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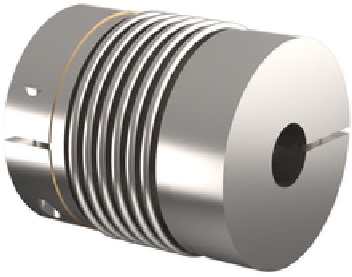
Metal Bellows Coupling KM



• 6-corrugation bellows
• Simple installation with EASY-clamping hub
• Cost-effective standard series

Smaller couplings from 0.4 Nm - 12 Nm, see MKM.

Please note reduced tightening torque for bigger hub bore diameter - see also Ø D 1/2max.

Tightening torque refers to screws.

Dimensions in mm. Length dimensions according to DIN ISO 2768 cH.

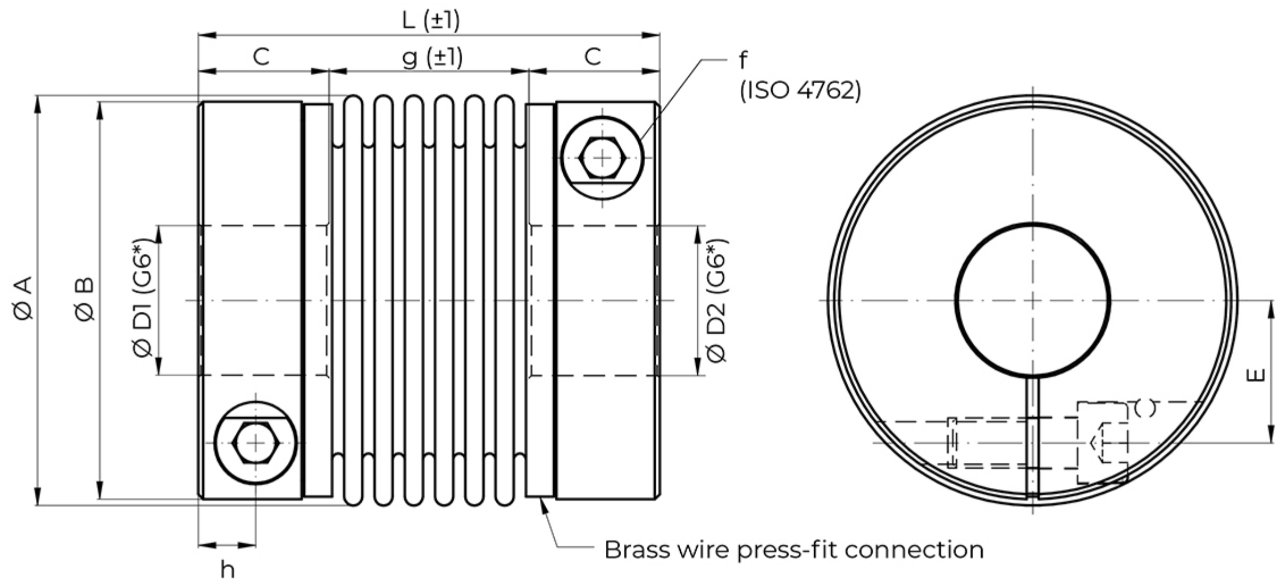
Material: Bellows: stainless steel Hubs: high-tensile strength aluminiume Clamping screws: ISO 4762 - 12.9 Press-fit wire: brass
Temperature range (°C): –20° to +120°C

General Data

Designation	Nominal Torque (Nm)	Max. Torque (Nm)	Moment of inertia (10^{-6}kg*m²)	Torsional stiffness (Nm/arcmin)	Axial max. shaft misalignment (mm)
KM20	20	40	0.14	5.2	0.8
KM35	35	70	0.14	5.8	0.8
KM60	60	120	0.29	8.7	0.9
KM80	80	160	0.79	14	1
KM170	170	340	0.83	17	1
KM270	270	540	2.2	32	1
KM400	400	600	2.4	47	1
KM600	600	900	5.3	67	1
KM900	900	1800	9	105	1
KM1300	1 300	2600	14	170	1

Designation	Lateral max. shaft misalignment (mm)	Axial spring rate (N/mm)	Lateral spring rate (N/mm)	Tightening Torque (Nm)	Max. Speed (rpm)	Weight (kg)
KM20	0.25	51	190	14	20 000	0.3
KM35	0.25	51	190	14	20 000	0.3
KM60	0.3	49	260	30	17 000	0.41
KM80	0.3	45	280	50	14 000	0.8
KM170	0.3	80	470	50	14 000	0.8
KM270	0.3	70	450	90	11 000	1.4
KM400	0.3	100	640	90	11 000	1.5
KM600	0.3	100	980	140	9 000	2.4
KM900	0.3	145	1 000	180	8 500	3.3
KM1300	0.3	130	920	240	7 000	4.2

Dimensions

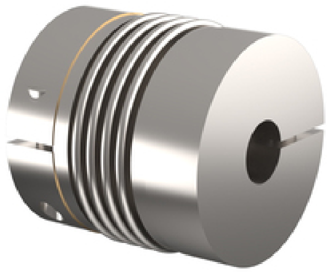


*Other bore tolerances on request.

Designation	Nominal Torque (Nm)	A	B	L	C	g	f	E	ØD1/2 min.
KM20	20	56	-	70	20	30	M6	19	8
KM35	35	56	-	70	20	30	M6	19	10
KM60	60	66	63	77	22	33	M8	22	13
KM80	80	82 (±0.8)	79.5	90	26	38	M10	28.5	16
KM170	170	82 (±1)	79.5	92	26	40	M10	28.5	18
KM270	270	101 (±1)	99	100	29	42	M12	35	25
KM400	400	101 (±1)	99	106	29	48	M12	35	28
KM600	600	122	-	120	34	52	M14	42	32
KM900	900	133	-	143	45	53	M14	47	40
KM1300	1 300	157 (±1.5)	145	145	45	55	M16	54	48

Designation	ØD1/2 max.
KM20	32
KM35	32
KM60	35
KM80	43
KM170	43
KM270	55
KM400	55
KM600	68
KM900	75
KM1300	85

Metal Bellows Coupling KP



• 4-corrugation bellows
• Simple installation with EASY-clamping hub
• Short design
• High torsional stiffness

Smaller couplings from 2 Nm - 12 Nm, see MKP.

Size KP 25 - with 5-corrugation bellow and optional with EASY-PIN.

Please note reduced tightening torque for bigger hub bore diameter - see also Ø D 1/2max.

Tightening torque refers to screws.

Dimensions in mm. Length dimensions according to DIN ISO 2768 cH.

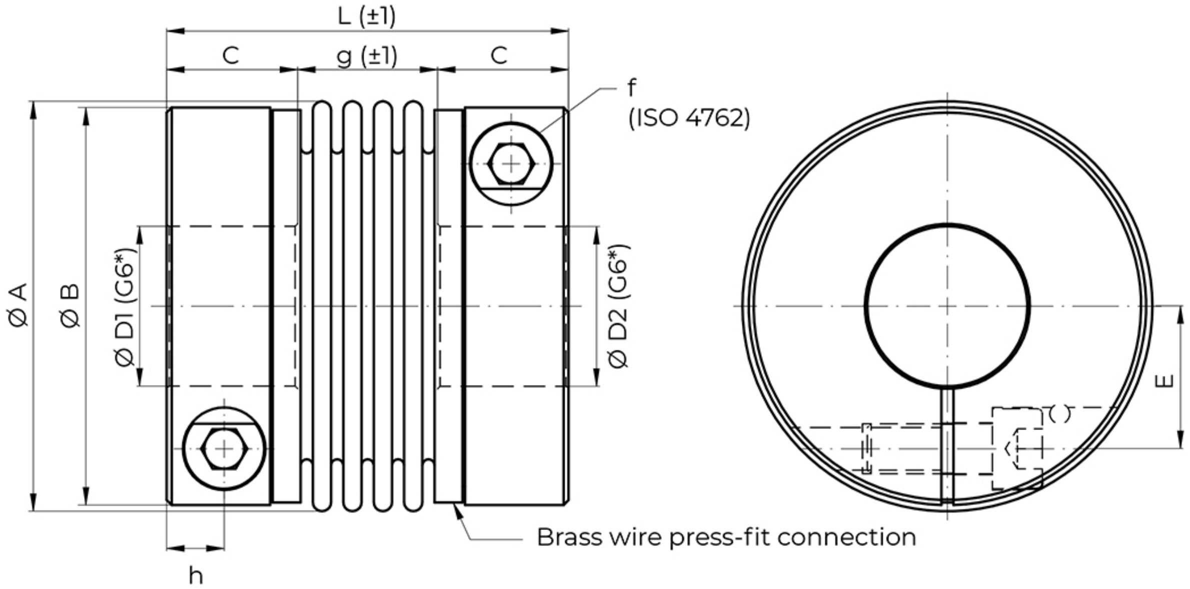
Material: Bellows: stainless steel Hubs: high-tensile strength aluminiume Clamping screws: ISO 4762 - 12.9 Press-fit wire: brass
Temperature range (°C): –20° to +120°C

General Data

Designation	Nominal Torque (Nm)	Max. Torque (Nm)	Moment of inertia (10^{-6}kg*m²)	Torsional stiffness (Nm/arcmin)	Axial max. shaft misalignment (mm)
KP25	25	50	0.064	4	0.5
KP35	35	70	0.13	9	0.5
KP60	60	120	0.27	14	0.6
KP100	100	200	0.35	20	0.6
KP170	170	340	0.76	28	0.8
KP270	270	540	2.0	52	0.8
KP400	400	600	2.15	74	0.7
KP600	600	900	5.0	106	0.7
KP900	900	1800	9.0	156	0.8

Designation	Lateral max. shaft misalignment (mm)	Axial spring rate (N/mm)	Lateral spring rate (N/mm)	Tightening Torque (Nm)	Max. Speed (rpm)	Weight (kg)
KP25	0.15	36	180	8	23 000	0.18
KP35	0.2	70	450	14	20 000	0.3
KP60	0.2	70	650	30	17 000	0.4
KP100	0.2	110	1 200	30	16 000	0.5
KP170	0.2	98	1 000	50	14 000	0.8
KP270	0.2	90	1 300	90	11 000	1.3
KP400	0.2	135	1 500	90	11 000	1.4
KP600	0.2	140	2 800	140	9 000	2.3
KP900	0.2	210	3 050	140	8 500	3.5

Dimensions



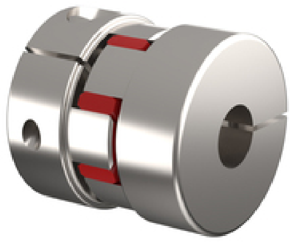
*Other bore tolerances on request.

Designation	Nominal Torque (Nm)	A	B	L	C	g	f	E	ØD1/2 min.
KP25	25	50 (±0.6)	48	58	17	24	M5	17	10
KP35	35	56	-	61	20	21	M6	19	10
KP60	60	66 (±0.8)	63	67	22.2	23	M8	22	13
KP100	100	71 (±0.8)	70	68	22	23.5	M8	25	14
KP170	170	82 (±0.8)	79.5	80	26	28	M10	28.5	18
KP270	270	101 (±1)	99	87	29	29	M12	35	25
KP400	400	101 (±1)	99	91	29	33	M12	35	30
KP600	600	122	-	104	34	36	M14	42	32
KP900	900	133	-	127	45	37	M14	47	40

Designation	ØD1/2 max.
KP25	28
KP35	32
KP60	35
KP100	38
KP170	43
KP270	55
KP400	55
KP600	68
KP900	75

Elastomer Coupling EKM

• With radial clamping hub on both sides
• Plug-in, backlash-free, oscillation dampening
• Cost-effective standard series, very short design



Peak torque is in general 1,5 times nominal.

Dimensions in mm. Length dimensions according to DIN ISO 2768 cH.

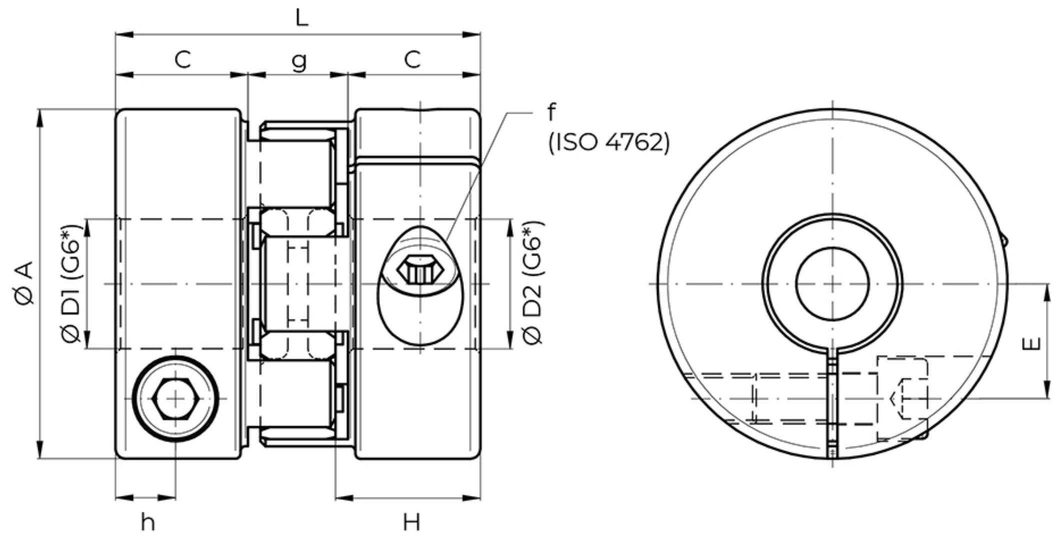
Material: Elastomer spider: polyurethane Hubs: high-tensile strength aluminum (size 2000: tempered steel) Screws: ISO 4762 - 12.9
Temperature range (°C): Depends on size, see table.

General Data

Designation	Nominal Torque (Nm)	Hardness (shore)	Moment of inertia (10^{-6}kg*m²)	Torsional stiffness (Nm/arcmin)	Axial max. shaft misalignment (mm)
EKM8	8	98 Sh-A	0.01	0.09	0.5
EKM15	15	98 Sh-A	0.03	0.24	0.5
EKM20	20	72 Sh-D	0.03	0.46	0.5
EKM30	30	98 Sh-A	0.09	0.7	0.5
EKM45	45	72 Sh-D	0.09	1.1	0.5
EKM60	60	98 Sh-A	0.18	1.0	0.5
EKM90	90	72 Sh-D	0.18	2.0	0.5
EKM150	150	98 Sh-A	0.38	1.2	1
EKM200	200	72 Sh-D	0.38	2.3	1
EKM300	300	98 Sh-A	1.0	3.6	1
EKM400	400	72 Sh-D	1.0	7.0	1
EKM500	500	98 Sh-A	2.2	4.5	1
EKM700	700	98 Sh-A	5.2	8.0	1
EKM1000	1 000	72 Sh-D	5.2	12	1
EKM2000	2 000	98 Sh-A	50	21	1

Designation	Lateral max. shaft misalignment (mm)	Lateral spring rate (N/mm)	Max. Speed (rpm)	Weight (kg)	Temperature range (°C)
EKM8	0.10	600	29 000	0.06	–30° to +90°C
EKM15	0.10	2 100	23 000	0.12	–30° to +90°C
EKM20	0.10	2 900	23 000	0.12	–20° to +120°C
EKM30	0.10	2 500	19 000	0.21	–30° to +90°C
EKM45	0.10	3 600	19 000	0.21	–20° to +120°C
EKM60	0.10	2 600	17 000	0.32	–30° to +90°C
EKM90	0.10	3 700	17 000	0.32	–20° to +120°C
EKM150	0.10	3 300	15 000	0.52	–30° to +90°C
EKM200	0.07	4 600	15 000	0.52	–20° to +120°C
EKM300	0.12	4 500	12 000	0.9	–30° to +90°C
EKM400	0.10	6 500	12 000	0.9	–20° to +120°C
EKM500	0.15	5 900	9 500	1.5	–30° to +90°C
EKM700	0.15	7 000	8 000	2.5	–30° to +90°C
EKM1000	0.10	9 600	8 000	2.5	–20° to +120°C
EKM2000	0.15	9 000	6 000	14	–30° to +90°C

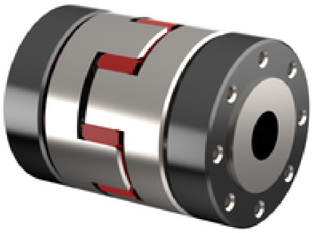
Dimensions



*Other bore tolerances on request.

Designation	Nominal Torque (Nm)	A	L	C	g	f	E	ØD1/2 min.	ØD1/2 max.
EKM8	8	32	40 (±0.5)	13.5	13	M4 - Ts=4 Nm	10.5	6	15
EKM15	15	40	50 (±0.5)	17	16	M5 - Ts=8 Nm	13	7	20
EKM20	20	40	50 (±0.5)	17	16	M5 - Ts=8 Nm	13	8	20
EKM30	30	50	58 (±0.5)	20	18	M6 - Ts=14 Nm	16.5	10	25
EKM45	45	50	58 (±0.5)	20	18	M6 - Ts=14 Nm	16.5	12	25
EKM60	60	60	62 (±0.5)	22	18	M8 - Ts=35 Nm	19.5	13	28
EKM90	90	60	62 (±0.5)	22	18	M8 - Ts=35 Nm	19.5	14	28
EKM150	150	70	73 (±1)	26.5	20	M10 - Ts=50 Nm	23	16	32
EKM200	200	70	73 (±1)	26.5	20	M10 - Ts=50 Nm	23	18	32
EKM300	300	85	86 (±1)	31	24	M12 - Ts=90 Nm	29	20	40
EKM400	400	85	86 (±1)	31	24	M12 - Ts=90 Nm	29	24	40
EKM500	500	100	94 (±1)	33	28	M12 - Ts=115 Nm	36	28	56
EKM700	700	120	109 (±1)	38	33	M14 - Ts=140 Nm	44	30	70
EKM1000	1 000	120	109 (±1)	38	33	M14 - Ts=140 Nm	44	40	70
EKM2000	2 000	160	124 (±1)	42	40	M16 - Ts=290 Nm	55.5	48	90

Elastomer Coupling ESM-A



- With conical hub on both sides
- Plug-in, backlash-free, oscillation dampening
- Rotational symmetry
- High speeds

Tightening torque refers to screws.
Peak torque is in general 1,5 times nominal.

Dimensions in mm. Length dimensions according to DIN ISO 2768 cH.

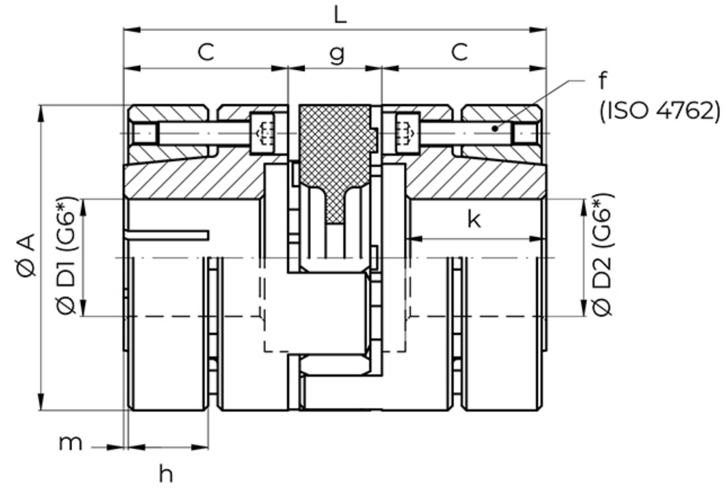
Material: Elastomer spider: polyurethane (size 2000: tempered steel) Conical hubs: high-tensile strength aluminum Clamping ring: heat treated steel - burnished Screws: ISO 4762 - 12.9
Temperature range (°C): Depends on size, see table.

General Data

Designation	Nominal Torque (Nm)	Hardness (shore)	Moment of inertia (10^{-6}kg*m²)	Torsional stiffness (Nm/arcmin)	Axial max. shaft misalignment (mm)
ESM-A10	10	98 Sh-A	0.015	0.09	0.5
ESM-A17	17	98 Sh-A	0.05	0.24	0.5
ESM-A25	25	72 Sh-D	0.06	0.46	0.5
ESM-A43	43	98 Sh-A	0.19	0.7	0.5
ESM-A50	50	72 Sh-D	0.19	1.1	0.5
ESM-A60	60	98 Sh-A	0.28	1.0	0.5
ESM-A90	90	72 Sh-D	0.28	2.0	0.5
ESM-A150	150	98 Sh-A	0.65	1.2	1
ESM-A200	200	72 Sh-D	0.65	2.3	1
ESM-A320	320	98 Sh-A	2	3.6	1
ESM-A400	400	72 Sh-D	2	7.0	1
ESM-A500	500	98 Sh-A	5.6	4.5	1
ESM-A700	700	98 Sh-A	13	8	1
ESM-A1000	1 000	72 Sh-D	13	12	1
ESM-A2000	2 000	98 Sh-A	75	21	1

Designation	Lateral max. shaft misalignment (mm)	Lateral spring rate (N/mm)	Tightening Torque (Nm)	Max. Speed (rpm)	Weight (kg)	Temperature range (°C)
ESM-A10	0.1	600	2	35 000	0.11	–30° to +90°C
ESM-A17	0.1	2 100	3	28 000	0.28	–30° to +90°C
ESM-A25	0.07	2 900	3	28 000	0.28	–20° to +120°C
ESM-A43	0.1	2 500	6	23 000	0.4	–30° to +90°C
ESM-A50	0.07	3 600	6	23 000	0.4	–20° to +120°C
ESM-A60	0.1	2 600	6	21 000	0.6	–30° to +90°C
ESM-A90	0.07	3 700	6	21 000	0.6	–20° to +120°C
ESM-A150	0.1	3 300	6	18 000	0.9	–30° to +90°C
ESM-A200	0.07	4 600	6	18 000	0.9	–20° to +120°C
ESM-A320	0.12	4 500	30	14 000	1.9	–30° to +90°C
ESM-A400	0.1	6 500	30	14 000	1.9	–20° to +120°C
ESM-A500	0.15	5 900	50	11 000	4.5	–30° to +90°C
ESM-A700	0.15	7 000	100	9 500	7	–30° to +90°C
ESM-A1000	0.1	9 600	100	9 500	7	–20° to +120°C
ESM-A2000	0.15	9 000	100	7 000	20	–30° to +90°C

Dimensions



*Other bore tolerances on request.

Designation	Nominal Torque (Nm)	A	L	C	g	f	k	m	ØD1/2 min.
ESM-A10	10	32	50 (±0.5)	18.5	13	4xM3 - Ts= 2 Nm	15.5	1	6
ESM-A17	17	40	66 (±0.5)	25	16	6xM4 - Ts= 3Nm	21	1	9
ESM-A25	25	40	66 (±0.5)	25	16	6xM4 - Ts= 3Nm	21	1	10
ESM-A43	43	50	78 (±0.5)	30	18	4xM5 - Ts= 6Nm	25	1	12
ESM-A50	50	50	78 (±0.5)	30	18	4xM5 - Ts= 6Nm	25	1	15
ESM-A60	60	55	78 (±0.5)	30	18	4xM5 - Ts= 8Nm	25	1	13
ESM-A90	90	55	78 (±0.5)	30	18	4xM5 - Ts= 6Nm	25	1	17
ESM-A150	150	65	90 (±1)	35	20	8xM5 - Ts= 6Nm	30	1	17
ESM-A200	200	65	90 (±1)	35	20	8xM5 - Ts=6 Nm	30	1	19
ESM-A320	320	80	114 (±1)	45	24	4xM8 - Ts= 30Nm	40	1	20
ESM-A400	400	80	114 (±1)	45	24	4xM8 - Ts= 30Nm	40	1	25
ESM-A500	500	100	138 (±1)	55	28	4xM10 - Ts= 50Nm	48	1	22
ESM-A700	700	120	155 (±1)	61	33	4xM12 - Ts= 100Nm	54	1.2	25
ESM-A1000	1 000	120	155 (±1)	61	33	4xM12 - Ts= 100Nm	54	1	25
ESM-A2000	2 000	160	186 (±1)	73	40	8xM12 - Ts= 100Nm	73	-	35

Dimensions

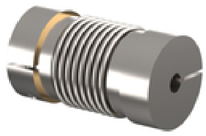
Designation	ØD1/2 max.	ØD1/2 prebored	TKØ
ESM-A10	14	5	24.5
ESM-A17	19	9	31
ESM-A25	19	9	31
ESM-A43	24	10	39.5
ESM-A50	24	10	39.5
ESM-A60	26	12	43
ESM-A90	26	12	43
ESM-A150	36	12	53
ESM-A200	36	12	53
ESM-A320	40	18	64
ESM-A400	40	18	64
ESM-A500	48	20	79
ESM-A700	60	24	96
ESM-A1000	60	24	96
ESM-A2000	85	34	130

Miniature Metal Bellows Coupling MKM

• Standard series with lateral clamping hub
• High torsional stiffness - flexible

Tightening torque refers to screws.

Dimensions in mm. Length dimensions according to DIN ISO 2768 cH.



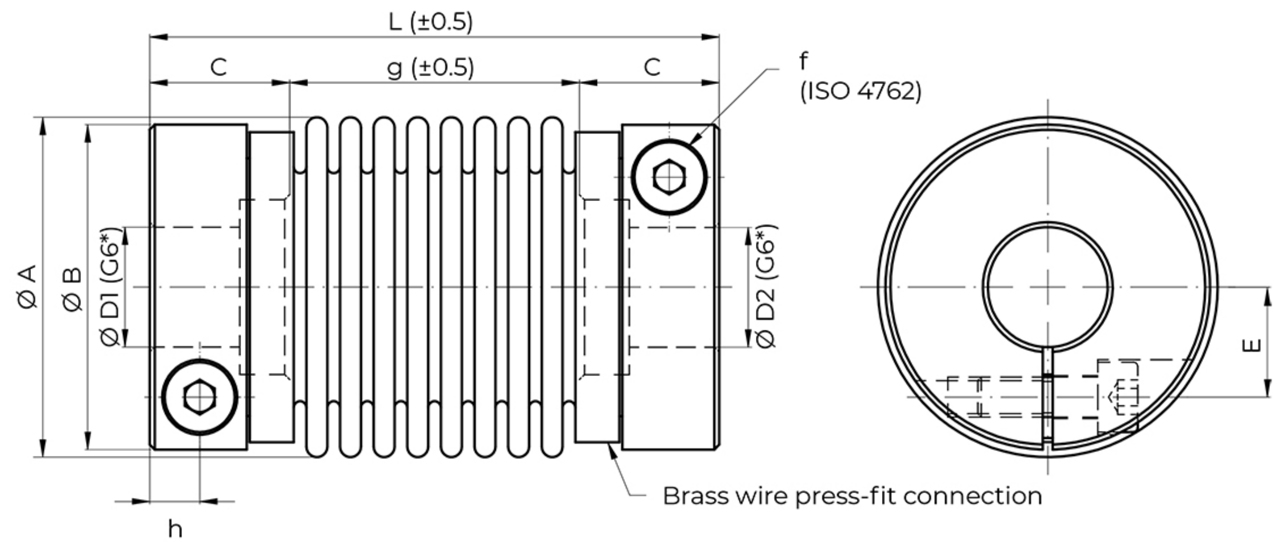
Material: Bellows: stainless steel Hubs: high-tensile strength aluminium Clamping screws: ISO 4762 - 12.9 Press-fit wire: brass
Temperature range (°C): –40° to +200°C
Max. Speed (rpm): 20 000

General Data

Designation	Nominal Torque (Nm)	Max. Torque (Nm)	Moment of inertia (10^{-6}kg*m²)	Torsional stiffness (Nm/arcmin)	Axial max. shaft misalignment (mm)
MKM0.4	0.4	0.8	0.3	50	0.35
MKM0.9	0.9	1.8	0.4	90	0.3
MKM2	2	4	3.0	230	0.5
MKM4	4	8	3.0	4 560	0.4
MKM7	7	14	14	1 100	0.6
MKM8	8	16	26	1 350	0.8
MKM12	12	24	30	2 050	0.7

Designation	Lateral max. shaft misalignment (mm)	Axial spring rate (N/mm)	Lateral spring rate (N/mm)	Tightening Torque (Nm)	Weight (g)
MKM0.4	0.2	10	15	1	10
MKM0.9	0.2	21	26	1	12
MKM2	0.2	15	15	2	30
MKM4	0.2	35	65	2	40
MKM7	0.25	45	60	4	80
MKM8	0.3	16	24	8	130
MKM12	0.25	40	70	8	125

Dimensions



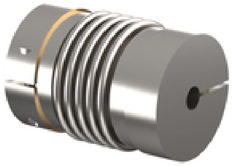
*Other bore tolerances on request.

Designation	Nominal Torque (Nm)	A	B	L	C	g	f	E	ØD1/2 min.
MKM0.4	0.4	16.5	-	30	9	12	M2.5	4.6	3
MKM0.9	0.9	16.5	-	31.5	9	13.5	M2.5	4.6	3
MKM2	2	24.5	-	42	13	16	M3	7.5	3
MKM4	4	24.5	-	44	13	18	M3	7.5	5
MKM7	7	34 ±0.5	32.5	57	14	29	M4	11	6
MKM8	8	39.5	-	60	16.6	26.5	M5	13	6
MKM12	12	39.5	-	62	16.6	29	M5	13	6

Designation	ØD1/2 max.
MKM0.4	6.35
MKM0.9	6.35
MKM2	10
MKM4	10
MKM7	17
MKM8	19
MKM12	19

Miniature Metal Bellows Coupling MKP

• Short design with lateral clamping hub
• High torsional stiffness - flexible



Tightening torque refers to screws.

Dimensions in mm. Length dimensions according to DIN ISO 2768 cH.

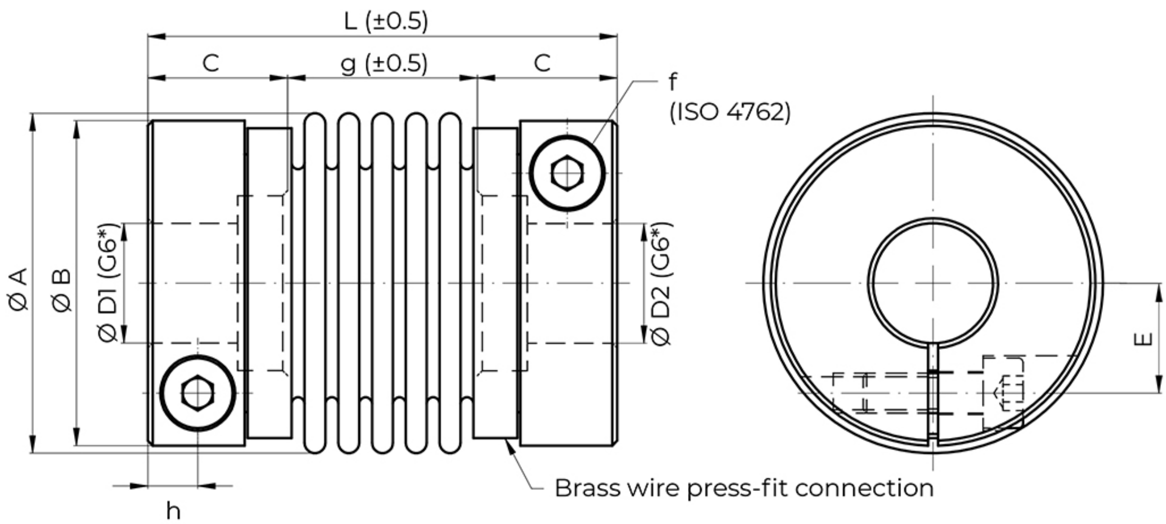
Material: Bellows: stainless steel Hubs: high-tensile strength aluminium Clamping screws: ISO 4762 - 12.9 Press-fit wire: brass
Temperature range (°C): –40° to +200°C
Max. Speed (rpm): 20 000

General Data

Designation	Nominal Torque (Nm)	Max. Torque (Nm)	Moment of inertia (10^{-6}kg*m²)	Torsional stiffness (Nm/arcmin)	Axial max. shaft misalignment (mm)
MKP2	2	4	2.5	400	0.3
MKP5	5	10	0.8	800	0.3
MKP7	7	14	12	1 700	0.4
MKP8	8	16	25	2 100	0.5
MKP12	12	24	28	2 600	0.4

Designation	Lateral max. shaft misalignment (mm)	Axial spring rate (N/mm)	Lateral spring rate (N/mm)	Tightening Torque (Nm)	Weight (g)
MKP2	0.1	32	100	2	30
MKP5	0.1	70	400	2	40
MKP7	0.15	70	220	4	80
MKP8	0.15	20	90	8	125
MKP12	0.15	45	190	8	130

Dimensions



*Other bore tolerances on request.

Designation	Nominal Torque (Nm)	A	B	L	C	g	f	E	ØD1/2 min.
MKP2	2	24.5	-	35	13	9	M3	7.5	3
MKP5	5	24.5	-	36	13	10	M3	7.5	6
MKP7	7	34 (±0.5)	32.5	47	14	19	M4	11	6
MKP8	8	39.5	-	51	16.6	18	M5	13	6
MKP12	12	39.5	-	51	16.6	18	M5	13	6

Designation	ØD1/2 max.
MKP2	10
MKP5	10
MKP7	17
MKP8	19
MKP12	19