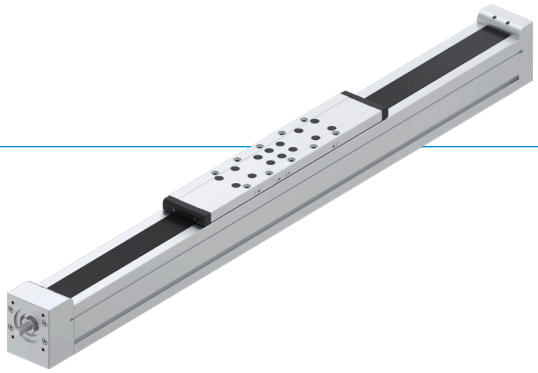
LONG-STROKE AXES
INSTALLATION SIZE AMS120

▶ PRODUCT ADVANTAGES



▶ High precision and feed forces

Ball screw axes offer exceptional accuracy and high feed forces, making them ideal for applications that require both precision and load capacity.

▶ Optional drivetrain

On request, we can also supply you with drive components tailored to your specific application, from couplings to motors and drive control system.

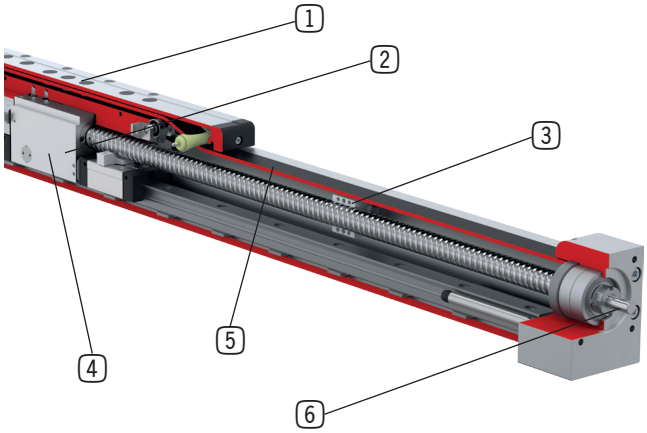
▶ Integrated clamping element

With an optionally integrated clamping element in NC design, ball screw axes offer high clamping forces without interference contours, which increases flexibility and safety in use.

▶ SERIES CHARACTERISTICS

	Series	
	AMB	AMS
Profile rail guide	●	●
High movement speed	●	●
Powerful	●	●
IP40	●	●
Carriage lengths S/M/L	●	
Carriage lengths S/-/L		●
Drive (optional)	●	●
Second carriage (optional)	●	●
Cover strip (optional)	●	●
Clamping integrated (optional)	●	●
Spindle support (optional)		●
Magnetic field sensor (optional)	●	●
Inductive sensor (optional)	●	●

▶ BENEFITS IN DETAIL



1 **Carriages**
- two carriage lengths and up to two carriages per axis as well as threaded and centering holes for quick and reliable mounting of payloads

2 **Ball screw drive**
- up to four screw pitches allow for optimal adaptation of the axes to the corresponding application

3 **Ball screw support (optional)**
- effectively prevents the spindle from vibrating
- maximum movement speeds even with long strokes

4 **Clamping element (optional)**
- perfectly integrated for additonal safety
- high holding forces thanks to NC design

5 **Cover strip (optional)**
- ensures reliable protection and maximizes service life

6 **Drivetrain (optional)**
- including a complete drivetrain with adapter plates, motors, drive control system and other accessories on request

▶ TECHNICAL DATA INSTALLATION SIZES

LONG-STROKE AXES WITH BALL SCREW DRIVE

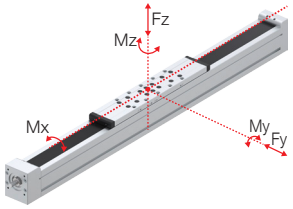
Installation size	Max. stroke [mm]	Max. speed [m/s]	Max. acceleration [m/s²]	Holding force [N]
AMS040	900	0,5	30	-
AMS060	1.970	1,5	30	250
AMS080	2.100	2	30	500
AMS120	2.300	3,2	30	1.000

▶ FURTHER INFORMATION IS AVAILABLE ONLINE

All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

▶ PRODUCT SPECIFICATIONS

▶ Forces and moments



▶ Load data

Service life reference value:
10.000 km

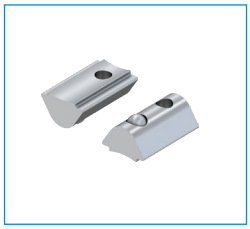
Carriage length	S	L
Fy [N]	11.770	11.770
Fz [N]	11.770	11.770
Mx [Nm]	118	118
My [Nm]	1.750	2.930
Mz [Nm]	1.322	2.209

▶ RECOMMENDED ACCESSORIES

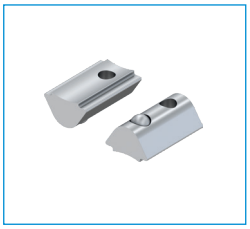
SENSORS

ZUB188454
Magnetic field sensor
incl. mounting bracket

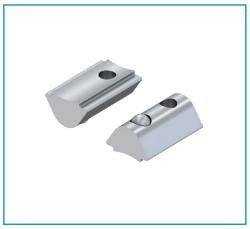
CONNECTIONS / OTHER



CNOR02220
T-nuts size 8 / M5

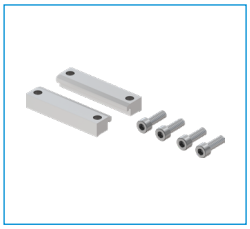


CPRO01348
T-nuts size 8 / M6

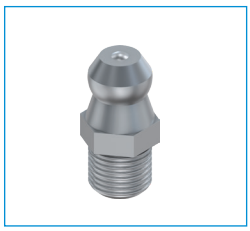


CNOR03044
T-nuts size 8 / M8

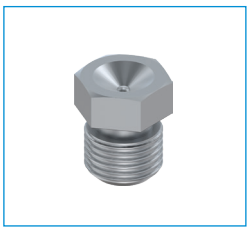
030529
Centering disc



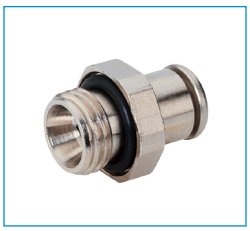
ZUB187819
Clamping claws incl. screws



C71412061009
Tapered grease nipple



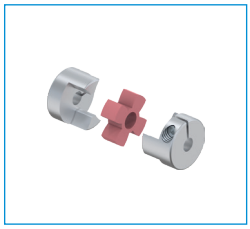
CNOR02558
Hopper grease nipple



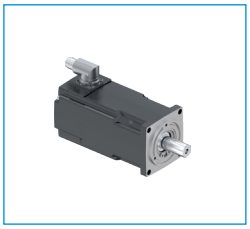
GVM5
Pneumatic fitting straight

WVM5
Angled pneumatic fitting

▶ RECOMMENDED ACCESSORY DRIVE*



Couplings

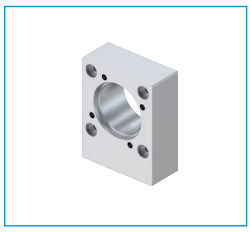


Motors

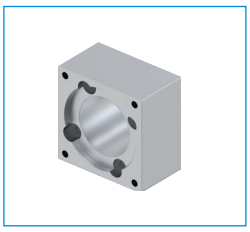
Cables

Braking resistance

Drive control system



Coupling housing



Adapter plate for motors

*For further information, please contact your Zimmer Group contact person.

▶ TECHNICAL DATA

▶ **Technical data**

	Carriage length S	Carriage length L
Profile width [mm]	120	120
Max. stroke [mm]	2.300	2.100
Stroke reserve [mm]	15	15
Spindle diameter [mm]	31	31
Spindle pitches [mm]	10/20/32/64	10/20/32/64
Spindle supports	optional	optional
Carriage length without cover strip [mm]	440	640
Carriage length with cover strip [mm]	606	806
Max. speed [m/s]	3,2	3,2
Max. acceleration [m/s²]	30	30
Service life reference value [km]	10.000	10.000
Fy max. [N]	11.770	11.770
Fz max. [N]	11.770	11.770
Dyn. load rating linear guideway [N]	40.500	40.500
Stat. load rating of linear guideway [N]	53.700	53.700
Dyn. load rating ball screw [N]	54.700/53.900/22.100/17.300	54.700/53.900/22.100/17.300
Stat. load rating ball screw [N]	99.700/95.100/35.400/26.300	99.700/95.100/35.400/26.300
Moment Mx max. [Nm]	118	118
Moment My max. [Nm]	1.750	2.930
Moment Mz max. [Nm]	1.322	2.209
Typical payload [kg]	120	120
Distance top edge of slide - center of guide [mm]	117,70	117,70
Repeatability [mm]	+/- 0,02	+/- 0,02
Operating temperature [°C]	5 ... +60	5 ... +60
Maximum feed force [N]	8.810/9.830/4.115/1.605	8.810/9.830/4.115/1.605
Maximum torque [Nm]	14,0/31,3/21,0/16,3	14,0/31,3/21,0/16,3
Static holding force of clamping element [N]	800-1.000	800-1.000
Operating pressure of clamping element standard/LP version [bar]	5,5-6,5 / 4,0-6,5	5,5-6,5 / 4,0-6,5
Number of clamping cycles	5.000.000	5.000.000
Additional weight clamping element [kg]	1,20	1,20
Mass of the carriage [kg]	11,13	12,50
Additional weight cover strip deflection [kg]	0,82	0,82
Mass of second carriage [kg]	7,34	8,71
Mass at zero stroke [kg]	25,88	31,21
Mass per 1 m stroke [kg]	27,66	27,66
Protection class according to IEC60529 (without / with cover strip)	IP20 / IP40	IP20 / IP40

▶ TECHNICAL DRAWING

① Fastening linear cylinder
③ Fastening customer application
⑥ Mounting groove for magnetic field sensor
⑧ Fixing for adapter plate
⑪ Stroke
㉓ Lubrication for ball screw
㉔ Lubrication for linear guide
㉛ Groove for clamping claws
㉜ Fastening switch lug
㉝ Minimum distance between carriages
㉟ Energy supply clamping element