EV251B with assisted lift is especially suitable for applications such as closed systems with low and fluctuating pressure conditions or open systems with differential pressure down to 0 bar.

EV251B valves are supplied complete, including coil and plug.

**Features and versions:**
- For water, oil, compressed air and similar neutral media
- Flow range: 1.5 – 3.5 m³/h
- Differential pressure: 0 – 10 bar
- Media temperature from -10 – 90 °C
- Ambient temperature: Up to 80 °C
- Coil enclosure: IP65
- Thread connections: From G ¼ – G 1
- DN 10 - 22
- Viscosity: Up to 50 cst
- Brass NBR version, NC
### Technical data, NC

<table>
<thead>
<tr>
<th>Main type</th>
<th>EV251B 10B</th>
<th>EV251B 12B</th>
<th>EV251B 18B</th>
<th>EV251B 22B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to open (ms)</td>
<td>50</td>
<td>60</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Time to close (ms)</td>
<td>300</td>
<td>300</td>
<td>500</td>
<td>500</td>
</tr>
</tbody>
</table>

1) The times are indicative and apply to water. The exact times will depend on the pressure conditions.

### Connection

<table>
<thead>
<tr>
<th>Connection ISO228/1</th>
<th>Seal material</th>
<th>Orifice size</th>
<th>kₐ - value [m³/h]</th>
<th>Differential pressure min. to max. [bar]</th>
<th>Coil voltage / power consumption BB coil</th>
<th>Media temperature min. to max. [°C]</th>
<th>Code number</th>
</tr>
</thead>
<tbody>
<tr>
<td>G ¼</td>
<td>NBR</td>
<td>10</td>
<td>1.5</td>
<td>0 – 10</td>
<td>24V DC 18W</td>
<td>-10 – 90</td>
<td>032U538002</td>
</tr>
<tr>
<td>G ½</td>
<td>NBR</td>
<td>12</td>
<td>2.5</td>
<td>0 – 10</td>
<td>24V DC 18W</td>
<td>-10 – 90</td>
<td>032U538016</td>
</tr>
<tr>
<td>G ¾</td>
<td>NBR</td>
<td>18</td>
<td>3.5</td>
<td>0 – 10</td>
<td>24V DC 18W</td>
<td>-10 – 90</td>
<td>032U538102</td>
</tr>
<tr>
<td>G 1</td>
<td>NBR</td>
<td>22</td>
<td>3.5</td>
<td>0 – 10</td>
<td>24V DC 18W</td>
<td>-10 – 90</td>
<td>032U538116</td>
</tr>
</tbody>
</table>

1) In water applications, exercise the valves at least once every 24 hours, meaning change the state of the valve. The valve exercise will minimize the risk of the valve sticking due to calcium carbonate, zinc or iron oxide build-up.
Data sheet | Solenoid valves, type EV251B

Dimensions and weight, brass NC

<table>
<thead>
<tr>
<th>Type</th>
<th>Weight gross valve body with BB coil [kg]</th>
<th>L [mm]</th>
<th>L1 [mm]</th>
<th>B [mm]</th>
<th>B1 [mm]</th>
<th>H1 [mm]</th>
<th>H [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV251B 10</td>
<td>0.58</td>
<td>51.5</td>
<td>84</td>
<td>48</td>
<td>46</td>
<td>13</td>
<td>81</td>
</tr>
<tr>
<td>EV251B 12</td>
<td>0.64</td>
<td>58.0</td>
<td>84</td>
<td>54</td>
<td>46</td>
<td>13</td>
<td>81</td>
</tr>
<tr>
<td>EV251B 18</td>
<td>0.94</td>
<td>90.0</td>
<td>84</td>
<td>62</td>
<td>46</td>
<td>18</td>
<td>87</td>
</tr>
<tr>
<td>EV251B 22</td>
<td>0.94</td>
<td>90.0</td>
<td>84</td>
<td>62</td>
<td>46</td>
<td>18</td>
<td>91</td>
</tr>
</tbody>
</table>

Dimensions

Mounting angle

Below coils can be used with EV250B:

<table>
<thead>
<tr>
<th>Coil</th>
<th>Type</th>
<th>Power consumption</th>
<th>Enclosure</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>BB, clip on</td>
<td></td>
<td>10 W AC. 18 W DC.</td>
<td>IP00 with spade connector</td>
<td>IP20 with protective cap IP65 with cable plug</td>
</tr>
</tbody>
</table>
Data sheet | Solenoid valves, type EV251B

Universal electronic multi-timer, type ETM

- Outside adjustments.
- Light weight and small size.
- External adjustable timing from 1 minute to 45 minutes with 1 to 15 seconds drain open.
- One solid state timer fits all coil voltages from 24 ~ 240 V AC.
- Light diodes for indication.
- All in one unit.
- Manual override (test button).

Technical data

<table>
<thead>
<tr>
<th>Application</th>
<th>Voltage</th>
<th>To use with coil</th>
<th>Ambient temperature [°C]</th>
<th>Code number</th>
</tr>
</thead>
<tbody>
<tr>
<td>External adjustable timing from 1 to 45 minutes with 1 to 15 seconds drain open. With manual override (test button). Electrical connection DIN 43650 A / EN 175 301-803-A</td>
<td>24 ~ 240 V AC</td>
<td>BB</td>
<td>-10 ~ 50</td>
<td>042N0185</td>
</tr>
</tbody>
</table>

Technical data

- Type: ET 20 M
- Voltage: 24 ~ 240 V AC / 50-60 Hz
- Power rating: Max. 20 Watt
- Enclosure: IP 00, IP 65 with cable plug
- Electrical connection: DIN connector (DIN 43650 A)
- Ambient operating temperature range: -10 °C ~ 50 °C
- Function: Start with pulse
- "On" timer: 1 ~ 15 sec.
- Weight: 0.084 kg

Dimensions, ETM timer

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Function NC

Coil voltage disconnected (closed):
When the supply voltage to the coil (1) is disconnected, the valve plate (4) is pressed down against the pilot orifice (5) by the closing spring (3). The pressure across the diaphragm (6) is built up via the equalizing orifice (8). The diaphragm closes the main orifice (7) when the pressure above the diaphragm exceeds the inlet pressure below due to the larger diameter of the upper side and the compression of the closing spring (3). The valve will be closed for as long as the voltage to the coil is disconnected.

Coil voltage connected (open):
When the voltage is applied to the coil, the armature (2) and the valve plate (4) are lifted clear of the pilot orifice (5). If there is a differential pressure across the valve, the pressure across the diaphragm (6) drops because the pilot orifice is larger than the equalizing orifice. This causes the diaphragm to be lifted clear of the main orifice (7). If there is no differential pressure across the valve, the armature (2) draws the diaphragm (6) clear of the main orifice (7) using the assist spring (9.1) and assist connector (9.2). The valve will be open for as long as there is voltage to the coil.

Capacity diagram 10-22:

Example, water:
Capacity for EV251B 10 at differential pressure of 4 bar. Approx. 3 m³/h