

Technical drawings of the B50 linear actuator, showing side and front views with dimensions.

Top View (Side View):

- Total length = Stroke + 290
- Stroke dimension is indicated.
- Mounting dimensions: 75, 140, 21.92 (TK31), 21.92, 50, 60.
- Thread specification: M4, 6deep.

Bottom View (Front View):

- Mounting dimensions: 70, 50, 40, 50, 64, 76.
- Thread specifications: $\phi 4, H7, 8\text{deep}$, M4, 6deep, M4, 10deep, M5, 10deep, 40 ± 0.02 .
- Dimensional tolerances: 100 ± 0.02 , 120.

Detail View (Right):

- Mounting dimensions: 50, 22 (34), 5.5, 100, 75, 17.5, 30, 38, 12.
- Thread specifications: $\phi 24 F8$, $\phi 12 H7$, M6, 10, 3deep, $\phi 6, 7\text{deep}$.
- Internal component dimension: $\phi 12 h6$.
- Note: with feather key DIN 6885 4x4x14.

Notes:

- b) Data in brackets refer to version GX.
- Mounting elements see page B50.

Technical Data	ARS
Max. speed:	3.00 m/s
Max. acceleration:	30 m/s ²
Repeat accuracy:	± 0.08 mm
Idle torque:	1.50 Nm
Moment of inertia:	3.00 •10 ⁻⁴ kgm ²
Drive element:	Toothed belt 20 AT5-E
Stroke per revolution:	110 mm

Forces and moments



A 3D diagram of a mechanical assembly, possibly a robotic arm or a test rig, with a coordinate system centered on it. The coordinate system has three axes: a vertical axis pointing upwards, a horizontal axis pointing to the right, and a diagonal axis pointing towards the bottom-left. The forces and moments are labeled as follows:

- $+F_x$ and $+M_x$ are associated with the horizontal axis.
- $+F_y$ and $+M_y$ are associated with the diagonal axis.
- $+F_z$ and $+M_z$ are associated with the vertical axis.

d) Maximum value (see diagram "F_x-v-Diagram")

A line graph showing the relationship between Traversing speed v [m/s] on the x-axis and F_x [N] on the y-axis. The x-axis ranges from 0.00 to 3.00 with major grid lines every 0.50 units and minor grid lines every 0.10 units. The y-axis ranges from 500 to 700 with major grid lines every 50 units and minor grid lines every 10 units. A smooth curve starts at approximately (0.4, 700) and decreases as v increases, passing through points like (1.0, 630), (1.5, 590), (2.0, 560), and ending at (3.0, 510).

Traversing speed v [m/s]	F_x [N]
0.4	700
0.5	685
1.0	630
1.5	590
2.0	560
2.5	535
3.0	510

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