

DIN rail mounted relays



RE11



RE7, RE8, RE9



REXL

Panel mounted relays



RE48A

Introduction

A timing relay is a component which is designed to time events in industrial automation systems by closing or opening contacts before, during, or after a set timing period.

There are two main families of timing relays:

- DIN rail mounted relays (**RE7, RE8, RE9, RE11, REXL...**) designed for mounting on DIN rails in an enclosure,

- Panel-mounted relays type **RE48A** designed for mounting on the front of a panel to give users easy access to the settings.

These relays have one, two, or four outputs. Sometimes the second output can be timed or instantaneous.

If the power is switched off during the timing period, the relay reverts to its initial position.

Application examples:

- opening automatic doors,
- alarm,
- lighting in toilets,
- car park barriers

Definitions

■ Relay output:

This is the most common type of output. When the relay is energized, the moving armature is attracted by the coil and so actuates the contacts, which change state. When the relay is de-energized, both the armature and the contacts revert to their initial position.

This type of output allows isolation between the supply and the output.

There are three types of outputs:

- **C/O**: changeover contact. When the relay is de-energized, the circuit between the common point C and N/C is closed. When the relay is operating (coil energized), the circuit between the common point C and N/O is closed.
- **N/C**: a contact that is closed without being actuated is called a **Normally Closed (N/C)** contact.
- **N/O**: a contact that closes when actuated is called a **Normally Open (N/O)** contact.



■ Solid state output:

These outputs are entirely electronic and involve no moving parts; service life is therefore increased.

■ Breaking capacity:

The current value that a contact is capable of breaking in specified conditions.

■ Mechanical durability:

The number of mechanical operating cycles of the contact or contacts.

■ Minimum switching capacity (or minimum breaking capacity):

The minimum required current which can flow through the contacts of a relay.

■ G (Gate) Input:

Gate input allows timing in progress to be interrupted without resetting it.

Selection table (continued)					
Functions	Timing range	Supply voltage	Type of output	Rated current	Relay
B	1 s–100 h	— 24 V, ~ 24–240 V	1 C/O contact	8 A	RE11RB MU
C	0.1–10 s	~/— 24 V	1 C/O contact	8 A	RE8RA11BTQ
	0.3–30 s			8 A	RE8RA31BTQ
	3–300 s			8 A	RE8RA21BTQ
	1 s–100 h	— 24 V, ~ 24–240 V	1 C/O contact	8 A	RE11RCMU
	0.1–10 s	~ 110–240 V	1 C/O contact	8 A	RE8RA11FUTQ
	0.3–30 s			8 A	RE8RA31FUTQ
	3–300 s			8 A	RE8RA21FUTQ
	20 s–30 min			8 A	RE8RA41FUTQ
	0.05 s–300 h	~/— 24 V, ~ 110–240 V, ~/— 42–48 V	1 C/O contact	8 A	RE7RA11BU
				8 A	RE7RM11BU
			2 C/O contacts	8 A	RE7RL13BU
	0.1–10 s	~ 24–240 V	1 solid state output	0.7 A	RE9RA11MW7
	0.3–30 s			0.7 A	RE9RA31MW7
	3–300 s			0.7 A	RE9RA21MW7
	40 s–60 min			0.7 A	RE9RA51MW7
	1 s–100 h			0.7 A	RE11LCBM
D	0.05 s–300 h	~/— 24 V, ~ 110–240 V	1 C/O contact	8 A	RE7CL11BU
	0.1–10 s			8 A	RE8CL11BUTQ
	0.05 s–300 h	~/— 24 V, ~ 110–240 V, ~/— 42–48 V	2 C/O contacts	8 A	RE7CP13BU
H	0.05 s–300 h	~/— 24 V, ~ 110–240 V	1 C/O contact	8 A	RE7PE11BU
	0.1–10 s			8 A	RE8PE11BUTQ
	0.3–30 s			8 A	RE8PE31BUTQ
	3–300 s			8 A	RE8PE21BUTQ
	0.05 s–300 h	~/— 24 V, ~ 110–240 V, ~/— 42–48 V	2 C/O contacts	8 A	RE7PP13BU
	1 s–100 h	~ 24–240 V	1 solid state output	0.7 A	RE11LHBM
H, Ht	1 s–100 h	— 24 V, ~ 24–240 V	1 C/O contact	8 A	RE11RHMU
He	0.05–0.5 s	~/— 24 V, ~ 110–240 V	1 C/O contact	8 A	RE8PT01BUTQ
K	0.05 s–10 min	~/— 24–240 V	1 C/O contact	5 A	RE7RB11MW
	0.05–0.5 s	~/— 24 V, ~ 110–240 V	1 C/O contact	8 A	RE8RB51BUTQ
	0.1–10 s			8 A	RE8RB11BUTQ
	0.3–30 s			8 A	RE8RB31BUTQ
	0.05 s–10 min	~/— 24–240 V	2 C/O contacts	5 A	RE7RB13MW
L, Li	1 s–100 h	— 24 V, ~ 24–240 V	1 C/O contact	8 A	RE11RLMU
	1 s–100 h	~ 24–240 V	1 solid state output	0.7 A	RE11LLBM
	1 s–100 h	~/— 12 V	1 C/O contact	8 A	RE11RLJU
	0.02 s–300 h	~/— 24–240 V	2 timed C/O contacts	5 A	RE48ACV12MW
L, Li, Lt	0.05 s–300 h	~ 110–240 V, ~/— 24 V, ~/— 42–48 V	1 C/O contact	8 A	RE7CV11BU
Qc	0.1–10 s	~/— 24 V, ~ 110–240 V	1 C/O contact	8 A	RE8YG11BUTQ
	0.3–30 s			8 A	RE8YG31BUTQ
	3–300 s			8 A	RE8YG21BUTQ
Qe	0.3–30 s	~/— 24 V	1 N/O + 1 N/C	8 A	RE8YA32BTQ
	0.3–30 s	~ 110–240 V	1 N/O + 1 N/C	8 A	RE8YA32FUTQ
	0.3–30 s	~ 380–415 V	1 N/O + 1 N/C	8 A	RE8YA32QTQ
Qg	0.05 s–300 h	~/— 24 V, ~ 110–240 V, ~/— 42–48 V	1 N/O + 1 N/C	8 A	RE7YR12BU
Qt	0.05 s–300 h	~/— 24 V, ~ 110–240 V, ~/— 42–48 V	2 C/O contacts	8 A	RE7YA12BU
W	0.1–10 s	~/— 24 V	1 C/O contact	8 A	RE8PD11BTQ
	0.3–30 s			8 A	RE8PD31BTQ
	3–300 s			8 A	RE8PD21BTQ
	0.1–10 s	~ 110–240 V	1 C/O contact	8 A	RE8PD11FUTQ
	0.3–30 s			8 A	RE8PD31FUTQ
	3–300 s			8 A	RE8PD21FUTQ
	0.05 s–300 h	~/— 24 V, ~ 110–240 V, ~/— 42–48 V	2 C/O contacts	8 A	RE7PD13BU
W, Ht	0.05 s–300 h	~/— 24 V, ~ 110–240 V, ~/— 42–48 V	1 C/O contact	8 A	RE7PM11BU

Zelio® Timing RelaysModular relays with solid state or relay output,
width 17.5 mm (0.7 in.)**Solid state output**

- ☐ Multifunction, dual function, or single function
- ☐ Multi-range (7 selectable ranges)
- ☐ Multivoltage
- ☐ Solid state output: 0.7 A
- ☐ Screw terminals



RE11LAMW



RE11LLBM

Relay output, 1 C/O contact

- ☐ Dual function or single function
- ☐ Multi-range (7 selectable ranges)
- ☐ Multivoltage
- ☐ 1 relay output: 8 A
- ☐ Screw terminals
- ☐ State indication by 1 LED
- ☐ Option of supplying a load in parallel
- ☐ 3-wire sensor control option



RE11RMM

Modular relays with solid state output 0.7 A**Single function**

Timing ranges	Functions	Voltages V	Catalog number	Weight kg (lb)
1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	A	≈ 24–240	RE11LAMW	0.060 (0.13)
	H	≈ 24–240	RE11LHBM	0.060 (0.13)
	C	≈ 24–240	RE11LCBM	0.060 (0.13)

Dual function

1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	L, Li	≈ 24–240	RE11LLBM	0.060 (0.13)
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Multifunction

1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	A, At, B, C, H, Ht, D, Di, Ac, Bw	≈ 24–240	RE11LMBM	0.060 (0.13)
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Modular relays with relay output, 1 C/O contact**Single function**

Timing ranges	Functions	Voltages V	Catalog number	Weight kg (lb)
1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	B	≈ 24–240	RE11RBMU	0.060 (0.13)
	C	≈ 24–240	RE11RCMU	0.060 (0.13)

Dual function

1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	A, At	≈ 24–240	RE11RAMU	0.060 (0.13)
	H, Ht	≈ 24–240	RE11RHMU	0.060 (0.13)
	L, Li	≈ 24–240	RE11RLMU	0.060 (0.13)
		≈ 12	RE11RLJU	0.060 (0.13)

Multifunction

1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	A, At, B, C, H, Ht, D, Di, Ac, Bw	≈ 12	RE11RMJU	0.060 (0.13)
		≈ 24–240	RE11RMMU	0.060 (0.13)
		≈ 12–240	RE11RMMW	0.060 (0.13)
			RE11RMMWS	0.060 (0.13)
	Ad, Ah, N, O, P, Pt, T, Tt, W	≈ 24–240	RE11RMXMU	0.060 (0.13)
1 s, 10 s, 1 min, 10 min, 1 h, 10 h	A, At, B, C, H, Ht, D, Di	≈ 24–240	RE11RMEMU	0.060 (0.13)

NOTE: Detailed function descriptions begin on page 10.
Dimensions and wiring diagrams begin on page 26.