



# Z-Axis manipulator

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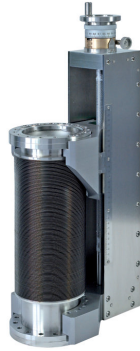
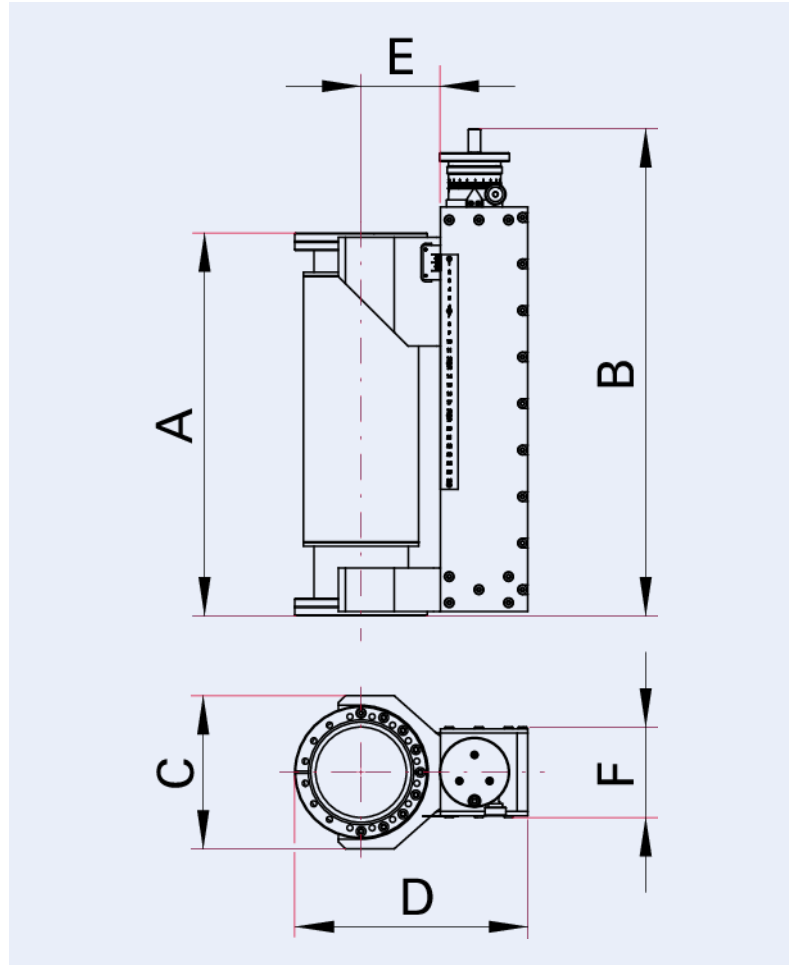


Illustration only

## **Z-Axis precision manipulator, 200 mm stroke, stainless steel, DN 40 CF**

- Recirculating ball bearing guides and recirculating ball screw drive
- Zero backlash and no slip-stick effect
- Guide and drive are wear-free and maintenance-free
- Extremely stable design concept minimizes position offset due to pressure changes
- Fixing brake prevents independent movement
- Connection flange with through holes, traversable flange with threaded holes
- Adjustable zero set point

## Dimensions



|   |              |
|---|--------------|
| A | 165 - 365 mm |
| B | 485 mm       |
| C | 84 mm        |
| D | 175 mm       |
| E | 50 mm        |
| F | 82 mm        |

| <b>Technical Data</b>      | <b>Z-Axis precision manipulator, 200 mm stroke, stainless steel, DN 40 CF</b>                            |
|----------------------------|--|
| Pitch of ball screw drive  | 2 mm/Rotation  |
| Bellows guidance necessary | Yes, for movement without vacuum   |
| Operating temperature      | -15 – 80 °C  |
| Mounting orientation       | Arbitrary  |
| Tightness                  | $<1 \cdot 10^{-11}$ Pa m <sup>3</sup> /s   $<7.5 \cdot 10^{-11}$ Torr l/s   $<1 \cdot 10^{-10}$ mbar l/s |
| Stroke                     | 200 mm   7.87402 inch  |
| Maximum allowable payload  | 20 kg   44.09 lb   |
| Resolution                 | 5 µm   |
| Repeatable precision       | 5 µm   |
| Connection flange          | DN 40 CF   |
| Pressure range             | $1 \cdot 10^{-10}$ hPa – to ambient pressure   |
| Inner diameter             | DN 40: 38 mm; DN 63: 65 mm; DN 100: 102 mm   |
| Material                   | Stainless steel (bellows: 316L, flange and tube 304L, housing 304)                                       |

| <b>Order number</b>  | <b>Z-Axis precision manipulator, 200 mm stroke, stainless steel, DN 40 CF</b> |
|--|---|
| Z-Axis precision manipulator, 200 mm stroke, stainless steel, DN 40 CF | 420MZA040-200   |



Errors and/or changes excepted. - 5/14/2025

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