

Possible systems with safety couplings



Single Position

C

When exceeding the adjusted overload torque, the coupling will disengage. After eliminating the malfunction, the coupling will re-engage automatically. This can only happen at a certain position within 360° which can be noticed on the markings of the adjusting ring and the flange.

Note: Engagement is only possible at low speed.



Multi Position

D

When exceeding the adjusted overload torque, the coupling will disengage. After eliminating the malfunction, the coupling will re-engage automatically at the next successive ball points. Thus the safety coupling is immediately ready for use.

Note: Engagement is only possible at low speed.

Up to size 30 the angle of engagement is 45°.
From size 60 the angle of engagement is 60°.
Further angles of engagement upon request.



Full Disengagement

F

When exceeding the adjusted overload torque, the coupling will disengage. The driving and driven side are permanently torque-free separated from each other. After eliminating the malfunction, the coupling can be re-engaged by applying axial pressure on the pressure ring. It might be necessary to slightly rotate the driving and driven side towards each other.

Note: Engagement is only possible at standstill



Failsafe System

G

When the preset overload torque has been reached, the coupling will disengage and after a few angle degrees it will be mechanically locked. The response of the safety coupling is detected by using a limit switch and the torque flow will be stopped.

Safety Couplings with bush bearings

KBK|CP -10 ~ 500

Safety Coupling
with keyway



P. 16

KBK|CK -2 ~ 500

Safety Coupling
with collet clamp



P. 17

KBK|CI -10 ~ 500

Safety Coupling
with inner cone



P. 18

KBK|CA -10 ~ 500

Safety Coupling
with outer cone

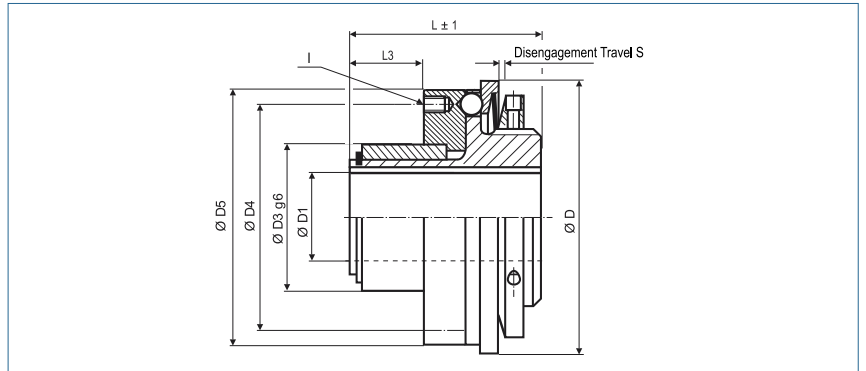


P. 19

Safety Coupling

with keyway

optional
nickel-plated version
optional full stainless
steel version



Order Code

KBK/CP - 60 - N20H7 - 20Nm - C or D - 2

Type

Size

ØD1
(H7)

Disengagement
Torque

Torque
Range

C = Single Position D = Multi Position Engagement

| Size | Dimensions (mm) | | | | | | | | | Technical Data | | | | |
|------|-----------------|------------------------------|------|------|------|--------|----|-----|----|----------------|---------------|-----------------------|--------------|---|
| | ØD | Ø D1 | Ø D3 | Ø D4 | Ø D5 | L | L3 | S | I | Torque Range | | max. speed (1/min) | Mass (kg) | Moment of Inertia J (kg cm ²) |
| | Outer Ø | Bore Size (H7) min~max | | | | Length | | | 6x | 1 TKN (Nm) | 2 TKN (Nm) | | | |
| -10 | 49 | 6-10 | 24 | 30 | 47 | 34 | 8 | 0.7 | M3 | 3-7 | 5-10 | 12000 | 0.15 | 0.35 |
| -30 | 64 | 10-14 | 30 | 46 | 60 | 40 | 9 | 1.2 | M4 | 5-15 | 10-30 | 9400 | 0.45 | 1.9 |
| -60 | 79 | 15-19 | 36 | 50 | 75 | 48 | 16 | 1.2 | M5 | 13-35 | 20-65 | 7800 | 0.83 | 5.1 |
| -80 | 94 | 19-30 | 48 | 65 | 90 | 58 | 22 | 2 | M6 | 15-40 | 30-80 | 6400 | 1.4 | 12 |
| -150 | 94 | 19-30 | 48 | 65 | 90 | 58 | 22 | 2 | M6 | 50-130 | 65-150 | 6400 | 1.4 | 12 |
| -200 | 109 | 20-33 | 52 | 70 | 105 | 63 | 25 | 2 | M6 | 30-90 | 80-200 | 5500 | 1.64 | 19 |
| -300 | 119 | 20-38 | 58 | 76 | 115 | 75 | 31 | 2 | M8 | 60-200 | 150-300 | 5000 | 2.5 | 38 |
| -500 | 129 | 20-42 | 66 | 110 | 125 | 94 | 33 | 2 | M8 | 80-250 | 200-500 | 4500 | 3.8 | 68 |

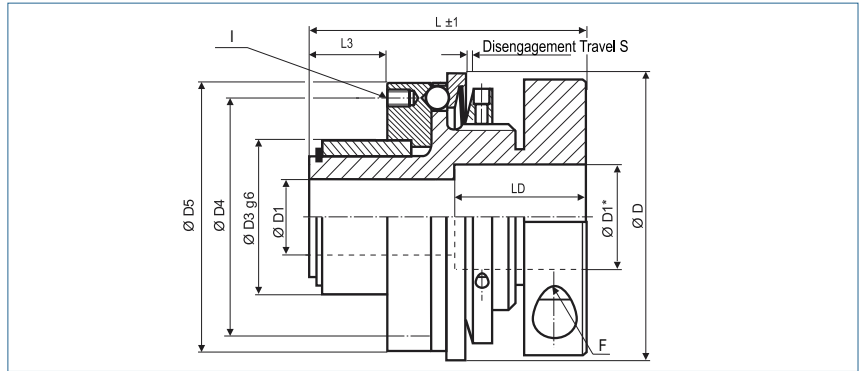
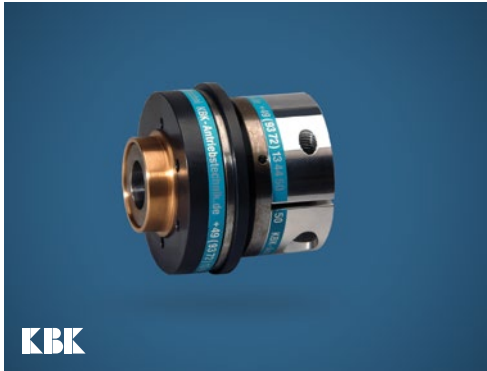


Temperature Range -30 °C ~ 120 °C

Safety Coupling

with collet clamp

optional
nickel-plated version
optional full stainless
steel version



Order Code

KBK/CK - 60 - 20H7 - 20Nm - C or D - 2

Type Size ØD1 (H7) Disengagement Torque Torque Range

C = Single Position D = Multi Position Engagement

| Size | Dimensions (mm) | | | | | | | | | | Technical Data | | | | |
|------|-----------------|------------------------|------|------|------|--------|----|-----|----|-----------------------|----------------|------------|--------------------|-----------|------------------------------|
| | ØD | Ø D1 | Ø D3 | Ø D4 | Ø D5 | L | L3 | S | I | F | Torque Range | | max. speed (1/min) | Mass (kg) | Moment of Inertia J (kg cm²) |
| | Outer Ø | Bore Size (H7) min-max | | | | Length | | | 6x | Screw ISO4762 TA (Nm) | 1 TKN (Nm) | 2 TKN (Nm) | | | |
| -2 | 29 | 3-6 | 14 | 19 | 25 | 35 | 6 | 0.7 | M2 | M3 2 | 0.2-1.5 | 0.5-2 | 13200 | 0.06 | 0.05 |
| -4.5 | 36 | 6-12 8# | 20 | 26 | 32 | 36 | 7 | 0.7 | M2 | M4 3.5 | 1-3 | 3-6 | 12300 | 0.12 | 0.20 |
| -7 | 49 | 6-16 11# | 24 | 30 | 47 | 44 | 8 | 0.7 | M3 | M4 5.1 | 1-4 | 3-7 | 12000 | 0.18 | 0.4 |
| -10 | 49 | 6-16 11# | 24 | 30 | 47 | 44 | 8 | 0.7 | M3 | M4 5.1 | 3-7 | 5-10 | 12000 | 0.18 | 0.4 |
| -30 | 64 | 10-20 14# | 30 | 46 | 60 | 59 | 9 | 1.2 | M4 | M6 15 | 5-15 | 10-30 | 9400 | 0.59 | 2.4 |
| -60 | 79 | 12-25 18# | 36 | 50 | 75 | 76 | 16 | 1.2 | M5 | M8 36 | 13-35 | 20-65 | 7800 | 1.05 | 6.4 |
| -80 | 94 | 14-35 27# | 48 | 65 | 90 | 79 | 22 | 2 | M6 | M10 84 | 15-40 | 30-80 | 6400 | 2.4 | 21 |
| -150 | 94 | 14-35 27# | 48 | 65 | 90 | 79 | 22 | 2 | M6 | M10 84 | 50-130 | 65-150 | 6400 | 2.4 | 21 |
| -200 | 109 | 22-40 32# | 52 | 70 | 105 | 91 | 25 | 2 | M6 | M12 125 | 30-90 | 80-200 | 5500 | 3.0 | 35 |
| -300 | 119 | 30-46 38# | 58 | 76 | 115 | 101 | 31 | 2 | M8 | M12 145 | 60-200 | 150-300 | 5000 | 4.4 | 66 |
| -500 | 129 | 35-50 41# | 66 | 110 | 125 | 134 | 33 | 2 | M8 | M12 145 | 80-250 | 200-500 | 4500 | 6.4 | 113 |

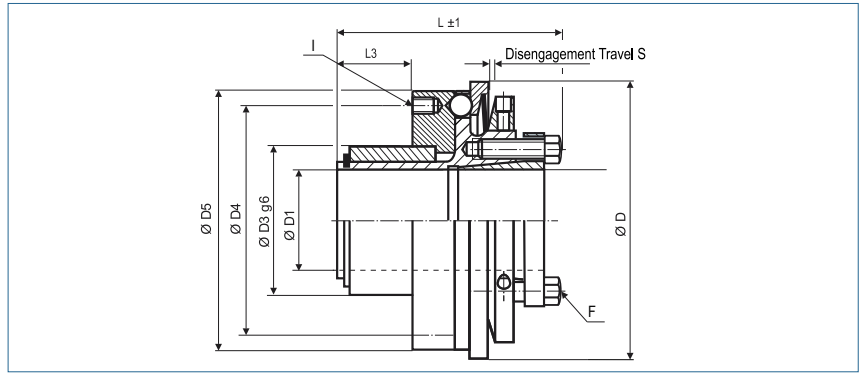
| | |
|--------------------------|--|
| Bore | > Ø D1 and ≤ D1* only over LD |
| Keyway | optional acc. DIN 6885 biggest bore marked with a # |
| Temperature Range | -30 °C ~ 120 °C |

| Size | 2 | 45 | 7 | 10 | 30 | 60 | 80 | 150 | 200 | 300 | 500 |
|------------|----|----|----|----|----|----|----|-----|-----|-----|-----|
| D1* | 11 | X | 20 | 20 | 26 | 31 | 38 | 38 | X | 57 | 62 |
| LD | 15 | X | 20 | 20 | 28 | 38 | 34 | 34 | X | 42 | 56 |

Safety Coupling

with inner cone

optional
nickel-plated version
optional full stainless
steel version



Order Code

KBK/CI - 60 - 20H7 - 20Nm - C or D - 2

Type

Size

ØD1
(H7)

Disengagement
Torque

Torque
Range

C = Single Position D = Multi Position Engagement

| Size | Dimensions (mm) | | | | | | | | | | Technical Data | | | | |
|------|-----------------|------------------------|------|------|------|--------|----|-----|----|-----------------------|----------------|------------|--------------------|-----------|------------------------------|
| | ØD | Ø D1 | Ø D3 | Ø D4 | Ø D5 | L | L3 | S | I | F | Torque Range | | max. speed (1/min) | Mass (kg) | Moment of Inertia J (kg cm²) |
| | Outer Ø | Bore Size (H7) min-max | | | | Length | | | 6x | Screw ISO4017 TA (Nm) | 1 TKN (Nm) | 2 TKN (Nm) | | | |
| -10 | 49 | 6-14 10# | 24 | 30 | 47 | 44 | 8 | 0.7 | M3 | M3 2.1 | 3-7 | 5-10 | 12000 | 0.18 | 0.4 |
| -30 | 64 | 12-20 14# | 30 | 46 | 60 | 51 | 9 | 1.2 | M4 | M5 6 | 5-15 | 10-30 | 9400 | 0.54 | 2.2 |
| -60 | 79 | 15-25 18# | 36 | 50 | 75 | 61 | 16 | 1.2 | M5 | M6 8.5 | 13-35 | 20-65 | 7800 | 1 | 6.2 |
| -80 | 94 | 20-35 27# | 48 | 65 | 90 | 72 | 22 | 2 | M6 | M6 14 | 15-40 | 30-80 | 6400 | 1.7 | 15 |
| -150 | 94 | 20-35 27# | 48 | 65 | 90 | 72 | 22 | 2 | M6 | M6 14 | 50-130 | 65-150 | 6400 | 1.7 | 15 |
| -200 | 109 | 20-40 32# | 52 | 70 | 105 | 77 | 25 | 2 | M6 | M6 14 | 30-90 | 80-200 | 5500 | 2 | 24 |
| -300 | 119 | 25-46 38# | 58 | 76 | 115 | 93 | 31 | 2 | M8 | M8 20 | 60-200 | 150-300 | 5000 | 3.3 | 49 |
| -500 | 129 | 35-50 41# | 66 | 110 | 125 | 112 | 33 | 2 | M8 | M8 26 | 80-250 | 200-500 | 4500 | 4.7 | 83 |



Keyway

optional acc. DIN 6885

biggest bore marked with a #

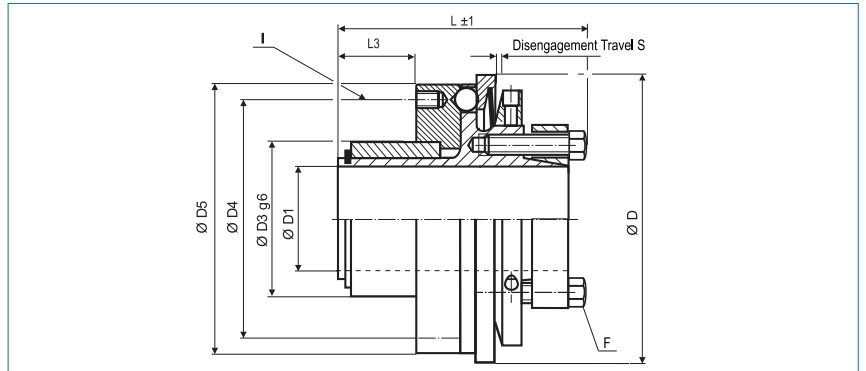
Temperature Range

-30 °C ~ 120 °C

Safety Coupling

with outer cone

optional
nickel-plated version
optional full stainless
steel version



Order Code

KBK/CA - 60 - 20H7 - 20Nm - C or D - 2

Type Size ØD1 (H7) Disengagement Torque Torque Range
 C = Single Position D = Multi Position Engagement

| Size | Dimensions (mm) | | | | | | | | | | Technical Data | | | | |
|------|-----------------|------------------------|------|------|------|--------|----|-----|----|-----------------------|----------------|------------|--------------------|-----------|------------------------------|
| | ØD | Ø D1 | Ø D3 | Ø D4 | Ø D5 | L | L3 | S | I | F | Torque Range | | max. speed (1/min) | Mass (kg) | Moment of Inertia J (kg cm²) |
| | Outer Ø | Bore Size (H7) min~max | | | | Length | | | 6x | Screw ISO4017 TA (Nm) | 1 TKN (Nm) | 2 TKN (Nm) | | | |
| -10 | 49 | 5-14 8# | 24 | 30 | 47 | 46 | 8 | 0.7 | M3 | M3 2.1 | 3-7 | 5-10 | 12000 | 0.18 | 0.4 |
| -30 | 64 | 12-20 14# | 30 | 46 | 60 | 54 | 9 | 1.2 | M4 | M5 5.9 | 5-15 | 10-30 | 9400 | 0.53 | 2.2 |
| -60 | 79 | 15-25 18# | 36 | 50 | 75 | 69 | 16 | 1.2 | M5 | M5 8.7 | 13-35 | 20-65 | 7800 | 1 | 6.1 |
| -80 | 94 | 20-35 27# | 48 | 65 | 90 | 80 | 22 | 2 | M6 | M6 15 | 15-40 | 30-80 | 6400 | 1.8 | 16 |
| -150 | 94 | 20-35 27# | 48 | 65 | 90 | 80 | 22 | 2 | M6 | M6 15 | 50-130 | 65-150 | 6400 | 1.8 | 16 |
| -200 | 109 | 20-40 32# | 52 | 70 | 105 | 85 | 25 | 2 | M6 | M6 15 | 30-90 | 80-200 | 5500 | 2 | 24 |
| -300 | 119 | 25-46 38# | 58 | 76 | 115 | 101 | 31 | 2 | M8 | M8 25 | 60-200 | 150-300 | 5000 | 3.2 | 47 |
| -500 | 129 | 35-50 41# | 66 | 110 | 125 | 126 | 33 | 2 | M8 | M8 36 | 80-250 | 200-500 | 4500 | 4.7 | 84 |

+ **Keyway** optional acc. DIN 6885
 biggest bore marked with a #
Temperature Range -30 °C ~ 120 °C