



Main

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|-------------------------------|---------------------------------|
| Range of product | Zelio Time |
| Product or component type | Optimum industrial timing relay |
| Component name | RE8 |
| Time delay type | W |
| Time delay range | 0.1...10 s |
| Sale per indivisible quantity | 10 |

Complementary

| | |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Discrete output type | Relay |
| Contacts material | 90/10 silver nickel contacts |
| Width pitch dimension | 22.5 mm |
| [Us] rated supply voltage | 24 V AC/DC at 50/60 Hz |
| Voltage range | 0.9...1.1 Us |
| Connections - terminals | Screw terminals 2 x 2.5 mm ² , flexible cable without cable end Screw terminals 2 x 1.5 mm ² , flexible cable with 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 |

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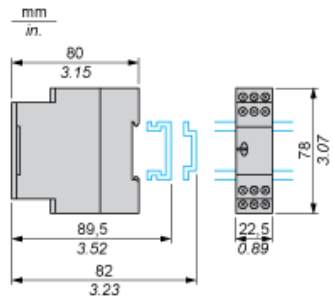
| | |
|------------------------|---------------------------------------------|
| Power consumption in W | 0.5 W at 24 V |
| Terminal description | (15-16-18)OC_OFF (A1-A2)CO (Y1)UNUSED |
| Height | 78 mm |
| Width | 22.5 mm |
| Depth | 80 mm |
| Product weight | 0.11 kg |

Environment

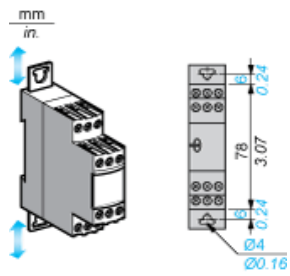
| | |
|---------------------------------------|--------------------------------------------------------------------------------------------------------|
| Immunity to microbreaks | 3 ms |
| Standards | EN/IEC 61812-1 |
| Product certifications | CSA GL UL |
| Ambient air temperature for storage | -40...85 °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 |
| 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 |

Width 22.5 mm

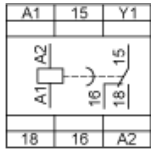
Rail Mounting



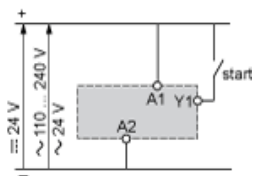
Screw Fixing



Internal Wiring Diagram

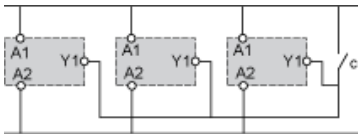


Recommended Application Wiring Diagram



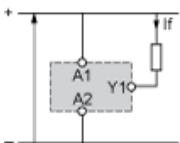
Control of Several Relays

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

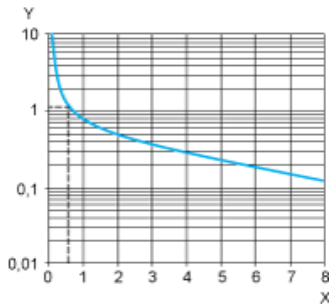


Leakage current (open state) if < 1 mA.

Performance Curves

A.C. Load Curve 1

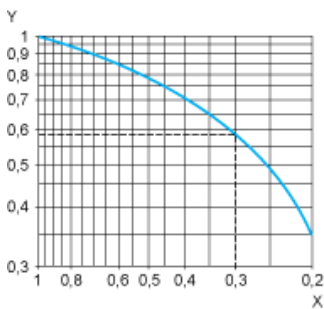
Electrical durability of contacts on resistive loading millions of operating cycles



X Current broken in A
Y Millions of operating cycles

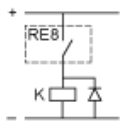
A.C. Load Curve 2

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

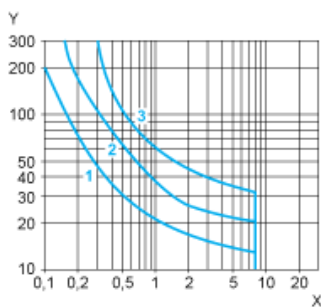


X Power factor on breaking ($\cos \phi$)
Y Reduction factor k

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 $\cos \phi = 0.3$. 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 $\cos \phi = 0.3$: $k = 0.6$. The electrical durability therefore becomes: $1.5 \cdot 10^6$ operating cycles \times $0.6 = 900\,000$ operating cycles.



D. C. Load Limit Curve



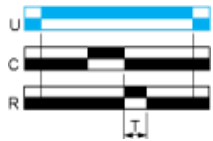
X Current in A
Y Voltage in V
1 L/R = 20 ms
2 L/R with load protection diode
3 Resistive load

Function W : Interval Relay with Control Signal Off

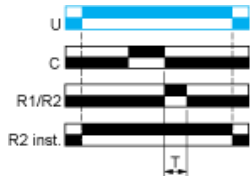
Description

After power-up and opening of the control contact, the output(s) close(s) for a timing period T.
 At the end of this timing period the output(s) 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/
R2 2 timed outputs
- R2 inst. The second output is instantaneous if the right position is selected
- T Timing period
- Ta Adjustable On-delay
-
- Tr Adjustable Off-delay
-
- U Supply