



Main

Commercial Status	Commercialised
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	100...240 V AC
Supply voltage limits	85...264 V
Supply frequency	50/60 Hz
Reverse polarity protection	With
Discrete input number	8
Discrete input voltage	100...240 V AC
Discrete input current	0.6 mA
Discrete input frequency	47...53 Hz 57...63 Hz
Voltage state1 guaranteed	≥ 79 V for discrete input
Voltage state 0 guaranteed	≤ 40 V for discrete input
Current state 1 guaranteed	> 0.17 mA for discrete input
Current state 0 guaranteed	< 0.5 mA for discrete input
Input impedance	350 kOhm (discrete input)
Number of outputs	6 relay output(s)
Output voltage limits	5...30 V DC (relay output) 24...250 V AC
Contacts type and composition	NO for relay output
Output thermal current	8 A for 4 outputs (relay output) 5 A for 2 outputs (relay output)
Electrical durability	500000 cycles at 24 V, 1.5 A (DC-12) for relay output conforming to EN/IEC 60947-5-1 500000 cycles at 24 V, 0.6 A (DC-13) for relay output conforming to EN/IEC 60947-5-1 500000 cycles at 230 V, 1.5 A (AC-12) for relay output conforming to EN/IEC 60947-5-1 500000 cycles at 230 V, 0.9 A (AC-15) 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	10 Hz (no load) for relay output 0.1 Hz (at le) 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

Response time	50...255 ms with FBD programming (from state 1 to state 0) for discrete input 50...255 ms with FBD programming (from state 0 to state 1) for discrete input 50 ms with ladder programming (from state 1 to state 0) for discrete input 50 ms with ladder programming (from state 0 to state 1) for discrete input 5 ms (from state 1 to state 0) for relay output 10 ms (from state 0 to state 1) for relay output
Connections - terminals	Screw terminals, solid cable 2 x 0.2...2 x 1.5 mm ² /24...16 AWG Screw terminals, solid cable 1 x 0.2...1 x 2.5 mm ² /25...14 AWG Screw terminals, semi-solid cable 1 x 0.2...1 x 2.5 mm ² /25...14 AWG Screw terminals, flexible cable with cable end 2 x 0.25...2 x 0.75 mm ² /24...18 AWG Screw terminals, flexible cable with cable end 1 x 0.25...1 x 2.5 mm ² /24...14 AWG
Tightening torque	0.5 N.m
Overvoltage category	III conforming to EN/IEC 60664-1
Product weight	0.22 kg

Environment

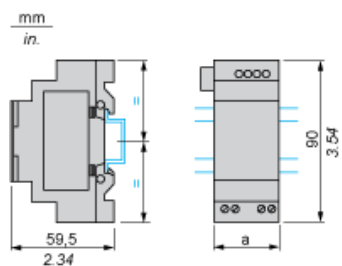
Product certifications	CSA C-Tick GL GOST UL
Standards	EN/IEC 60068-2-27 Ea EN/IEC 60068-2-6 Fc EN/IEC 61000-4-11 EN/IEC 61000-4-12 EN/IEC 61000-4-2 level 3 EN/IEC 61000-4-3 EN/IEC 61000-4-4 level 3 EN/IEC 61000-4-5 EN/IEC 61000-4-6 level 3
IP degree of protection	IP40 (front panel) conforming to IEC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

Contractual warranty

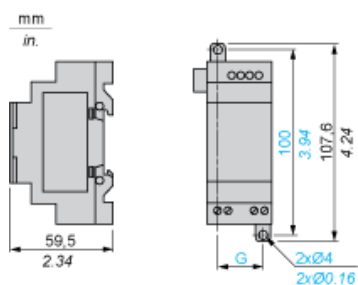
Period	18 months
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I/O Extension Modules

Mounting on 35 mm/1.38 in. DIN Rail



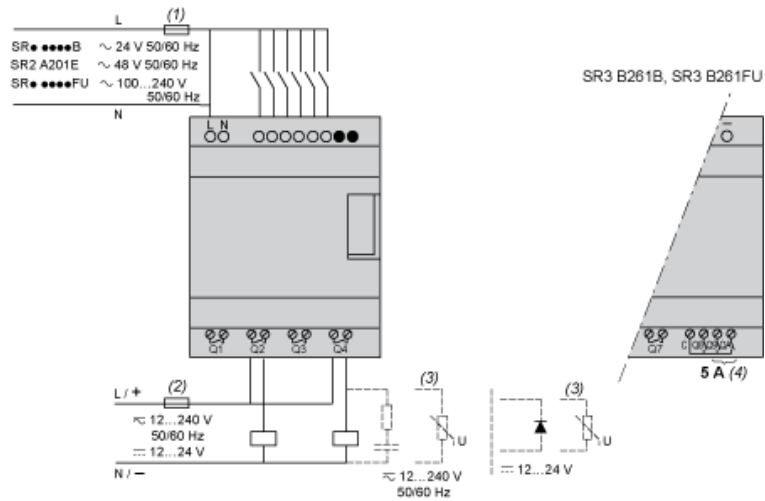
Screw Fixing (Retractable Lugs)



SR3	a (mm/in.)	G (mm/in.)
XT61••	3,5 / 0.13	25 / 0.98
XT101••	72 / 2.83	60 / 2.36
XT141••	72 / 2.83	60 / 2.36

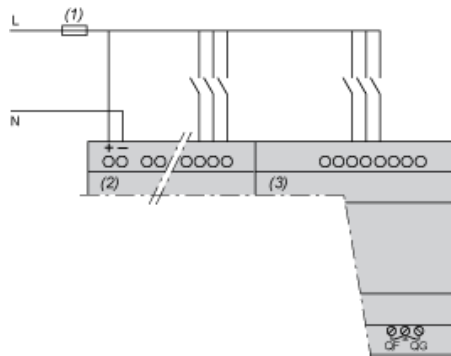
Connection of Smart Relays on AC Supply

SR••••1B, SR••••1FU



With Discrete I/O Extension Module

SR3B•••B + SR3XT•••B, SR3B•••FU + SR3XT•••FU



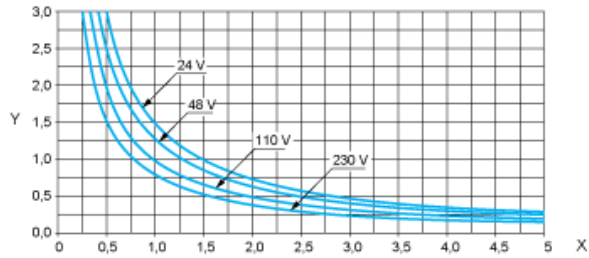
- (1) 1 A quick-blow fuse or circuit-breaker.
QF and QG: 5 A for SR3XT141••

Compact and Modular Smart Relays

Electrical Durability of Relay Outputs

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

AC-12 (1)

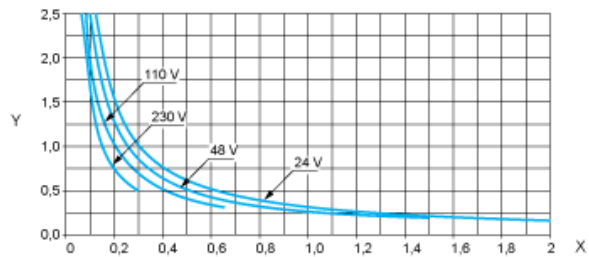


X: Current (A)

Y: Millions of operating cycles

(1) AC-12: switching resistive loads and opto-coupler isolated solid-state loads, $\cos \geq 0.9$.

AC-14 (1)

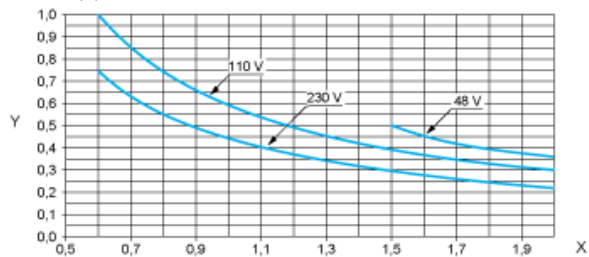


X: Current (A)

Y: Millions of operating cycles

(1) AC-14: switching small electromagnetic loads ≤ 72 VA, make: $\cos = 0.3$, break: $\cos = 0.3$.

AC-15 (1)



X: Current (A)

Y: Millions of operating cycles

(1) AC-15: switching electromagnetic loads ≥ 72 VA, make: $\cos = 0.7$, break: $\cos = 0.4$.