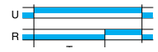
Function diagrams

Generic functions

U : Supply
R : Output relay or load
T : Timing
∞ : Infinity
C (Y1) : Command

• A function: Delay on energisation

1 relay



Single shot timing which starts on energisation.

• Ac function: Timing after closing and opening of control contact

1 relay

After energisation, closing of the control contact results in starting of the time delay T.
Output relay "R" (or the load) changes state at the end of this time delay. After opening of contact C (Y1), relay "R" drops out after a second time delay T.

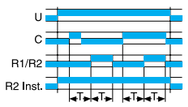
• Ad function: Delay on energisation (cannot be reset)

1 relay

After energisation, a control pulse or latching contact starts timing. At the end of timing, the output is excited. The output will be reset when a new control pulse or latching contact occurs.

• Ah function: Single shot flip-flop (cannot be reset)

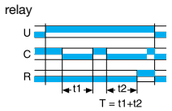
2 timers or
2 relays including
1 instantaneous



After energisation, a control pulse or latching contact starts timing. At the end of timing, the output is excited. The time delay is then reset. At the end of this new time delay, the output reverts to its initial value.

• At function: Timing on energisation with memory

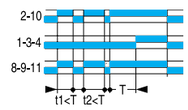
1 relay



Adds up the opening time of a contact.

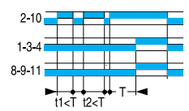
Output relay "R" (or the load) changes state at the end of timing.

• A1 function: Delay on energisation



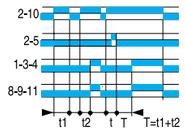
1 timer
1 instantaneous relay

• A2 function: Delay on energisation



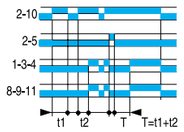
2 timers.

• AM function: Delay on energisation



Latching during the time delay.

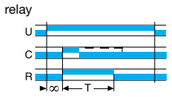
• AMt function: Delay on energisation



Latching during and after the time delay.

• B function: Timing on impulse (one shot) - Shaping (cannot be reset)

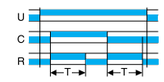
1 relay



After energisation, an impulse (≥ 50 ms) or a latching contact causes a change in state of the output relay "R" (or the load) which drops out at the end of timing.

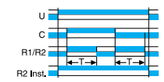
• Bw function: Pulse output (adjustable)

1 relay



On closing and opening of the control contact C (Y1), the output relay "R" (or the load) changes state for as long as the time delay lasts.

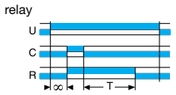
2 timers or
2 relays including 1 instantaneous



• C function: Timing after impulse True delay off

(without auxiliary power supply)

1 relay

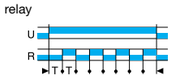


After energisation, closing of the control contact C (Y1) results in the change of state of output relay "R" (or the load).
Timing will only start when this contact opens.

• D or Di functions: Symmetrical flashing

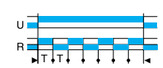
Repetitive cycle which alternately sets the output relay "R" (or the load) to operating and rest position for equal periods of time.

1 relay



D function:
The cycle starts with relay "R" in rest position.

1 relay

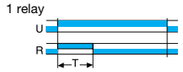


Di function:
The cycle starts with relay "R" in operating position.

U : Supply
R : Output relay or load
T : Timing
∞ : Infinity
C (Y1) : Command

• H function: Timing on energisation - Pulse output (adjustable)

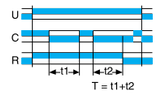
1 relay



On energisation, the output relay "R" (or the load) changes state, and stays there for the whole duration of the time delay and drops out at the end of the single shot cycle.

• Ht function: Delay on energisation with memory

1 relay

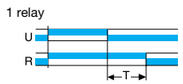


Adds up the total opening time of a contact.
On energisation, the output relay "R" (or the load) changes state, and stays there for the whole duration of the time delay and drops out at the end of the single shot cycle.

• K function: Delay on de-energisation True delay off

(without auxiliary power supply)

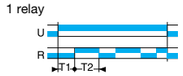
1 relay



On energisation, the output relay "R" (or the load) changes state.
On de-energisation timing starts and the relay "R" will only drop out at the end of this time delay.

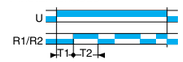
• L function: Asymmetrical flashing

1 relay



Repetitive cycle with two times which can be set independently. Each time delay alternates with a different state of the output relay "R" (or the load).

2 timers or
2 relays including
1 instantaneous



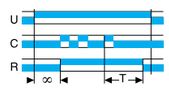
Note: The cycle starts with the relay "R" in the rest position.

• Li function: Asymmetrical flashing

1 relay

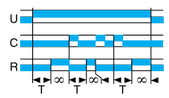
Repetitive cycle with two times which can be set independently.

• N function: "Safe-guard"



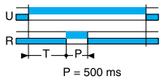
On the first control pulse, the output is excited.
If the interval between two impulses is longer than the timing value, this occurs normally and the output relay "R" (or the load) will change state at the end of timing. Otherwise, relay "R" stays in its original state until the condition is fulfilled.

• O function: "Delayed safe-guard"



On energisation, a first timer runs and the output relay "R" (or the load) changes state.
On the appearance of a control pulse, relay "R" returns to its initial position and stays there as long as the time interval between 2 impulses is less than the timing value. Otherwise, relay "R" will change state at the end of timing.

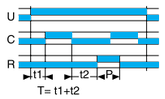
• P and Pe functions: Impulse counter (delay on)



P function:
Timing starts on energisation.
At the end of timing, the output relay "R" (or the load) changes state for approximately 500 ms.

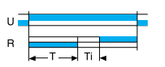
Pe function:
On energisation.
At the end of timing, the output relay "R" (or the load) changes state for approximately 1 s.

• Pt function: Impulse counter (delay on)



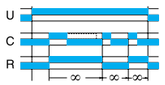
Adds up the total opening time of a contact.
At the end of timing, the output is excited for approximately 500 ms.

• Q function: "Star-delta" starting



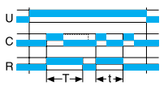
On energisation, the "star" contact closes instantaneously and timing starts.
At the end of timing the Ti "star" contact opens. After a pause of 40 to 100 ms the "delta" contact closes.

• TL function: Impulse relay



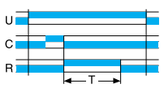
After energisation, a control pulse or latching contact closes the relay. A second control pulse opens the relay.

• Tt function: Timed impulse relay



After energisation, a control pulse or latching contact closes the relay and starts timing.
The relay opens at the end of timing or on a second control pulse.

• W function: Timing after pulse on control contact



After energisation, opening of the control contact results in a change in the state of output "R" (or the load) and timing starting.