## Product datasheet <br> SR2E201FU

## Characteristics



| Main |  |
| :--- | :--- |
| Range of product | Zelio Logic |
| Product or component type | Compact smart relay |

Complementary

| Local display | Without |
| :---: | :---: |
| Number or control scheme lines | $0 . . .500$ with FBD programming $0 . . .240$ with ladder programming |
| Cycle time | $6 . . .90 \mathrm{~ms}$ |
| Backup time | 10 yearsat $77{ }^{\circ} \mathrm{F}\left(25^{\circ} \mathrm{C}\right)$ |
| Clock drift | $\begin{aligned} & 6 \mathrm{~s} / \text { monthat } 77^{\circ} \mathrm{F}\left(25^{\circ} \mathrm{C}\right) \\ & 12 \mathrm{~min} / \text { yearat } 32 \ldots . .131^{\circ} \mathrm{F}\left(0 \ldots . .55^{\circ} \mathrm{C}\right) \end{aligned}$ |
| Checks | Program memory on each power up |
| [Us] rated supply voltage | 100... 240 V AC |
| Supply voltage limits | 85... 264 V |
| Supply frequency | $50 / 60 \mathrm{~Hz}$ |
| Supply current | 100 mAat 100 V (without extension) 50 mAat 240 V (without extension) |
| Power consumption in VA | 11 VA without extension |
| Isolation voltage | 1780 V |
| Protection type | Against inversion of terminals (control instructions not executed) |
| Discrete input number | 12 |
| Discrete input voltage | 100... 240 V AC |
| Discrete input current | 0.6 mA |
| Discrete input frequency | $\begin{aligned} & 47 \ldots 53 \mathrm{~Hz} \\ & 57 \ldots 63 \mathrm{~Hz} \end{aligned}$ |
| Voltage state 1 guaranteed | >= 79 Vfor discrete input |
| Voltage state 0 guaranteed | <= 40 Vfor discrete input |
| Current state 1 guaranteed | $>=0.17 \mathrm{~mA}$ for discrete input |
| Current state 0 guaranteed | <= 0.5 mA for discrete input |
| Input impedance | 350 kOhm (discrete input) |
| Number of outputs | 8 relay output(s) |
| Output voltage limits | 24... 250 V AC <br> 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 | 500000 cycles AC-12at 230 V , 1.5 Afor relay output conforming to EN/IEC 60947-5-1 500000 cycles AC-15at $230 \mathrm{~V}, 0.9$ Afor relay output conforming to EN/IEC 60947-5-1 500000 cycles DC-12at $24 \mathrm{~V}, 1.5$ Afor relay output conforming to EN/IEC 60947-5-1 500000 cycles DC-13at $24 \mathrm{~V}, 0.6$ Afor relay output conforming to EN/IEC 60947-5-1 |
| Switching capacity in mA | >= 10 mAat 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 | 10000000 cycles (relay output) |
| [Uimp] rated impulse withstand voltage | 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) relay output 5 ms (from state 1 to state 0 ) relay output 50 ms with ladder programming (from state 0 to state 1) discrete input 50 ms with ladder programming (from state 1 to state 0 ) discrete input $50 . . .255 \mathrm{~ms}$ with FBD programming (from state 0 to state 1) discrete input $50 . . .255 \mathrm{~ms}$ with FBD programming (from state 1 to state 0 ) discrete input |
| Connections - terminals | Screw terminals, clamping capacity: $1 \times 0.2 \ldots 1 \times 2.5 \mathrm{~mm}^{2}$ AWG 25 ...AWG 14 semisolid <br> Screw terminals, clamping capacity: $1 \times 0.2 \ldots 1 \times 2.5 \mathrm{~mm}^{2}$ AWG 25...AWG 14 solid Screw terminals, clamping capacity: $1 \times 0.25 \ldots 1 \times 2.5 \mathrm{~mm}^{2}$ AWG $24 \ldots$...AWG 14 flexible with cable end <br> Screw terminals, clamping capacity: $2 \times 0.2 \ldots 2 \times 1.5 \mathrm{~mm}^{2}$ AWG $24 \ldots$...AWG 16 solid Screw terminals, clamping capacity: $2 \times 0.25 \ldots 2 \times 0.75 \mathrm{~mm}^{2}$ AWG 24 ...AWG 18 flexible with cable end |
| Tightening torque | $4.42 \mathrm{lbf.in}$ (0.5 N.m) |
| Overvoltage category | III conforming to EN/IEC 60664-1 |
| Product weight | $0.77 \mathrm{lb}(\mathrm{US})(0.35 \mathrm{~kg}$ ) |

Environment

| immunity to microbreaks | $<=10 \mathrm{~ms}$ |
| :---: | :---: |
| 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 | IP20 (terminal block) conforming to IEC 60529 |
|  | IP40 (front panel) conforming to IEC 60529 |
| environmental characteristic | 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 |
| 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 | $-4 \ldots 104{ }^{\circ} \mathrm{F}\left(-20 \ldots 40^{\circ} \mathrm{C}\right)$ in non-ventilated enclosure conforming to IEC 60068-2-1 and IEC 60068-2-2 |
|  | $-4 \ldots 131{ }^{\circ} \mathrm{F}\left(-20 \ldots 5{ }^{\circ} \mathrm{C}\right)$ conforming to IEC 60068-2-1 and IEC 60068-2-2 |
| ambient air temperature for storage | $-40 . .158{ }^{\circ} \mathrm{F}\left(-40 \ldots 70^{\circ} \mathrm{C}\right)$ |
| operating altitude | 6561.68 ft (2000 m) |
| altitude transport | <= 10000 ft ( 3048 m ) |
| relative humidity | $95 \%$ without condensation or dripping water |

Offer Sustainability
WARNING: This product can expose you to chemicals WARNING: This product can expose you to chemicals including: including:
Lead and lead compounds, which is known to the State Lead and lead compounds, which is known to the State of California to cause cancer of California to cause cancer and birth defects or other and birth defects or other reproductive harm.
reproductive harm.
For more information go to www.p65warnings.ca.gov For more information go to www.p65warnings.ca.gov

Contractual warranty
Warranty period 18 months

Compact and Modular Smart Relays

Mounting on $35 \mathrm{~mm} / 1.38 \mathrm{in}$. DIN Rail
$\frac{\mathrm{mm}}{\mathrm{m}}$

(1) With SR2USB01 or SR2BTC01

## Screw Fixing (Retractable Lugs)

## $\frac{\mathrm{mm}}{\mathrm{m}}$


(1) With SR2USB01 or SR2BTC01

Position of Display
$\frac{\mathrm{mm}}{\mathrm{in}}$


Connection of Smart Relays on AC Supply
SR••••1B, SR••••1FU

(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 ).

## With Discrete I/O Extension Module


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

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)


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 $\leq 72 \mathrm{VA}$, make: $\cos =0.3$, break: $\cos =0.3$.


X: Current (A)
Y: Millions of operating cycles
(1) AC-15: switching electromagnetic loads $\geq 72 \mathrm{VA}$, make: $\cos =0.7$, break: $\cos =0.4$.

