

Advantages of roller guide

High maximum moments

due to optimum force transmission to the profile

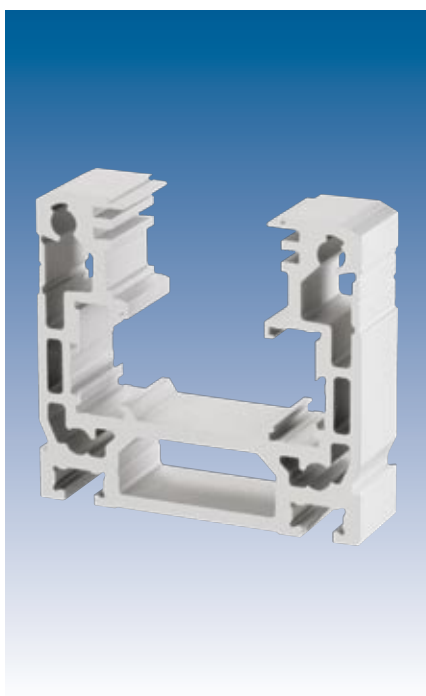
Long stroke lengths

can be achieved with no problems

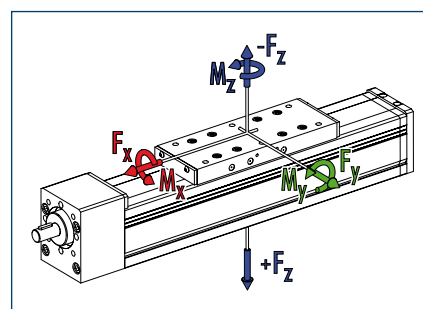
Life-time lubricated rollers

for easy maintenance use

Smooth, low-noise running



Loads and load torques



Load		Dynamic
■ F_x^{**}	[N]	1000
■ F_y	[N]	300
■ F_z	[N]	600
■ $-F_z$	[N]	400
Load torques		Dynamic
■ M_x	[Nm]	30
■ M_y	[Nm]	50 (65)
■ M_z	[Nm]	50 (65)
■ M_{Amax}	[Nm]	0.9 (p=4); 1.1 (p=5)

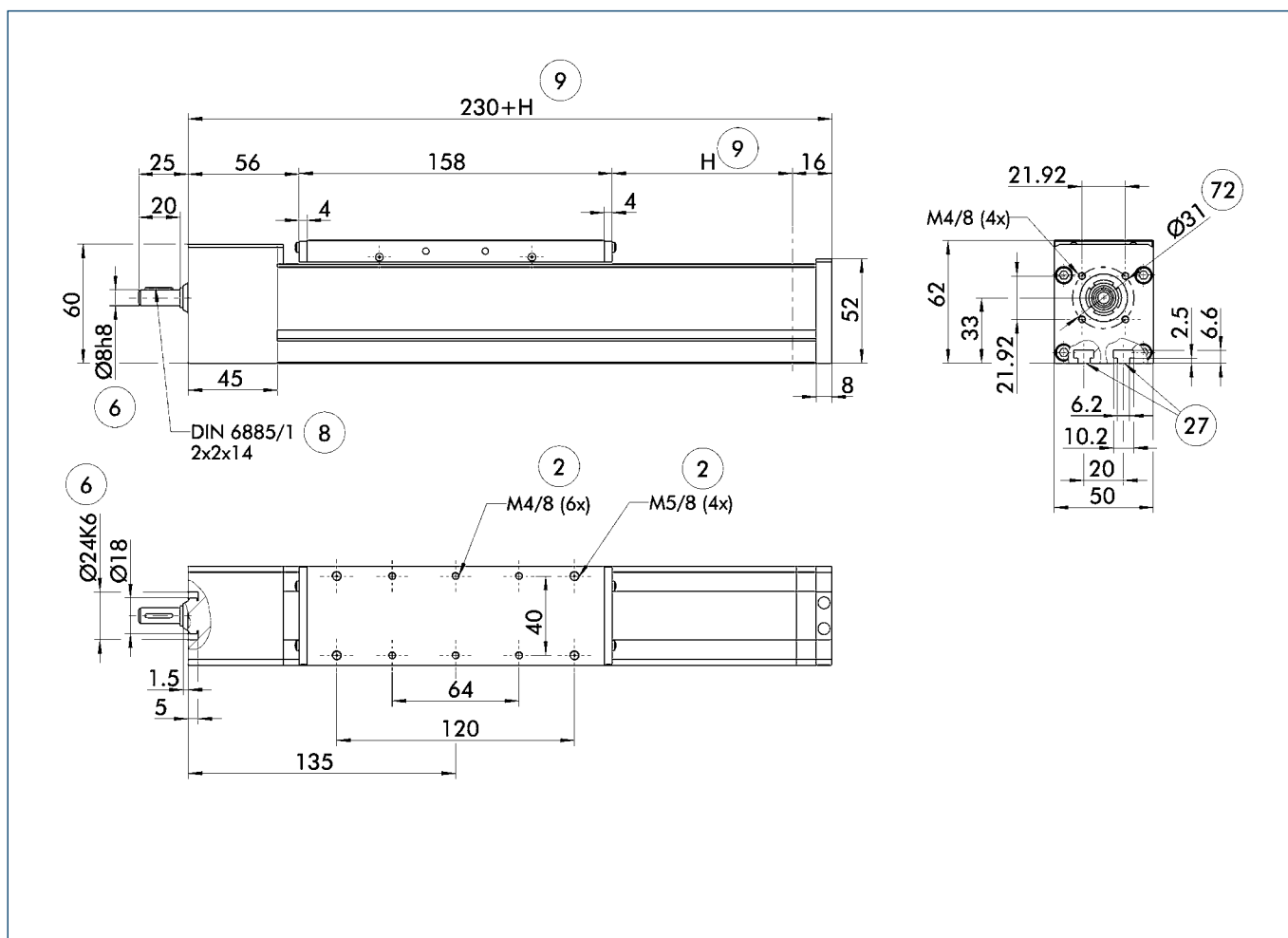
** Depends on speed and pitch n_{max}
KGT = 3000 rpm; TGT = 1500 rpm

① Values in brackets relate to the long slide.

Technical data

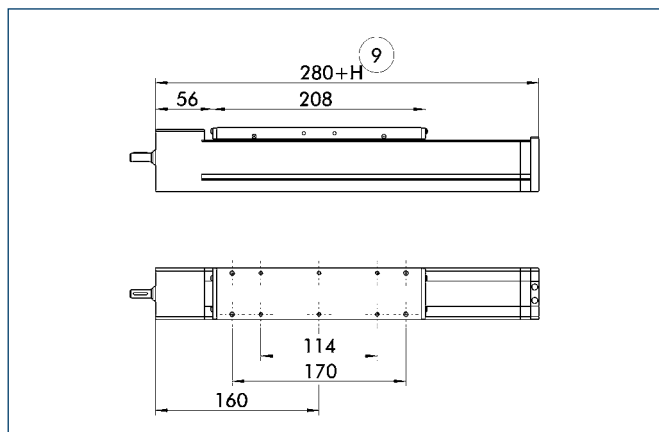
Designation		B 50C-SRS
Max. travel speed	[m/s]	0.25
Repeat accuracy	[mm]	0.03
Max. acceleration	[m/s ²]	20
Idle torque	[Nm]	0.3
Maximum stroke	[mm]	860
Max. total length	[mm]	1090
Moment of inertia	[kgm ²]	0.000012
Drive element		Ball screw spindle drive
Max. spindle speed	[rpm]	3000
Diameter	[mm]	12
Pitch	[mm]	4 / 5
Drive element		Trapezoidal threaded drive
Max. spindle speed	[rpm]	1500
Diameter	[mm]	12
Pitch	[mm]	3
Weights		
Basic without travel	[kg]	1.5
Travel per 100 mm	[kg]	0.4
Slide plate 150 mm	[kg]	0.45
Slide plate 200 mm	[kg]	0.6

Main views



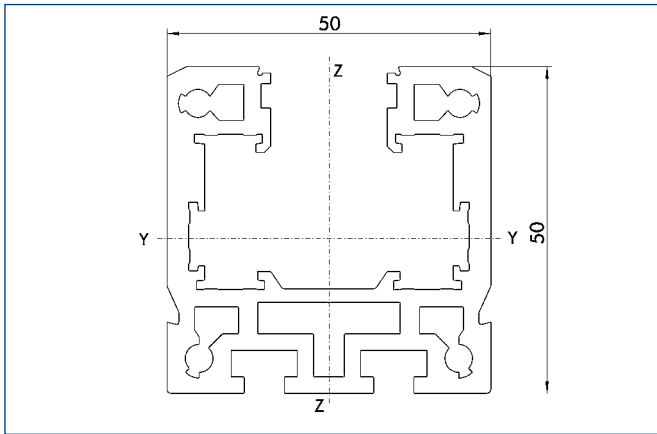
- ② Assembly connection
- ⑥ Drive connection
- ⑧ Feather key DIN 6885
- ⑨ Useful stroke
- ⑳ Mounting groove for T-nuts
- ㉑ Bolt pitch circle

Long slide



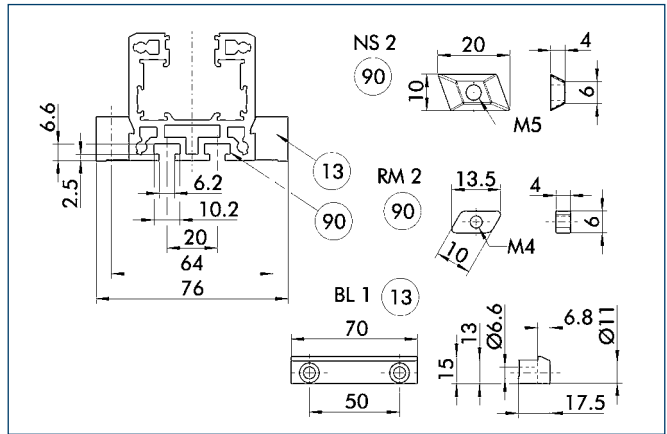
- ⑨ Useful stroke

Profile SRS



Specific mass	[kg/m]	2.45
Planar dimension	[mm ²]	908
Planar moment of inertia I _y	[mm ⁴]	236683
Planar moment of inertia I _z	[mm ⁴]	295187
Load torque W _y	[mm ³]	8622
Load torque W _z	[mm ³]	11804

Mounting

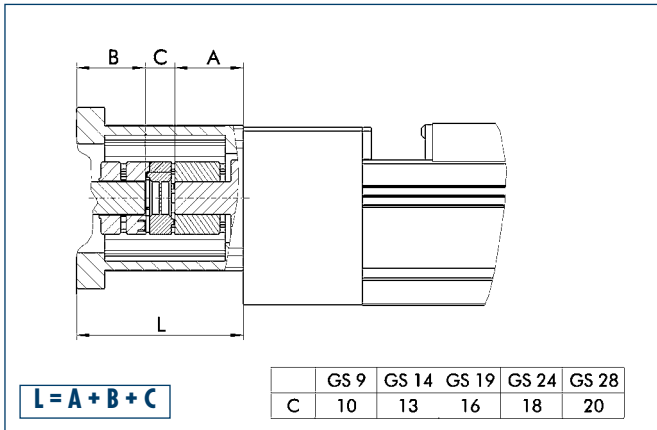


⑬ Mounting strip ⑨ Base side T-nut

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

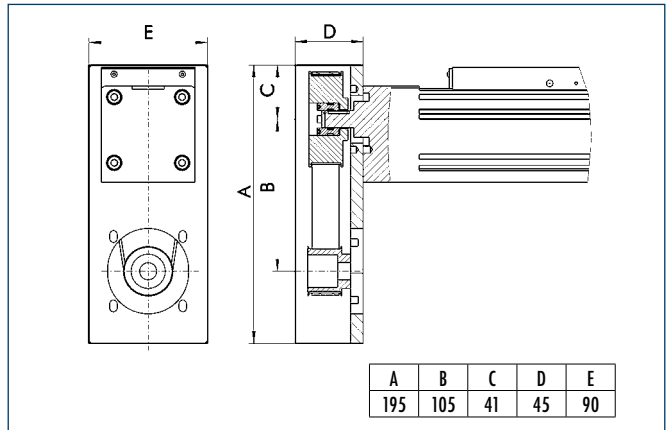
Motor flange schematic diagram



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.

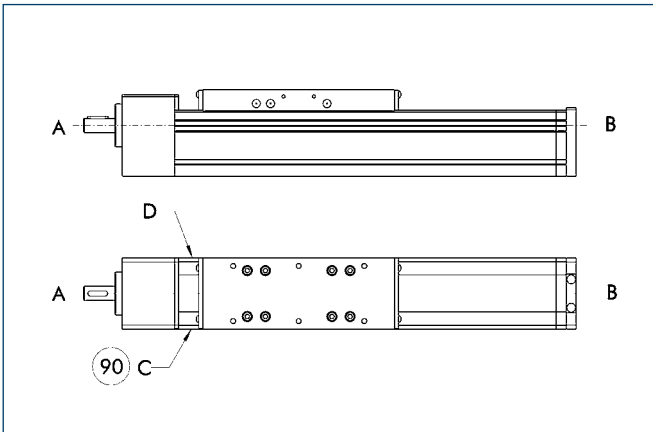
Angle gear schematic diagram



Possible transmission ratios: $i = 1 : 1$, $i = 2 : 1$, $i = 3 : 1$
 Caution: Dimension C can change at $i \neq 1 : 1$ or with smooth motor shafts (without feather key).
 Even in tight conditions, different drive solutions can be attached. SCHUNK can provide you with the right angle gear 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

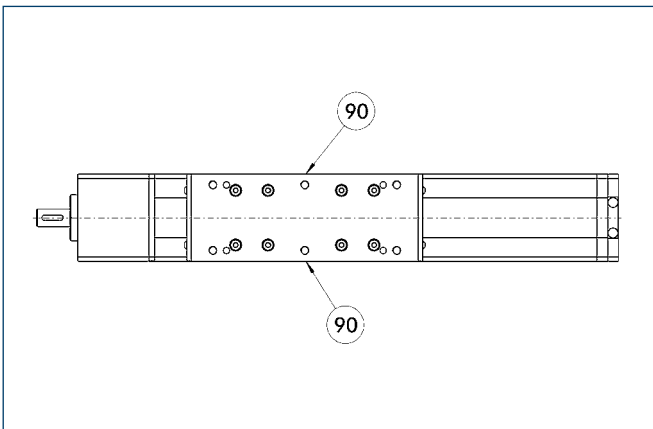
Two E02 switches are used as limit switches and an RS2 as the reference switch as standard.

ⓘ 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.

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