Product data sheet

Specifications



modular smart relay, Zelio Logic SR2 SR3, 26 IO, 24V DC, clock, display, 10 relay outputs

SR3B261BD

Main

Range Of Product	Zelio Logic
Product Or Component Type	Modular smart relay

Complementary

Complementary	
Local Display	With
Number Or Control Scheme Lines	0500 with FBD programming 0240 with ladder programming
Cycle Time	690 ms
Backup Time	10 years at 25 °C
Clock Drift	12 min/year at 055 °C 6 s/month at 25 °C
Checks	Program memory on each power up
[Us] Rated Supply Voltage	24 V
Supply Voltage Limits	19.230 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 I1IA and IHIR discrete input circuit >= 15 V for IBIG used as discrete input circuit
Voltage State 0 Guaranteed	<= 5 V for I1IA and IHIR discrete input circuit <= 5 V for IBIG used as discrete input circuit
Current State 1 Guaranteed	>= 1.2 mA (IBIG used as discrete input circuit) >= 2.2 mA (I1IA and IHIR discrete input circuit)
Current State 0 Guaranteed	<= 0.5 mA (IBIG used as discrete input circuit) <= 0.75 mA (I1IA and IHIR 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	010 V	
	024 V	
Temperature Probe Type	NTC 10k at 25 °C	
	NTC 1000k at 25 °C	
	KTY81 210/220/221/222/250	
	Pt 500	
Maximum Permissible Voltage	30 V for analogue input circuit	
Analogue Input Resolution	8 bits	
_sb 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	
nput Impedance	12 kOhm for IBIG used as analogue input circuit	
	12 kOhm for IBIG used as discrete input circuit	
	7.4 kOhm for I1IA and IHIR discrete input circuit	
Number Of Outputs	10 relay	
Dutput Voltage Limits	24250 V AC (relay output)	
. 2	530 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 V, 1.5 A for relay output conforming to IEC 60947-5-1	
-	AC-15: 500000 cycles at 230 V, 0.9 A for relay output conforming to IEC 60947-5-1	
	DC-12: 500000 cycles at 24 V, 1.5 A for relay output conforming to IEC 60947-5-1	
	DC-13: 500000 cycles at 24 V, 0.6 A for relay output conforming to IEC 60947-5-1	
witching 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	1000000 cycles for relay output	
[Uimp] Rated Impulse Withstand /oltage	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 0 to state 1) for relay output	
Connections - Terminals	Screw terminals, 1 x 0.21 x 2.5 mm ² (AWG 25AWG 14) semi-solid	
	Screw terminals, 1 x 0.21 x 2.5 mm ² (AWG 25AWG 14) solid	
	Screw terminals, 1 x 0.251 x 2.5 mm ² (AWG 24AWG 14) flexible with cable end	
	Screw terminals, 2 x 0.22 x 1.5 mm ² (AWG 24AWG 16) solid Screw terminals, 2 x 0.252 x 0.75 mm ² (AWG 24AWG 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	
	C-Tick	
	CSA	
	UL	
	GOST	

Standards IEC 61000-4-2 level 3 IEC 61000-4-5 IEC 61000-4-5 IEC 61000-4-6 level 3 IEC 61000-4-3 IEC 60068-2-27 Ea IEC 61000-4-12 IEC 60068-2-6 Fc 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 EMC directive conforming to IEC 61000-6-3 EMC directive conforming to IEC 61000-6-4 EMC directive conforming to IEC 61131-2 zone B 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 -2040 °C in non-ventilated enclosure conforming to IEC 60068-2-1 and IEC 60068-2-2 -2055 °C conforming to IEC 60068-2-1 and IEC 60068-2-2 Ambient Air Temperature For Operating Altitude 2000 m		
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IEC 61000-4-3 IEC 60068-2-27 Ea IEC 61000-4-12 IEC 60068-2-6 Fc IEC 61000-4-4 level 3 Ip Degree Of Protection IP20 (terminal block) conforming to IEC 60529 IP40 (front panel) conforming to IEC 61000-6-2 EMC directive conforming to IEC 61000-6-3 EMC directive conforming to IEC 61000-6-3 EMC directive conforming to IEC 61131-2 zone B 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 -2040 °C in non-ventilated enclosure conforming to IEC 60068-2-1 and IEC 60068-2-2 -2055 °C conforming to IEC 60068-2-1 and IEC 60068-2-2		IEC 61000-4-6 level 3
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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 -2040 °C in non-ventilated enclosure conforming to IEC 60068-2-1 and IEC 60068-2-2 -2055 °C conforming to IEC 60068-2-2 Ambient Air Temperature For Storage -4070 °C		5
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 -2040 °C in non-ventilated enclosure conforming to IEC 60068-2-1 and IEC 60068-2-2 -2055 °C conforming to IEC 60068-2-1 and IEC 60068-2-2 Ambient Air Temperature For Storage -4070 °C		•
Pollution Degree 2 conforming to IEC 61131-2 Ambient Air Temperature For Operation -2040 °C in non-ventilated enclosure conforming to IEC 60068-2-1 and IEC 60068-2-2 -2055 °C conforming to IEC 60068-2-2 Ambient Air Temperature For Storage -4070 °C		
Ambient Air Temperature For Operation -2040 °C in non-ventilated enclosure conforming to IEC 60068-2-1 and IEC 60068-2-2 -2055 °C conforming to IEC 60068-2-1 and IEC 60068-2-2 Ambient Air Temperature For Storage -4070 °C	Disturbance Radiated/Conducted	Class B conforming to EN 55022-11 group 1
Operation 60068-2-2 -2055 °C conforming to IEC 60068-2-1 and IEC 60068-2-2 Ambient Air Temperature For Storage -4070 °C	Pollution Degree	2 conforming to IEC 61131-2
Ambient Air Temperature For -4070 °C		-2040 °C in non-ventilated enclosure conforming to IEC 60068-2-1 and IEC
Ambient Air Temperature For -4070 °C Storage	Operation	60068-2-2
Storage		-2055 °C conforming to IEC 60068-2-1 and IEC 60068-2-2
		-4070 °C
Operating Altitude 2000 m	Storage	
	Dperating Altitude	2000 m
Maximum Altitude Transport 3048 m	laximum Altitude Transport	3048 m
Relative Humidity 95 % without condensation or dripping water	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

Green PremiumTM 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-CO₂ 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 >

Guide to assess a product's sustainability >



Eq

Transparency RoHS/REACh

Well-being performance



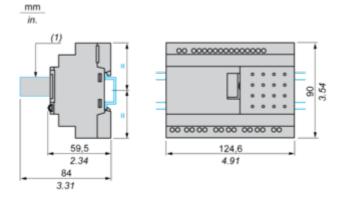
Certifications & Standards

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 collection and never end up in rubbish bins	
Circularity Profile	End of Life Information	
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	

Dimensions Drawings

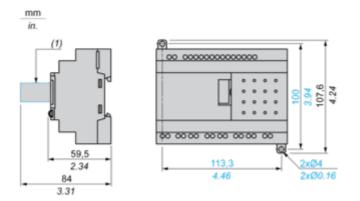
Compact and Modular Smart Relays

Mounting on 35 mm/1.38 in. DIN Rail



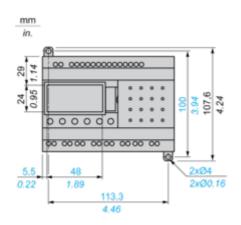
(1) With SR2USB01 or SR2BTC01

Screw Fixing (Retractable Lugs)



(1) With SR2USB01 or SR2BTC01

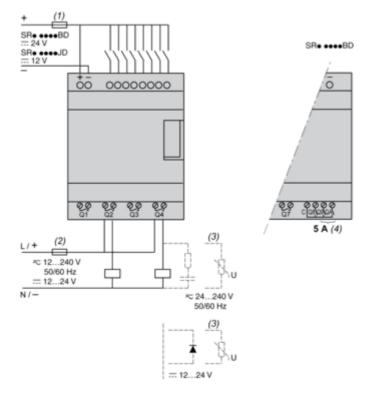
Position of Display



Connections and Schema

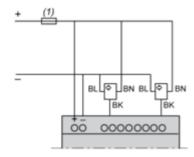
Compact and Modular Smart Relays

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).

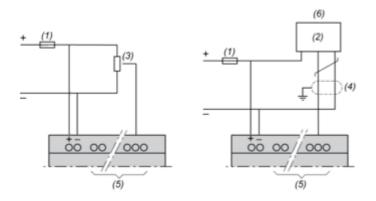
Discrete Input Used for 3-Wire Sensors



(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 k Ω / 0.5 W (10 k Ω max.)

(4) Screened cables, maximum length 10 m / 32.80 feet.

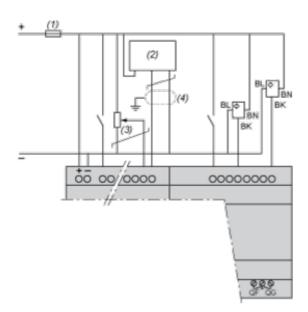
(5) Analog inputs according to Zelio Logic smart relay type (see table below)

(6) 0-10 Vdc ANALOG

Smart Relays	Analog Inputs
SR2•12••D	IBIE
SR2A201BD	IB and IC
SR2D201BD	IB and IC
SR2B20••D	IBIG
SR2E201BD	IBIG
SR3B10•BD	IBIE
SR3B26••D	IBIG

Connection of Smart Relays on DC Supply, with Discrete I/O Extension Modules

SR3B•••JD + SR3XT•••JD, SR3B•••BD + SR3XT•••BD

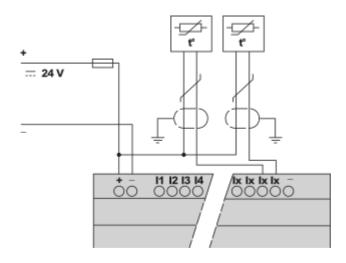


(1) 1 A quick-blow fuse or circuit-breaker.

- (2) Ca: Analog sensor / Ta: Analog transmitter.
- (3) Recommended values: 2.2 k Ω / 0.5 W (10 k Ω max.)
- (4) Screened cables, maximum length 10 m / 32.80 feet.

NOTE: QF and QG : 5 A for SR3XT141.

Connection of Thermistor Input on DC Supply



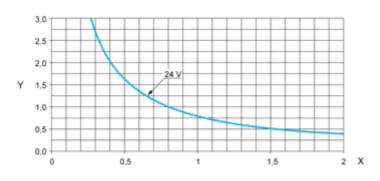
NOTE: Ix = IB...IG

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)

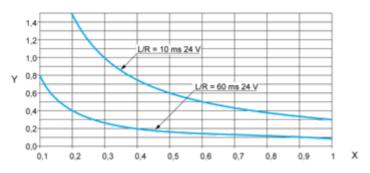


X: Current (A)

Y: Millions of operating cycles

(1) DC-12: control of resistive loads and of solid state loads isolated by opto-coupler, $L/R \le 1$ ms.

DC-13 (1)



X: Current (A)

Y: Millions of operating cycles

(1) DC-13: switching electromagnets, $L/R \le 2 \times (Ue \times Ie)$ 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).