



A photograph of a large, modern industrial building at dusk. The building features a complex design with multiple levels, large windows, and a prominent entrance area. It is brightly lit by several powerful spotlights, creating a high-contrast scene against the dark blue twilight sky. The foreground shows a paved area and some lower-level structures.



Z-Axis manipulator

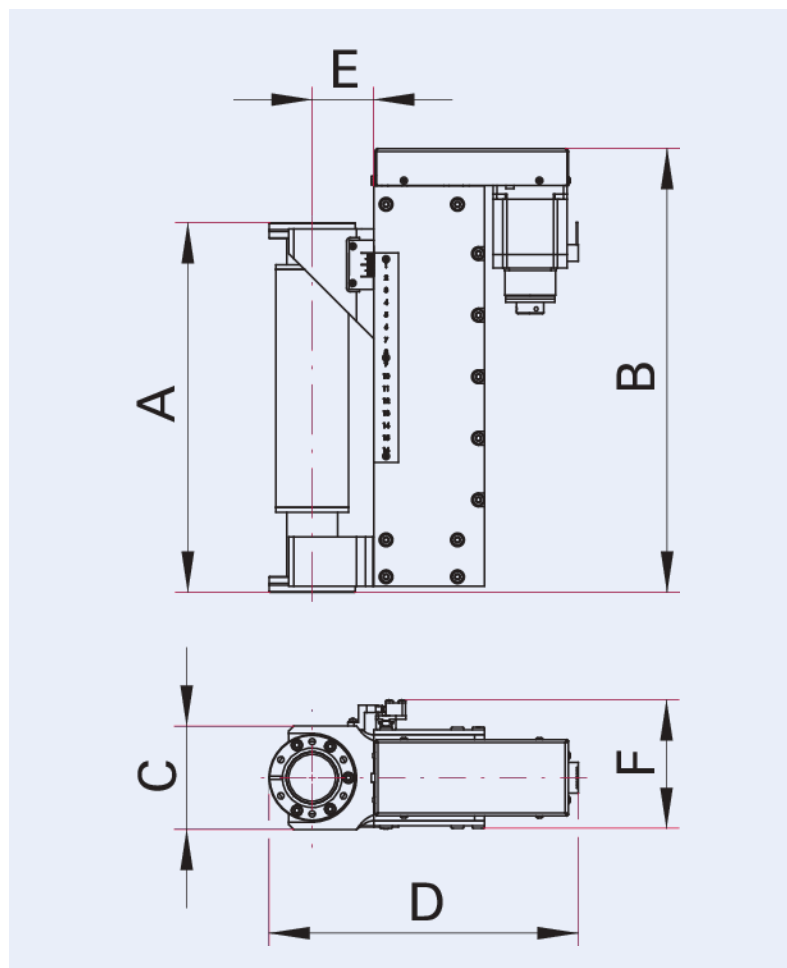


Illustration only

Z-axis precision manipulator, motorized, 150 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
- Limit switches fully adjustable
- Fixing brake (currentless closed) prevents independent movement
- Power consumption brake: 24 V DC, 0.5 A
- Connection flange with through holes, traversable flange with threaded holes

Dimensions



A	150 - 300 mm
B	360 mm
C	84 mm
D	251 mm
E	50 mm
F	104 mm

Technical Data	Z-axis precision manipulator, motorized, 150 mm stroke, stainless steel, DN 40 CF
Motor rating	Motor, 4.8 V DC, max. 2.8 A/phase bipolar parallel
Motor type	2-ph stepping motor
Pitch of ball screw drive	2 mm/Rotation
Bakeout temperature without electric parts	230 °C
Bakeout temperature with electric parts	80 °C
Bellows guidance necessary	No
Operating temperature	-10 – 50 °C
Mounting orientation	Arbitrary
Tightness	$<1 \cdot 10^{-11}$ Pa m ³ /s $<7.5 \cdot 10^{-11}$ Torr l/s $<1 \cdot 10^{-10}$ mbar l/s
Stroke	150 mm 5.905515 inch
Bakeout temperature without electric parts	230 °C 446 °F 503.15 K
Bakeout temperature with electric parts	80 °C 176 °F 353.15 K
Maximum allowable payload	25 kg 55.12 lb
Resolution	1.25 µm (at 1/8 motor step)
Power consumption	Motor: 4.8 V DC; max. 2.8 A/phase bipolar parallel; brake: 24 V DC, 0.5 A
Repeatable precision	1.25 µm (at 1/8 motor step)
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)

Order number	Z-axis precision manipulator, motorized, 150 mm stroke, stainless steel, DN 40 CF
Z-axis precision manipulator, motorized, 150 mm stroke, stainless steel, DN 40 CF	420MZA040-150-m

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