



- Backlash and maintenance free
- Materials:
 - Hub: aluminium
 - bellows: stainless steel
- High torsional stiffness
- Low moment of inertia
- Shaft/bore link without backlash
- Recommended assembly tolerances H7/g6
- Working temperature: -30°C to +100°C
- **Please specify bore size on order (between min and max \varnothing)**

clamp hub



Options

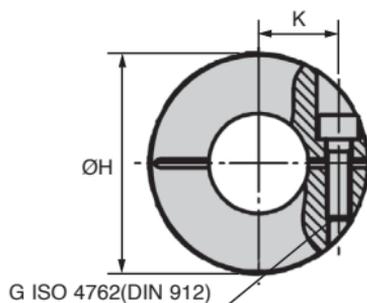
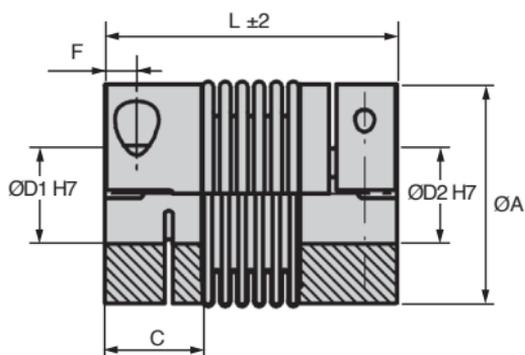
- Keyway according to DIN6885 on request (tolerance JS9)
- Orientation of the keyways at 180° to each other

| Part number | radial (mm) | Misalignment | | Max. speed (rpm) | Weight (approx) (ca.kg) |
|-------------|-------------|--------------|---------|------------------|-------------------------|
| | | axial (mm) | angular | | |
| AKD18 | 0,2 | 0,5 | 1,5° | 12700 | 0,14 |
| AKD30 | 0,2 | 0,5 | 1,5° | 10200 | 0,26 |
| AKD60 | 0,2 | 0,5 | 1,5° | 8600 | 0,43 |
| AKD80 | 0,2 | 0,5 | 1,5° | 6800 | 0,79 |
| AKD150 | 0,2 | 0,5 | 1,5° | 6800 | 0,79 |
| AKD200 | 0,2 | 0,5 | 1,5° | 6300 | 1,12 |
| AKD300 | 0,2 | 0,5 | 1,5° | 5900 | 1,50 |
| AKD500 | 0,2 | 1,0 | 1,5° | 4900 | 2,04 |

| Part number | Nominal torque (Nm) | Torsional stiffness (10-Nm/rad) | Radial stiffness (N/mm) | Axial stiffness (N/mm) | Moment of inertia (10·kgm²) | Tightening torque (Nm) |
|-------------|---------------------|---------------------------------|-------------------------|------------------------|-----------------------------|------------------------|
| AKD18 | 22 | 6 | 85 | 40 | 0,06 | 6 |
| AKD30 | 36 | 25 | 220 | 30 | 0,10 | 12 |
| AKD60 | 75 | 50 | 330 | 55 | 0,30 | 30 |
| AKD80 | 95 | 75 | 400 | 55 | 0,90 | 60 |
| AKD150 | 180 | 100 | 600 | 85 | 0,90 | 85 |
| AKD200 | 240 | 120 | 450 | 85 | 1,50 | 100 |
| AKD300 | 360 | 280 | 1500 | 150 | 3,20 | 120 |
| AKD500 | 600 | 310 | 1000 | 85 | 4,90 | 190 |

Dimensions in mm

High
Precision



DISCOUNTS

| Qty | 1+ | 2+ | 4+ |
|-------|------|-----|------------|
| Disc. | List | -6% | On request |

| Part number | Bore ØD1/D2 (H7) | C | L | øA | F | G | K | H | Price each |
|-------------|------------------------|----|-----|-----|----|-----|----|-----|------------|
| AKD18 | 8-26 | 20 | 71 | 45 | 6 | M5 | 18 | 47 | 268,02 € |
| AKD30 | 10-30 | 25 | 73 | 55 | 8 | M6 | 20 | 56 | 333,53 € |
| AKD60 | 12-35 | 29 | 89 | 64 | 10 | M8 | 24 | 67 | 376,50 € |
| AKD80 | 14-42 | 34 | 103 | 80 | 12 | M10 | 28 | 84 | 426,96 € |
| AKD150 | 14-42 | 34 | 103 | 80 | 12 | M10 | 28 | 84 | 510,52 € |
| AKD200 | 22-46 | 38 | 113 | 90 | 13 | M12 | 31 | 93 | 616,60 € |
| AKD300 | 24-60 | 38 | 115 | 110 | 13 | M12 | 39 | 110 | 674,59 € |
| AKD500 | 35-64 | 41 | 122 | 119 | 15 | M14 | 43 | 122 | 864,26 € |

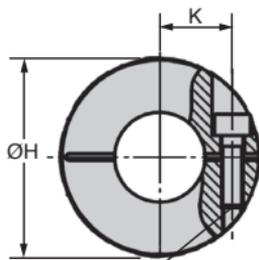
Dimensions in mm



AKN GERWAH

Coupling for servo-motors Torque: 22 to 180Nm

- Backlash and maintenance free
- High torsional stiffness
- Low moment of inertia
- Shaft/bore link without backlash
- Recommended assembly tolerances H7/g6
- Working temperature -30°C to +100°C
- Materials:
 - Hub: aluminium
 - Bellows: stainless steel
- Please specify bore size on order (between min and max Ø)



G ISO 4762(DIN 912)
*Undercut diameter



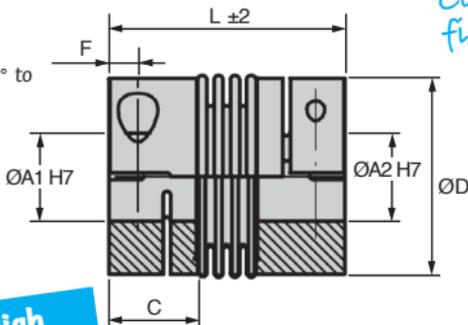
clamp fixing

Options

- Keyway according to DIN6885 on request (tolerance JS9)
- Orientation of the keyways at 180° to each other
- Stainless steel version on request

Torque calculation

- Use the formula
 $T_{req} > K \times T_{acc} \times J_{motor} (\theta_{max} + J_{motor})$ in Nm
 With following safety coefficient:
 - K = 1.5 for regular motion
 - K = 2 for irregular motion
 - K = 2.5 - 4 for jerky motion
- J_x = moment of inertia (machine + motor)
- T_{req} Required torque



High Precision

DISCOUNTS

| | | | |
|-------|------|-----|------------|
| Qty | 1+ | 3+ | 6+ |
| Disc. | List | -8% | On request |

| Part number | Max. speed (rpm) | radial (mm) | Misalignment axial (mm) | angular | Nominal torque (Nm) | Torsional stiffness (10 ³ Nm/Rad) | Moment of inertia (10 ⁻³ kgm ²) | Tightening torque (Nm) | Weight (kg) |
|-------------|------------------|-------------|-------------------------|---------|---------------------|--|--|------------------------|-------------|
| AKN18-63 | 12 700 | 0,2 | 0,5 | 1,5° | 22 | 8 | 0,05 | 6 | 0,13 |
| AKN30-65 | 10 200 | 0,1 | 0,4 | 1,0° | 36 | 35 | 0,11 | 12 | 0,25 |
| AKN60-78 | 8 600 | 0,1 | 0,4 | 1,0° | 75 | 75 | 0,29 | 30 | 0,41 |
| AKN80-91 | 6 800 | 0,2 | 0,4 | 1,0° | 95 | 130 | 0,87 | 60 | 0,74 |
| AKN150-91 | 6 800 | 0,2 | 0,4 | 1,0° | 180 | 150 | 0,87 | 85 | 0,74 |

| Part number | ØA mini. | ØA maxi. | L | ØD | C | F | G | K | ØH | Pric each | 1 to 2 No keyway | With keyway |
|-------------|----------|----------|----|----|----|----|-----|----|----|-----------|------------------|-------------|
| AKN18-63 | 8 | 26 | 63 | 45 | 20 | 6 | M5 | 18 | 48 | 289,93 | € 289,94 | € |
| AKN30-65 | 10 | 30 | 65 | 55 | 25 | 8 | M6 | 20 | 55 | 360,25 | € 360,25 | € |
| AKN60-78 | 12 | 35 | 78 | 64 | 29 | 10 | M8 | 24 | 67 | 407,11 | € 407,11 | € |
| AKN80-91 | 14 | 42 | 90 | 80 | 33 | 12 | M10 | 28 | 84 | 462,78 | € 462,79 | € |
| AKN150-91 | 14 | 42 | 90 | 80 | 33 | 12 | M10 | 28 | 84 | 553,61 | € 553,61 | € |

Dimensions in mm



Bellow coupling

Couplings for servo-motors

GERWAH AK

Torque: 36 to 800Nm

- Backlash and maintenance free
- High torsional stiffness
- Low moment of inertia
- Shaft/bore link without backlash
- Recommended assembly tolerances H7/g6
- Working temperature -30°C to +100°C
- Materials:
 - Hub: steel
 - Bellows: stainless steel
- Please specify bore size on order (between min and max \emptyset)

clamp fixing



Torque calculation

- Use the formula

$$T_{\text{req}} > K \times T_{\text{AS}} \times J_{\text{mach}} / (J_{\text{mot}} + J_{\text{mach}}) \text{ in Nm}$$

With following safety coefficient:

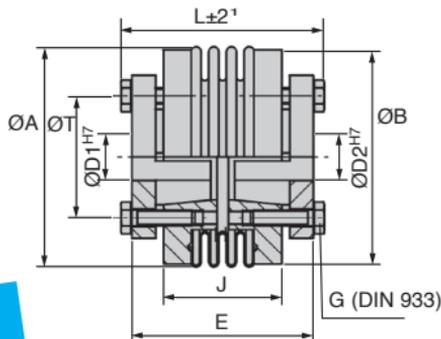
K = 1.5 for regular motion

K = 2 for irregular motion

K = 2.5 - 4 for jerky motion

Jx = moment of inertia (machine + motor)

T_{AS} Required torque



High Precision

DISCOUNTS

| Qty | 1+ | 2+ | 4+ |
|-------|------|-----|------------|
| Disc. | List | -6% | On request |

| Part number | Nominal torque (Nm) | Stiffness | | | Moment of inertia (10 ⁻³ kgm ²) | Tightening torque (Nm) | Weight (kg) | Misalignment | | | Max. speed (rpm) |
|-------------|---------------------|------------------------------------|---------------|--------------|--|------------------------|-------------|--------------|------------|-------------|------------------|
| | | torsional (10 ³ Nm/Rad) | radial (N/mm) | axial (N/mm) | | | | radial (mm) | axial (mm) | angular (°) | |
| AK30-60 | 36 | 25 | 220 | 30 | 0,15 | 3,0 | 0,28 | 0,2 | 0,5 | 1,5 | 11 000 |
| AK60-73 | 72 | 50 | 330 | 55 | 0,24 | 8,5 | 0,48 | 0,2 | 0,5 | 1,5 | 9 100 |
| AK80-91 | 96 | 75 | 400 | 55 | 0,65 | 10,0 | 0,85 | 0,2 | 0,5 | 1,5 | 7 000 |
| AK150-92 | 180 | 100 | 600 | 85 | 0,65 | 14,0 | 0,85 | 0,2 | 0,5 | 1,5 | 7 000 |
| AK200-93 | 240 | 120 | 450 | 85 | 0,87 | 14,0 | 1,00 | 0,2 | 0,5 | 1,5 | 6 700 |
| AK300-104 | 360 | 280 | 1500 | 150 | 2,33 | 18,0 | 1,92 | 0,2 | 0,5 | 1,5 | 5 200 |
| AK500-113 | 800 | 310 | 1000 | 85 | 5,73 | 26,0 | 2,45 | 0,2 | 1,0 | 1,5 | 4 600 |

| Part number | ØA (mm) | ØB (mm) | L | D ^{H7} /D ^{h7} | | E | J | ØT | G | Price each |
|-------------|---------|---------|-----|----------------------------------|------|-----|----|----|--------|------------|
| | | | | min. | max. | | | | | |
| AK30-60 | 56 | 55 | 60 | 9 | 20 | 53 | 38 | 31 | 6 x M4 | 328,61 € |
| AK60-73 | 66 | 64 | 73 | 12 | 25 | 65 | 46 | 37 | 6 x M6 | 356,51 € |
| AK80-91 | 82 | 80 | 91 | 15 | 35 | 83 | 61 | 51 | 6 x M6 | 391,74 € |
| AK150-92 | 82 | 80 | 91 | 15 | 35 | 84 | 61 | 51 | 6 x M6 | 457,47 € |
| AK200-93 | 90 | 90 | 93 | 15 | 42 | 85 | 63 | 56 | 6 x M6 | 535,64 € |
| AK300-104 | 110 | 110 | 104 | 15 | 50 | 93 | 67 | 75 | 6 x M8 | 619,20 € |
| AK500-113 | 122 | 119 | 113 | 24 | 55 | 105 | 72 | 80 | 6 x M8 | 806,06 € |

Dimensions in mm