

Order information

Gearhead type TP+ 004 – TP+ 4000 SP+ 060 – SP+ 240	Type code S = Standard A = Optimized mass moment of inertia ^{b)} E = Version in ATEX ^{b)} F = Food-grade lubrication ^{b)} G = Grease ^{b)} L = Low friction (SP+ 100 - 240 HIGH SPEED) W = Corrosion resistant ^{b)}	Gearhead variations M = Motor attachment gearhead S = Separate version	Gearhead model F = Standard A = HIGH TORQUE (only TP+) C = HIGH SPEED (only SP+)	Number of stages 1 = 1-stage 2 = 2-stage 3 = 3-stage
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^{a)} Order shrink discs separately, see section accessories, shrink discs on page 410

^{b)} Reduced specification available on request

Gearhead type TK+ 004 – TK+ 110 TPK+ 010 – TPK+ 500 SK+ 060 – SK+ 180 SPK+ 075 – SPK+ 240 HG+ 060 – HG+ 180 SC+ 060 – SC+ 180 SPC+ 060 – SPC+ 180 TPC+ 004 – TPC+ 110	Type code S = Standard B = Modular output combination (SK+, SPK+, TK+, TPK+, HG+ ^{c)} E = Version in ATEX ^{b) d)} F = Food-grade lubrication ^{b)} W = Corrosion resistant ^{b)}	Gearhead variations M = Motor attachment gearhead	Gearhead model F = Standard A = HIGH TORQUE (only TPK+)	Number of stages 1 = 1-stage 2 = 2-stage 3 = 3-stage 4 = 4-stage
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^{a)} Order shrink discs separately, see section accessories, shrink discs on page 410

^{b)} Reduced specification available on request

^{c)} See modular system matrix, page 424

^{d)} SK+/TK+/HG+ only

Gearhead type LP+ 050 – LP+ 155 LPB+ 070 – LPB+ 120	Type code S = Standard F = Food lubrication	Gearhead variations M = Motor attachment gearhead	Gearhead model F = Standard	Number of stages 1 = 1-stage 2 = 2-stage
Gearhead type LK 050 – LK 155 LPK 050 – LPK 155 LPBK 070 – LPBK 120 CP 040 – CP 115 (alphira®)	Gearhead variations M = Motor attachment gearhead	Gearhead model O = Standard L = Food-grade grease	Number of stages 1 = 1-stage 2 = 2-stage 3 = 3-stage (LPK+)	Ratios See technical data sheets.

Gearhead type VDT = TP flange VDH = hollow shaft VDS = shaft	Gearhead version e = economy (only for VDH and VDS, size 040, 050 and 063)	Distance between axes 040, 050, 063, 080, 100	Gearhead variations M = Motor attachment gearhead	Gearhead model F = Standard L = Food-grade lubrication W = Corrosion resistant	Number of stages 1 = 1-stage
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** See section accessories, shrink discs on page 410

Ratios
See technical data sheets.

Output shape
0 = smooth shaft/flange
1 = shaft with key
2 = involute to DIN 5480
3 = system output
4 = other
5 = Shaft mounted (SP⁺)^{a)}

Clamping hub bore hole diameter
(see technical data sheets and clamping hub diameter table)

Backlash
1 = Standard
0 = Reduced
(see technical data sheets)

Installation on motor side
S = Push-on sleeve
K = Coupling

X = Special model

Ratios
See technical data sheets.

Output shape
0 = smooth shaft/flange (no hollow shaft)
1 = shaft with key
2 = involute to DIN 5480
3 = system output
4 = other
5 = Hollow shaft interface / Flanged hollow shaft (TK⁺)^{a)}
Shaft mounted (SPK⁺/SPC⁺)^{a)}
6 = 2 hollow shaft interfaces (HG⁺)^{a)}
(see technical data sheets)

Clamping hub bore hole diameter
(see technical data sheets and clamping hub diameter table)

Backlash
1 = Standard
0 = Reduced
(see technical data sheets)

Installation on motor side
S = Push-on sleeve
K = Coupling

X = Special model

Ratios
See technical data sheets.

Output shape
0 = Smooth shaft/flange
1 = Shaft with key

Clamping hub bore hole diameter
(see technical data sheets and clamping hub diameter table)

Backlash
1 = Standard
(see technical data sheets)

Installation on motor side
S = Push-on sleeve
K = Coupling

Output shape
0 = Smooth shaft (for LP⁺ only)
1 = Shaft with key
LPBK⁺
1 = Centering on output side

Clamping hub bore hole diameter
1 = Standard
(see technical data sheets)

Backlash
1 = Standard

X = Special model

Ratios
4 (not for economy sizes 050 and 063)
7
10
16
28
40

Output shape
0 = smooth shaft/flange
1 = shaft with key
2 = involute to DIN 5480 (VDS⁺)
4 = other (see technical data sheets)
8 = Dual-shaft output, smooth (VDS⁺, VDSe)
9 = Dual-shaft output with key (VDS⁺, VDSe)

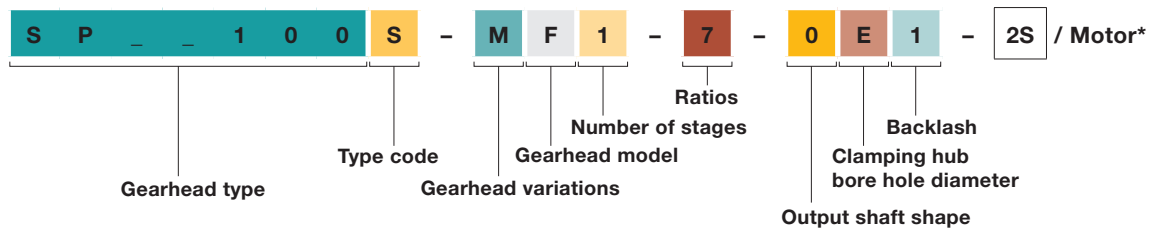
Clamping hub bore hole diameter
2 = 14 mm (040)
3 = 19 mm (040, 050)
4 = 28 mm (063)
5 = 35 mm (080)
7 = 48 mm (100)

Backlash
1 = Standard
0 = Reduced

VDH – number of shrink discs**
0 = no shrink disc
1 = one shrink disc
2 = two shrink discs

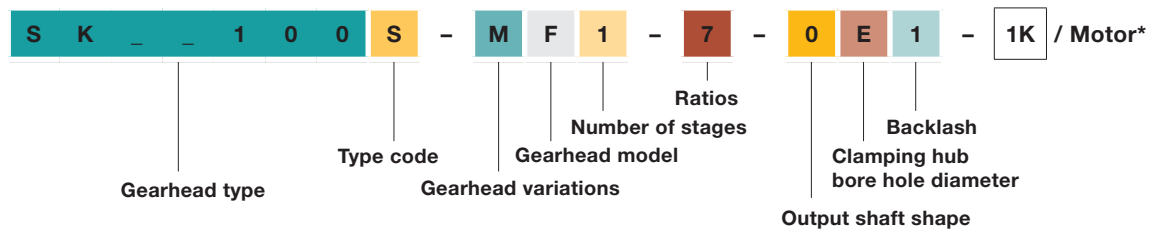
X = Special model

TP+/SP+



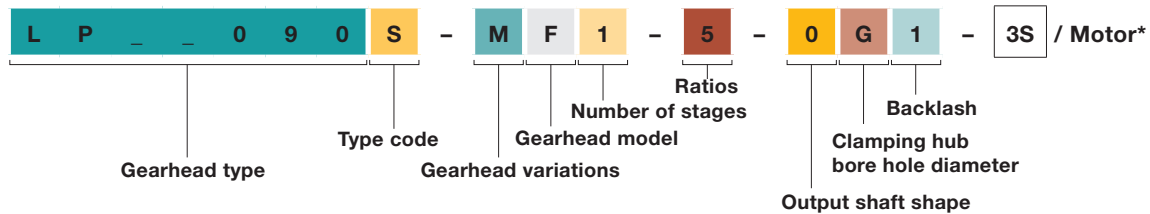
* Full motor designation only required for determining gearhead attached components!

TK+/TPK+/SK+/SPK+/HG+/SC+/SPC+/TPC+

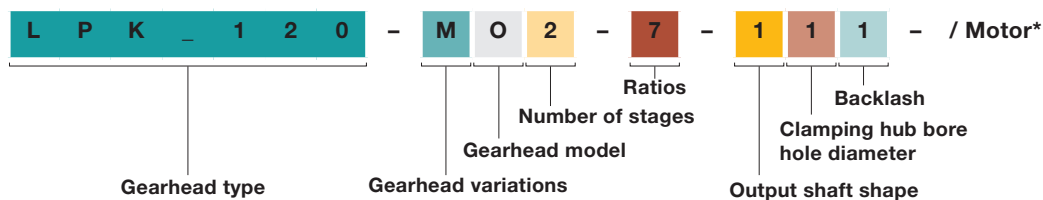


* Full motor designation only required for determining gearhead attached components!

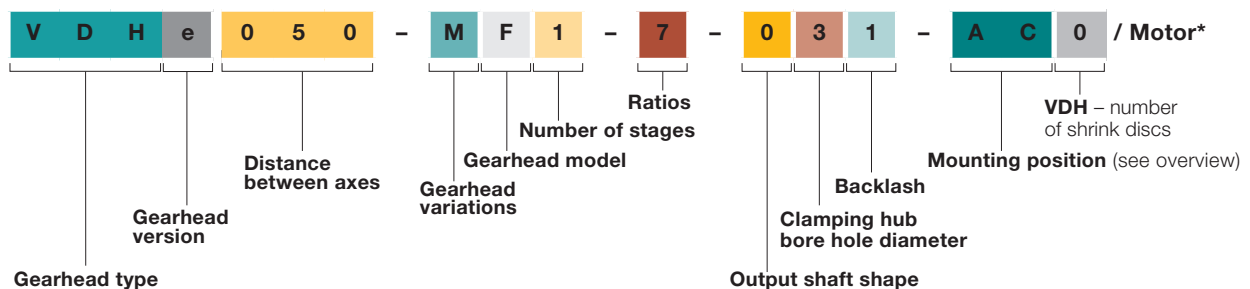
LP+/LPB+ Generation 3



LK+/LPK+/LPBK+/CP (alphira®)



V-Drive

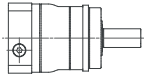


Mounting positions and clamping hub diameters

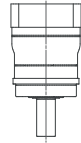
Coaxial gearheads

TP+ 2000/4000: Please contact WITTENSTEIN alpha

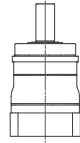
B5 – horizontal



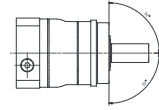
V1 – vertical
Output shaft
downwards



V3 – vertical
Output shaft
upwards



S – can be tilted
 $\pm 90^\circ$ from a horizontal
position



Clamping hub diameter

(the technical data sheet contains all diameters available for TP+, SP+, TK+, TPK+, SK+, SPK+, SC+, SPC+, TPC+, HG+ and LP+ models)

Code letter	mm	Code letter	mm
B	11	I	32
C	14	K	38
D	16	L	42
E	19	M	48
G	24	N	55
H	28	O	60

Intermediate diameters possible in combination with a bushing with a minimum thickness of 1 mm.

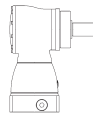
Right-angle gearheads

For information purposes only – not required when placing orders!

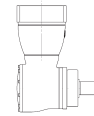
Permitted standard mounting positions for right-angle gearheads (see illustrations)

If the mounting position is different, contact WITTENSTEIN alpha

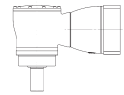
B5/V3
Output shaft, horizontal
Motor shaft upwards



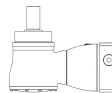
B5/V1
Output shaft, horizontal
Motor shaft downwards



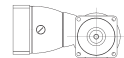
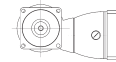
V1/B5
Output shaft, vertical
Motor shaft, horizontal



V3/B5
Output shaft, vertical, upwards
Motor shaft, horizontal



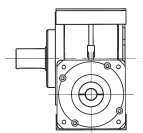
B5/B5
Output shaft, horizontal
Motor shaft, horizontal



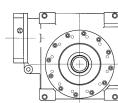
Worm gearheads

Mounting position (only relevant for oil volume)

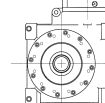
Output side A:
View of motor interface
Only valid for VDS+, VDSe and VDT+



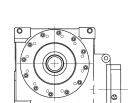
AC



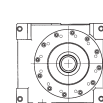
AF



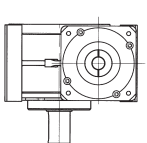
AD



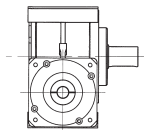
AG



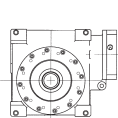
AE



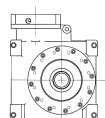
Output side B:
View of motor interface
Only valid for VDS+, VDSe und VDT+



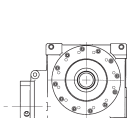
BC



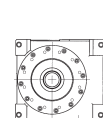
BF



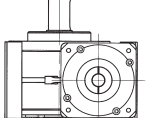
BD



BG



BE



For VDH+, VDHe and VDS+/VDSe with Dual-shaft output, A and B must be replaced with 0 (zero).

Order information

Rack and assembly jig

Rack type

ZST = Rack
ZMT = Assembly jig

Module

200 = 2.00
300 = 3.00
400 = 4.00
500 = 5.00
600 = 6.00

Version

PA5 = Premium Class
HE6 = Performance Class
VB6 = Value Class
PD5 = Assembly jig

Length

100 = Assembly jig (module 2–3)
156 = Assembly jig (module 4–6)
480 = Smart Class (module 2–4)
167/333 = Premium Class (module 2)
250 = Premium Class (module 3)
500 = Premium Class (module 2–6)
1000 = Value Class (module 2–6)

Premium Class⁺ and Value Class pinion

Designation

RMT = Pinion mounted ex works
RMX = Pinion mounted offset 180° (for VC pinions only)

Module

200 = 2.00
300 = 3.00
400 = 4.00
500 = 5.00
600 = 6.00

Version

PC5 = Premium Class
VC6 = Value Class

Number of teeth

(see technical data sheet)

Premium Class RTP and Standard Class RSP pinions

Designation

RSP = Standard Class RSP pinion for SP
Involute output as per DIN 5480
RTP = Premium Class RTP pinion for TP output
RTPA = Premium Class RTP pinion for TP High Torque output

Gearhead size

For SP output:
060, 075, 100, 140, 180, 210, 240
For TP output:
004, 010, 025, 050, 110, 300, 500
(see technical data sheets)

Module

A02 = 2.00
A03 = 3.00
A04 = 4.00
A05 = 5.00
A06 = 6.00

Tolerance class

5e24 = Premium Class RTP/ RTPA
6e25 = Standard Class RSP

Number of teeth

(see technical data sheet)

Torque limiter, bellows coupling and elastomer coupling

Model

Torque limiter
TL1 / TL2 / TL3

Metal bellows coupling
BCT / BCH / BC2 / BC3 / EC2

Elastomer coupling
ELC / EL6

Series

(see technical data sheets)

Length option

A = First length
B = Second length

Elastomer ring option

A = 98 Sh A
B = 64 Sh D
C = 80 Sh A

Torque limiter (TL) function

W = Single position (360°)
D = Multi-position (60°)
G = Load holding
F = Full disengagement

Metal bellows coupling function (BC, EC)

A = Standard
B = incl. self-opening clamp system (EC2)

Elastomer coupling function (EL)

A = Standard

Internal diameter D₁ (drive side)

TL1: D₁ = D₂
BCT: D₁ = Output side

Bore version D₁

0 = Smooth
1 = Key shape A
DIN 6885
2 = Involute DIN 5480
(on request)
3 = Key shape A
ANSI B17.1

Internal diameter D₂ (output side)

TL1: D₁ = D₂
BCT: D₂ = TP* flange hole circle

Bore version D₂

0 = Smooth
1 = Key shape A
DIN 6885
2 = Involute DIN 5480
(on request)
3 = Key shape A
ANSI B17.1
A = Hole circle
BCT HIGH TORQUE

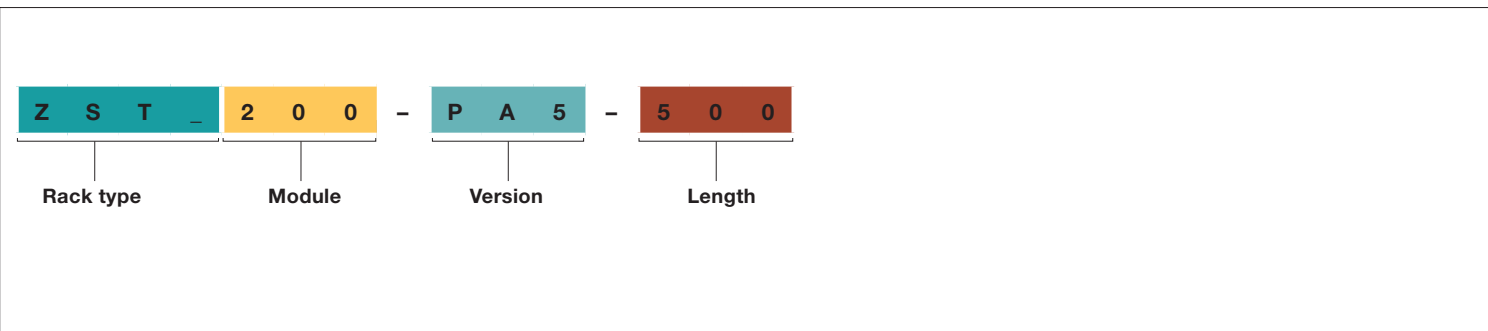
Torque limiter (TL) adjustment range

A = First series
B = Second series
C = Third series
D = Fourth series
(for TL1 only)

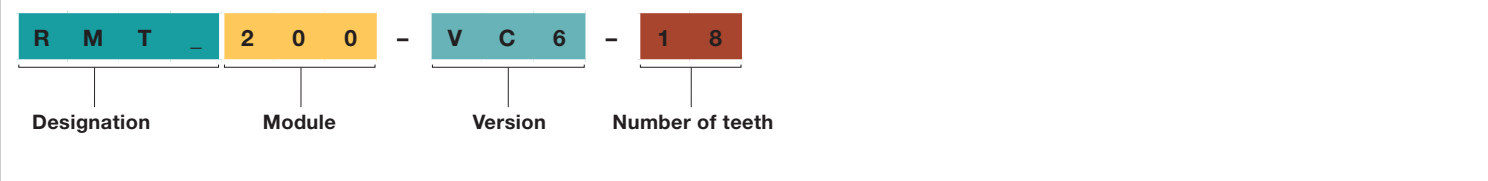
Disengagement torque Torque limiter

T_{Dis} [Nm]
(see technical data sheets for torque limiter)

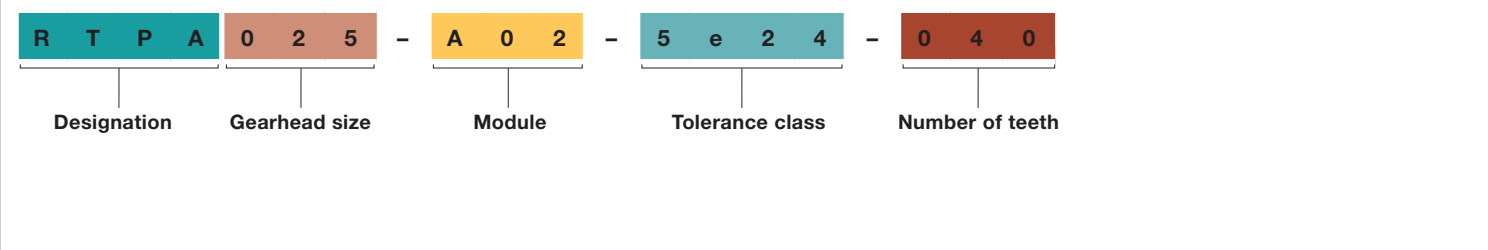
Order codes



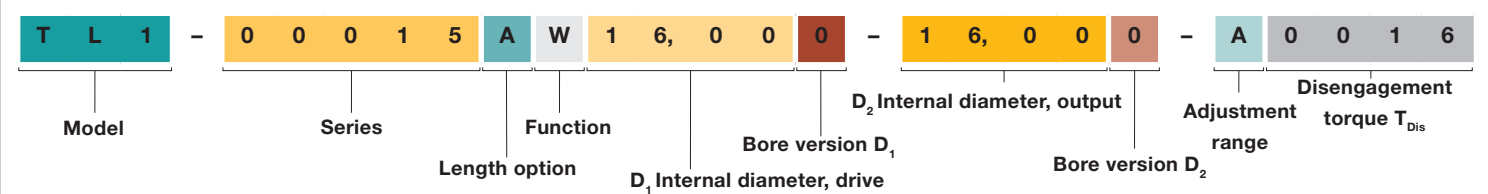
Premium Class⁺ and Value Class pinion



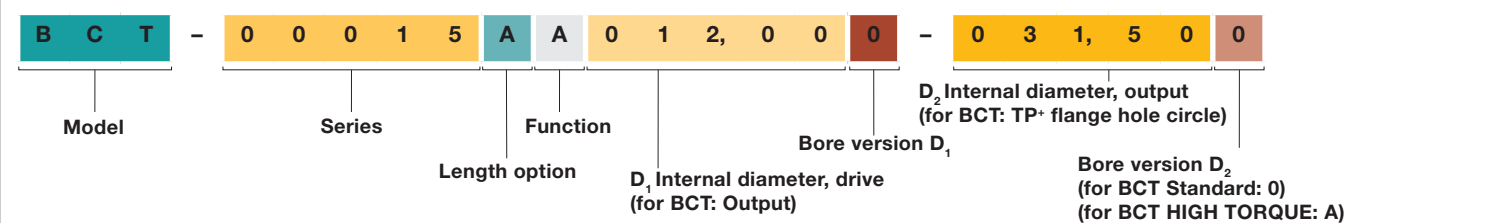
Premium Class RTP and Standard Class RSP pinions



Torque limiter



Bellows coupling



Elastomer coupling

