

Main

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|-------------------------------|---------------------------------|
| Commercial Status | Commercialised |
| Range of product | Zelio Time |
| Product or component type | Optimum industrial timing relay |
| Component name | RE8 |
| Time delay type | C |
| Time delay range | 3...300 s |
| [Us] rated supply voltage | 24 V AC/DC, 50/60 Hz |
| Sale per indivisible quantity | 10 |

Complementary

| | |
|---|--|
| Discrete output type | Relay |
| Contacts material | 90/10 silver nickel contacts |
| Width pitch dimension | 22.5 mm |
| Voltage range | 0.9...1.1 Us |
| Connections - terminals | Screw terminals 2 x 2.5 mm ² , flexible cablewithout cable end Screw terminals 2 x 1.5 mm ² , flexible cablewith cable end |
| Tightening torque | 0.6...1.1 N.m |
| Setting accuracy of time delay | +/- 20 % of full scale |
| Repeat accuracy | < 1 % |
| Voltage drift | < 2.5 %/V |
| Temperature drift | < 0.2 %/°C |
| Minimum pulse duration | 26 ms |
| Reset time | 50 ms |
| Maximum switching voltage | 250 V |
| Mechanical durability | 20000000 cycles |
| [Ith] conventional free air thermal current | 8 A |
| [Ie] rated operational current | <= 0.2 A at 115 V, DC-13 for 70 °C conforming to VDE 0660 <= 0.2 A at 115 V, DC-13 for 70 °C conforming to IEC 60947-5-1/1991 <= 0.1 A at 250 V, DC-13 for 70 °C conforming to VDE 0660 <= 0.1 A at 250 V, DC-13 for 70 °C conforming to IEC 60947-5-1/1991 <= 3 A at 24 V, AC-15 for 70 °C conforming to VDE 0660 <= 3 A at 24 V, AC-15 for 70 °C conforming to IEC 60947-5-1/1991 <= 2 A at 24 V, DC-13 for 70 °C conforming to VDE 0660 <= 2 A at 24 V, DC-13 for 70 °C conforming to IEC 60947-5-1/1991 |
| Minimum switching capacity | 10 mA at 12 V |
| Input voltage | 24 V (Y1) |
| Maximum switching current | 10 mA (Y1) |
| Input compatibility | 2-wire sensors DC with leakage current < 1 mA, cable length: <= 50 m (Y1) |
| Marking | CE |
| Overvoltage category | III conforming to IEC 60664-1 |
| [Ui] rated insulation voltage | 300 V conforming to CSA 250 V conforming to IEC |
| Supply disconnection value | > 0.1 Uc |
| Operating position | Any position without derating factor |
| Surge withstand | 2 kV conforming to IEC 61000-4-5 level 3 |
| Power consumption in VA | 0.7 VA at 24 V |
| Power consumption in W | 0.5 W at 24 V |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

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| Terminal description | (15-16-18)OC_ON (A1-A2)CO (Y1)UNUSED |
| Height | 78 mm |
| Width | 22.5 mm |
| Depth | 80 mm |
| Product weight | 0.11 kg |

Environment

| | |
|---------------------------------------|--|
| Immunity to microbreaks | 3 ms |
| Standards | EN/IEC 61812-1 |
| Product certifications | CSA GL UL |
| Ambient air temperature for storage | -40...85 °C |
| Ambient air temperature for operation | -20...60 °C |
| Relative humidity | 15...85 % 3K3 conforming to IEC 60721-3-3 |
| Vibration resistance | 0.35 mm 10...55 Hz conforming to IEC 60068-2-6 |
| Shock resistance | 15 gn (duration = 11 ms conforming to IEC 60068-2-27) |
| IP degree of protection | IP50 (casing) IP20 (terminals) |
| Pollution degree | 3 conforming to IEC 60664-1 |
| Dielectric test voltage | 2.5 kV |
| Non-dissipating shock wave | 4.8 kV |
| Resistance to electrostatic discharge | 8 kV in air conforming to IEC 61000-4-2 level 3 6 kV in contact conforming to IEC 61000-4-2 level 3 |
| Resistance to electromagnetic fields | 10 V/m conforming to IEC 61000-4-3 level 3 |
| Resistance to fast transients | 2 kV conforming to IEC 61000-4-4 level 3 |
| Disturbance radiated/conducted | CISPR 11 group 1 - class A CISPR 22 - class A |

Contractual warranty

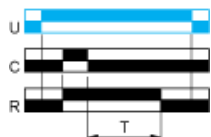
| | |
|--------|-----------|
| Period | 18 months |
|--------|-----------|

Function C : Off-Delay Relay with Control Signal

Description

After power-up and closing of the control contact C, the output R closes. When control contact C re-opens, timing T starts. At the end of the timing period, the output(s) R revert(s) to its/their initial state. The second output can be either timed or instantaneous.

Function: 1 Output



Function: 2 Outputs



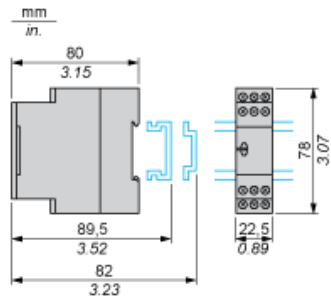
2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

Legend

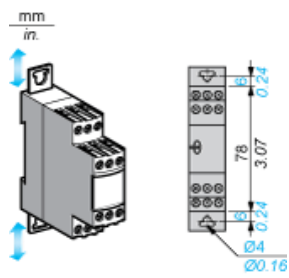
- Relay de-energised
- Relay energised
- Output open
- Output closed
- C Control contact
- G Gate
- R Relay or solid state output
- R1/ 2 timed outputs
- R2
- R2 The second output is instantaneous if the right position is selected inst.
- T Timing period
- Ta Adjustable On-delay
- Tr Adjustable Off-delay
- U Supply

Width 22.5 mm

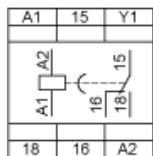
Rail Mounting



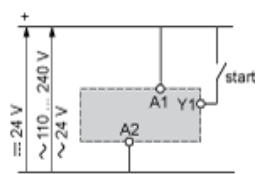
Screw Fixing



Internal Wiring Diagram

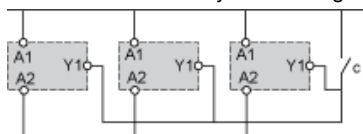


Recommended Application Wiring Diagram



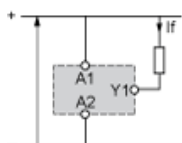
Control of Several Relays

Control of several relays with a single external control contact



The external control contact C may be an electronic control device, for example a true-wire sensor. In this case A1-A2= 24 Vdc and the control device can only control-up to a maximum of 4 relays.

Connection of a 2-Wire Sensor

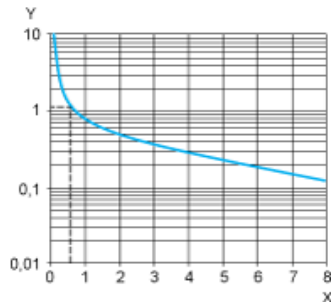


Leakage current (open state) if < 1 mA.

Performance Curves

A.C. Load Curve 1

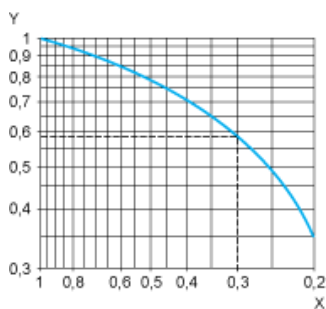
Electrical durability of contacts on resistive loading millions of operating cycles



X Current broken in A
Y Millions of operating cycles

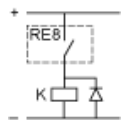
A.C. Load Curve 2

Reduction factor k for inductive loads (applies to values taken from durability curve 1).

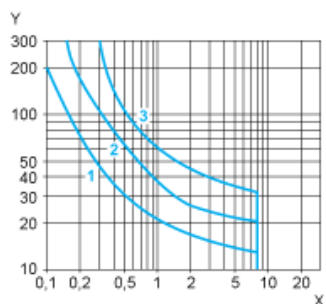


X Power factor on breaking (cos φ)
Y Reduction factor k

Example: An LC1-F185 contactor supplied with 115 V/50 Hz for a consumption of 55 VA or a current consumption equal to 0.1 A and cos φ = 0.3. For 0.1 A, curve 1 indicates a durability of approximately 1.5 million operating cycles. As the load is inductive, it is necessary to apply a reduction coefficient k to this number of cycles as indicated by curve 2. For cos φ = 0.3: k = 0.6 The electrical durability therefore becomes: $1.5 \cdot 10^6$ operating cycles \times 0.6 = 900 000 operating cycles.



D. C. Load Limit Curve



X Current in A
Y Voltage in V
1 L/R = 20 ms
2 L/R with load protection diode
3 Resistive load