Specifications



# time delay relay 8 functions - 0.05..1 s - 240 V AC DC - 2OC

RE7MY13MW

() Discontinued on: 20 Oct 2022

# () Discontinued

## Main

Range of product	Zelio Time
Product or component type	Industrial timing relay
Contacts type and composition	2 C/O
Component name	RE7
Time delay type	D
	Α
	Di
	Qt
	W
	Qg
	H
	С
Time delay range	0.05 s300 h

## Complementary

• •	
Discrete output type	Relay
Contacts material	90/10 silver nickel contacts
Width pitch dimension	22.5 mm
[Us] rated supply voltage	24240 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	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	2000000 cycles
[Ith] conventional free air thermal	8 A

current

Maximum [le] rated operational current	2 A DC-13 24 V at 70 °C conforming to IEC 60947-5-1/1991/VDE 0660 0.1 A DC-13 250 V at 70 °C conforming to IEC 60947-5-1/1991/VDE 0660 0.2 A DC-13 115 V at 70 °C conforming to IEC 60947-5-1/1991/VDE 0660 3 A AC-15 at 70 °C conforming to IEC 60947-5-1/1991/VDE 0660	
Minimum switching capacity	at 12 V 10 mA	
Input voltage	< 60 V X1Z2 terminal(s) < 60 V Y1Z2 terminal(s)	
Maximum switching current	1 mA (X1Z2) 1 mA (Y1Z2)	
Input compatibility	3/4 wires sensors PNP/NPN without internal load <50 m X1Z2 terminal(s) 3/4 wires sensors PNP/NPN without internal load <50 m Y1Z2 terminal(s)	
Potentiometer characteristic	Linear 47 kOhm (+/- 20 %), 0.2 W, cable length <25 m Z1Z2 terminal(s)	
Marking	CE	
Overvoltage category	III conforming to IEC 60664-1	
[Ui] rated insulation voltage	250 V between contact circuit and control inputs IEC certified 250 V between contact circuit and power supply IEC certified 300 V between contact circuit and control inputs CSA certified 300 V between contact circuit and power supply CSA certified	
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	2 VA at 24 V 6 VA at 240 V 2.5 VA at 48 V 3.2 VA at 110 V	
Maximum power consumption in W	1 W at 48 V 2 W at 24 V 2 W at 240 V 3.2 W at 110 V	
Peak current	0.001 kA for 30 s on energisation	
Terminal description	(25-26-28)OC_OFF (15-16-18)OC_OFF (Z1)UNUSED (X1)UNUSED (Y1)UNUSED (Z2)UNUSED (A1-A2)CO	
Height	78 mm	
Width	22.5 mm	
Depth	80 mm	

# Environment

Immunity to microbreaks	3 ms
Standards	EN/IEC 61812-1
Product certifications	GL UL CSA
Ambient air temperature for storage	-4085 °C
Ambient air temperature for operation	-2060 °C
Relative humidity	1585 % 3K3 conforming to IEC 60721-3-3
Vibration resistance	0.35 mm (f= 1055 Hz) conforming to IEC 60068-2-6

Shock resistance	15 gn for 11 ms conforming to IEC 60068-2-27
IP degree of protection	IP20 (terminals) IP50 (housing)
Pollution degree	3 conforming to IEC 60664-1
Dielectric strength	2.5 kV
Non-dissipating shock wave	4.8 kV
Resistance to electrostatic discharge	6 kV in contact conforming to IEC 61000-4-2 level 3 8 kV in air 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 22 - class A CISPR 11 group 1 - class A

# **Packing Units**

Unit Type of Package 1	PCE
Number of Units in Package 1	1

# **Contractual warranty**

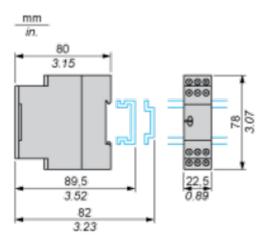
Warranty

18 months

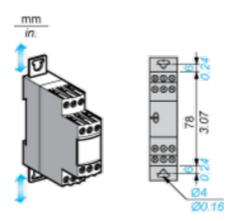
**Dimensions Drawings** 

### Width 22.5 mm

### **Rail Mounting**



### **Screw Fixing**



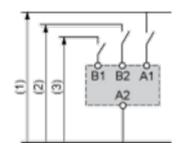
Connections and Schema

### Internal Wiring Diagram

A1	15	¥1
Z1	25 (21)	X1
F	12	3128
L Ch-3		
ার ব	9 9 9	3 <u>28</u> 23
20/2/	08/001	19610
18	16	Δ2 Δ2
10	10	me

### Recommended Application Wiring Diagram

#### Start on Energisation

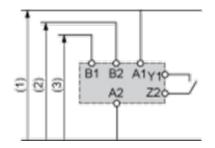


1 Supply 2 12...48 V 3 24 V

Life Is On Schneider

### Recommended Application Wiring Diagram

#### Start by External Control

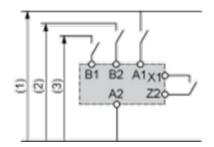


1 Supply 2 12...48 V 3 24 V

22 Oct 2024

### **Recommended Application Wiring Diagram**

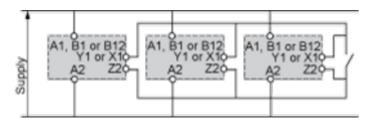
#### **External Control of Partial Stop**



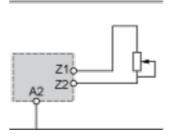
1 Supply 2 12...48 V 3 24 V

#### **Control of Several Relays**

Control of several relays with a single external control contact



**Connection of Potentiometer** 



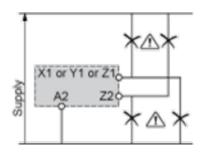
**Connection Precautions** 



## 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.

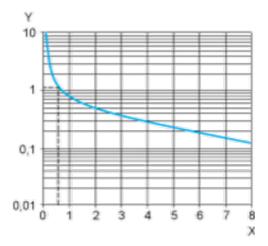


### Performance Curves

#### Performance Curves

#### A.C. Load Curve 1

Electrical durability of contacts on resistive loading millions of operating cycles

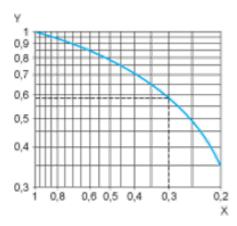


X Current broken in A

Y Millions of operating cycles

#### A.C. Load Curve 2

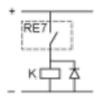
Reduction factor k for inductive loads (applies to values taken from durability curve 1).



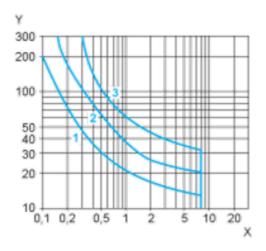
#### **X** Power factor on breaking (cos $\phi$ )

#### 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  $10^6$  operating cycles x 0.6 = 900 000 operating cycles.



D. C. Load Limit Curve



X Current in A

 $\boldsymbol{\mathsf{Y}}$  Voltage in V

1 L/R = 20 ms

2 L/R with load protection diode

3 Resistive load

### **Technical Description**

### Function A : Power on Delay Relay

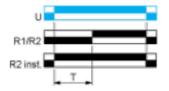
#### Description

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

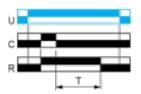


#### Function C : Off-Delay Relay with Control Signal

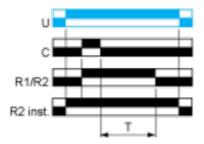
#### Description

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**



#### Function D : Symmetrical Flasher Relay (Starting Pulse Off)

#### Description

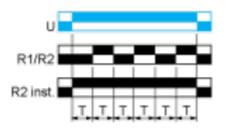
Repetitive cycle with two timing periods T of equal duration, with output(s) R changing state at the end of each timing period T.

The second output can be either timed or instantaneous.

#### Function: 1 Output



#### Function: 2 Outputs



#### Function Di : Symmetrical Flasher Relay (Starting Pulse On)

#### Description

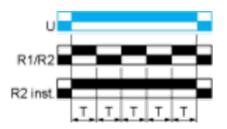
Repetitive cycle with two timing periods T of equal duration, with output(s) R changing state at the end of each timing period T.

The second output can be either timed or instantaneous.

#### Function: 1 Output



#### Function: 2 Outputs



#### Function H : Interval Relay

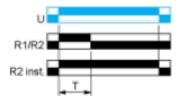
#### Description

On energisation of the relay, timing period T starts and the output(s) R close(s). At the end of the timing period T, 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

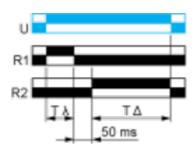


### Function Qg: Star-Delta Timing

#### Description

Timing for star-delta starter with contact for switching to star connection.

#### Function: 1 Output

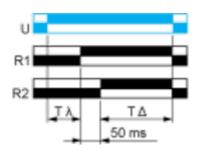


#### Function Qt: Star-Delta Timing

#### Description

Timing for star-delta starter with double On-delay period.

#### Function: 1 Output

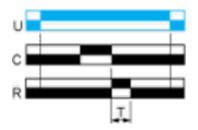


#### Function W : Interval Relay with Control Signal Off

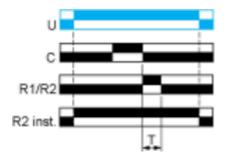
#### Description

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**



### Legend

	Relay de-energised Relay energised Output open
	Dutput 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
Ta -	Adjustable On-delay
Tr -	Adjustable Off-delay
U	Supply