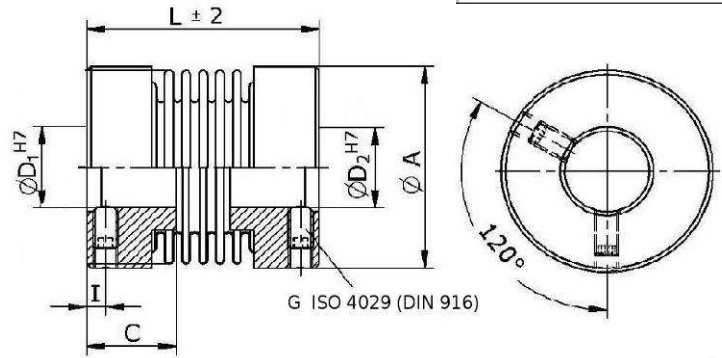


# Backlash-free metal bellow coupling

## Series EKN miniature

please contact/bitte ansprechen:  
**as** antriebstechnik gmbh  
 Fon: +49 (0)40 / 679 467-0 Fax: +49 (0)40 / 679 467-20  
 www.aunds-vertrieb.de



### Technical data

Type		4			9			15		20			45		100	
Nominal torque	(Nm) $T_{KN}$	0,4			0,9			1,5		2			4,5		10	
Torsional stiffness	( $10^3$ Nm/rad) $C_{y\ dyn}$	250	190	150	500	380	300	750	700	1500	1300	1000	6500	4000	8100	6700
Max. approved misalignment	(mm) radial $\Delta K_r$	0,1	0,15	0,2	0,1	0,15	0,2	0,1	0,15	0,1	0,2	0,25	0,1	0,2	0,15	0,25
	(mm) axial $\Delta K_a$	0,2	0,3	0,4	0,2	0,3	0,4	0,25	0,4	0,3	0,4	0,5	0,3	0,5	0,4	0,5
	(degree) angular $\Delta K_w$	1,2	2	2	1,2	2	2	1,2	2	1,2	2	2	1,2	2	1,2	2
Moment of inertia	(g cm <sup>2</sup> ) $J$	2			2	2,3	2,6	7,5	8	14	16	17	68	73	200	220
Tightening torque of the retaining screws	(Nm) $M_A$	0,5			0,5			1,5		1,5			3		3	
Weight	(g) $m$	6			6	7	8	17	19	22	24	26	54	58	104	114
Max. rotating speed at $v = 30$ m/s	(min <sup>-1</sup> ) $n_{max}$	15000			15000			15000		15000			15000		15000	

### Dimensions

Type		4			9			15		20			45		100	
L	(mm) $\pm 1$	20	23	26	21	25	28	25	30	26	32	36	39	48	44	54
Ø A	(mm)	16			16			20		25			33		40	
Ø D1 / D2	min. (mm H7)	3			3			3		3			6		6	
	max. (mm H7)	8			8			10		12			16		19	
C	(mm)	6			6			10		11			16		20	
G	(ISO 4029/DIN 916)	M3			M3			2xM4		2xM3			2xM6		2xM6	
I	(mm)	2			2			3		2			4		4	

Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

Technical specifications subject to change without notice.

**Hub bores:** Standard quality of fitting H7  
 Standard quality of keyway JS9

**Standard bores:** EKN 4-15 Ø 6H7  
 EKN 20 Ø 6H7 and 10H7  
 EKN 45-100 Ø 10H7

**Materials:** Hubs made of aluminium  
 Metal bellow made of stainless steel

**Customized version:** Stainless steel version on request  
 Keyway acc. to DIN 6885

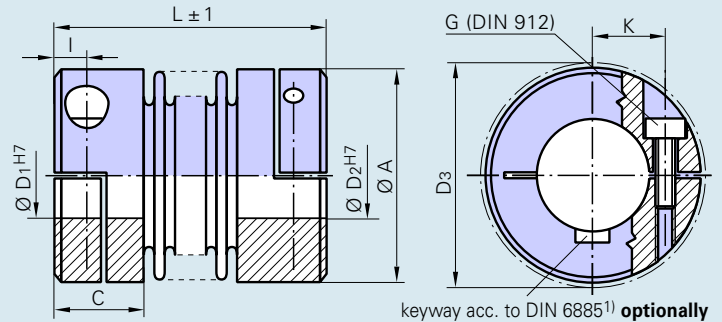
### Ordering data:

EKN 20/26 - 6,35H7 - 10H7 - XX

Type \_\_\_\_\_  
 Length (L) \_\_\_\_\_  
 Ø D1 \_\_\_\_\_  
 Ø D2 \_\_\_\_\_  
 Further details \_\_\_\_\_  
 e.g. keyway, material

# Backlash-free Metal Bellow Coupling Series DKN miniature

Please order here:  
**as** antriebstechnik + spannsysteme  
 tel.: 0049 40 679467-0, fax: 0049 40 679467-20



## Technical data series DKN

Type		4	9	15	20	45	100
Nominal torque (Nm)	T <sub>KN</sub>	0,4	0,9	1,5	2	4,5	10
Misalignment (mm)	radial ΔK <sub>r</sub>	0,1 / 0,15 / 0,2	0,1 / 0,15 / 0,2	0,1 / 0,15	0,1 / 0,2 / 0,25	0,1 / 0,2	0,15 / 0,25
	axial ΔK <sub>a</sub>	0,2 / 0,3 / 0,4	0,2 / 0,3 / 0,4	0,25 / 0,4	0,3 / 0,4 / 0,5	0,3 / 0,5	0,4 / 0,5
	angular ΔK <sub>w</sub> (degree)	1,2-2	1,2-2	1,2-2	1,2-2	1,2-2	1,2-2
Torsional stiffness (Nm/rad)	C <sub>T dyn</sub>	250 / 190 / 150	500 / 380 / 300	750 / 700	1500/1300/1000	6500 / 4000	8100 / 6700
Moment of inertia (g cm <sup>2</sup> )	J	2,6	2,6 / 2,9 / 3,2	11 / 12	25 / 27 / 28	98 / 103	231 / 250
Tightening torque of the retaining screws (Ncm)	M <sub>A</sub>	30	30	80	100	300	300
Weight (g)	m	9	9 / 10 / 11	22 / 24	36 / 38 / 40	74 / 78	120 / 130

## Dimensions series DKN

Type		4	9	15	20	45	100
Ø A	(mm)	15,5	15,5	20	25	32,5	40,5
C	(mm)	7	7	9	12	14	14,5
L	(mm) ±1	21 / 24 / 28	23 / 26 / 30	26 / 30	32 / 38 / 42	41 / 50	47 / 57
l	(mm)	2,4	2,4	3	3,5	4,5	5
D <sub>1</sub> /D <sub>2</sub>	(mm) H7 min. - max.	3-6,5	3-6,5	3-10	3-12	6-16	6-19
D <sub>3</sub>	(mm) Clearance diameter	17,5	17,5	21	27	34	41,5
G	(DIN 912) 8.8	M2	M2	M2,5	M3	M4	M4
K	(mm)	5,6	5,6	7	9	11,5	15,5

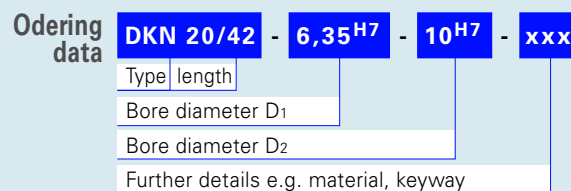
**Hub bores** Standard quality of fitting H7  
 Custom bores on request

**Standard bores** DKN 4-15 Ø 6H7  
 DKN 20 Ø 6H7 and 10H7  
 DKN 45-100 Ø 10H7

**Materials** Hubs made of aluminium  
 Metal bellow made of stainless steel  
 Stainless steel version also available

**Rotational speed** 15.000 min<sup>-1</sup>

**1)** Tolerance of keyway; standard JS9



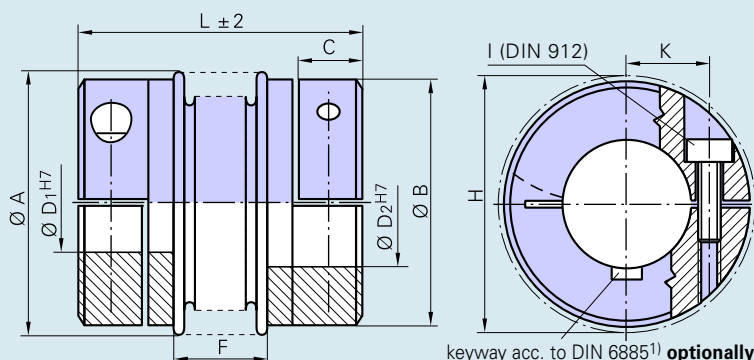
# Backlash-free Metal Bellow Coupling Series AKN

with increased torsional stiffness with clamping hub

Please order here:

**as** antriebstechnik + spannsysteme

tel.: 0049 40 679467-0, fax: 0049 40 679467-20



## Technical data series AKN

Type	18	30	60	80	150	200	300	500
Nominal torque (Nm) $T_{KN}$	18	30	60	80	150	200	300	500
Torsional stiffness ( $10^3$ Nm/rad) $C_{Tdyn}$	8	35	75	130	150	170	500	680
Radial spring stiffness (N/mm) $C_r$	200	720	1100	1200	2000	2500	6300	8800
Axial spring stiffness (N/mm) $C_a$	50	50	90	80	150	150	280	100
Moment of inertia ( $10^{-3}$ Kg $m^2$ ) $J$	0,08	0,1/0,16	0,3/0,5	1,4/2,3/2,8	1,4/2,3/2,8	2,6/4,2	4,6/6,2	9
Tightening torque of the retaining screws (Nm) $M_A$	6/6	15/12	40/30	60/55/50	80/70/50	100/80	110/90	145
Weight (approx. kg) $m$	0,2	0,2/0,3	0,5/0,6	1,7/2,1/2,3	1,7/2,1/2,3	2,5/3,3	3,4/4,1	4,8
Max. approved misalignment (mm) radial $\Delta K_r$	0,2	0,1	0,1	0,2	0,2	0,2	0,2	0,2
(mm) axial $\Delta K_a$	0,5	0,4	0,4	0,4	0,4	0,4	0,4	0,5
(degree) angular $\Delta K_w$	1,5	1	1	1	1	1	1	1
Max. rotating speed at $V=30$ m/s (min $^{-1}$ ) $n_{max}$	12700	10200	8600	6800	6800	6300	5900	4900

## Dimensions series AKN

Type	18	30	60	80	150	200	300	500
L (mm) $\pm 2$	63	65	78	91	91	100	102	110
$\varnothing A$ (mm) max.	45	56	66	82	82	90	110	128
$\varnothing B$ (mm)	45	47/56	57/66	60/80/84	60/80/84	80/90	90/96	110
C (mm)	12	15	19,5	21,5	21,5	25,5	26	29,5
$D_1^{H7}/D_2^{H7}$ (mm) min.	10/20	10/20	14/23	20/28/35	20/28/35	25/32	32/40	40
(mm) max.	20/25	20/25	23/35	28/35/40	28/35/40	32/42	40/45	60
F (mm)	24	16	20	24	24	24	27	28
I (mm)	M5	M6	M8	M10	M10	M12	M12	M12
K (mm)	17,5	16/20	20/24	24/27/28	24/27/28	26/31	32/35	40
H (mm) Clearance diameter	48	56	70	84	84	93	102	115

Hubs 18 - 60 made of aluminium, hubs 80 - 500 made of steel; other materials available on request

- 1) Tolerance of keyway; standard JS9
- 2) Smaller diameters possible for lower torque of transmission
- 3) Stainless steel version also available

## Ordering data

**AKN 150 - 30<sup>H7</sup> - 35<sup>H7</sup> - xxx**

Type	
Bore diameter $D_1$	
Bore diameter $D_2$	
Further details e.g. material, keyway	

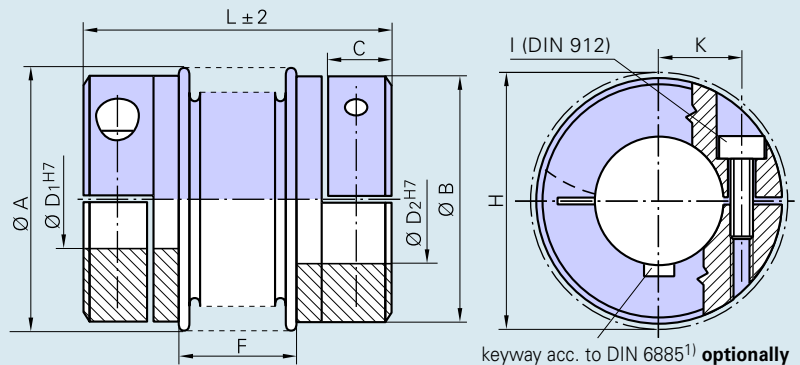
# Backlash-free Metal Bellow Coupling Series AKD

with clamping hub

Please order here:

**as** antriebstechnik + spannsysteme

tel.: 0049 40 679467-0, fax: 0049 40 679467-20



## Technical data series

Type	18	30	60	80	150	200	300	500
Nominal torque (Nm) $T_{KN}$	18	30	60	80	150	200	300	500
Torsional stiffness ( $10^3$ Nm/rad) $C_{Tdyn}$	6	25	50	75	100	120	280	310
Radial spring stiffness (N/mm) $C_r$	85	220	330	400	600	450	1500	1000
Axial spring stiffness (N/mm) $C_a$	40	30	55	55	85	85	150	85
Moment of inertia ( $10^{-3}$ Kg $m^2$ ) $J$	0,08	0,1/0,16	0,3/0,5	1,4/2,3/2,8	1,4/2,3/2,8	2,6/4,2	4,6/6,2	9
Tightening torque of the retaining screws (Nm) $M_A$	6/6	15/12	40/30	60/55/50	80/70/50	100/80	110/90	145
Weight (approx. kg) $m$	0,2	0,2/0,3	0,5/0,6	1,7/2,1/2,3	1,7/2,1/2,3	2,5/3,3	3,4/4,1	4,9
Max. approved misalignment (mm) radial $\Delta K_r$	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2
(mm) axial $\Delta K_a$	0,5	0,5	0,5	0,5	0,5	0,5	0,5	1
(degree) angular $\Delta K_w$	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5
Max. rotating speed at $V=30$ m/s (min $^{-1}$ ) $n_{max}$	12700	10200	8600	6800	6800	6300	5900	4900

## Dimensions series AKD

Type	18	30	60	80	150	200	300	500
L (mm) $\pm 2$	71	73	89	103	104	113	115	122
$\varnothing A$ (mm) max.	45	56	66	82	82	90	110	128
$\varnothing B$ (mm)	45	47/56	57/66	60/80/84	60/80/84	80/90	90/96	110
C (mm)	12	15	19,5	21,5	21,5	25,5	26	29,5
$D_1^{H7}/D_2^{H7}$ (mm) min.	10/20	10/20	14/23	20/28/35	20/28/35	25/32	32/40	40
(mm) max.	20/25	20/25	23/35	28/35/40	28/35/40	32/42	40/45	60
F (mm)	32	24	31	35	36	37	40	40
I (mm)	M5	M6	M8	M10	M10	M12	M12	M12
K (mm)	17,5	16/20	20/24	24/27/28	24/27/28	26/31	32/35	40
H (mm) Clearance diameter	48	56	70	84	84	93	102	115

Hubs 18 - 60 made of aluminium, hubs 80 - 500 made of steel; other materials available on request

- 1) Tolerance of keyway; standard JS9
- 2) Smaller diameters possible for lower torque of transmission
- 3) Stainless steel version also available

## Ordering data

**AKD 150 - 30<sup>H7</sup> - 35<sup>H7</sup> - xxx**

Type

Bore diameter  $D_1$

Bore diameter  $D_2$

Further details e.g. material, keyway

# Backlash-free Metal Bellow Coupling Series AK

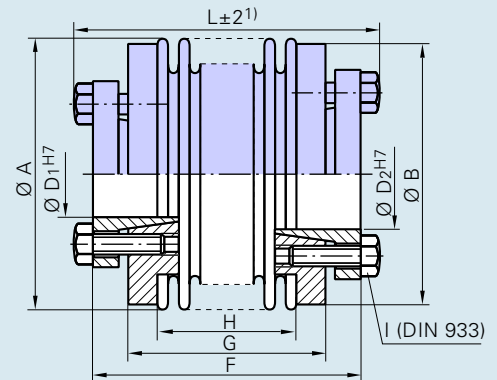
## with conical hub

Please order here:

**as** antriebstechnik + spannsysteme

tel.: 0049 40 679467-0, fax: 0049 40 679467-20

AK



### Technical data series AK

Type	30	60	80	150	200	300	500	800	1400	3000	5000
Nominal torque (Nm) $T_{KN}$	30	60	80	150	200	300	500	800	1400	3000	5000
Torsional stiffness ( $10^3$ Nm/rad) $C_{Tdyn}$	35/25	75/50	130/75	150/100	170/120	500/280	310	760	1300	2800	4800
Radial spring stiffness (N/mm) $C_r$	720/220	1100/330	1200/400	2000/600	2500/450	6300/1500	1000	510	710	2950	4920
Axial spring stiffness (N/mm) $C_a$	50/30	90/55	80/55	150/85	150/85	280/150	85	190	280	310	510
Moment of inertia ( $10^{-3}$ Kg $m^2$ ) $J$	0,15	0,4	0,8	0,8	1,5	4	7,2	26,1	26,1	48	62
Tightening torque of the retaining screws (Nm) $M_A$	4,5	8,5	10	14	14	18	26	45	80	85	210
Weight (approx. kg) $m$	0,4	0,8	1,3	1,3	1,6	3,4	4,2	8,5	8,5	15	21
Max. approved misalignment	(mm) radial $\Delta K_r$	0,1/0,2	0,1/0,2	0,2/0,2	0,2/0,2	0,2/0,2	0,2	0,2	0,2	0,2	0,2
	(mm) axial $\Delta K_a$	0,4/0,5	0,4/0,5	0,4/0,5	0,4/0,5	0,4/0,5	1,0	1,0	1,0	1,0	1,0
	(degree) angular $\Delta K_w$	1,0/1,5	1,0/1,5	1,0/1,5	1,0/1,5	1,0/1,5	1,5	1,5	1,5	1,5	1,5
Max. rotating speed at $V=30$ m/s (min $^{-1}$ ) $n_{max}$	11000	9100	7000	7000	6700	5200	4600	3700	3700	2800	2800

### Dimensions series AK

Type	30	60	80	150	200	300	500	800	1400	3000	5000
L (mm) $\pm 2$	52/60	63/73	80/91	80/92	80/93	91/104	113	170	170	206	206
$\varnothing A$ (mm) max.	56	66	82	82	90	110	128	157	157	157	208
$\varnothing B$ (mm)	52	63	80	80	85	110	122	152	152	152	190
$D_1^{H7}/D_2^{H7}$ (mm) min.	12	15	20	20	20	25	35	50	50	70	60
	(mm) max.	20	25	35	35	40	55	70 <sup>2)</sup>	70 <sup>2)</sup>	80 <sup>2)</sup>	85 <sup>2)</sup>
F (mm)	45/53	55/65	72/83	72/84	72/85	80/93	102	150	150	190	186
G (mm)	29/37	37/47	50/61	50/62	50/63	54/67	72	110	110	150	146
H (mm)	16/24	21/31	24/36	24/36	25/37	29/40	40	84	84	84	94
I (DIN 933)	6xM5	6xM6	6xM6	6xM6	6xM6	6xM8	6xM8	6xM16	6xM16	6xM12	6xM16

1) Keep space for the releasing screws

2) Larger bores on request

3) Stainless steel version also available

### Ordering data

**AK 150/80 - 30<sup>H7</sup> - 35<sup>H7</sup> - xxx**

Type length

Bore diameter  $D_1$

Bore diameter  $D_2$

Further details e.g. material, keyway

# Backlash-free Metal Bellow Coupling Series AK/SB

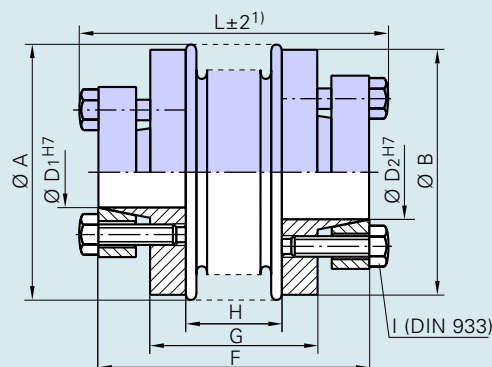
with outer conical hub

Please order here:

**as** antriebstechnik + spannsysteme

tel.: 0049 40 679467-0, fax: 0049 40 679467-20

AK/SB



## Technical data series AK/SB

Type	18	30	60	150	200	300	500	800	1400	3000	5000
Nominal torque (Nm) $T_{KN}$	18	30	60	150	200	300	500	800	1400	3000	5000
Torsional stiffness ( $10^3$ Nm/rad) $C_{Tdyn}$	8/6	35/25	75/50	150/100	170/120	500/280	310	760	1300	2800	4800
Radial spring stiffness (N/mm) $C_r$	200/85	720/220	1100/330	2000/600	2500/450	6300/1500	1000	510	710	2950	4920
Axial spring stiffness (N/mm) $C_a$	50/40	50/30	90/55	150/85	150/85	280/150	85	190	280	310	510
Moment of inertia ( $10^{-3}$ Kg $m^2$ ) $J$	0,1	0,5	0,4	0,8	1,5	4	14	48	48	54	136
Tightening torque of the retaining screws (Nm) $M_A$	5,9	5,9	8,7	15	15	25	36	85	115	125	210
Weight (approx. kg) $m$	0,3	0,4	1,8	1,3	1,6	3,4	4	7,5	7,5	16	27
Max. approved misalignment (mm) radial $\Delta K_r$	0,1/0,2	0,1/0,2	0,2/0,2	0,2/0,2	0,2/0,2	0,2/0,2	0,2	0,2	0,2	0,2	0,2
(mm) axial $\Delta K_a$	0,4/0,5	0,4/0,5	0,4/0,5	0,4/0,5	0,4/0,5	0,4/0,5	1,0	1,0	1,0	1,0	1,0
(degree) angular $\Delta K_w$	1,0/1,5	1,0/1,5	1,0/1,5	1,0/1,5	1,0/1,5	1,0/1,5	1,5	1,5	1,5	1,5	1,5
Max. rotating speed at $V=30$ m/s ( $min^{-1}$ ) $n_{max}$	12700	11000	9100	7000	6700	5200	4600	3700	3700	2800	2800

## Dimensions series AK/SB

Type	18	30	60	150	200	300	500	800	1400	3000	5000
L (mm) $\pm 2$	65/73	60/68	80/90	98/110	98/110	111/122	135	180	180	220	245
$\varnothing A$ (mm) max.	45	56	66	82	80	110	128	157	157	157	208
$\varnothing B$ (mm)	45	52	65	80	85	110	115	152	152	152	190
$D_1^{H7}/D_2^{H7}$ (mm) min.	9	12	15	20	20	25	35	50	50	55	60
(mm) max.	15	20	32	35	42	50	55	70	70	75	85
F (mm)	58/66	53/61	73/83	90/102	90/102	100/111	124	164	164	204	225
G (mm)	38/46	31/39	37/47	50/62	51/63	56/67	72	110	110	146	146
H (mm)	24/32	16/24	21/31	24/36	25/37	29/40	40	84	84	84	94
I (DIN 933)	4xM5	6xM5	6xM5	6xM6	6xM6	6xM8	6xM8	6xM12	6xM12	6xM12	6xM16

1) Keep space for the releasing screws

2) Stainless steel version also available

## Ordering data

AK/SB 150/98 - 30<sup>H7</sup> - 35<sup>H7</sup> - xxx

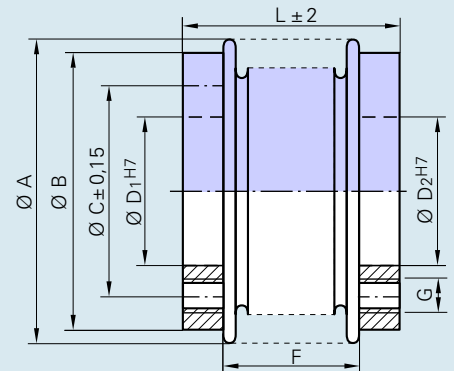
Type	length
Bore diameter $D_1$	
Bore diameter $D_2$	
Further details e.g. material	

# Backlash-free Metal Bellow Coupling Series CK for flange mounting

Please order here:

**as** antriebstechnik + spannsysteme

tel.: 0049 40 679467-0, fax: 0049 40 679467-20



## Technical data series CK

Type	18	30	60	80	150	200	300	500	800	1400	3000	5000
Nominal torque (Nm) $T_{KN}$	18	30	60	80	150	200	300	500	800	1400	3000	5000
Torsional stiffness ( $10^3$ Nm/rad) $C_{Tdyn}$	8/6	35/25	75/50	130/75	150/100	170/120	500/280	310	760	1300	2800	4800
radial spring stiffness (N/mm) $C_r$	200/85	720/220	1100/330	1200/400	2000/600	2500/450	6300/1500	1000	510	710	2950	4920
axial spring stiffness (N/mm) $C_a$	50/40	50/30	90/55	80/55	150/85	150/85	280/150	85	190	280	310	510
Moment of inertia ( $10^{-3}$ Kg $m^2$ ) $J$	0,05	0,09	0,3	0,67	0,84	1,50	3,75	5	11	11	11	60
Weight (approx. kg) $m$	0,2/0,25	0,2/0,3	0,2/0,3	0,6/0,7	0,65/0,75	1,0/1,15	1,6/1,8	1,8	2,9	2,9	2,9	16
Max. approved misalignment (mm)	0,2	0,1/0,2	0,1/0,2	0,2/0,2	0,2/0,2	0,2/0,2	0,2/0,2	0,2	0,2	0,2	0,2	0,2
radial $\Delta K_r$												
axial $\Delta K_a$	0,5	0,4/0,5	0,4/0,5	0,4/0,5	0,4/0,5	0,4/0,5	0,4/0,5	1	1	1	1	1
angular $\Delta K_w$ (degree)	1,5	1,0/1,5	1,0/1,5	1,0/1,5	1,0/1,5	1,0/1,5	1,0/1,5	1,5	1,5	1,5	1,5	1,5
Max. rotating speed at $V=30$ m/s ( $min^{-1}$ ) $n_{max}$	13900	11000	9000	7100	7100	6600	5200	4600	3700	3700	3700	3000

## Dimensions series CK

Type	18	30	60	80	150	200	300	500	800	1400	3000	5000
L (mm) $\pm 2$	36/44	30/37	41/51	51/61	52/62	51/63	47/67	73	130	130	135	145
$\varnothing A$ (mm) max.	45	56	66	82	82	90	110	128	157	157	157	208
$\varnothing B$ (mm)	41	52	63	80	80	86	110	122	152	152	152	208
$\varnothing C$ (mm)	31	37	46	62	62	62	80	94	110	110	110	130
$D_1^{H7}/D_2^{H7}$ <sup>1)</sup> (mm)	22	28	38	50	50	50	65	70	85	85	85	100
F (mm)	24/32	16/24	21/31	24/35	24/36	24/37	28/41	41	87	87	84	94
G	6 x M5	6 x M5	6 x M6	6 x M6	6 x M6	6 x M6	6 x M8	6 x M8	6 x M16	6 x M16	6 x M16	6 x M16
Thread depth (mm)	6	7	10	13	13	13	13	16	18	18	22	25

1) Other bore diameters available on request

2) Stainless steel version also available

## Ordering data

**CK 150/52 - 50<sup>H7</sup> - 50<sup>H7</sup> - xxx**

Type length

Bore diameter  $D_1$

Bore diameter  $D_2$

Further details e.g. material, keyway