

# Product datasheet

Specifications



## discrete I/O extension module - 14 I/O - 24 V DC - for Zelio Logic

TSI code: 389538316 SR3XT141BD

### Main

Range of product	Zelio Logic
Product or component type	Discrete I/O extension module

### Complementary

Number of control scheme lines	120 with ladder programming
Cycle time	6...90 ms
Backup time	10 years at 25 °C
Clock drift	12 min/year at 0...55 °C
Checks	Program memory on each power up
[Us] rated supply voltage	24 V DC
Supply voltage limits	19.2...30 V
Reverse polarity protection	With
Discrete input number	8 conforming to EN/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 >= 15 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 mA (IB...IG used as discrete input circuit) >= 2.2 mA (I1...IA and IH...IR discrete input circuit)
Current state 0 guaranteed	<= 0.5 mA (IB...IG used as discrete input circuit) <= 0.75 mA (I1...IA and IH...IR discrete input circuit)
Input compatibility	3-wire proximity sensors PNP for discrete input
Input impedance	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	6 relay
Output voltage limits	24...250 V AC (relay output) 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 4 outputs for relay output

<b>Electrical durability</b>	AC-15: 500000 cycles at 230 V, 0.9 A for relay output conforming to EN/IEC 60947-5-1 AC-12: 500000 cycles at 230 V, 1.5 A for relay output conforming to EN/IEC 60947-5-1 DC-13: 500000 cycles at 24 V, 0.6 A for relay output conforming to EN/IEC 60947-5-1 DC-12: 500000 cycles at 24 V, 1.5 A for relay output conforming to EN/IEC 60947-5-1
<b>Switching capacity in mA</b>	>= 10 mA at 12 V (relay output)
<b>Operating rate in Hz</b>	0.1 Hz (at Ie) for relay output 10 Hz (no load) for relay output
<b>Mechanical durability</b>	10000000 cycles for relay output
<b>[Uimp] rated impulse withstand voltage</b>	4 kV conforming to EN/IEC 60947-1 and EN/IEC 60664-1
<b>Response time</b>	10 ms (from state 0 to state 1) for relay output 5 ms (from state 1 to state 0) for relay output
<b>Connections - terminals</b>	Screw terminals, 1 x 0.25...1 x 2.5 mm <sup>2</sup> (AWG 24...AWG 14) flexible with cable end Screw terminals, 2 x 0.25...2 x 0.75 mm <sup>2</sup> (AWG 24...AWG 18) flexible with cable end Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> (AWG 25...AWG 14) semi-solid Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> (AWG 25...AWG 14) solid Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> (AWG 24...AWG 16) solid
<b>Tightening torque</b>	0.5 N.m
<b>Overvoltage category</b>	III conforming to EN/IEC 60664-1
<b>Net weight</b>	0.22 kg

## Environment

<b>Product certifications</b>	C-Tick UL GL CSA GOST
<b>Standards</b>	EN/IEC 61000-4-11 EN/IEC 61000-4-6 level 3 EN/IEC 60068-2-27 Ea EN/IEC 60068-2-6 Fc EN/IEC 61000-4-3 EN/IEC 61000-4-4 level 3 EN/IEC 61000-4-5 EN/IEC 61000-4-12 EN/IEC 61000-4-2 level 3
<b>IP degree of protection</b>	IP20 (terminal block) conforming to IEC 60529 IP40 (front panel) conforming to IEC 60529
<b>Environmental characteristic</b>	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
<b>Disturbance radiated/ conducted</b>	Class B conforming to EN 55022-11 group 1
<b>Pollution degree</b>	2 conforming to EN/IEC 61131-2
<b>Ambient air temperature for operation</b>	-20...40 °C in non-ventilated enclosure conforming to IEC 60068-2-1 and IEC 60068-2-2 -20...55 °C conforming to IEC 60068-2-1 and IEC 60068-2-2
<b>Ambient air temperature for storage</b>	-40...70 °C
<b>Operating altitude</b>	2000 m
<b>Maximum altitude transport</b>	3048 m
<b>Relative humidity</b>	95 % without condensation or dripping water

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Weight</b>	196 g
<b>Package 1 Height</b>	6.8 cm

Package 1 width	9 cm
Package 1 Length	10 cm
Unit Type of Package 2	S03
Number of Units in Package 2	30
Package 2 Weight	6.54 kg
Package 2 Height	30 cm
Package 2 width	30 cm
Package 2 Length	40 cm

## Offer Sustainability

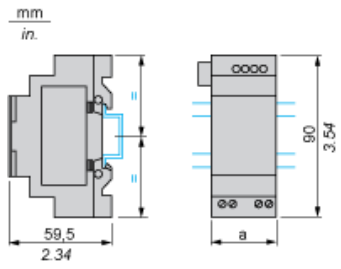
Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China 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

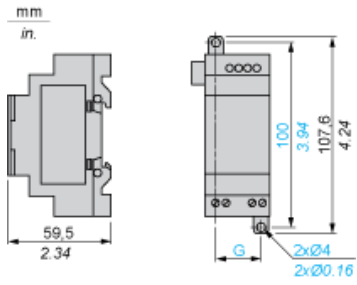
Warranty	18 months
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**I/O Extension Modules**

**Mounting on 35 mm/1.38 in. DIN Rail**



**Screw Fixing (Retractable Lugs)**

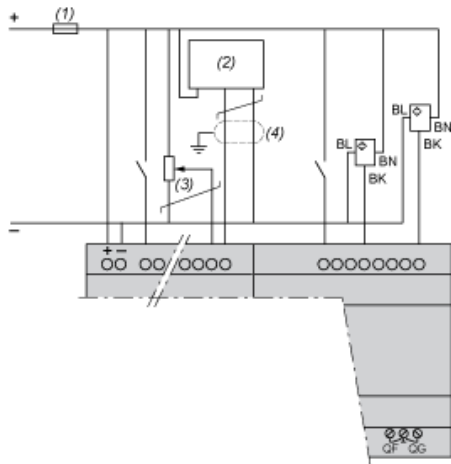


SR3	a (mm/in.)	G (mm/in.)
XT61**	35 / 1.38	25 / 0.98
XT101**	72 / 2.83	60 / 2.36
XT141**	72 / 2.83	60 / 2.36

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

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**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 $\Omega$  / 0.5 W (10 k $\Omega$  max.)
- (4) Screened cables, maximum length 10 m / 32.80 feet.

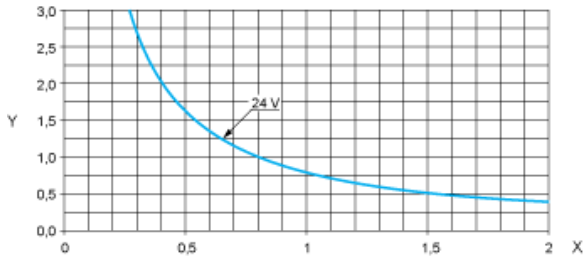
**NOTE:** QF and QG : 5 A for SR3XT141\*\*

**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)

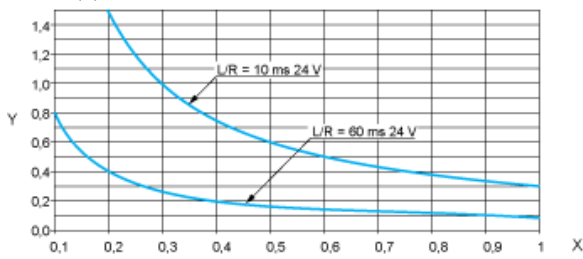


**X:** Current (A)

**Y:** Millions of operating cycles

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

DC-13 (1)



**X:** Current (A)

**Y:** Millions of operating cycles

**(1)** DC-13: switching electromagnets,  $L/R \leq 2 \times (U_e \times I_e)$  in ms,  $U_e$ : rated operational voltage,  $I_e$ : rated operational current (with a protection diode)