



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, and 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

HMS08-024-320-30-0PE1MI17W

Flange dimension

60 mm → 06
80 mm → 08
100 mm → 10
130 mm → 13

Coil size

HMS06 → 011
 → 019
 → 026

HMS08 → 024
 → 032
 → 042
 → 057

HMS10 → 039
 → 057
 → 076
 → 105

HMS13 → 133
 → 190
 → 245

DC link voltage

320 V → 320
560 V → 560

Rated speed

2,000 min⁻¹ → 20
3,000 min⁻¹ → 30
3,600 min⁻¹ → 36
5,000 min⁻¹ → 50
5,500 min⁻¹ → 55
6,000 min⁻¹ → 60

Options

Without brake	0XXXXXXXXX
With brake	BXXXXXXXXX
Without featherkey	X0XXXXXXXX
With featherkey	XPXXXXXXXX
Resolver ¹⁾³⁾	XXR1PXXXXX
Resolver securely attached ¹⁾³⁾	XXRAPXXXXX
HES 1 (1.0 Vss) ³⁾	XXM2SXXXXX
HEM 1 (1.0 Vss with battery) ¹⁾³⁾	XXM2MXXXXX
HS16 ³⁾	XXS1SXXXXX
HM16 ³⁾	XXB1MXXXXX
ECI 1119	XXE1SXXXXX
EQI 1131	XXE1MXXXXX
ECI 1319 ²⁾	XXE3SXXXXX
EQI 1331 ²⁾	XXE3MXXXXX
SEK 37 ¹⁾³⁾	XXH1SXXXXX
SEL 37 ¹⁾³⁾	XXH1MXXXXX
EES 37	XXD1SXXXXX
EES 37-2 securely attached ¹⁾	XXDASXXXXX
EEM 37	XXD1MXXXXX
EEM 37-2 securely attached ¹⁾	XXDAMXXXXX
M17 H-Tec	XXXXXXI17X
Without RWDR	XXXXXXXXXX0
With RWDR	XXXXXXXXXXW

1) Only on request

2) Only for HMS10 and HMS13

3) In combination of motor with brake, the temperature sensor is not required

Example: HMS08-024-320-30-0PE1MI17W

Flange dimension 80 mm

Coil size 024

DC link voltage 320 V

Rated speed 3,000 min⁻¹

Options:

Without brake

With key

SKM 36 encoder

Angled M23 plug

With radial shaft seal



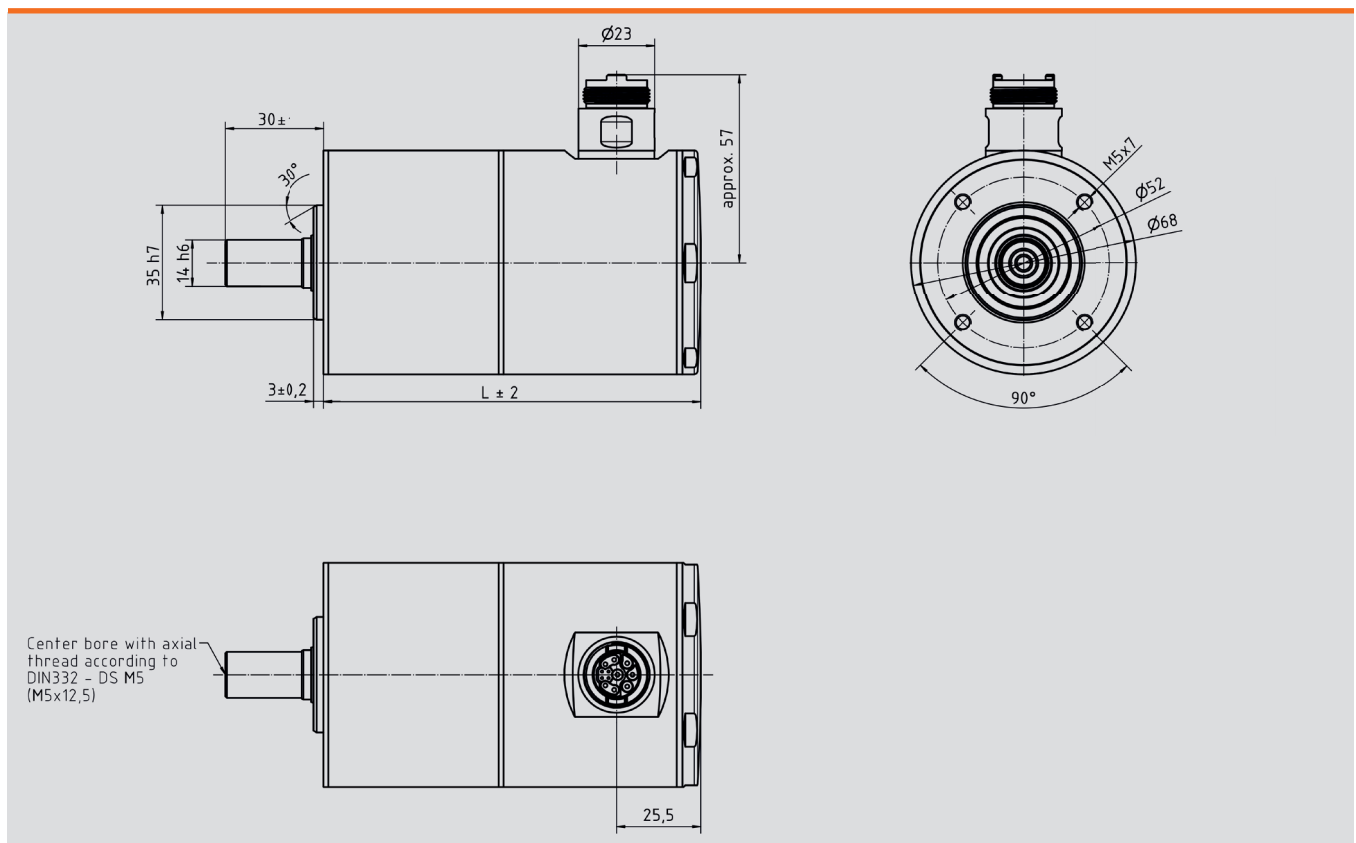
Technical Information

Flange dimensions	Ø 68 mm
Rated speed	3,000 / 6,000 rpm
Protection class	IP69K
Power / signal plug	Plug for single-cable solution radial
Encoder	EnDat 2,2 and Hiperface DSL Resolver*, SSI*, Biss-C*, Hiperface*
Brake	Permanent magnet brake
Planetary gear	Optionally available, currently in development
Integrated electronics	Optionally available, currently in development

* In combination of motor with brake, the temperature sensor is not required

Motor type	M_o [Nm]	M_n [Nm]	U_{zk} [V _{DC}]	n_n [min ⁻¹]	P_n [W]	Length without brake [mm]	Length with brake [mm]
HMS06-011	0.7	0.7	320/560	3,000 6,000	220 440	114	148
HMS06-019	1.4	1.2 1.0	320/560	3,000 6,000	375 630	139	173
HMS06-026	1.9	1.75 1.4	320/560	3,000 6,000	550 880	164	198

Dimensions





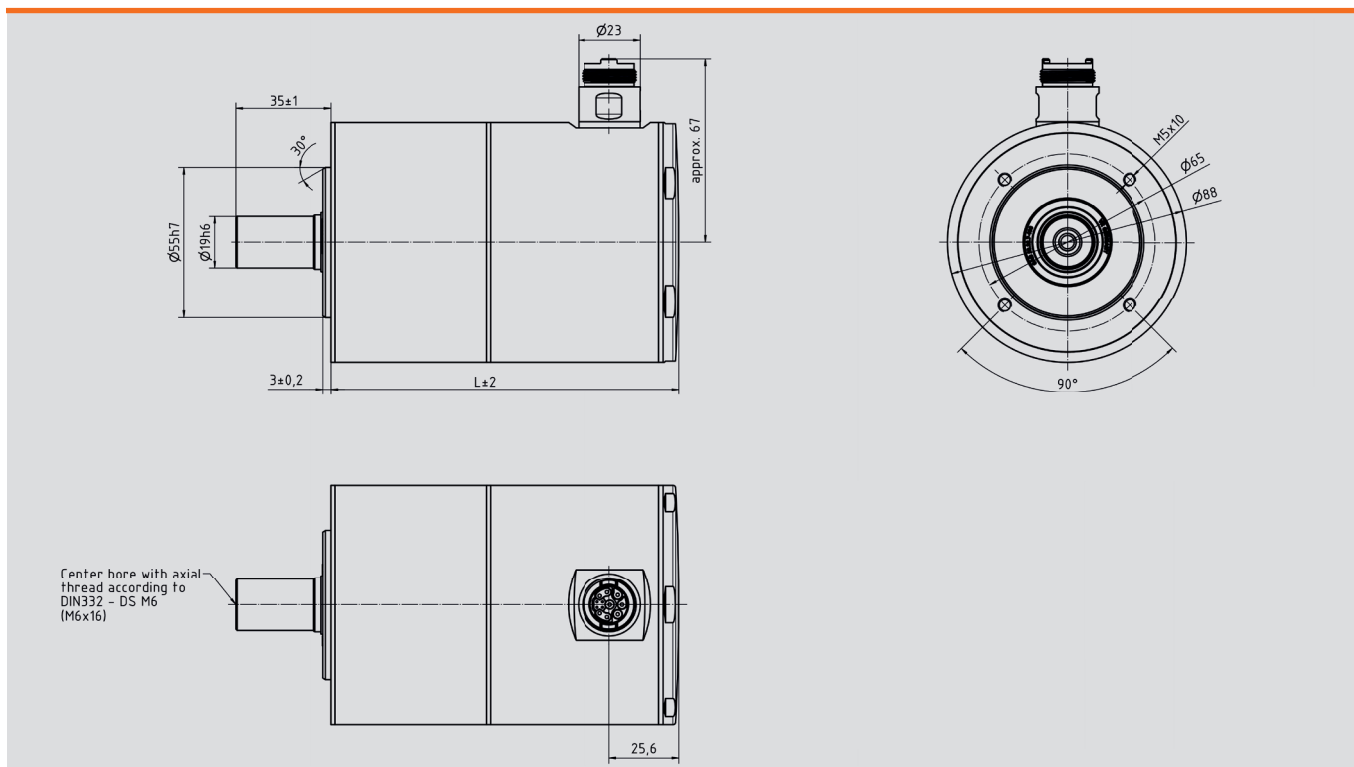
Technical Information

Flange dimensions	Ø 88 mm
Rated speed	3,000 / 5,500 min ⁻¹
Protection class	IP69K
Power / Signal plug	Plug for single-cable solution radial
Encoder	EnDat 2,2 and Hiperface DSL Resolver*, SSI*, Biss-C*, Hiperface*
Brake	Permanent magnet brake
Planetary gear	Optionally available, currently in development
Integrated electronics	Optionally available, currently in development

* In combination of motor with brake, the temperature sensor is not required

Motor type	M ₀ [Nm]	M _n [Nm]	U _{ZK} [V _{DC}]	n _n [min ⁻¹]	P _n [W]	Length without brake [mm]	Length with brake [mm]
HMS08-024	1.6	1.5	320/560	3,000	470	128	163
		1.4		5,500	805		
HMS08-032	2.1	2.0	320/560	3,000	630	142	178
		1.7		5,500	980		
HMS08-042	2.8	2.6	320/560	3,000	815	158	193
		2.3		5,500	1,325		
HMS08-057	3.8	3.6	320/560	3,000	1,130	188	223
		2.9		5,500	1,670		

Dimensions





Technical Information

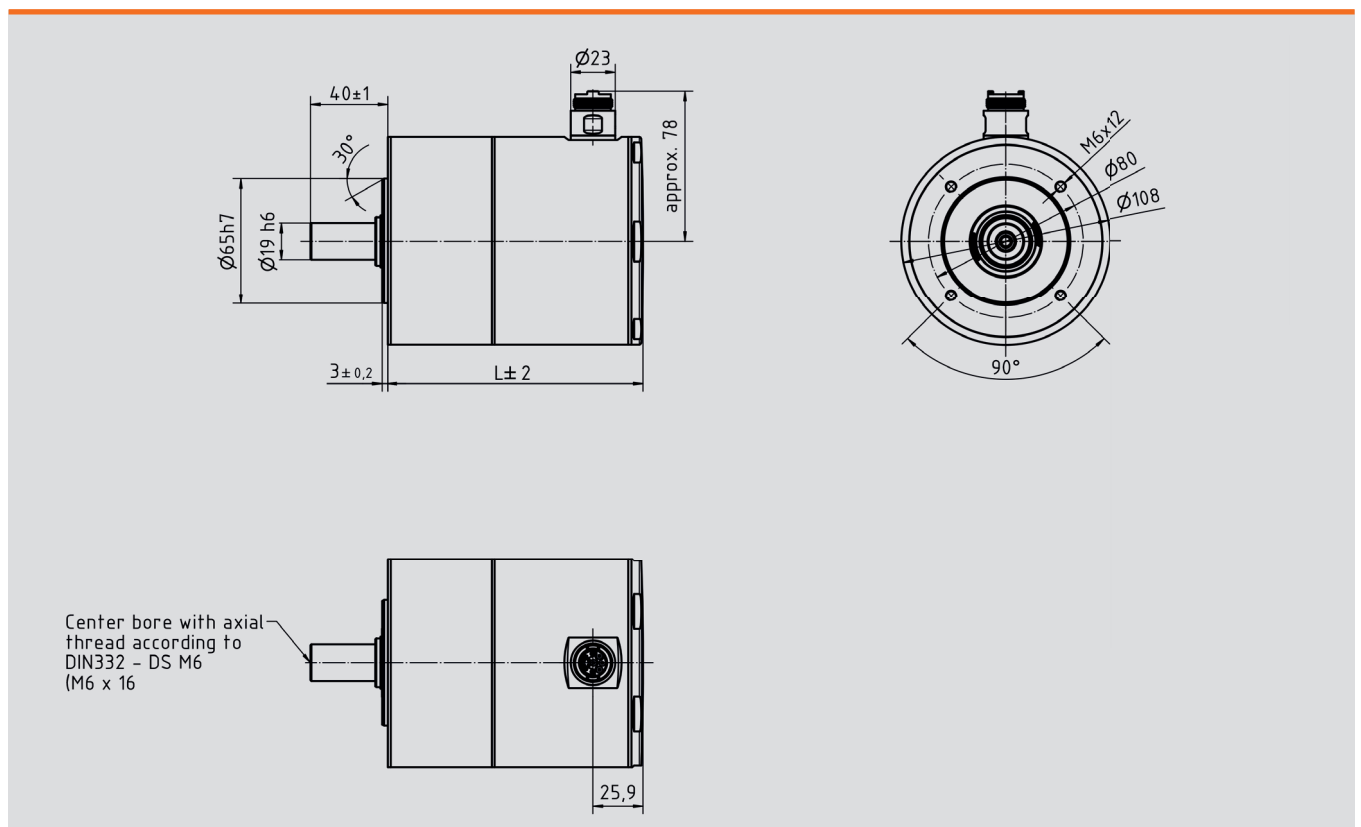
Flange dimensions	Ø 108 mm
Rated speed	3,000 / 5,000 min ⁻¹
Protection class	IP69K
Power / Signal plug	Plug for single-cable solution radial
Encoder	EnDat 2,2 and Hiperface DSL Resolver*, SSI*, Biss-C*, Hiperface*
Brake	Permanent magnet brake

* In combination of motor with brake, the temperature sensor is not required

Motor type	M ₀ [Nm]	M _n [Nm]	U _{zk} [V _{DC}]	n _n [min ⁻¹]	P _n [W]	Length without brake [mm]	Length with brake [mm]
HMS10-039	2.5	2.3	320/560	3,000	720	133	170
		2.0		5,000	1,045	127**	165**
HMS10-057	3.6	3.3	320/560	3,000	1,035	148	185
		2.5		5,000	1,310	142**	180**
HMS10-076	4.8	4.1	320/560	3,000	1,290	163	200
		3.0		5,000	1,570	157**	195**
HMS10-105	6.6	5.4	320/560	3,000	1,695	193	230
		3.5		5,000	1,830	187**	225**

** In combination with ECI1319 or EQI1331

Dimensions





Technical Information

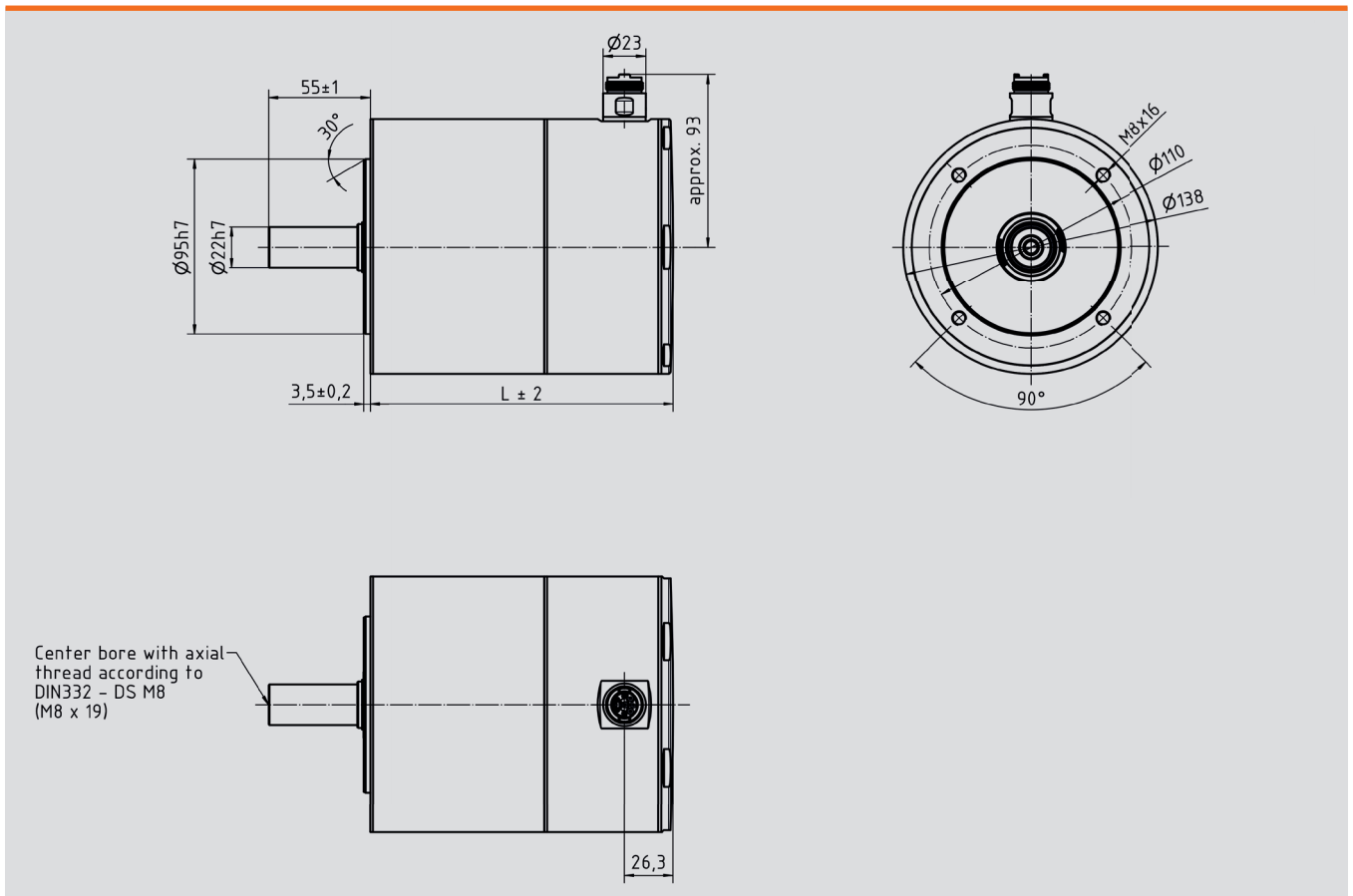
Flange dimensions	Ø 138 mm
Rated speed	2,000 / 3,600 min ⁻¹
Protection class	IP69K
Power / Signal plug	Plug for single-cable solution radial
Encoder	EnDat 2,2 and Hiperface DSL Resolver*, SSI*, Biss-C*, Hiperface*
Brake	Permanent magnet brake

* In combination of motor with brake, the temperature sensor is not required

Motor type	M ₀ [Nm]	M _n [Nm]	U _{ZK} [V _{dc}]	n _n [min ⁻¹]	P _n [W]	Length without brake [mm]	Length with brake [mm]
HMS13-133	7.6	6.6	560	2,000	1,380	169	216
		5.2		3,600	1,960	164**	211**
HMS13-190	10.8	9.2	560	2,000	1,925	199	246
		6.4		3,600	2,410	194**	241**
HMS13-245	14.0	11.8	560	2,000	2,470	229	276
		7.6		3,600	2,865	224**	271**

** In combination with ECI1319 or EQL1331

Dimensions



■ Customized applications

Examples from the development of customer-specific applications:

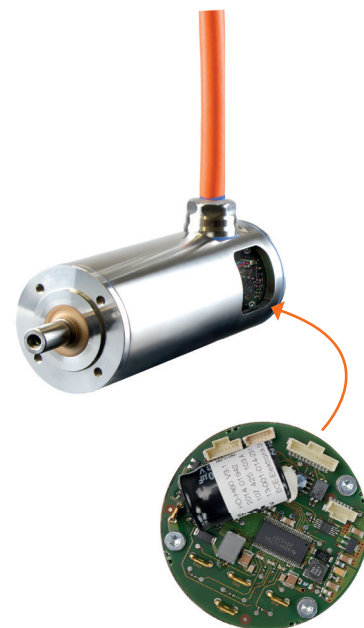
Stainless steel motors with directly mounted gears and cable version

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

Technical data subject to change! Last changes: 10/2024

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