

# Productinformatieblad

Specificaties



## Tijdvertragsrelais met 6 functies - 0,05..1 s - 24 V AC/DC - 10C

RE7ML11BU

⚠ Niet meer leverbaar sinds: 1 jun 2016

⚠ Stopgezet

### Hoofdkenmerken

productgamma	Zelio Time
type product of component	Industriële tijdrelais
naam component	RE7
type tijdvertraging	Di D W C A H
bereik tijdvertraging	0.05 s...300 H

### Complementaire kenmerken

discreet uitgangstype	Relais
legering contacten	90/10 zilvernikkelen contacten
afmeting steekbreedte	22,5 mm
[Us] nominale voedingsspanning	110...240 V AC 50/60 Hz 24 V AC/DC 50/60 Hz 42...48 V AC/DC 50/60 Hz
spanningsbereik	0.85...1.1 Us
aansluitingen - klemmen	Schroefklemmen, 2 x 1,5 mm <sup>2</sup> flexibel met kabelhuls Schroefklemmen, 2 x 2,5 mm <sup>2</sup> flexibel zonder kabelhuls
aandraaimoment	0,6...1,1 N.m
instelling nauwkeurigheid tijdsvertraging	+/- 10 % of full scale
herhalingsnauwkeurigheid	+/-0,2 %
temperatuurafwijking	< 0,07 %/°C
spanningsverloop	< 0,2 %/V
minimale pulsduur	20 ms
resettijd	50 ms
maximale schakelspanning	250 V AC/DC
mechanische levensduur	20000000 cycli
lth conventionele thermische stroom in vrije lucht	8 A
le toegekende bedrijfstrom	2 A DC-13 24 V bev 70 °C In overeenstemming met IEC 60947-5-1/1991/VDE 0660 0,1 A DC-13 250 V bev 70 °C In overeenstemming met IEC 60947-5-1/1991/VDE 0660 0,2 A DC-13 115 V bev 70 °C In overeenstemming met IEC 60947-5-1/1991/VDE 0660 3 A AC-15 bev 70 °C In overeenstemming met IEC 60947-5-1/1991/VDE 0660

<b>minimale schakelcapaciteit</b>	10 mA bij 12 V
<b>ingangsspanning</b>	< 60 V X1Z2 klem < 60 V Y1Z2 klem
<b>maximale schakelstroom</b>	1 mA (X1Z2) 1 mA (Y1Z2)
<b>inputcompatibiliteit</b>	3/4-draads sensoren PNP/NPN zonder interne belasting <50 m X1Z2 klem 3/4-draads sensoren PNP/NPN zonder interne belasting <50 m Y1Z2 klem
<b>karacteristiek potentiometer</b>	Lineair 47 kOhm (+/- 20 %), 0,2 W, kabellengte <25 m Z1Z2 klem
<b>markering</b>	CE
<b>overspanningscategorie</b>	III In overeenstemming met IEC 60664-1
<b>[U<sub>i</sub>] nominale isolatiespanning</b>	250 V tussen contactcircuit en controle-inputs IEC gecertificeerd 250 V tussen contactcircuit en voeding IEC gecertificeerd 300 V tussen contactcircuit en controle-inputs CSA gecertificeerd 300 V tussen contactcircuit en voeding CSA gecertificeerd
<b>waarde ontkoppeling voeding</b>	> 0,1 U <sub>c</sub>
<b>bedieningspositie</b>	Eender welke positie zonder
<b>bestand tegen stroomstoten</b>	2 kV In overeenstemming met IEC 61000-4-5 level 3
<b>energieverbruik in VA</b>	0,7 VA bij 24 V 1,6 VA bij 48 V 1,8 VA bij 110 V 8,5 VA bij 240 V
<b>stroomverbruik in W</b>	0,5 W bev 24 V 1,2 W bev 48 V
<b>terminalbeschrijving</b>	(Y1)UNUSED (15-16-18)OC (Z1)UNUSED (Z2)UNUSED (B1-A2)CO ALT (X1)UNUSED
<b>hoogte</b>	78 mm
<b>breedte</b>	22,5 mm
<b>diepte</b>	80 mm
<b>gewicht product</b>	0,15 kg

## Omgeving

<b>immuniteit voor micro-onderbrekingen</b>	3 ms
<b>normen</b>	EN/IEC 61812-1
<b>productcertificeringen</b>	CSA GL UL
<b>omgevingstemperatuur bij opslag</b>	-40...85 °C
<b>omgevingstemperatuur bij werking</b>	-20...60 °C
<b>relatieve vochtigheid</b>	15...85 % 3K3 conform IEC 60721-3-3
<b>trillingsweerstand</b>	0.35 mm (f= 10...55 Hz) In overeenstemming met IEC 60068-2-6
<b>schokbestendigheid</b>	15 gn voor 11 ms In overeenstemming met IEC 60068-2-27
<b>IP-beschermingsgraad</b>	IP20 (aansluitklemmen) IP50 (behuizing)
<b>vervuilingsgraad</b>	3 In overeenstemming met IEC 60664-1
<b>doorslagvastheid</b>	2,5 kV

niet-verspreidende schokgolf	4,8 kV
weerstand tegen elektrostatische ontlading	6 kV in contact In overeenstemming met IEC 61000-4-2 level 3 8 kV in lucht In overeenstemming met IEC 61000-4-2 level 3
weerstand tegen elektromagnetische velden	10 V/m In overeenstemming met IEC 61000-4-3 level 3
weerstand tegen snelle piekspanningen	2 kV In overeenstemming met IEC 61000-4-4 level 3
storing uitgestraald/geleid	CISPR11 groep 1- klasse A CISPR22 - klasse A

## Verpakkingseenheden

Eenheidstype van verpakking 1	PCE
Aant. eenh./verp.	1

## Contractuële waarborg

Garantie (in maanden)	18
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## Environmental Data

Schneider Electric wil tegen 2050 de Net Zero-status hebben bereikt via partnerschappen in de toeleveringsketen, materialen met een lagere impact en circulariteit via onze doorlopende campagne "Use Better, Use Longer, Use Again" om de levensduur van producten en de recycleerbaarheid te verlengen.

[Uitleg van Environmental Data](#) >

[Hoe evalueren we de duurzaamheid van producten?](#) >

### Use Longer



#### Levensduurverlenging

Reparatie

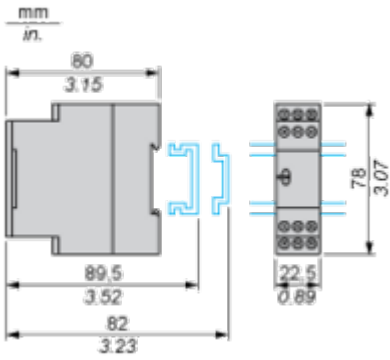
Geen

Dimensions Drawings

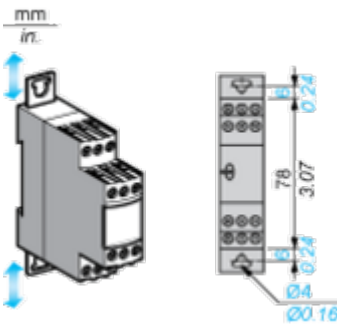
Width 22.5 mm

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Rail Mounting



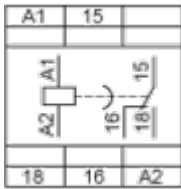
Screw Fixing



Connections and Schema

Internal Wiring Diagram

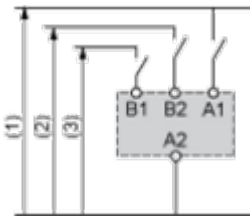
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Recommended Application Wiring Diagram

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Start on Energisation

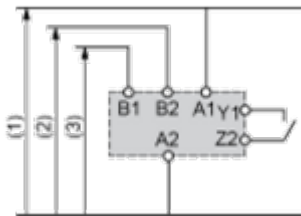


- 1 Supply
- 2 12...48 V
- 3 24 V

Recommended Application Wiring Diagram

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Start by External Control

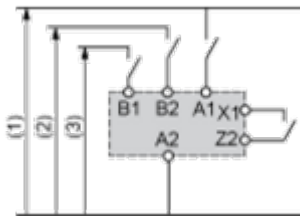


- 1 Supply
- 2 12...48 V
- 3 24 V

Recommended Application Wiring Diagram

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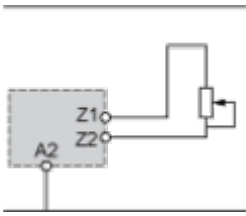
External Control of Partial Stop



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

Connection of Potentiometer

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## Connection Precautions

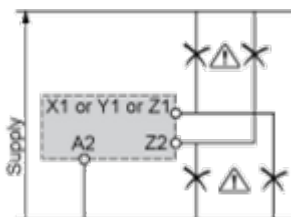
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### WARNING

#### 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.



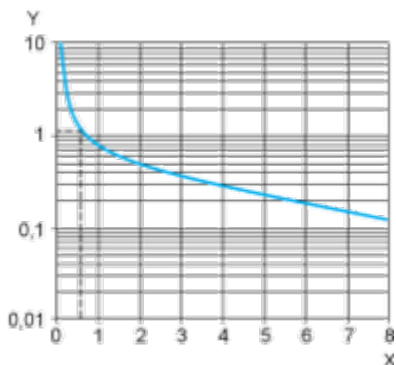
Performance Curves

Performance Curves

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**A.C. Load Curve 1**

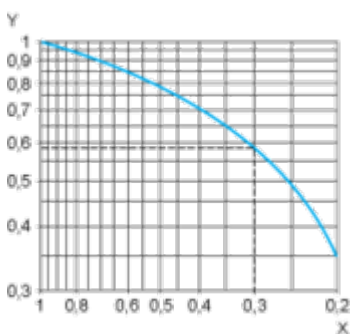
Electrical durability of contacts on resistive loading millions of operating cycles



X Current broken in A  
 Y Millions of operating cycles

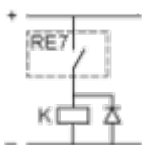
**A.C. Load Curve 2**

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

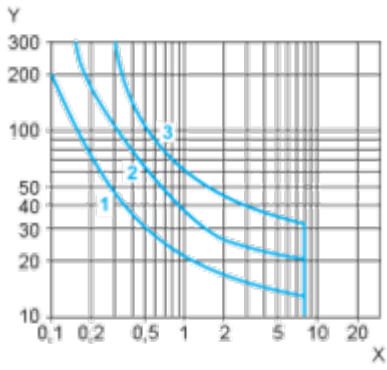


X Power factor on breaking (cos φ)  
 Y Reduction factor k

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 φ = 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 φ = 0.3: k = 0.6 The electrical durability therefore becomes: 1.5 10<sup>6</sup> operating cycles x 0.6 = 900 000 operating cycles.



**D. C. Load Limit Curve**



X Current in A

Y Voltage in V

1 L/R = 20 ms

2 L/R with load protection diode

3 Resistive load

Technical Description

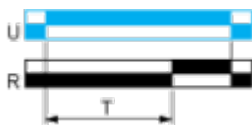
**Function A : Power on Delay Relay**

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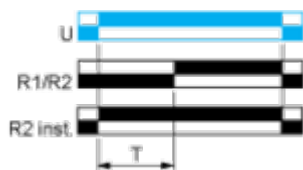
**Description**

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.)

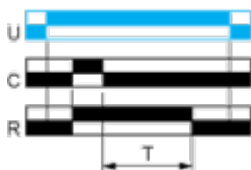
**Function C : Off-Delay Relay with Control Signal**

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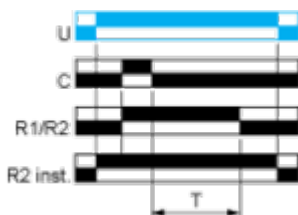
**Description**

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)**

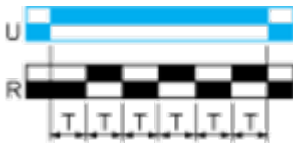
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**Description**

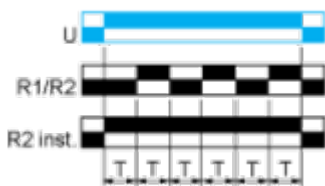
Repetitive cycle with two timing periods T of equal duration, with output(s) R changing state at the end of each timing period T.

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)**

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**Description**

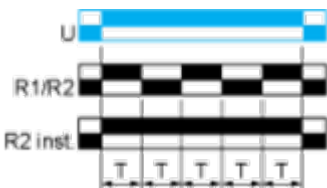
Repetitive cycle with two timing periods T of equal duration, with output(s) R changing state at the end of each timing period T.

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

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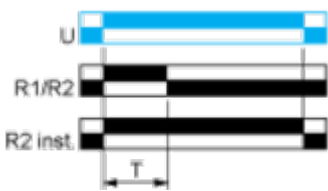
**Description**

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.)

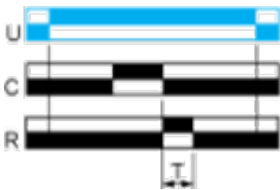
**Function W : Interval Relay with Control Signal Off**

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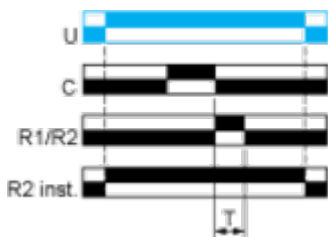
**Description**

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**



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

**Legend**

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	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