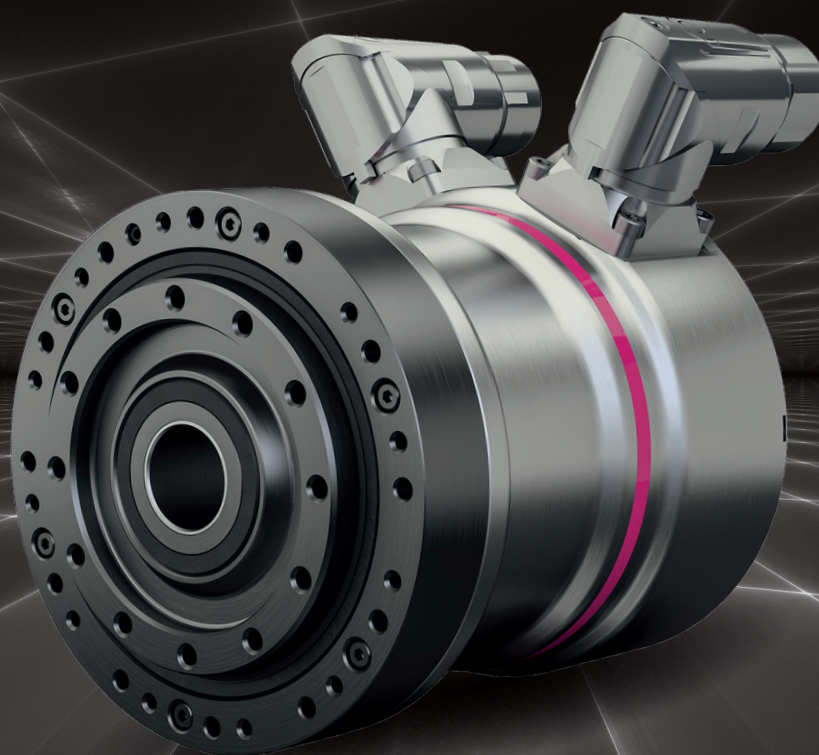


BHA Servo Actuators



Harmonic
Drive SE

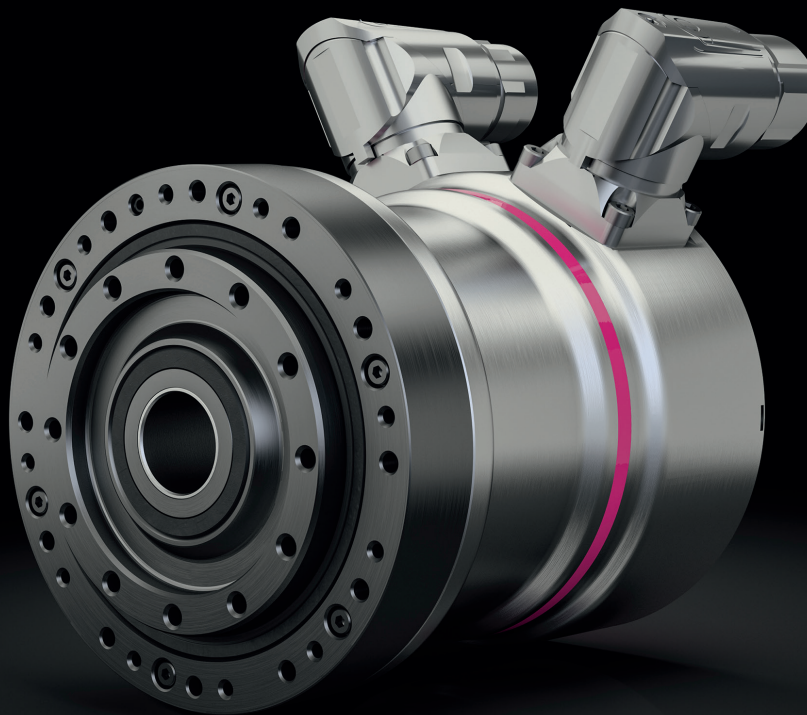


Permanent precision at a great price

The servo actuators in our BHA Series are the perfect combination of highly dynamic, compact synchronous servo motors and zero backlash gears with output bearings. Our servo actuators with hollow shaft are another outstanding choice thanks to their low weight, small volume, excellent torque density, long lifetime and high standards of reliability.

Features

- Outstanding, lifelong precision
- Large hollow shaft
- Optimally matched components
- Ready to connect servo actuator
- Small outer diameter
- Third party controller compatibility
- Integrated, tilt resistant output bearing



BHA

Table 2.1

Torque capacity	Accuracy	Dynamix	Tilt resistant	Low weight	Short design	Small outer diameter	Large hollow shaft	Temperature range	Variable feedback systems
● ● ●	● ● ●	●	● ● ●	●	● ●	● ● ●	● ● ●	● ●	● ●

● ● ● perfect ● ● optimal ● good

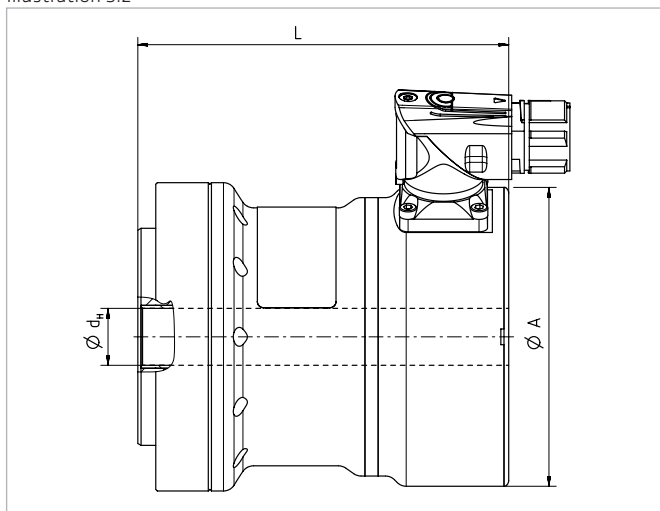
Technical data

Table 3.1

Size	Ratio i []	Data actuator			Data output bearing			Dimensions		
		Maximum torque T_{max} [Nm]	Maximum output speed n_{max} [rpm]	Continuous stall torque T_0 [Nm]	Dynamic radial load $F_{R\ dyn\ (max)}$ [N]	Dynamic axial load $F_{A\ dyn\ (max)}$ [N]	Dynamic tilting moment $M_{dyn\ (max)}$ [Nm]	Outer dimension A [mm]	Length L [mm]	Hollow shaft diameter d_H [mm]
17	50	44	146	34	2300	4600	114	106	120	18
	100	70	73	51						
20	50	73	130	44	8600	15800	172	106	127	18
	100	107	65	64						
	160	120	41	64						

Dimensions

Illustration 3.2



Motor feedback system

Table 3.3

Type	Ordering code	Incremental signal		Multi-turn	
		Signal form	Signal	Function Multi-turn	Protocol
Multi-turn Absolute	MZE	-	-	external battery	EnDat® 2.2 / 22
	MIH	sinusoidal	1 V _{ss}	mechanical	HIPERFACE®
	MZB	-	-	external battery	BiSS-C
Singleturn Absolute	SZE	-	-	-	EnDat® 2.2 / 22
	SIH	sinusoidal	1 V _{ss}	-	HIPERFACE®
	SZB	-	-	-	BiSS-C



PASSION GENERATES THE HIGHEST QUALITY.

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We reserve the right to make technical changes
and modifications without prior notice.

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