



Stainless steel - Servo drive systems

## Introduction

Heidrive's stainless steel motors have been specially developed for the food, beverage and medical industries, as well as for industries with very high demands on cleanliness, hygiene and corrosion protection.

They are also ideally suited for use in the chemical or pharmaceutical industry, as well as for areas that require special cleaning or disinfection.

The sealing concept prevents water or dust from penetrating the inside of the motor. No dirt particles adhere to the deadspace-free design. The stainless steel servo motor solution is also perfect for use in areas where high-pressure cleaning is required, as it complies with protection class IP69K. The smooth surface material of the drives has been developed in accordance with EHEDG and FDA guidelines.

The motor shaft, housing and flange are made of food-grade stainless steel. The shaft seal is FDA-compliant and also has a long service life even under the harshest environmental conditions. In addition, the motors are maintenance-free and the magnetic circuits of the motors are based on the proven HeiMotion series. Further outstanding features are the motor versions with integrated electronics of the HMSi06 series, because here the servo controller is integrated directly in the motor. In combination with an integrated single or absolute encoder, a very compact drive unit is obtained. A clear advantage of a decentralized controller solution is the significantly lower cabling effort.

As standard, the series is equipped with a stainless steel connector qualified for this environment. On request, a cable version can also be implemented in the project business.

To round off the drive package perfectly, our planetary gear units are also available in a stainless steel version.

The HeiMotion Stainless Steel motors are available in four different flange sizes:

- 60 mm - HMS06
- 80 mm - HMS08
- 100 mm - HMS10
- 130 mm - HMS13

## Order code

**HMS08-024-320-30-BPH2MW23W**

<p><b>Flange dimension</b></p> <p>60 mm → 06 80 mm → 08 100 mm → 10 130 mm → 13</p> <p><b>Coil size</b></p> <p>HMS06 → 011           → 019           → 026</p> <p>HMS08 → 024           → 032           → 042           → 057</p> <p>HMS10 → 039           → 057           → 076           → 105</p> <p>HMS13 → 133           → 190           → 245</p> <p><b>DC link voltage</b></p> <p>320 V → 320 560 V → 560</p> <p><b>Rated speed</b></p> <p>2,000 min<sup>-1</sup> → 20 3,000 min<sup>-1</sup> → 30 3,600 min<sup>-1</sup> → 36 5,000 min<sup>-1</sup> → 50 5,500 min<sup>-1</sup> → 55 6,000 min<sup>-1</sup> → 60</p>	<p><b>Options</b></p> <p>without brake           0XXXXXXXXX with brake                BXXXXXXXXX without featherkey       X0XXXXXXXXX with featherkey          XPXXXXXXXXX Resolver<sup>1)</sup>                XXR1PXXXXX Resolver securely attached<sup>1)</sup> XXRAPXXXXX HES 1 (1.0 Vss)          XXM2SXXXXX HEM 1 (1.0 Vss with battery)<sup>1)</sup> XXM2MXXXXX HS16                      XXS1SXXXXX HM16                      XXB1MXXXXX ECI 1119                 XXE1SXXXXX EQI 1131                 XXE1MXXXXX ECI 1319<sup>2)</sup>                XXE3SXXXXX EQI 1331<sup>2)</sup>                XXE3MXXXXX SEK 37<sup>1)</sup>                  XXH1SXXXXX SEL 37<sup>1)</sup>                  XXH1MXXXXX EES 37                    XXD1SXXXXX EES 37-2 securely attached<sup>1)</sup> XXDASXXXXX EEM 37                    XXD1MXXXXX EEM 37-2 securely attached<sup>1)</sup> XXDAMXXXXX M17 H-Tec                XXXXX I 17 X Cable outlet 1,5 m<sup>1)</sup>     XXXXX K 15 X without RWDR            XXXXXXXXXX 0 with RWDR                XXXXXXXXXX W</p>
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1) Only on request

2) Only for HMS10 and HMS13

**Example: HMS08-024-320-30-BPH2MW23W**

<p>Flange dimension 80 mm</p> <p>Standstill torque 2.4 Nm</p> <p>DC link voltage 320 V</p> <p>Rated speed 3,000 min<sup>-1</sup></p>	<p><b>Options:</b></p> <p>With brake</p> <p>With key</p> <p>SKM 36 encoder</p> <p>Angled M23 plug</p> <p>With radial shaft seal</p>
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# HMSo6

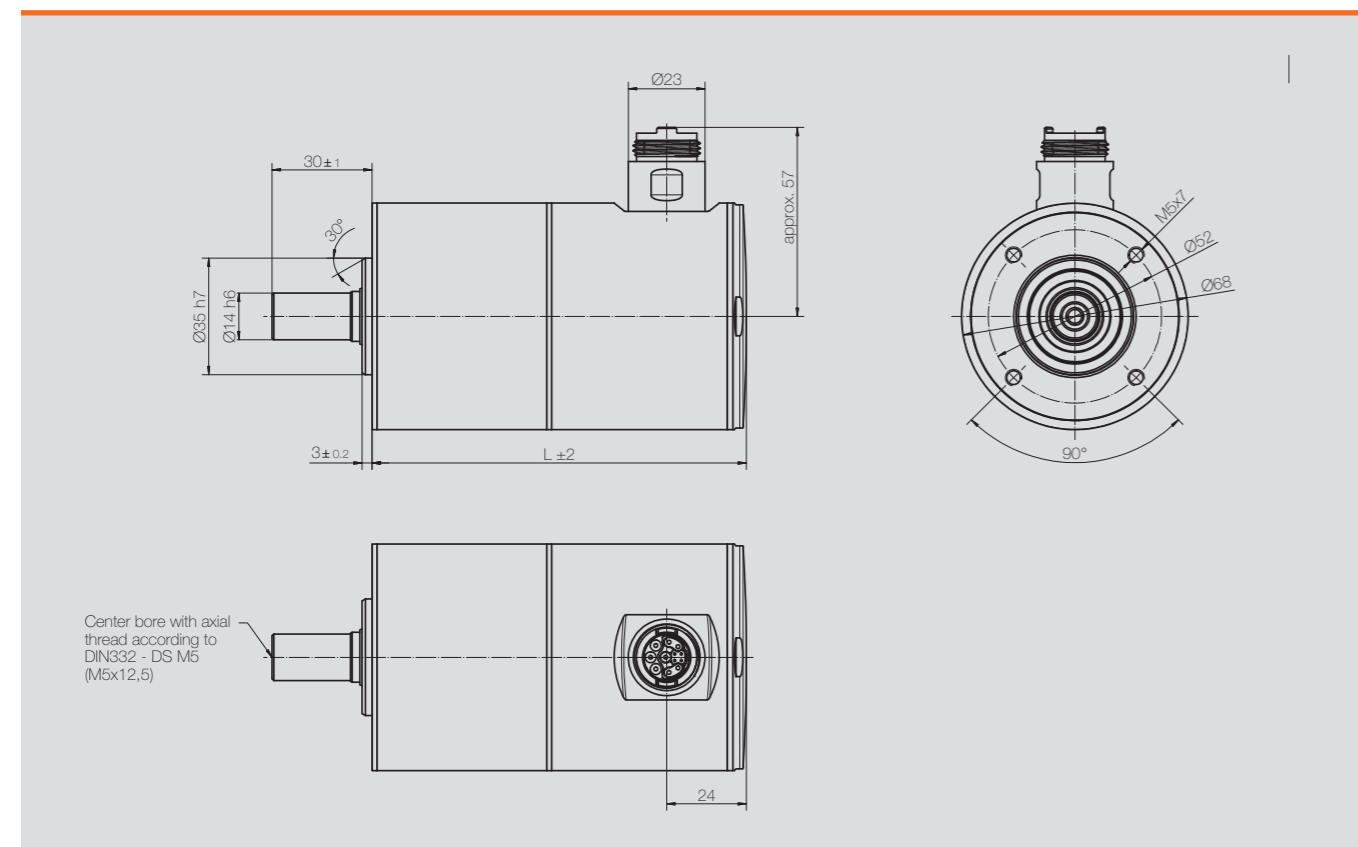


## Technical Information

Flange dimensions	Ø 68 mm
Rated speed	3,000 / 6,000 rpm
Protection class	IP69K
Power / Signal plug	Plug an cable solution
Encoder	Resolver, incremental encoders, absolute encoders, hall-encoders
Brake	Permanent magnet brake
Planetary gear	Optionally available, currently in development
Integrated electronics	Optionally available, currently in development

Motor type	M <sub>0</sub> [Nm]	M <sub>n</sub> [Nm]	U <sub>ZK</sub> [V <sub>DC</sub> ]	n <sub>n</sub> [min <sup>-1</sup> ]	P <sub>n</sub> [W]	Length without brake [mm]	Length with brake [mm]
HMS06-011	0.7	0.7	320/560	3,000	220	112	144
				6,000	440		
HMS06-019	1.4	1.2	320/560	3,000	375	137	169
		1.0		6,000	630		
HMS06-026	1.9	1.75	320/560	3,000	550	162	194
		1.4		6,000	880		

## Dimensions



# HMSo8

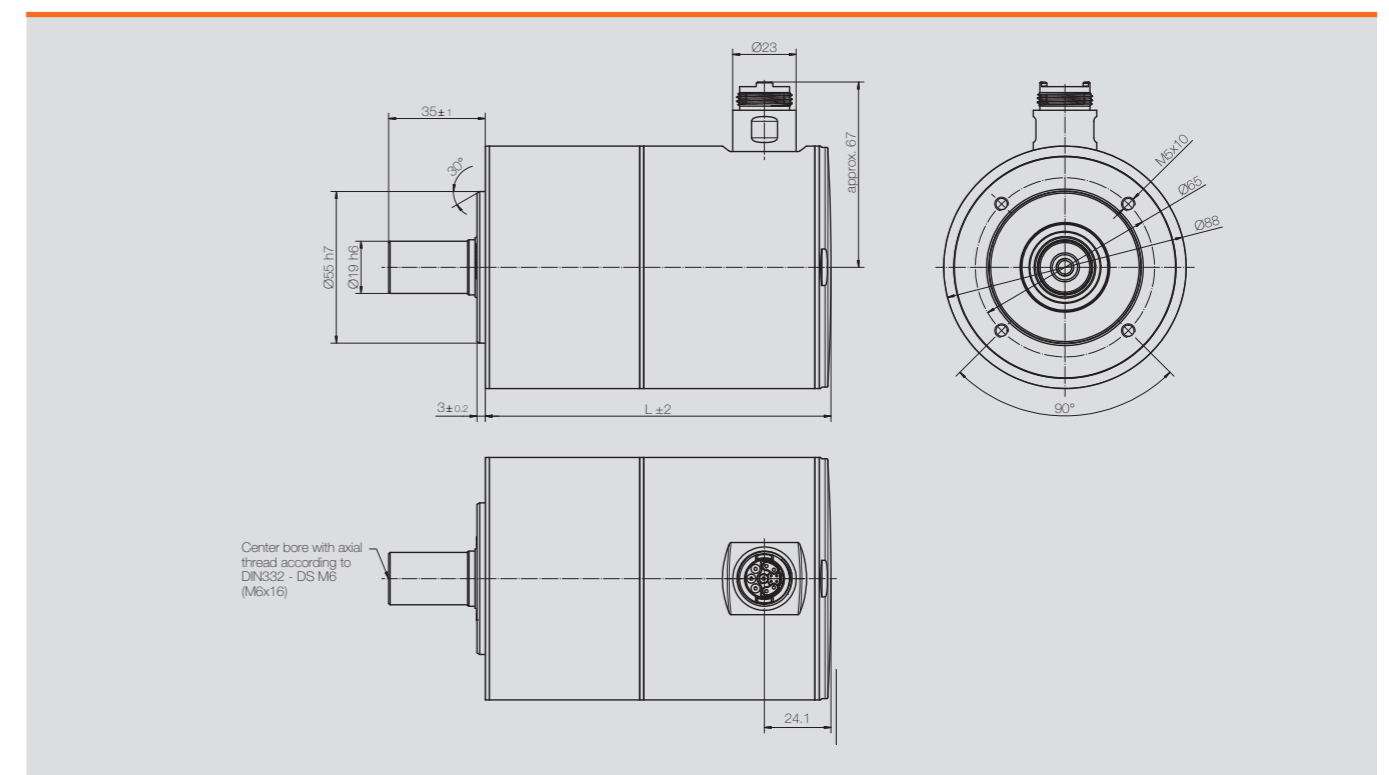


## Technical Information

Flange dimensions	Ø 88 mm
Rated speed	3,000 / 5,500 min <sup>-1</sup>
Protection class	IP69K
Power / Signal plug	Plug an cable solution
Encoder	Resolver, incremental encoders, absolute encoders, hall-encoders
Brake	Permanent magnet brake
Planetary gear	Optionally available, currently in development
Integrated electronics	Optionally available, currently in development

Motor type	M <sub>0</sub> [Nm]	M <sub>n</sub> [Nm]	U <sub>ZK</sub> [V <sub>DC</sub> ]	n <sub>n</sub> [min <sup>-1</sup> ]	P <sub>n</sub> [W]	Length without brake [mm]	Length with brake [mm]
HMS08-024	1.6	1.5	320/560	3,000	470	125	160
		1.4		5,500	805		
HMS08-032	2.1	2.0	320/560	3,000	630	140	175
		1.7		5,500	980		
HMS08-042	2.8	2.6	320/560	3,000	815	155	190
		2.3		5,500	1,325		
HMS08-057	3.8	3.6	320/560	3,000	1,130	185	220
		2.9		5,500	1,670		

## Dimensions



## HMS10

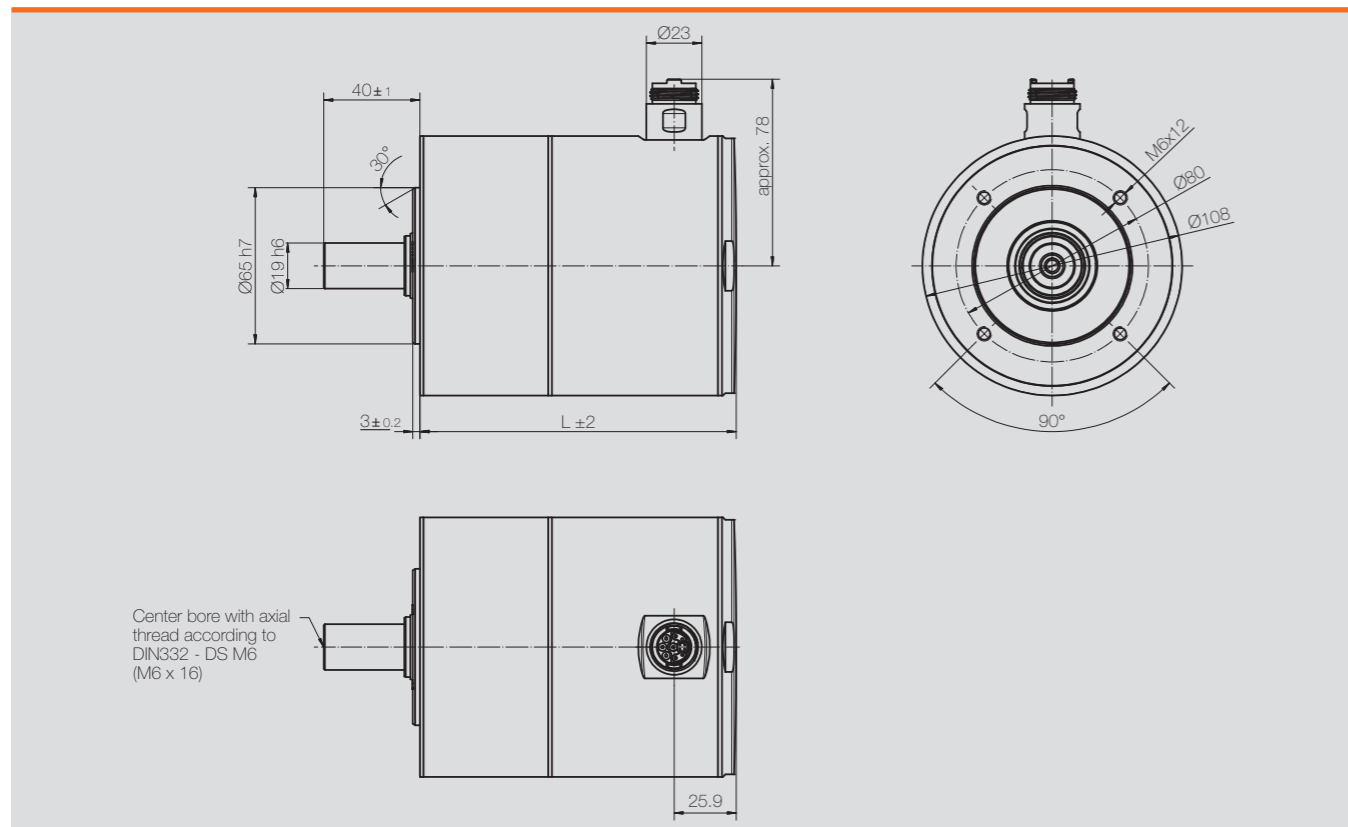


### Technical Information

Flange dimensions	Ø 108 mm
Rated speed	3,000 / 5,000 min <sup>-1</sup>
Protection class	IP69K
Power / Signal plug	Plug an cable solution
Encoder	Resolver, incremental encoders, absolute encoders, hall-encoder
Brake	Permanent magnet brake

Motor type	M <sub>0</sub> [Nm]	M <sub>n</sub> [Nm]	U <sub>ZK</sub> [V <sub>DC</sub> ]	n <sub>n</sub> [min <sup>-1</sup> ]	P <sub>n</sub> [W]	Length without brake [mm]	Length with brake [mm]
HMS10-039	2.5	2.3	320/560	3,000	720	132	168
		2.0		5,000	1,045		
HMS10-057	3.6	3.3	320/560	3,000	1,035	147	183
		2.5		5,000	1,310		
HMS10-076	4.8	4.1	320/560	3,000	1,290	162	198
		3.0		5,000	1,570		
HMS10-105	6.6	5.4	320/560	3,000	1,695	192	228
		3.5		5,000	1,830		

### Dimensions



## HMS13

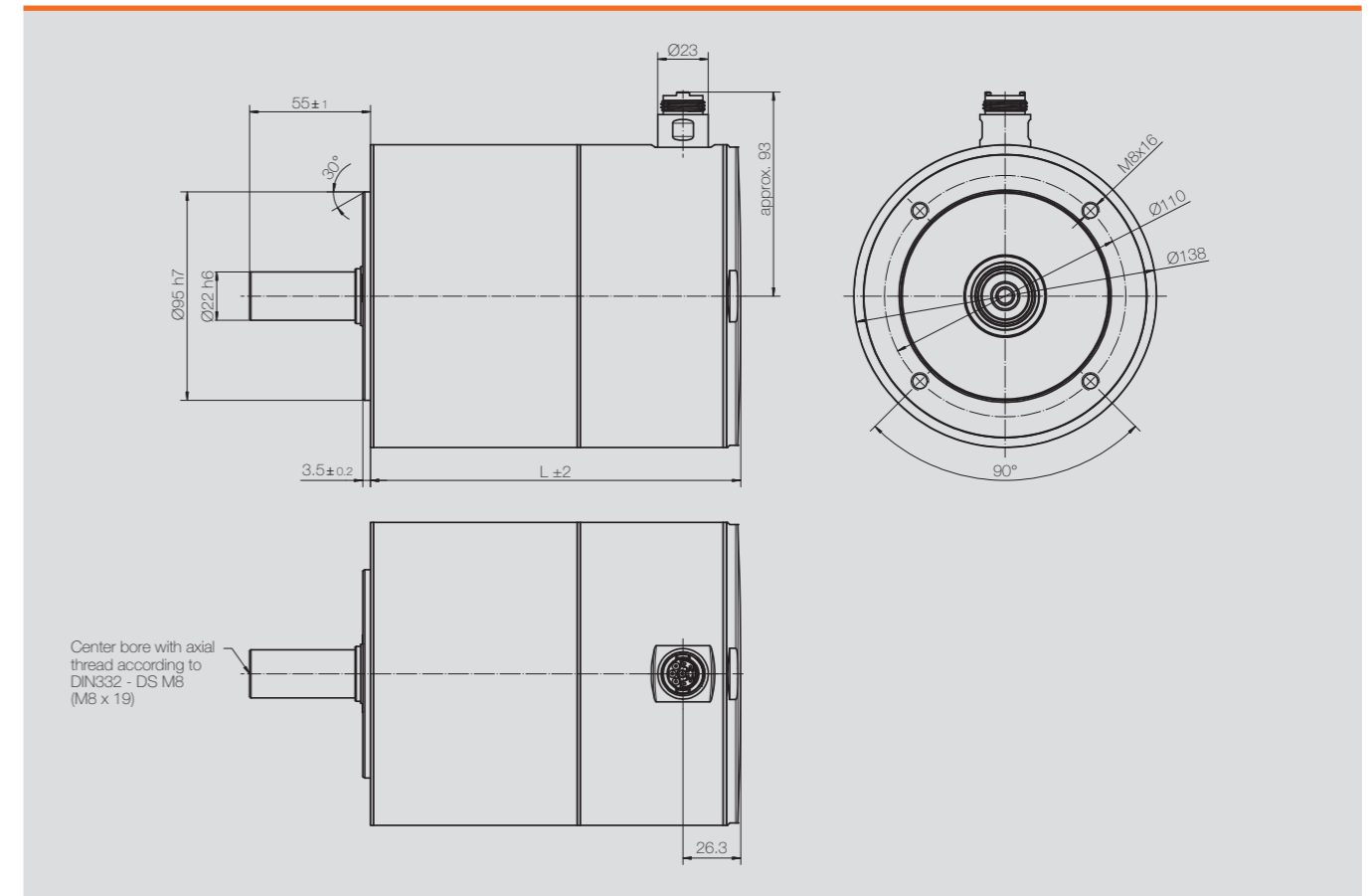


### Technical Information

Flange dimensions	Ø 138 mm
Rated speed	2,000 / 3,600 min <sup>-1</sup>
Protection class	IP69K
Power / Signal plug	Plug an cable solution
Encoder	Resolver, incremental encoders, absolute encoders, hall-encoder
Brake	Permanent magnet brake

Motor type	M <sub>0</sub> [Nm]	M <sub>n</sub> [Nm]	U <sub>ZK</sub> [V <sub>DC</sub> ]	n <sub>n</sub> [min <sup>-1</sup> ]	P <sub>n</sub> [W]	Length without brake [mm]	Length with brake [mm]
HMS13-133	7.6	6.6	560	2,000	1,380	169	215
		5.2		3,600	1,960		
HMS13-190	10.8	9.2	560	2,000	1,925	199	245
		6.4		3,600	2,410		
HMS13-245	14.0	11.8	560	2,000	2,470	229	275
		7.6		3,600	2,865		

### Dimensions



## Customized applications

Examples from the development of customer-specific applications:

Stainless steel motors with directly mounted gears and cable version

The stainless steel series, like the HMD Next Generation and HMP series, can be combined with a directly mounted gear.



Stainless steel motors with integrated electronics and cable version

As known from the Heimotion Dynamic servo motor series, the stainless steel motors are also available with 48 volt windings and integrated servo controller.



More detailed information is available upon request.

## Notes

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Technical data subject to change! Last changes: 11/2023

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