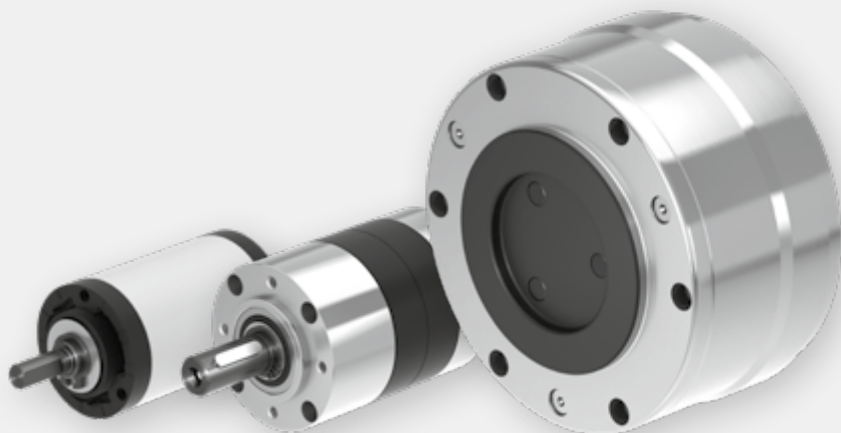


Part of the solution

Driven by motion.





Note:

All the specifications in this brochure are non-binding guideline values and do not constitute a description of product characteristics. Deviations are possible, particularly due to testing and measurement methods. Please contact us directly for detailed information. We expressly reserve the right to make technical changes. For current information, please refer to our website: www.imsgear.com.

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About IMS Gear

Rationally speaking, we develop and manufacture specific **drive solutions** for customers all over the world. Beyond our focus on the automotive industry, we concentrate on applications for industrial, medtech, and electromobility concepts.

Emotionally speaking, **we create motion** that continuously drives both people and markets forward.

Being close to our customers is a commitment of ours. That’s why, at IMS Gear, we take customer proximity quite literally. Because our experience in recent decades has taught us that short distances are still critical success factors, and direct contact is still the best contact. We therefore think and act internationally and maintain our own production sites in all major global markets.



Germany
Donaueschingen



Germany
Eisenbach



Germany
Villingen-Schwenningen



Germany
Trossingen



USA
Gainesville (GA)



USA
Virginia Beach (VA)



Mexico
Querétaro



China
Taicang



Japan
Tokyo



South Korea
Seoul



Croatia
Osijek



Our Competencies

Advanced Development



With decades of experience in metal and plastics processing, we harness our extensive knowledge of your requirements to your advantage. We offer affordable, process-appropriate parts design and flexible support in developing and validating components or gears.

Processes



Proven processes and extensive vertical integration ensure efficiency and seamless workflows – both internally and externally. Our particular strength lies in bringing materials together. We master metal, plastic, and the combination of both – precisely matched and from a single source.



Product Development & Testing



We combine tried-and-tested technologies with individual customer requirements. The result is consistently economical, functionally appropriate drive solutions – optimized for performance, stability, noise development, service life, and costs.

International Production



With standardized processes at all our locations, we ensure consistent quality and competitive costs worldwide. Our global presence enables us to flexibly build production capacity – a clear advantage for our customers.



Fields of Application



Planetary Gears from IMS Gear

Reliable Drive Solutions for Diverse Industries

For decades, IMS Gear has been counted among the leading manufacturers of planetary gears for various industries worldwide. At the very heart of our efforts is our desire to optimally align our solutions with our customers' needs.

Planetary gears from IMS Gear excel due to their compact design, high power density, and maximum reliability – even under the most challenging conditions. Thanks to modular design, they can be flexibly adapted to meet an extremely wide range of requirements and are used across various industries worldwide.

Agricultural Technology

Pioneering agricultural processes combine performance with efficiency and sustainability. Our planetary gears are key components in applications such as seeders, fertilizer systems, and much more besides.

Building Technology

The future of building technology is smart. State-of-the-art IT and sensor technology combines with equally powerful drive solutions in the likes of security systems, barriers, doors, gates, locks, and access controls.

Household Appliances

Comfortable, clean, convenient: modern household appliances make our lives better and easier. We're part of that development with our drive solutions: in ice machines, robot vacuums or mowers, and many other appliances.

Logistics

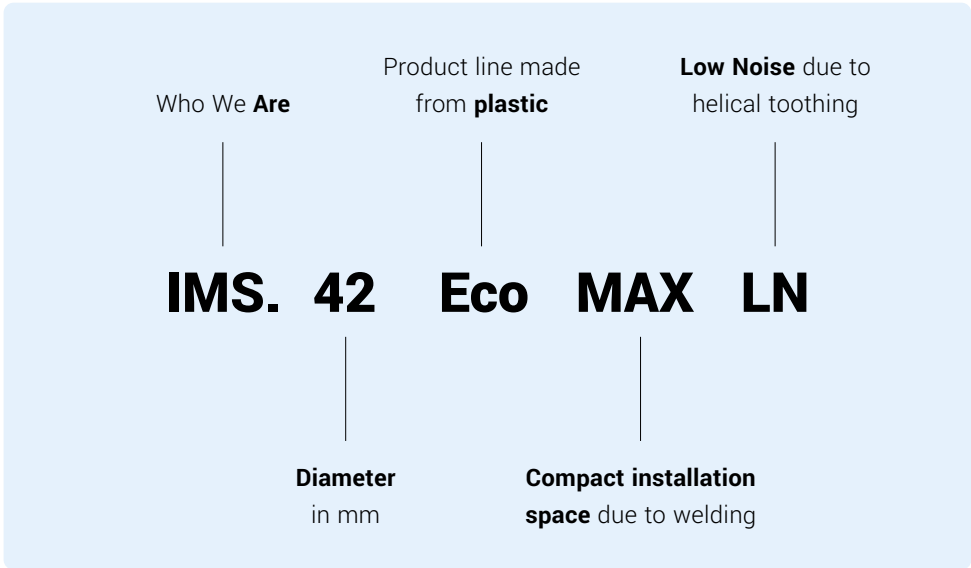
With material flows and the quick and precise movement of small and large goods, modern logistics processes are highly demanding. With IMS.Drive, we offer drive solutions that are specifically designed to meet the requirements encountered in intralogistics.

And these were just a few examples

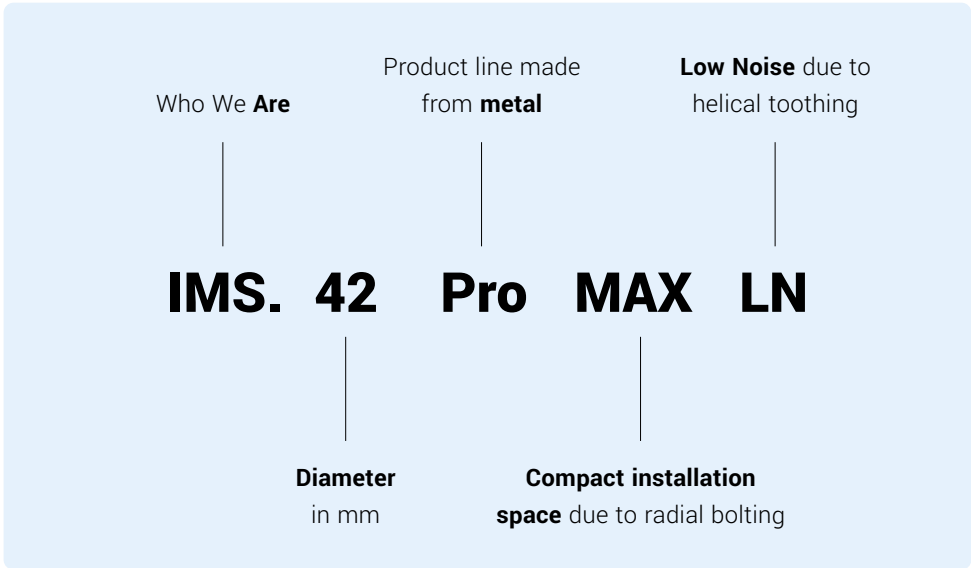
IMS Gear planetary gears move what needs to be moved. They can be individually adapted to our customers' specific needs: your industry, your requirements – our solution.

Our Product Lines

IMS.Eco



IMS.Pro



Efficiency

Modular system, optimized material mix: for economical solutions even in small quantities.



Temperature

Also perfectly suitable for challenging temperature ranges from -15°C to +65°C [-5°F to +149°F].



Low Noise (LN)

Particularly quiet due to helical toothing in the first stage.



Performance

Powerful, durable, and robust, excelling in numerous areas of application.



Temperature

Also perfectly suitable for challenging temperature ranges from -30°C to +120°C [-22°F to +248°F].

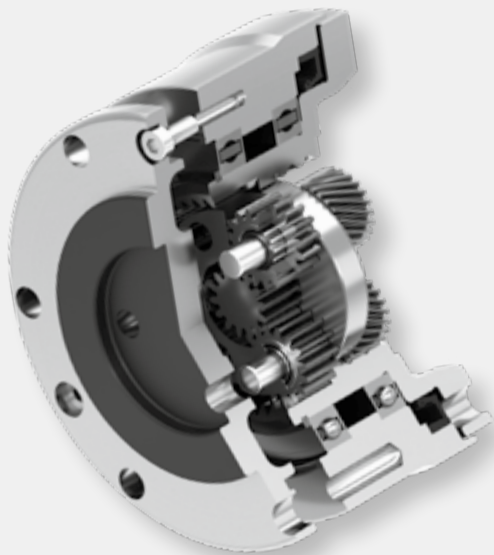
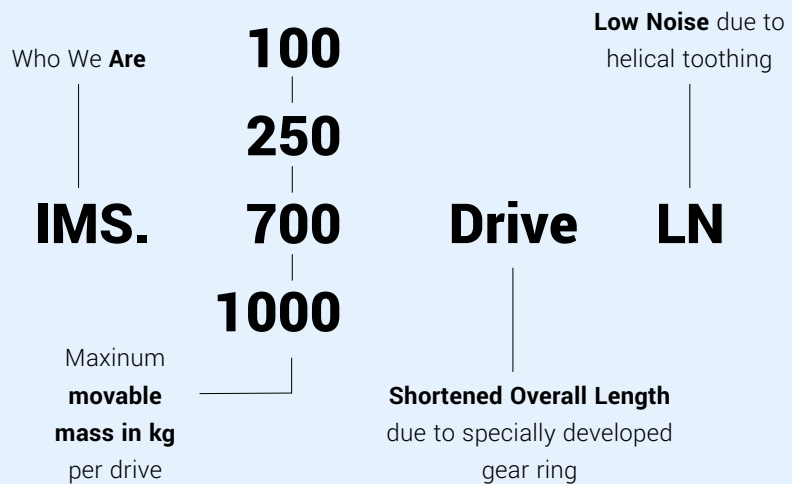


Low Noise (LN)

Particularly quiet due to helical toothing in the first stage.



IMS.Drive



Our planetary gear from the Drive series is specifically developed for the special requirements of wheel drives. Due to the helical toothing design, it also meets enhanced requirements for low-noise operation.



Compact Overall Length

No space? No problem! Our Drive series' compact design makes it possible.



Long Service Life

Long-lasting and reliable: planetary gears that deliver what they promise.



Maximum Power Density

Limited space and high performance – this isn't a contradiction with our Drive series.



Temperature

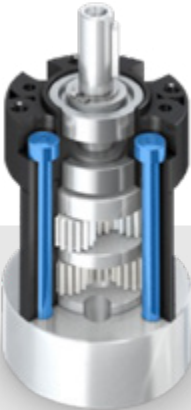
Also perfectly suitable for challenging temperature ranges from -30°C to +60°C [-22°F to +140°F].



Low Noise (LN)

Particularly quiet due to helical toothing in the first stage (low-noise operation).

Gear Frame Sizes

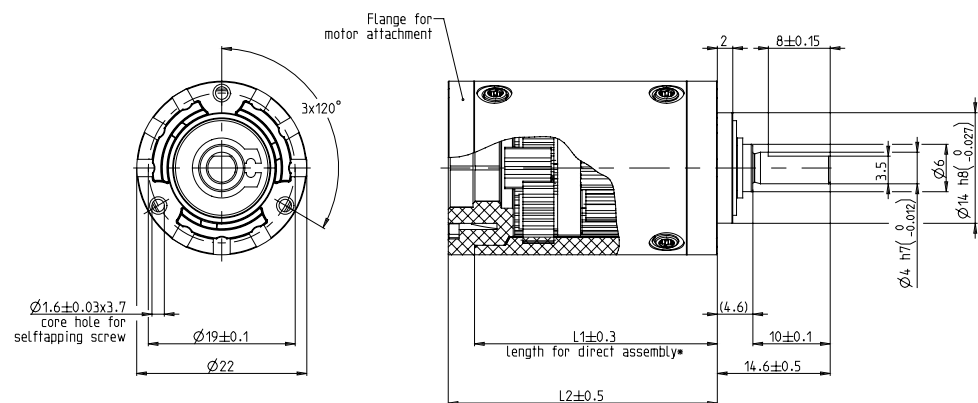
	  Product line with axial connection technology		  Product line with radial connection technology	
Gear Frame Sizes	IMS.Pro	IMS.Eco	IMS.ProMAX	IMS.EcoMAX
22			IMS.22 ProMAX	IMS.22 EcoMAX
32	IMS.32 Pro	IMS.32 Eco	IMS.28 ProMAX	IMS.28 EcoMAX
42	IMS.42 Pro	IMS.42 Eco	IMS.35 ProMAX	IMS.33 EcoMAX
52	IMS.52 Pro		IMS.45 ProMAX	IMS.42 EcoMAX
62	IMS.62 Pro		IMS.53 ProMAX	
72	IMS.72 Pro		IMS.60 ProMAX	
81	IMS.81 Pro		IMS.71 ProMAX	
105	IMS.105 Pro		IMS.88 ProMAX	
120	IMS.120 Pro			

● Available as Low Noise (LN) variant.

IMS.22 EcoMAX



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	0.2 Nm	0.4 Nm	0.6 Nm
Approx. gear efficiency	0,8	0,8	0,7
Max. gear backlash	1.5 °DEG	2 °DEG	2.5 °DEG
Recommended input speed	6,000 rpm	6,000 rpm	6,000 rpm



All dimensions in mm

Reduction Ratios

IMS.EcoMAX 1-stage	IMS.EcoMAX 2-stage	IMS.EcoMAX 3-stage
4:1 (3.71)	14:1 (13.73)	51:1 (50.89)
4:1 (4.29)	16:1 (15.88)	59:1 (58.86)
5:1 (5.18)	18:1 (18.37)	68:1 (68.07)
7:1 (6.75)	19:1 (19.20)	71:1 (71.16)
	22:1 (22.21)	79:1 (78.72)
	25:1 (25.01)	93:1 (92.70)
	27:1 (26.85)	95:1 (95.18)
	29:1 (28.93)	100:1 (99.51)
	35:1 (34.98)	107:1 (107.21)
	46:1 (45.56)	115:1 (115.08)
		124:1 (123.98)
		130:1 (129.62)
		139:1 (139.14)
		150:1 (149.90)
		169:1 (168.85)
		181:1 (181.25)
		195:1 (195.27)
		236:1 (236.10)
		308:1 (307.55)

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	15 N	30 N	45 N
Max. axial load	30 N	30 N	30 N
Max. permissible press-fit pressure	150 N	150 N	150 N
Approx. weight	33 g	42 g	50 g

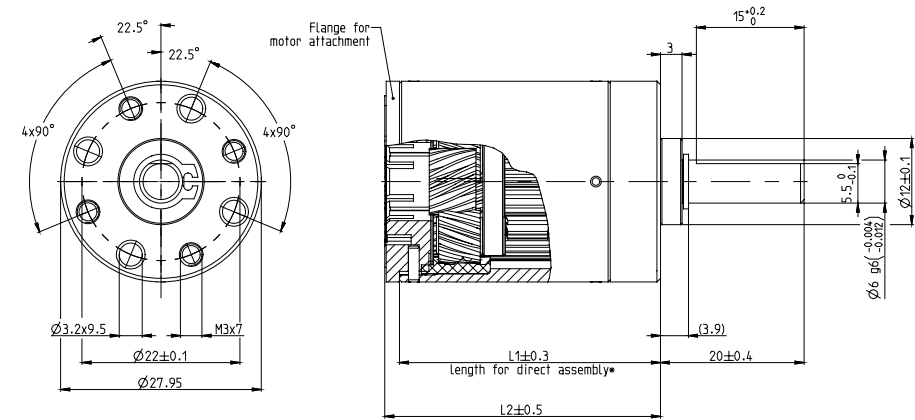
Gear length	1-stage	2-stage	3-stage
Length 1 ¹	23.3 ± 0.5	31.4 ± 0.5	39.6 ± 0.5
Length 2 ¹	24.3 ± 0.5	32.4 ± 0.5	40.6 ± 0.5

¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.28 EcoMAXLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	0.4 Nm	1 Nm	2 Nm
Approx. gear efficiency	0,8	0,7	0,7
Max. gear backlash	1.9 °DEG	2 °DEG	2 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm

Reduction Ratios

IMS.EcoMAXLN® 1-stage	IMS.EcoMAXLN® 2-stage	IMS.EcoMAXLN® 3-stage
4:1 (3.71)	14:1 (13.73)	51:1 (50.89)
4:1 (4.29)	16:1 (15.88)	59:1 (58.86)
5:1 (5.18)	18:1 (18.37)	68:1 (68.07)
7:1 (6.75)	19:1 (19.20)	71:1 (71.16)
	22:1 (22.21)	79:1 (78.72)
	25:1 (25.01)	93:1 (92.70)
	27:1 (26.85)	95:1 (95.18)
	29:1 (28.93)	100:1 (99.51)
	35:1 (34.98)	107:1 (107.21)
	46:1 (45.56)	115:1 (115.08)
		124:1 (123.98)
		130:1 (129.62)
		139:1 (139.14)
		150:1 (149.90)
		169:1 (168.85)
		181:1 (181.25)
		195:1 (195.27)
		236:1 (236.10)
		308:1 (307.55)

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	15 N	30 N	45 N
Max. axial load	5 N	10 N	15 N
Max. permissible press-fit pressure	150 N	150 N	150 N
Approx. weight	100 g	115 g	130 g

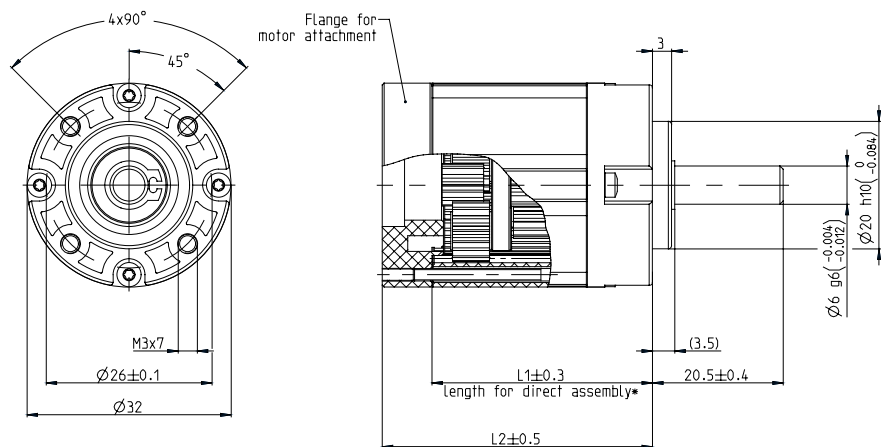
Gear length	1-stage	2-stage	3-stage
Length 1¹	25.0 ± 0.3	34.6 ± 0.3	44.1 ± 0.3
Length 2¹	29.6 ± 0.5	39.1 ± 0.5	48.6 ± 0.5

¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.32 Eco



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	0.4 Nm	1 Nm	2 Nm
Approx. gear efficiency	0.8	0.7	0.7
Max. gear backlash	1.9 °DEG	2 °DEG	2 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm

Reduction Ratios

IMS.Eco 1-stage	IMS.Eco 2-stage	IMS.Eco 3-stage
4:1 (3.71)	14:1 (13.73)	51:1 (50.89)
4:1 (4.29)	16:1 (15.88)	59:1 (58.86)
5:1 (5.18)	18:1 (18.37)	68:1 (68.07)
7:1 (6.75)	19:1 (19.20)	71:1 (71.16)
	22:1 (22.21)	79:1 (78.72)
	25:1 (25.01)	93:1 (92.70)
	27:1 (26.85)	95:1 (95.18)
	29:1 (28.93)	100:1 (99.51)
	35:1 (34.98)	107:1 (107.21)
	46:1 (45.56)	115:1 (115.08)
		124:1 (123.98)
		130:1 (129.62)
		139:1 (139.14)
		150:1 (149.90)
		169:1 (168.85)
		181:1 (181.25)
		195:1 (195.27)
		236:1 (236.10)
		308:1 (307.55)

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	15 N	30 N	45 N
Max. axial load	5 N	10 N	15 N
Max. permissible press-fit pressure	150 N	150 N	150 N
Approx. weight	100 g	115 g	130 g

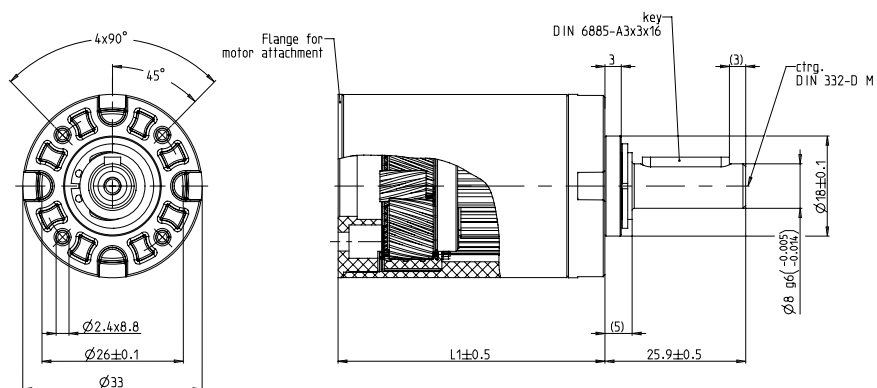
Gear length	1-stage	2-stage	3-stage
Length 1 ¹	25.0 ± 0.3	34.6 ± 0.3	44.1 ± 0.3
Length 2 ¹	29.6 ± 0.5	39.1 ± 0.5	48.6 ± 0.5

¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.33 EcoMAXLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	0.8 Nm	2 Nm	4 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	1.7 °DEG	1.8 °DEG	1.8 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm

Reduction Ratios

IMS.EcoMAXLN® 1-stage	IMS.EcoMAXLN® 2-stage	IMS.EcoMAXLN® 3-stage
*4:1 (3.65)	14:1 (13.53)	50:1 (50.16)
*5:1 (4.59)	16:1 (15.65)	58:1 (58.01)
*5:1 (5.36)	17:1 (17.00)	67:1 (67.08)
*7:1 (6.55)	19:1 (18.29)	70:1 (70.13)
*9:1 (8.63)	23:1 (22.96)	81:1 (81.11)
*13:1 (13.20)	25:1 (24.65)	91:1 (91.36)
	28:1 (27.76)	98:1 (98.07)
	29:1 (28.05)	102:1 (101.89)
	34:1 (33.92)	106:1 (105.65)
	45:1 (44.69)	115:1 (114.77)
	58:1 (58.22)	123:1 (123.20)
	*68:1 (68.40)	128:1 (127.74)
	*89:1 (89.10)	137:1 (136.99)
		145:1 (145.36)
		166:1 (166.40)
		176:1 (175.75)
		192:1 (191.54)
		232:1 (231.59)
		302:1 (301.68)
		393:1 (392.98)
		*462:1 (461.70)
		*601:1 (601.43)

* Not all reduction ratios available from stock

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	15 N	30 N	45 N
Max. axial load	5 N	10 N	30 N
Max. permissible press-fit pressure	150 N	150 N	150 N
Approx. weight	150 g	180 g	215 g

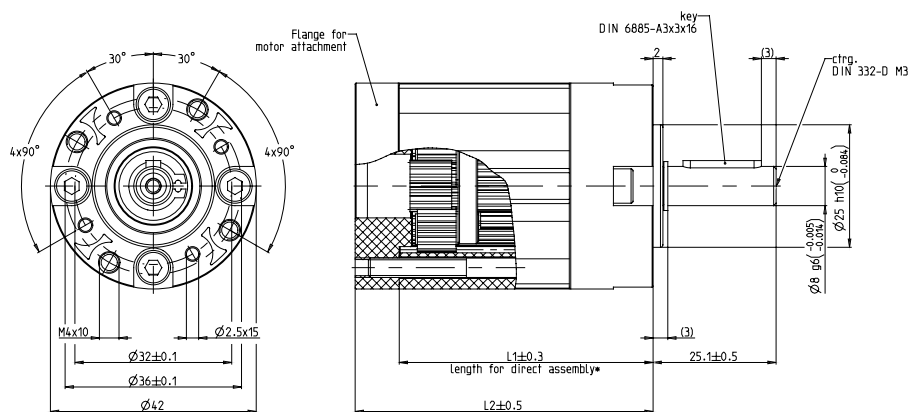
Gear length	1-stage	2-stage	3-stage
Length 1 ¹	-	49.1 ± 0.5	62.2 ± 0.5

¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.42 Eco



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	0.8 Nm	2 Nm	4 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	1.7 °DEG	1.8 °DEG	1.8 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm

Reduction Ratios

IMS.Eco 1-stage	IMS.Eco 2-stage	IMS.Eco 3-stage
4:1 (3.71)	14:1 (13.73)	51:1 (50.89)
4:1 (4.29)	16:1 (15.88)	59:1 (58.86)
5:1 (5.18)	18:1 (18.37)	68:1 (68.07)
7:1 (6.75)	19:1 (19.20)	71:1 (71.16)
	22:1 (22.21)	79:1 (78.72)
	25:1 (25.01)	93:1 (92.70)
	27:1 (26.85)	95:1 (95.18)
	29:1 (28.93)	100:1 (99.51)
	35:1 (34.98)	107:1 (107.21)
	46:1 (45.56)	115:1 (115.08)
		124:1 (123.98)
		130:1 (129.62)
		139:1 (139.14)
		150:1 (149.90)
		169:1 (168.85)
		181:1 (181.25)
		195:1 (195.27)
		236:1 (236.10)
		308:1 (307.55)

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	15 N	30 N	45 N
Max. axial load	5 N	10 N	30 N
Max. permissible press-fit pressure	150 N	150 N	150 N
Approx. weight	150 g	180 g	215 g

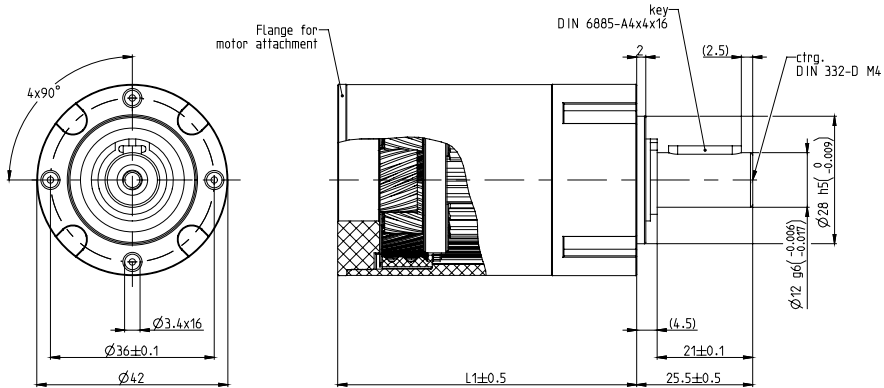
Gear length	1-stage	2-stage	3-stage
Length 1 ¹	38.9 ± 0.3	51.9 ± 0.3	64.8 ± 0.3
Length 2 ¹	48.7 ± 0.5	61.7 ± 0.5	74.7 ± 0.5

¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project

IMS.42 EcoMAXLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	2 Nm	5 Nm	10 Nm
Approx. gear efficiency	0.8	0.7	0.7
Max. gear backlash	1.1 °DEG	1.2 °DEG	1.2 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm

Reduction Ratios

IMS.EcoMAXLN® 1-stage	IMS.EcoMAXLN® 2-stage	IMS.EcoMAXLN® 3-stage
*4:1 (3.65)	14:1 (13.53)	50:1 (50.16)
*5:1 (4.59)	16:1 (15.65)	58:1 (58.01)
*5:1 (5.36)	17:1 (17.00)	67:1 (67.08)
*7:1 (6.55)	19:1 (18.29)	70:1 (70.13)
*9:1 (8.63)	23:1 (22.96)	81:1 (81.11)
*13:1 (13.20)	25:1 (24.65)	91:1 (91.36)
	28:1 (27.76)	98:1 (98.07)
	29:1 (28.05)	102:1 (101.89)
	34:1 (33.92)	106:1 (105.65)
	45:1 (44.69)	115:1 (114.77)
	58:1 (58.22)	123:1 (123.20)
	*68:1 (68.40)	128:1 (127.74)
	*89:1 (89.10)	137:1 (136.99)
		145:1 (145.36)
		166:1 (166.40)
		176:1 (175.75)
		192:1 (191.54)
		232:1 (231.59)
		302:1 (301.68)
		393:1 (392.98)
		*462:1 (461.70)
		*601:1 (601.43)

* Not all reduction ratios available from stock

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	200 N	320 N	450 N
Max. axial load	60 N	100 N	150 N
Max. permissible press-fit pressure	500 N	500 N	500 N
Approx. weight	335 g	395 g	460 g

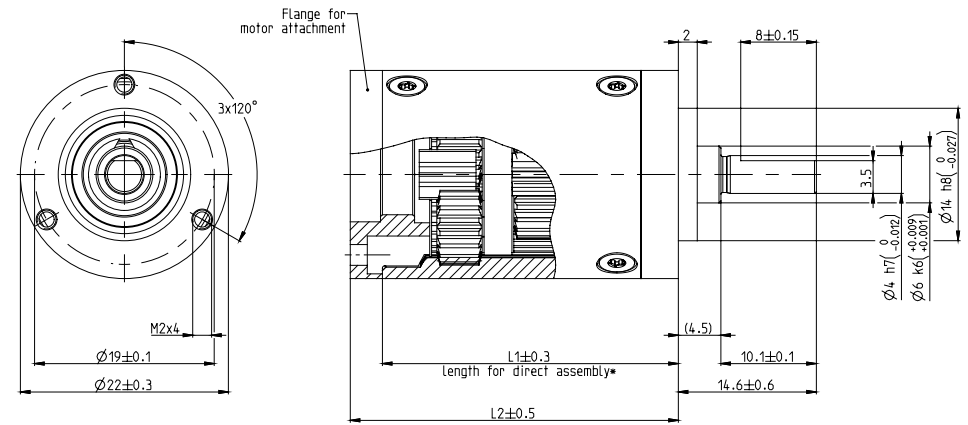
Gear length	1-stage	2-stage	3-stage
Length 1 ¹	-	65.7 ± 0.5	-

¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.22 ProMAX



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	0.6 Nm	0.7 Nm	0.8 Nm
Approx. gear efficiency	0.9	0.8	0.7
Max. gear backlash	1.5 °DEG	2 °DEG	2.5 °DEG
Recommended input speed	6,000 rpm	6,000 rpm	6,000 rpm



All dimensions in mm

Reduction Ratios

IMS.ProMAX 1-stage	IMS.ProMAX 2-stage	IMS.ProMAX 3-stage
4:1 (3.71)	14:1 (13.73)	51:1 (50.89)
4:1 (4.29)	16:1 (15.88)	59:1 (58.86)
5:1 (5.18)	18:1 (18.37)	68:1 (68.07)
7:1 (6.75)	19:1 (19.20)	71:1 (71.16)
	22:1 (22.21)	79:1 (78.72)
	25:1 (25.01)	93:1 (92.70)
	27:1 (26.85)	95:1 (95.18)
	29:1 (28.93)	100:1 (99.51)
	35:1 (34.98)	107:1 (107.21)
	46:1 (45.56)	115:1 (115.08)
		124:1 (123.98)
		130:1 (129.62)
		139:1 (139.14)
		150:1 (149.90)
		169:1 (168.85)
		181:1 (181.25)
		195:1 (195.27)
		236:1 (236.10)
		308:1 (307.55)

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	25 N	35 N	50 N
Max. axial load	10 N	15 N	15 N
Max. permissible press-fit pressure	80 N	80 N	80 N
Approx. weight	43 g	59 g	75 g

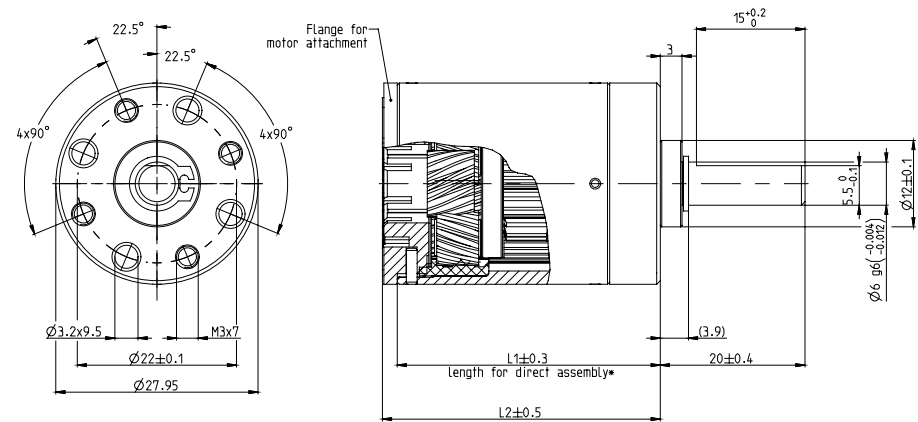
Gear length	1-stage	2-stage	3-stage
Length 1 ¹	23.2 ± 0.3	31.3 ± 0.3	39.5 ± 0.3
Length 2 ¹	24.3 ± 0.5	32.4 ± 0.5	40.6 ± 0.5

¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project

IMS.28 ProMAX
IMS.28 ProMAXLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	0.8 Nm	2.3 Nm	4.5 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	1.5 °DEG	1.6 °DEG	1.6 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm
*Illustration shows IMS.ProMAXLN® variant

Reduction Ratios

IMS.ProMAX(LN®) 1-stage	IMS.ProMAX(LN®) 2-stage	IMS.ProMAX(LN®) 3-stage
4:1 (3.71)	14:1 (13.73)	51:1 (50.89)
4:1 (4.29)	16:1 (15.88)	59:1 (58.86)
5:1 (5.18)	18:1 (18.37)	68:1 (68.07)
7:1 (6.75)	19:1 (19.20)	71:1 (71.16)
	22:1 (22.21)	79:1 (78.72)
	25:1 (25.01)	93:1 (92.70)
	27:1 (26.85)	95:1 (95.18)
	29:1 (28.93)	100:1 (99.51)
	35:1 (34.98)	107:1 (107.21)
	46:1 (45.56)	115:1 (115.08)
		124:1 (123.98)
		130:1 (129.62)
		139:1 (139.14)
		150:1 (149.90)
		169:1 (168.85)
		181:1 (181.25)
		195:1 (195.27)
		236:1 (236.10)
		308:1 (307.55)

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	40 N	70 N	100 N
Max. axial load	10 N	20 N	30 N
Max. permissible press-fit pressure	120 N	120 N	120 N
Approx. weight	160 g	210 g	260 g

Gear length	1-stage	2-stage	3-stage
Length 1¹	28.8 ± 0.3	38.4 ± 0.3	48.0 ± 0.3

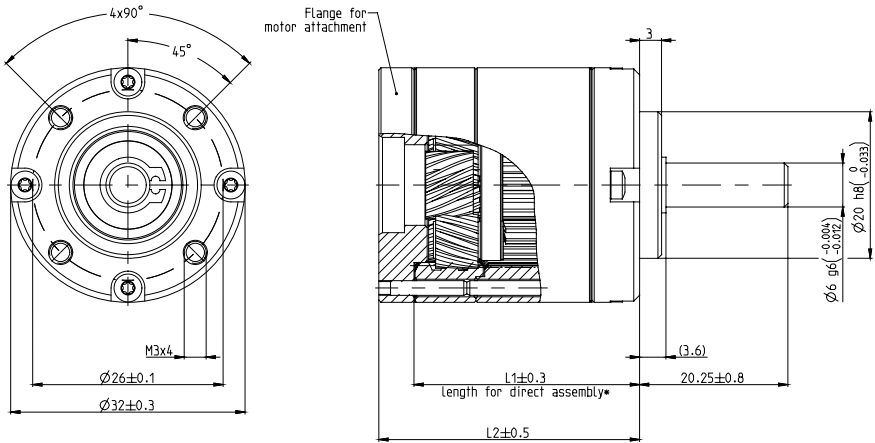
¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.32 Pro

IMS.32 ProLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	0.8 Nm	2.3 Nm	4.5 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	1.5 °DEG	1.6 °DEG	1.6 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm
 *Illustration shows IMS.ProLN® variant

Reduction Ratios

IMS.Pro(LN®) 1-stage	IMS.Pro(LN®) 2-stage	IMS.Pro(LN®) 3-stage
4:1 (3.71)	14:1 (13.73)	51:1 (50.89)
4:1 (4.29)	16:1 (15.88)	59:1 (58.86)
5:1 (5.18)	18:1 (18.37)	68:1 (68.07)
7:1 (6.75)	19:1 (19.20)	71:1 (71.16)
	22:1 (22.21)	79:1 (78.72)
	25:1 (25.01)	93:1 (92.70)
	27:1 (26.85)	95:1 (95.18)
	29:1 (28.93)	100:1 (99.51)
	35:1 (34.98)	107:1 (107.21)
	46:1 (45.56)	115:1 (115.08)
		124:1 (123.98)
		130:1 (129.62)
		139:1 (139.14)
		150:1 (149.90)
		169:1 (168.85)
		181:1 (181.25)
		195:1 (195.27)
		236:1 (236.10)
		308:1 (307.55)

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	40 N	70 N	100 N
Max. axial load	10 N	20 N	30 N
Max. permissible press-fit pressure	120 N	120 N	120 N
Approx. weight	160 g	210 g	260 g

Gear length	1-stage	2-stage	3-stage
Length 1¹	21.3 ± 0.3	30.8 ± 0.3	40.3 ± 0.3
Length 2¹	25.8 ± 0.5	35.3 ± 0.5	44.8 ± 0.5

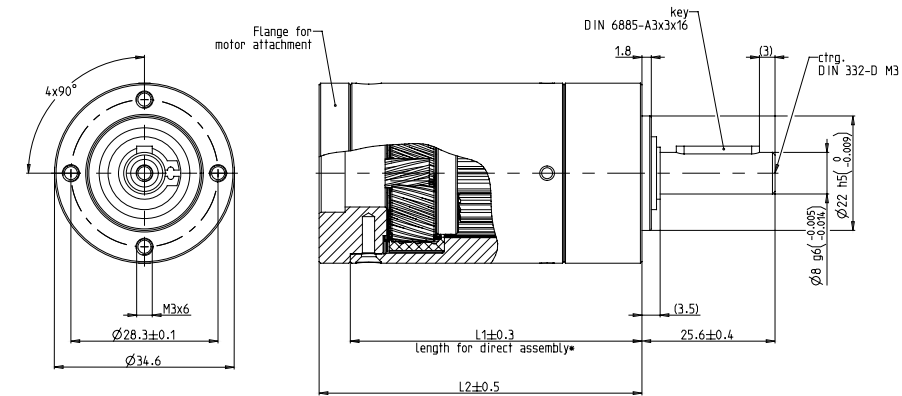
¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project

IMS.35 ProMAX

IMS.35 ProMAXLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b = 1.0$)	3 Nm	7.5 Nm	15 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	0.9 °DEG	1 °DEG	1 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm
 *Illustration shows IMS.ProMAXLN® variant

Reduction Ratios

IMS.ProMAX 1-stage	IMS.ProMAXLN®	IMS.ProMAX 2-stage	IMS.ProMAXLN®	IMS.ProMAX 3-stage	IMS.ProMAXLN®
4:1 (3.71)	4:1 (3.65)	14:1 (13.73)	14:1 (13.53)	51:1 (50.89)	50:1 (50.16)
4:1 (4.29)	5:1 (4.59)	16:1 (15.88)	16:1 (15.65)	59:1 (58.86)	58:1 (58.01)
5:1 (5.18)	5:1 (5.36)	18:1 (18.37)	17:1 (17.00)	68:1 (68.07)	67:1 (67.08)
7:1 (6.75)	7:1 (6.55)	19:1 (19.20)	19:1 (18.29)	71:1 (71.16)	70:1 (70.13)
	9:1 (8.63)	22:1 (22.21)	23:1 (22.96)	79:1 (78.72)	81:1 (81.11)
	*13:1 (13.20)	25:1 (25.01)	25:1 (24.65)	93:1 (92.70)	91:1 (91.36)
		27:1 (26.85)	28:1 (27.76)	95:1 (95.18)	98:1 (98.07)
		29:1 (28.93)	29:1 (28.05)	100:1 (99.51)	102:1 (101.89)
		35:1 (34.98)	34:1 (33.92)	107:1 (107.21)	106:1 (105.65)
		46:1 (45.56)	45:1 (44.69)	115:1 (115.08)	115:1 (114.77)
			58:1 (58.22)	124:1 (123.98)	123:1 (123.20)
			*68:1 (68.40)	130:1 (129.62)	128:1 (127.74)
			*89:1 (89.10)	139:1 (139.14)	137:1 (136.99)
				150:1 (149.90)	145:1 (145.36)
				169:1 (168.85)	166:1 (166.40)
				181:1 (181.25)	176:1 (175.75)
				195:1 (195.27)	192:1 (191.54)
				236:1 (236.10)	232:1 (231.59)
				308:1 (307.55)	302:1 (301.68)
					393:1 (392.98)
					*462:1 (461.70)
					*601:1 (601.43)

* Not all reduction ratios available from stock

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	160 N	230 N	300 N
Max. axial load	50 N	80 N	110 N
Max. permissible press-fit pressure	320 N	320 N	320 N
Approx. weight	275 g	385 g	500 g

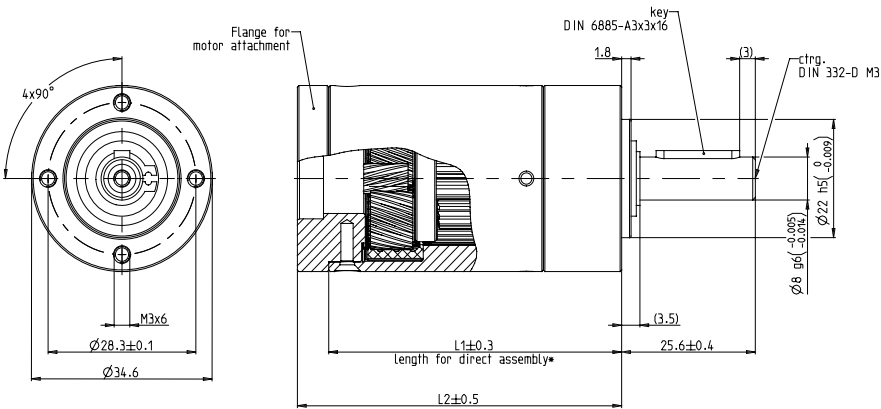
Gear length	1-stage	2-stage	3-stage
Length 1¹	43.0 ± 0.3	56.1 ± 0.3	69.2 ± 0.3
Length 2¹	46.0 ± 0.5	59.1 ± 0.5	72.2 ± 0.5

¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.42 Pro
IMS.42 ProLN®



Table with 4 columns: Technical data, 1-stage, 2-stage, 3-stage. Rows include Permissible output torque, Approx. gear efficiency, Max. gear backlash, and Recommended input speed.



All dimensions in mm
*Illustration shows IMS.ProLN® variant

Reduction Ratios

Table with 6 columns: IMS.Pro 1-stage, IMS.ProLN®, IMS.Pro 2-stage, IMS.ProLN®, IMS.Pro 3-stage, IMS.ProLN®. It lists various reduction ratios for each configuration.

* Not all reduction ratios available from stock

Table with 4 columns: Output side with ball bearing, 1-stage, 2-stage, 3-stage. Rows include Max. radial load, Max. axial load, Max. permissible press-fit pressure, and Approx. weight.

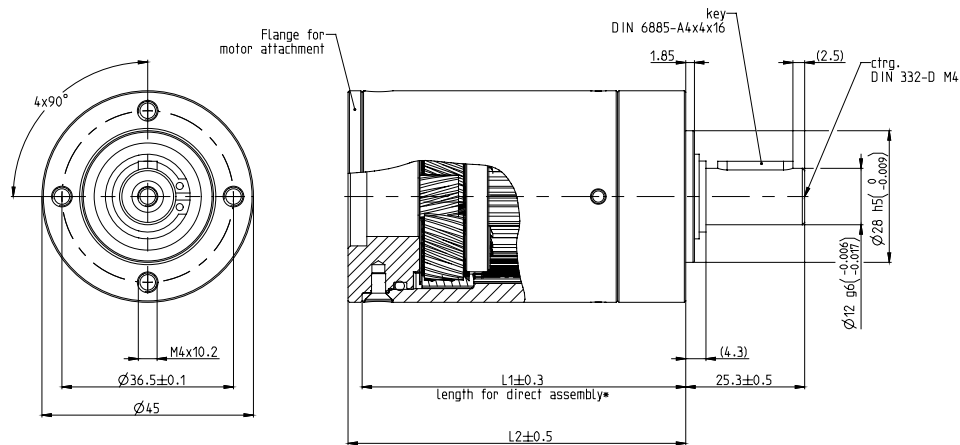
Table with 4 columns: Gear length, 1-stage, 2-stage, 3-stage. Rows include Length 1¹ and Length 2¹.

¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.45 ProMAX
IMS.45 ProMAXLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	4 Nm	12 Nm	25 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	0.7 °DEG	0.8 °DEG	0.8 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm
*Illustration shows IMS.ProMAXLN® variant

Reduction Ratios

IMS.Pro MAX 1-stage	IMS.Pro MAXLN®	IMS.ProMAX 2-stage	IMS.Pro MAXLN®	IMS.ProMAX 3-stage	IMS.Pro MAXLN®
4:1 (3.71)	4:1 (3.65)	14:1 (13.73)	14:1 (13.53)	51:1 (50.89)	50:1 (50.16)
4:1 (4.29)	5:1 (4.59)	16:1 (15.88)	16:1 (15.65)	59:1 (58.86)	58:1 (58.01)
5:1 (5.18)	5:1 (5.36)	18:1 (18.37)	17:1 (17.00)	68:1 (68.07)	67:1 (67.08)
7:1 (6.75)	7:1 (6.55)	19:1 (19.20)	19:1 (18.29)	71:1 (71.16)	70:1 (70.13)
	9:1 (8.63)	22:1 (22.21)	23:1 (22.96)	79:1 (78.72)	81:1 (81.11)
	*13:1 (13.20)	25:1 (25.01)	25:1 (24.65)	93:1 (92.70)	91:1 (91.36)
		27:1 (26.85)	28:1 (27.76)	95:1 (95.18)	98:1 (98.07)
		29:1 (28.93)	29:1 (28.05)	100:1 (99.51)	102:1 (101.89)
		35:1 (34.98)	34:1 (33.92)	107:1 (107.21)	106:1 (105.65)
		46:1 (45.56)	45:1 (44.69)	115:1 (115.08)	115:1 (114.77)
			58:1 (58.22)	124:1 (123.98)	123:1 (123.20)
			*68:1 (68.40)	130:1 (129.62)	128:1 (127.74)
			*89:1 (89.10)	139:1 (139.14)	137:1 (136.99)
				150:1 (149.90)	145:1 (145.36)
				169:1 (168.85)	166:1 (166.40)
				181:1 (181.25)	176:1 (175.75)
				195:1 (195.27)	192:1 (191.54)
				236:1 (236.10)	232:1 (231.59)
				308:1 (307.55)	302:1 (301.68)
					393:1 (392.98)
					*462:1 (461.70)
					*601:1 (601.43)

* Not all reduction ratios available from stock

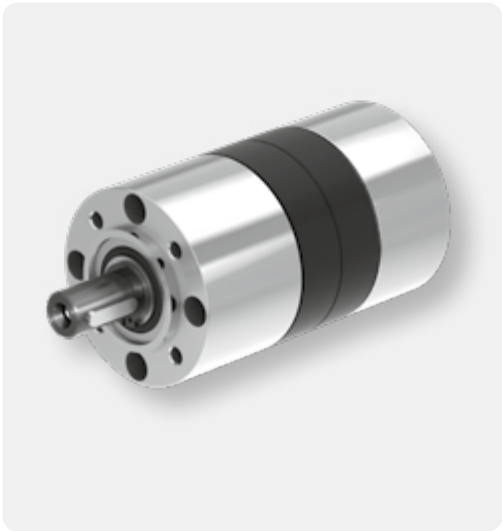
Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	200 N	320 N	450 N
Max. axial load	60 N	100 N	150 N
Max. permissible press-fit pressure	500 N	500 N	500 N
Approx. weight	700 g	900 g	1,1 kg

Gear length	1-stage	2-stage	3-stage
Length 1¹	54.6 ± 0.3	68.9 ± 0.3	83.1 ± 0.3
Length 2¹	57.6 ± 0.5	71.9 ± 0.5	86.1 ± 0.5

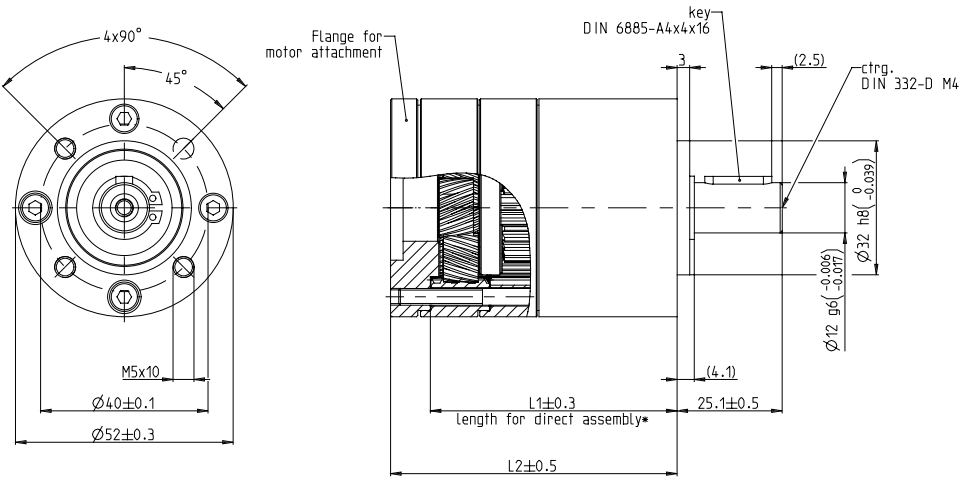
¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.52 Pro

IMS.52 ProLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	4 Nm	12 Nm	25 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	0.7 °DEG	0.8 °DEG	0.8 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm
 *Illustration shows IMS.ProLN® variant

Reduction Ratios

IMS.Pro 1-stage	IMS.ProLN®	IMS.Pro 2-stage	IMS.ProLN®	IMS.Pro 3-stage	IMS.ProLN®
4:1 (3.71)	4:1 (3.65)	14:1 (13.73)	14:1 (13.53)	51:1 (50.89)	50:1 (50.16)
4:1 (4.29)	5:1 (4.59)	16:1 (15.88)	16:1 (15.65)	59:1 (58.86)	58:1 (58.01)
5:1 (5.18)	5:1 (5.36)	18:1 (18.37)	17:1 (17.00)	68:1 (68.07)	67:1 (67.08)
7:1 (6.75)	7:1 (6.55)	19:1 (19.20)	19:1 (18.29)	71:1 (71.16)	70:1 (70.13)
	9:1 (8.63)	22:1 (22.21)	23:1 (22.96)	79:1 (78.72)	81:1 (81.11)
	*13:1 (13.20)	25:1 (25.01)	25:1 (24.65)	93:1 (92.70)	91:1 (91.36)
		27:1 (26.85)	28:1 (27.76)	95:1 (95.18)	98:1 (98.07)
		29:1 (28.93)	29:1 (28.05)	100:1 (99.51)	102:1 (101.89)
		35:1 (34.98)	34:1 (33.92)	107:1 (107.21)	106:1 (105.65)
		46:1 (45.56)	45:1 (44.69)	115:1 (115.08)	115:1 (114.77)
			58:1 (58.22)	124:1 (123.98)	123:1 (123.20)
			*68:1 (68.40)	130:1 (129.62)	128:1 (127.74)
			*89:1 (89.10)	139:1 (139.14)	137:1 (136.99)
				150:1 (149.90)	145:1 (145.36)
				169:1 (168.85)	166:1 (166.40)
				181:1 (181.25)	176:1 (175.75)
				195:1 (195.27)	192:1 (191.54)
				236:1 (236.10)	232:1 (231.59)
				308:1 (307.55)	302:1 (301.68)
					393:1 (392.98)
					*462:1 (461.70)
					*601:1 (601.43)

* Not all reduction ratios available from stock

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	200 N	320 N	450 N
Max. axial load	60 N	100 N	150 N
Max. permissible press-fit pressure	500 N	500 N	500 N
Approx. weight	700 g	900 g	1,1 kg

Gear length	1-stage	2-stage	3-stage
Length 1¹	44.8 ± 0.3	59.0 ± 0.3	73.2 ± 0.3
Length 2¹	54.2 ± 0.5	68.4 ± 0.5	82.6 ± 0.5

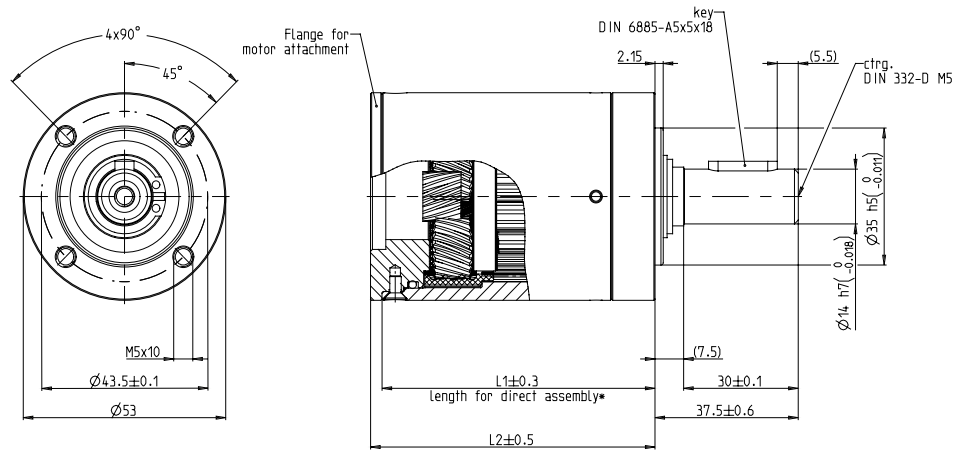
¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.53 ProMAX

IMS.53 ProMAXLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	8 Nm	25 Nm	50 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	0.7 °DEG	0.7 °DEG	0.8 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm.
*Illustration shows IMS.ProMAXLN® variant

Reduction Ratios

IMS.ProMAX 1-stage	IMS.Pro MAXLN®	IMS.ProMAX 2-stage	IMS.Pro MAXLN®	IMS.ProMAX 3-stage	IMS.Pro MAXLN®
4:1 (3.71)	4:1 (3.65)	14:1 (13.73)	14:1 (13.53)	51:1 (50.89)	50:1 (50.16)
4:1 (4.29)	5:1 (4.59)	16:1 (15.88)	16:1 (15.65)	59:1 (58.86)	58:1 (58.01)
5:1 (5.18)	5:1 (5.36)	18:1 (18.37)	17:1 (17.00)	68:1 (68.07)	67:1 (67.08)
7:1 (6.75)	7:1 (6.55)	19:1 (19.20)	19:1 (18.29)	71:1 (71.16)	70:1 (70.13)
	9:1 (8.63)	22:1 (22.21)	23:1 (22.96)	79:1 (78.72)	81:1 (81.11)
	*13:1 (13.20)	25:1 (25.01)	25:1 (24.65)	93:1 (92.70)	91:1 (91.36)
		27:1 (26.85)	28:1 (27.76)	95:1 (95.18)	98:1 (98.07)
		29:1 (28.93)	29:1 (28.05)	100:1 (99.51)	102:1 (101.89)
		35:1 (34.98)	34:1 (33.92)	107:1 (107.21)	106:1 (105.65)
		46:1 (45.56)	45:1 (44.69)	115:1 (115.08)	115:1 (114.77)
			58:1 (58.22)	124:1 (123.98)	123:1 (123.20)
			*68:1 (68.40)	130:1 (129.62)	128:1 (127.74)
			*89:1 (89.10)	139:1 (139.14)	137:1 (136.99)
				150:1 (149.90)	145:1 (145.36)
				169:1 (168.85)	166:1 (166.40)
				181:1 (181.25)	176:1 (175.75)
				195:1 (195.27)	192:1 (191.54)
				236:1 (236.10)	232:1 (231.59)
				308:1 (307.55)	302:1 (301.68)
					393:1 (392.98)
					*462:1 (461.70)
					*601:1 (601.43)

* Not all reduction ratios available from stock

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	240 N	360 N	250 N
Max. axial load	70 N	100 N	150 N
Max. permissible press-fit pressure	1,000 N	1,000 N	1,000 N
Approx. weight	800 g	1.2 kg	1.6 kg

Gear length	1-stage	2-stage	3-stage
Length 1 ¹	54.5 ± 0.3	71.5 ± 0.3	88.4 ± 0.3
Length 2 ¹	57.5 ± 0.5	74.5 ± 0.5	91.4 ± 0.5

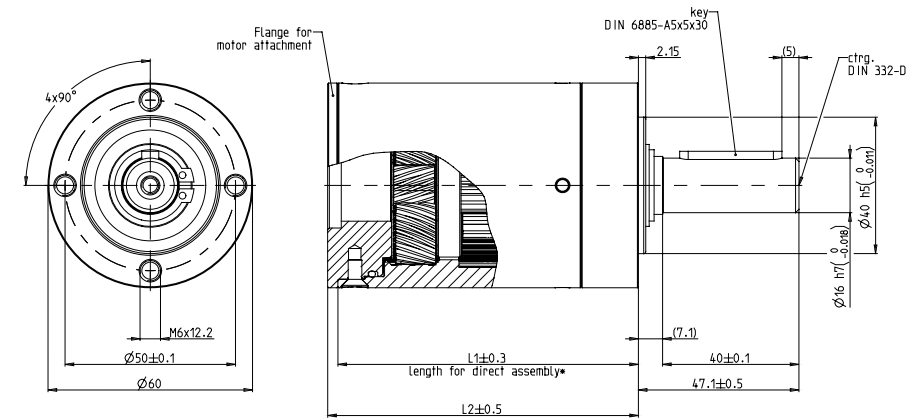
¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.60 ProMAX

IMS.60 ProMAXLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	14 Nm	42 Nm	84 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	0.6 °DEG	0.7 °DEG	0.7 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm
 *Illustration shows IMS.ProMAXLN® variant

Reduction Ratios

IMS.ProMAX 1-stage	IMS.Pro MAXLN®	IMS.ProMAX 2-stage	IMS.Pro MAXLN®	IMS.ProMAX 3-stage	IMS.Pro MAXLN®
4:1 (3.71)	4:1 (3.65)	14:1 (13.73)	14:1 (13.53)	51:1 (50.89)	50:1 (50.16)
4:1 (4.29)	5:1 (4.59)	16:1 (15.88)	16:1 (15.65)	59:1 (58.86)	58:1 (58.01)
5:1 (5.18)	5:1 (5.36)	18:1 (18.37)	17:1 (17.00)	68:1 (68.07)	67:1 (67.08)
7:1 (6.75)	7:1 (6.55)	19:1 (19.20)	19:1 (18.29)	71:1 (71.16)	70:1 (70.13)
	9:1 (8.63)	22:1 (22.21)	23:1 (22.96)	79:1 (78.72)	81:1 (81.11)
	*13:1 (13.20)	25:1 (25.01)	25:1 (24.65)	93:1 (92.70)	91:1 (91.36)
		27:1 (26.85)	28:1 (27.76)	95:1 (95.18)	98:1 (98.07)
		29:1 (28.93)	29:1 (28.05)	100:1 (99.51)	102:1 (101.89)
		35:1 (34.98)	34:1 (33.92)	107:1 (107.21)	106:1 (105.65)
		46:1 (45.56)	45:1 (44.69)	115:1 (115.08)	115:1 (114.77)
			58:1 (58.22)	124:1 (123.98)	123:1 (123.20)
			*68:1 (68.40)	130:1 (129.62)	128:1 (127.74)
			*89:1 (89.10)	139:1 (139.14)	137:1 (136.99)
				150:1 (149.90)	145:1 (145.36)
				169:1 (168.85)	166:1 (166.40)
				181:1 (181.25)	176:1 (175.75)
				195:1 (195.27)	192:1 (191.54)
				236:1 (236.10)	232:1 (231.59)
				308:1 (307.55)	302:1 (301.68)
					393:1 (392.98)
					*462:1 (461.70)
					*601:1 (601.43)

* Not all reduction ratios available from stock

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	320 N	480 N	760 N
Max. axial load	70 N	100 N	160 N
Max. permissible press-fit pressure	1,300 N	1,300 N	1,300 N
Approx. weight	1.4 kg	1.9 kg	2.4 kg

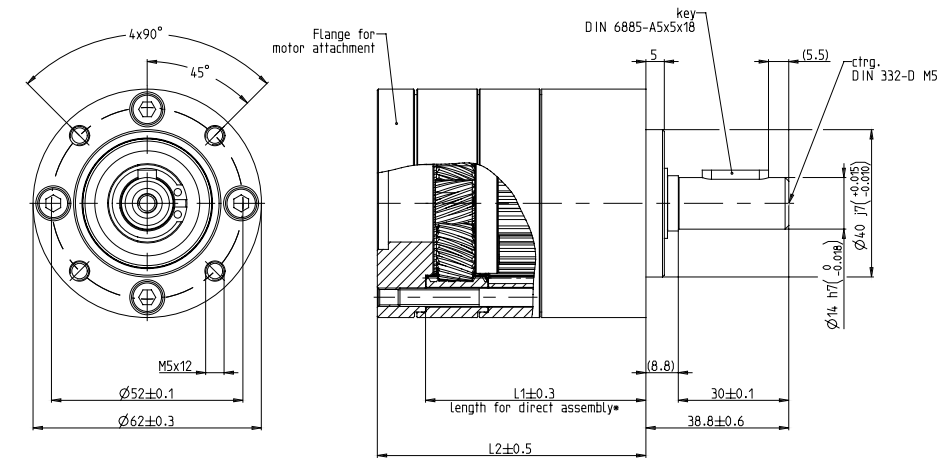
Gear length	1-stage	2-stage	3-stage
Length 1 ¹	68.5 ± 0.3	88.2 ± 0.3	107.9 ± 0.3
Length 2 ¹	71.5 ± 0.5	91.2 ± 0.5	110.9 ± 0.5

¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.62 Pro
IMS.62 ProLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	8 Nm	25 Nm	50 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	0.7 °DEG	0.7 °DEG	0.8 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm
*Illustration shows IMS.ProLN® variant

Reduction Ratios

IMS.Pro 1-stage	IMS.ProLN®	IMS.Pro 2-stage	IMS.ProLN®	IMS.Pro 3-stage	IMS.ProLN®
4:1 (3.71)	4:1 (3.65)	14:1 (13.73)	14:1 (13.53)	51:1 (50.89)	50:1 (50.16)
4:1 (4.29)	5:1 (4.59)	16:1 (15.88)	16:1 (15.65)	59:1 (58.86)	58:1 (58.01)
5:1 (5.18)	5:1 (5.36)	18:1 (18.37)	17:1 (17.00)	68:1 (68.07)	67:1 (67.08)
7:1 (6.75)	7:1 (6.55)	19:1 (19.20)	19:1 (18.29)	71:1 (71.16)	70:1 (70.13)
	9:1 (8.63)	22:1 (22.21)	23:1 (22.96)	79:1 (78.72)	81:1 (81.11)
	*13:1 (13.20)	25:1 (25.01)	25:1 (24.65)	93:1 (92.70)	91:1 (91.36)
		27:1 (26.85)	28:1 (27.76)	95:1 (95.18)	98:1 (98.07)
		29:1 (28.93)	29:1 (28.05)	100:1 (99.51)	102:1 (101.89)
		35:1 (34.98)	34:1 (33.92)	107:1 (107.21)	106:1 (105.65)
		46:1 (45.56)	45:1 (44.69)	115:1 (115.08)	115:1 (114.77)
			58:1 (58.22)	124:1 (123.98)	123:1 (123.20)
			*68:1 (68.40)	130:1 (129.62)	128:1 (127.74)
			*89:1 (89.10)	139:1 (139.14)	137:1 (136.99)
				150:1 (149.90)	145:1 (145.36)
				169:1 (168.85)	166:1 (166.40)
				181:1 (181.25)	176:1 (175.75)
				195:1 (195.27)	192:1 (191.54)
				236:1 (236.10)	232:1 (231.59)
				308:1 (307.55)	302:1 (301.68)
					393:1 (392.98)
					*462:1 (461.70)
					*601:1 (601.43)

* Not all reduction ratios available from stock

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	240 N	360 N	520 N
Max. axial load	70 N	100 N	150 N
Max. permissible press-fit pressure	1,000 N	1,000 N	1,000 N
Approx. weight	800 g	1.2 g	1.6 kg

Gear length	1-stage	2-stage	3-stage
Length 1 ¹	42.9 ± 0.3	59.8 ± 0.3	76.8 ± 0.3
Length 2 ¹	54.6 ± 0.5	71.5 ± 0.5	88.5 ± 0.5

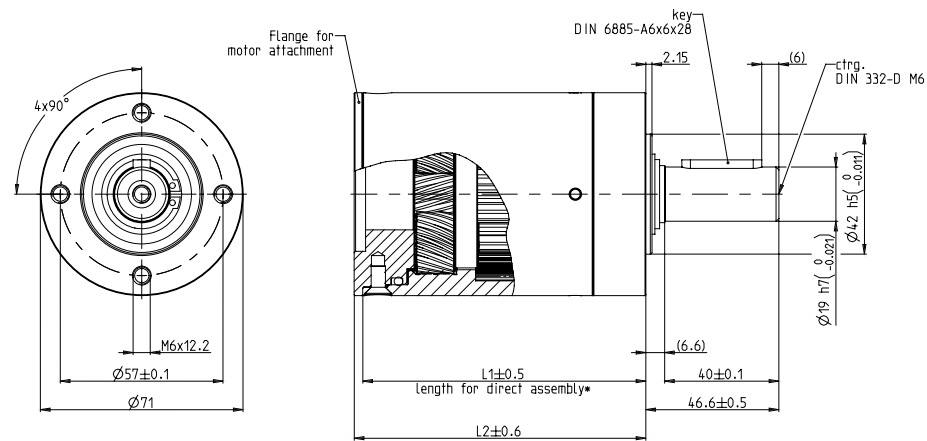
¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.71 ProMAX

IMS.71 ProMAXLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	20 Nm	60 Nm	120 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	0.5 °DEG	0.6 °DEG	0.6 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm
*Illustration shows IMS.ProMAXLN® variant

Reduction Ratios

IMS.ProMAX 1-stage	IMS.Pro MAXLN®	IMS.ProMAX 2-stage	IMS.Pro MAXLN®	IMS.ProMAX 3-stage	IMS.Pro MAXLN®
4:1 (3.71)	4:1 (3.65)	14:1 (13.73)	14:1 (13.53)	51:1 (50.89)	50:1 (50.16)
4:1 (4.29)	5:1 (4.59)	16:1 (15.88)	16:1 (15.65)	59:1 (58.86)	58:1 (58.01)
5:1 (5.18)	5:1 (5.36)	18:1 (18.37)	17:1 (17.00)	68:1 (68.07)	67:1 (67.08)
7:1 (6.75)	7:1 (6.55)	19:1 (19.20)	19:1 (18.29)	71:1 (71.16)	70:1 (70.13)
	9:1 (8.63)	22:1 (22.21)	23:1 (22.96)	79:1 (78.72)	81:1 (81.11)
	*13:1 (13.20)	25:1 (25.01)	25:1 (24.65)	93:1 (92.70)	91:1 (91.36)
		27:1 (26.85)	28:1 (27.76)	95:1 (95.18)	98:1 (98.07)
		29:1 (28.93)	29:1 (28.05)	100:1 (99.51)	102:1 (101.89)
		35:1 (34.98)	34:1 (33.92)	107:1 (107.21)	106:1 (105.65)
		46:1 (45.56)	45:1 (44.69)	115:1 (115.08)	115:1 (114.77)
			58:1 (58.22)	124:1 (123.98)	123:1 (123.20)
			*68:1 (68.40)	130:1 (129.62)	128:1 (127.74)
			*89:1 (89.10)	139:1 (139.14)	137:1 (136.99)
				150:1 (149.90)	145:1 (145.36)
				169:1 (168.85)	166:1 (166.40)
				181:1 (181.25)	176:1 (175.75)
				195:1 (195.27)	192:1 (191.54)
				236:1 (236.10)	232:1 (231.59)
				308:1 (307.55)	302:1 (301.68)
					393:1 (392.98)
					*462:1 (461.70)
					*601:1 (601.43)

* Not all reduction ratios available from stock

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	400 N	600 N	1,000 N
Max. axial load	80 N	120 N	200 N
Max. permissible press-fit pressure	1,500 N	1,500 N	1,500 N
Approx. weight	1.8 kg	2.5 kg	3.2 kg

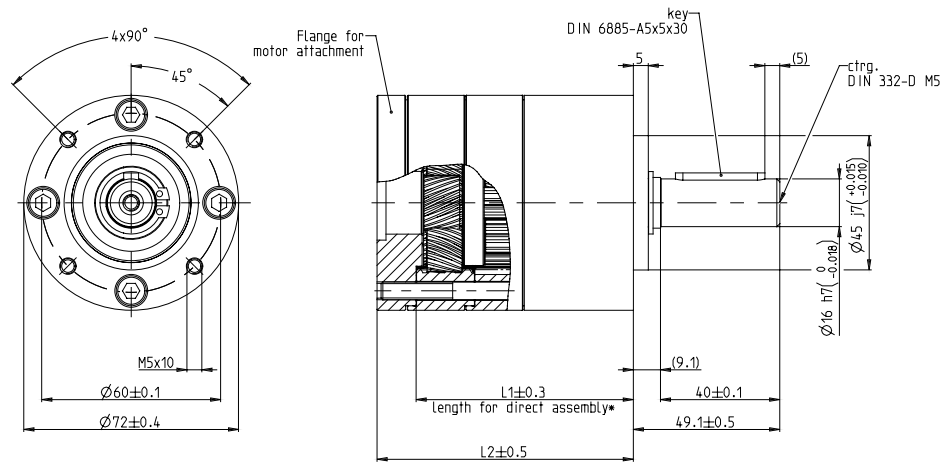
Gear length	1-stage	2-stage	3-stage
Length 1¹	77.4 ± 0.5	99.2 ± 0.5	121.0 ± 0.5
Length 2¹	80.4 ± 0.6	102.2 ± 0.6	124.0 ± 0.6

¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.72 Pro
IMS.72 ProLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	14 Nm	42 Nm	84 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	0.6 °DEG	0.7 °DEG	0.7 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm
*Illustration shows IMS.ProLN® variant

Reduction Ratios

IMS.Pro 1-stage	IMS.ProLN®	IMS.Pro 2-stage	IMS.ProLN®	IMS.Pro 3-stage	IMS.ProLN®
4:1 (3.71)	4:1 (3.65)	14:1 (13.73)	14:1 (13.53)	51:1 (50.89)	50:1 (50.16)
4:1 (4.29)	5:1 (4.59)	16:1 (15.88)	16:1 (15.65)	59:1 (58.86)	58:1 (58.01)
5:1 (5.18)	5:1 (5.36)	18:1 (18.37)	17:1 (17.00)	68:1 (68.07)	67:1 (67.08)
7:1 (6.75)	7:1 (6.55)	19:1 (19.20)	19:1 (18.29)	71:1 (71.16)	70:1 (70.13)
	9:1 (8.63)	22:1 (22.21)	23:1 (22.96)	79:1 (78.72)	81:1 (81.11)
	*13:1 (13.20)	25:1 (25.01)	25:1 (24.65)	93:1 (92.70)	91:1 (91.36)
		27:1 (26.85)	28:1 (27.76)	95:1 (95.18)	98:1 (98.07)
		29:1 (28.93)	29:1 (28.05)	100:1 (99.51)	102:1 (101.89)
		35:1 (34.98)	34:1 (33.92)	107:1 (107.21)	106:1 (105.65)
		46:1 (45.56)	45:1 (44.69)	115:1 (115.08)	115:1 (114.77)
			58:1 (58.22)	124:1 (123.98)	123:1 (123.20)
			*68:1 (68.40)	130:1 (129.62)	128:1 (127.74)
			*89:1 (89.10)	139:1 (139.14)	137:1 (136.99)
				150:1 (149.90)	145:1 (145.36)
				169:1 (168.85)	166:1 (166.40)
				181:1 (181.25)	176:1 (175.75)
				195:1 (195.27)	192:1 (191.54)
				236:1 (236.10)	232:1 (231.59)
				308:1 (307.55)	302:1 (301.68)
					393:1 (392.98)
					*462:1 (461.70)
					*601:1 (601.43)

* Not all reduction ratios available from stock

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	320 N	480 N	760 N
Max. axial load	70 N	100 N	160 N
Max. permissible press-fit pressure	1,300 N	1,300 N	1,300 N
Approx. weight	1.4 kg	1.9 kg	2.4 kg

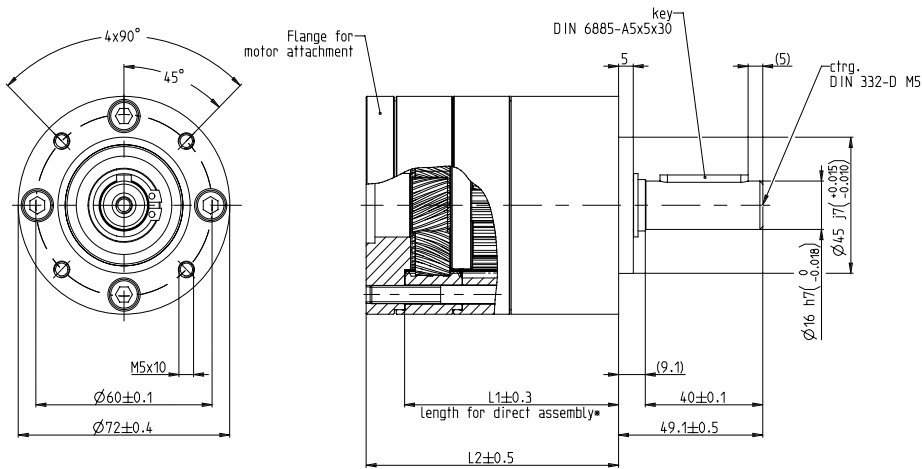
Gear length	1-stage	2-stage	3-stage
Length 1¹	53.3 ± 0.3	72.9 ± 0.3	92.5 ± 0.3
Length 2¹	66.3 ± 0.5	85.9 ± 0.5	105.5 ± 0.5

¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.81 Pro
IMS.81 ProLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	20 Nm	60 Nm	120 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	0.5 °DEG	0.6 °DEG	0.6 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm
*Illustration shows IMS.ProLN® variant

Reduction Ratios

IMS.Pro 1-stage	IMS.ProLN®	IMS.Pro 2-stage	IMS.ProLN®	IMS.Pro 3-stage	IMS.ProLN®
4:1 (3.71)	4:1 (3.65)	14:1 (13.73)	14:1 (13.53)	51:1 (50.89)	50:1 (50.16)
4:1 (4.29)	5:1 (4.59)	16:1 (15.88)	16:1 (15.65)	59:1 (58.86)	58:1 (58.01)
5:1 (5.18)	5:1 (5.36)	18:1 (18.37)	17:1 (17.00)	68:1 (68.07)	67:1 (67.08)
7:1 (6.75)	7:1 (6.55)	19:1 (19.20)	19:1 (18.29)	71:1 (71.16)	70:1 (70.13)
	9:1 (8.63)	22:1 (22.21)	23:1 (22.96)	79:1 (78.72)	81:1 (81.11)
	*13:1 (13.20)	25:1 (25.01)	25:1 (24.65)	93:1 (92.70)	91:1 (91.36)
		27:1 (26.85)	28:1 (27.76)	95:1 (95.18)	98:1 (98.07)
		29:1 (28.93)	29:1 (28.05)	100:1 (99.51)	102:1 (101.89)
		35:1 (34.98)	34:1 (33.92)	107:1 (107.21)	106:1 (105.65)
		46:1 (45.56)	45:1 (44.69)	115:1 (115.08)	115:1 (114.77)
			58:1 (58.22)	124:1 (123.98)	123:1 (123.20)
			*68:1 (68.40)	130:1 (129.62)	128:1 (127.74)
			*89:1 (89.10)	139:1 (139.14)	137:1 (136.99)
				150:1 (149.90)	145:1 (145.36)
				169:1 (168.85)	166:1 (166.40)
				181:1 (181.25)	176:1 (175.75)
				195:1 (195.27)	192:1 (191.54)
				236:1 (236.10)	232:1 (231.59)
				308:1 (307.55)	302:1 (301.68)
					393:1 (392.98)
					*462:1 (461.70)
					*601:1 (601.43)

* Not all reduction ratios available from stock

Output side with ball bearing	1-stage	2-stage	3-stage
Max, radial load (center of output shaft)	400 N	600 N	1,000 N
Max, axial load	80 N	120 N	200 N
Max, permissible press-fit pressure	1,500 N	1,500 N	1,500 N
Approx, weight	1.8 kg	2.5 kg	3.2 kg

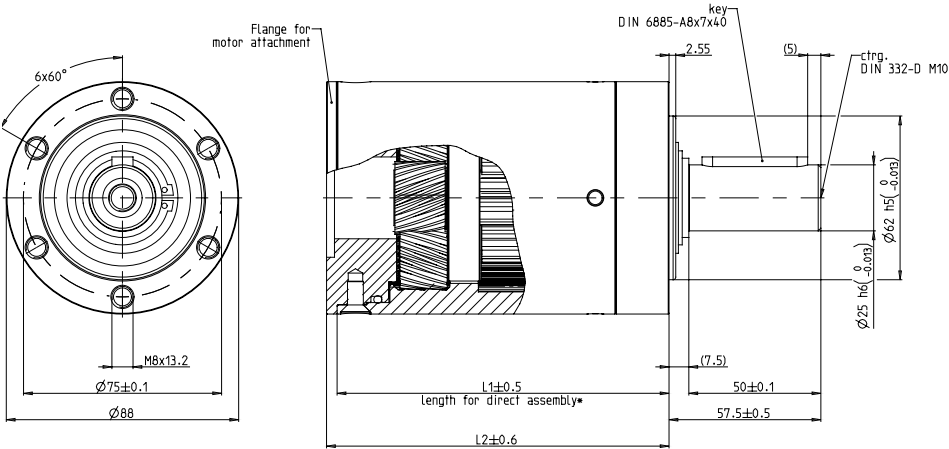
Gear length	1-stage	2-stage	3-stage
Length 1¹	59.3 ± 0.5	81.0 ± 0.5	102.6 ± 0.5
Length 2¹	72.8 ± 0.6	94.5 ± 0.6	116.1 ± 0.6

¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.88 ProMAX
IMS.88 ProMAXLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	35 Nm	105 Nm	195 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	0.6 °DEG	0.6 °DEG	0.7 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm
*Illustration shows IMS.ProMAXLN® variant

Reduction Ratios

IMS.ProMAX 1-stage	IMS.Pro MAXLN®	IMS.ProMAX 2-stage	IMS.Pro MAXLN®	IMS.ProMAX 3-stage	IMS.Pro MAXLN®
4:1 (3.71)	4:1 (3.65)	14:1 (13.73)	14:1 (13.53)	51:1 (50.89)	50:1 (50.16)
4:1 (4.29)	5:1 (4.59)	16:1 (15.88)	16:1 (15.65)	59:1 (58.86)	58:1 (58.01)
5:1 (5.18)	5:1 (5.36)	18:1 (18.37)	17:1 (17.00)	68:1 (68.07)	67:1 (67.08)
7:1 (6.75)	7:1 (6.55)	19:1 (19.20)	19:1 (18.29)	71:1 (71.16)	70:1 (70.13)
	9:1 (8.63)	22:1 (22.21)	23:1 (22.96)	79:1 (78.72)	81:1 (81.11)
	*13:1 (13.20)	25:1 (25.01)	25:1 (24.65)	93:1 (92.70)	91:1 (91.36)
		27:1 (26.85)	28:1 (27.76)	95:1 (95.18)	98:1 (98.07)
		29:1 (28.93)	29:1 (28.05)	100:1 (99.51)	102:1 (101.89)
		35:1 (34.98)	34:1 (33.92)	107:1 (107.21)	106:1 (105.65)
		46:1 (45.56)	45:1 (44.69)	115:1 (115.08)	115:1 (114.77)
			58:1 (58.22)	124:1 (123.98)	123:1 (123.20)
			*68:1 (68.40)	130:1 (129.62)	128:1 (127.74)
			*89:1 (89.10)	139:1 (139.14)	137:1 (136.99)
				150:1 (149.90)	145:1 (145.36)
				169:1 (168.85)	166:1 (166.40)
				181:1 (181.25)	176:1 (175.75)
				195:1 (195.27)	192:1 (191.54)
				236:1 (236.10)	232:1 (231.59)
				308:1 (307.55)	302:1 (301.68)
					393:1 (392.98)
					*462:1 (461.70)
					*601:1 (601.43)

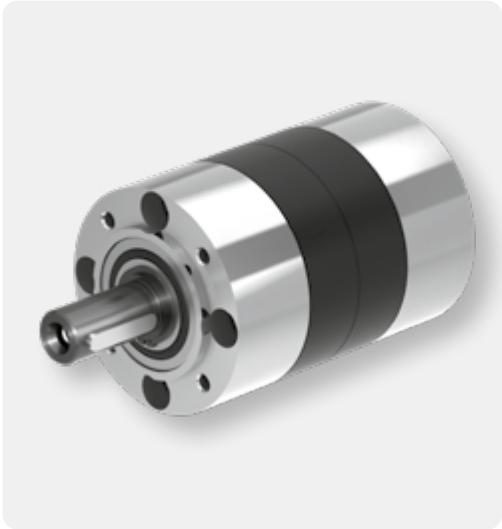
* Not all reduction ratios available from stock

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	600 N	900 N	1,500 N
Max. axial load	120 N	180 N	300 N
Max. permissible press-fit pressure	2,000 N	2,000 N	2,000 N
Approx. weight	4.4 kg	6 kg	7.6 kg

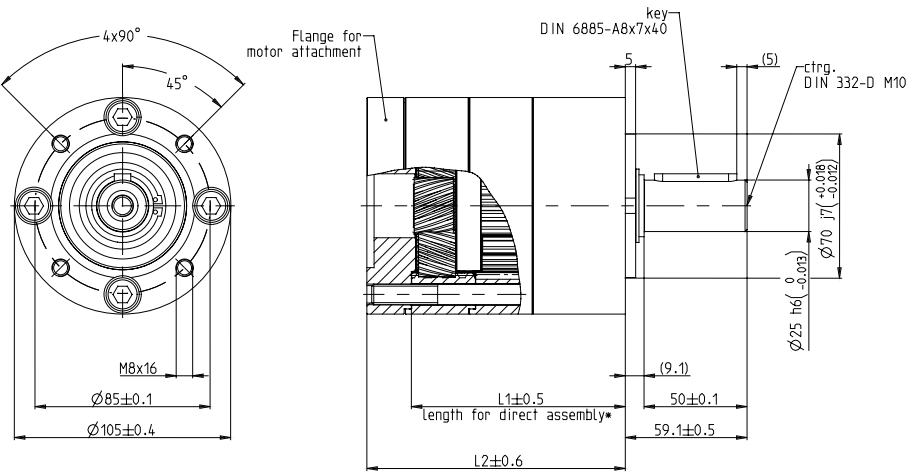
Gear length	1-stage	2-stage	3-stage
Length 1 ¹	94.6 ± 0.5	125.7 ± 0.5	156.8 ± 0.5
Length 2 ¹	98.6 ± 0.6	129.7 ± 0.6	160.8 ± 0.6

¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.105 Pro
IMS.105 ProLN®



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1,0$)	35 Nm	105 Nm	195 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	0.6 °DEG	0.6 °DEG	0.7 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm
*Illustration shows IMS.ProLN® variant

Reduction Ratios

IMS.Pro 1-stage	IMS.ProLN®	IMS.Pro 2-stage	IMS.ProLN®	IMS.Pro 3-stage	IMS.ProLN®
4:1 (3.71)	4:1 (3.65)	14:1 (13.73)	14:1 (13.53)	51:1 (50.89)	50:1 (50.16)
4:1 (4.29)	5:1 (4.59)	16:1 (15.88)	16:1 (15.65)	59:1 (58.86)	58:1 (58.01)
5:1 (5.18)	5:1 (5.36)	18:1 (18.37)	17:1 (17.00)	68:1 (68.07)	67:1 (67.08)
7:1 (6.75)	7:1 (6.55)	19:1 (19.20)	19:1 (18.29)	71:1 (71.16)	70:1 (70.13)
	9:1 (8.63)	22:1 (22.21)	23:1 (22.96)	79:1 (78.72)	81:1 (81.11)
	*13:1 (13.20)	25:1 (25.01)	25:1 (24.65)	93:1 (92.70)	91:1 (91.36)
		27:1 (26.85)	28:1 (27.76)	95:1 (95.18)	98:1 (98.07)
		29:1 (28.93)	29:1 (28.05)	100:1 (99.51)	102:1 (101.89)
		35:1 (34.98)	34:1 (33.92)	107:1 (107.21)	106:1 (105.65)
		46:1 (45.56)	45:1 (44.69)	115:1 (115.08)	115:1 (114.77)
			58:1 (58.22)	124:1 (123.98)	123:1 (123.20)
			*68:1 (68.40)	130:1 (129.62)	128:1 (127.74)
			*89:1 (89.10)	139:1 (139.14)	137:1 (136.99)
				150:1 (149.90)	145:1 (145.36)
				169:1 (168.85)	166:1 (166.40)
				181:1 (181.25)	176:1 (175.75)
				195:1 (195.27)	192:1 (191.54)
				236:1 (236.10)	232:1 (231.59)
				308:1 (307.55)	302:1 (301.68)
					393:1 (392.98)
					*462:1 (461.70)
					*601:1 (601.43)

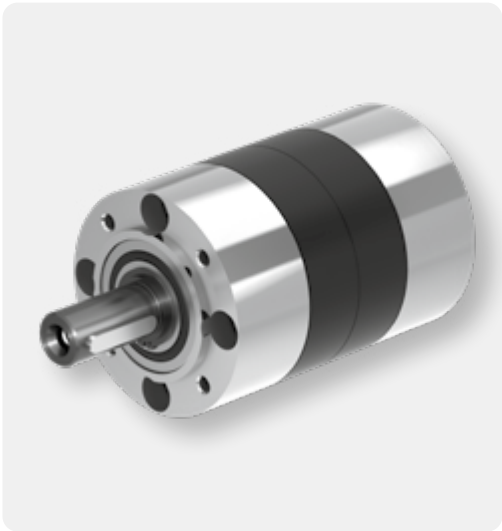
* Not all reduction ratios available from stock

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	600 N	900 N	1,500 N
Max. axial load	120 N	180 N	300 N
Max. permissible press-fit pressure	2,000 N	2,000 N	2,000 N
Approx. weight	4.4 kg	6.0 kg	7.6 kg

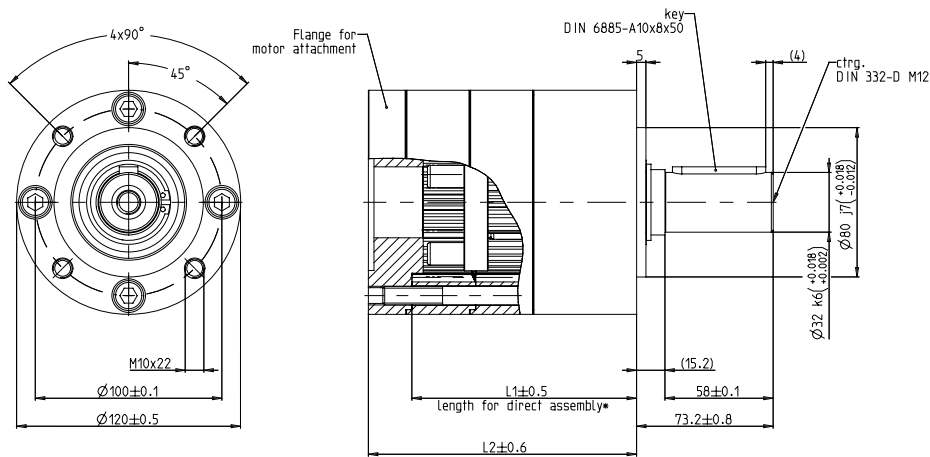
Gear length	1-stage	2-stage	3-stage
Length 1¹	72.8 ± 0.5	104.0 ± 0.5	135.1 ± 0.5
Length 2¹	94.3 ± 0.6	125.6 ± 0.6	156.6 ± 0.6

¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.120 Pro



Technical data	1-stage	2-stage	3-stage
Permissible output torque T_{AB} ($C_b=1.0$)	50 Nm	150 Nm	300 Nm
Approx. gear efficiency	0.8	0.8	0.7
Max. gear backlash	1.0 °DEG	1.5 °DEG	2.0 °DEG
Recommended input speed	3,000 rpm	3,000 rpm	3,000 rpm



All dimensions in mm

Reduction Ratios

IMS.Pro 1-stage	IMS.Pro 2-stage	IMS.Pro 3-stage
4:1 (3.71)	14:1 (13.73)	51:1 (50.89)
4:1 (4.29)	16:1 (15.88)	59:1 (58.86)
5:1 (5.18)	18:1 (18.37)	68:1 (68.07)
7:1 (6.75)	19:1 (19.20)	71:1 (71.16)
	22:1 (22.21)	79:1 (78.72)
	25:1 (25.01)	93:1 (92.70)
	27:1 (26.85)	95:1 (95.18)
	29:1 (28.93)	100:1 (99.51)
	35:1 (34.98)	107:1 (107.21)
	46:1 (45.56)	115:1 (115.08)
		124:1 (123.98)
		130:1 (129.62)
		139:1 (139.14)
		150:1 (149.90)
		169:1 (168.85)
		181:1 (181.25)
		195:1 (195.27)
		236:1 (236.10)
		308:1 (307.55)

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (center of output shaft)	600 N	900 N	1,500 N
Max. axial load	120 N	180 N	300 N
Max. permissible press-fit pressure	2,500 N	2,500 N	2,500 N
Approx. weight	5.6 kg	8 kg	10.4 kg

Gear length	1-stage	2-stage	3-stage
Length 1 ¹	86.3 ± 0.5	120.5 ± 0.5	154.6 ± 0.5
Length 2 ¹	109.2 ± 0.6	143.4 ± 0.6	177.5 ± 0.6

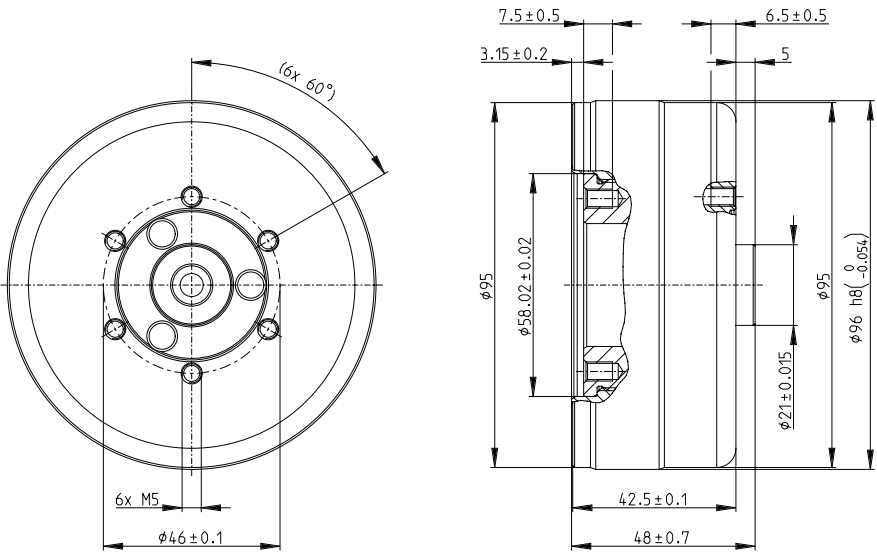
¹ The specified value is a calculated minimum gear length under the condition of optimum flange and motor connection. Please contact us directly for your specific project.

IMS.100 DriveLN

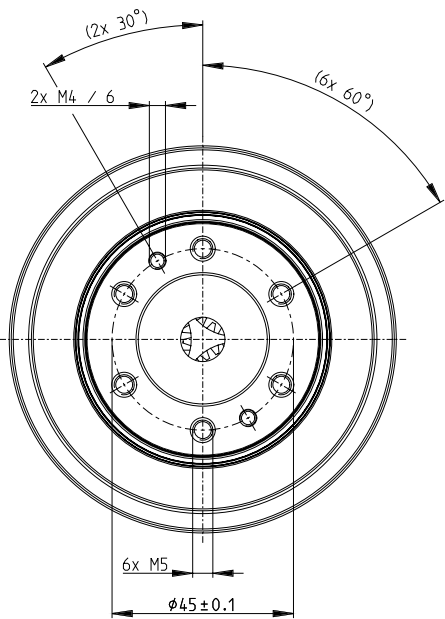


Parameters	1-stage	Comments
Reduction Ratios	9:1 (8.63)	
Rated output torque	4 Nm	
Acceleration torque	16 Nm	20% time share within service life
Emergency stop torque	34 Nm	Max. 50,000 cycles within service life
Recommended wheel Ø	140 mm	Design point datasheet wheel Ø 140 mm
Load capacity per drive	100 kg	Movable mass up to 100 kg per drive
Axial force	280 N	30% time share within service life
Rated vehicle speed	3.0 m/s	Design point datasheet wheel Ø 140 mm
Max. input speed	5,000 rpm	
Protection class	IP54	Higher protection classes on request
Weight	1.7 kg	

Wheel Interface

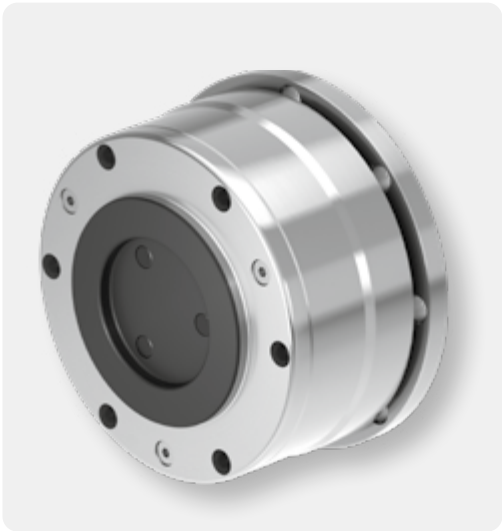


Motor Interface

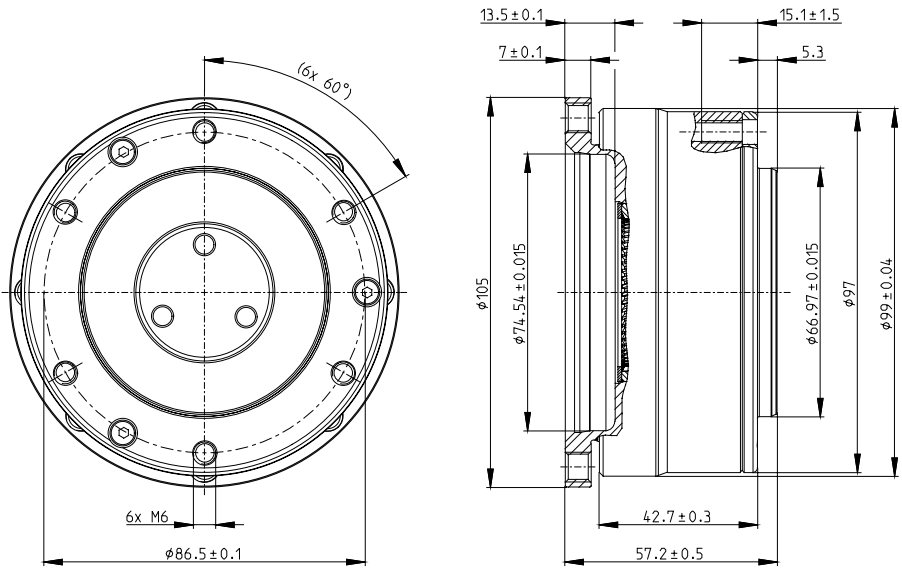


All dimensions in mm

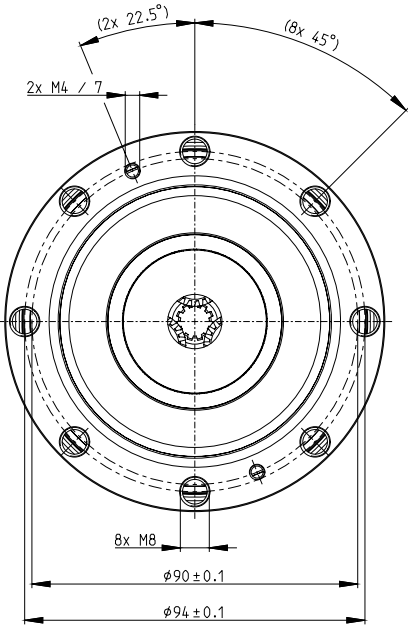
IMS.250 DriveLN



Wheel Interface



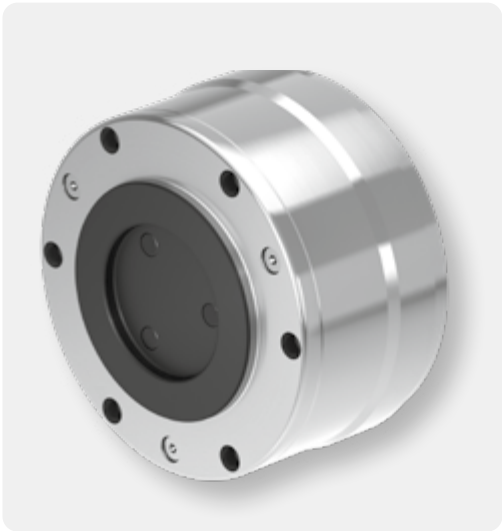
Motor Interface



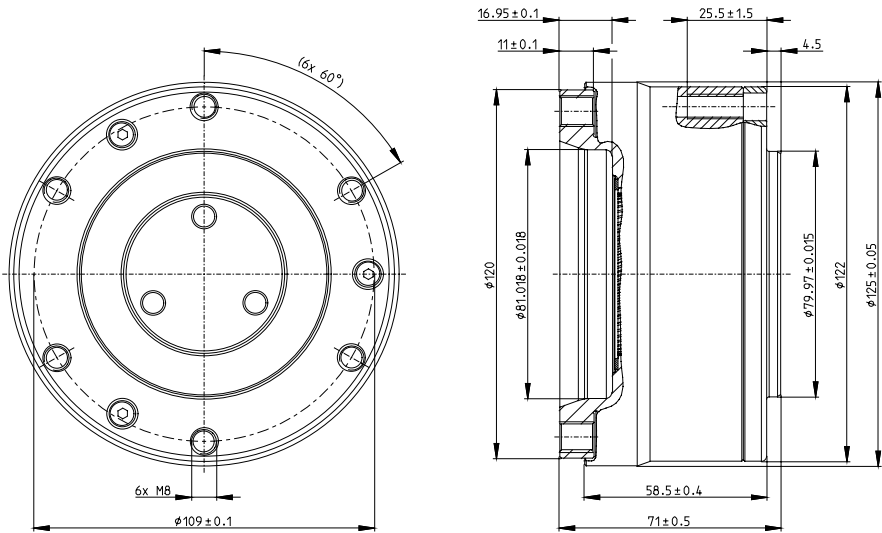
All dimensions in mm

Parameters	2-stage	Comments
Reduction Ratios	16:1 (15.65)	
	19:1 (18.92)	
	23:1 (22.96)	
	25:1 (24.65)	
	28:1 (27.76)	
	34:1 (33.92)	
	45:1 (44.69)	
Rated output torque	58:1 (58.22)	
	12 Nm	
Acceleration torque	25 Nm	20% time share within service life
	54 Nm	Max. 50,000 cycles within service life
Emergency stop torque	160 mm	Design point datasheet wheel Ø 160 mm
	100 kg	Movable mass up to 250 kg per drive
Recommended wheel Ø	680 N	30% time share within service life
	1.5 m/s	Design point datasheet wheel Ø 160 mm
Load capacity per drive	3,000 rpm	
	5,000 rpm	
Axial force	IP54	Higher protection classes on request
	2.5 kg	
Rated vehicle speed		
Recommended input speed		
Max. input speed		
Protection class		
Weight		

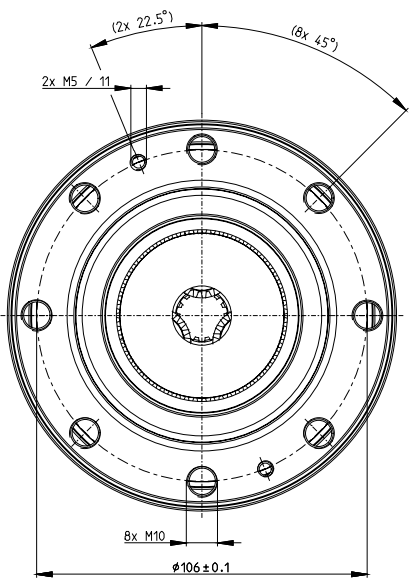
IMS.700 DriveLN



Wheel Interface



Motor Interface

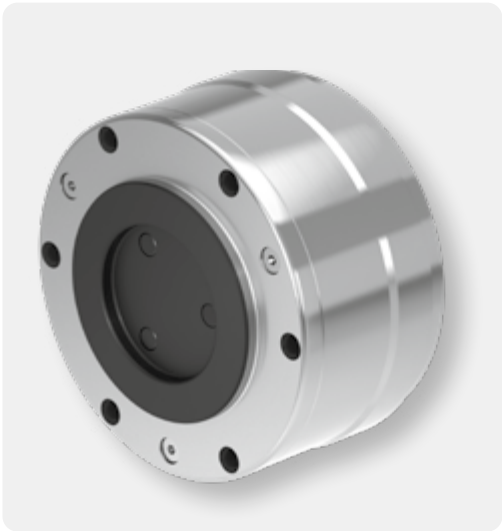


All dimensions in mm

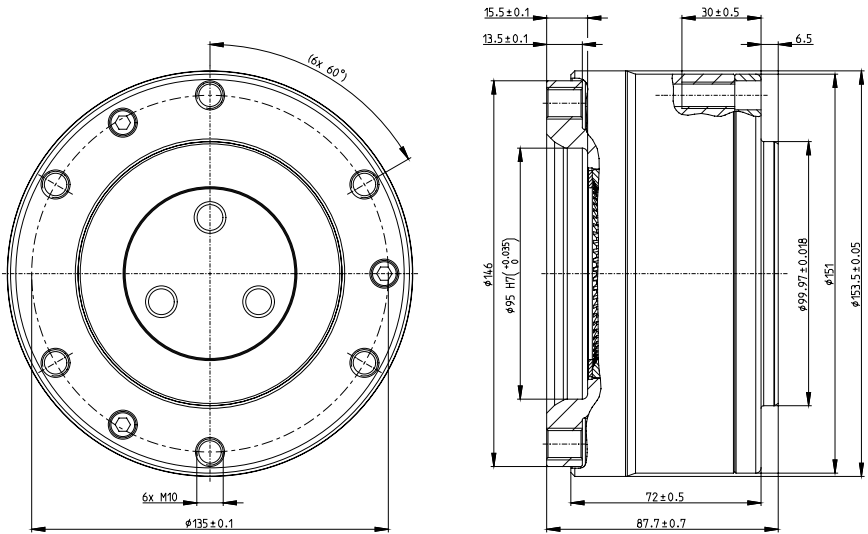
Parameters	2-stage	Comments
Reduction Ratios	*14:1 (13.53)	
	16:1 (15.65)	
	19:1 (18.92)	
	23:1 (22.96)	
	25:1 (24.65)	
	28:1 (27.76)	
	34:1 (33.92)	
	45:1 (44.69)	
Rated output torque	58:1 (58.22)	
	30 Nm	
Acceleration torque	52 Nm	20% time share within service life
	150 Nm	Max. 50,000 cycles within service life
Recommended wheel Ø	180 mm	Design point datasheet wheel Ø 180 mm
	330 kg	Movable mass up to 700 kg per drive
Axial force	1,350 N	30% time share within service life
	1.5 m/s	Design point datasheet wheel Ø 180 mm
Rated vehicle speed	3,000 rpm	
	5,000 rpm	
Protection class	IP54	Higher protection classes on request
	4.5 kg	

*On request

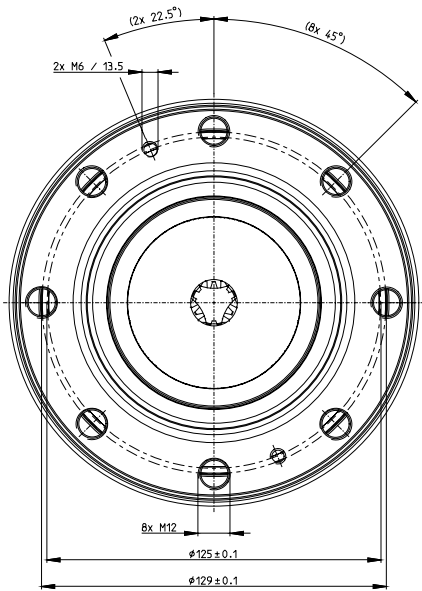
IMS.1000 DriveLN



Wheel Interface



Motor Interface

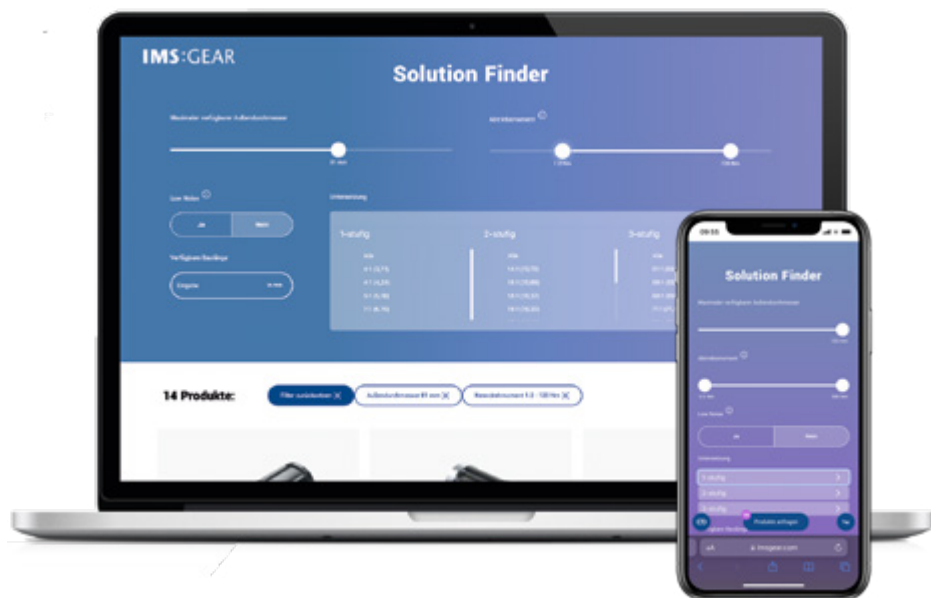


All dimensions in mm

Parameters	2-stage	Comments
Reduction Ratios	*14:1 (13.53) 16:1 (15.65) 19:1 (18.92) 23:1 (22.96) 25:1 (24.65) 28:1 (27.76) 34:1 (33.92) 45:1 (44.69) 58:1 (58.22)	
Rated output torque	55 Nm	
Acceleration torque	100 Nm	20% time share within service life
Emergency stop torque	250 Nm	Max. 50,000 cycles within service life
Recommended wheel Ø	200 mm	Design point datasheet wheel Ø 200 mm
Load capacity per drive	450 kg	Movable mass up to 1,000 kg per drive
Axial force	1,900 N	30% time share within service life
Rated vehicle speed	1.5 m/s	Design point datasheet wheel Ø 200 mm
Recommended input speed	3,000 rpm	
Max. input speed	5,000 rpm	
Protection class	IP54	Higher protection classes on request
Weight	10 kg	

*On request

Find your IMS Gear



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