

# asymmetrical flashing relay - 0.05..1 s - 24 V AC DC - 10C

RE7CV11BU

! Discontinued on: Jun 1, 2016

# ! Discontinued

# Main

Range Of Product	Zelio Time
Product Or Component Type	Industrial timing relay
Component Name	RE7
Time Delay Type	L Lt Li
Time Delay Range	0.05 s300 h

# Complementary

Discrete Output Type	Relay
Contacts Material	90/10 silver nickel contacts
Width Pitch Dimension	0.89 in (22.5 mm)
[Us] Rated Supply Voltage	110240 V AC 50/60 Hz 24 V AC/DC 50/60 Hz 4248 V AC/DC 50/60 Hz
Voltage Range	0.851.1 Us
Connections - Terminals	Screw terminals, 2 x 1.5 mm² flexible with cable end Screw terminals, 2 x 2.5 mm² flexible without cable end
Tightening Torque	5.319.74 lbf.in (0.61.1 N.m)
Setting Accuracy Of Time Delay	+/- 10 % of full scale
Repeat Accuracy	+/- 0.2 %
Temperature Drift	< 0.07 %/°C
Voltage Drift	< 0.2 %/V
Minimum Pulse Duration	20 ms
Reset Time	50 ms
Maximum Switching Voltage	250 V AC/DC
Mechanical Durability	20000000 cycles
[Ith] Conventional Free Air Thermal Current	8 A
Maximum [le] Rated Operational Current	2 A DC-13 24 V 158 °F (70 °C) IEC 60947-5-1/1991/VDE 0660 0.1 A DC-13 250 V 158 °F (70 °C) IEC 60947-5-1/1991/VDE 0660 0.2 A DC-13 115 V 158 °F (70 °C) IEC 60947-5-1/1991/VDE 0660 3 A AC-15 158 °F (70 °C) IEC 60947-5-1/1991/VDE 0660
Minimum Switching Capacity	10 mA 12 V

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Input Voltage	< 60 V X1Z2 < 60 V X2Z2	
Maximum Switching Current	1 mA X1Z2) 1 mA X2Z2)	
Input Compatibility	3/4 wires sensors PNP/NPN without internal load <164.04 ft (50 m) X1Z2 3/4 wires sensors PNP/NPN without internal load <164.04 ft (50 m) X2Z2	
Potentiometer Characteristic	Linear 47 kOhm +/- 20 %), 0.2 W 82.02 ft (25 m) Z1Z2	
Marking	CE	
Overvoltage Category	III IEC 60664-1	
[Ui] Rated Insulation Voltage	250 V between contact circuit and control inputs IEC 250 V between contact circuit and power supply IEC 300 V between contact circuit and control inputs CSA 300 V between contact circuit and power supply CSA	
Supply Disconnection Value	> 0.1 Uc	
Operating Position	Any position without derating	
Surge Withstand	2 kV IEC 61000-4-5 level 3	
Power Consumption In Va	0.7 VA 24 V 1.6 VA 48 V 1.8 VA 110 V 8.5 VA 240 V	
Maximum Power Consumption In W	0.5 W 24 V 1.2 W 48 V	
Terminal Description	(B1-A2)CO ALT (15-16-18)OC_OFF	
Height	3.07 in (78 mm)	
Width	0.89 in (22.5 mm)	
Depth	3.15 in (80 mm)	
Net Weight	0.33 lb(US) (0.15 kg)	

# **Environment**

Immunity To Microbreaks	3 ms
Standards	EN/IEC 61812-1
Product Certifications	UL CSA GL
Ambient Air Temperature For Storage	-40185 °F (-4085 °C)
Ambient Air Temperature For Operation	-4140 °F (-2060 °C)
Relative Humidity	1585 % 3K3 IEC 60721-3-3
Vibration Resistance	0.35 mm 1055 Hz)IEC 60068-2-6
Shock Resistance	15 gn 11 ms IEC 60068-2-27
Ip Degree Of Protection	IP20 terminals) IP50 housing)
Pollution Degree	3 IEC 60664-1
Dielectric Strength	2.5 kV
Non-Dissipating Shock Wave	4.8 kV
Resistance To Electrostatic Discharge	6 kV in contact IEC 61000-4-2 level 3 8 kV in air IEC 61000-4-2 level 3

Resistance To Electromagnetic Fields	9.14 V/m (10 V/m) IEC 61000-4-3 level 3
Resistance To Fast Transients	2 kV IEC 61000-4-4 level 3
Disturbance Radiated/Conducted	CISPR 22 - class A CISPR 11 group 1 - class A

# Ordering and shipping details

Category	22376-RELAYS-MEASUREMENT(RM4)	
Discount Schedule	CP2	
Gtin	00785901481416	
Returnability	No	
Country Of Origin	ID	

# **Packing Units**

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1

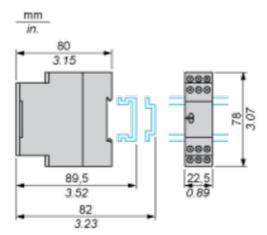
# **Contractual warranty**

Warranty 18 months

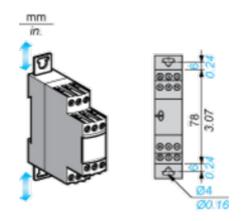
# **Dimensions Drawings**

# Width 22.5 mm

# **Rail Mounting**



# **Screw Fixing**



# **Product data sheet**

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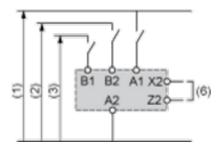
Connections and Schema

# **Internal Wiring Diagram**

A1	15	B1
Z1	Z3	B2
	<u></u>	13
Z4	1,6	(a)
X1	X2	Z2
18	16	A2

# **Recommended Application Wiring Diagram**

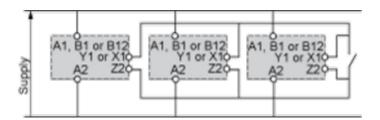
### **Selection of Starting Phase**



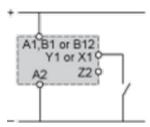
- 1 Supply
- **2** 12...48 V
- **3** 24 V
- 6 Start during the On-delay period: X2, Z2 linked.Start during the Off-delay period: X2, Z2 not linked.

# **Control of Several Relays**

Control of several relays with a single external control contact

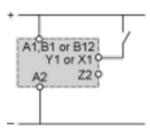


# Connection of an External Control Contact Without Using Terminal Z2



Direct current supply only.

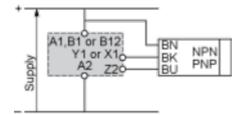
It is advisable to follow the recommended wiring schemes detailed above if the restrictions given are taken into account.



Direct current supply only.

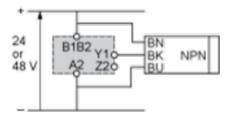
It is advisable to follow the recommended wiring schemes detailed above if the restrictions given are taken into account.

# Connection 3-Wire NPN or PNP Sensor



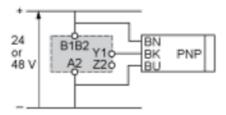
# Connection 3-Wire NPN or PNP Sensor Without Using Terminal Z2

### **Connection NPN**



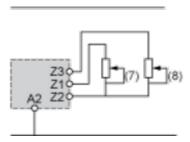
It is advisable to follow the recommended wiring schemes detailed above if the restrictions given are taken into account.

#### **Connection PNP**



It is advisable to follow the recommended wiring schemes detailed above if the restrictions given are taken into account.

# **Connection of Potentiometer**



7 Off-delay adjustment (tr) (contact 15/16 closed). 8 On-delay adjustment (ta) (contact 15/18 closed).

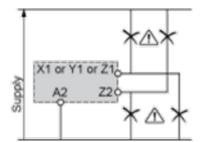
### **Connection Precautions**



# **UNEXPECTED EQUIPMENT OPERATION**

No galvanic isolation between supply terminals and control inputs.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

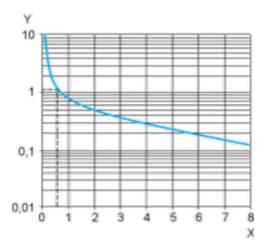


#### Performance Curves

#### **Performance Curves**

#### A.C. Load Curve 1

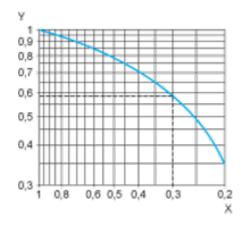
Electrical durability of contacts on resistive loading millions of operating cycles



# 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).



#### $\boldsymbol{X}$ Power factor on breaking (cos $\boldsymbol{\varphi}$ )

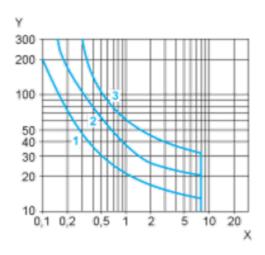
#### Y Reduction factor k

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  $10^6$  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

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# **Product data sheet**

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# **Technical Description**

### Function L : Asymmetrical Flasher Relay (Starting Pulse Off)

# Description

Repetitive cycle comprises of two, independently adjustable timing periods Ta and Tr. Each timing period corresponds to a different state of the output R.

### **Function: 1 Output**



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# Function Li: Asymmetrical Flasher Relay (Starting Pulse On)

### Description

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Repetitive cycle comprises of two, independently adjustable timing periods Ta and Tr. Each timing period corresponds to a different state of the output R.

#### **Function: 1 Output**



Apr 25, 2024

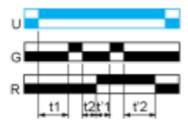
# Function Lt: Asymmetrical Flashing with Partial Stop of Timing

### **Description**

Repetitive cycle comprises of two, independently adjustable timing periods Ta and Tr. Each timing period corresponds to a different state of the output R.

Gate control contact G can be operated to partially stop timing periods Ta and Tr.

#### **Function: 1 Output**



Tr = t1 + t2 + ... Ta = t'1 + t'2 +...

# Legend

	Relay de-energised
	Relay energised
	Output open
	Output closed
С	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
Т	Timing period
Та -	Adjustable On-delay
Tr -	Adjustable Off-delay
U	Supply