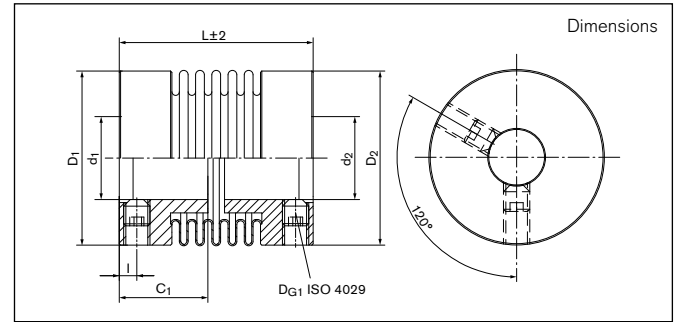


Backlash-free Metal Bellows Couplings

Series EKN



Dimensions

d₁, d_{2min} = Min. bore diameter

d₁, d_{2max} = Max. bore diameter

d₁, d_{2kmin} = Min. bore diameter with keyway

d₁, d_{2kmax} = Max. bore diameter with keyway

C₁ = Guided length in shaft boring d₁

D₁, D₂ = Outer diameter

I = Distance between clamping screw hole and hub end

L = Total length of coupling

Size	d ₁ ; d ₂ min-max		d _{1k} ; d _{2k} min-max		C ₁	D ₁ ; D ₂	I	L
	Without keyway	With keyway	Without keyway	With keyway				
mm								
4	3 - 9	6 - 8	3 - 9	6 - 8	6	16	2	20/23/26
9	3 - 9	6 - 8	3 - 9	6 - 8	6	16	2	21/25/28
15	3 - 12	6 - 10	3 - 12	6 - 10	10	20	3	25/30
20	3 - 16	6 - 14	3 - 16	6 - 14	11	25	2	26/32/36
45	6 - 22	6 - 16	6 - 22	6 - 16	16	33	4	39/48
100	6 - 28	6 - 25	6 - 28	6 - 25	20	40	4	44/54

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

Backlash-free Metal Bellows Couplings
Series EKN
Technical Data

T = Transmissible torque at given T_A
 n_{max} = Max. rotation speed
 C_{Tdyn} = Dynamic torsional stiffness
 C_r = Radial spring stiffness

C_a = Axial spring stiffness
 ΔK_a = Max. permissible axial misalignment
 ΔK_w = Max. permissible angularly misalignment
 ΔK_r = Max. permissible radial misalignment

J = Total moment of inertia
Gw = Weight
 D_{G1} = Thread
 T_{A1} = Tightened torque of clamping screw (D_{G1})

Size	T	n_{max}	C_{Tdyn}	C_r	C_a	ΔK_a	ΔK_w	ΔK_r	J	Gw	D_{G1}	T_{A1}
	Nm	1/min	10^3 Nm/rad	N/mm	mm	mm	Degree	mm	10^{-3} Kgm ²	kg	mm	Nm
4	0,5	15000	0,25/0,19/0,15	128/54/26	18/13/11	0,2/0,3/0,4	1,2/2/2	0,1/0,15/0,2	0,0002	0,005/0,006/0,007	1 x M3	0,5
9	1,1	15000	0,5/0,38/0,3	187/82/42	36/27/22	0,2/0,3/0,4	1,2/2/2	0,1/0,15/0,2	0,0002/0,00023/0,00026	0,006/0,007/0,008	1 x M3	0,5
15	1,75	15000	0,75/0,7	139/81	23/12	0,25/0,4	1,2/2	0,1/0,15	0,00075/0,0008	0,012/0,014	2 x M4	1,5
20	2,4	15000	1,5/1,3/1,0	147/96/46	18/14/9	0,3/0,4/0,5	1,2/2/2	0,1/0,2/0,25	0,0014/0,0016/0,0017	0,016/0,018/0,020	2 x M3	1,5
45	5,5	15000	6,5/4	444/108	47/29	0,3/0,5	1,2/2	0,1/0,2	0,0068/0,0073	0,048/0,052	2 x M6	3
100	12	15000	8,1/6,7	361/193	46/34	0,4/0,5	1,2/2	0,15/0,25	0,02/0,022	0,048/0,058	2 x M6	3

Bore range / Torque values

Size	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Ø17	Ø18	Ø20	Ø22	Ø24	Ø26	Ø28
4	0,5	0,5	0,5	0,5	0,5	0,5	0,5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	0,9	0,7	1,1	1,1	1,1	1,1	1,1	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	1,75	1,75	1,75	1,75	1,75	1,75	1,75	1,75	1,75	1,75	---	---	---	---	---	---	---	---	---	---	---
20	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	---	---	---	---	---	---	---
45	---	---	---	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	---	---	---
100	---	---	---	7,3	8,5	9,7	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Ordering example: EKN

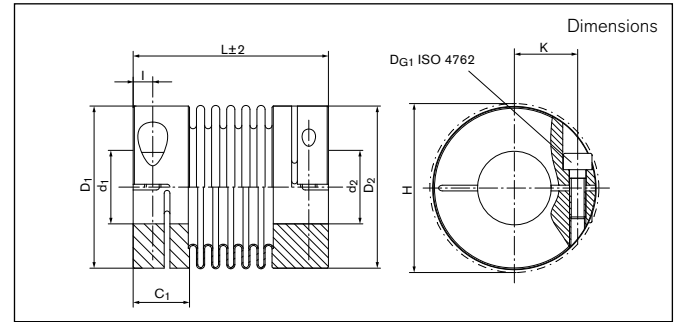
Series/Size	Length	Bore diameter d_1	Bore diameter d_2	Further details
EKN 20	26	6	10	*

* Keyway

Subject to technical changes.

Backlash-free Metal Bellows Couplings

GERWAH® DKN



Dimensions

d₁, d_{2min} = Min. bore diameter without keyway
d₁, d_{2max} = Max. bore diameter without keyway
d_{1k}, d_{2kmin} = Min. bore diameter with keyway acc. to DIN 6885-1
d_{1k}, d_{2kmax} = Max. bore diameter with keyway acc. to DIN 6885-1

C₁ = Guided length in hub boring
D₁, D₂ = Outer diameter hub
H = Clearance diameter
I = Distance between center screw hole and hub end

K = Distance shaft axis - clamping screw axis
L = Total length

Size	d ₁ ; d ₂ min-max		d _{1k} ; d _{2k} min-max		C ₁	D ₁ ; D ₂	H	I	K	L
	Without keyway	With keyway	Without keyway	With keyway						
mm										
4	3 - 8	6 - 8	3 - 8	6 - 8	7	16	18	2	5	21/24/28
9	3 - 8	6 - 8	3 - 8	6 - 8	7	16	18	2	5	23/26/30
15	3 - 10	6 - 10	3 - 10	6 - 10	9	20	21	3	7	26/30
20	3 - 14	6 - 14	3 - 14	6 - 14	11	25	27	4	9	32/38/42
45	5 - 17	6 - 17	5 - 17	6 - 17	13	33	34	5	12	41/50
100	5 - 24	6 - 24	5 - 24	6 - 24	14	40	42	5	16	47/57

Transmission of the couplings transmissible torque T can not longer be guaranteed for certain with borings < d_{min}. Types with borings < d_{min}, however, can be supplied.

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

To continue see next page

Backlash-free Metal Bellows Couplings
GERWAH® DKN
Technical Data

T	= Transmissible torque at given T_A	C_a	= Axial spring stiffness	J	= Total moment of inertia
n_{max}	= Max. rotation speed	ΔKa	= Max. permissible axial misalignment	Gw	= Weight
C_{Tdyn}	= Dynamic torsional stiffness	ΔKw	= Max. permissible angularly misalignment	D_{G1}	= Thread diameter
C_r	= Radial spring stiffness	ΔKr	= Max. permissible radial misalignment	T_{A1}	= Tightened torque of clamping screw (G1)

Size	T	n _{max}	C _{Tdyn}	C _r	C _a	ΔKa	ΔKw	ΔKr	J	Gw	D _{G1}	T _{A1}
	Nm	1/min	10 ³ Nm/rad	N/mm	N/mm	mm	Degree	mm	10 ⁻³ Kgm ²	kg	mm	Nm
4	0,5	15000	0,25/0,19/0,15	128/54/26	18/13/11	0,2/0,3/0,4	1,2/2/2	0,1/0,15/0,2	0,00026	0,005/0,006/0,007	1 x M2	0,3
9	1,1	15000	0,5/0,38/0,3	187/82/42	36/27/22	0,2/0,3/0,4	1,2/2/2	0,1/0,15/0,2	0,00026/0,00029/0,00032	0,006/0,007/0,008	1 x M2	0,3
15	1,75	15000	0,75/0,7	139/81	23/12	0,25/0,4	1,2/2	0,1/0,15	0,0011/0,0012	0,012/0,014	1 x M2,5	0,8
20	2,4	15000	1,5/1,3/1,0	147/96/46	18/14/9	0,3/0,4/0,5	1,2/2/2	0,1/0,2/0,25	0,0025/0,0027/0,0028	0,020/0,022/0,024	1 x M3	1,5
45	5,5	15000	6,5/4	444/108	47/29	0,3/0,5	1,2/2	0,1/0,2	0,0098/0,0103	0,058/0,062	1 x M4	3
100	12	15000	8,1/6,7	361/193	46/34	0,4/0,5	1,2/2	0,15/0,25	0,0231/0,0250	0,060/0,070	1 x M4	3

Transmissible torque T [Nm]

Size	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Ø17	Ø18	Ø19	Ø20	Ø21	Ø22	Ø24
4	0,5	0,5	0,5	0,5	0,5	0,5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	0,5	0,5	0,5	0,5	0,5	0,5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	1,5	1,75	1,75	1,75	1,75	1,75	1,75	1,75	---	---	---	---	---	---	---	---	---	---	---	---	---
20	1,7	2,3	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	---	---	---	---	---	---	---	---	---
45	---	---	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	---	---	---	---	---	---
100	---	---	7	8	9	10,5	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Ordering example: DKN

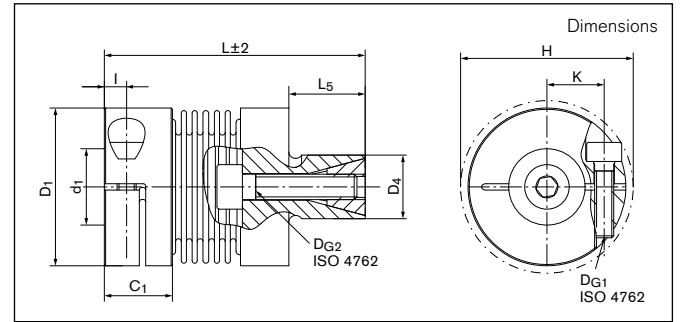
Series/Size	Length	Bore diameter d ₁	Bore diameter d ₂	Further details
DKN 20	42	6	10	*

* Keyway or stainless steel

Subject to technical changes.

Backlash-free Metal Bellows Couplings

Series DKN/S



Dimensions

- d_{1min}** = Min. bore diameter
- d_{1max}** = Max. bore diameter
- d_{1kmin}** = Min. bore diameter with keyway
- d_{1kmax}** = Max. bore diameter with keyway
- C₁** = Guided length in shaft boring d₁
- D₁** = Outer diameter
- D₄** = Outer diameter of the hub base
- H** = Clearance diameter
- I** = Distance between clamping screw hole and hub end
- K** = Distance shaft axis - clamping screw axis
- L** = Total length of coupling
- L₅** = Expanding mandrel

Size	d ₁ min-max		C ₁	D ₁	D ₄	H	I	K	L	L ₅
	Without keyway	With keyway								
mm										
4	3 - 8	6 - 8	7	16	8	18	2	5	29/31/35	8
9	3 - 8	6 - 8	7	16	8	18	2	5	30/33/37	8
15	3 - 10	6 - 10	9	20	10	21	3	7	37/41	12
20	3 - 14	6 - 14	11	25	10	27	4	9	41/47/51	12
45	5 - 17	6 - 17	13	33	14	34	5	12	52/61	16
100	5 - 24	6 - 24	14	40	16	42	5	16	61/71	20

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

Backlash-free Metal Bellows Couplings
Series DKN/S
Technical Data

T = Transmissible torque at given T_A	ΔK_a = Max. permissible axial misalignment	D_{G1}, D_{G2} = Thread
n_{max} = Max. rotation speed	ΔK_w = Max. permissible angular misalignment	T_{A1} = Tightened torque of clamping screw (D_{G1})
C_{Tdyn} = Dynamic torsional stiffness	ΔK_r = Max. permissible radial misalignment	T_{A2} = Tightened torque of clamping screw (D_{G2})
C_r = Radial spring stiffness	J = Total moment of inertia	
C_a = Axial spring stiffness	Gw = Weight	

Size	T	n_{max}	C_{Tdyn}	C_r	C_a	ΔK_a	ΔK_w	ΔK_r	J	Gw	D_{G1}	T_{A1}	D_{G2}	T_{A2}
	Nm	1/min	10^3 Nm/rad	N/mm		mm	Degree	mm	10^{-3} Kg m^2	kg	mm	Nm	mm	Nm
4	0,5	15000	0,25/0,19/0,15	128/54/26	18/13/11	0,2/0,3/0,4	1,2/2/2	0,1/0,15/0,2	0,0003	0,007/0,008/0,009	1 x M2	0,3	1 x M3	1,8
9	1,1	15000	0,5/0,38/0,3	187/82/42	36/27/22	0,2/0,3/0,4	1,2/2/2	0,1/0,15/0,2	0,0003	0,009/0,010/0,010	1 x M2	0,3	1 x M3	1,8
15	1,75	15000	0,75/0,7	139/81	23/12	0,25/0,4	1,2/2	0,1/0,15	0,0011/0,0012	0,016/0,017	1 x M2,5	0,8	1 x M4	3
20	2,4	15000	1,5/1,3/1,0	147/96/46	18/14/9	0,3/0,4/0,5	1,2/2/2	0,1/0,2/0,25	0,0021/0,0023/0,0025	0,024/0,027/0,028	1 x M3	1,5	1 x M4	3
45	5,5	15000	6,5/4	444/108	47/29	0,3/0,5	1,2/2	0,1/0,2	0,0080/0,0086	0,064/0,070	1 x M4	3	1 x M5	4
100	12	15000	8,1/6,7	361/193	46/34	0,4/0,5	1,2/2	0,15/0,25	0,0229/0,0256	0,070/0,087	1 x M4	3	1 x M6	6

Bore range / Torque values

Size	$\emptyset 3$	$\emptyset 4$	$\emptyset 5$	$\emptyset 6$	$\emptyset 7$	$\emptyset 8$	$\emptyset 9$	$\emptyset 10$	$\emptyset 11$	$\emptyset 12$	$\emptyset 13$	$\emptyset 14$	$\emptyset 15$	$\emptyset 16$	$\emptyset 17$	$\emptyset 18$	$\emptyset 19$	$\emptyset 20$	$\emptyset 21$	$\emptyset 22$	$\emptyset 24$	
4	0,5	0,5	0,5	0,5	0,5	0,5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	0,5	0,5	0,5	0,5	0,5	0,5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	1,5	1,75	1,75	1,75	1,75	1,75	1,75	1,75	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	1,7	2,3	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	---	---	---	---	---	---	---	---	---	---
45	---	---	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	---	---	---	---	---	---	---
100	---	---	7	8	9	10,5	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Ordering example: DKN/S

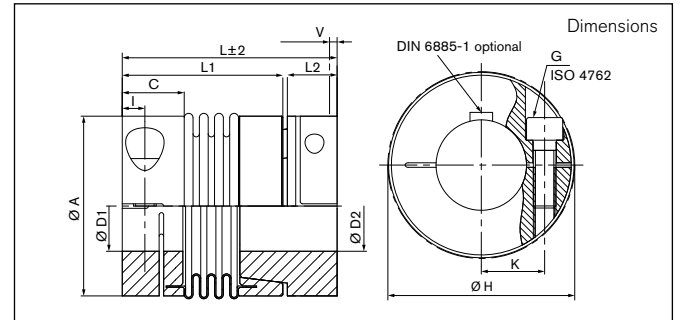
Series/Size	Length	Bore diameter d_1	Further details
DKN/S 20	41	6	*

* Keyway or stainless steel

Subject to technical changes.

Backlash-free Metal Bellows Couplings

Series PKA



Dimensions

- d_{1min}** = Min. bore diameter
- d_{1max}** = Max. bore diameter
- d_{2min}** = Min. bore diameter
- d_{2max}** = Max. bore diameter
- C₁** = Guided length in shaft boring
- D_{1; D₂}** = Outer diameter
- H** = Clearance diameter
- I** = Distance between clamping screw hole and hub end
- K** = Distance shaft axis - clamping screw axis
- L** = Total length of coupling
- L₆** = Length of basic part
- L₇** = Body length until bellow beginning or plug connection
- V** = Preload distance

Size	d ₁ min-max		d ₂ min-max		C ₁	D _{1; D₂}	H	I	K	L	L ₆	L ₇	V
	Without keyway	Without keyway	Without keyway	Without keyway									
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
0,4	3 - 8	3 - 6	7	16	17	2,4	5	26/28/32	20/22/26	5,5	0,4		
0,9	3 - 8	3 - 6	7	16	17	2,4	5	27/30/34	20/22/26	5,5	0,4		
1,5	3 - 10	3 - 10	8,5	20	21,5	3	7	32/36	23/27	8	0,5		
2	3 - 14	3 - 12	11	25	27	3,5	9	37/43/47	28/34/38	8	0,5		
4,5	5 - 17	5 - 16	13	33	34,5	4,5	11,5	49/57	36/44	11,5	0,7		
10	5 - 24	5 - 20	14	40	41,5	4,8	15,5	55/66	42/53	11	1,0		
18	10 - 26	8 - 21	16,5	45	47	5,5	17,5	59/67	39/47	17,5	0,5 - 1,0		
30	10 - 30	10 - 25	21	55	56,5	7,5	20	70/78	48/56	19	0,5 - 1,0		
60	14 - 34	12 - 32	23,5	64	66,5	9	22,5	85/96	62,5/73,5	20	0,5 - 1,5		
150	17 - 42	15 - 40	27,5	80	83	10	28	95/107	71/83	22	0,5 - 1,5		
300	24 - 60	24 - 56	33	110	110	12,5	39	112/123	72/84	37,5	0,5 - 1,5		
500	35 - 64	35 - 64	41	119	119	15	43	134/145	91/102	40,5	0,5 - 2,0		

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

Backlash-free Metal Bellows Couplings
Series PKA
Technical Data

T = Transmissible torque at given T_A	ΔK_a = Max. permissible axial misalignment	Gw = Weight
n_{max} = Max. rotation speed	ΔK_w = Max. permissible angular misalignment	D_{G1} = Thread
C_{Tdyn} = Dynamic torsional stiffness	ΔK_r = Max. permissible radial misalignment	T_{A1} = Tightened torque of clamping screw (D _{G1})
C_r = Radial spring stiffness	J = Total moment of inertia	
C_a = Axial spring stiffness		

Size	T	n_{max}	C _{Tdyn}	C _r	C _a	ΔK_a	ΔK_w	ΔK_r	J	Gw	D _{G1}	T _{A1}
	Nm	1/min	10 ³ Nm/rad	N/mm	N/mm	mm	Degree	mm	10 ⁻³ Kgm ²	kg	mm	Nm
0,4	0,5	15000	0,25/0,19/0,15	128/54/26	18/13/11	0,2/0,3/0,4	1,2/2/2	0,1/0,15/0,2	0,0003	0,008/0,009/0,01	1 x M2	0,3
0,9	1,1	15000	0,5/0,38/0,3	187/82/42	36/27/22	0,2/0,3/0,4	1,2/2/2	0,1/0,15/0,2	0,0004	0,009/0,01/0,011	1 x M2	0,6
1,5	1,75	15000	0,75/0,7	139/81	23/12	0,25/0,4	1,2/2	0,1/0,15	0,001/0,0011	0,015/0,017	1 x M2,5	0,8
2	2,4	15000	1,5/1,3/1	147/96/46	18/14/9	0,3/0,4/0,5	1,2/2/2	0,1/0,2/0,25	0,0028/0,003/0,0031	0,028/0,03/0,032	1 x M3	1,5
4,5	5,5	15000	6,5/4	444/108	47/29	0,3/0,5	1,2/2	0,1/0,2	0,0112/0,0117	0,067/0,071	1 x M4	3
10	12	15000	8,1/6,7	361/193	46/34	0,4/0,5	1,2/2	0,15/0,25	0,0255/0,0274	0,097/0,107	1 x M4	3
18	22	12700	8/6	200/85	50/40	0,5	1,5	0,2	0,0482/0,0582	0,156/0,166	1 x M5	6
30	36	10200	35/25	720/220	50/30	0,4/0,5	1/1,5	0,1/0,2	0,1334/0,1439	0,282/0,3	1 x M6	12
60	75	8600	75/50	1100/330	90/55	0,4/0,5	1/1,5	0,1/0,2	0,3228/0,3328	0,482/0,51	1 x M8	30
150	180	6800	150/100	2000/600	150/85	0,4/0,5	1/1,5	0,2	0,8289/0,8589	0,803/0,853	1 x M10	85
300	360	5900	500/280	6300/1500	280/150	0,4/0,5	1/1,5	0,2/1,5	3,299/3,454	1,71/1,77	1 x M12	120
500	600	4900	680/310	8800/1000	100/85	0,5/1	1/1,5	0,2/1,5	5,585/5,855	2,39/2,49	1 x M14	190

Bore range / Torque values

Size	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Ø17	Ø18	Ø19	Ø20	Ø21	Ø22	Ø24	Ø25	Ø28	Ø30	Ø35	Ø40	Ø45	Ø50	Ø55	Ø60	Ø64	
0,4	0,5	0,5	0,5	0,5	0,5	0,5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
0,9	0,5	0,5	0,5	0,5	0,5	0,5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
1,5	1,5	1,75	1,75	1,75	1,75	1,75	1,75	1,75	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
2	1,7	2,3	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
4,5	---	---	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
10	---	---	7	8	9	10,5	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	---	---	---	---	---	---	---	---	---	
18	---	---	---	---	---	18	20	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	---	---	---	---	---	---	---	---	
30	---	---	---	---	---	---	---	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	
60	---	---	---	---	---	---	---	---	---	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	
150	---	---	---	---	---	---	---	---	---	---	---	---	---	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	
300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	360	360	360	360	360	360	360
500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	600	600	600	600	600	600	600

Ordering example: PKA

Series/Size	Length	Bore diameter d ₁	Bore diameter d ₂	Position	Further details
PKA 2	43	12	12	D	*

C = Single position

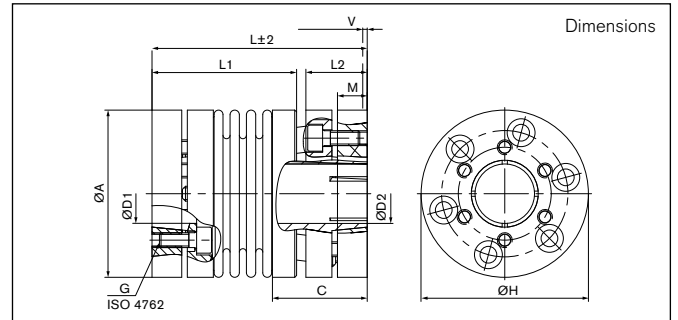
D = Multi position

* Keyway

Subject to technical changes.

Backlash-free Metal Bellows Couplings

Series PKB



Dimensions

d_{1min} = Min. bore diameter
d_{1max} = Max. bore diameter
d_{2min} = Min. bore diameter
d_{2max} = Max. bore diameter

C₁ = Guided length in shaft boring d₁
C₂ = Guided length in shaft boring d₂
D₁; D₂ = Outer diameter
H = Clearance diameter
L = Total length of coupling

L₆ = Length of basic part
L₇ = Body length until bellow beginning or plug connection
V = Preload distance

Size	d ₁ min-max		d ₂ min-max		C ₁	C ₂	D ₁ ; D ₂	H	L	L ₆	L ₇	V
	Without keyway	Without keyway	Without keyway	Without keyway								
	mm		mm		mm			mm	mm	mm		
18	10 - 16		10 - 16		16	26	45	45	58/66	39/47	17	0,5 - 1,0
30	12 - 24		12 - 24		20	32	55	56	68/76	47/55	19	0,5 - 1,0
60	12 - 32		12 - 32		22	37	66	66	79/89	42/52	22	0,5 - 1,5
150	15 - 40		15 - 40		28	45	80	82	97/109	52/64	28	0,5 - 1,5
300	24 - 56		24 - 56		38	46	110	110	113/124	78,5/89,5	33	0,5 - 1,5
500	30 - 60		30 - 60		42	62	119	122	132/145	91/104	38	0,5 - 2,0

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

Backlash-free Metal Bellows Couplings
Series PKB
Technical Data

T = Transmissible torque at given T_A	ΔK_a = Max. permissible axial misalignment	Gw = Weight
n_{max} = Max. rotation speed	ΔK_w = Max. permissible angular misalignment	D_{G1} = Thread
C_{Tdyn} = Dynamic torsional stiffness	ΔK_r = Max. permissible radial misalignment	T_{A1} = Tightened torque of clamping screw (D _{G1})
C_r = Radial spring stiffness	J = Total moment of inertia	
C_a = Axial spring stiffness		

Size	T	n_{max}	C _{Tdyn}	C _r	C _a	ΔK_a	ΔK_w	ΔK_r	J	Gw	D _{G1}	T _{A1}
	Nm	1/min	10 ³ Nm/rad	N/mm		mm	Degree	mm	10 ⁻³ Kgm ²	kg	mm	Nm
18	22	12700	8	200	50	0,5	1,5	0,2	0,0736/0,0769	0,254/0,264	6 x M4	2
30	36	10200	35/25	720/220	50/30	0,4/0,5	1/1,5	0,1/0,2	0,1994/0,2098	0,432/0,449	6 x M4	2,5
60	75	8600	75/50	1100/330	90/55	0,4/0,5	1/1,5	0,1/0,2	0,453/0,479	0,657/0,685	6 x M5	4
150	180	6800	150/100	2000/600	150/85	0,4/0,5	1/1,5	0,2	1,25/1,316	1,209/1,259	6 x M5	8
300	360	5900	500/280	6300/1500	280/150	0,4/0,5	1/1,5	0,2	5,3091/5,4657	3,043/3,104	6 x M8	16
500	600	4900	680/310	8800/1000	100/85	0,5/1	1/1,5	0,2	7,7651/8,0348	3,521/3,611	6 x M8	20

Bore range / Torque values

Size	Ø10	Ø12	Ø14	Ø15	Ø16	Ø18	Ø20	Ø22	Ø24	Ø26	Ø30	Ø32	Ø35	Ø38	Ø40	Ø44	Ø48	Ø50	Ø55	Ø60
18	22	22	22	22	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	36	36	36	36	36	36	36	36	---	---	---	---	---	---	---	---	---	---	---
60	---	33	67	75	75	75	75	75	75	75	75	75	---	---	---	---	---	---	---	---
150	---	---	---	96	123	156	180	180	180	180	180	180	180	180	180	---	---	---	---	---
300	---	---	---	---	---	---	---	---	229	270	360	360	360	360	360	360	360	360	360	---
500	---	---	---	---	---	---	---	---	---	---	421	482	581	600	600	600	600	600	600	600

Ordering example: PKB

Series/Size	Length	Bore diameter d ₁	Bore diameter d ₂	Position
PKB 18	58	10	16	C

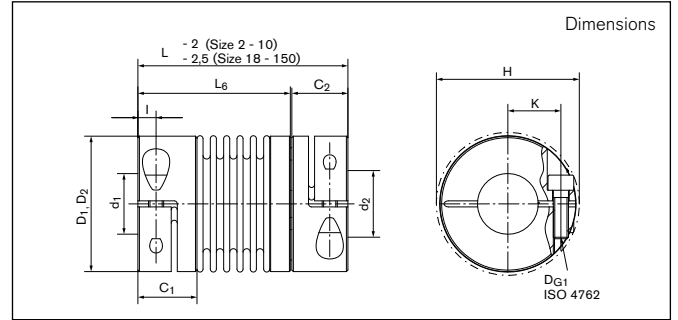
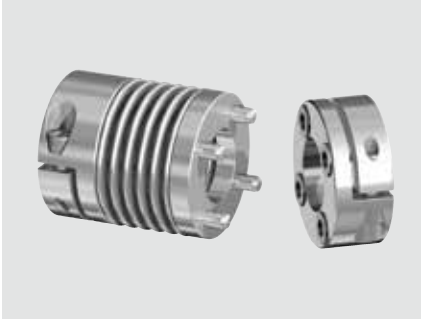
C = Single position

D = Multi position

Subject to technical changes.

Backlash-free Metal Bellows Couplings

Series PKN



Dimensions

d₁, d_{2min} = Min. bore diameter

d₁, d_{2max} = Max. bore diameter

d₁, d_{2kmin} = Min. bore diameter with keyway

d₁, d_{2kmax} = Max. bore diameter with keyway

C₁, C₂ = Guided length in shaft boring d₁, d₂

D₁, D₂ = Outer diameter

H = Clearance diameter

I = Distance between clamping screw hole and hub end

K = Distance shaft axis - clamping screw axis

L = Total length of coupling

L₆ = Length of basic part without plug part or ZW

Size	d ₁ min-max		d ₂ min-max		d _{1k} min-max		d _{2k} min-max		C ₁	C ₂	D ₁ ; D ₂	H	I	K	L	L ₆
	Without keyway	With keyway	Without keyway	With keyway	Without keyway	With keyway	Without keyway	With keyway								
	mm		mm		mm		mm		mm		mm		mm		mm	
2	3 - 14		3 - 9		6 - 14		6 - 9		11	11,5	25	28	4	9	39	26
4,5	6 - 17		6 - 16		6 - 17		6 - 16		13	13	33	35	5	12	47,5	33
10	6 - 24		6 - 22		6 - 24		6 - 22		14	13	40	42	5	16	53,5	39
18	8 - 26		8 - 22		8 - 26		8 - 22		20	18,5	45	48	6	18	70,5	50
30	10 - 30		10 - 28		10 - 30		10 - 28		25	22	55	56	8	20	72	48
60	10 - 35		10 - 30		10 - 35		10 - 30		29	29	66	67	10	24	88,5	57
80	14 - 42		14 - 42		14 - 42		14 - 42		34	33	80	85	12	28	102,5	67
150	14 - 42		14 - 42		14 - 42		14 - 42		34	33	80	85	12	28	102,5	67

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

Backlash-free Metal Bellows Couplings
Series PKN
Technical Data

T = Transmissible torque at given T_A
 n_{max} = Max. rotation speed
 C_{Tdyn} = Dynamic torsional stiffness
 C_r = Radial spring stiffness

C_a = Axial spring stiffness
 ΔK_a = Max. permissible axial misalignment
 ΔK_w = Max. permissible angularly misalignment
 ΔK_r = Max. permissible radial misalignment

J = Total moment of inertia
Gw = Weight
 D_{G1} = Axial spring stiffness
 T_{A1} = Tightened torque of clamping screw (D_{G1})

Size	T	n_{max}	C_{Tdyn}	C_r	C_a	ΔK_a	ΔK_w	ΔK_r	J	Gw	D_{G1}	T_{A1}
	Nm	1/min	10^3 Nm/rad	N/mm		mm	Degree	mm	10^{-3} Kgm ²	kg	mm	Nm
2	2,4	22900	1,5	147	18	0,4	1,2	0,2	0,02	0,032	1 x M3	1,5
4,5	5,5	17600	6,5	444	47	0,3	1,2	0,1	0,03	0,066	1 x M4	3
10	12	14100	8	361	46	0,4	1,2	0,15	0,04	0,092	1 x M4	3
18	22	12700	8	50	200	0,5	1,5	0,2	0,054	0,164	1 x M5	6
30	36	10200	35	50	720	0,4	1	0,1	0,123	0,280	1 x M6	12
60	75	8600	75	90	1100	0,4	1	0,1	0,325	0,494	1 x M8	30
80	95	6800	130	80	1200	0,4	1	0,2	0,884	0,855	1 x M10	60
150	180	6800	150	150	2000	0,4	1	0,2	0,884	0,855	1 x M10	85

Bore range / Torque values

Size	Ø3	Ø4	Ø5	Ø6	Ø8	Ø10	Ø12	Ø14	Ø15	Ø18	Ø20	Ø21	Ø24	Ø27	Ø28	Ø30	Ø32	Ø35	Ø36	Ø38	Ø41	
2	1,7	2,3	2,4	2,4	2,4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4,5	---	---	5,5	5,5	5,5	5,5	5,5	5,5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	8	11	12	12	12	12	12	12	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	18	22	22	22	22	22	22	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	36	36	36	36	36	36	36	36	36	---	---	---	---	---	---	---	---
60	---	---	---	---	---	---	---	75	75	75	75	75	75	75	75	---	---	---	---	---	---	---
80	---	---	---	---	---	---	---	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95
150	---	---	---	---	---	---	---	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180

Ordering example: PKN

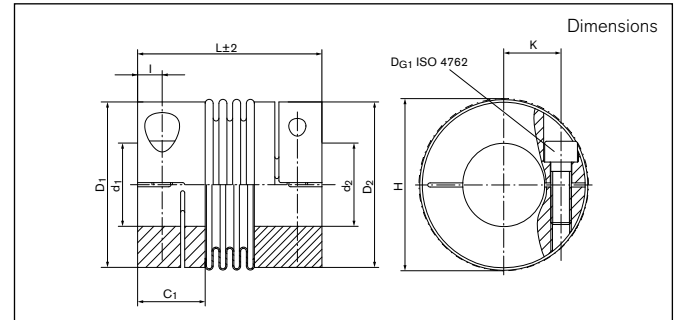
Series/Size	Bore diameter d_1	Bore diameter d_2	Further details
PKN 150	30	35	*

* Keyway or stainless steel

Subject to technical changes.

Backlash-free Metal Bellows Couplings

Series AKN



Dimensions

d₁, d_{2min} = Min. bore diameter

d₁, d_{2max} = Max. bore diameter

C₁ = Guided length in shaft boring d1

D₁, D₂ = Outer diameter

H = Clearance diameter

I = Distance between clamping screw hole and hub end

K = Distance shaft axis - clamping screw axis

L = Total length of coupling

Size	d ₁ min-max	d ₂ min-max	C ₁	D ₁ ; D ₂	H	I	K	L
	Without keyway	Without keyway						
	mm	mm	mm	mm	mm	mm	mm	mm
18	8 - 26	8 - 26	20	45	48	6	18	63
30	10 - 30	10 - 30	25	55	56	8	20	65
60	12 - 35	12 - 35	29	64	67	10	24	78
80	14 - 42	14 - 42	33	80	84	12	28	90
150	14 - 42	14 - 42	33	80	84	12	28	90
200	22 - 46	22 - 46	38	90	93	13	31	99
300	24 - 60	24 - 60	38	110	110	13	39	104
500	35 - 64	35 - 64	41	119	122	15	43	111

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

Backlash-free Metal Bellows Couplings
Series AKN
Technical Data

T = Transmissible torque at given T_A	C_a = Axial spring stiffness	J = Total moment of inertia
n_{max} = Max. rotation speed	ΔKa = Max. permissible axial misalignment	Gw = Weight
C_{Tdyn} = Dynamic torsional stiffness	ΔKw = Max. permissible angularly misalignment	D_{G1} = Thread
C_r = Radial spring stiffness	ΔKr = Max. permissible radial misalignment	T_{A1} = Tightened torque of clamping screw (D_{G1})

Size	T	n _{max}	C _{Tdyn}	C _r	C _a	ΔKa	ΔKw	ΔKr	J	Gw	D _{G1}	T _{A1}
	Nm	1/min	10 ³ Nm/rad	N/mm		mm	Degree	mm	10 ⁻³ Kgm ²	kg	mm	Nm
18	22	12700	8	200	50	0,5	1,5	0,2	0,05	0,133	1 x M5	6
30	36	10200	35	720	50	0,4	1	0,1	0,11	0,245	1 x M6	12
60	75	8600	75	1100	90	0,4	1	0,1	0,29	0,406	1 x M8	30
80	95	6800	130	1200	80	0,4	1	0,2	0,87	0,742	1 x M10	60
150	180	6800	150	2000	150	0,4	1	0,2	0,87	0,742	1 x M10	85
200	240	6300	170	2500	150	0,4	1	0,2	1,44	1,054	1 x M12	100
300	360	5900	500	6300	280	0,4	1	0,2	3	1,434	1 x M12	120
500	600	4900	680	8800	100	0,5	1	0,2	4,7	1,949	1 x M14	190

Bore range / Torque values

Size	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø15	Ø16	Ø18	Ø20	Ø22	Ø25	Ø28	Ø30	Ø35	Ø40	Ø45	Ø50	Ø55	Ø60	Ø64
18	18	20	22	22	22	22	22	22	22	22	22	22	---	---	---	---	---	---	---	---	---
30	---	---	36	36	36	36	36	36	36	36	36	36	36	36	---	---	---	---	---	---	---
60	---	---	---	---	75	75	75	75	75	75	75	75	75	75	75	---	---	---	---	---	---
80	---	---	---	---	---	---	95	95	95	95	95	95	95	95	95	95	---	---	---	---	---
150	---	---	---	---	---	---	180	180	180	180	180	180	180	180	180	180	---	---	---	---	---
200	---	---	---	---	---	---	---	---	---	---	240	240	240	240	240	240	240	---	---	---	---
300	---	---	---	---	---	---	---	---	---	---	---	360	360	360	360	360	360	360	360	360	---
500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	600	600	600	600	600	600	600

Ordering example: AKN

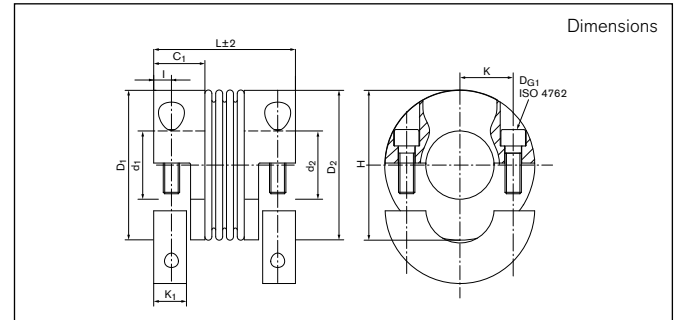
Series/Size	Bore diameter d ₁	Bore diameter d ₂	Further details
AKN 150	30	35	*

* Keyway or stainless steel

Subject to technical changes.

Backlash-free Metal Bellows Couplings

Series AKN-H



Dimensions

- d₁, d_{2min}** = Min. bore diameter
- d₁, d_{2max}** = Max. bore diameter
- d_{1k}, d_{2kmin}** = Min. bore diameter with keyway
- d_{1k}, d_{2kmax}** = Max. bore diameter with keyway
- C₁** = Guided length in shaft boring d₁
- D₁, D₂** = Outer diameter
- H** = Clearance diameter
- I** = Distance between clamping screw hole and hub end
- K** = Distance shaft axis - clamping screw axis
- K₁** = Clamping length
- L** = Total length of coupling

Size	d ₁ ; d ₂ min-max		C ₁	D ₁	H	I	K	K ₁	L
	Without keyway	With keyway							
	mm	mm	mm	mm	mm	mm			mm
18	8 - 26	8 - 26	20	45	48	6	18	11	63
30	10 - 30	10 - 30	25	55	56	8	20	15	65
60	12 - 35	12 - 35	29	64	67	10	24	19	78
80	14 - 42	14 - 42	33	80	84	12	28	21	90
150	14 - 42	14 - 42	33	80	84	12	28	21	90
200	22 - 46	22 - 46	38	90	93	13	31	24	99
300	24 - 60	24 - 60	38	110	110	13	39	24	104
500	35 - 64	35 - 64	41	119	122	15	43	27,5	111

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

Backlash-free Metal Bellows Couplings
Series AKN-H
Technical Data

T	= Transmissible torque at given T_A	C_a	= Axial spring stiffness	J	= Total moment of inertia
n_{max}	= Max. rotation speed	ΔKa	= Max. permissible axial misalignment	Gw	= Weight
C_{Tdyn}	= Dynamic torsional stiffness	ΔKw	= Max. permissible angularly misalignment	D_{G1}	= Thread
C_r	= Radial spring stiffness	ΔKr	= Max. permissible radial misalignment	T_{A1}	= Tightened torque of clamping screw (D _{G1})

Size	T	n _{max}	C _{Tdyn}	C _r	C _a	ΔKa	ΔKw	ΔKr	J	Gw	D _{G1}	T _{A1}
	Nm	1/min	10 ³ Nm/rad	N/mm		mm	Degree	mm	10 ⁻³ Kgm ²	kg	mm	Nm
18	22	12700	8	200	50	0,5	1,5	0,2	0,05	0,15	2 x M5	6
30	36	10200	35	720	50	0,4	1	0,1	0,11	0,25	2 x M6	12
60	75	8600	75	1100	90	0,4	1	0,1	0,29	0,42	2 x M8	30
80	95	6800	130	1200	80	0,4	1	0,2	0,87	0,77	2 x M10	60
150	180	6800	150	2000	150	0,4	1	0,2	0,87	0,77	2 x M10	85
200	240	6300	170	2500	150	0,4	1	0,2	1,44	1,11	2 x M12	100
300	360	5900	500	6300	280	0,4	1	0,2	3	1,5	2 x M12	120
500	600	4900	680	8800	100	0,5	1	0,2	4,7	2	2 x M14	190

Bore range / Torque values

Size	Ø8	Ø9	Ø10	Ø11	Ø12	Ø14	Ø15	Ø18	Ø20	Ø22	Ø24	Ø25	Ø28	Ø30	Ø35	Ø40	Ø45	Ø50	Ø55	Ø60	Ø64
18	13,6	15,3	17	18,7	20,4	22	22	22	22	22	22	22	---	---	---	---	---	---	---	---	---
30	---	---	28	30	33	36	36	36	36	36	36	36	36	36	---	---	---	---	---	---	---
60	---	---	---	---	62	73	75	75	75	75	75	75	75	75	75	---	---	---	---	---	---
80	---	---	---	---	---	95	95	95	95	95	95	95	95	95	95	95	---	---	---	---	---
150	---	---	---	---	---	167	180	180	180	180	180	180	180	180	180	180	---	---	---	---	---
200	---	---	---	---	---	---	---	---	---	240	240	240	240	240	240	240	240	---	---	---	---
300	---	---	---	---	---	---	---	---	---	---	342	360	360	360	360	360	360	360	360	360	---
500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	600	600	600	600	600	600	600

Ordering example: AKN-H

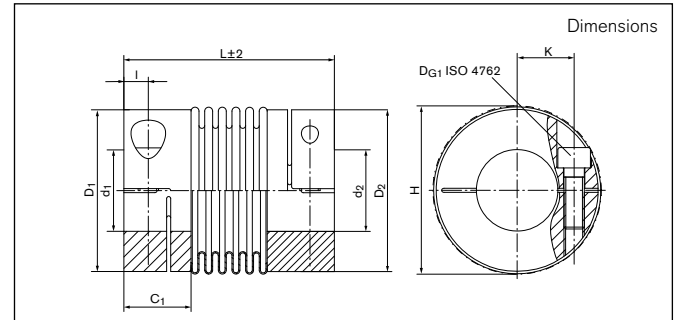
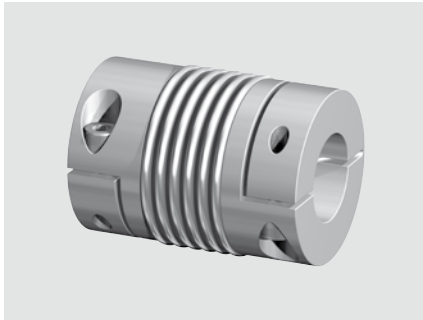
Series/Size	Bore diameter d ₁	Bore diameter d ₂	Further details
AKN-H 150	32	42	*

* Keyway or stainless steel

Subject to technical changes.

Backlash-free Metal Bellows Couplings

Series AKD



Dimensions

- d₁, d_{2min}** = Min. bore diameter
- d₁, d_{2max}** = Max. bore diameter
- d_{1k}, d_{2kmin}** = Min. bore diameter with keyway
- d_{1k}, d_{2kmax}** = Max. bore diameter with keyway
- C₁** = Guided length in shaft boring d 1
- D₁, D₂** = Outer diameter
- H** = Clearance diameter
- I** = Distance between clamping screw hole and hub end
- K** = Distance shaft axis - clamping screw axis
- L** = Total length of coupling

Size	d ₁ ; d ₂ min-max		C ₁	D ₁	H	I	K	L
	Without keyway	With keyway						
	mm	mm	mm	mm	mm	mm	mm	mm
18	8 - 26	8 - 26	20	45	47	6	18	71
30	10 - 30	10 - 30	25	55	56	8	20	73
60	12 - 35	12 - 35	29	64	67	10	24	89
80	14 - 42	14 - 42	34	80	84	12	28	103
150	14 - 42	14 - 42	34	80	84	12	28	103
200	22 - 46	22 - 46	38	90	93	13	31	113
300	24 - 60	24 - 60	38	110	110	13	39	115
500	35 - 64	35 - 64	41	119	122	15	43	122
800	40 - 75	40 - 75	45	132	139	17	48	140

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

Backlash-free Metal Bellows Couplings
Series AKD
Technical Data

T = Transmissible torque at given T_A	C_a = Axial spring stiffness	J = Total moment of inertia
n_{max} = Max. rotation speed	ΔKa = Max. permissible axial misalignment	Gw = Weight
C_{Tdyn} = Dynamic torsional stiffness	ΔKw = Max. permissible angularly misalignment	D_{G1} = Thread
C_r = Radial spring stiffness	ΔKr = Max. permissible radial misalignment	T_{A1} = Tightened torque of clamping screw (D_{G1})

Size	T	n _{max}	C _{Tdyn}	C _r	C _a	ΔKa	ΔKw	ΔKr	J	Gw	D _{G1}	T _{A1}
	Nm	1/min	10 ³ Nm/rad	N/mm		mm	Degree	mm	10 ⁻³ Kgm ²	kg	mm	Nm
18	22	12700	6	85	40	0,5	1,5	0,2	0,06	0,143	1 x M5	6
30	36	10200	25	220	30	0,5	1,5	0,2	0,1	0,263	1 x M6	12
60	75	8600	50	330	55	0,5	1,5	0,2	0,3	0,434	1 x M8	30
80	95	6800	75	400	55	0,5	1,5	0,2	0,9	0,792	1 x M10	60
150	180	6800	100	600	85	0,5	1,5	0,2	0,9	0,792	1 x M10	85
200	240	6300	120	450	85	0,5	1,5	0,2	1,5	1,117	1 x M12	100
300	360	5900	280	1500	150	0,5	1,5	0,2	3,2	1,495	1 x M12	120
500	600	4900	310	1000	85	1	1,5	0,2	4,9	2,038	1 x M14	190
800	800	5000	780	6200	100	3,5	1,5	0,35	17,5	6,06	2 x M16	250

Bore range / Torque values

Size	Ø8	Ø9	Ø10	Ø11	Ø12	Ø14	Ø15	Ø16	Ø18	Ø20	Ø25	Ø30	Ø35	Ø40	Ø45	Ø50	Ø55	Ø60	Ø70	Ø75
18	18	20	22	22	22	22	22	22	22	22	22	---	---	---	---	---	---	---	---	---
30	---	---	36	36	36	36	36	36	36	36	36	36	---	---	---	---	---	---	---	---
60	---	---	---	---	75	75	75	75	75	75	75	75	75	---	---	---	---	---	---	---
80	---	---	---	---	---	---	95	95	95	95	95	95	95	95	---	---	---	---	---	---
150	---	---	---	---	---	---	180	180	180	180	180	180	180	180	---	---	---	---	---	---
200	---	---	---	---	---	---	---	---	---	---	240	240	240	240	240	---	---	---	---	---
300	---	---	---	---	---	---	---	---	---	---	360	360	360	360	360	360	360	360	---	---
500	---	---	---	---	---	---	---	---	---	---	---	---	600	600	600	600	600	600	---	---
800	---	---	---	---	---	---	---	---	---	---	---	---	---	800	800	800	800	800	800	800

Ordering example: AKD

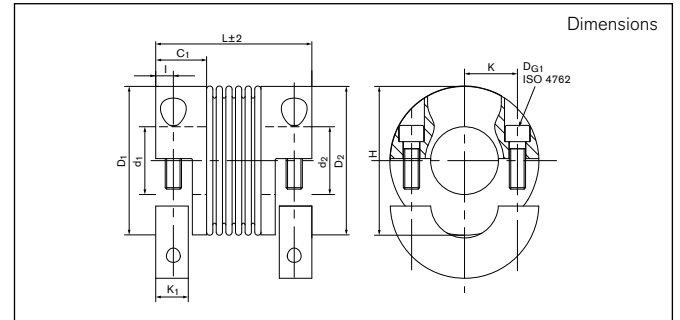
Series/Size	Bore diameter d1	Bore diameter d2	Further details
AKD 150	30	35	*

* Keyway or stainless steel

Subject to technical changes.

Backlash-free Metal Bellows Couplings

Series AKD-H



Dimensions

- d₁, d_{2min}** = Min. bore diameter
- d₁, d_{2max}** = Max. bore diameter
- d_{1k}, d_{2kmin}** = Min. bore diameter with keyway
- d_{1k}, d_{2kmax}** = Max. bore diameter with keyway
- C₁** = Guided length in shaft boring d1
- D₁, D₂** = Outer diameter
- H** = Clearance diameter
- I** = Distance between clamping screw hole and hub end
- K** = Distance shaft axis - clamping screw axis
- K₁** = Clamping length
- L** = Total length of coupling

Size	d ₁ ; d ₂ min-max		C ₁	D ₁ ; D ₂	H	I	K	K ₁	L
	Without keyway	With keyway							
	mm	mm	mm	mm	mm	mm			mm
18	8 - 26	8 - 26	20	45	47	6	18	11	71
30	10 - 30	10 - 30	25	55	56	8	20	15	73
60	12 - 35	12 - 35	29	64	67	10	24	19	89
80	14 - 42	14 - 42	34	80	84	12	28	21	103
150	14 - 42	14 - 42	34	80	84	12	28	21	103
200	22 - 46	22 - 46	38	90	93	13	31	24	113
300	24 - 60	24 - 60	38	110	110	13	39	24	115
500	35 - 64	35 - 64	41	119	122	15	43	27,5	122
800	40 - 75	40 - 75	45	132	139	17	48	34	140

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

Backlash-free Metal Bellows Couplings
Series AKD-H
Technical Data

T = Transmissible torque at given T_A	C_a = Axial spring stiffness	J = Total moment of inertia
n_{max} = Max. rotation speed	ΔKa = Max. permissible axial misalignment	Gw = Weight
C_{Tdyn} = Dynamic torsional stiffness	ΔKw = Max. permissible angularly misalignment	D_{G1} = Thread
C_r = Radial spring stiffness	ΔKr = Max. permissible radial misalignment	T_{A1} = Tightened torque of clamping screw (D _{G1})

Size	T	n _{max}	C _{Tdyn}	C _r	C _a	ΔKa	ΔKw	ΔKr	J	Gw	D _{G1}	T _{A1}
	Nm	1/min	10 ³ Nm/rad	N/mm		mm	Degree	mm	10 ⁻³ Kgm ²	kg	mm	Nm
18	22	12700	6	85	40	0,5	1,5	0,2	0,06	0,16	2 x M5	6
30	36	10200	25	220	30	0,5	1,5	0,2	0,1	0,268	2 x M6	12
60	75	8600	50	330	55	0,5	1,5	0,2	0,3	0,448	2 x M8	30
80	95	6800	75	400	55	0,5	1,5	0,2	0,9	0,82	2 x M10	60
150	180	6800	100	600	85	0,5	1,5	0,2	0,9	0,82	2 x M10	85
200	240	6300	120	450	85	0,5	1,5	0,2	1,5	1,173	2 x M12	100
300	360	5900	280	1500	150	0,5	1,5	0,2	3,2	1,561	2 x M12	120
500	600	4900	310	1000	85	1	1,5	0,2	4,9	2,089	2 x M14	190
800	800	5000	780	6200	100	3,5	1,5	0,35	17,5	6,06	2 x M16	250

Bore range / Torque values

Size	Ø8	Ø9	Ø10	Ø11	Ø12	Ø14	Ø15	Ø18	Ø20	Ø24	Ø25	Ø30	Ø35	Ø40	Ø45	Ø50	Ø55	Ø60	Ø70	Ø75
18	14	15	17	19	20	22	22	22	22	22	22	---	---	---	---	---	---	---	---	---
30	---	---	28	30	33	36	36	36	36	36	36	36	---	---	---	---	---	---	---	---
60	---	---	---	---	62	73	75	75	75	75	75	75	75	---	---	---	---	---	---	---
80	---	---	---	---	---	95	95	95	95	95	95	95	95	95	---	---	---	---	---	---
150	---	---	---	---	---	167	180	180	180	180	180	180	180	180	---	---	---	---	---	---
200	---	---	---	---	---	---	---	---	---	240	240	240	240	240	240	---	---	---	---	---
300	---	---	---	---	---	---	---	---	---	342	360	360	360	360	360	360	360	360	---	---
500	---	---	---	---	---	---	---	---	---	---	---	---	600	600	600	600	600	600	---	---
800	---	---	---	---	---	---	---	---	---	---	---	---	---	800	800	800	800	800	800	800

Ordering example: AKD-H

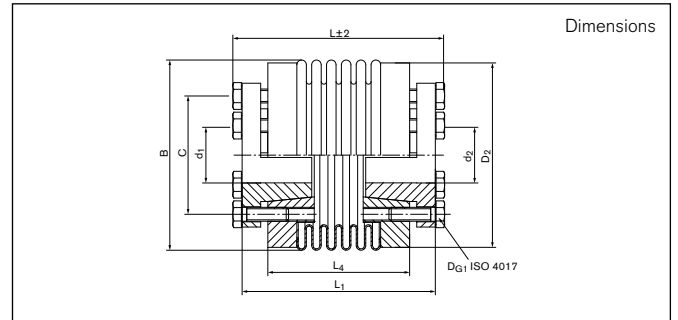
Series/Size	Bore diameter d ₁	Bore diameter d ₂	Further details
AKD-H 150	30	35	*

* Keyway or stainless steel

Subject to technical changes.

Backlash-free Metal Bellows Couplings

Series AK



Dimensions

d₁, d_{2min} = Min. bore diameter
d₁, d_{2max} = Max. bore diameter
B = Bellow outer diameter

C = Pitch circle
D₁, D₂ = Outer diameter
L = Total length of coupling

L₁ = Length of coupling
L₄ = Length of coupling piece (without cone/clamping ring)

Size	d ₁ min-max	d ₂ min-max	B	C	D ₁ ; D ₂	L	L ₁	L ₄
	Without keyway	Without keyway						
30	9 - 20	9 - 20	56	31	55	52/60	45/53	30/38
60	12 - 25	12 - 25	66	37	64	63/73	55/65	35/46
80	15 - 35	15 - 35	82	51	80	79/91	72/83	49/61
150	15 - 35	15 - 35	82	51	80	79/91	72/84	49/61
200	15 - 42	15 - 42	90	51/56	90	80/93	72/85	50/63
300	15 - 50	15 - 50	110	62/75	110	93/104	80/93	56/67
500	24 - 55	24 - 55	122	75/80	119	102/113	94/105	61/72
800	30 - 70	30 - 70	157	92/100	140	170	150	110
1400	35 - 70	35 - 70	157	92/100	140	170	150	110
3000	50 - 80	50 - 80	199	100/115	180	191	176	136
5000	60 - 90	60 - 90	250	100/125	230	199	179	139

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

Backlash-free Metal Bellows Couplings
Series AK
Technical Data

T = Transmissible torque at given T_A	C_a = Axial spring stiffness	J = Total moment of inertia
n_{max} = Max. rotation speed	ΔKa = Max. permissible axial misalignment	Gw = Weight
C_{Tdyn} = Dynamic torsional stiffness	ΔKw = Max. permissible angularly misalignment	D_{G1} = Thread
C_r = Radial spring stiffness	ΔKr = Max. permissible radial misalignment	T_{A1} = Tightened torque of clamping screw (D _{G1})

Size	T	n _{max}	C _{Tdyn}	C _r	C _a	ΔKa	ΔKw	ΔKr	J	Gw	D _{G1}	T _{A1}
	Nm	1/min	10 ³ Nm/rad	N/mm		mm	Degree	mm	10 ⁻³ Kgm ²	kg	mm	Nm
30	36	11000	35/25	720/220	50/30	0,4/0,5	1/1,5	0,1/0,2	0,15	0,281	6 x M4	3
60	72	9100	75/50	1100/330	90/55	0,4/0,5	1/1,5	0,1/0,2	0,24	0,482	6 x M6	8,5
80	96	7000	130/75	1200/400	80/55	0,4/0,5	1/1,5	0,2/0,2	0,65	0,846	6 x M6	10
150	180	7000	150/100	2000/600	150/85	0,4/0,5	1/1,5	0,2/0,2	0,65	0,846	6 x M6	14
200	240	6700	170/120	2500/450	150/85	0,4/0,5	1/1,5	0,2/0,2	0,87	1,005	6 x M6	14
300	360	5200	500/280	6300/1500	280/150	0,4/0,5	1/1,5	0,2/0,2	2,33	1,915	6 x M8	18
500	600	4600	680/310	8800/1000	100/85	0,5/1	1/1,5	0,2/0,2	5,73	2,448	6 x M8	26
800	800	3700	760	510	190	1	1,5	0,2	26,1	9,978	6 x M16	50
1400	1400	3700	1300	710	280	1	1,5	0,2	26,1	9,202	6 x M16	80
3000	3000	2800	2800	8060	880	1	1,5	0,2	86,83	14,57	6 x M12	120
5000	5000	2800	4800	9190	737	1	1,5	0,2	170,3	24,3	6 x M16	210

Bore range / Torque values

Size	Ø9	Ø10	Ø12	Ø14	Ø15	Ø18	Ø20	Ø24	Ø28	Ø32	Ø38	Ø44	Ø48	Ø50	Ø58	Ø60	Ø65	Ø70	Ø75	Ø80	Ø85	Ø90
30	36	36	36	36	36	36	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
60	---	---	72	72	72	72	72	72	---	---	---	---	---	---	---	---	---	---	---	---	---	---
80	---	---	---	---	96	96	96	96	96	96	---	---	---	---	---	---	---	---	---	---	---	---
150	---	---	---	---	180	180	180	180	180	180	---	---	---	---	---	---	---	---	---	---	---	---
200	---	---	---	---	240	240	240	240	240	240	---	---	---	---	---	---	---	---	---	---	---	---
300	---	---	---	---	290	350	360	360	360	360	360	360	360	---	---	---	---	---	---	---	---	---
500	---	---	---	---	---	---	---	600	600	600	600	600	600	600	---	---	---	---	---	---	---	---
800	---	---	---	---	---	---	---	---	800	800	800	800	800	800	800	800	800	800	---	---	---	---
1400	---	---	---	---	---	---	---	---	---	1400	1400	1400	1400	1400	1400	1400	1400	1400	---	---	---	---
3000	---	---	---	---	---	---	---	---	---	---	---	---	3000	3000	3000	3000	3000	3000	3000	3000	---	---
5000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000	5000	5000	5000	5000	5000	5000

Ordering example: AK

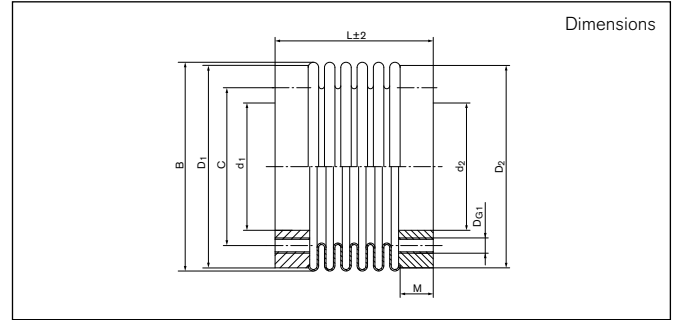
Series/Size	Length	Bore diameter d ₁	Bore diameter d ₂	Further details
AK 150	79	30	35	*

* Stainless steel

Subject to technical changes.

Backlash-free Metal Bellows Couplings

Series CKN



Dimensions

d₁, d₂ = Inner diameter
B = Bellows outer diameter

C = Pitch circle
D₁, D₂ = Outer diameter

L = Total length of coupling
M = Max. depth of screw in

Size	d ₁ ; d ₂	B	C	D ₁ ; D ₂	L	M
	mm			mm		
18	22	46	31	46	36/44	6
30	28	56	37	55	30/38	7
60	38	66	46	64	41/51	10
80	50	82	62	80	52/62	13
150	50	82	62	80	52/62	13
200	50	90	62	90	51/63	13
300	50	110	80	109	55/66	13
500	70	122	94	119	61/72	16
800	85	157	110	152	130	18
1400	85	157	110	152	130	18
3000	100	199	140	180	130	25
5000	145	250	190	230	143	25

Backlash-free Metal Bellows Couplings
Series CKN
Technical Data

T = Transmissible torque at given T_A
 n_{max} = Max. rotation speed
 C_{Tdyn} = Dynamic torsional stiffness
 C_r = Radial spring stiffness

C_a = Axial spring stiffness
 ΔK_a = Max. permissible axial misalignment
 ΔK_w = Max. permissible angularly misalignment
 ΔK_r = Max. permissible radial misalignment

J = Total moment of inertia
Gw = Weight
 D_{G1} = Thread
 T_{A1} = Tightened torque of clamping screw (D_{G1})

Size	T	n_{max}	C_{Tdyn}	C_r	C_a	ΔK_a	ΔK_w	ΔK_r	J	Gw	D_{G1}	T_{A1}
	Nm	1/min	10^3 Nm/rad	N/mm		mm	Degree	mm	10^{-3} Kgm ²	kg	mm	Nm
18	22	13900	8/6	200/85	50/40	0,5	1,5	0,2	0,05	0,063	6 x M5	5,9
30	36	11000	35/25	720/220	50/30	0,4/0,5	1/1,5	0,1/0,2	0,09	0,117	6 x M5	5,9
60	75	9000	75/50	1100/330	90/55	0,4/0,5	1/1,5	0,1/0,2	0,16	0,192	6 x M6	10
80	96	7100	130/75	1200/400	80/55	0,4/0,5	1/1,5	0,2/0,2	0,43	0,356	6 x M6	10
150	180	7100	150/100	2000/600	150/85	0,4/0,5	1/1,5	0,2/0,2	0,43	0,356	6 x M6	15
200	240	6600	170/120	2500/450	150/85	0,4/0,5	1/1,5	0,2/0,2	0,8	0,477	6 x M6	18
300	360	5200	500/280	6300/1500	280/150	0,4/0,5	1/1,5	0,2/0,2	1,7	0,591	6 x M8	25
500	600	4600	680/310	8800/1000	100/85	0,5/1	1/1,5	0,2/0,2	2,3	0,876	6 x M8	36
800	960	3700	760	510	190	1	1,5	0,2	11	3,737	6 x M16	210
1400	1680	3700	1300	710	280	1	1,5	0,2	11	3,728	6 x M16	210
3000	3000	3700	2800	8060	880	1	1,5	0,2	47	7,8	6 x M20	365
5000	5000	3000	4800	9190	737	1	1,5	0,2	119	11,742	8 x M20	365

Ordering example: CKN

Series/Size	Length	Further details
CKN 150	52	*

- Screw quality should be selected according to the tightening torque
- The contact surfaces have to be dry and free from oil and grease

* Stainless steel

Subject to technical changes.