Heidrive

An Allient Company



Stainless Steel - Servo Drive Systems

HeiMotion

STAINLESS STEEL

Introduction & General Information

The stainless steel motors from Heidrive have been specifically developed for applications in the food, pharmaceutical and medical technology industries. They are ideally suited for applications with the highest requirements in terms of hygiene, cleanliness, and corrosion resistance against aggressive media.

A specially developed sealing and housing concept, combined with the high IP69K protection class, effectively protects the inside of the motor against liquids and foreign objects. The dead-space-free design prevents the accumulation of contamination and significantly facilitates cleaning.

The smooth surfaces have been designed in accordance with EHEDG and FDA guidelines, supporting reliable process design and residue-free cleaning. The housing, flange, and motor shaft are made of high-quality, food-grade stainless steel. The FDA-compliant shaft seal offers a long service life and outstanding resistance even under the most demanding environmental conditions.

Performance data such as peak torque and stall torque are based on the proven magnetic circuits of the HMD Next Generation motor series. As stainless steel motors are an integral part of the standard product range, they are available with short lead times and can be delivered quickly. They are also integrated into our motor configurator, where servo motors can be individually configured online. Once the configuration is complete, 3D models, CAD drawings, and datasheets are available for download.

Upon request, the standard stainless steel motor can be equipped with an integrated servo controller or combined with a stainless steel gearbox. A decentralized drive solution further reduces cabling requirements, simplifies installation, and lowers overall system costs. The stainless steel motors are also integrated into our motor configurator. Here, the servo motors can be individually configured online. After the configuration process, 3D models, CAD drawings, and data sheets are available for download.

As standard, the motors are fitted with stainless steel connectors specifically designed for low-contamination environments. These provide a robust and permanently reliable connection, even under frequent cleaning cycles. When used with the appropriate connection cable, the connector design can provide pressure equalization during operation, ensuring that the high protection rating remains unaffected even in the most demanding applications. For customer-specific requirements, cable versions with cable glands are also available as an alternative.

General Information

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

- 68 mm - HMS06
- 88 mm - HMS08
- 108 mm - HMS10
- 138 mm - HMS13

Protection class	IP69K
Power / signal plug	Plug for single-cable solution radial
Encoder	EnDat® 2,2, HIPERFACE DSL®, Resolver[1)], SSI[1)], Biss-C[1)]
Brake	Permanent magnet brake[1)]

1) In combination of motor with brake, the temperature sensor is not included
Derating in S1 mode on request

Order Code

HMS08-024-320-31-0PE1MI17W

Flange Dimension

68 mm	→	06
88 mm	→	08
108 mm	→	10
138 mm	→	13

Coil Size based on HMD Next Generation

HMS06	→	011
	→	019
	→	026
HMS08	→	024
	→	032
	→	042
	→	057
HMS10	→	039
	→	057
	→	076
	→	105
HMS13	→	133
	→	190
	→	245

DC Link Voltage

24 V	→	024
48 V	→	048
320 V	→	320
560 V	→	560

Rated Speed

1,500 rpm	→	15
2,000 rpm	→	20
2,500 rpm	→	25
3,100 rpm	→	31

Options

Without brake	0XXXXXXX
With brake	BXXXXXXX
Without featherkey	X0XXXXXX
With featherkey	XPXXXXXX
Resolver[1) 3)]	XXR1PXXX
Resolver securely attached[1) 3)]	XXRAPXXX
HES 1 (1.0 Vss)[3)]	XXM2SXXX
HEM 1 (1.0 Vss with battery)[1) 3)]	XXM2MXXX
HS16[3)]	XXS1SXXX
HM16[3)]	XXB1MXXX
ECI 1119	XXE1SXXX
EQI 1131	XXE1MXXX
ECI 1319[2)]	XXE3SXXX
EQI 1331[2)]	XXE3MXXX
EES 37	XXD1SXXX
EES 37-2 securely attached[1)]	XXDASXXX
EEM 37	XXD1MXXX
EEM 37-2 securely attached[1)]	XXDAMXXX
M17 H-Tec	XXXXXI17X
M23 H-Tec	XXXXXI23X
Without RWDR	XXXXXXXX0
With RWDR	XXXXXXXXW

1) Only on request
2) Only for HMS10 and HMS13
3) In combination of motor with brake, the temperature sensor is not required

Example: HMS08-024-320-31-0PE1MI17W

- Flange dimension 88 mm
- Coil size HMD Next Generation 024
- DC link voltage 320 V
- Rated speed 3,100 min^{-1}

Options:
- Without brake
- With key
- EQI 1131 encoder
- Angled M23 plug
- With radial shaft seal

HMS06



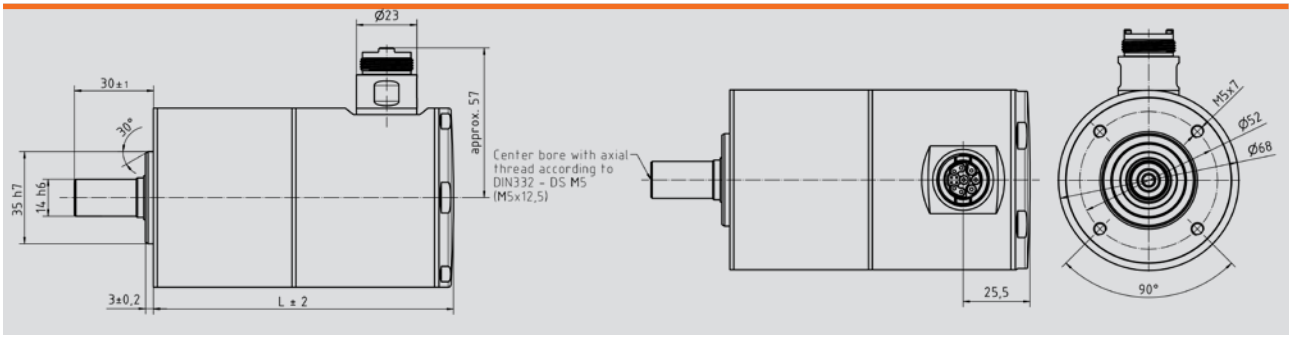
Technical Information

Flange dimensions	Ø 68 mm
Rated speed	3,100 rpm
Planetary gear	Optionally available, currently in development
Integrated electronics	Optionally available, currently in development

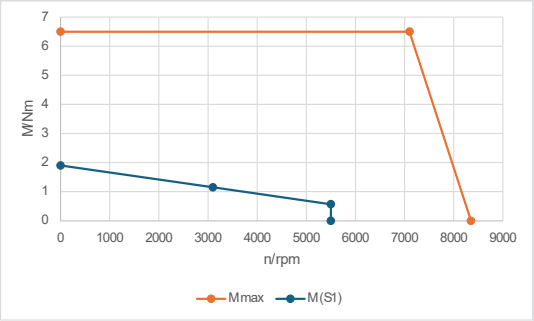
Motor Type	U_{bus} [V_{DC}]	n_n [min^{-1}]	M_o [Nm]	M_n [Nm]	M_o 1) [Nm]	M_n 1) [Nm]	M_{max} [Nm]	I_{max} [A_{rms}]	kt_{max} [Nm/A_{rms}]
HMS06-011	24 / 48	3,100	0.8	0.7	0.75	0.6	2.5	53.4	0.047
	320 / 560							3.8	0.658
HMS06-019	48		1.25	0.8	1	0.7	4.8	48.5	0.099
	320 / 560							6.7	0.716
HMS06-026	48		1.7	0.9	1	0.7	6.5	53.6	0.121
	320 / 560				1.30	0.8		8.5	0.765

1) Encoder version: EnDat®, HIPERFACE®, HIPERFACE DSL®, SSI, BiSS-C

Dimensions



Characteristic Performance for this Motor Type[2)]



Lengths

Motor	L [mm] without brake	L [mm] with brake
HMS06-011	114 mm	148 mm
HMS06-019	139 mm	173 mm
HMS06-026	164 / 169* mm	198 / 203* mm

* With 48 V

2) Detailed performance curve available upon request

HMSo8



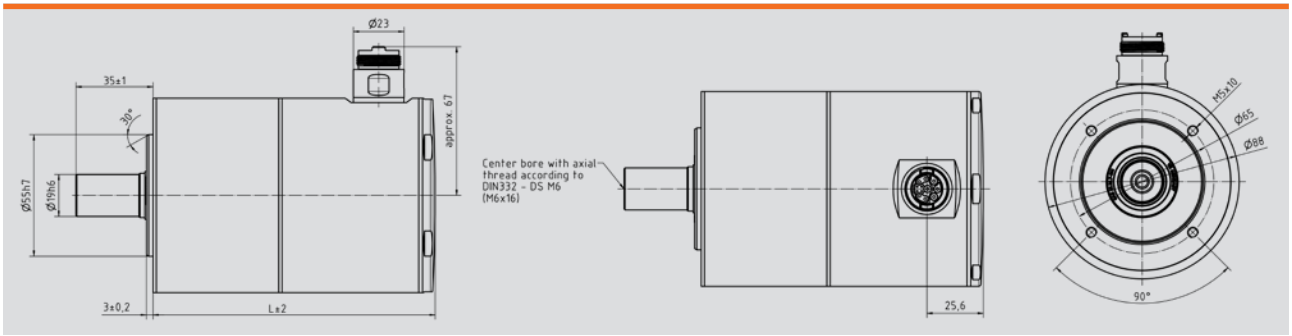
Technical Information

Flange dimensions	Ø 88 mm
Rated speed	3,100 rpm
Planetary gear	Optionally available, currently in development
Integrated electronics	Optionally available, currently in development

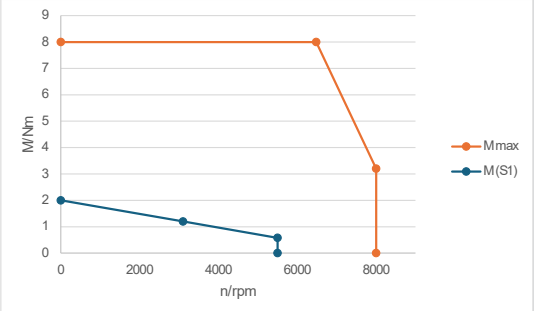
Motor Type	U_{bus} [V_{DC}]	n_n [min^{-1}]	M_o [Nm]	M_n [Nm]	M_o 1) [Nm]	M_n 1) [Nm]	M_{max} [Nm]	I_{max} [A_{rms}]	kt_{max} [Nm/A_{rms}]
HMS08-024	24 / 48	3,100	1.5	1.2	1.4	0.8	6	138.3	0.043
	320 / 560							10.2	0.588
HMS08-032	24		1.8	1.5	1.6	1	8	163	0.049
	48		2.3	1.8	2.1	1.2			
	320 / 560							13.2	0.606
HMS08-042	24		2	1.9	1.7	0.8	10.5	191	0.055
	48		3.1	2.4	2.8	1.5		190	
	320 / 560							14.4	0.729
HMS08-057	320 / 560		4.1	3	3.8	1.8	14.3	18	0.794

1) Encoder version: EnDat®, HIPERFACE®, HIPERFACE DSL®, SSI, BiSS-C

Dimensions



Characteristic Performance for this Motor Type 2)



Lengths

Motor	L [mm] without brake	L [mm] with brake	L [mm] with 48 V without brake	L [mm] with 48 V with brake
HMS08-024	128 mm	163 mm	140 mm	175 mm
HMS08-032	143 mm	178 mm	155 mm	190 mm
HMS08-042	158 mm	193 mm	170 mm	205 mm
HMS08-057	188 mm	223 mm	-	-

2) Detailed performance curve available upon request

HMS10



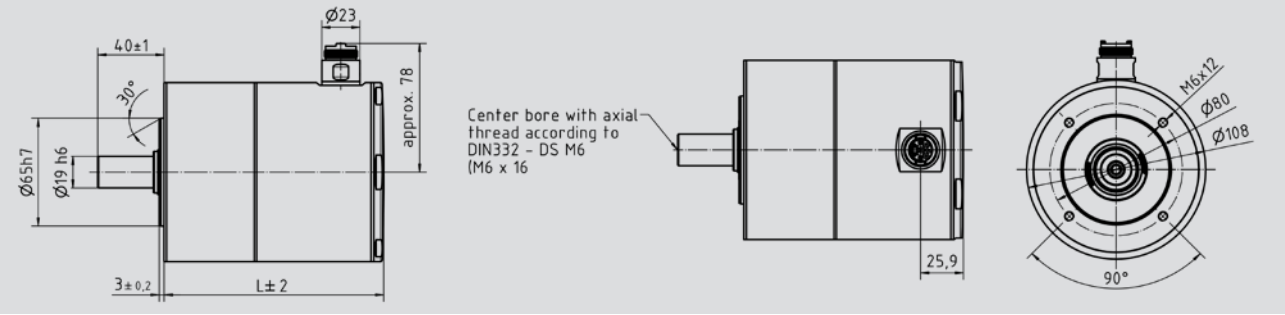
Technical Information

Flange dimensions	Ø 108 mm
Rated speed	2,000 rpm, 2,500 rpm

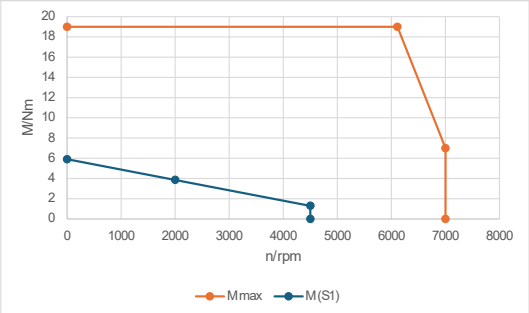
Motor Type	U_{bus} [V_{DC}]	n_n [min^{-1}]	M_o [Nm]	M_n [Nm]	M_o [1)] [Nm]	M_n [1)] [Nm]	M_{max} [Nm]	I_{max} [A_{rms}]	kt_{max} [Nm/A_{rms}]
HMS10-039	320 / 560	2,500	3.1	2.2	2.9	1.4	9.8	12.5	0.784
HMS10-057			4.8	3.3	4.4	2.1	14.3	16.3	0.877
HMS10-076			6.5	4.5	5.9	2.8	19	22.8	0.833
HMS10-105		2,000	9.2	6.8	7.3	3.5	26.3	27.5	0.956

1) Encoder version: EnDat®, HIPERFACE®, HIPERFACE DSL®, SSI, BiSS-C

Dimensions



Characteristic Performance for this Motor Type[2)]



Lengths

Motor	L [mm] without brake	L [mm] with brake
HMS10-039	127[3)] / 133[4)] mm	164[3)] / 170[4)] mm
HMS10-057	142[3)] / 148[4)] mm	179[3)] / 185[4)] mm
HMS10-076	157[3)] / 163[4)] mm	194[3)] / 200[4)] mm
HMS10-105	187[3)] / 193[4)] mm	224[3)] / 230[4)] mm

[3)] With encoder: ECI 1319, EQI 1331
[4)] Other encoders

2) Detailed performance curve available upon request

HMS13



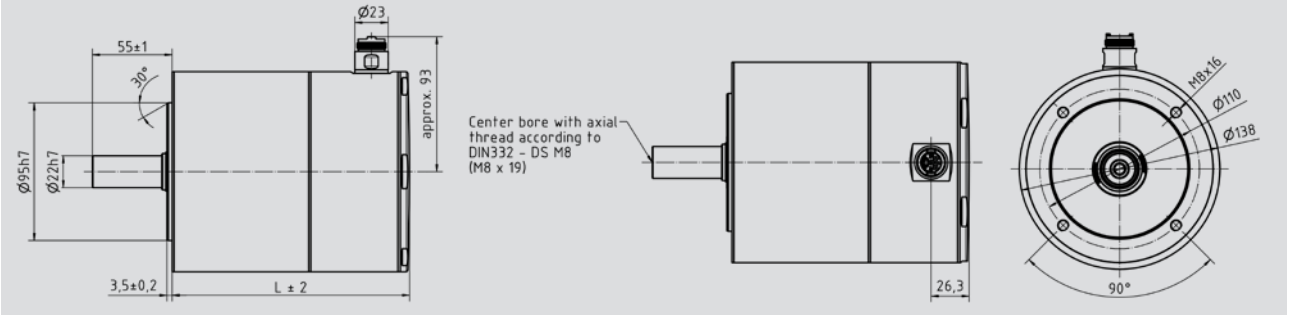
Technical Information

Flange dimensions	Ø 138 mm
Rated speed	2,000 rpm, 1,500 rpm

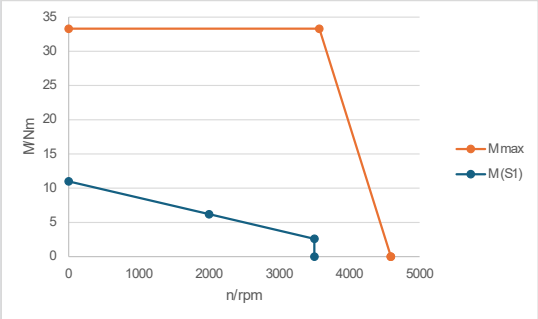
Motor Type	U_{bus} [V_{DC}]	n_n [min^{-1}]	M_o [Nm]	M_n [Nm]	M_o [1)] [Nm]	M_n [1)] [Nm]	M_{max} [Nm]	I_{max} [A_{rms}]	kt_{max} [Nm/A_{rms}]
HMS13-133	320 / 560	2,000	12	9.7	11	6.2	33.3	23.1	1.442
HMS13-190			15.5	10.5	15	7.6	47.5	34.3	1.385
HMS13-245		1,500	19.2	12	19.2	9	61.3	42.8	1.432

1) Encoder version: EnDat®, HIPERFACE®, HIPERFACE DSL®, SSI, BiSS-C

Dimensions



Characteristic Performance for this Motor Type[2)]



Lengths

Motor	L [mm] without brake	L [mm] with brake
HMS13-133	164[3)] / 169[4)] mm	211[3)] / 216[4)] mm
HMS13-190	194[3)] / 199[4)] mm	241[3)] / 246[4)] mm
HMS13-245	224[3)] / 229[4)] mm	271[3)] / 276[4)] mm

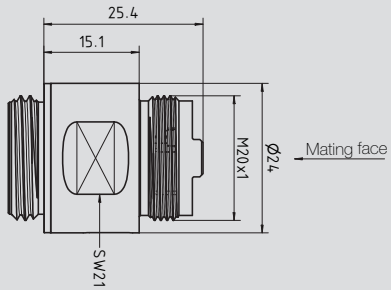
[3)] With encoder: ECI 1319, EQI 1331
[4)] Other encoders

2) Detailed performance curve available upon request

Option M17 Connector

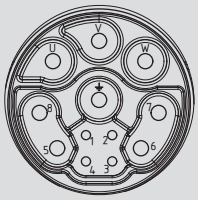


Motor Connector



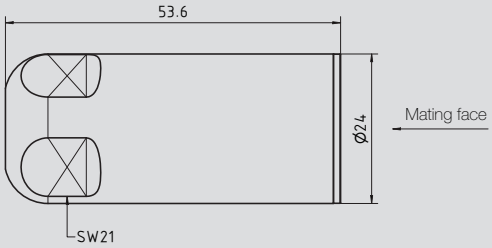
Motor Connector

View Mating Face



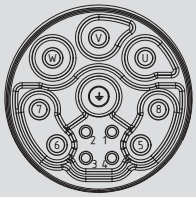
12-pole
(4x Ø1 mm (3 + PE) +
4x Ø 1 mm +
4x Ø 0.6 mm)

Mating Connector



Mating Connector

View Mating Face



TE Connectivity designation:
BSTN 660 NN00 31 082A 000
(Cable clamping max. Ø 12 mm)

Power / Signal HIPERFACE DSL®

Pin	Function
U	U
V	V
W	W
Grounding	PE
1	Us (DSL +)
2	GND (DSL -)
3	-
4	-
5	-
6	-
7	Brake - [1]
8	Brake + [1]

Power / Signal Resolver

Pin	Function
U	U
V	V
W	W
Grounding	PE
1	sin +
2	sin - / refsin
3	cos +
4	cos - / refcos
5	R1 (ref +)
6	Brake - [2]
7	R2 (ref -)
8	Brake + [2]

Power / Signal SSI/BiSS

Pin	Function
U	U
V	V
W	W
Grounding	PE
1	Data +
2	CLK +
3	CLK -
4	Data -
5	Us
6	GND
7	Brake - [2]
8	Brake + [2]

Power / Signal EnDAT® 2.2

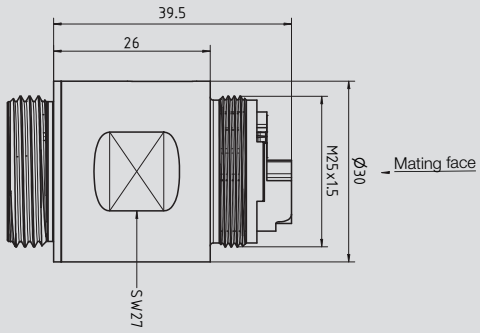
Pin	Function
U	U
V	V
W	W
7	PE
1	Data +
2	CLK +
3	CLK -
4	Data -
5	Up
6	GND
7	Brake - [1]
8	Brake + [1]

1) If available
2) For models without brakes, Temp + and Temp - are possible

Option M23 Connector

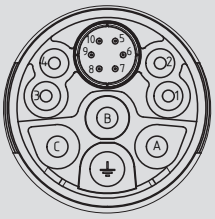


Motor Connector



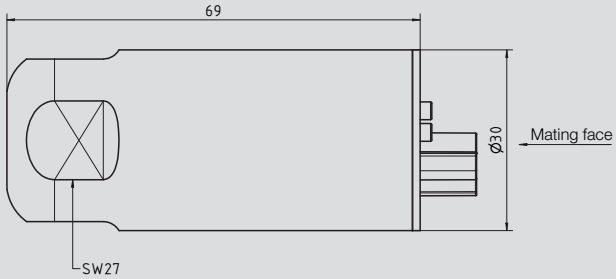
Motor Connector

View Mating Face



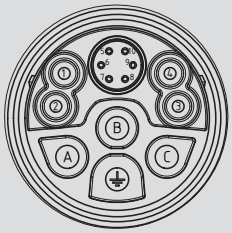
14 pole
(4x Ø 2 mm (3 + PE) +
4x Ø 1 mm +
6x Ø 0.6 mm)

Mating Connector



Mating Connector

View Mating Face



TE Connectivity designation:
H51N 602 NN00 32 0620 000
(Cable clamping max. Ø15.7 mm)

Power / Signal HIPERFACE DSL®

Pin	Function
A	U
B	V
C	W
Grounding	PE
1	Brake + *
2	-
3	Brake - *
4	-
5	Us (DSL +)
6	GND (DSL -)
7	-
8	-
9	-
10	-

Power / Signal Resolver

Pin	Function
A	U
B	V
C	W
Grounding	PE
1	Brake + *
2	Temp +
3	Brake - *
4	Temp -
5	sin +
6	sin - / refsin
7	cos +
8	cos - / refcos
9	R1 (ref +)
10	R2 (ref -)

Power / Signal SSI/BiSS

Pin	Function
A	U
B	V
C	W
Grounding	PE
1	Brake + *
2	Temp +
3	Brake - *
4	Temp -
5	Us
6	GND
7	CLK +
8	CLK -
9	Data +
10	Data -

Power / Signal EnDAT® 2.2

Pin	Function
A	U
B	V
C	W
Grounding	PE
1	Brake + *
2	-
3	Brake - *
4	-
5	Up
6	GND
7	CLK +
8	CLK -
9	Data +
10	Data -

1) If available
2) For models without brakes, Temp + and Temp - are possible

Motors Mating Servo Drive Matrix

You can find all the specifications for our HCB and HCL servo controllers in the catalog "Servo Drives AC / DC".

Motor	Model	n [min⁻¹]	U_{zk} [V_{DC}]	HCB 1 x 230 V_{AC}	HCB 3 x 400 V_{AC}	HCL 24 - 48 V_{DC}	HCL 24 - 48 V_{DC}
HMS06	HMS06-011	3,100	24			HCL 60 C	HCL 120 C/E
			48			HCL 60 C	HCL 120 C/E
			320	HCB 2/6-1	HCB 4/12-3		
			560		HCB 4/12-3		
	HMS06-019	3,100	48			HCL 60 C	HCL 120 C/E
			320	HCB 4/12-1	HCB 4/12-3		
			560		HCB 4/12-3		
	HMS06-026	3,100	48			HCL 225 CS/C/E	
			320		HCB 4/12-3		
			560		HCB 4/12-3		
HMS08	HMS08-024	3,100	24			HCL 225 CS/C/E	
			48			HCL 225 CS/C/E	
			320	HCB 4/12-1	HCB 4/12-3		
			560		HCB 4/12-3		
	HMS08-032	3,100	24			HCL 225 CS/C/E	
			48			HCL 225 CS/C/E	
			320	HCB 4/12-1	HCB 8/24-3		
			560		HCB 8/24-3		
	HMS08-042	3,100	24			HCL 225 CS/C/E	
			48			HCL 225 CS/C/E	
			320	HCB 8/24-1	HCB 8/24-3		
			560		HCB 8/24-3		
	HMS08-057	3,100	320	HCB 8/24-1	HCB 8/24-3		
			560		HCB 8/24-3		
HMS10	HMS10-039	2,500	320	HCB 8/24-1	HCB 8/24-3		
			560		HCB 8/24-3		
	HMS10-057		320	HCB 8/24-1	HCB 8/24-3		
			560		HCB 8/24-3		
	HMS10-076		320		HCB 12/30-3		
			560		HCB 12/30-3		
	HMS10-105	2,000	320		HCB 12/30-3		
			560		HCB 12/30-3		
HMS13	HMS13-133	2,000	560		HCB 12/30-3		
	HMS13-190		560		HCB 20/50-3		
	HMS13-245	1,500	560		HCB 20/50-3		

Connection Cable

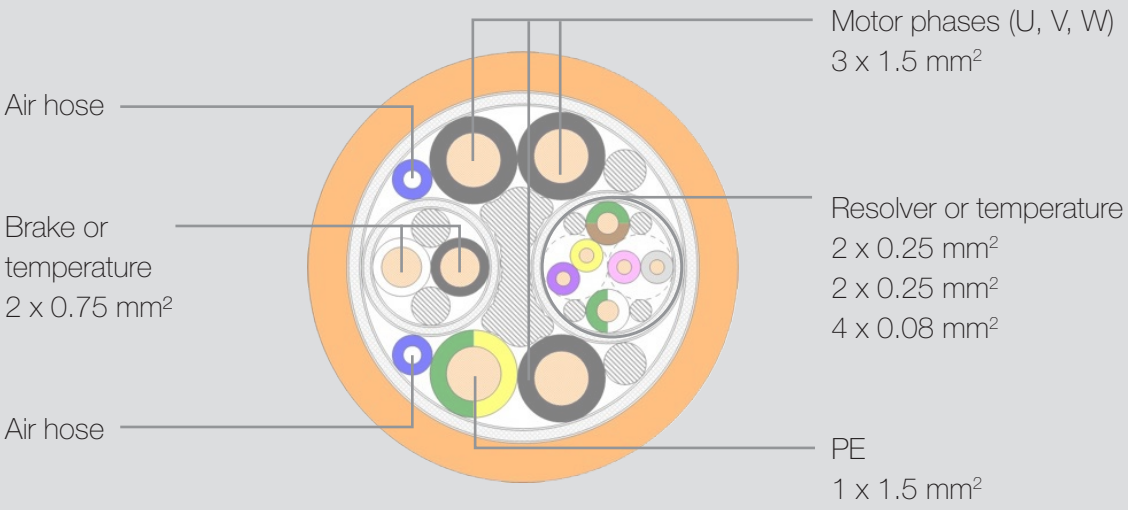
Options

- For industrial applications
- For applications involving contact with food
- Both includes an air hose for pressure equalization

Air hose

Inner diameter	0.5 mm
Outer diameter	1.1 mm
Wall thickness	0.3 mm
Color	subject to availability

Structure



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.



Technical data subject to change! Last changes: 10/2026

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