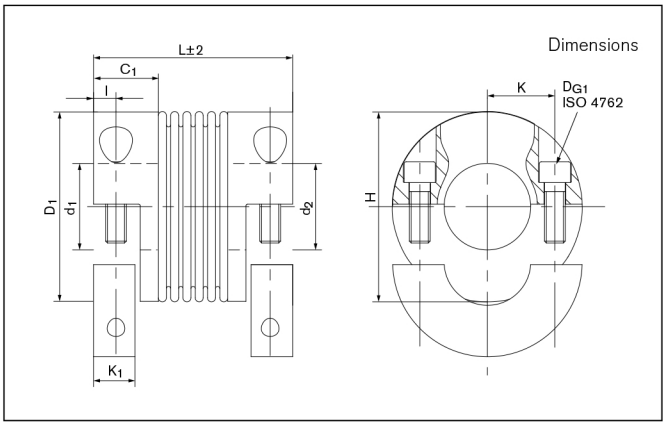
Backlash-free Metal Bellows Couplings **AKD-H**



Dimensions

$d_1;d_{2min}$ = Min. bore diameter d_1/d_2
$d_1;d_{2max}$ = Max. bore diameter d_1/d_2
$d_{1k};d_{2kmin}$ = Min. bore diameter d_1/d_2 with keyway acc. to DIN 6885-1
$d_{1k};d_{2kmax}$ = Max. Min. bore diameter d_1/d_2 with keyway acc. to DIN 6885-1

C_1 = Guided length in hub bore
D_1 = Outer diameter
H = Clearance diameter
l = Distance between center screw hole and hub end

K = Distance shaft axis - clamping screw axis
K_1 = Clamping length
L = Total length

Size	$d_1;d_2$ min-max Without keyway	$d_{1k};d_{2k}$ min-max With keyway	C_1	D_1	H	l	K	K_1	L±2
	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	33	80	84	12	28	21	103
150	14 - 42	14 - 42	33	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

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.

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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 angular 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	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

Transmissible torque T [Nm]

Size	Ø8	Ø9	Ø10	Ø11	Ø12	Ø14	Ø15	Ø18	Ø20	Ø24	Ø25	Ø30	Ø35	Ø40	Ø45	Ø50	Ø55	Ø60	Ø64	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	600	---	---
800	---	---	---	---	---	---	---	---	---	---	---	---	---	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.