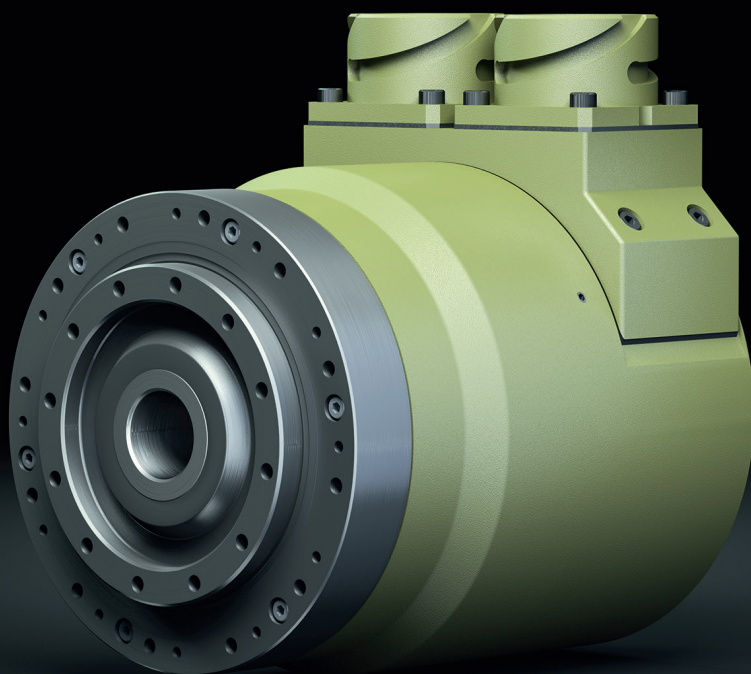


Servo Actuators AlopexDrive®



Harmonic  
Drive AG



*...just move it!*

## Largest hollow shaft with extended temperature range

AlopexDrive® Series Hollow Shaft Servo Actuators combine a synchronous servo motor, especially developed for mobile applications and extreme environmental conditions, and a Unit from the CPU-H Series. Available in six sizes with gear ratios between 30 and 160:1, the actuators can provide maximum torques from 9 to 647 Nm. The output bearing with high tilting capacity allows direct attachment of heavy payloads without the need for further supports, thereby providing simple and space saving design installations.

*Harmonic Drive® Servo Actuators are the perfect combination of high performance compact servo motors, precision Harmonic Drive® Component Sets and integrated high load capacity, stiff output bearings.*

To adapt to your specific application, the AlopexDrive® Series offers many possible configurations of motor windings, motor feedback systems, motor brake, sensors and cables as well as connector options.

The integrated hollow shaft can be used to feed through supply lines or services for additional axes, enabling space saving designs with minimal installation requirements. A reinforced output bearing allows direct installation of heavy loads without further support and offers therefore an easy and space-saving design. Due to the corrosion protection and internal design, the series is ideal for use under extreme conditions (temperature, shock, vibration). When in operation, the AlopexDrive® Series which has a sinusoidal three phase brushless winding, offers quiet, smooth, precise and reliable running in a compact volume.

Used in extreme environments in applications for highly accurate positioning the drives function in a confined space very precise and reliable.

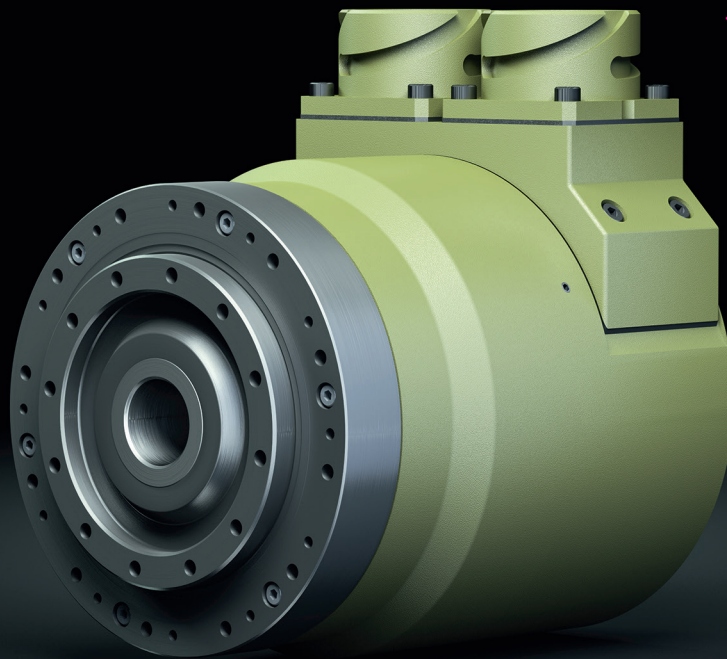
### Features

- Excellent lifetime precision
- Large hollow shaft
- Easy to customise
- Large selection of feedback systems
- Integrated high capacity output bearing
- Corrosion protection
- Increased temperature range
- Shock and vibration resistant in accordance with MIL Standards
- MIL-EMC compliant version

## Optimised for your applications:

- No additional housing necessary
- Optimum customisation
- Small footprint
- High availability
- Reduced Total Cost of Ownership
- Reduced maintenance costs
- Increased operating reliability
- Reduced set up time
- Flexible control configuration
- Easy load connection
- Low manufacturing and installation costs

Customer Benefits




## Technical data

Table 4.1

	Unit [Symbol]	AlopexDrive- 14A	AlopexDrive- 17A	AlopexDrive- 20A	AlopexDrive- 25A	AlopexDrive- 32A	AlopexDrive- 40A
Ratio	i [ ]	30 ... 100	30 ... 120	50 ... 160	50 ... 160	50 ... 160	50 ... 160
Maximum output torque	$T_{\max}$ [Nm]	9 ... 28	16 ... 54	56 ... 92	98 ... 176	216 ... 372	402 ... 647
Maximum output speed	$n_{\max}$ [rpm]	85 ... 283	61 ... 243	41 ... 130	35 ... 112	30 ... 96	25 ... 80
Continuous stall torque	$T_0$ [Nm]	6.8 ... 11	12 ... 39	19 ... 49	38 ... 108	44 ... 216	125 ... 420
Brake holding torque	$T_H$ [Nm]	9 ... 28	15 ... 54	27 ... 92	54 ... 176	54 ... 288	225 ... 647
Weight without brake	m [kg]	2.0	3.0	3.2	4.9	6.6	11.7
Weight with brake	m [kg]	2.1	3.2	3.9	6.1	7.8	13.8
Hollow shaft diameter	$d_H$ [mm]	12	16	18	27	32	39
Transmission accuracy	[arcmin]	1.5 ... 2.0	1.5 ... 2.0	0.8 ... 1.5	0.8 ... 1.5	0.8 ... 1.5	0.5 ... 0.7
Ambient operating temperature	[°C]	-46 ... 63 <sup>1)</sup>					

<sup>1)</sup> Depending on motor feedback system


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