Technical Data

**DZE 12-SL / DZE 34-2SL**

**Response-delay single-range time-delay relay - electronic**

- Devices for mono-voltage
- Response delay (RD)
- Time range
- Contact complement:
  - DZE 12-SL: 1 immediate and 1 delayed changeovers
  - DZE 34-2SL: 1 immediate and 1 delayed make-break contacts
- Front dimensions: 2.83 x 2.83 inch / 72.0 x 72.0 mm

**Function**

On excitation of A1/A2 and B1/B2 (B1/B2 only in DZE 12-SL), the instantaneous contact is brought to the working position and the timing period begins. Once the preset time is reached, the time contact is activated. After de-excitation, the timer and all contacts go to the initial position. If voltage is interrupted during the timing period, then the instantaneous contact and timer fall to the initial position. During the timing period the operating time can be reduced but not increased. On resetting to zero, both contacts switch instantaneously. The DZE component is out-of-the-box directly interchangeable with electromechanical relay precursor models.

**Accessories**

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>For device</th>
<th>Article no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B5</td>
<td>Jack plate for installation and surface mounting</td>
<td>DZE 12-SL</td>
<td>R921100890</td>
</tr>
<tr>
<td>B7</td>
<td>Plug-in holder for installation</td>
<td>DZE 12-SL</td>
<td>R921102090</td>
</tr>
<tr>
<td>B8</td>
<td>Plug-in holder for installation</td>
<td>DZE 34-2SL</td>
<td>R921102590</td>
</tr>
<tr>
<td>DA1</td>
<td>Cover, black for panel cutout</td>
<td>DZE 12-SL</td>
<td>R921103990</td>
</tr>
<tr>
<td>V4</td>
<td>Lockable cap, transparent</td>
<td>DZE 12-SL / DZE 34-2SL</td>
<td>R921101790</td>
</tr>
<tr>
<td>Z1</td>
<td>Seal for panel mounting, black</td>
<td>DZE 12-SL / DZE 34-2SL</td>
<td>R921101990</td>
</tr>
</tbody>
</table>

**Time ranges**

<table>
<thead>
<tr>
<th>Adjustment ranges available:</th>
<th>Seconds</th>
<th>Minutes</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DZE 12-SL / KS 232-1</td>
<td>3 s</td>
<td>3 min</td>
<td>3 h</td>
</tr>
<tr>
<td>DZE 34-2SL / KS 232-2</td>
<td>6 s</td>
<td>6 min</td>
<td>6 h</td>
</tr>
<tr>
<td></td>
<td>30 s</td>
<td>12 min</td>
<td>30 h</td>
</tr>
<tr>
<td></td>
<td>60 s</td>
<td>30 min</td>
<td>60 h</td>
</tr>
</tbody>
</table>
### Function charts

<table>
<thead>
<tr>
<th>DZE 12-SL</th>
<th>Response delay (AV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$t_1$</td>
<td>$t_2$</td>
</tr>
<tr>
<td>$t_3$</td>
<td>$t_4$</td>
</tr>
<tr>
<td>$t_5$</td>
<td>$t_6$</td>
</tr>
</tbody>
</table>

$\tau_t = \text{Operating time} = \sum t_i$

$\tau_r = \text{Recovery time}$

<table>
<thead>
<tr>
<th>DZE 34-2SL</th>
<th>Response delay (AV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$t_1$</td>
<td>$t_2$</td>
</tr>
<tr>
<td>$t_3$</td>
<td>$t_4$</td>
</tr>
</tbody>
</table>

### Product properties

**Product standard (time-delay relay)**

| EN 61812-1: 2011
| Analogue adjustable time-delay relay for mono-voltage

**Function type**

| LED scale (with 13 LEDs) for operating time

**Supply circuit**

| Nominal voltage $U_N$: 24 V AC/DC, 115 V AC, 230 V AC
| Nominal frequency: 50 and 60 Hz
| Operating voltage range: 0,8 to 1,1 x $U_i$
| Rated power: approx. 2,5 VA / approx. 2,3 W

**Timing circuit**

| Time setting / Number of time ranges: analog / 1
| Time ranges available: see Table “Time Ranges”
| Recovery time: ≤ 450 ms
| Minimum on-time: ≤ 150 ms
| Errors (average of full-scale value): ± 5 %
| Repeat accuracy (deviation from average): ± 1 %

**Output circuit**

| Contact complement: DZE 12-SL: 1 immediate and 1 delayed changeovers
| DZE 34-2SL: 1 immediate and 1 delayed make-break contacts
| Contact material: AgSnO₂
| Nominal switching voltage $U_n$: 250 V AC / 30 V DC
| Max. continuous current $I_n$: 8 A
| Utilization category to DIN EN 60947-5-1: AC-15: 250 V AC, I 3 A
| (VDE 0660 Part 200): 2000-08; EN 60947-5-1
| Rated power: 1200 Operating cycles/h
| Permitted operating frequency: 10⁷ Operating cycles
| Mechanical endurance: 10³ (AC), 5° 10³ (DC)
| Electrical endurance (in the case of resistive load and 20 operating cycles per minute): ≤ 10 ms
| Response time: ≤ 10 ms
| Release time: ≤ 10 ms

**General data**

| DIN EN 60664-1: 2008-01; VDE 0110-1: 2008-01
| Air clearance and creepage distances between the electric circuits to: 4 kV
| Impulse voltage withstand level: 3 outside, 2 inside
| Overvoltage category: AC 250 V
| Pollution severity: IP 55 / IP 20 / IP 00
| Rated voltage: 50 to 130 °F / -10 bis +55 °C
| Test voltage $U_{st}$: 2.21 kV
| 50 Hz to DIN VDE 0110-1, table A1:
| Type of protection to DIN EN 60529: Front of casing / Rear of casing / Flat connector
| Ambient temperature, operating range: Weight: 0,66 lbs. / 0,3 kg