# Catalog October **2016**





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#### Zelio Time - Timing Relays

Ergonomic and configurable offer with single or multifunction types Zelio Time are timing relays designed to time events in industrial automation systems by closing and opening contacts before, during, or after a set time period. They are designed for hard-wired logic automated systems to complement the functions of industrial programmable logic controllers (PLCs).

They are suitable for a wide range of applications, including:

- Machines: single machine, and industrial automation and processes
- Buildings: lighting control, access control door locks, roller shutters
- Water segment: pumping and irrigation systems
- HVAC: fans and centralized water systems

Depending on the product model, these relays support multiple time ranges.Modular DIN rail mounted timing relays



RE17, RE22

> Miniature plug-in timing relays



> Panel mounted/plug-in timing relays



RE48A

The Zelio Time relays also feature:

- Wide power supply range from 24 to 240 V  $\eqsim$
- Single or multi timing ranges from 0.02 s to 300 hrs
- Relay or solid-state output
- Conformity to IEC 61812-1 and EN 61812-1 standards
- UL, CSA, GL, RCM, EAC, CCC, and China ROHS compliance

### Zelio Time -> A complete range of reliable and flexible offers

General presentation (continued)

# Zelio Time - Timing Relays

#### Zelio Time

#### Simple approach for higher efficiency

- Simple, fast, and easy to set up with accurate adjustments and legible wiring diagrams on the side of the product
- Flexible, high-performance solution with a wide choice of outputs, and screw or spring connection terminals

#### **RE22 modular type relays with unique features**

- Innovative: dial pointer LED indicator and diagnostic button to assist setup and troubleshooting
- > Compact and reliable
- > Energy efficient: simple to implement, operate, and maintain
- > Compliance with standards and certifications
- > QR code embedded in instruction sheet for easy setup



Zelio Time -> Relays to master your time in all simplicity

# Selection guide

# Zelio Time - Timing Relays

Applications	These timing relays enable simple automation cycles to be set up using wired logic. They can also be used to complement the functions of PLCs.		
Output	Solid state Timing relays with solid state output reduce the amount of wiring required (wired in series). The durability of these timing relays is independent of the number of operating cycles.	Relay Relay outputs provide complete isolation between the supply circuit and the output. It is possible to have several output circuits.	
Туре	Modular and DIN rail mounted		
Time ranges	□ 7 ranges: 1s, 10s, 1 min, 10 min, 1h, 10 h, 100 h	Depending on model: □ 6 ranges 1 s, 10 s, 1 min, 10 min, 1 h, 10 h □ 7 ranges: 1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h 100 h	
Timer Relay type	RE17L	RE17R	
Pages	21	21	

**DIN rail mounted timing relays** 



**RE17** 

#### Miniature plug-in timing relays with sockets





#### Panel-mounted/plug-in timing relays



RF48A

#### Presentation

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

There are three main families of timing relays:

- DIN rail mounted Modular relays (RE17, RE22) designed for mounting on DIN rails in an enclosure
- Miniature plug-in relays (REXL) designed to be plugged into sockets Panel mounted/plug-in relays (RE48A) designed for mounting on the front panel
- to give users easy access to the settings

These relays have 1, 2, or 4 outputs. For some references from RE22 and RE48 range, the second output can be either timed or instantaneous. If the power is switched off during the timing period, the relay reverts to its initial position.

Application examples:

- opening of automatic doors
- ∎ alarm
- lighting in toilets
- car park barriers, etc.

#### Definitions

The following definitions explain relay operation:

#### 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 complete isolation between the power supply and the output. There are three types of output contact:

<b>CO</b> : Changeover contact, i.e. when the relay is de-energized, the circuit between the common point C and NC is closed and when the relay is operating (coil energized), it closes the circuit between the common point C and the NO contact.	
NC: A contact that is closed without being actuated is called a Normally Closed (NC) contact.	NC
NO: A contact that closes when actuated is called a	NO

#### Solid state output:

This output is entirely electronic and involves 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):

This is the minimum required current that can flow through the contacts of a relay.

#### ■ X1/X2/Y1/Gate control input:

Control input allows timing in progress to be interrupted without it being reset.

#### **Definitions** (continued) Functions

Timing functions are identified by letters. For the complementary functions, select the main timing function using the selection dial in the front panel; refer to functional diagrams for connection.

Main timing functions	Complementary functions (1)	Definitions
<b>A</b> (2)		Power on-delay relay
	Ac	On-delay and off-delay relay with control signal
	Act	On-delay and off-delay relay with control signal and pause/summation control signal
	Ad	Pulse delayed relay with control signal
	Ah	Pulse delayed relay (single cycle) with control signal
	Ak	Asymmetrical on-delay and off-delay relay with control signal
	Akt	Asymmetrical on-delay and off-delay relay with control signal and pause/summation control signal
	At	Power on-delay relay with pause/summation control signal
	Aw	Power on-delay relay with retrigger/restart control signal
<b>B</b> (2)		Single interval relay with control signal
	Bw	Double interval relay with control signal
<b>C</b> (2)		Off-delay relay with control signal
	Ct	Off-delay relay with control signal and pause/summation control signal
<b>D</b> (2)		Symmetrical flashing relay (starting pulse-off)
	Di (2)	Symmetrical flashing relay (starting pulse-on)
	Dit	Symmetrical flashing relay (starting pulse-on) with pause/summation control signal
	Diw	Symmetrical flashing relay (starting pulse-on) with retrigger/restart control signal
	Dt	Symmetrical flashing relay (starting pulse-off) with pause/summation control signal
	Dw	Symmetrical flashing relay (starting pulse-off) with retrigger/restart control signal
H (2)		Interval relay
	Не	Pulse-on de-energization
	Ht	Interval relay with pause/summation control signal
	Hw	Ineterval relay with retrigger/restart control signal
К		Delay on de-energization (without auxiliary supply)
L (2)		Asymmetrical flashing relay (starting pulse-off)
	Li (2)	Asymmetrical flashing relay (starting pulse-on)
	Lit	Asymmetrical flashing relay (starting pulse-on) with pause/summation control signal
	Lt	Asymmetrical flashing relay (starting pulse-off) with pause/summation control signal
N		Safe-guard relay
0		Delayed Safe-guard relay
Р		Pulse delayed relay with fixed pulse length
	Pt	Pulse delayed relay with fixed pulse length and pause/summation control signal
Q		Star-delta relay (2 NO outputs with same common)
	Qc	Star-delta relay (1 CO output)
	Qe	Star-delta relay (1 NC + 1 NO outputs with split common)
	Qg	Star-delta relay (2 CO outputs with same common)
	Qgt	Star-delta relay (2 CO outputs with same common) with pause/summation control signal
	Qt	Star-delta relay (2 CO outputs with split common)
	Qtt	Star-delta relay (2 CO outputs with split common) with pause/summation control signal
т	ТІ	Bistable relay with control signal on
	Tt	Retriggerable bistable relay with control signal on
W		Interval relay with control signal off
	Wt	Interval relay with control signal off and pause/summation control signal

(1) Complementary functions enhance the main timing functions.

Example: Ac: timing after closing and opening of control contact. (2) The most commonly used timing functions.

#### **Selection table**

**Selection criteria** 

- Functions (on-delay or off-delay, counter, flashing, etc.)
   Supply voltage (example: ≂ 12 V...240 V)
   Timing range for a timing relay (for example; 0.05 s...100 h)
   Type of output (contact or solid state) and required Number of contacts
- **Rated current** or **Breaking capacity** of contacts, expressed in Amperes. This is the maximum current that may flow through the contacts.

Functions	Timing range	Supply voltage	Type of output	Rated current	Relay
A	0.1 s100 h	12 V	2 CO contacts 4 CO contacts	5A 5A	REXL2TMJD REXL4TMJD
	0.1 s100 h	24 V	2 CO contacts 4 CO contacts	5A 5A	REXL2TMBD REXL4TMBD
	0.1 s100 h	$\sim$ 24 V	2 CO contacts 4 CO contacts	5A 5A	REXL2TMB7 REXL4TMB7
	0.1 s100 h	$\sim$ 120 V	2 CO contacts 4 CO contacts	5A 5A	REXL2TMF7 REXL4TMF7
	0.1 s100 h	$\sim$ 230 V	2 CO contacts 4 CO contacts	5A 5A	REXL2TMP7 REXL4TMP7
	0.1 s100 h 0.02 s300 h	≂24240 V	2 CO contacts	0.7 A 5 A	RE17LAMW RE48ATM12MW
A, Ac, At, B, Bw, C, D, Di, H, Ht	0.1 s100 h	$\sim$ 24240 V	1 solid state output	0.7 A	RE17LMBM
	0.1 s100 h	$\sim$ 12 V	1 CO contact	8 A	RE17RMJU
	0.1 s100 h	≂ 12240 V	1 CO contact	8A 8A	RE17RMMW RE17RMMWS
	0.1 s100 h	$24$ V, $\sim 24240$ V	1 CO contact	8 A	RE17RMMU
	0.1 s100 h	24/~ 24240 V ≂ 12 V ≂ 12240 V	2 CO contact	8A	RE22R2MMU RE22R2MJU RE22R2MMW
A, At	0.1 s100 h	$24$ V, $\sim 24240$ V	1 CO contact	8 A	RE17RAMU
	0.1 s100 h	$24 V, \sim 24240 V$	2 CO contact	8 A	RE22R2AMU
A, Aw	0.05 s300 h	≂24240 V	1 CO contact 2 CO contacts	8 A	RE22R1AMR RE22R2AMR
A, At, Aw	0.05 s300 h	≂24240 V	1 CO contact	8 A	RE22R1MAMR
A, At, B, C, D, Di, H, Ht	0.1 s10 h	$24$ V, $\sim 24240$ V	1 CO contact	8 A	RE17RMEMU
A, B, C, Di	0.02 s300 h	≂24240 V	2 CO contacts	5A	RE48AML12MW
A, At, Aw, C, Ct, D, Dt, Dw, Di, Dit, Diw, H, Ht, Hw, Qg, Qgt, Qt, Qtt, W, Wt	0.05 s300 h	≂ 24240 V	2 CO contacts	8A	RE22R2MYMR
A, At, Aw, C, Ct, D, Dt, Dw, Di, Dit, Diw, H, Ht, Hw, W, Wt, Ac, Act	0.05 s300 h	≂24240 V	1 CO contact	8A	RE22R1MYMR

Selection table (continued)					
Functions	Timing range	Supply voltage	Type of output	Rated current	Relay
A1, A2, H1, H2	0.02 s300 h	≂24240 V	2 CO contacts	5 A	RE48AMH13MW
Ac	0.05 s300 h	abla 24240 V	2 CO contacts	8 A	RE22R2ACMR
Ac, Act	0.05 s300 h	abla 24240 V	1 CO contact	8 A	RE22R1ACMR
Ad, Ah, N, O, P, Pt, Tl, Tt, W	0.1 s100 h 0.1 s100 h	$= 24 \text{ V}, \sim 24240 \text{ V}$ $= 24 \text{ V}/\sim 24240 \text{ V}$	1 CO contact 2 CO contacts	8 A 8 A	RE17RMXMU RE22R2MXMU
Ak, Akt	0.05 s300 h	≂24240 V	1 CO contact	8 A	RE22R1AKMR
В	0.1 s100 h	24 V, ~ 24240 V	1 CO contact	8 A	RE17RBMU
c	0.1 s100 h 0.1 s100 h 0.05 s300 h	~24240 V 24 V/~24240 V ≂24240 V	1 solid state output 1 CO contact 2 CO contacts	0.7 A 8 A 8 A	RE17LCBM RE17RCMU RE22R2CMR
C, Ct	0.05 s300 h	≂24240 V	1 CO contact	8 A	RE22R1CMR
D, Dw	0.05 s300 h	≂24240 V	1 CO contact 2 CO contacts	8 A 8 A	RE22R1DMR RE22R2DMR
Н	0.1 s100 h	$\sim$ 24240 V	1 solid state output	0.7A	RE17LHBM
H, Hw	0.05 s300 h	≂24240 V	1 CO contact 2 CO contacts	8 A 8 A	RE22R1HMR RE22R2HMR
H, Ht	0.1 s100 h		1 CO contact	8 A	RE17RHMU
к	0.05 s10 min	≂24240 V	1 CO contact 2 CO contacts	5 A 5 A	RE22R1KMR RE22R2KMR
K, He	0.05 s300 h	≂24240 V	1 CO contact t	5 A	RE22R1MKMR
L, Li	0.1 s100 h 0.1 s100 h 0.1 s100 h 0.02 s300 h	$ \begin{array}{l} \hline 24 V, \sim 24240 V \\ \sim 24240 V \\ \hline 12 V \\ \hline 24240 V \end{array} $	1 CO contact 1 solid state output 1 CO contact 2 CO contacts	8 A 0.7 A 8 A 5 A	RE17RLMU RE17LLBM RE17RLJU RE48ACV12MW
L, Lt, Li, Lit	0.05 s300 h	≂24240 V	1 CO contact	8 A	RE22R1MLMR
Q	0.1 s100 h	$ \begin{array}{c} \hline 24 \text{ V}, \sim 24240 \text{ V} \\ \sim 230240 \text{ V}, \\ \sim 380 \dots 440 \text{ V} \end{array} $	1 CO contact 1 CO contact	8 A 8 A	RE22R1QMU RE22R1QMQ
Qc	0.05 s300 s	$ ightarrow$ 24 V, $\sim$ 24240 V	1 CO contact	8 A	RE22R1QCMU
Qe	0.3 s30 s	$\sim$ 380415 V	2 CO contacts	8 A	RE22R2QEMT
	0.3 s30 s	≂24240 V	2 CO contacts	8 A	RE22R2QEMR
Qg	0.05 s to 300 h	≂24240 V	2 CO contacts	8 A	RE22R2QGMR
Qt	0.05 s300 h	≂24240 V	2 CO contacts	8 A	RE22R2QTMR
W, Wt	0.05 s300 h	abla 24240 V	2 CO contacts	8 A	RE22R2MWMR

### **Functions**

# Zelio Time - Timing Relays

#### **Functions**

1 output

U

R1

U: Supply R: Relay or solid state output R1/R2: 2 timed outputs R2 inst.: Second output is instantaneous if the correct position is selected T: Timing period

#### Function A: Power on-delay relay





Т

2 outputs

Y١

R1

т

X1/X2/Y1: Control contacts

Ta: Adjustable on-delay

Tr: Adjustable off-delay

After power-on, and the closure of Y1 the timing period T starts. At the end of this timing period, the

Function diagram:

power-on.

output(s) R close(s).

Power-on

Power-off

The timing period T begins on

timed (when set to "TIMED") or instantaneous (when set to "INST").

At the end of this timing period, the

The second output (R2) can be either

Output closed/Control input on

Output open/Control input off

output(s) R close(s). When Y1 opens, the timing period T starts.

At the end of this timing period T, the output(s) R open(s).

The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

# R2 inst.

Function Ac: On-delay and off-delay relay with control signal

Function Act: On-delay and off-delay relay with control signal and pause/summation control signal 1 output



T = t'1 + t'2 + ...

#### After power-on and the closure of Y1 the timing period T starts and it can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value T, the output(s) R close(s). When Y1 opens, the timing T starts and

ti can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value T, the output(s) R open(s).

#### Function Ad: Pulse delayed relay with control signal 1 output





After power-on, pulsing or maintaining Y1 starts the timing T.

At the end of this timing period T, the output(s) R close(s).

R remains closed until the next pulsing or maintaining Y1 to start the next cycle.

The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

#### Functions (continued)

Function Ah: Pulse delayed relay (single cycle) with control signal 1 output 2 outputs





After power-on, pulsing or maintaining Y1 starts the timing T. A single cycle then starts with 2 timing periods T of equal duration (start with output(s) open(s)). The output(s) R closes(s) state at the end of the first timing period T and open(s) at the end of the second timing period T. Y1 should be reset in order to re-start the single flashing cycle. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

#### Function Ak: Asymmetrical on-delay and off-delay relay with control signal



After power-on and the closure of Y1, timing starts for a period Ta. At the end of this timing period Ta, the output R closes. A second timing period Tr starts when Y1 re-opens. At the end of this timing period Tr, the output R open(s).

After power-on and the closure of Y1, timing starts for a period Ta and can be

reaches the preset value Ta, the output R closes.

interrupted/paused each time X1 closes. When the cumulative total time elapsed

A second timing period Tr starts when Y1 re-opens and can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset

#### Function Akt: Asymmetrical on-delay and off-delay relay with control signal and pause/summation control signal



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

#### Function At: Power on-delay relay with pause/summation control signal





value Tr, the output R open(s).

T = t1 + t2 + ...



After power-on, the timing period T starts. Timing can be interrupted/paused each time X1 closes.

Note: Except for RE17•, RE22R2AMU, RE22R2MMW, RE22R2MMU, and RE22R2MJU, timing can be interrupted/ paused each time Y1 closes.

When the cumulative total time elapsed reaches the preset value T, the output(s) R close(s).

The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

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#### Functions (continued)





The timing period T starts on power-on. At the end of the timing period T, the output(s) R close(s). Closing of the Y1 makes the output(s) R open. Opening of Y1 restarts timing period T. At the end of the timing period T, the output(s) R close(s).

The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function B: Single interval relay with control signal







After power-on, pulsing or maintaining Y1 starts the timing T.

The output(s) R close(s) for the duration of the timing period T and then open(s). The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function Bw: Double interval relay with control signal





After power-on, transition of Y1 (either from open to closed or vice-versa) will cause the output(s) R to close(s) for the duration of the timing period T and then open(s).

The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

#### Function C: Off-delay relay with control signal



#### 2 outputs



After power-on and closure of the Y1, the output(s) R close(s).

When Y1 re-opens, timing T starts. At the end of the timing period, output(s) R open(s).

The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function Ct : Off-delay relay with control signal and pause/summation control signal





After power-on and the closure of Y1, the output(s) R close(s).

When Y1 re-opens, timing starts and can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value T, the output(s) R open(s).

The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").







T = t1 + t2 + ...T = t'1 + t'2 + ... After power-on, output(s) R start(s) with open state for timing period T and the timing can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value T, the output(s) R close(s).

The output(s) R will remain in the closed state for the same timing period T and the timing can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value T, the output(s) R open(s).

This cycle is repeated indefinitely until the power supply is removed. The second output (R2) can be either

timed (when set to "TIMED") or instantaneous (when set to "INST").

#### Functions (continued)

Function Dit : Symmetrical flashing relay (starting pulse-on) with pause/summation control signal





After power-on, output(s) R close(s) for timing period T which can be interrupted/ paused each time X1 closes. When the cumulative total time elapsed reaches the preset value T, then the output(s) open(s). The output(s) R will remain open for the same timing period T and the timing can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value T, the output(s) R close(s). This cycle is repeated indefinitely until the power supply is removed. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

#### Function Dw: Symmetrical flashing relay (starting pulse-off) with retrigger/restart control signal





After power-on, output(s) R start(s) with open state for timing period T then close(s) for the same timing period T. This cycle is repeated indefinitely until the power supply is removed. At any state of the output(s) R, when Y1 closes and then re-opens, the output(s) R open(s) and restart(s) the same operation as described at the beginning. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function Diw: Symmetrical flashing relay (starting pulse-on) with retrigger/restart control signal





After power-on, output(s) R close(s) for timing period T and open(s) for the same timing period T. This cycle is repeated indefinitely until the power supply is removed. At any state of the output(s) R when Y1 closes and then re-opens, the output(s) R close(s) and restart(s) the same operation as described at the beginning.

The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").







After power-on, timing period T starts and the output(s) R close(s). At the end of the timing period T, output(s) R open(s).

The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").



![](_page_15_Figure_3.jpeg)

![](_page_15_Figure_4.jpeg)

After power-on, the output(s) R close(s). After power-off, timing period T starts and, at the end of this period, the output(s) R open(s). The power-on > Tk is necessary to sustain the timing period T. There are 3 references with different Tk as follows: (a) RE22R1KMR --> Tk = 1 s (b) RE22R2KMR --> Tk = 1 s (c) RE22R1MKMR --> Tk = 80 ms

![](_page_16_Figure_2.jpeg)

If the interval between two Y1 control pulses is greater than the set timing period T, timing elapses normally and the output(s) R open(s) at the end of the timing period T. If the interval is less than the set timing period, the output(s) R remain(s) closed until this condition is met.

The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

R2

< T

R2 inst.

![](_page_17_Figure_2.jpeg)

![](_page_18_Figure_2.jpeg)

#### Functions (continued)

Function Tt: Retriggerable bistable relay with control signal on 1 output 2 outputs

![](_page_19_Figure_4.jpeg)

![](_page_19_Figure_5.jpeg)

After power-on and closure of Y1, the output(s) R close(s) and the timing T starts.

If the interval between 2 consecutive closures of Y1 is greater than the preset value T, the output(s) R will toggle from its/their present state at the end of the timing period.

If the interval between 2 consecutive closures of Y1 is less than the preset value T, the output(s) R toggle from its/ their present state as soon as Y1 closes without completing duration T. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function W: Interval relay with control signal off
1 output 2 outputs

![](_page_19_Figure_10.jpeg)

![](_page_19_Figure_11.jpeg)

After power-on and at the end of control pulse Y1, the output(s) R close(s) for a timing period T.

At the end of this timing period the output(s) open(s).

The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

# Function Wt: Interval relay with control signal off and pause/summation control signal 1 output 2 outputs

![](_page_19_Figure_16.jpeg)

![](_page_19_Figure_17.jpeg)

After power-on and at the end of control pulse Y1, the output(s) R close(s) for a timing period T. Timing can be interrupted/ paused each time X1 closes. When the cumulative total time elapsed reaches the preset value T, the output(s) R open(s).

The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

# Zelio Time - Timing Relays Electronic relays, relay output, 48 x 48 mm

![](_page_20_Figure_3.jpeg)

![](_page_21_Picture_0.jpeg)

**Zelio Time - Timing Relays** Modular relays with solid state or relay output, width 17.5 mm/0.689 in.

#### Solid state output

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

![](_page_21_Picture_9.jpeg)

RE17LAMW

![](_page_21_Picture_11.jpeg)

RE17LLBM

#### Relay output, 1 CO contact

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

![](_page_21_Picture_22.jpeg)

RE17RAMU

![](_page_21_Picture_24.jpeg)

RE17RMMWS

Modular relays witl	solid state	output 0.7 A
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I

Single function				
Timing ranges	Functions	Voltages V	Reference	Weight kg/lb
7 selectable timing ranges	Α	≂24240	RE17LAMW	0.060/ <i>0.132</i>
1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	н	$\sim$ 24240	RE17LHBM	0.060/ <i>0.132</i>
	С	~24240	RE17LCBM	0.060/ 0.132
Dual function				
7 selectable timing ranges 1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	L, Li	~24240	RE17LLBM	0.060/ 0.132
Multifunction				
7 selectable timing ranges 1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	A, At,B, C, H, Ht, D, Di, Ac, Bw	~24240	RE17LMBM	0.060/ 0.132

Modular relays w	ith relay o	utput, 1 CO cont	act	
Single function				
Timing ranges	Functions	Voltages V	Reference	Weight kg/lb
1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	В	<u></u> 24/∼ 24240	RE17RBMU	0.070/ <i>0.154</i>
	С	<u></u> 24/∼ 24…240	RE17RCMU	0.070/ <i>0.154</i>
Dual function				
1 s, 10 s, 1 min, 10 min, 1 h, 10 h,	A, At	<u></u> 24/∼ 24…240	RE17RAMU	0.070/ <i>0.154</i>
100 h	H, Ht	<u></u> 24/∼ 24240	RE17RHMU	0.070/ <i>0.154</i>
	L, Li	<u></u> 24/∼ 24240	RE17RLMU	0.070/ <i>0.154</i>
		≂ 12	RE17RLJU	0.070/ <i>0.154</i>
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	RE17RMJU	0.070/ <i>0.154</i>
		<u></u> 24/∼ 24240	RE17RMMU	0.070/ <i>0.154</i>
		≂12240	RE17RMMW	0.070/ <i>0.154</i>
			RE17RMMWS (1)	0.070/ <i>0.154</i>
	Ad, Ah, N, O, P, Pt, Ti, Tt, W	<u></u> 24/∼ 24240	RE17RMXMU	0.070/ 0.154
1 s, 10 s, 1 min, 10 min, 1 h, 10 h	A, At, B, C, H, Ht, D, Di	24/∼24240	RE17RMEMU	0.070/ 0.154

(1) Connection by spring terminals.

![](_page_22_Picture_0.jpeg)

**Zelio Time - Timing Relays** Modular single, dual, or multifunction relays with diagnostic button and dial pointer, relay output, width 22.5 mm/0.886 in.

#### Output 1 CO and 2 CO contacts

- Diffunction, dual function, or single function
- □ Multiple timing ranges (up to 10 switchable ranges)
- □ Multivoltage
- □ 1 or 2 relay outputs
- □ Screw terminals
- □ State indication by LED
- □ Option of supplying a load in parallel
- □ 3-wire sensor control option
- Diagnostic button (1) and dial pointer LED indicator

![](_page_22_Picture_13.jpeg)

RE22R2QTMR

![](_page_22_Picture_15.jpeg)

RE22R2KMR

![](_page_22_Picture_17.jpeg)

RE22R2QEMR

![](_page_22_Picture_19.jpeg)

RE22R2HMR

![](_page_22_Picture_21.jpeg)

RE22R1MYMR

References					
Single function	1				
Timing ranges	Functions	No. of relay outputs	Voltages	Reference	Weight
			V		kg/lb
10 selectable timing ranges	Ac	2	≂24240	RE22R2ACMR	0.105/ <i>0.231</i>
1 s, 3 s, 10 s, 30 s, 100 s, 300 s, 30 min_200 min	Qg	2	≂24240	RE22R2QGMR	0.105/ <i>0.231</i>
30 h, 300 h	Qt	2	≂24240	RE22R2QTMR	0.105/ 0.231
7 selectable timing ranges	К	1	≂24240	RE22R1KMR (1) (2)	0.100/ <i>0.220</i>
1 s, 3 s, 10 s, 30 s, 100 s, 300 s, 10 min		2	≂24240	RE22R2KMR (1) (2)	0.100/ <i>0.220</i>
7 selectable timing ranges 0.5 s, 1 s, 3 s, 10 s, 30 s, 100 s, 300 s	Qc	1	≂24/~24240	RE22R1QCMU	0.080/ 0.176
Single range selection	Qe	2	≂24240	RE22R2QEMR	0.090/ <i>0.198</i>
30 s		2	~ 380415	RE22R2QEMT	0.090/ <i>0.198</i>
Dual function					
10 selectable timing ranges	A, Aw	1	≂24240	RE22R1AMR	0.100/ <i>0.220</i>
1 s, 3 s, 10 s, 30 s, 100 s, 300 s, 30 min_300 min		2	≂24240	RE22R2AMR	0.105/ <i>0.231</i>
30 h, 300 h	C, Ct	1	≂24240	RE22R1CMR	0.100/ 0.220
	С	2	≂24240	RE22R2CMR	0.105/ <i>0.231</i>
	Ac, Act	1	≂24240	RE22R1ACMR	0.100/ <i>0.220</i>
	Ak, Akt	1	≂24240	RE22R1AKMR	0.100/ <i>0.220</i>
	D, Dw	1	≂24240	RE22R1DMR	0.100/ <i>0.220</i>
		2	≂24240	RE22R2DMR	0.105/ <i>0.231</i>
	H, Hw	1	≂24240	RE22R1HMR	0.100/ <i>0.220</i>
		2	≂24240	RE22R2HMR	0.105/ <i>0.231</i>
	Wt, W	2	≂24240	RE22R2MWMR	0.105/ <i>0.231</i>
7 selectable timing ranges 0.5 s, 1 s, 3 s, 10 s, 30 s, 100 s, 300 s	K, He	1	≂24240	RE22R1MKMR (1) (2)	0.100/ <i>0.220</i>
10 selectable timing ranges	A, At, Aw	1	≂24240	RE22R1MAMR	0.100/ <i>0.220</i>
1 s, 3 s, 10 s, 30 s, 100 s, 300 s, 30 min, 300 min, 30 h, 300 h	A, At, Aw, Ac, Act, C, Ct, D, Dt, Dw, Di, Dit, Diw, H, Ht, Hw, W, Wt,	1	≂ 24240	RE22R1MYMR	0.100/ 0.220
	A, At, Aw, C, Ct, D, Dt, Dw, Di, Dit, Diw, H, Ht, Hw, Qg, Qgt, Qt, Qtt, W, Wt	2	≂ 24240	RE22R2MYMR	0.105/ 0.231
	L, Li, Lt, Lit	1	≂24240	RE22R1MLMR	0.100/ <i>0.220</i>

(1) The diagnostic button is not available for the K function related references (RE22R1KMR, RE22R2KMR, and RE22R1MKMR).

(2) 1 or 2 relay outputs: 5 A - 250 V

![](_page_23_Picture_0.jpeg)

**Zelio Time - Timing Relays** Modular single, dual, or multifunction relays, relay output, width 22.5 mm/0.886 in.

#### Output 1 CO and 2 CO contacts

- D Multifunction, dual function, or single function □ Multiple timing ranges (7 switchable ranges)
- □ Multivoltage
- □ 1 or 2 relay outputs: 8 A 250 V
- □ Screw or spring terminals
- □ State indication by LED
- □ Option of supplying a load in parallel
- □ 3-wire sensor control option

![](_page_23_Picture_12.jpeg)

RE22R1QMU

![](_page_23_Picture_14.jpeg)

RE22R2AMU

![](_page_23_Picture_16.jpeg)

RE22R2MXMU

Multifunction					
Timing ranges	Functions	No. of relay outputs	Voltages	Reference	Weight
			V	-	kg/lb
7 selectable iming ranges I s, 10 s, 1min, I0 min, 1h, 10 h, I00 h	Q	1	<u></u> 24/∼ 24…240	RE22R1QMU	0.090/ <i>0.198</i>
		1	$\sim$ 230/380	RE22R1QMQ	0.090/ <i>0.198</i>
Dual function					
7 selectable iming ranges I s, 10 s, 1 min, 10 nin, 1 h, 10 h, 100 h	A, At	2	<u></u> 24/∼24240	RE22R2AMU	0.090/ 0.198
Multifunction					
7 selectable iming ranges I s, 10 s, 1 min, I0 min, 1 h, 10 h, I00 h	A, At, B, C, H, Ht, Di, D, Ac, Bw	2	<u></u> 24/∼ 24…240	RE22R2MMU (1)	0.090/ <i>0.198</i>
			≂ 12	<b>RE22R2MJU</b> (1)	0.090/ 0.198
			~ 12240	<b>REZZKZMMW</b> (1)	0.090/ 0.198
	Ad, Ah, N,	2	<u></u> 24/∼ 24240	RE22R2MXMU	0.090/

(1) Connection by screw terminals.

![](_page_24_Picture_0.jpeg)

# Zelio Time - Timing Relays Miniature plug-in relays, relay output

#### Output, 2 CO and 4 CO contacts

- □ Miniature and plug-in (21 x 27 mm/0.827 x 1.062 in.)
- □ Single function: function A = delay on energization
- $\square$  Rated current  $\sim$  5 A
- □ 7 timing ranges (0.1 s to 100 h)
- □ Multivoltage
- Excellent immunity to interference
- Dependence on and relay energized indication by 2 LEDs

![](_page_24_Picture_11.jpeg)

REXL2TM.

![](_page_24_Picture_13.jpeg)

REXL4TM.

![](_page_24_Picture_15.jpeg)

PF10601

RXZE2M114

#### References

Single functio	n				
Timing ranges	Functions	No. of relay outputs	Voltages	Reference	Weight
			V		kg/lb
7 switchable ranges	Α	2	12	REXL2TMJD	0.050/ 0.110
I s10 s 0.1 min1 min			24	REXL2TMBD	0.050/ 0.110
).1 h1 h 1 h10 h			$\sim$ 24 (50/60 Hz)	REXL2TMB7	0.050/ 0.110
10 h100 h			$\sim$ 120 (50/60 Hz)	REXL2TMF7	0.050/ <i>0.110</i>
			$\sim$ 230 (50/60 Hz)	REXL2TMP7	0.050/ <i>0.110</i>
		4	12	REXL4TMJD	0.050/ <i>0.110</i>
			24 (1)	REXL4TMBD	0.050/ 0.110
			~24 (50/60 Hz) (1)	REXL4TMB7	0.050/ <i>0.110</i>
			$\sim$ 120 (50/60 Hz)	REXL4TMF7	0.050/ <i>0.110</i>
			$\sim$ 230 (50/60 Hz)	REXL4TMP7	0.050/ <i>0.110</i>

Sockets for re	elays			
Contact terminal arrangement	For use with relays	Connection	Unit reference (2)	Weight kg/ <i>lb</i>
Mixed (3)	REXL2TM●●, REXL4TM●●	Screw clamp	<b>RXZE2M114</b> (5)	0.048/ 0.106
	REXL2TM●●, REXL4TM●●	Connector	<b>RXZE2M114M</b> (6)	0.056/ 0.123
Separate (4)	REXL2TM.	Connector	RXZE2S108M	0.070/ <i>0.154</i>
	REXL4TM●●	Connector	RXZE2S114M	0.058/ 0.128
	REXL2TM. REXL4TM.	Spring clamp	RXZE2S114S	0.070/ 0.154

(1) For == 48 V supply, additional resistor 560  $\Omega$  2 W/== 24 V. For  $\sim$  48 V, additional resistor 390  $\Omega$  4 W/ $\sim$  24 V.

(2) These products are sold in lots of 10.

(3) The inputs are mixed with the relay's power supply terminals, with the outputs being located on the opposite side of the socket.
(4) The inputs and outputs are separated from the relay power supply.
(5) Thermal current Ith: 10 A.
(6) Thermal current Ith: 12 A.

![](_page_25_Picture_0.jpeg)

# **Zelio Time - Timing Relays** Analog, electronic relays, relay output, 48 x 48 mm

#### **Output 2 CO contacts**

- □ Time unit selector knob
- □ Multifunction, single function, or dual function
- □ Multirange
- □ Multivoltage
- □ 2 relay outputs, 5 A
- □ Panel-mounted or plug-in
- □ LED indication

![](_page_25_Picture_11.jpeg)

RE48ATM12MW

![](_page_25_Picture_13.jpeg)

RE48AMH13MW

![](_page_25_Picture_15.jpeg)

RUZC3M

![](_page_25_Picture_17.jpeg)

RE48ASOC11AR

![](_page_25_Picture_19.jpeg)

![](_page_25_Picture_20.jpeg)

RE48ASETCOV

![](_page_25_Picture_22.jpeg)

![](_page_25_Picture_23.jpeg)

References					
8-pin relay					
Timing ranges	Function	No. of relay outputs	Voltages	Reference	Weight
			V		kg/ <i>lb</i>
1.2 s, 3 s, 12 s, 30 s, 120 s, 300 s, 12 min, 30 min,	A	1	≂24240	RE48ATM12MW	0.140/ <i>0</i> .309
120 min, 300 min, 12 h, 30 h, 120 h, 300 h	A1, A2, H1, H2	2 of which 1 instantaneous	5 ≂ 24240	RE48AMH13MW	0.140/ 0.309
11-pin relay					
1.2 s, 3 s, 12 s, 30 s, 120 s, 300 s, 12 min, 30 min,	L, Li	2	≂24240	RE48ACV12MW	0.140/ 0.309
120 min, 300 min, 12 h, 30 h, 120 h, 300 h	А, В, С, Di	2	≂24240	RE48AML12MW	0.140/ 0.309

Sockets					
Description	Number of pins	For use with relays	Sold in lots of	Unit reference	Weight kg/ <i>lb</i>
IP 20 sockets with connection by connector and mixed contact terminals (1)	8	RE48ATM12MW, RE48AMH13MW	10	RUZC2M	0.054/ 0.119
	11	RE48ACV12MW, RE48AML12MW	10	RUZC3M	0.054/ 0.119
IP 20 socket with screw terminal connections on rear face	11	RE48ACV12MW, RE48AML12MW	1	RE48ASOC11AR	_
Connectors and pro	tective co	over			
IP 20 solder connectors	8	RE48ATM12MW, RE48AMH13MW	1	RE48ASOC8SOLD	-
	11	RE48ACV12MW, RE48AML12MW	1	RE48ASOC11SOLD	_
Setting protection cover	-	RE48ATM12MW, RE48ACV12MW, RE48AML12MW, RE48AMH13MW	1	RE48ASETCOV	
Protective cover IP 64	-	RE48ATM12MW, RE48ACV12MW, RE48AML12MW, RE48AMH13MW	1	RE48AIPCOV	_

(1) The inputs are mixed with the relay's power supply terminals, with the outputs being located on the opposite side of the socket.

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![](_page_27_Picture_0.jpeg)

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 H3Y-2-B

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