



3 Overview of types and type designations

3.1 Variants and gear unit options

Below an overview of type designations for R, F, K, S, and W gear units and their options.

3.1.1 Helical gear units

Designation	
RX..	Single-stage foot-mounted
RXF..	Single-stage B5 flange-mounted
R..	Foot-mounted
R..F	Foot-mounted and B5 flange-mounted
RF..	B5 flange-mounted
RZ..	B14 flange-mounted
RM..	B5 flange-mounted with extended bearing hub

3.1.2 Parallel-shaft helical gear units

Designation	
F..	Foot-mounted
FA..B	Foot-mounted and hollow shaft
FH..B	Foot-mounted and hollow shaft with shrink disk
FV..B	Foot-mounted and hollow shaft with splined hollow shaft to DIN 5480
FF..	B5 flange-mounted
FAF..	B5 flange-mounted and hollow shaft
FHF..	B5 flange-mounted and hollow shaft with shrink disk
FVF..	B5 flange-mounted and hollow shaft with splined hollow shaft to DIN 5480
FA..	Hollow shaft
FH..	Hollow shaft with shrink disk
FT..	Hollow shaft with TorqLOC® hollow shaft mounting system
FV..	Splined hollow shaft according DIN 5480
FAZ..	B14 flange-mounted and hollow shaft
FHZ..	B14 flange-mounted and hollow shaft with shrink disk
FVZ..	B14 flange-mounted and hollow shaft with splined hollow shaft to DIN 5480



3.1.3 Helical-bevel gear units

Designation	
K..	Foot-mounted
KA..B	Foot-mounted and hollow shaft
KAF.B	Foot-mounted, B5 flange, hollow shaft
KF..B	Foot-mounted, B5 flange
KH..B	Foot-mounted and hollow shaft with shrink disk
KHF.B	Foot-mounted, B5 flange, hollow shaft with shrink disk
KV..B	Foot-mounted and hollow shaft with splined hollow shaft to DIN 5480
KF..	B5 flange-mounted
KAF..	B5 flange-mounted and hollow shaft
KHF..	B5 flange-mounted and hollow shaft with shrink disk
KVF..	B5 flange-mounted and hollow shaft with splined hollow shaft to DIN 5480
KA..	Hollow shaft
KH..	Hollow shaft with shrink disk
KT..	Hollow shaft with TorqLOC® hollow shaft mounting system
KV..	Splined hollow shaft according DIN 5480
KAZ..	B14 flange-mounted and hollow shaft
KHZ..	B14 flange-mounted and hollow shaft with shrink disk
KVZ..	B14 flange-mounted and hollow shaft with splined hollow shaft to DIN 5480

3.1.4 Helical-worm gear units

Designation	
S..	Foot-mounted
SF..	B5 flange-mounted
SAF..	B5 flange-mounted and hollow shaft
SHF..	B5 flange-mounted and hollow shaft with shrink disk
SA..	Hollow shaft
SH..	Hollow shaft with shrink disk
ST..	Hollow shaft with TorqLOC® hollow shaft mounting system
SAZ..	B14 flange-mounted and hollow shaft
SHZ..	B14 flange-mounted and hollow shaft with shrink disk



3.1.5 SPIROPLAN® gear units

Designation	
W..	Foot-mounted
WF..	Flange-mounted
WAF..	Flange-mounted and hollow shaft
WA..	Hollow shaft
WA..B	Foot-mounted and hollow shaft
WH..B	Foot-mounted and hollow shaft with shrink disk
WHF..	Flange-mounted, hollow shaft with shrink disk
WH..	Hollow shaft with shrink disk
WT..	Hollow shaft with TorqLOC® hollow shaft mounting system

3.1.6 Options

R, F and K gear units:

Designation	
/R	Reduced backlash

K, S and W gear units:

Designation	
/T	With torque arm

F gear units

Designation	
/G	With rubber buffer

3.1.7 Condition monitoring

Designation	Option
/DUO	Diagnostic Unit Oil = Oil aging sensor



3.2 Variants and options of the DR. motor series

The type designations of the DR. motor series and its options are listed below.

3.2.1 Designation of the motors

3

Variant	Description
DR.	2-, 4- and 6-pole energy-efficient motors in energy efficiency classes IE1 (DRS), IE2 (DRE) and IE3 (DRP) each
DRL..	4-pole asynchronous servomotors
EDR.	4-pole explosion-proof EDRS and EDRE motors
DRK..	4-pole single-phase motors with running capacitor
DRM..	12-pole torque motors
DR..J ¹⁾	4-pole line start permanent magnet (LSPM) energy-efficient motors in energy efficiency classes IE2 (DRE), IE3 (DRP) and IE4 (DRU)
71 – 315	Sizes: 71 / 80 / 90 / 100 / 112 / 132 / 160 / 180 / 200 / 225 / 250 / 280 / 315
K – L, MC, LC	Lengths: K= very short / S = short / M = medium / L = long MC / LC = Rotors with copper cage
2, 4, 6, 8/2, 8/4, 4/2	Number of poles

1) Detailed information about this motor type is provided in a separate document

3.2.2 Output options

Option	Description
/FI	IEC foot-mounted motor
/FF	IEC flange-mounted motor with bore holes
/FT	IEC flange-mounted motor with threads
/FE	IEC flange-mounted motor with bore and IEC feet
/FY	IEC flange-mounted motor with threads and IEC feet
/FL	General flange-mounted motor (other than IEC)
/FK	General flange-mounted motor (deviating from IEC) with feet
/FG	SEW attached gearmotors as stand-alone motor
/FM	SEW attached gearmotor with IEC feet
/FC	C-face flange-mounted motor, dimensions in inch

3.2.3 Mechanical attachments

Variant	Description
BE..	Spring-loaded brake with specification of size
HR	Manual brake release, automatic disengaging
HF	Manual brake release, lockable



Overview of types and type designations

Variants and options of the DR. motor series

Option	Description
/RS	Backstop
/MSW	MOVI-SWITCH®
/MI	Motor identification module for MOVIMOT®
/MM03 – MM40	MOVIMOT®
/MO	MOVIMOT® option(s)

3.2.4 Temperature sensor / temperature detection

Option	Description
/TF	Temperature sensor (PTC thermistor or PTC resistor)
/TH	Thermostat (bimetallic switch)
/KY	One KTY84 – 130 sensor
/PT	One/three PT100 sensor(s)

3.2.5 Encoders

Option	Description
/ES7S /EG7S /EH7S /EV7S	Mount-on speed sensor with sin/cos interface
/ES7R /EG7R /EH7R	Mount-on speed sensor with TTL (RS-422) interface, V = 9 – 26 V
/EI7C ¹⁾	Mount-on speed sensor with HTL interface
/EI76 /EI72 /EI71	Mount-on speed sensor with HTL interface and 6 / 2 / 1 period(s)
/AS7W /AG7W	Mount-on absolute encoder, RS-485 interface (multi-turn)
/AS7Y /AG7Y /AH7Y	Mount-on absolute encoder, SSI interface (multi-turn)
/ES7A /EG7A	Mount-on adapter for encoders from the SEW portfolio
/XV.A	Mount-on adapter for non-SEW encoders
/XV..	Mounted non-SEW speed sensors

1) Also available in functional safety design indicated by "FS"



3.2.6 Connection options

Option	Description
/IS	Integrated plug connector
/ASE.	HAN 10ES plug connector on terminal box with single locking latch (cage clamp contacts on motor end)
/ASB.	HAN 10ES plug connector on terminal box with double locking latch (cage clamp contacts on motor end)
/ACE.	HAN 10E plug connector on terminal box with single locking latch (crimp contacts on motor end)
/ACB.	HAN 10E plug connector on terminal box with double locking latch (crimp contacts on motor end)
/AME. /ABE. /ADE. /AKE.	HAN Modular 10B plug connector on terminal box with single locking latch (crimp contacts on motor end)
/AMB. /ABB. /ADB. /AKB.	HAN Modular 10B plug connector on terminal box with double locking latch (crimp contacts on motor end)
/KCC	6- or 10-pole terminal strip with cage clamp contacts (for DR.71 – DR.132, depending on the variant)
/KC1	C1-profile-compliant connection of the electric monorail system drive (VDI guideline 3643) (for DR71, 80). Alternatively for DR.90 – 132 for a more compact connection range
/IV	Other industrial plug connectors according to customer specifications

3.2.7 Ventilation

Option	Description
/V	Forced cooling fan
/VH	Radial fan on fan guard
/Z	Additional inertia (flywheel fan)
/AL	Metal fan
/U	Non-ventilated (without fan)
/OL	Non-ventilated (closed B side)
/C	Canopy for the fan guard
/LF	Air filter
/LN	Low-noise fan guard (for DR.71 – 132)

3.2.8 Storage

Option	Description
/NS	Relubrication device (only for DR.250, 280, 315)
/ERF	Reinforced bearing A-side with rolling bearing (only for DR.250, 280, 315)
/NIB	Insulated bearing B-side (only for DR.250, 280, 315)



Overview of types and type designations

Variants and options of the DR. motor series

3.2.9 Condition monitoring

Option	Description
/DUB	Diagnostic unit brake = brake monitoring

3.2.10 Explosion-proof motors

Option	Description
/2GD	Motors according to 94/9/EC, category 2 (gas / dust)
/2G	Motors according to 94/9/EC, category 2 (gas)
/3GD	Motors according to 94/9/EC, category 3 (gas / dust)
/3D	Motors according to 94/9/EC, category 3 (dust)
/VE	Forced cooling fan for motors according to 94/9/EC, category 3 (gas / dust)

For detailed information about explosion-proof motors of the EDR.. series, refer to the "Explosion-Proof AC Motors" catalog.

3.2.11 Other options

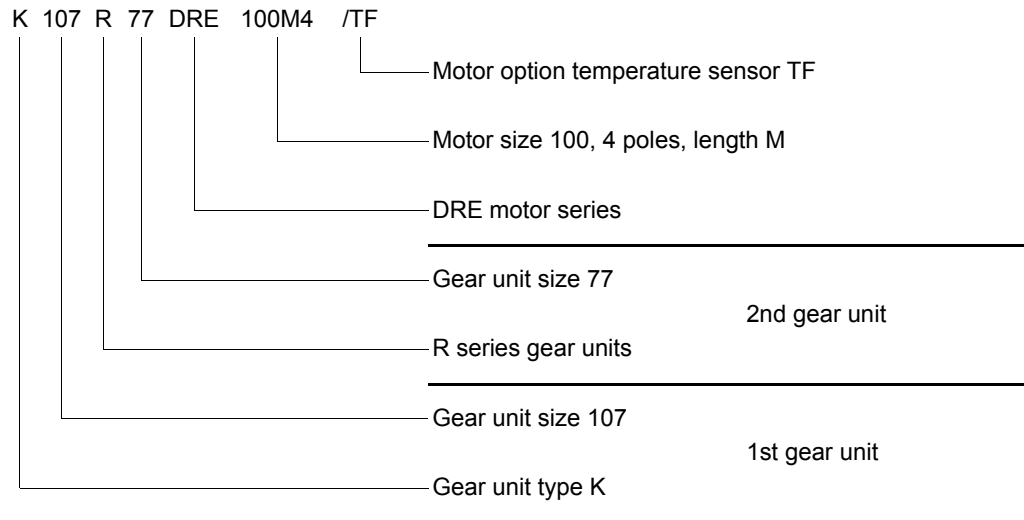
Option	Description
/DH	Condensation drain hole
/RI	Reinforced winding insulation
/RI2	Reinforced winding insulation with increased resistance against partial discharge
/2W	Second shaft end on the motor / brakemotor



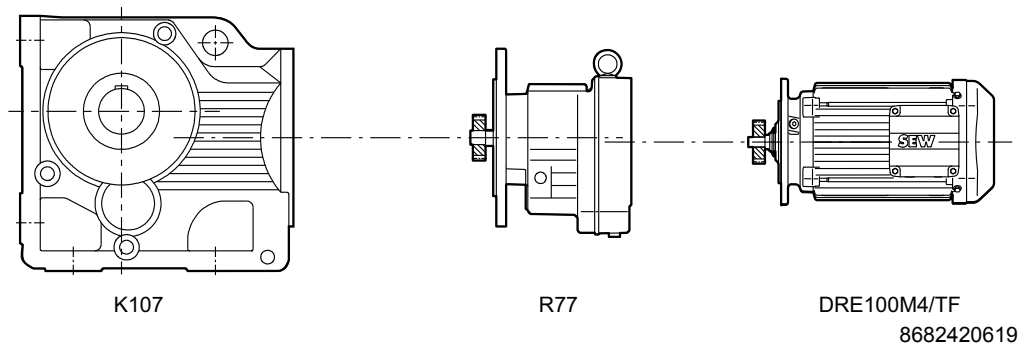
3.3 Example of the type designation of a DR. gearmotor

The type designation of the gearmotor starts from the component on the output end.

For instance, a multi-stage helical-bevel gearmotor with temperature sensor in the motor winding has the following type designation:



Example: DR gearmotor



Other examples:

- **RF 97 /R DRP100L4 BE2 HR**
 - Gear unit type: Reduced backlash (/R) helical gear unit in flange-mounted design
 - Gear unit size: 97
 - DRP motor series
 - Motor size 100L, 4 poles
 - Motor options: BE2 brake with self-reengaging manual brake release (HR)
- **FAF 47 /R DRS90L4 BE2 /C**
 - Gear unit type: Reduced backlash (/R) parallel-shaft helical gear unit, B5 flange, hollow shaft
 - Gear unit size: 47
 - DRS motor series
 - Motor size 90L, 4 poles
 - Motor options: BE2 brake and protection canopy for the fan guard (/C)



3.4 Gearmotor types

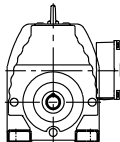
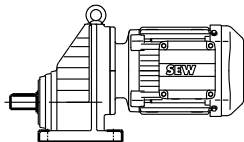


INFORMATION

The types described in this chapter refer to DR. gearmotors from SEW-EURODRIVE. They also apply to gear units without motors.

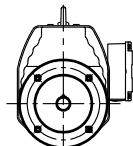
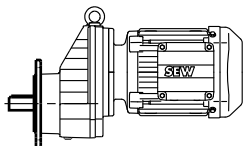
3.4.1 Helical gearmotors

The following types of helical gearmotors are available:



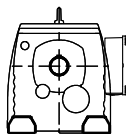
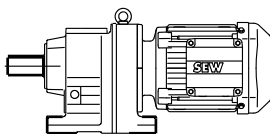
RX..DR..

Single-stage, foot-mounted helical gearmotor



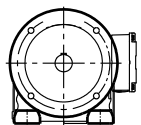
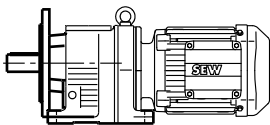
RXF..DR..

Single-stage, B5 flange-mounted helical gearmotor



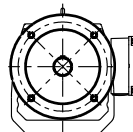
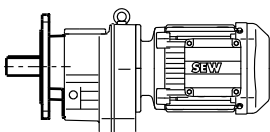
R..DR..

Foot-mounted helical gearmotor



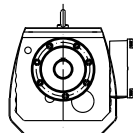
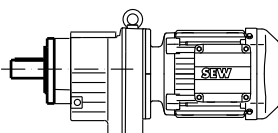
R..F DR..

Foot and B5 flange-mounted helical gearmotor



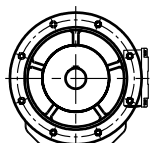
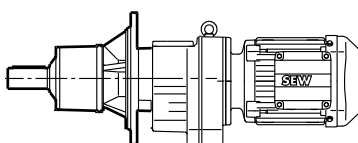
RF..DR..

B5 flange-mounted helical gearmotor



RZ..DR..

B14 flange-mounted helical gearmotor



RM..DR..

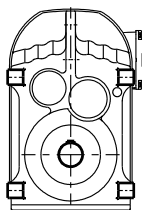
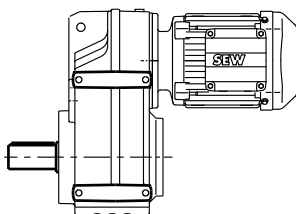
B5 flange-mounted helical gearmotor with extended bearing hub

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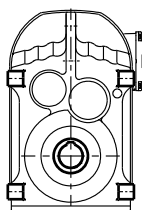
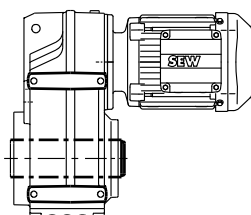
3.4.2 Parallel-shaft helical gearmotors

The following types of parallel-shaft helical gearmotors are available:



F..DR..

Foot-mounted parallel-shaft helical gearmotor

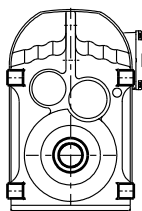
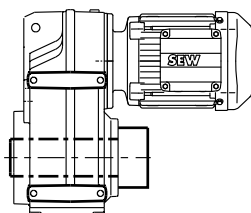


FA..B DR..

Foot-mounted parallel-shaft helical gearmotor with hollow shaft

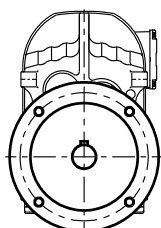
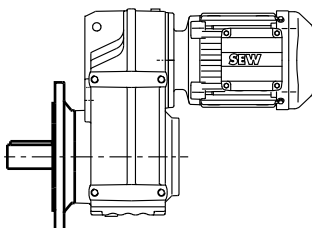
FV..B DR..

Foot-mounted parallel-shaft helical gearmotor with hollow shaft and splining to DIN 5480



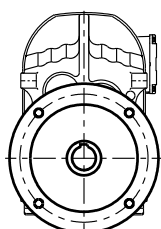
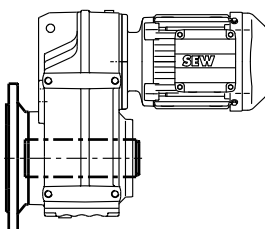
FH..B DR..

Foot-mounted parallel-shaft helical gearmotor with hollow shaft and shrink disk



FF..DR..

B5 flange-mounted parallel-shaft helical gearmotor



FAF..DR..

B5 flange-mounted parallel-shaft helical gearmotor with hollow shaft

FVF..DR..

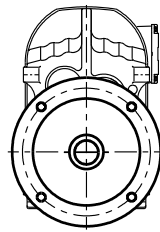
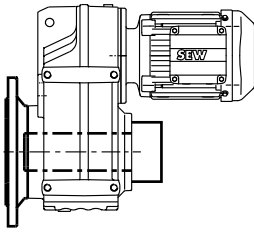
B5 flange-mounted parallel-shaft helical gearmotor with hollow shaft and splining to DIN 5480

9007204233269515



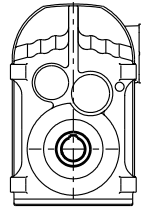
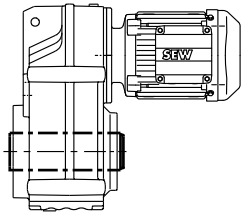
Overview of types and type designations

Gearmotor types



FHF..DR..

B5 flange-mounted parallel-shaft helical gearmotor with hollow shaft and shrink disk

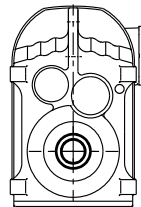
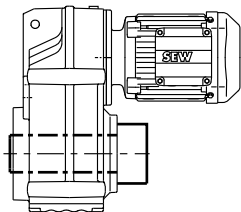


FA..DR..

Parallel-shaft helical gearmotor with hollow shaft

FV..DR..

Parallel-shaft helical gearmotor with hollow shaft and splining to DIN 5480

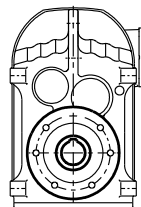
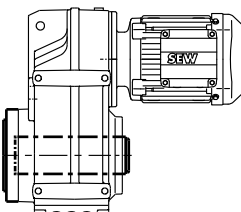


FH..DR..

Parallel-shaft helical gearmotor with hollow shaft and shrink disk

FT..DR..

Parallel-shaft helical gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system

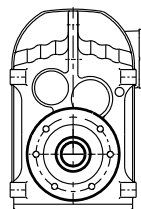
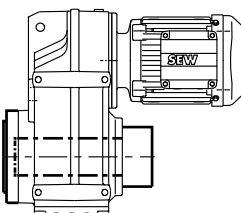


FAZ..DR..

B14 flange-mounted parallel-shaft helical gearmotor with hollow shaft

FVZ..DR..

B14 flange-mounted parallel-shaft helical gearmotor with hollow shaft and splining to DIN 5480



FHZ..DR..

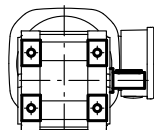
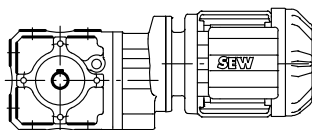
B14 flange-mounted parallel-shaft helical gearmotor with hollow shaft and shrink disk

9007204233271179



3.4.3 Helical-bevel gearmotors, gear unit sizes K..9

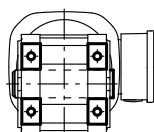
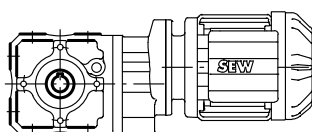
The following types of helical-bevel gearmotors with gear units of size K..9 are available:



K.9DR..

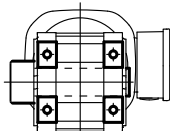
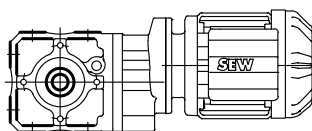
Foot-mounted helical-bevel gearmotor

3



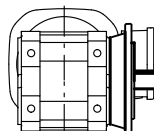
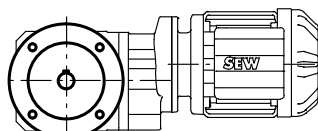
KA.9B..DR..

Foot-mounted helical-bevel gearmotor with hollow shaft



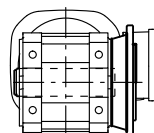
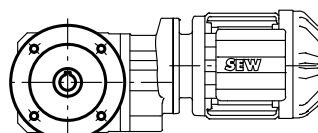
KH.9B..DR..

Foot-mounted helical-bevel gearmotor with hollow shaft and shrink disk



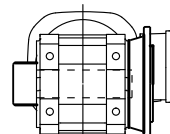
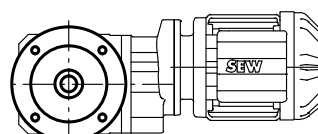
KF.9B..DR..

Foot-mounted helical-bevel gearmotor with B5 flange



KAF.9B..DR..

Foot-mounted helical-bevel gearmotor with B5 flange and hollow shaft



KHF.9B..DR..

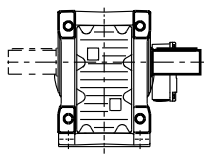
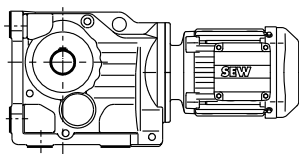
Foot-mounted helical-bevel gearmotor with B5 flange, hollow shaft and shrink disk

8986538507



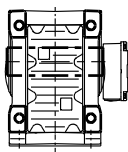
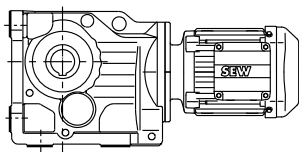
3.4.4 Helical-bevel gearmotors, gear unit sizes K..7

The following types of helical-bevel gearmotors with gear units of size K..7 are available:



K..7..DR..

Foot-mounted helical-bevel gearmotor

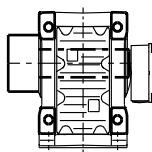
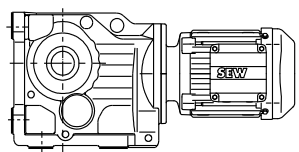


KA..7B..DR..

Foot-mounted helical-bevel gearmotor with hollow shaft

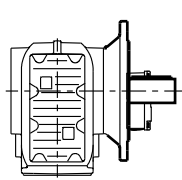
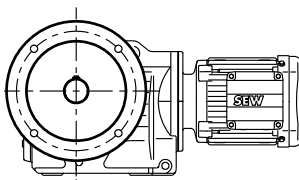
KV..7B..DR..

Foot-mounted helical-bevel gearmotor with hollow shaft and splining to DIN 5480



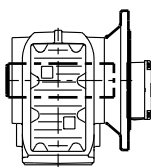
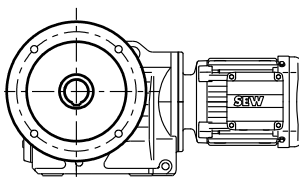
KH..7B..DR..

Foot-mounted helical-bevel gearmotor with hollow shaft and shrink disk



KF..7..DR..

B5 flange-mounted helical-bevel gearmotor



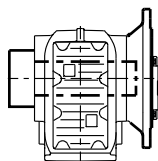
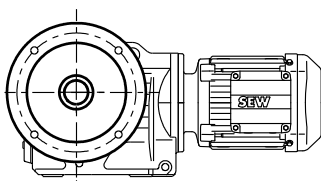
KAF..7..DR..

B5 flange-mounted helical-bevel gearmotor with hollow shaft

KVF..7..DR..

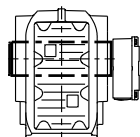
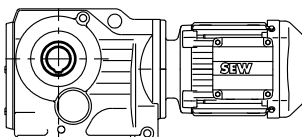
B5 flange-mounted helical-bevel gearmotor with hollow shaft and splining to DIN 5480

9007204233281035



KHF..7..DR..

B5 flange-mounted helical-bevel gearmotor with hollow shaft and shrink disk

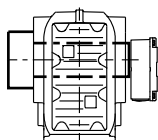
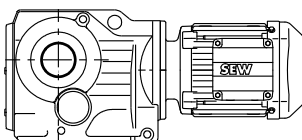


KA..7..DR..

Helical-bevel gearmotor with hollow shaft

KV..7..DR..

Helical-bevel gearmotor with hollow shaft and splining to DIN 5480

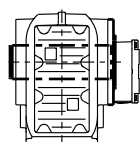
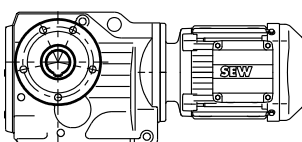


KH..7..DR..

Helical-bevel gearmotor with hollow shaft and shrink disk

KT..7..DR..

Helical-bevel gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system

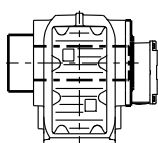
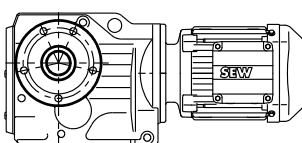


KAZ..7..DR..

B14 flange-mounted helical-bevel gearmotor with hollow shaft

KVZ..7..DR..

B14 flange-mounted helical-bevel gearmotor with hollow shaft and splining to DIN 5480



KHZ..7..DR..

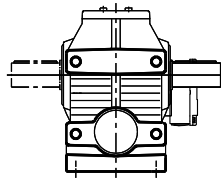
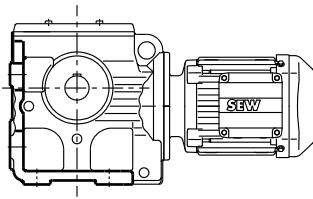
B14 flange-mounted helical-bevel gearmotor with hollow shaft and shrink disk

9007204233282699



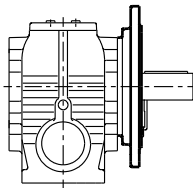
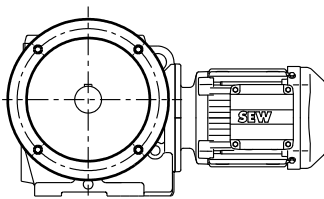
3.4.5 Helical-worm gearmotors

The following types of helical-worm gearmotors are available:



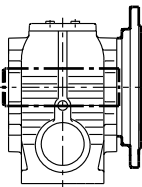
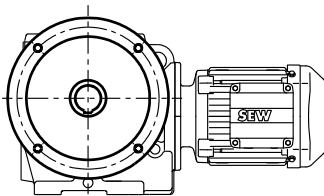
S..DR..

Foot-mounted helical-worm gearmotor



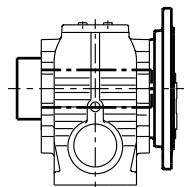
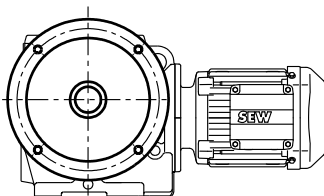
SF..DR..

B5 flange-mounted helical-worm gearmotor



SAF..DR..

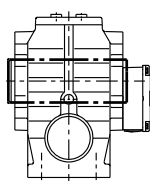
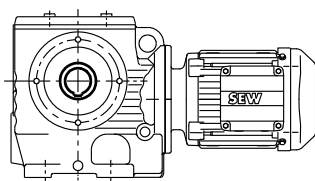
B5 flange-mounted helical-worm gearmotor with hollow shaft



SHF..DR..

B5 flange-mounted helical-worm gearmotor with hollow shaft and shrink disk

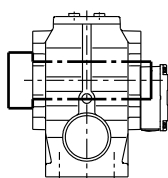
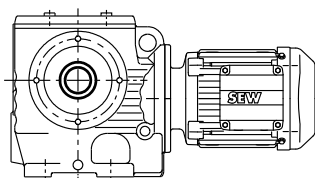
4978544395



SA..DR..

Helical-worm gearmotor with hollow shaft

3

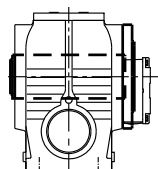
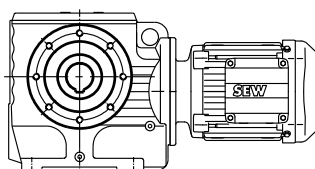


SH..DR..

Helical-worm gearmotor with hollow shaft and shrink disk

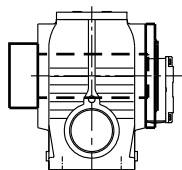
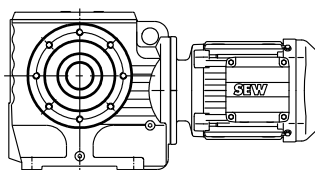
ST..DR..

Helical-worm gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system



SAZ..DR..

B14 flange-mounted helical-worm gearmotor with hollow shaft



SHZ..DR..

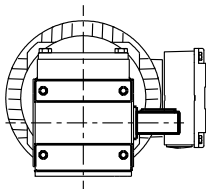
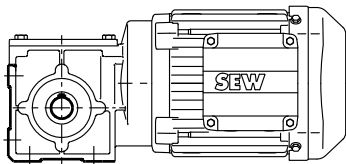
B14 flange-mounted helical-worm gearmotor with hollow shaft and shrink disk

4978546059

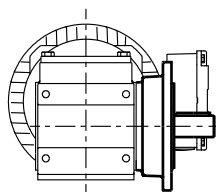
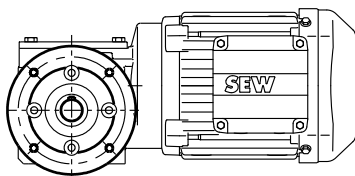


3.4.6 SPIROPLAN® gearmotors, gear unit sizes W..10, W..20, W..30

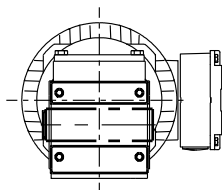
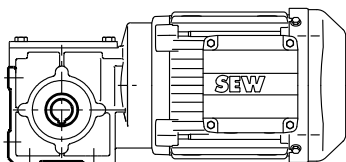
The following types of SPIROPLAN® gearmotor sizes W..10, W..20 and W..30 are available:



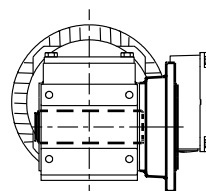
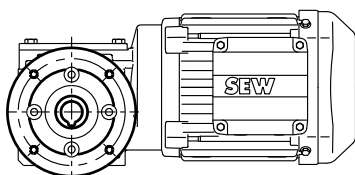
W10..DR., W20..DR., W30..DR.,
Foot-mounted SPIROPLAN® gearmotor



WF10..DR., WF20..DR., WF30..DR..
Flange-mounted SPIROPLAN® gearmotor



WA10..DR., WA20..DR., WA30..DR..
SPIROPLAN® gearmotor with hollow shaft



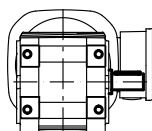
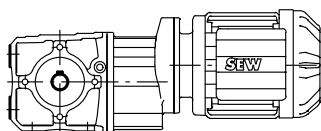
WAF10..DR., WAF20..DR., WAF30..DR..
Flange-mounted SPIROPLAN® gearmotor with hollow shaft

4978548747



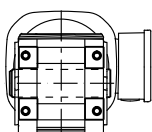
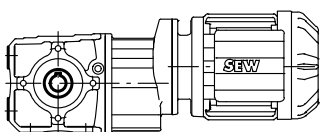
3.4.7 SPIROPLAN® gearmotors, gear unit sizes W..37 and W..47

The following types of SPIROPLAN® gearmotor sizes W..37 and W..47 are available:

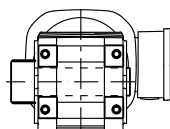
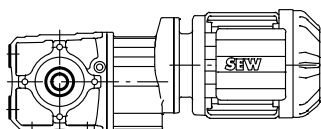


W37..DR., W47..DR..
Foot-mounted SPIROPLAN® gearmotor

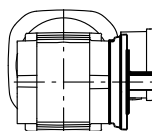
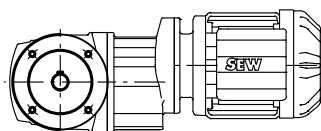
3



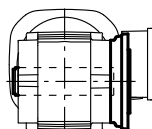
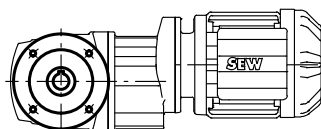
WA37..B DR., WA47..B DR..
Foot-mounted SPIROPLAN® gearmotor with hollow shaft



WH37..B DR., WH47..B DR..
Foot-mounted SPIROPLAN® gearmotor with hollow shaft and shrink disk



WF37..DR., WF47..DR..
B5 flange-mounted SPIROPLAN® gearmotor



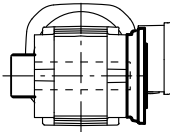
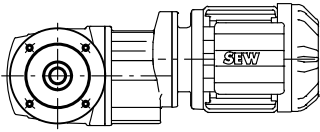
WAF37..DR., WAF47..DR..
B5 flange-mounted SPIROPLAN® gearmotor with hollow shaft

8990511371



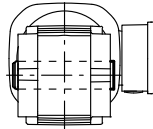
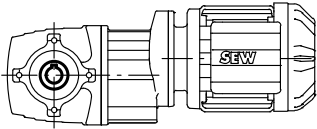
Overview of types and type designations

Gearmotor types



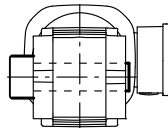
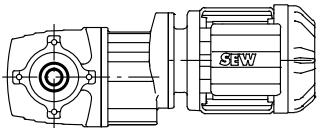
WHF37..DR.., WHF47..DR..

B5 flange-mounted SPIROPLAN® gearmotor with hollow shaft and shrink disk



WA37..DR.., WA47..DR..

SPIROPLAN® gearmotor with hollow shaft



WH37..DR.., WH47..DR..

SPIROPLAN® gearmotor with hollow shaft and shrink disk

WT37..DR.., WT47..DR..

SPIROPLAN® gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system

8990524043