## TR24-3 Actuators, On-Off, Floating Point

### Models
- **TR24-3-T US**
  - TR24-3 US
  - TR24-3/300 US
  - TR24-3/500 US

### Technical Data
- **Control**: On/Off, Floating Point
- **Nominal voltage**: 24 VAC 50/60 Hz
- **Nominal voltage range**: 19.2...28.8 VAC
- **Power consumption**: 1 W
- **Transformer sizing**: 1VA (class 2 power source)
- **Electrical connection**: screw terminals accessible after removal of small cover (3 ft, 10 ft, 16 ft cables optional)
- **Input impedance**: 36 kΩ
- **Angle of rotation**: 90°
- **Position indication**: integrated into handle
- **Manual override**: push down handle
- **Running time**: 90 seconds @ 60 Hz, 108 seconds @ 50 Hz
- **Humidity**: 5 to 95% non-condensing
- **Ambient temperature**: -22°F to 122°F (-30°C to 50°C)
- **Storage temperature**: -40°F to 176°F (-40°C to 80°C)
- **Housing**: NEMA 1/IP40
- **Housing rating**: UL94-V5(B)
- **Agency listing**: cULus acc. to UL60730-1A/2-14, CAN/CSA C22.2 No. 24-93, CE acc. to 93/36/ECC
- **Noise level**: Max. 35 db (A)
- **Quality standard**: ISO 9001

### Dimensions with 2-Way Valve

<table>
<thead>
<tr>
<th>Valve Body</th>
<th>Nominal Size</th>
<th>DN [mm]</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>B207(B)-B211(B)</td>
<td>½”</td>
<td>15</td>
<td>2.41” [61.1]</td>
<td>1.39” [35.2]</td>
</tr>
<tr>
<td>B212(B)-B215(B)</td>
<td>½”</td>
<td>15</td>
<td>2.38” [60.4]</td>
<td>1.72” [43.7]</td>
</tr>
<tr>
<td>B217(B)-B220(B)</td>
<td>¾”</td>
<td>20</td>
<td>2.73” [69.3]</td>
<td>1.81” [45.9]</td>
</tr>
</tbody>
</table>

### Dimensions with 3-Way Valve

<table>
<thead>
<tr>
<th>Valve Body</th>
<th>Nominal Size</th>
<th>DN [mm]</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>B307(B)-B311(B)</td>
<td>½”</td>
<td>15</td>
<td>2.41” [61.1]</td>
<td>1.39” [35.2]</td>
<td>1.20” [30.6]</td>
</tr>
<tr>
<td>B312(B)-B315(B)</td>
<td>½”</td>
<td>15</td>
<td>2.38” [60.4]</td>
<td>1.72” [43.7]</td>
<td>1.26” [32.1]</td>
</tr>
<tr>
<td>B317(B)-B320(B)</td>
<td>¾”</td>
<td>20</td>
<td>2.73” [69.3]</td>
<td>1.81” [45.9]</td>
<td>1.45” [36.8]</td>
</tr>
</tbody>
</table>
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**Wiring Diagrams**

**INSTALLATION NOTES**

- The common connection from the actuator must be connected to the Hot connection of the controller.
- Actuators with plenum rated cable do not have numbers on wires; use color codes instead.
- The actuator Hot must be connected to the control board Hot.

**WARNING Live Electrical Components!**

During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

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**NOTE: TR24-3(-T) US cannot be wired in parallel with themselves or any other actuator.**

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**Floating Control**

- You may not use one wire control.

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**On/Off Control**

- Triac Sink
- Triac Source

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**TR24-3 US**

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**K20903 - 04/08 - Subject to change. © Belimo Aircontrols (USA), Inc.**