

### Advantages of roller guide

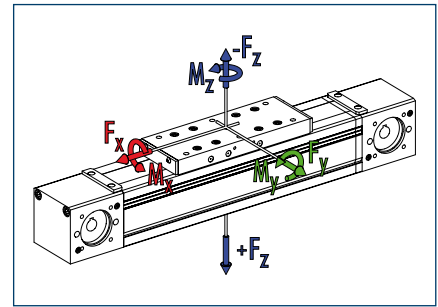
**High maximum moments**  
due to optimum force transmission to the profile

**Long stroke lengths**  
can be achieved with no problems

**Life-time lubricated rollers**  
for easy maintenance use

**Smooth, low-noise running**

### Loads and load torques



Load		Dynamic
<span style="color: red;">■</span> $F_x^{**}$	[N]	700
<span style="color: green;">■</span> $F_y$	[N]	300
<span style="color: blue;">■</span> $F_z$	[N]	600
<span style="color: blue;">■</span> $-F_z$	[N]	400
Load torques		Dynamic
<span style="color: red;">■</span> $M_x$	[Nm]	30
<span style="color: green;">■</span> $M_y$	[Nm]	50 (65)
<span style="color: blue;">■</span> $M_z$	[Nm]	50 (65)
<span style="color: blue;">■</span> $M_{zmax}$	[Nm]	12.7

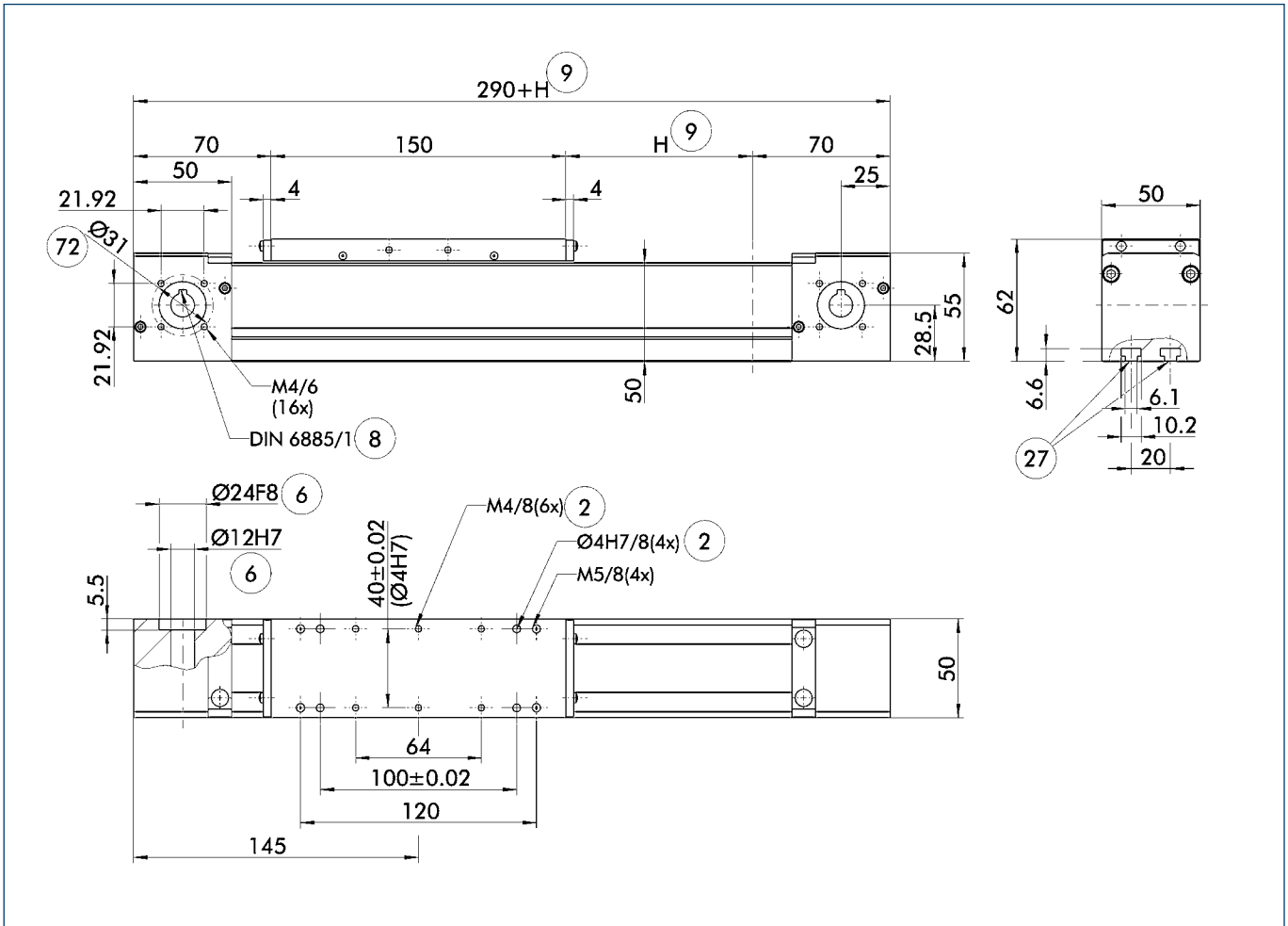
\*\* Maximum value = Depending on speed

① Values in brackets relate to the long slide.

### Technical data

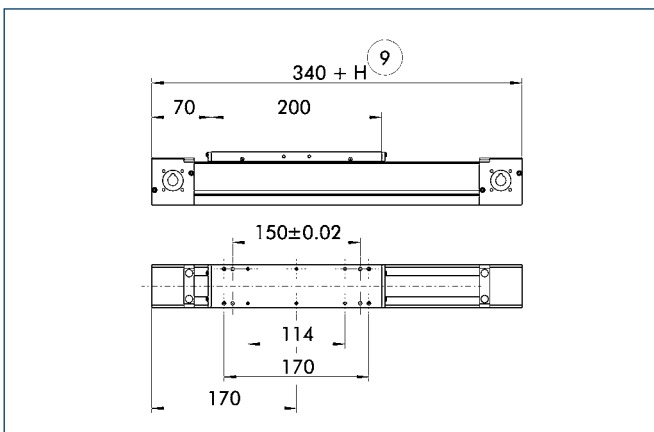
Designation		B 50C-ZRS
Max. travel speed	[m/s]	3
Repeat accuracy	[mm]	± 0.08
Max. acceleration	[m/s <sup>2</sup> ]	30
Idle torque	[Nm]	0.4
Drive		
Drive element	Toothed belt	20 AT 5-E
Travel per revolution	[mm]	110
Maximum stroke	[mm]	7710
Max. total length	[mm]	8000
Moment of inertia	[kgm <sup>2</sup> ]	0.0003
Weights		
Basic without travel	[kg]	1.45
Travel per 100 mm	[kg]	0.35
Slide plate 150 mm	[kg]	0.45
Slide plate 200 mm	[kg]	0.6

### Main views



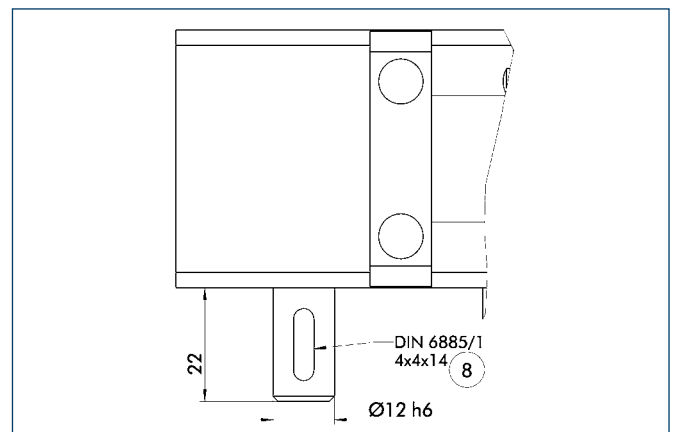
- ② Assembly connection
- ⑥ Drive connection
- ⑧ Feather key DIN 6885
- ⑨ Useful stroke
- ⑲ Mounting groove for T-nuts
- ⑳ Bolt pitch circle

### Long slide



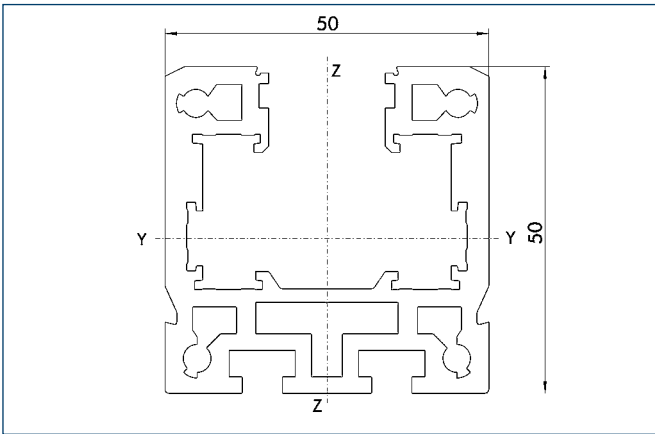
- ⑨ Useful stroke

### Drive journal connection dimensions



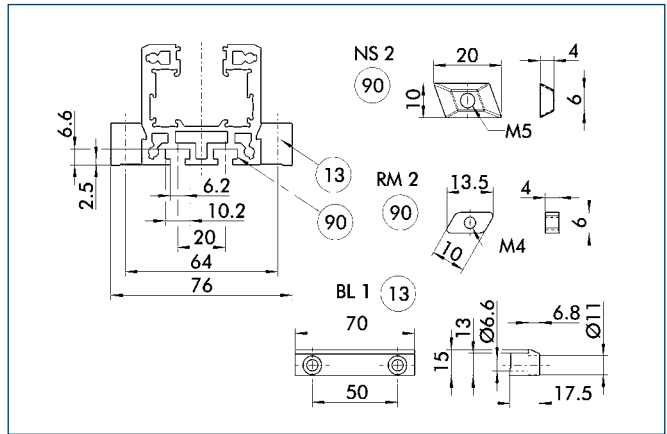
- ⑧ Feather key

### Profile ZRS



Specific mass	[kg/m]	2.45
Planar dimension	[mm <sup>2</sup> ]	908
Planar moment of inertia I <sub>y</sub>	[mm <sup>4</sup> ]	236683
Planar moment of inertia I <sub>z</sub>	[mm <sup>4</sup> ]	295187
Load torque W <sub>y</sub>	[mm <sup>3</sup> ]	8622
Load torque W <sub>z</sub>	[mm <sup>3</sup> ]	11804

### Mounting

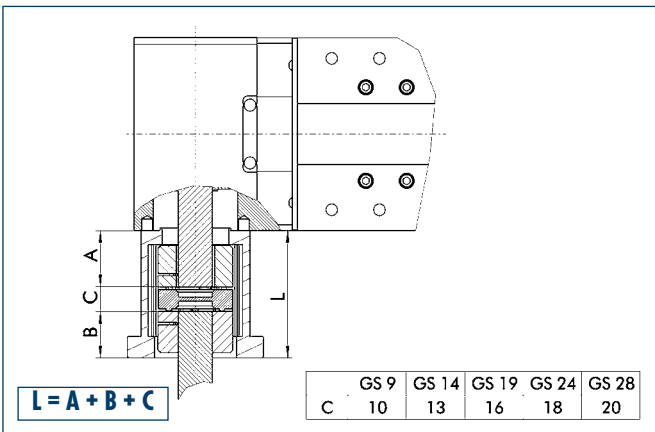


⑬ Mounting strip      ⑨⑩ T-nut on base side

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

Designation	Order designation	ID no.
T-nut	NS2	0331405
T-nut	RM2	0331425
Mounting strip	BL1	0331400

### Motor flange schematic diagram

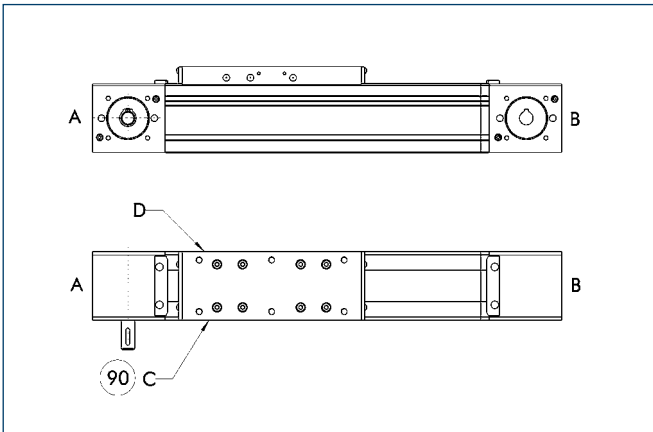


The table shows the relevant dimension **C** of the standard couplings. For dimension **A** refer to drive journal connection dimensions, for dimension **B** refer to corresponding motor dimension sheet, dimension **L** may differ in individual cases.

Different drive solutions can be attached to our axes. SCHUNK can supply you with the right motor flange and coupling for your drive.

① Because of the different thermal behavior of motors, we recommend that the drive solution is tested by the motor manufacturer.

### Limit switch position



90 Limit switch standard position

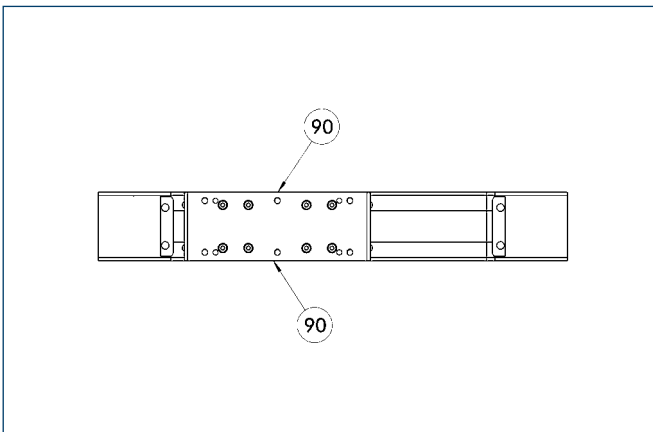
Two E02 switches are used as limit switches and an RS2 as the reference switch as standard.

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



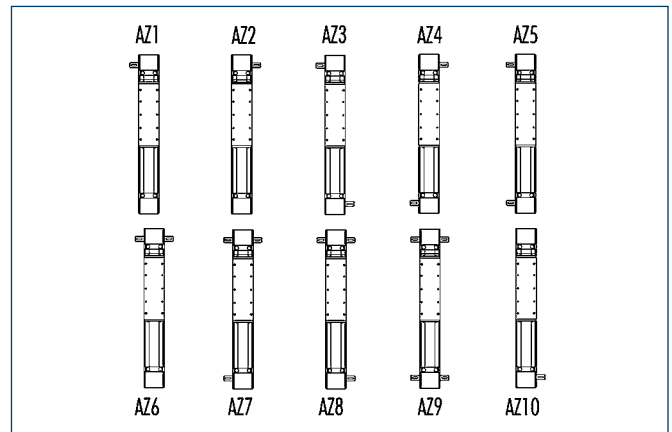
90 Standard lubrication connection

#### 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.



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