



Zeitrelais ansprech/rückfall,  
0,05s-300h, 1 W, 24VAC/DC/  
42-48/110-240VAC

RE7MA11BU

⚠ Eingestellt am: 01.06.2016

⚠ Nicht mehr lieferbar

EAN Code: 3389110311778

Hauptmerkmale

|                              |                          |
|------------------------------|--------------------------|
| Baureihe                     | Zelio Zeit               |
| Produkt- Oder Komponententyp | Industrielles Zeitrelais |
| Komponentenname              | RE7                      |
| Zeitverzögerungsfunktion     | Ac                       |
| Zeitverzögerungsbereich      | 0,05 s - 300 h           |

Zusatzmerkmale

|                                                           |                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Diskreter Ausgangstyp                                     | Relais                                                                                                                                                                                                                                                                    |
| Kontaktmaterial                                           | 90/10 Silber-Nickel-Kontakte                                                                                                                                                                                                                                              |
| Breite Abstandsmaß                                        | 22,5 mm                                                                                                                                                                                                                                                                   |
| [Uh,Nom]<br>Bemessungsbetriebsspannung                    | 110 - 240 V AC 50/60 Hz<br>24 V AC/DC 50/60 Hz<br>42 - 48 V AC/DC 50/60 Hz                                                                                                                                                                                                |
| Spannungsbereich                                          | 0,85 - 1,1 Us                                                                                                                                                                                                                                                             |
| Anschlüsse - Klemmen                                      | Schraubklemmen, 2 x 1,5 mm² flexibel mit Kabelende<br>Schraubklemmen, 2 x 2,5 mm² flexibel ohne Kabelende                                                                                                                                                                 |
| [M] Anzugsdrehmoment                                      | 0,6...1,1 Nm                                                                                                                                                                                                                                                              |
| Einstellgenauigkeit Der<br>Zeitverzögerung                | +/- 10 % der Gesamtskala                                                                                                                                                                                                                                                  |
| Wiederholungsgenauigkeit                                  | +/- 0,2 %                                                                                                                                                                                                                                                                 |
| Temperaturabweichung                                      | < 0,07 %/°C                                                                                                                                                                                                                                                               |
| Spannungsdrift                                            | < 0,2 %/V                                                                                                                                                                                                                                                                 |
| Minimale Impulsdauer                                      | 20 ms                                                                                                                                                                                                                                                                     |
| Rückstellzeit                                             | 50 ms                                                                                                                                                                                                                                                                     |
| Maximale Schaltspannung                                   | 250 V AC/DC                                                                                                                                                                                                                                                               |
| Mechanische Lebensdauer                                   | 20000000 Zyklen                                                                                                                                                                                                                                                           |
| [Ith] Konventioneller Thermischer<br>Strom In Freier Luft | 8 A                                                                                                                                                                                                                                                                       |
| [Ie] Max.<br>Bemessungsbetriebsstrom                      | 2 A DC-13 24 V bei 70 °C entspricht IEC 60947-5-1/1991/VDE 0660<br>0,1 A DC-13 250 V bei 70 °C entspricht IEC 60947-5-1/1991/VDE 0660<br>0,2 A DC-13 115 V bei 70 °C entspricht IEC 60947-5-1/1991/VDE 0660<br>3 A AC-15 bei 70 °C entspricht IEC 60947-5-1/1991/VDE 0660 |
| Minimale Schaltleistung                                   | bei 12 V 10 mA                                                                                                                                                                                                                                                            |
| Eingangsspannung                                          | < 60 V X1Z2 Bedienpulte<br>< 60 V Y1Z2 Bedienpulte                                                                                                                                                                                                                        |

Haftungsausschluss: Diese Dokumentation dient nicht als Ersatz für die Beurteilung der Eignung oder Verlässlichkeit dieser Produkte für bestimmte Verwendungsbereiche des Benutzers und darf nicht zu diesem Zweck verwendet werden.

|                                |                                                                                                                                                                                                                                                                                                    |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maximaler Schaltstrom          | 1 mA (X1Z2)<br>1 mA (Y1Z2)                                                                                                                                                                                                                                                                         |
| Eingangs-Kompatibilität        | 3/4-Daht PNP/NPN-Sensoren ohne interne Last <50 m X1Z2 Bedienpulte<br>3/4-Daht PNP/NPN-Sensoren ohne interne Last <50 m Y1Z2 Bedienpulte                                                                                                                                                           |
| Potentiometercharakteristik    | Linear 47 kOhm (+/-20 %), 0,2 W, Kabellänge <25 m Z1Z2 Bedienpulte                                                                                                                                                                                                                                 |
| Beschriftung                   | CE                                                                                                                                                                                                                                                                                                 |
| Überspannungskategorie         | III entspricht IEC 60664-1                                                                                                                                                                                                                                                                         |
| Nennisolationsspannung Ui      | 250 V zwischen Kontaktschaltkreis und Steuerbefehlen IEC zertifiziert<br>250 V zwischen Kontaktschaltkreis und Stromversorgung IEC zertifiziert<br>300 V zwischen Kontaktschaltkreis und Steuerbefehlen CSA zertifiziert<br>300 V zwischen Kontaktschaltkreis und Stromversorgung CSA zertifiziert |
| Wert F. Trennung Der Stromver. | > 0,1 Uc                                                                                                                                                                                                                                                                                           |
| Betriebsposition               | Jede Position ohne Leistungsminderung                                                                                                                                                                                                                                                              |
| Stoßspannungsfestigkeit        | 2 kV entspricht IEC 61000-4-5 Level 3                                                                                                                                                                                                                                                              |
| Leistungsaufnahme In Va        | 0,7 VA bei 24 V<br>1,6 VA bei 48 V<br>1,8 VA bei 110 V<br>8,5 VA bei 240 V                                                                                                                                                                                                                         |
| Leistungsaufnahme In W         | 0,5 W bei 24 V<br>1,2 W bei 48 V                                                                                                                                                                                                                                                                   |
| Anschlussbeschreibung          | (Z1)UNUSED<br>ALT<br>(Y1)UNUSED<br>(X1)UNUSED<br>(15-16-18)OC_ON_OFF<br>(Z2)UNUSED<br>(B1-A2)CO                                                                                                                                                                                                    |
| Höhe                           | 78 mm                                                                                                                                                                                                                                                                                              |
| Breite                         | 22,5 mm                                                                                                                                                                                                                                                                                            |
| Tiefe                          | 80 mm                                                                                                                                                                                                                                                                                              |
| Produktgewicht                 | 0,15 kg                                                                                                                                                                                                                                                                                            |

## Montage

|                                                       |                                                                                                       |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Störfestigkeit Gegen Unterbrechungen                  | 3 ms                                                                                                  |
| Normen                                                | EN/IEC 61812-1                                                                                        |
| Produktzertifizierungen                               | UL<br>CSA<br>GL                                                                                       |
| Umgebungstemperatur Bei Lagerung                      | -40...85 °C                                                                                           |
| Umgebungstemperatur Bei Betrieb                       | -20...60 °C                                                                                           |
| Relative Feuchtigkeit                                 | 15...85 % 3K3 entspricht IEC 60721-3-3                                                                |
| Vibrationsfestigkeit                                  | 0,35 mm (f= 10...55 Hz) entspricht IEC 60068-2-6                                                      |
| Stoßfestigkeit                                        | 15 gn für 11 ms entspricht IEC 60068-2-27                                                             |
| Schutzart (Ip)                                        | IP20 (Klemmen)<br>IP50 (Gehäuse)                                                                      |
| Verschmutzungsgrad                                    | 3 entspricht IEC 60664-1                                                                              |
| Durchschlagfestigkeit                                 | 2,5 kV                                                                                                |
| Nicht Ableitende Stoßwelle                            | 4,8 kV                                                                                                |
| Widerstandsfähigkeit Gegen Elektrostatische Entladung | 6 kV in Kontakt entspricht IEC 61000-4-2 Level 3<br>8 kV in der Luft entspricht IEC 61000-4-2 Level 3 |

|                                                      |                                                   |
|------------------------------------------------------|---------------------------------------------------|
| Widerstandsfähigkeit Gegen Elektromagnetische Felder | 10 V/m entspricht IEC 61000-4-3 Level 3           |
| Widerstandsfähigkeit Gegen Kurze Störsignale         | 2 kV entspricht IEC 61000-4-4 Level 3             |
| Strahl-/Leitungsgeb. Störung                         | CISPR22 - Klasse A<br>CISPR11 Gruppe 1 - Klasse A |

## Verpackungseinheiten

|             |     |
|-------------|-----|
| Vpe 1 Art   | PCE |
| Vpe 1 Menge | 1   |

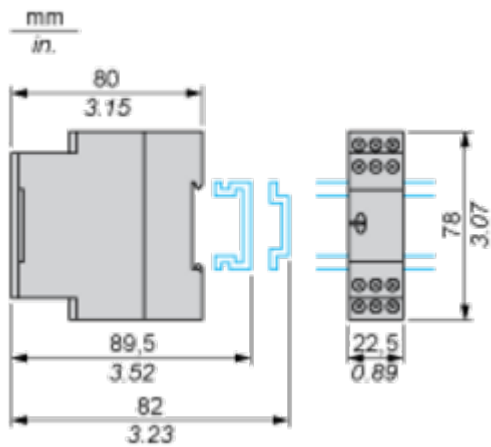
## Vertragliche Gewährleistung

|          |           |
|----------|-----------|
| Garantie | 18 months |
|----------|-----------|

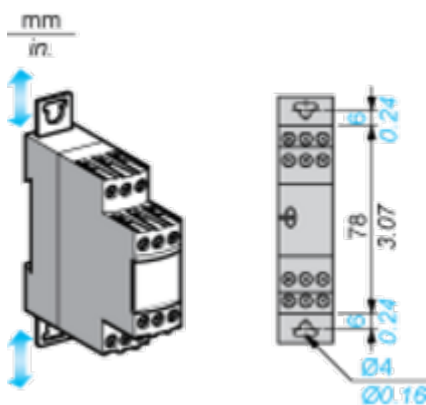
Dimensions Drawings

Width 22.5 mm

Rail Mounting

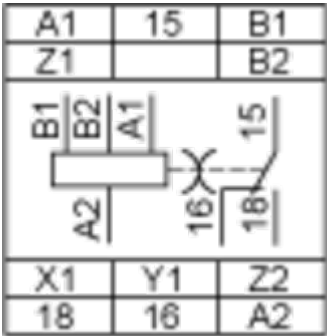


Screw Fixing



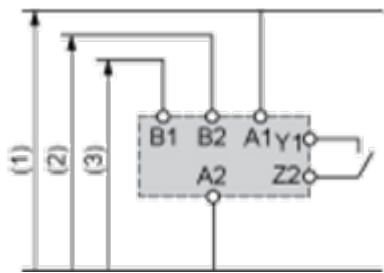
Connections and Schema

Internal Wiring Diagram



Recommended Application Wiring Diagram

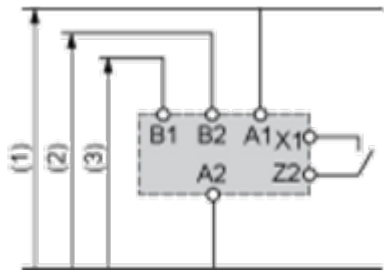
Start by External Control



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

Recommended Application Wiring Diagram

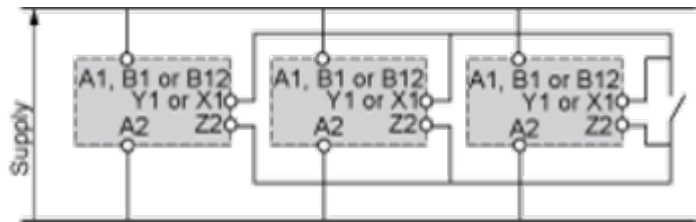
Start by External Control



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

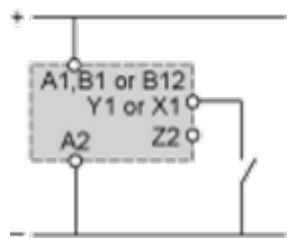
Control of Several Relays

Control of several relays with a single external control contact

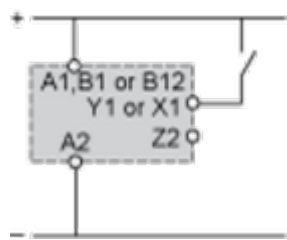




Connection of an External Control Contact Without Using Terminal Z2

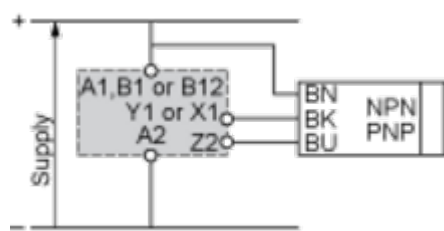


Direct current supply only.  
It is advisable to follow the recommended wiring schemes detailed above if the restrictions given are taken into account.



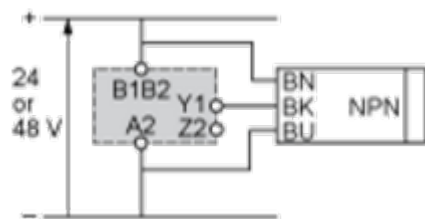
Direct current supply only.  
It is advisable to follow the recommended wiring schemes detailed above if the restrictions given are taken into account.

Connection 3-Wire NPN or PNP Sensor



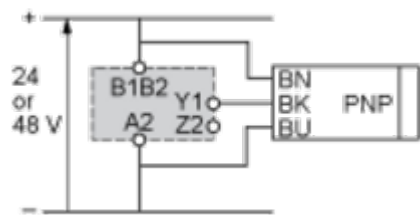
Connection 3-Wire NPN or PNP Sensor Without Using Terminal Z2

Connection NPN



It is advisable to follow the recommended wiring schemes detailed above if the restrictions given are taken into account.

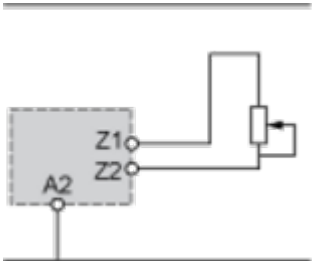
Connection PNP



It is advisable to follow the recommended wiring schemes detailed above if the restrictions given are taken into account.

Connection of Potentiometer

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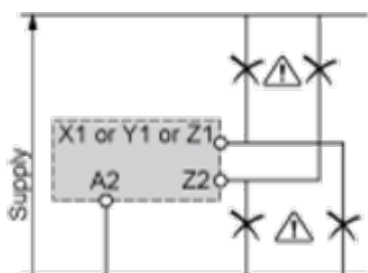
Connection Precautions

 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.

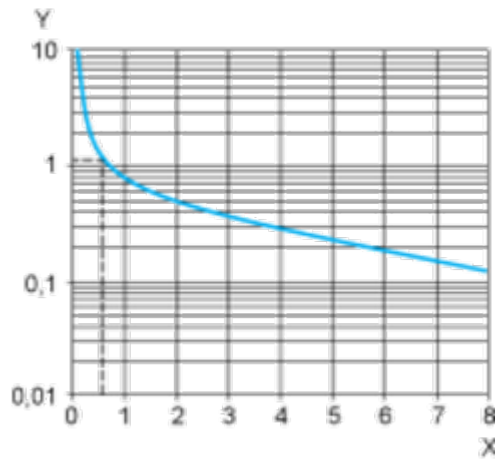


Performance Curves

Performance Curves

A.C. Load Curve 1

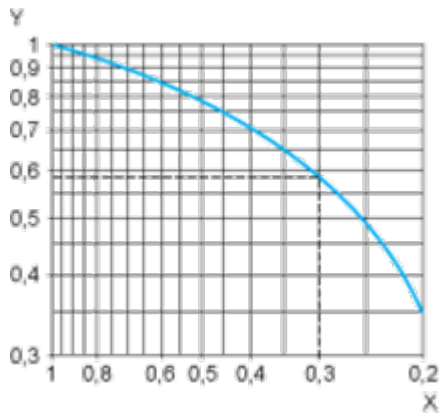
Electrical durability of contacts on resistive loading millions of operating cycles



X Current broken in A  
Y Millions of operating cycles

A.C. Load Curve 2

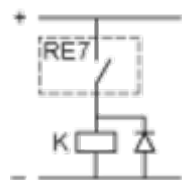
Reduction factor k for inductive loads (applies to values taken from durability curve 1).



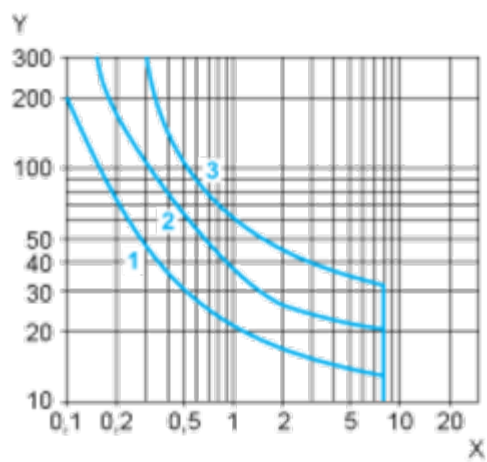
X Power factor on breaking (cos φ)  
Y Reduction factor k

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

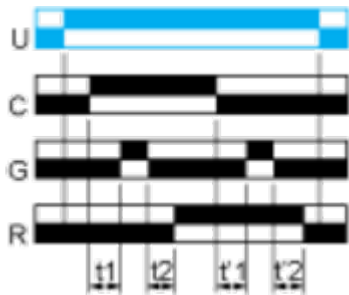
Technical Description

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

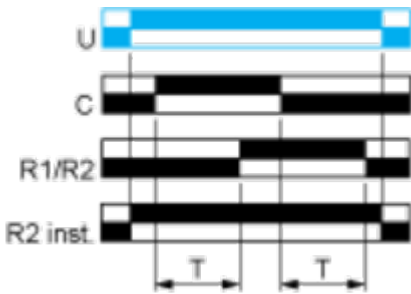
Description

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.)



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                                                               |