

# Product data sheet

Specifications



time delay relay 10 functions - 1 s..  
100 h - 24..240 V AC - 2 contacts

RE88865305

⚠ Discontinued on: Dec 1, 2014

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## Main

Range of Product	Zelio Time
Product or Component Type	Industrial timing relay
Contacts type and composition	2 C/O timed contact, AgNi (cadmium free) 2 C/O timed or instantaneous contact, AgNi (cadmium free)
Component name	RE88865
Time delay type	Ht B D Bw A At Ac H Di C
Time delay range	1 min 100 h 10 s 1 h 10 h 10 min 1 s

## Complementary

Discrete output type	Relay
Width pitch dimension	0.9 in (22.5 mm)
[Us] rated supply voltage	24 V DC 24...240 V AC 50/60 Hz
Voltage range	0.85...1.1 Us
Connections - terminals	Screw terminals, 2 x 1.5 mm² with cable end Screw terminals, 2 x 2.5 mm² without cable end
Housing material	Self-extinguishing
Repeat accuracy	+/- 0.5 % IEC 61812-1
Temperature Drift	+/- 0.05 %/°C
Voltage drift	+/- 0.2 %/V
Setting accuracy of time delay	+/- 10 % of full scale 25 °C IEC 61812-1
Minimum pulse duration	100 ms under load 30 ms
maximum reset time	100 ms on de-energisation

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

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

On-load factor	100 %
maximum power consumption	32 VA 240 V
maximum power consumption	0.6 W 24 V 1.5 W 240 V
Breaking capacity	2000 VA
Breaking capacity	80 W
Minimum switching current	10 mA
Maximum switching current	8 A
Maximum switching voltage	250 V
Electrical durability	100000 cycles 8 A, 250 V resistive
Mechanical durability	5000000 cycles
[Uimp] rated impulse withstand voltage	5 kV 1.2...50 µs IEC 60664-1 5 kV 1.2...50 µs IEC 61812-1
Marking	CE
Creepage distance	4 kV/3 IEC 60664-1
Surge withstand	1 kV differential mode IEC 61000-4-5 level 3 2 kV common mode IEC 61000-4-5 level 3
Mounting support	35 mm symmetrical mounting rail conforming to EN 50022
Local signalling	for flashing: timing in progress LED indicator (green) for on steady: relay energised, no timing in progress LED indicator (green) for pulsing: relay energised, no timing in progress (except functions Di-D) LED indicator (green)
Net Weight	0.20 lb(US) (0.09 kg)

## Environment

Immunity to microbreaks	10 ms
Dielectric strength	2.5 kV 1 mA/1 minute 50 Hz IEC 61812-1
Standards	93/68/EEC IEC 61812-1 73/23/EEC 89/336/EEC EN 50081-1/2 EN 50082-1/2 IEC 60669-2-3
Product Certifications	GL CSA cULus
Ambient Air Temperature for Operation	-4...140 °F (-20...60 °C)
Ambient Air Temperature for Storage	-22...140 °F (-30...60 °C)
IP degree of protection	IP20 IEC 60529 terminal block) IP40 IEC 60529 housing) IP50 IEC 60529 front face)
Vibration resistance	0.35 mm 10...55 Hz)IEC 60068-2-6
Relative Humidity	93 % without condensation IEC 60068-2-3
Resistance to electrostatic discharge	6 kV in contact EN/IEC 61000-4-2 level 3 8 kV in air EN/IEC 61000-4-2 level 3
Resistance to electromagnetic fields	9.1 V/m (10 V/m) 80 MHz to 1 GHz ENV 50140/204 level 3 9.1 V/m (10 V/m) 80 MHz to 1 GHz IEC 61000-4-3 level 3
Resistance to fast transients	1 kV IEC 61000-4-4 level 3 capacitive connecting clip) 2 kV IEC 61000-4-4 level 3 direct)

Immunity to radioelectric fields	10 V 0.15...80 MHz)ENV 50141 (IEC 61000-4-6)
Immunity to voltage dips	30 % / 10 ms IEC 61000-4-11 60 % / 100 ms IEC 61000-4-11 95 % / 5 s IEC 61000-4-11
Disturbance radiated/conducted	Class B EN 55022 (EN 55011 group 1)

## Ordering and shipping details

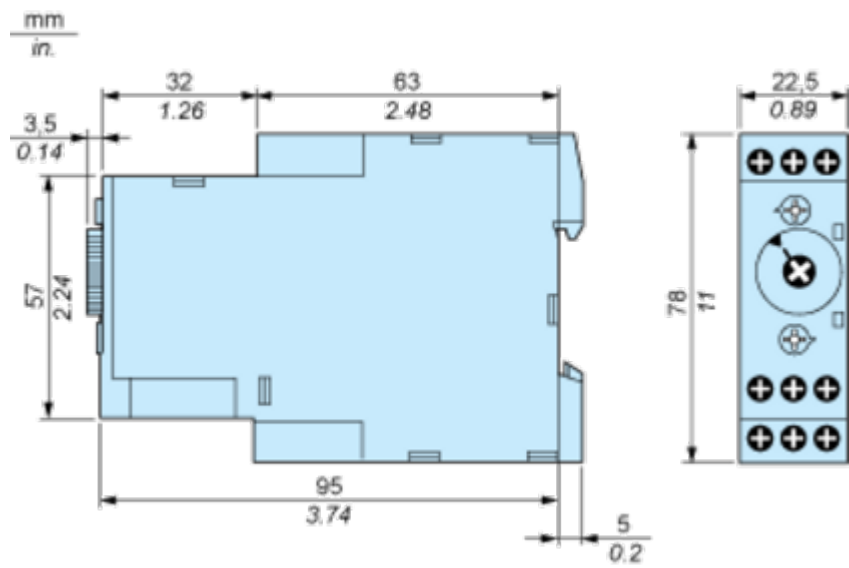
Category	22370-RE, RM MISC TIMERS & COUNTERS
Discount Schedule	CP2
GTIN	00785901567905
Returnability	No
Country of origin	FR

## Contractual warranty

Warranty	18 months
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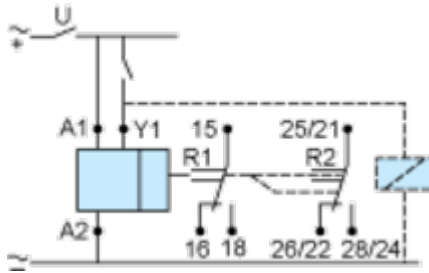
Dimensions Drawings

Width 22.5 mm



## Connections and Schema

### Wiring Diagram



Technical Description

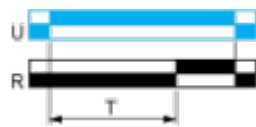
Function A : Power on Delay Relay

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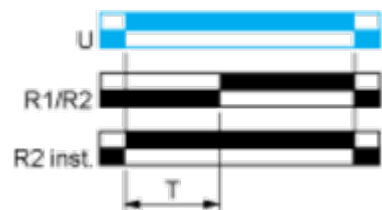
Description

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



2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

Function Ac : On- and Off-Delay Relay with Control Signal

Description

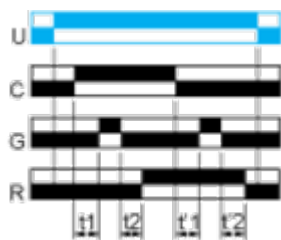
After power-up, closing of the control contact C causes the timing period T to start (timing can be interrupted by operating the Gate control contact G). At the end of this timing period, the relay closes.

When control contact C re-opens, the timing T starts.

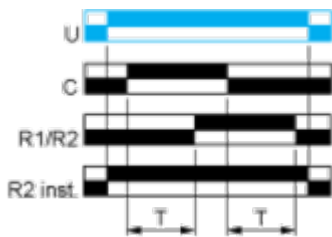
At the end of this timing period T, the output reverts to its initial position (timing can be interrupted by operating the Gate control contact G).

The second output can be either timed or instantaneous.

Function: 1 Output



Function: 2 Outputs



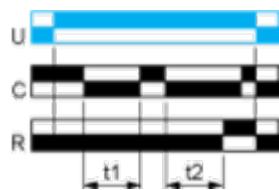
2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

Function At : Power on Delay Relay (Summation) with Control Signal

Description

After power-up, the first opening of control contact C starts the timing. Timing can be interrupted each time control contact closes. When the cumulative total of time periods elapsed reaches the pre-set value T, the output relay closes.

Function: 1 Output



$T = t1 + t2 + \dots$

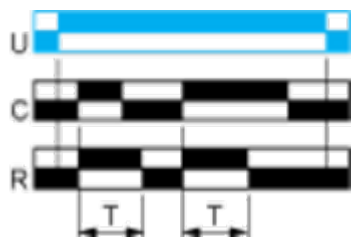


Function B : Interval Relay with Control Signal

Description

After power-up, pulsing or maintaining control contact C starts the timing T. The output R closes for the duration of the timing period T then reverts to its initial state.

Function: 1 Output

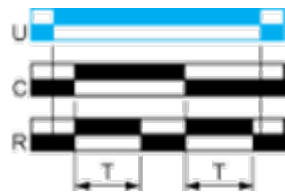


Function Bw : Double Interval Relay with Control Signal

Description

On closing and opening of control contact C, the output R closes for the duration of the timing period T.

Function: 1 Output

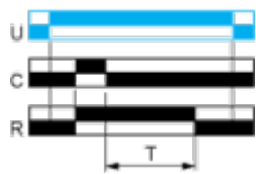


Function C : Off-Delay Relay with Control Signal

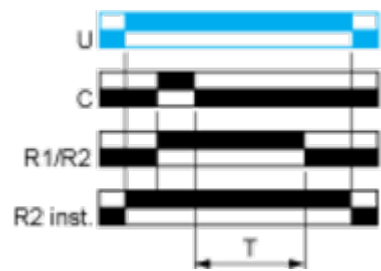
Description

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



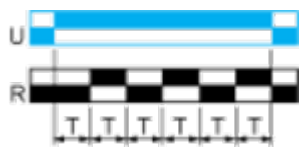
2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

Function D : Symmetrical Flasher Relay (Starting Pulse Off)

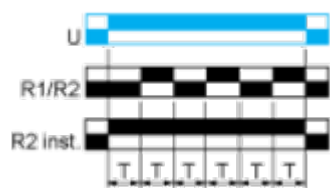
Description

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



2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

Function Di : Symmetrical Flasher Relay (Starting Pulse On)

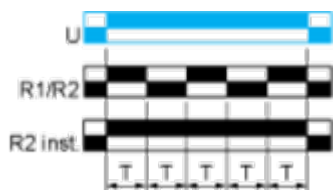
Description

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



2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

Function H : Interval Relay

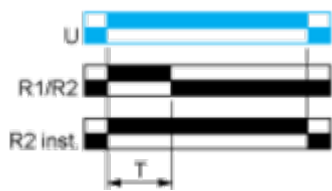
Description

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



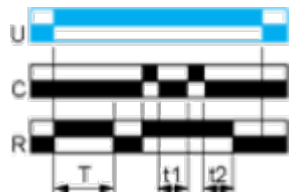
2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

Function Ht : Interval Relay (Summation) with Control Signal

Description





On energisation, the output R closes for the duration of a timing period T then reverts to its initial state.  
Pulsing or maintaining control contact C will again close the output R.  
Timing T is only active when control contact C is released and so the output R will not revert to its initial state until after a time  $t_1 + t_2 + \dots$   
The relay memorises the total, cumulative opening time of control contact C and, once the set time T is reached, the output R reverts to its initial state.

Function: 1 Output



$T = t_1 + t_2 + \dots$

Legend

-  Relay de-energised
-  Relay energised
-  Output open
-  Output closed

C	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
T	Timing period
Ta -	Adjustable On-delay
Tr -	Adjustable Off-delay
U	Supply



Technical Illustration

Dimensions

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