

B 80-ARS/-ASS

Linear Axes • Toothed-belt Drive

Advantages of roller guide

High maximum moments
due to optimum force transmission to the profile

Long stroke lengths
can be achieved with no problems

Life-time lubricated rollers
for easy maintenance use

Smooth, low-noise running

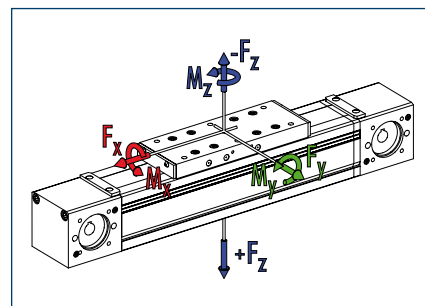
Advantages of profiled rail guide

High load bearing capacity

Long lifetime

High precision

Loads and load torques



Load		ARS dynamic	ASS dynamic
■ F_x^{**}	[N]	1000	1000
■ F_y	[N]	500	800
■ F_z	[N]	1500	3000
■ $-F_z$	[N]	800	2000
Load torques		ARS dynamic	ASS dynamic
■ M_x	[Nm]	50	100
■ M_y	[Nm]	180	250
■ M_z	[Nm]	100	250
■ M_{Amax}	[Nm]	36.5	36.5

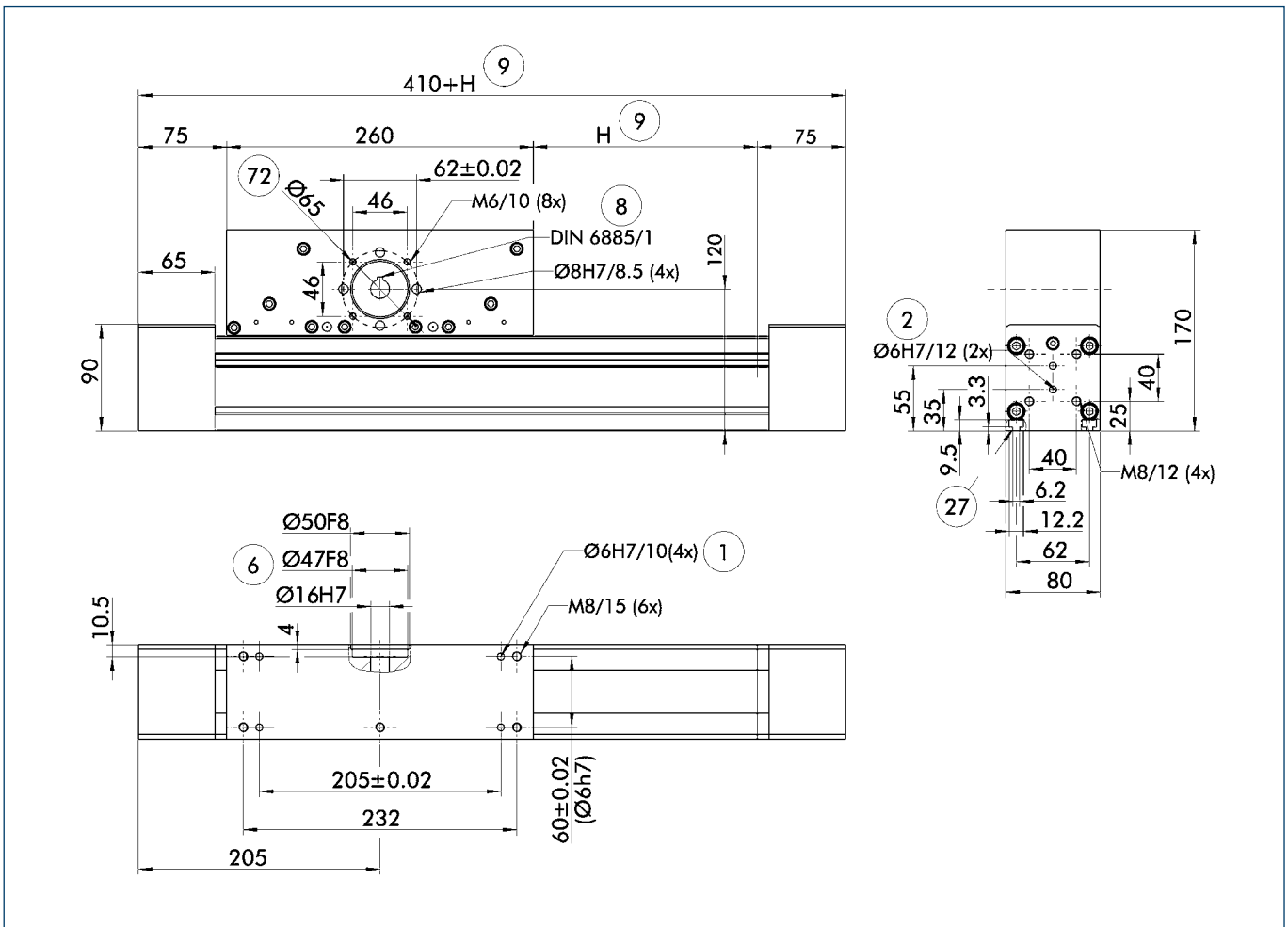
** Maximum value = Depending on speed

① Values in brackets relate to the long slide.

Technical data

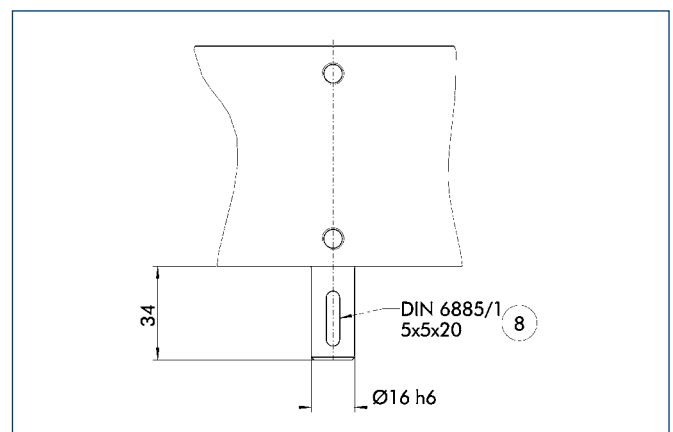
Designation		B 80-ARS	B 80-ASS
Max. travel speed	[m/s]	8	5
Repeat accuracy	[mm]	± 0.08	± 0.08
Max. acceleration	[m/s ²]	40	40
Idle torque	[Nm]	1.5	1.5
Drive			
Drive element	Toothed belt	32 AT 10	32 AT 10
Travel per revolution	[mm]	220	220
Maximum stroke	[mm]	7590	7590
Max. total length	[mm]	8000	8000
Moment of inertia	[kgm ²]	0.0092	0.0086
Weights			
Basic without travel	[kg]	10.5	11.5
Travel per 100 mm	[kg]	0.6	0.85
Slide drive 260 mm	[kg]	7.5	7.0

Main views



- ① Linear unit connection
- ② Assembly connection
- ⑥ Drive connection
- ⑧ Feather key DIN 6885
- ⑨ Useful stroke
- ⑲ Mounting groove for T-nuts
- ⑳ Bolt pitch circle

Drive journal connection dimensions

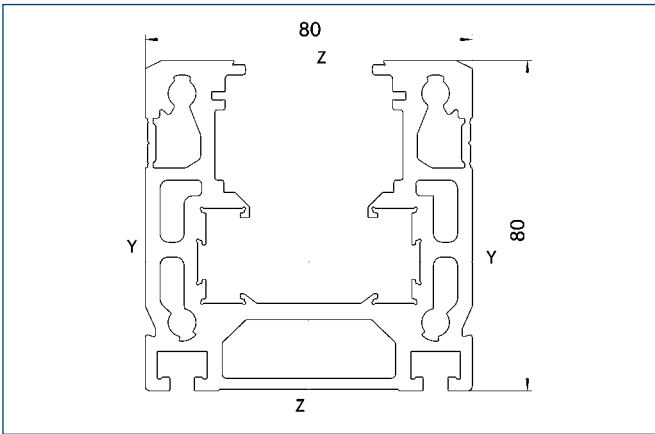


- ⑧ Feather key

B 80-ARS/-ASS

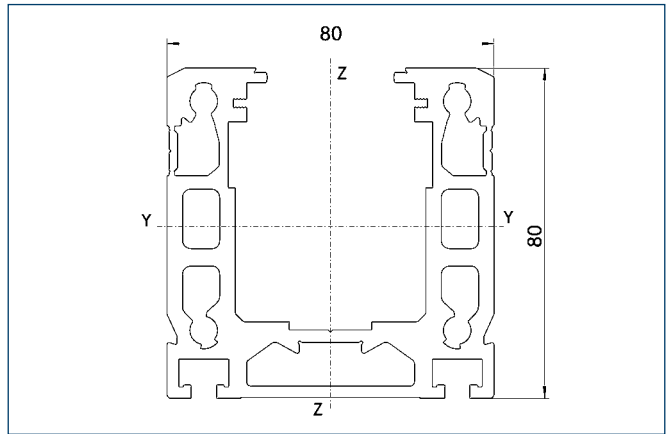
Linear Axes • Toothed-belt Drive

Profile ARS



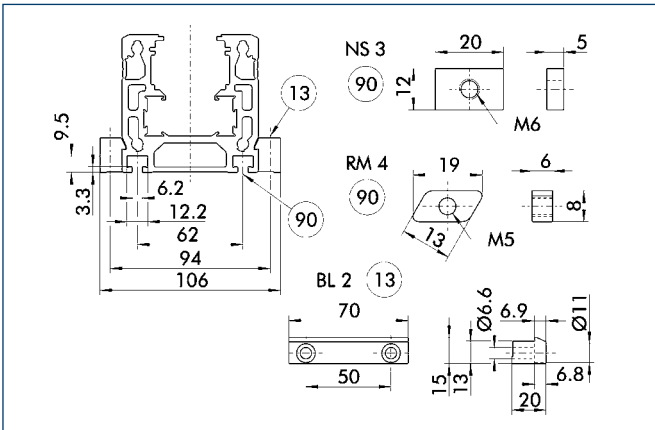
Specific mass	[kg/m]	5.64
Planar dimension	[mm ²]	2090
Planar moment of inertia I _y	[mm ⁴]	1294343
Planar moment of inertia I _z	[mm ⁴]	1732340
Load torque W _y	[mm ³]	30263
Load torque W _z	[mm ³]	43258

Profile ASS



Specific mass	[kg/m]	5.4
Planar dimension	[mm ²]	2000
Planar moment of inertia I _y	[mm ⁴]	1303940
Planar moment of inertia I _z	[mm ⁴]	1680598
Load torque W _y	[mm ³]	29397
Load torque W _z	[mm ³]	41895

Mounting



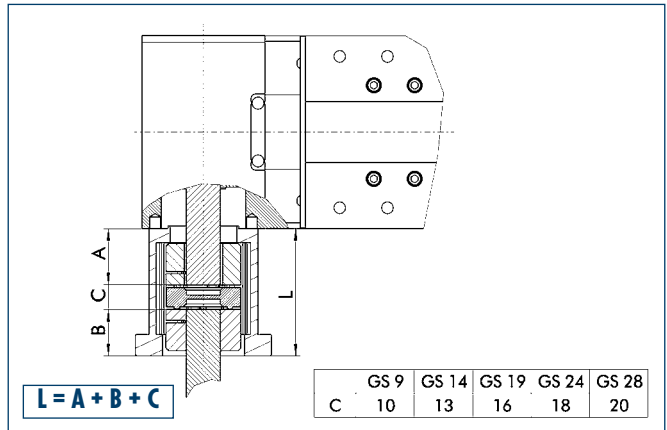
13 Mounting strip

90 T-nut on base side

The profile can be secured either using T-nuts or mounting strips.

Designation	Order designation	ID no.
T-nut	NS3	0331406
T-nut	RM4	0331426
Mounting strip	BL2	0331401

Motor flange schematic diagram



The table shows the relevant dimension **C** of the standard couplings.

For dimension **A** refer to drive journal connection dimensions, for dimension **B** refer to corresponding motor dimension sheet, dimension **L** may differ in individual cases.

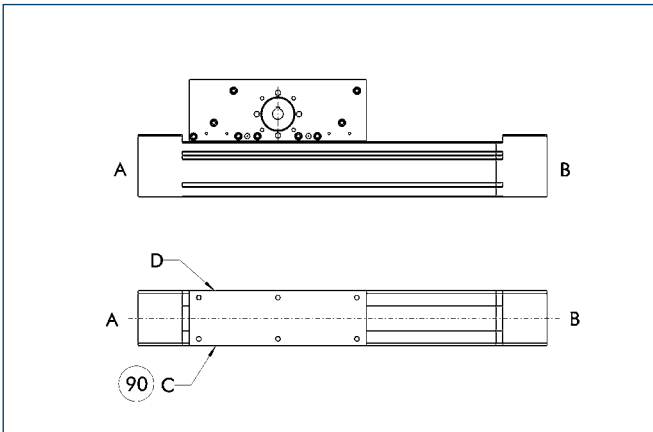
Different drive solutions can be attached to our axes.

SCHUNK can supply you with the right motor flange and coupling for your drive.

ⓘ Because of the different thermal behavior of motors, we recommend that the drive solution is tested by the motor manufacturer.

More detailed information on pedestal bearings, connection shafts and bevel gears can be found in the "OPTIONS for System HSB" section of the catalog.

Limit switch position



90 Limit switch standard position

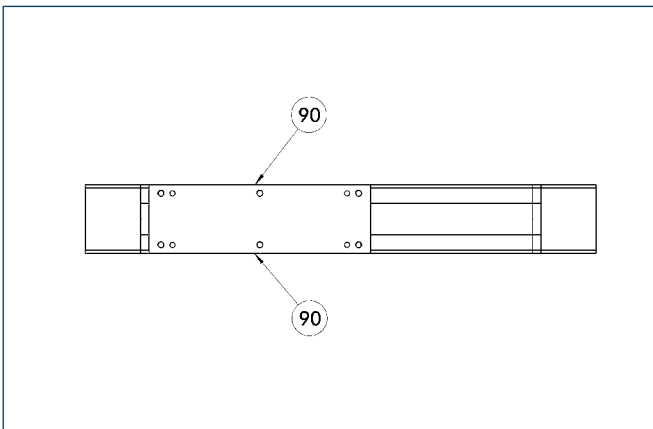
Two E02 switches are used as limit switches and an RS2 as the reference switch as standard.

① The positions and dimensions of limit switches, switching lugs, and mounting components may vary depending on the application and the selected limit switches. Please contact us for assistance.

Limit switch selection

Designation	Order designation	ID no.
Inductive limit switch, opener, 2 m cable	E02	0331410
Inductive limit switch, opener, 10 m cable	E010	0331412
Inductive limit switch, closer, 2 m cable	ES2	0331411
Inductive limit switch, closer, 10 m cable	ES10	0331413
Mechanical limit switch (Siemens), opener	EMS	0331414
Mechanical limit switch (Balluff), opener	EMB	0331415

Lubrication connections



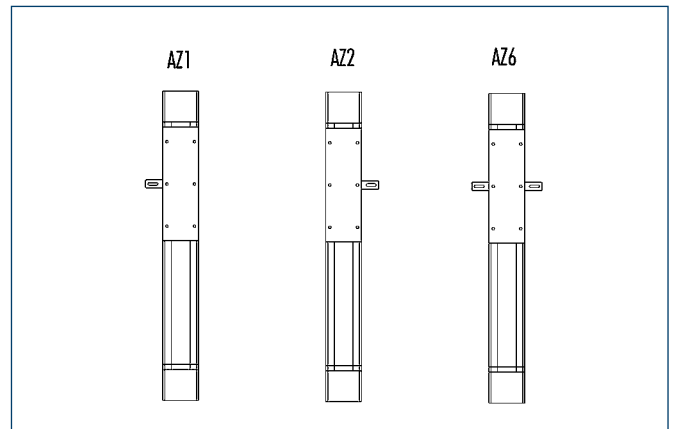
90 Standard lubrication connection

Standard connection

Lubrication nipple M8x1

If the lubrication connection has a different seat, this must be defined in the order text.

Drive shafts



Depending on the axis application, the drive shaft seat may need to be defined in the order text. Particularly with axis combinations and mechanical synchronization, multiple drive shafts - some of them continuous shafts - are required.

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