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Product data sheet
Characteristics

SR2B201JD
compact smart relay Zelio Logic - 20 I O - 12 VDC - 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 ladder 0…500 FBD
Cycle time	6…90 ms
Backup time	10 years 77 °F (25 °C)
Clock drift	12 min/year 32…131 °F (0…55 °C) 6 s/month 77 °F (25 °C)
Checks	Program memory on each power up
[Us] rated supply voltage	12 V DC
Supply voltage limits	10.4…14.4 V
Maximum supply current	200 mA without extension)
Power dissipation in W	2.5 W without extension
Reverse polarity protection	With
Discrete input number	12 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 discrete input
Voltage state 1 guaranteed	>= 7 V IB...IG used as discrete input circuit >= 5.6 V I1...IA and IH...IR discrete input circuit
Voltage state 0 guaranteed	<= 3 V IB...IG used as discrete input circuit <= 2.4 V I1...IA and IH...IR discrete input circuit
Current state 1 guaranteed	>= 2 mA I1...IA and IH...IR discrete input circuit) >= 0.5 mA IB...IG used as discrete input circuit)
Current state 0 guaranteed	<= 0.9 mA I1...IA and IH...IR discrete input circuit) <= 0.9 mA IB...IG used as discrete input circuit)
Input compatibility	3-wire proximity sensors PNP discrete input
Analogue input number	6
Analogue input type	Common mode
Analogue input range	0...10 V 0...12 V
Maximum permissible voltage	14.4 V analogue input circuit
Analogue input resolution	8 bits at maximum voltage
LSB value	39 mV analogue input circuit
Conversion time	Smart relay cycle time analogue input circuit

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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.
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Conversion error	+/- 5 % 77 °F (25 °C) analogue input circuit +/- 6.2 % 131 °F (55 °C) analogue input circuit
Repeat accuracy	+/- 2 % 131 °F (55 °C) analogue input circuit
Operating distance	10 m between stations, with screened cable (sensor not isolated) analogue input circuit
Input impedance	14 kOhm IB...IG used as analogue input circuit 14 kOhm IB...IG used as discrete input circuit 2.7 kOhm 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 relay output
Output thermal current	8 A for all 8 outputs relay output
Electrical durability	AC-12 500000 cycles 230 V, 1.5 A relay output EN/IEC 60947-5-1 AC-15 500000 cycles 230 V, 0.9 A relay output EN/IEC 60947-5-1 DC-12 500000 cycles 24 V, 1.5 A relay output EN/IEC 60947-5-1 DC-13 500000 cycles 24 V, 0.6 A relay output EN/IEC 60947-5-1
Switching capacity in mA	>= 10 mA 12 V relay output)
Operating rate in Hz	0.1 Hz at Ie)relay output 10 Hz no load)relay output
Mechanical durability	10000000 cycles 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)relay output 5 ms from state 1 to state 0)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	4.43 lbf.in (0.5 N.m)
Overvoltage category	III EN/IEC 60664-1
Net Weight	0.84 lb(US) (0.38 kg)

Environment

Immunity to microbreaks	10 ms repeated 20 times
Product certifications	C-tick GL UL CSA GOST
Standards	EN/IEC 60068-2-6 Fc EN/IEC 61000-4-11 EN/IEC 61000-4-5 EN/IEC 61000-4-2 level 3 EN/IEC 61000-4-6 level 3 EN/IEC 61000-4-4 level 3 EN/IEC 61000-4-12 EN/IEC 60068-2-27 Ea EN/IEC 61000-4-3
IP degree of protection	IP20 IEC 60529 terminal block) IP40 IEC 60529 front panel)
Environmental characteristic	EMC directive EN/IEC 61000-6-2 EMC directive EN/IEC 61000-6-3 EMC directive EN/IEC 61000-6-4 EMC directive EN/IEC 61131-2 zone B Low voltage directive EN/IEC 61131-2
Disturbance radiated/conducted	Class B EN 55022-11 group 1
Pollution degree	2 EN/IEC 61131-2
Ambient air temperature for operation	-4…104 °F (-20…40 °C) in non-ventilated enclosure IEC 60068-2-1 and IEC 60068-2-2 -4…131 °F (-20…55 °C) IEC 60068-2-1 and IEC 60068-2-2
Ambient air temperature for storage	-40…158 °F (-40…70 °C)
Operating altitude	6561.68 ft (2000 m)

Maximum altitude transport	10000.00 ft (3048 m)
Relative humidity	95 % without condensation or dripping water

Ordering and shipping details

Category	22378 - SR2,3 ZELIO 2 RELAYS
Discount Schedule	I
GTIN	00785901422655
Nbr. of units in pkg.	1
Package weight(Lbs)	0.8 lb(US) (0.36 kg)
Returnability	Yes
Country of origin	FR

Packing Units

Unit Type of Package 1	PCE
Package 1 Height	2.68 in (6.8 cm)
Package 1 width	3.94 in (10 cm)
Package 1 Length	5.31 in (13.5 cm)
Unit Type of Package 2	S03
Number of Units in Package 2	20
Package 2 Weight	17.22 lb(US) (7.811 kg)
Package 2 Height	11.81 in (30 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)

Offer Sustainability

Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS 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.
PVC free	Yes

Contractual warranty

Warranty	18 months

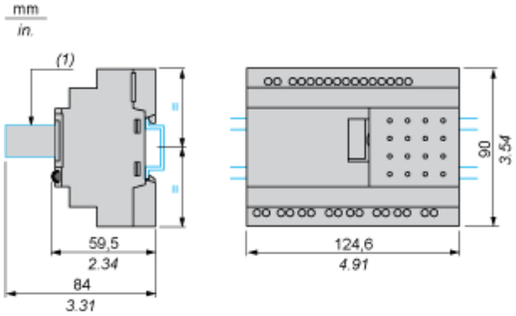
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Product data sheet
Dimensions Drawings

SR2B201JD

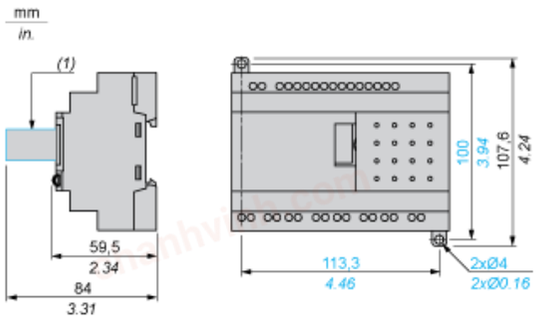
Compact and Modular Smart Relays

Mounting on 35 mm/1.38 in. DIN Rail



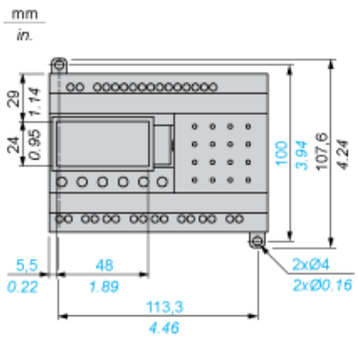
(1) With SR2USB01 or SR2BTC01

Screw Fixing (Retractable Lugs)



(1) With SR2USB01 or SR2BTC01

Position of Display



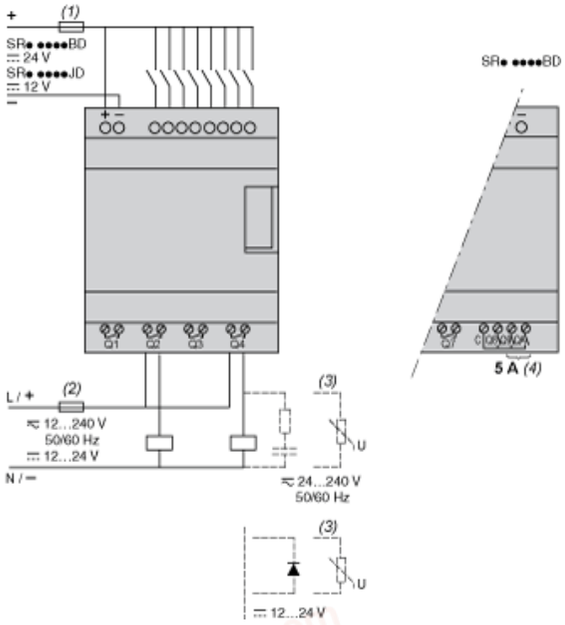
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Connections and Schema

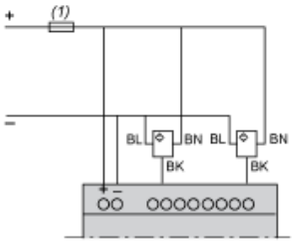
Compact and Modular Smart Relays

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.

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Product data sheet SR2B201JD
Performance Curves

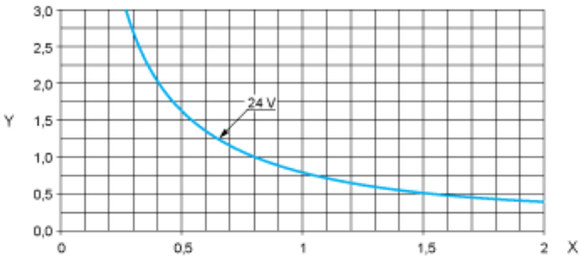
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Compact and Modular Smart Relays

Electrical Durability of Relay Outputs

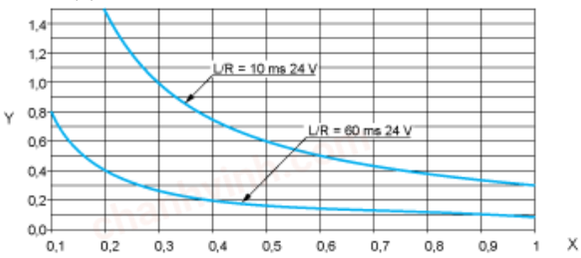
(in millions of operating cycles, conforming to IEC/EN 60947-5-1)

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 ≤ 1 ms.

DC-13 (1)



X: Current (A)
Y: Millions of operating cycles
(1) DC-13: switching electromagnets, L/R ≤ 2 x (Ue x Ie) in ms, Ue: rated operational voltage, Ie: 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).

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