



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. A further outstanding feature is the motor version 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, planetary gear units are also available in a stainless steel version.

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

- 68 mm - HMS06
- 88 mm - HMS08
- 108 mm - HMS10
- 138 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

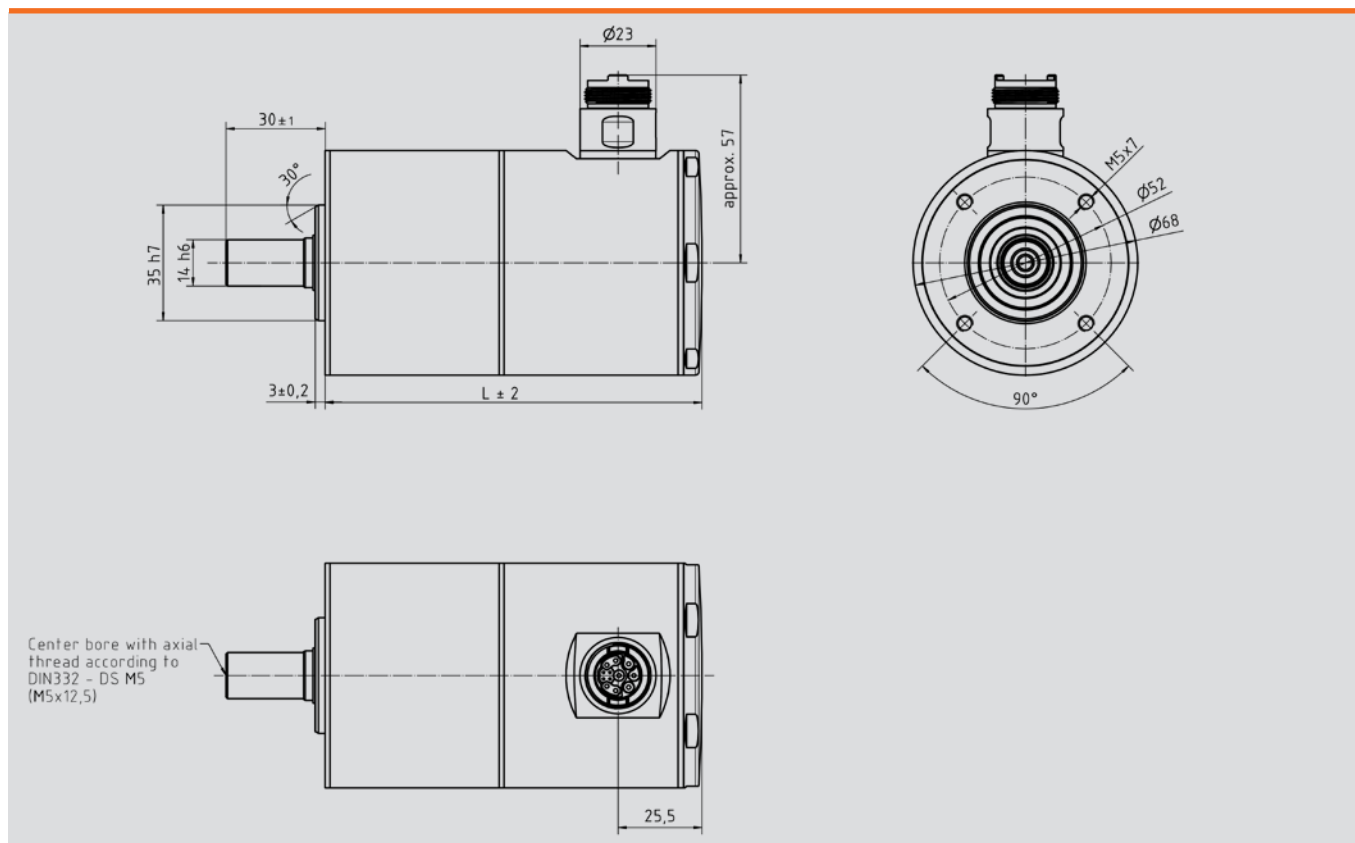
| | |
|------------------------|--|
| Flange dimensions | Ø 68 mm |
| Rated speed | 3,000 rpm |
| Protection class | IP69K |
| Power / signal plug | Plug for single-cable solution radial |
| Encoder | EnDat® 2,2 and HIPERFACE DSL® Resolver*, SSI*, Biss-C*, HIPERFACE®* |
| Brake | Permanent magnet brake* |
| 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
Derating in S1 mode on request

| Motor Type | U_{bus} [V _{DC}] | n_n [rpm] | M_o [Nm] | M_n [Nm] | M_n [Nm] | M_o^{**} [Nm] | M_n^{**} [Nm] |
|------------|---------------------------------|----------------|---------------|---------------|---------------|--------------------|--------------------|
| HMS06-011 | 320 / 560 | 3,000 | 0.80 | 0.73 | 0.70 | 0.73 | 0.60 |
| HMS06-019 | | | 1.50 | 1.24 | 1.10 | 1.40 | 0.90 |
| HMS06-026 | | | 2.20 | 1.83 | 1.50 | 1.90 | 1.20 |

** Encoder version: EnDat®, HIPERFACE®, HIPERFACE DSL®

Dimensions





Technical Information

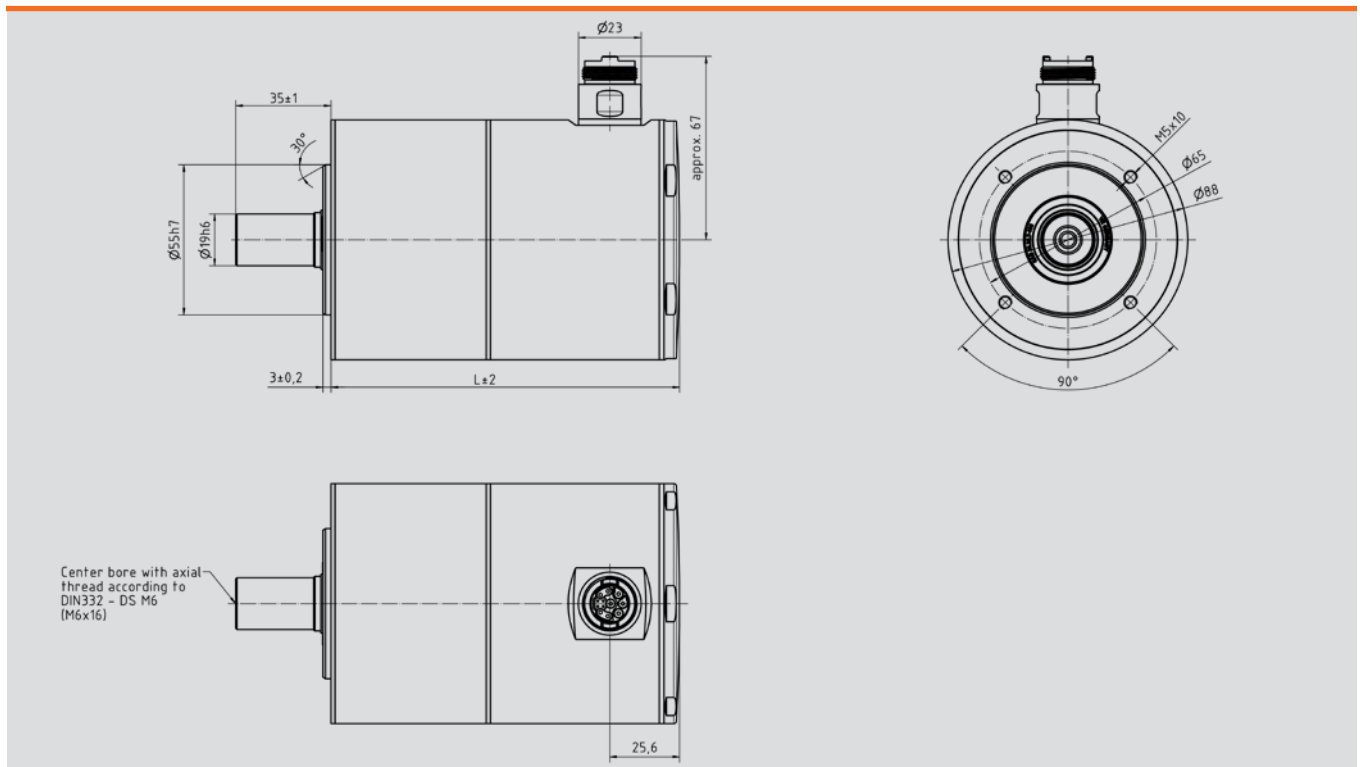
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|------------------------|--|
| Flange dimensions | Ø 88 mm |
| Rated speed | 3,000 rpm |
| Protection class | IP69K |
| Power / Signal plug | Plug for single-cable solution radial |
| Encoder | EnDat® 2,2 and HIPERFACE DSL® Resolver*, SSI*, Biss-C*, 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
Derating in S1 mode on request

| Motor Type | U_{bus} [V _{DC}] | n_n [rpm] | M_o [Nm] | M_n [Nm] | M_n [Nm] | M_o^{**} [Nm] | M_n^{**} [Nm] |
|------------|---------------------------------|----------------|---------------|---------------|---------------|--------------------|--------------------|
| HMS08-024 | 320 / 560 | 3,000 | 1.70 | 1.24 | 1.60 | 1.30 | 1.10 |
| HMS08-032 | | | 2.30 | 1.62 | 2.20 | 1.73 | 1.50 |
| HMS08-042 | | | 2.90 | 2.11 | 2.70 | 2.23 | 1.80 |
| HMS08-057 | | | 3.60 | 2.86 | 3.40 | 3.08 | 2.40 |

** Encoder version: EnDat®, HIPERFACE®, HIPERFACE DSL®

Dimensions





Technical Information

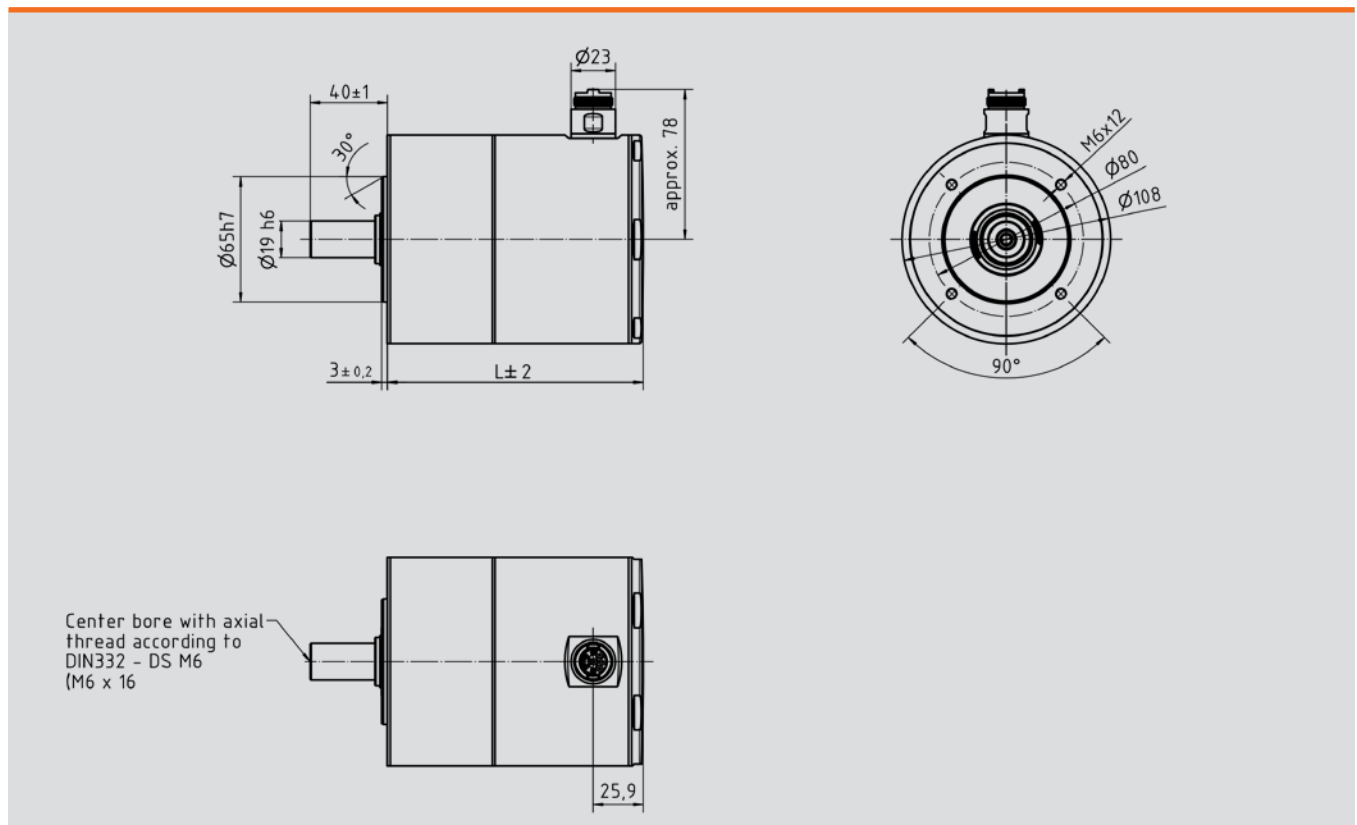
| | |
|---------------------|--|
| Flange dimensions | Ø 108 mm |
| Rated speed | 3,000 rpm |
| Protection class | IP69K |
| Power / Signal plug | Plug for single-cable solution radial |
| Encoder | EnDat® 2,2 and HIPERFACE DSL® Resolver*, SSI*, Biss-C*, HIPERFACE®* |
| Brake | Permanent magnet brake*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

* In combination of motor with brake, the temperature sensor is not required
Derating in S1 mode on request

| Motor Type | U_{bus} [V _{DC}] | n_n [rpm] | M_o [Nm] | M_n [Nm] | M_n [Nm] | M_o^{**} [Nm] | M_n^{**} [Nm] |
|------------|---------------------------------|----------------|---------------|---------------|---------------|--------------------|--------------------|
| HMS10-039 | 320 / 560 | 3,000 | 3.50 | 2.23 | 2.40 | 2.41 | 1.70 |
| HMS10-057 | | | 5.20 | 3.22 | 3.50 | 3.53 | 2.10 |
| HMS10-076 | | | 7.00 | 4.03 | 4.40 | 4.71 | 2.50 |
| HMS10-105 | | | 9.70 | 5.33 | 5.70 | 6.51 | 2.80 |

** Encoder version: EnDat®, HIPERFACE®, HIPERFACE DSL®

Dimensions





Technical Information

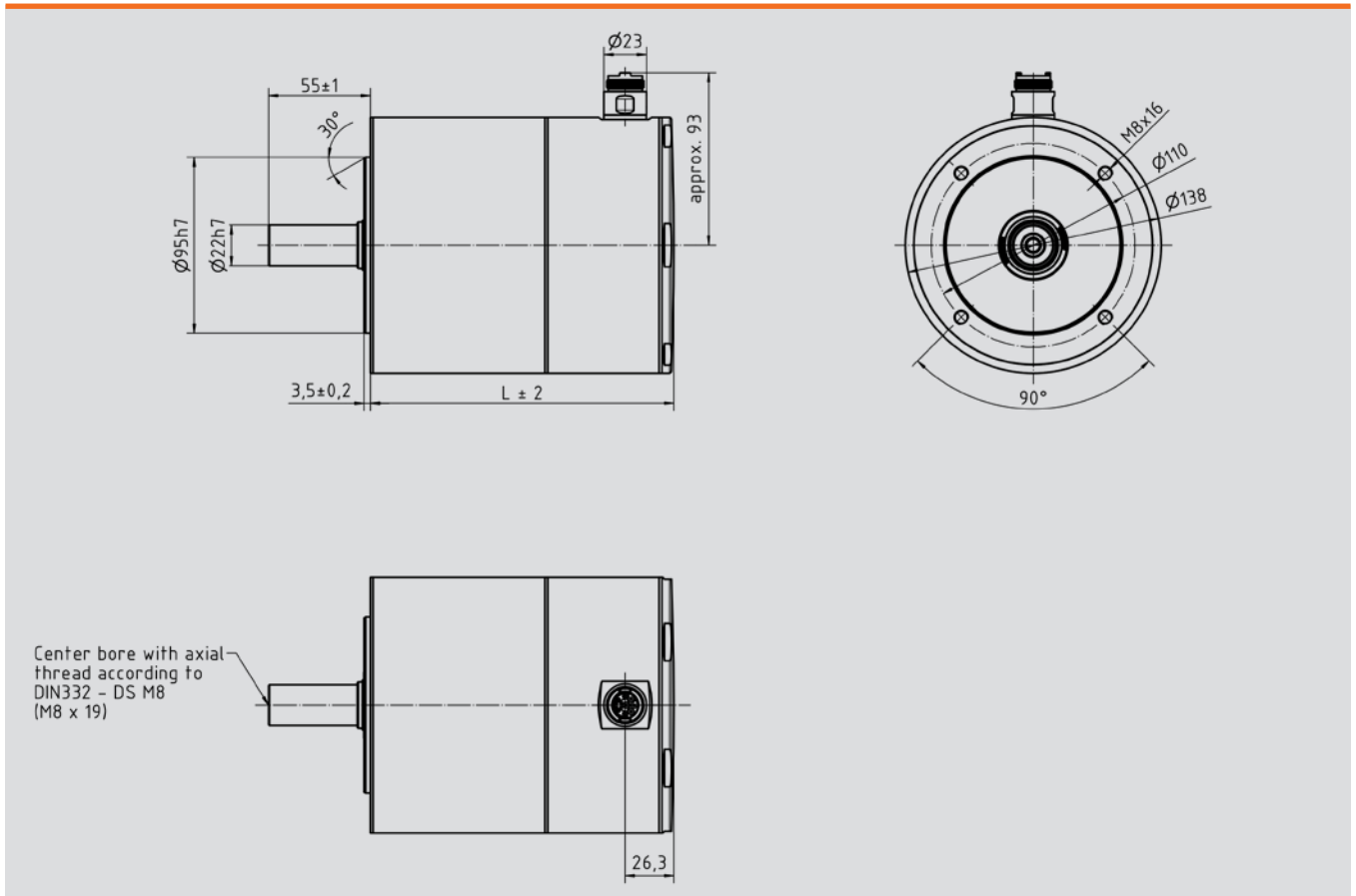
| | |
|---------------------|--|
| Flange dimensions | Ø 138 mm |
| Rated speed | 2,000 rpm |
| Protection class | IP69K |
| Power / Signal plug | Plug for single-cable solution radial |
| Encoder | EnDat® 2,2 and HIPERFACE DSL® Resolver*, SSI*, Biss-C*, HIPERFACE®* |
| Brake | Permanent magnet brake* |

* In combination of motor with brake, the temperature sensor is not required
Derating in S1 mode on request

| Motortyp | U_{bus} [V _{DC}] | n_n [rpm] | M_o [Nm] | M_n [Nm] | M_n [Nm] | M_o^{**} [Nm] | M_n^{**} [Nm] |
|-----------|---------------------------------|----------------|---------------|---------------|---------------|--------------------|--------------------|
| HMS13-133 | 560 | 2,000 | 13.50 | 7.36 | 12.70 | 8.51 | 8.00 |
| HMS13-190 | | | 16.50 | 10.24 | 14.00 | 12.16 | 8.80 |
| HMS13-245 | | | 19.50 | 13.12 | 15.40 | 15.68 | 9.70 |

** Encoder version: EnDat®, HIPERFACE®, HIPERFACE DSL®

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: 03/2025

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