

Product data sheet

Specifications



Optimum industrial timing relay, Zelio Time, 0.3...30 s, type A, 24 V AC/DC, 1 C/O

RE8TA31BU

! Discontinued on: 31 March 2022

! End-of-service on: 11 May 2022

! Discontinued

Main

Range of product	Zelio Time
Product or component type	Optimum industrial timing relay
Component name	RE8
Time delay type	A
Time delay range	0.3...30 s
Sale per indivisible quantity	1

Complementary

Discrete output type	Relay
Contacts material	Silver nickel contacts
Width pitch dimension	22.5 mm
[Us] rated supply voltage	110...240 V AC 50/60 Hz 24 V AC/DC 50/60 Hz
Voltage range	0.9...1.1 Us
Connections - terminals	Screw terminals, 2 x 1.5 mm ² flexible with cable end Screw terminals, 2 x 2.5 mm ² flexible without 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
Maximum [Ie] rated operational current	2 A DC-13 24 V at 70 °C conforming to IEC 60947-5-1/1991 2 A DC-13 24 V at 70 °C conforming to VDE 0660 3 A AC-15 24 V at 70 °C conforming to IEC 60947-5-1/1991 3 A AC-15 24 V at 70 °C conforming to VDE 0660 0.1 A DC-13 250 V at 70 °C conforming to IEC 60947-5-1/1991 0.1 A DC-13 250 V at 70 °C conforming to VDE 0660

0.2 A DC-13 115 V at 70 °C conforming to IEC 60947-5-1/1991
0.2 A DC-13 115 V at 70 °C conforming to VDE 0660

Minimum switching capacity	at 12 V 10 mA
Marking	CE
Overvoltage category	III conforming to IEC 60664-1
[Ui] rated insulation voltage	250 V conforming to IEC 300 V conforming to CSA
Supply disconnection value	> 0.1 Uc
Operating position	Any position without derating
Surge withstand	2 kV conforming to IEC 61000-4-5 level 3
Power consumption in VA	0.7 VA at 24 V 1.8 VA at 110 V 8.5 VA at 240 V
Maximum power consumption in W	0.5 W at 24 V
Terminal description	ALT (A1-B1)CO (15-16-18)OC_OFF
Height	78 mm
Width	22.5 mm
Depth	80 mm
Net weight	0.11 kg

Environment

Immunity to microbreaks	3 ms
Standards	EN/IEC 61812-1
Product certifications	CSA UL GL
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 (f= 10...55 Hz) conforming to IEC 60068-2-6
IP degree of protection	IP20 (terminals) IP50 (casing)
Pollution degree	3 conforming to IEC 60664-1
Dielectric test voltage	2.5 kV
Non-dissipating shock wave	4.8 kV
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 22 - class A CISPR 11 group 1 - class A

Packing Units

Unit Type of Package 1	Db
Number of Units in Package 1	1
Package 1 Height	2.7 cm
Package 1 Width	8.2 cm

Package 1 Length	8.5 cm
-------------------------	--------

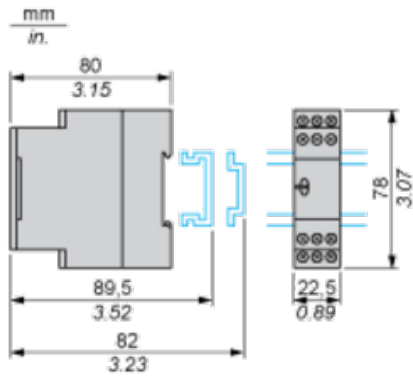
Package 1 Weight	100 g
-------------------------	-------

Contractual warranty

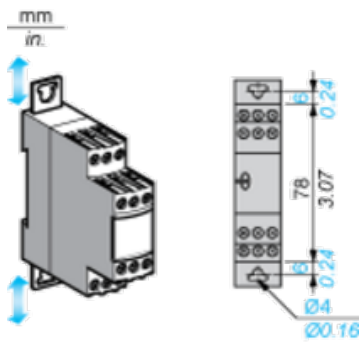
Warranty	18 months
-----------------	-----------

Width 22.5 mm

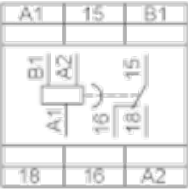
Rail Mounting



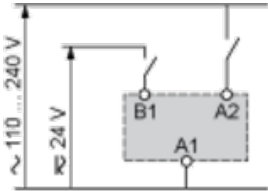
Screw Fixing



Internal Wiring Diagram



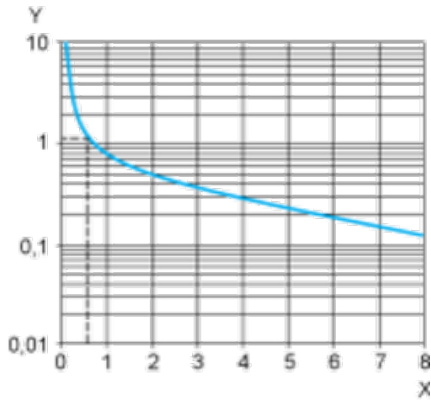
Recommended Application Wiring Diagram



Performance Curves

A.C. Load Curve 1

Electrical durability of contacts on resistive loading millions of operating cycles

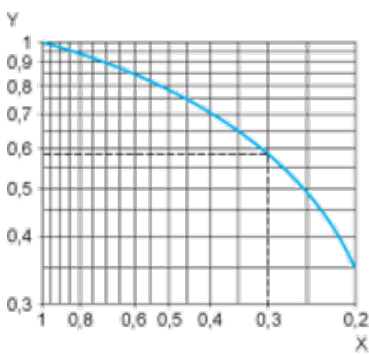


X Current broken in A

Y Millions of operating cycles

A.C. Load Curve 2

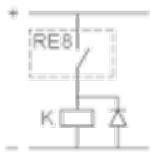
Reduction factor k for inductive loads (applies to values taken from durability curve 1).



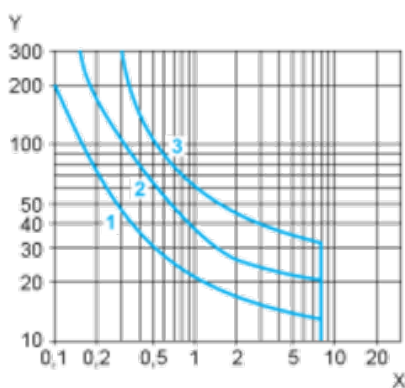
X Power factor on breaking (cos φ)

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: 1.5 10⁶ operating cycles x 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 A : Power on Delay Relay

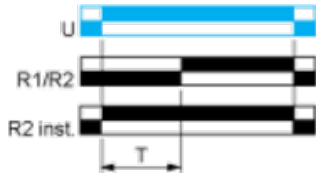
Description

The timing period T begins on energisation. After timing, the output(s) R close(s). 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

Recommended replacement(s)

RE8TA31BU is replaced by:

1x



Harmony, Modular timing relay, 8 A, 1 CO, 1 s..100 h, on delay, 24 V DC / 24...240 V AC/DC
RE17RAMU
