61000-4-3<br>EN/IEC 61000-4-6 level 3<br>EN/IEC 61000-4-5<br>EN/IEC 61000-4-11<br>EN/IEC 61000-4-2 level 3<br>EN/IEC 60068-2-27 Ea<br>EN/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 EN/IEC 61000-6-2<br>EMC directive conforming to EN/IEC 61000-6-3<br>EMC directive conforming to EN/IEC 61000-6-4<br>EMC directive conforming to EN/IEC 61131-2 zone B<br>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 | -20...40 °C in non-ventilated enclosure conforming-<br>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

|                  |          |
|------------------|----------|
| Package 1 Weight | 0.380 Kg |
| Package 1 Height | 0.680 Dm |
| Package 1 width  | 1.000 Dm |
| Package 1 Length | 1.330 Dm |

### Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>                              |
| Mercury free               | Yes   |
| RoHS exemption information | <a href="#">Yes</a>   |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>  |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>   |
| Circularity Profile        | <a href="#">End Of Life Information</a>   |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| PVC free                   | Yes   |

### Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
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Product Life Status : **Commercialised**