2 Product Description and Overview of Types

Variable speed gearmotors

VARIBLOC® and VARIMOT® variable speed gearmotors are simple and robust drives used for infinitely variable mechanical speed control in a setting range from 1:3 to 1:8. They can be combined with SEW AC motors and reduction gear units to produce variable speed drives with a low output speed and high output torque.

Application areas

Variable speed gearmotors are low-cost drives with speed and torque values that can be individually adapted by mounting helical, parallel shaft helical, helical-bevel and helical-worm gear units. They are used in simple materials handling and process engineering applications such as in the chemicals industry, the construction materials industry and in foodstuffs and luxury goods production.

The advantages at a glance

- Robust with increased starting torque
- Large permitted overhung loads of the reduction gear units
- Large number of finely spaced gear ratios of the reduction gear unit, depending on size
- Speed can be adjusted either manually or by remote control
- Speed can be selected even when at a standstill (only VARIMOT®)

Explosion-proof variable speed gearmotors

SEW-EURODRIVE also supplies VARIBLOC® and VARIMOT® variable speed gearmotors for use in potentially explosive atmospheres according to directive 94/9/EC (ATEX 100a). Please contact SEW-EURODRIVE if required.
2.1 VARIBLOC® variable speed gearmotor

SEW VARIBLOC® variable speed gearmotors are low-maintenance wide V-belt variable speed units with flange-mounted AC motors.

They are used for infinitely variable speed control. They are adjusted using a constrained adjustable variable pulley and a spring-loaded variable pulley. The transmission element is a double-toothed, raw-edged wide V-belt according to DIN 7719.

The speed can be adjusted mechanically, e.g. with a handwheel, or electromechanically using a variable motor.

The setting range (1:3 to 1:8) can be extended further by mounting pole-changing motors. VARIBLOC® variable speed gear units are not allowed to be operated with 2-pole motors or at 2-pole speed.

The power flow is U-shaped (type VU) or Z-shaped (type VZ). This means the drives can easily be adapted to different machine designs. The units can easily be converted from one configuration to the other by swapping over the output flange and bearing cover of the VARIBLOC®.
2.2 VARIMOT® variable speed gearmotor

SEW VARIMOT® variable speed gearmotors (type D) are maintenance-free friction disc gear units with flange-mounted AC motors with or without a brake.

They are used for infinitely variable speed control. The power flow is from the motor via the cone pulley on a shaft, and onto a friction ring to the output shaft. The contact pressure between the driving pulley and the friction ring required for torque transmission is established automatically depending on the torque.

The speed can be adjusted mechanically, e.g. with a handwheel, or electromechanically using a variable motor.

The setting range (1:4 to 1:5) can be extended further by mounting pole-changing motors.
2.3 General information

**Power output and torque**

The details on power and torque given in the catalog refer to mounting position M1 and similar mounting positions, where the input gear stage does not completely run under oil. In addition, the gearmotors are assumed to be standard versions with standard lubrication and under normal ambient conditions.

Please note that the motor power shown in the gearmotor tables is subject to selection. However, the output torque at the required output speed are essential for the application.

**Speeds**

The quoted output speeds of the variable speed gearmotors with reduction gear unit on the output end are recommended values. You can calculate the rated output speed from the output speed of the control unit and the gear unit reduction ratio. Please note that the actual output speed depends on the motor load and the supply system conditions.

**Noise levels**

The noise levels of all variable speed gearmotors are well within the maximum permissible noise levels set forth in the VDI guideline 2159 for gear units and EN 60034 for motors.

**Coating**

The variable speed gearmotors are painted with "blue gray" machine paint RAL 7031 as per DIN 1843 as standard. Special coatings are available on request.

**Surface protection**

If required, all variable speed gearmotors can also be supplied with special surface protection (OS1/2/3) for applications in extremely humid and chemically aggressive environments. The following table gives an overview of possible protection types.

<table>
<thead>
<tr>
<th></th>
<th>Standard</th>
<th>OS1</th>
<th>OS2</th>
<th>OS3</th>
<th>Z</th>
</tr>
</thead>
</table>
| **Description**             |               |                  |                  |                  | Before coating:
|                             | – 1 x dip primer | – 1 x dip primer | – 1 x dip primer | – 1 x dip primer | Surface recesses are sprayed with a rubber filling |
|                             | – 1 x one-pack topcoat | – 1 x two-pack base coat | – 1 x two-pack base coat | – 1 x two-pack base coat |                           |
|                             | – 1 x two-pack varnish | – 2 x two-pack base coat | – 1 x two-pack varnish | – 2 x two-pack varnish |                           |
| **Standard coat thickness** |               |                  |                  |                  | ca. 50 -70 µm ca. 120 -150 µm ca. 170 -210 µm ca. 220 -270 µm |
| **Application**             |               |                  |                  |                  |                         |
|                             | – Normal ambient conditions | – Low environmental pollution | – Medium environmental pollution | – High environmental pollution | Special procedure in addition to OS1/2/3 to avoid corrosion of surface recesses of units installed in particularly harsh environments. |
|                             | – Relative humidity below 90 % | – Relative humidity max. 95 % | – Relative humidity up to 100 % | – Relative humidity up to 100 % |                         |
|                             | – Surface temperature up to 120 °C | – Surface temperature up to 120 °C | – Surface temperature up to 120 °C | – Surface temperature up to 120 °C |                         |
|                             | – Corrosivity category C1 1) | – Corrosivity category C2 1) | – Corrosivity category C3 1) | – Corrosivity category C4 1) |                         |

1) according to DIN EN ISO 12 944-2
Corrosion protection

In addition to the standard type, SEW offers the following corrosion protection solutions for VARIBLOC® and VARIMOT® variable speed gear units:

- All unmachined internal surfaces have a special coating
- Corrosion protection for variable pulleys in VARIBLOC®
- Hard chromium plated driving pulley in VARIMOT®
- Fastening parts made from non-rusting material

The dimensions of the terminal box on motors with additional internal corrosion protection (feature KS) differ slightly from those of the standard type. Please request a special dimension sheet if required.

Weights angaben

Please note that all weights shown in the catalog exclude the oil fill for the variable speed gearmotors. The weight varies according to gear unit design and gear unit size. The lubricant fill is dependent on the mounting position, and consequently it is impossible to make any generally valid statements.

Please refer to "Lubricants" in the "Design and Operating Notes" section for recommended lubricant fill quantities depending on the mounting position. The exact weight is given in the order confirmation.

Air admission and accessibility

The variable speed gearmotors must be mounted on the driven machine in such a way that both axially and radially there is enough space left for unimpeded air admission and for the purposes of maintenance of the brake and, if necessary, for service work on the variable speed gear unit. Please also refer to the notes on the motor dimension sheets in this regard.

2.4 Variable speed gearmotor versions

R, F, K, S gearmotors

The following table shows available types of helical (R), parallel shaft helical (F), helical-bevel (K) and helical-worm (S) variable speed gearmotors.

<table>
<thead>
<tr>
<th>Version</th>
<th>Helical (R)</th>
<th>Parallel shaft (F)</th>
<th>Helical-bevel (K)</th>
<th>Worm (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foot-mounted</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>B5 flange</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Foot-mounted/B5 flange</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Hollow shaft with keyway</td>
<td>–</td>
<td>•</td>
<td>•</td>
<td>–</td>
</tr>
<tr>
<td>Hollow shaft with shrink disc</td>
<td>–</td>
<td>•</td>
<td>•</td>
<td>–</td>
</tr>
<tr>
<td>Splined hollow shaft</td>
<td>–</td>
<td>•</td>
<td>•</td>
<td>–</td>
</tr>
<tr>
<td>Hollow shaft with keyway + foot-mounted</td>
<td>–</td>
<td>•</td>
<td>•</td>
<td>–</td>
</tr>
<tr>
<td>Hollow shaft with shrink disc + foot-mounted</td>
<td>–</td>
<td>•</td>
<td>•</td>
<td>–</td>
</tr>
<tr>
<td>Splined hollow shaft + foot-mounted</td>
<td>–</td>
<td>•</td>
<td>•</td>
<td>–</td>
</tr>
<tr>
<td>Hollow shaft with keyway + B5 flange</td>
<td>–</td>
<td>•</td>
<td>•</td>
<td>–</td>
</tr>
<tr>
<td>Hollow shaft with shrink disc + B5 flange</td>
<td>–</td>
<td>•</td>
<td>•</td>
<td>–</td>
</tr>
<tr>
<td>Splined hollow shaft + B5 flange</td>
<td>–</td>
<td>•</td>
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<td>–</td>
</tr>
<tr>
<td>Hollow shaft with keyway + B14 flange</td>
<td>–</td>
<td>•</td>
<td>•</td>
<td>–</td>
</tr>
<tr>
<td>Hollow shaft with shrink disc + B14 flange</td>
<td>–</td>
<td>•</td>
<td>•</td>
<td>–</td>
</tr>
<tr>
<td>Splined hollow shaft + B14 flange</td>
<td>–</td>
<td>•</td>
<td>•</td>
<td>–</td>
</tr>
</tbody>
</table>

- Available as standard version
- Not available

1) Helical-bevel and helical-worm variable speed gearmotors are also available with an additional torque arm
2) Only with R27 - R87 gearmotors
Variable speed gearmotor versions

3) Only with K127 - K157 gearmotors

NOCO® fluid against corrosion protection
As standard, all shaft-mounted gearmotors are supplied with NOCO® fluid, a paste that prevents contact corrosion. Use this paste in accordance with the instructions in the gear unit operating instructions. It facilitates service and stripping down jobs.

RM gearmotors
RM variable speed gearmotors are a special type of helical variable speed gearmotor with an extended output bearing hub. They are specifically designed for agitating applications and can be used in applications subject to high overhung and axial loads as well as flexural torque. The remaining data correspond to the standard helical variable speed gearmotors (→ Sec. "RM gear units").

Multi-stage gearmotors
You can achieve particularly low output speeds by using multi-stage variable speed gearmotors with a multi-stage reduction gear unit. Such a step requires a helical gear unit as a second gear unit.

Brake motors
On request, SEW motors and gearmotors can be supplied with an integrated mechanical brake. The SEW brake is an electromagnetic disc brake with a DC coil that releases electrically and brakes using spring force. The brake can also be released mechanically if equipped with manual brake release. For this purpose, either a hand lever or a setscrew is supplied with the brake. The hand lever springs back automatically and the setscrew is lockable.

A significant feature of the brake is its very short length. The brake bearing end shield is a part of both the motor and the brake. The integrated construction of the brake motor permits particularly compact and sturdy solutions.

International markets
SEW-EURODRIVE is a member of the AGMA (American Gear Manufacturer’s Association), and, as such, all its gear units and gearmotors conform to AGMA specifications.

We supply motors for connection conditions according to CSA and NEMA standards on request (registered with UL).

For the Japanese market, we offer motors conforming to JIS standards. Contact your sales representative to assist you in such cases.
2.5 Unit designations for variable speed gear units and options

Variable speed gear unit
VU.. VARIBLOC® variable speed gear unit with U-shaped power flow
VZ.. VARIBLOC® variable speed gear unit with Z-shaped power flow
D.. VARIMOT® variable speed gear unit
..B.. .. with corrosion protection

Optional additional features of VARIBLOC® variable speed gear units
/BMG With mounted disc brake
../HF .. with lockable manual brake release
../HR .. with automatic manual brake release
/LVT Adapter with hydraulic centrifugal coupling
/U Non-ventilated
/C With protection canopy (cannot be combined with display units)
/AR..WS Adapter with torque limiting coupling and slip monitoring
/ANTRG.. Input shaft assembly

Adjustment device options
/EF Electromechanical remote speed control
/EFV Electromechanical remote speed control without variable motor
/EFPA Electromechanical remote speed control with remote setting indicator
/EFP Electromechanical remote speed control with potentiometer without remote setting indicator (VARIBLOC® only)
/H Control head with handwheel to DIN 950 (only VARIBLOC®)
/HS Control head with handwheel and setting indicator
/K Front adjustment with chain sprocket to DIN 8180
/NV Control head with exposed shaft-end
/VR Only adjusting ring (without control head, only VARIBLOC®)

Indicator options
/DA Digital remote speed indicator
/FA Analog remote speed indicator, 0 % ...100 % (only VARIBLOC®)
/FD Analog remote speed indicator, special scale (only VARIBLOC®)
/FL Analog remote speed indicator for encoder (only VARIBLOC® VU6 and VARIMOT®)
/GW With AC tachogenerator, without indicator (only VARIBLOC®)
/IG With encoder without indicator unit
/MU With measuring transducer
/TW Richt angle tachometer (only VARIBLOC®)
/TA Axial tachogenerator (only VARIBLOC®)
/TV With tacho mounting device (only VARIBLOC®)
/GV Prepared for encoder mounting
/GUX prepared for encoder mounting (only in explosion-protected areas)
/IGEX with encoder (only in explosion-protected areas)
/WEX with encoder (only in explosion-protected areas) and speed monitor
2.6 Gear unit designations

Helical gear units

- **R**.. Foot-mounted version
- **RF**.. Flange-mounted
- **R.F**.. Foot and flange-mounted
- **RM**.. Flange-mounted with extended output bearing hub
- **RX**.. Single-stage foot-mounted
- **RXF**.. Single-stage flange-mounted
- **R..R**.. Multi-stage gear units

Parallel shaft helical gear units

- **F**.. Foot-mounted
- **FA..B** Foot-mounted with hollow shaft
- **FH..B** Foot-mounted with hollow shaft and shrink disc
- **FV..B** Foot-mounted 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 disc
- **FVF**.. B5 flange-mounted and splined hollow shaft to DIN 5480
- **FA..** Hollow shaft
- **FH..** Hollow shaft with shrink disc
- **FT..** Hollow shaft with TorqLOC® hollow shaft mounting system
- **FV..** Splined hollow shaft to DIN 5480
- **FAZ**.. B14 flange-mounted and hollow shaft
- **FHZ**.. B14 flange-mounted and hollow shaft with shrink disc
- **FVZ**.. B14 flange-mounted and splined hollow shaft to DIN 5480
- **F..R**.. Multi-stage gear units

Helical-bevel gear units

- **K..** Foot-mounted
- **KA..B** Foot-mounted and hollow shaft
- **KH..B** Foot-mounted and hollow shaft with shrink disc
- **KV..B** Foot-mounted and 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 disc
- **KVF..** B5 flange-mounted and splined hollow shaft to DIN 5480
- **KA..** Hollow shaft
- **KH..** Hollow shaft with shrink disc
- **KT..** Hollow shaft with TorqLOC® hollow shaft mounting system
- **KV..** Splined hollow shaft to DIN 5480
- **KAZ..** B14 flange-mounted with hollow shaft
- **KHZ..** B14 flange-mounted with hollow shaft and shrink disc
- **KVZ..** B14 flange-mounted with splined hollow shaft to DIN 5480
- **K..R..** Multi-stage gear units
2.7 Unit designations for AC motors and options

**Helical-worm gear units**
- S. Foot-mounted
- SF. B5 flange-mounted
- SAF. B5 flange-mounted with hollow shaft
- SHF. B5 flange-mounted with hollow shaft and shrink disc
- SA. Foot-mounted and hollow shaft
- SH. Foot-mounted and hollow shaft with shrink disc
- ST. Hollow shaft with TorqLOC® hollow shaft mounting system
- SAF. B5 flange-mounted with hollow shaft
- SHF. B5 flange-mounted with hollow shaft and shrink disc
- SAZ. B14 flange-mounted with hollow shaft
- SHZ. B14 flange-mounted with hollow shaft and shrink disc
- S.R. Multi-stage gear units

**K and S gear unit option**
- /T With torque arm

**F gear unit option**
- /G With rubber buffer

### Standard AC motors, series

**DR., DT., DV.** Attached motor for variable speed gear units

### AC motor options
- /BMG Brake (reduced noise)
- /HF .. with lockable manual brake release
- /HR .. with automatic manual brake release
- /C Protection canopy for the fan guard
- /TF With thermistor sensor
- /TH With thermostat
- /MSW. MOVI-SWITCH® type (integrated circuit breaker and protective function)

### Plug connector on AC motor options
- /IS Integrated plug connector
- /AMA1 HAN modular plug connector on terminal box with two-clamp closure
- /AMD1 HAN modular plug connector on terminal box with one-clamp closure
- /ASA1 HAN 10ES plug connector on terminal box with two-clamp closure
- /ASD1 HAN 10ES plug connector on terminal box with one-clamp closure
2.8 Sample unit designation of a variable speed gearmotor

The unit designation of the variable speed gearmotor starts from the component on the output end. For instance, a VARIBLOC® variable speed gearmotor with a helical-bevel gear unit, brake with self-reengaging manual brake release and electromechanical remote speed control has the following unit designation:

K 87 VZ 31 EF BMG/HR DV132S4

- **Series, size, number of poles**
- **Additional feature, brake on variable speed gear unit**
- **Electromechanical remote speed control**
- **Variable speed gear unit size**
- **Variable speed gear unit series**
- **Gear unit size**
- **Gear unit series**
Example for an explosion-protected version:

```
R 67 / II 2 GD  D26 / WEX / II 3 D  DT90L4 / II 3 D
```

- Ex-atmospheres
- Category 3
- Equipment group II
- Series/size/number of poles/motor
- Ex atmosphere
- Category 3
- Equipment group II
- Speed monitoring
- Variable speed gear unit size
- Ex atmosphere
- Category 2
- Equipment group II
- Gear unit size
- Gear unit series
2.9 Versions

VARIBLOC® variable speed gearmotors with a helical gear unit can be supplied in the following versions (mounting position VU is shown):

- **R..VU/VZ..DR/DT/DV..**
  - VARIBLOC® with foot-mounted helical gear unit

- **RF..VU/VZ..DR/DT/DV..**
  - VARIBLOC® with flange-mounted helical gear unit

- **R..F VU/VZ..DR/DT/DV..**
  - VARIBLOC® with foot/flange-mounted helical gear unit (sizes 27 to 87 only)

- **RM..VU/VZ..DR/DT/DV..**
  - VARIBLOC® with flange-mounted helical gear unit and extended bearing hub

- **RX..VU/VZ..DR/DT/DV..**
  - Single stage variable speed gearmotor with foot-mounted helical gear unit

- **RXF..VU/VZ..DR/DT/DV..**
  - Single stage variable speed gearmotor with flange-mounted helical gear unit
VARIBLOC® variable speed gearmotors with a parallel shaft helical gear unit can be supplied in the following versions:

**F..VU/VZ..DR/DT/DV..**
VARIBLOC® with foot-mounted parallel shaft helical gear unit

**FA..B VU/VZ..DR/DT/DV..**
VARIBLOC® with parallel shaft helical gear unit and hollow shaft
Foot-mounted

**FV..B VU/VZ..DR/DT/DV..**
VARIBLOC® with foot-mounted parallel shaft helical gear unit and splined hollow shaft to DIN 5480

**FH..B VU/VZ..DR/DT/DV..**
VARIBLOC® with foot-mounted parallel shaft helical gear unit and hollow shaft with shrink disc

**FF..VU/VZ..DR/DT/DV..**
VARIBLOC® with B5 flange-mounted parallel shaft helical gear unit

**FAF..VU/VZ..DR/DT/DV..**
VARIBLOC® with parallel shaft helical gear unit and hollow shaft
B5 flange-mounted

**FVF..VU/VZ..DR/DT/DV..**
VARIBLOC® with B5 flange-mounted parallel shaft helical gear unit and splined hollow shaft to DIN 5480
**Versions**

**FHF..VU/VZ..DR/DT/DV..**
VARIBLOC® with B5 flange-mounted parallel shaft helical gear unit and hollow shaft with shrink disc

**FA..VU/VZ..DR/DT/DV..**
VARIBLOC® with parallel shaft helical gear unit and hollow shaft

**FV..VU/VZ..DR/DT/DV..**
VARIBLOC® with parallel shaft helical gear unit and splined hollow shaft to DIN 5480

**FH..VU/VZ..DR/DT/DV..**
VARIBLOC® with parallel shaft helical gear unit and hollow shaft and shrink disc

**FT..VU/VZ..DR/DT/DV..**
VARIBLOC® with parallel shaft helical gear unit and hollow shaft
TorqLOC® hollow shaft mounting system

**FAZ..VU/VZ..DR/DT/DV..**
VARIBLOC® with parallel shaft helical gear unit and hollow shaft
in B14 flange-mounted version

**FVZ..VU/VZ..DR/DT/DV..**
VARIBLOC® with B14 flange-mounted parallel shaft helical gear unit and splined hollow shaft to DIN 5480

**FHZ..VU/VZ..DR/DT/DV..**
VARIBLOC® with B14 flange-mounted parallel shaft helical gear unit and hollow shaft with shrink disc
VARIBLOC® variable speed gearmotors with a helical-bevel gear unit can be supplied in the following versions:

**K..VU/VZ..DR/DT/DV..**
VARIBLOC® with foot-mounted helical-bevel gear unit

**KA..B VU/VZ..DR/DT/DV..**
VARIBLOC® with foot-mounted helical-bevel gear unit and hollow shaft

**KV..B VU/VZ..DR/DT/DV..**
VARIBLOC® with helical-bevel gear unit and splined hollow shaft to DIN 5480 in foot-mounted version

**KH..B VU/VZ..DR/DT/DV..**
VARIBLOC® with foot-mounted helical-bevel gear unit and hollow shaft with shrink disc

**KF..VU/VZ..DR/DT/DV..**
VARIBLOC® with B5 flange-mounted helical-bevel gear unit

**KAF..VU/VZ..DR/DT/DV..**
VARIBLOC® with B5 flange-mounted helical-bevel gear unit and hollow shaft

**KVF..VU/VZ..DR/DT/DV..**
VARIBLOC® with B5 flange-mounted helical-bevel gear unit and splined hollow shaft to DIN 5480
**KHF..VU/VZ..DR/DT/DV..**
VARIBLOC® with B5 flange-mounted helical-bevel gear unit and hollow shaft with shrink disc

**KA..VU/VZ..DR/DT/DV..**
VARIBLOC® with helical-bevel gear unit and hollow shaft

**KV..VU/VZ..DR/DT/DV..**
VARIBLOC® with helical-bevel gear unit and splined hollow shaft to DIN 5480

**KH..VU/VZ..DR/DT/DV..**
VARIBLOC® with helical-bevel gear unit and hollow shaft with shrink disc

**KT..VU/VZ..DR/DT/DV..**
VARIBLOC® with helical-bevel gear unit and hollow shaft and TorqLOC® hollow shaft mounting system

**KAZ..VU/VZ..DR/DT/DV..**
VARIBLOC® with B14 flange-mounted helical-bevel gear unit and hollow shaft

**KVZ..VU/VZ..DR/DT/DV..**
VARIBLOC® with B14 flange-mounted helical-bevel gear unit and splined hollow shaft to DIN 5480

**KHZ..VU/VZ..DR/DT/DV..**
VARIBLOC® with B14 flange-mounted helical-bevel gear unit and hollow shaft with shrink disc
VARIBLOC® variable speed gearmotors with a helical-worm gear unit can be supplied in the following versions:

- **S..VU/VZ..DR/DT/DV..**
  VARIBLOC® with foot-mounted helical-worm gear unit

- **SF..VU/VZ..DR/DT/DV..**
  VARIBLOC® with flange-mounted helical-worm gear unit

- **SAF..VU/VZ..DR/DT/DV..**
  VARIBLOC® with B5 flange-mounted helical-worm gear unit and hollow shaft

- **SHF..VU/VZ..DR/DT/DV..**
  VARIBLOC® with B5 flange-mounted helical-worm gear unit and hollow shaft with shrink disc
SA..VU/VZ..DR/DT/DV..
VARIBLOC® with helical-worm gear unit and hollow shaft

SH..VU/VZ..DR/DT/DV..
VARIBLOC® with helical-worm gear unit and hollow shaft with shrink disc

ST..VU/VZ..DR/DT/DV..
VARIBLOC® with helical-worm gear unit and hollow shaft and TorqLOC® hollow shaft mounting system

SAZ..VU/VZ..DR/DT/DV..
VARIBLOC® with B14 flange-mounted helical-worm gear unit and hollow shaft

SHZ..VU/VZ..DR/DT/DV..
VARIBLOC® with B14 flange-mounted helical-worm gear unit and hollow shaft with shrink disc
VARIMOT® variable speed gearmotors with a helical gear unit can be supplied in the following versions:

- **R..D..DT/DV..**
  - VARIMOT® with foot-mounted helical gear unit

- **RF..D..DT/DV..**
  - VARIMOT® with flange-mounted helical gear unit

- **R..F D..DT/DV..**
  - VARIMOT® with foot/flange-mounted helical gear unit
  (sizes 27 to 87 only)

- **RM..D..DT/DV..**
  - VARIMOT® with flange-mounted helical gear unit and extended bearing hub

- **RX..D..DT/DV..**
  - Single stage variable speed gearmotor with foot-mounted helical gear unit

- **RXF..D..DT/DV..**
  - Single stage variable speed gearmotor with flange-mounted helical gear unit
VARIMOT® variable speed gearmotors with a parallel shaft helical gear unit can be supplied in the following versions:

- **F..D..DT/DV..**
  VARIMOT® with foot-mounted parallel shaft helical gear unit

- **FA..B D..DT/DV..**
  VARIMOT® with parallel shaft helical gear unit and hollow shaft
  Foot-mounted

- **FV..B D..DT/DV..**
  VARIMOT® with foot-mounted parallel shaft helical gear unit and splined hollow shaft to DIN 5480

- **FH..B D..DT/DV..**
  VARIMOT® with foot-mounted parallel shaft helical gear unit and hollow shaft with shrink disc

- **FF..D..DT/DV..**
  VARIMOT® with B5 flange-mounted parallel shaft helical gear unit

- **FAF..D..DT/DV..**
  VARIMOT® with parallel shaft helical gear unit and hollow shaft
  B5 flange-mounted

- **FVF..D..DT/DV..**
  VARIMOT® with B5 flange-mounted parallel shaft helical gear unit and splined hollow shaft to DIN 5480
FHF..D..DT/DV..
VARIMOT® with B5 flange-mounted parallel shaft helical gear unit and hollow shaft with shrink disc

FA..D..DT/DV..
VARIMOT® with parallel shaft helical gear unit and hollow shaft

FV..D..DT/DV..
VARIMOT® with parallel shaft helical gear unit and splined hollow shaft to DIN 5480

FH..D..DT/DV..
VARIMOT® with parallel shaft helical gear unit and hollow shaft with shrink disc

FT..D..DT/DV..
VARIMOT® with parallel shaft helical gear unit and hollow shaft and TorqLOC® hollow shaft mounting system

FAZ..D..DT/DV..
VARIMOT® with B14 flange-mounted parallel shaft helical gear unit and hollow shaft

FVZ..D..DT/DV..
VARIMOT® with B14 flange-mounted parallel shaft helical gear unit and splined hollow shaft to DIN 5480

FHZ..D..DT/DV..
VARIMOT® with B14 flange-mounted parallel shaft helical gear unit and hollow shaft with shrink disc
VARIMOT® variable speed gearmotors with a helical-bevel gear unit can be supplied in the following versions:

- **K..D..DT/DV..**
  - VARIMOT® with foot-mounted helical-bevel gear unit

- **KA..B D..DT/DV..**
  - VARIMOT® with foot-mounted helical-bevel gear unit and hollow shaft

- **KV..B D..DT/DV..**
  - VARIMOT® with helical-bevel gear unit and splined hollow shaft to DIN 5480 in foot-mounted version

- **KH..B D..DT/DV..**
  - VARIMOT® with foot-mounted helical-bevel gear unit and hollow shaft with shrink disc

- **KF..D..DT/DV..**
  - VARIMOT® with B5 flange-mounted helical-bevel gear unit

- **KAF..D..DT/DV..**
  - VARIMOT® with B5 flange-mounted helical-bevel gear unit and hollow shaft

- **KVF..D..DT/DV..**
  - VARIMOT® with B5 flange-mounted helical-bevel gear unit and splined hollow shaft to DIN 5480
KHF..D..DT/DV..
VARIMOT® with B5 flange-mounted helical-bevel gear unit and hollow shaft with shrink disc

KA..D..DT/DV..
VARIMOT® with helical-bevel gear unit and hollow shaft

KV..D..DT/DV..
VARIMOT® with helical-bevel gear unit and splined hollow shaft to DIN 5480

KH..D..DT/DV..
VARIMOT® with helical-bevel gear unit and hollow shaft with shrink disc

KT..D..DT/DV..
VARIMOT® with helical-bevel gear unit and hollow shaft and TorqLOC® hollow shaft mounting system

KAZ..D..DT/DV..
VARIMOT® with B14 flange-mounted helical-bevel gear unit and hollow shaft

KVZ..D..DT/DV..
VARIMOT® with B14 flange-mounted helical-bevel gear unit and splined hollow shaft to DIN 5480

KHZ..D..DT/DV..
VARIMOT® with B14 flange-mounted helical-bevel gear unit and hollow shaft with shrink disc
VARIMOT® variable speed gearmotors with a helical-worm gear unit can be supplied in the following versions:

**S..D..DT/DV..**
VARIMOT® with foot-mounted helical-worm gear unit

**SF..D..DT/DV..**
VARIMOT® with flange-mounted helical-worm gear unit

**SAF..D..DT/DV..**
VARIMOT® with B5 flange-mounted helical-worm gear unit and hollow shaft

**SHF..D..DT/DV..**
VARIMOT® with B5 flange-mounted helical-worm gear unit and hollow shaft with shrink disc
SA..DT/DV..
VARIMOT® with helical-worm gear unit and hollow shaft

SH..DT/DV..
VARIMOT® with helical-worm gear unit and hollow shaft with shrink disc

ST..DT/DV..
VARIBLOC® with helical-worm gear unit and hollow shaft and TorqLOC® hollow shaft mounting system

SAZ..DT/DV..
VARIMOT® with B14 flange-mounted helical-worm gear unit and hollow shaft

SHZ..DT/DV..
VARIMOT® with B14 flange-mounted helical-worm gear unit and hollow shaft with shrink disc