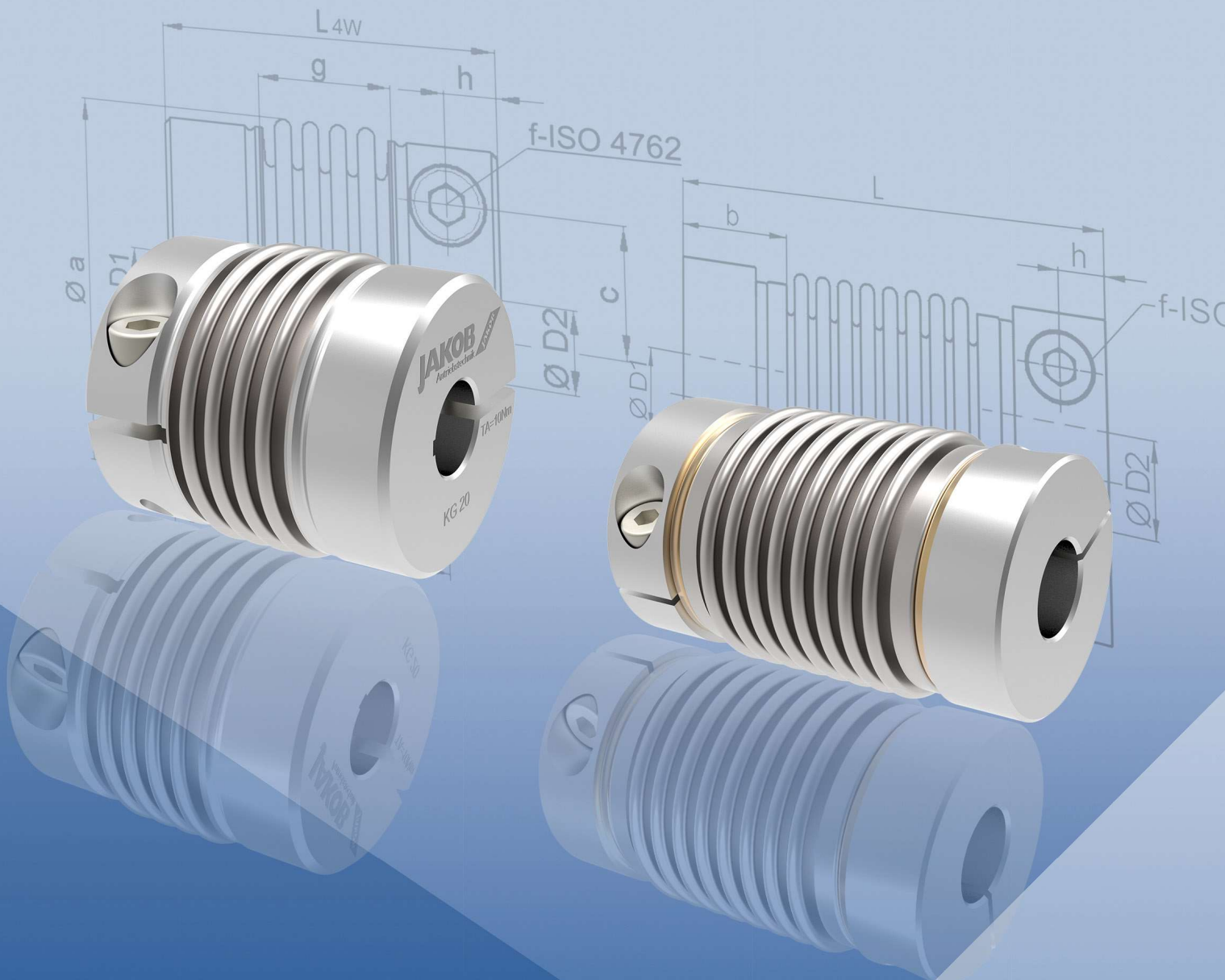


# Miniature couplings



# Miniature Metal Bellows Coupling | Series MKM

standard series with lateral clamping hub

technical data:

MKM	T <sub>N</sub>	moment of inertia	torsional stiffness	max. shaft misalignment (mm)		spring rate [N/mm]		mass approx.	tightening torque of screws
size	[Nm]	[10 <sup>-6</sup> kgm <sup>2</sup> ]	[10 <sup>-3</sup> Nm/arcmin]	axial ±	lateral	axial ±	lateral	[kg]	[Nm]
0,4	0,4	0,3	50	0,35	0,2	10	15	10	1
0,9	0,9	0,4	90	0,3	0,2	21	26	12	1
2	2	3,0	230	0,5	0,2	15	15	30	2
4	4	3,0	460	0,4	0,2	35	65	40	2
7	7	14	1100	0,6	0,25	45	60	80	4
8	8	26	1350	0,8	0,3	16	24	130	8
12	12	30	2050	0,7	0,25	40	70	140	8

max. operational speed: 20.000 Upm

temperature range: -40°C up to +200°C

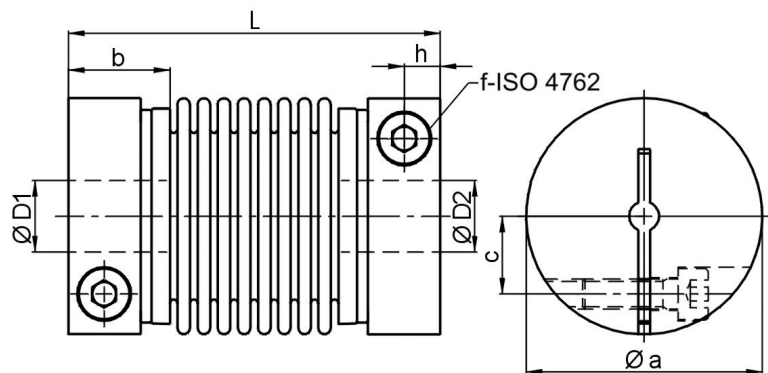
material:

bellows: stainless steel

aluminum

hubs: high-tensile strength

screws: ISO 4762 / 12.9



Dimensions [mm]: length dimensions according to DIN ISO 2768 cH

MKM	Øa	b	c	f	h	L ±0,5	ØD1/2min	ØD1/2max
0,4	16,5	9	4,6	M 2,5	3,3	30	3	6,35
0,9	16,5	9	4,6	M 2,5	3,3	31,5	3	6,35
2	24,5 (27,5)	13	7,5 (9,6)	M 3	4,4	42	3	10 (14)
4	24,5 (27,5)	13	7,5 (9,6)	M 3	4,4	44	5	10 (14)
7	34	14	11	M 4	5	57	6	17
8	40 (44,5)	16,5	13 (15,5)	M 5	6	60	6	19 (24)
12	40 (44,5)	16,5	13 (15,5)	M 5	6	62	6	19 (24)

on request, couplings from size 2-12 are available with EASY-clamp

stock bores D1/D2 (G7)

MKM	Ø 3	Ø 4	Ø 5	Ø 6	Ø 6,35	Ø 8	Ø 9,53	Ø 10	Ø 12	Ø 14	Ø 15	Ø 16	Ø 19	Ø 20	Ø 24
0,4/0,9	•	•	•	•	•										
2/4		•	•	•	•	•	•	•	L	L					
7				•	•	•	•	•	•	•	•	•			
8/12				•	•	•	•	•	•	•	•	•	•	L	L

note: Larger bore diameter with special hub design „L“ possible - see bracket values in the dimension table, as well as order example.

order example: MKM 4 - D1 = Ø 8<sup>G7</sup> D2 = 10<sup>G7</sup>  
 MKM 4 - L - D1 = Ø 10<sup>G7</sup> D2 = 12<sup>G7</sup>  
 MKM 4 - L / L - D1 = Ø 12<sup>G7</sup> D2 = 14<sup>G7</sup>

# Miniature Metal Bellows Coupling | Series MKP

short design with lateral clamping hub

technical data:

MKP size	$T_N$ [Nm]	moment of inertia [ $10^{-6} \text{kgm}^2$ ]	torsional stiffness [Nm/arcmin]	max. shaft misalignment (mm)		spring rate [N/mm]		mass approx. [kg]	tightening torque of screws [Nm]
				axial $\pm$	lateral	axial $\pm$	lateral		
2	2	2,5	400	0,3	0,1	32	100	30	2
5	5	2,8	800	0,3	0,1	70	400	40	2
7	7	12	1700	0,4	0,15	70	220	80	4
8	8	25	2100	0,5	0,15	20	90	125	8
12	12	28	2600	0,4	0,15	45	190	130	8

max. operational speed: 20.000 Upm

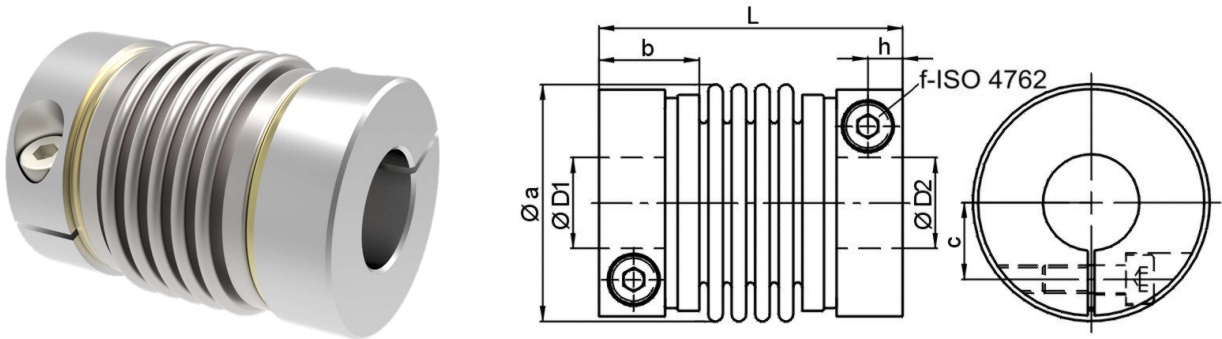
temperature range: -40°C up to +200°C

material:

bellows: stainless steel

hubs: high-tensile strength aluminum

screws: ISO 4762 / 12.9



Dimensions [mm]: length dimensions according to DIN ISO 2768 cH

MKP	$\varnothing a$	b	c	f	h	$L \pm 0,5$	$\varnothing D1/2min$	$\varnothing D1/2max$
2	24,5 (27,5)	13	7,5 (9,6)	M 3	4,4	35	3	10 (14)
5	24,5 (27,5)	13	7,5 (9,6)	M 3	4,4	36	6	10 (14)
7	34	14	11	M 4	5	47	6	17
8	40 (44,5)	16,5	13 (15,5)	M 5	6	51	6	19 (24)
12	40 (44,5)	16,5	13 (15,5)	M 5	6	51	6	19 (24)

on request, all couplings are available with EASY-clamp

stock bores D1/D2 (G7)

MKP	$\varnothing 4$	$\varnothing 5$	$\varnothing 6$	$\varnothing 6,35$	$\varnothing 8$	$\varnothing 9,53$	$\varnothing 10$	$\varnothing 12$	$\varnothing 14$	$\varnothing 15$	$\varnothing 16$	$\varnothing 19$	$\varnothing 20$	$\varnothing 24$
2/5	•	•	•	•	•	•	•	L	L					
7			•	•	•	•	•	•	•	•	•			
8/12			•	•	•	•	•	•	•	•	•	•	L	L

note: Larger bore diameter with special hub design „L“ possible - see bracket values in the dimension table, as well as order example.

Bestellbeispiel: MKP 5 - D1 =  $\varnothing 8$  <sup>G7</sup> D2 = 10 <sup>G7</sup>  
 MKP 5 - L - D1 =  $\varnothing 10$  <sup>G7</sup> D2 = 12 <sup>G7</sup>  
 MKP 5 - L / L - D1 =  $\varnothing 12$  <sup>G7</sup> D2 = 14 <sup>G7</sup>

# Miniature Metal Bellows Coupling | Series MKA

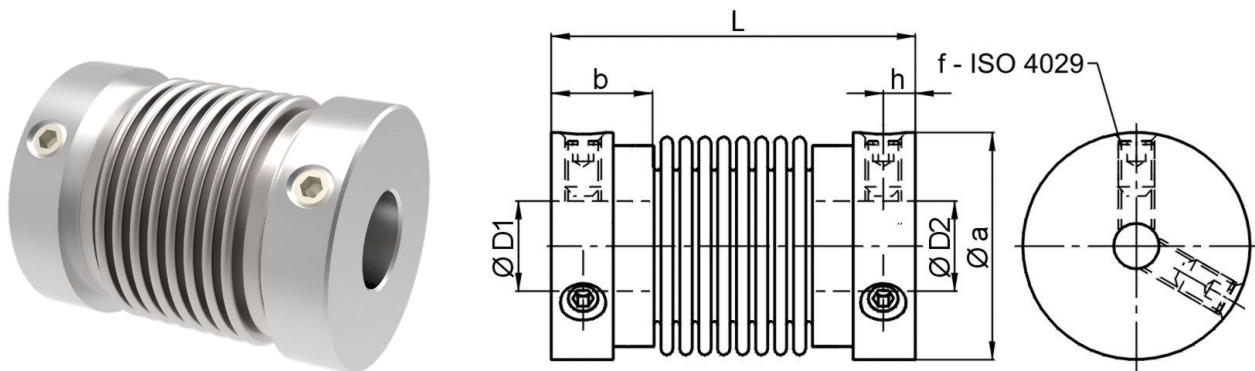
✓ cost-effective version with set screws

technical data:

MKA size	T <sub>N</sub> [Nm]	max. speed [min <sup>-1</sup> ]	moment of inertia [10 <sup>-6</sup> kgm <sup>2</sup> ]	torsional stiffness [10 <sup>-3</sup> Nm/arcmin]	max. shaft misalignment (mm)		spring rate [N/mm]		mass approx. [g]	tightening torque of screws [Nm]
					axial ±	lateral	axial	lateral		
0,4	0,4	20.000	0,19	50	0,2	0,1	10	15	8	1
0,9	0,9	20.000	0,19	90	0,2	0,1	21	26	10	1
2	2	12.000	2,9	230	0,2	0,1	15	15	32	4
4	4	12.000	3,2	460	0,2	0,1	35	65	37	4
6	6	12.000	16	1.100	0,25	0,25	45	60	85	8
8	8	12.000	28	1.300	0,3	0,25	16	24	120	10

temperature range: -20°C up to +90°C

material: hubs: high-tensile strength aluminum  
bellows: stainless steel set screws: ISO 4029



Dimensions [mm]: length dimensions according to DIN ISO 2768 cH

MKA	Øa	b	f	h	L ±0,5	ØD1/2min	ØD1/2max
0,4	16	7	2x M 3	2,3	26	3	8
0,9	16	7	2x M 3	2,3	27,5	3	8
2	25	11	2x M 4	3,5	38	5	15
4	25	11	2x M 4	3,5	39,5	5	15
6	35	12,5	2x M 5	4,3	54	6	20
8	41	14	2x M 6	5	54,5	6	26

stock bores D1/D2 (G7)

MKA	Ø3	Ø4	Ø5	Ø6	Ø6,35	Ø8	Ø9,53	Ø10	Ø12	Ø15	Ø16	Ø19	Ø24
0,4/0,9	•	•	•	•	•	•							
2/4			•	•	•	•	•	•	•	•			
6				•		•		•	•	•	•		
8				•		•		•	•	•	•	•	•

note: further bore sizes possible on request  
for easier disassembly, we recommend to have end faces on the shaft

order example: MKA 2 - D1 = 6<sup>G7</sup> D2 = 8<sup>G7</sup>

# Miniature Metal Bellows Coupling I Series MKG

- /// all-metal version up to 300°C // wear and maintenance free
- /// very short and variable design // torsionally stiff
- /// simple installation with optional EASY-clamping hub

## technical data:

MKG size	T <sub>N</sub> [Nm]	moment of inertia [10-3kgm <sup>2</sup> ]	torsional stiffness [Nm/arcmin]			max. shaft misalignment (mm)						axial spring rate [N/mm]			lateral spring rate [N/mm]			n <sub>max</sub> [upm]
			2W	4W	6W	axial ±			lateral			2W	4W	6W	2W	4W	6W	
						2W	4W	6W	2W	4W	6W							
<b>5</b>	5	0,004	1,3	0,9	0,6	0,2	0,3	0,5	0,05	0,1	0,2	135	75	45	2500	400	140	0,06
<b>10</b>	10	0,019	3,3	2,1	1,3	0,3	0,4	0,5	0,1	0,15	0,25	150	85	60	2300	400	130	0,14
<b>20</b>	20	0,044	6	3,4	2,4	0,3	0,4	0,5	0,1	0,15	0,25	100	55	50	2100	360	110	0,22

max. operational speed: 20.000 Upm

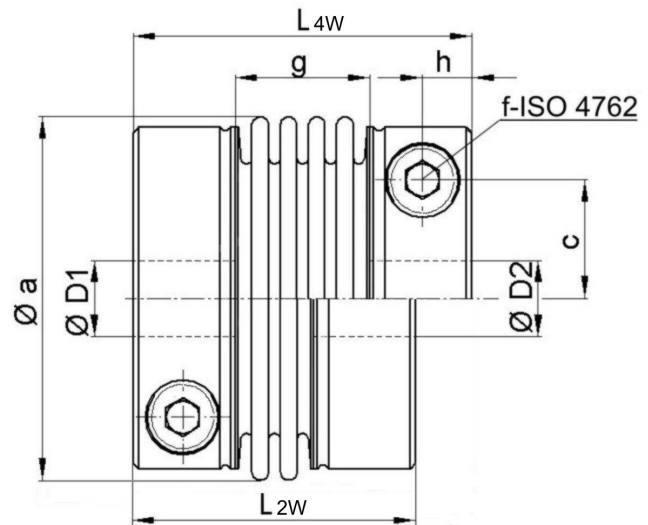
temperature range: -40°C up to +300°C

## material:

bellows: stainless steel 1.4571

hubs: steel St 52 - burnished

screws: ISO 4762 / 12.9



**notes:** connection between bellows and hub by plasma welding. Three standard versions with 2-corrugated metal bellows 2W, 4-corrugated metal bellows 4W or 6-corrugated metal bellows 6W.

**Dimensions [mm]:** length dimensions according to DIN ISO 2768 cH

MKG	Øa	c	f-TA	g			h	L			mass ~ [kg]	ØD1/2	
				2W	4W	6W		2W	4W	6W		min	max
<b>5</b>	24	7,3	M3-2 Nm	6	10	14	4,5	25	29	33	0,06	6	11
<b>10</b>	34	10	M4-5 Nm	11	16	23	5	33	38	45	0,14	8	18
<b>20</b>	40	13	M5-10 Nm	12	17	23	6	38	43	49	0,22	10	20

- standard clamping hubs without EASY-pin (EASY design optionally possible)
- alternative lengths and hub versions are possible on request

order example: MKG 5 / 4W D1 = 8<sup>G7</sup> D2 = 11<sup>H7</sup>  
 MKG 20 / 2W D1 = 10<sup>G7</sup> D2 = 20<sup>H7</sup>

# Miniature Metal Bellows Coupling I Series MKG-VA

- /// all-stainless steel version up to 350°C // wear and maintenance free
- /// very short and variable design // torsionally stiff
- /// simple installation with clamping hub

## technical data:

MKG-VA size	T <sub>N</sub> [Nm]	moment of inertia [kgmm <sup>2</sup> ]	torsional stiffness		max. shaft misalignment [mm]				axial spring rate		latale Federsteife		mass approx. [g]	
			[Nm/arcmin]	2W	4W	axial ±		2W	4W	2W	4W	2W		4W
						2W	4W							
1,5	1,5	1	-	0,3	-	0,3	-	0,1	-	34	-	140	26	
4	4	4	1,3	0,9	0,2	0,3	0,05	0,1	135	75	2500	400	60	
8	8	19	3,3	2,1	0,3	0,4	0,1	0,15	150	85	2300	400	140	
15	15	44	6	3,4	0,3	0,4	0,1	0,15	100	55	2100	360	220	

max. operational speed: 20.000 Upm

temperature range: -40°C up to +350°C

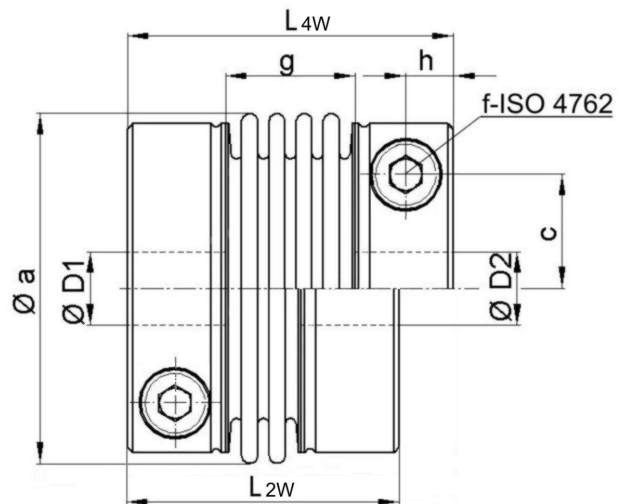
### material:

bellows: stainless steel 1.4571 / A4

hubs: 1.4301 / A2

screws: ISO 4762 stainless steel / A4-80

optional: ISO 4762 / 12.9



**notes:** connection between bellows and hub by plasma welding. Two standard versions with 4-corrugation bellows 4W or 2-corrugation bellows 2W. Size 1.5 with 5-corrugated metal bellows.

## Dimensions [mm]: length dimensions according to DIN ISO 2768 cH

MKG -VA	Øa	c	f-TA	g		h	L		ØD1/2 min	ØD1/2 max
				2W	4W		2W	4W		
1,5	19	4,3	2xM2,5-1(1,5)	-	11	3,3	-	29	3	6,35
4	24	7,3	M3-1(2)	6	10	4,5	25	29	8(5)	11
8	34	10,5	M4-2,5(4)	11	16	5	33	38	9(7)	16
15	40	13	M5-5(8)	12	17	6	38	43	11(8)	20

- clamping hubs generally with stainless steel screws A4-80 without EASY-pin - mind reduced actuation torques
- check transmission torques of hub-shaft connection for diameters below Dmin (further inquiry possible)
- optional: coated screws of property class 12.9 for higher clamping forces or torques see values in brackets
- alternative lengths or hub versions available on request

order example: MKG-VA 4 / 4W      D1 = 8<sup>G7</sup>      D2 = 11<sup>G7</sup>      -      stainless steel screws  
 MKG-VA 15 / 2W      D1 = 13<sup>G7</sup>      D2 = 20<sup>G7</sup>      -      screws - 12.9 - coated



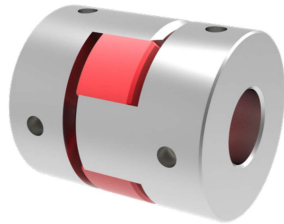
# Miniature Elastomer Coupling I Series MJT/MJT-C

- /// MJT-C: standard series with lateral clamping hub
- /// MJT: cost-effective version with set screws
- /// plug in
- /// oscillation dampening

technical data:

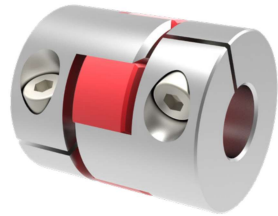
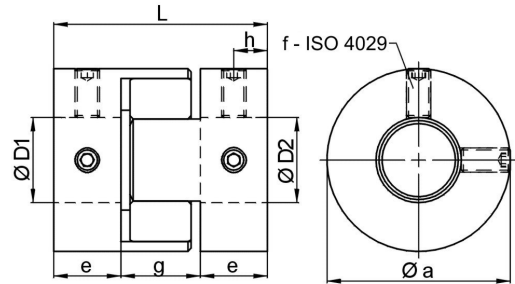
MJT/ MJT-C size	T <sub>N</sub> [Nm]	max. speed [min <sup>-1</sup> ]		moment of inertia [10 <sup>-6</sup> kgm <sup>2</sup> ]		torsional stiffness [10 <sup>-3</sup> Nm/arcmin]	max. shaft misalignment (mm)		mass approx. [g]	tightening torque of screws [Nm]	
		MJT	MJT-C	MJT	MJT-C		axial ±	lateral		f	i
14-B	0,7	27.000	11.000	0,21	0,16	3	0,6	0,15	7	0,7	0,5
20-B	1,8	20.000	7.500	1,0	1,1	5	0,8	0,20	18	0,7	1
30-B	4	13.000	5000	5,9	6,2	13	1,0	0,20	48	1,7	2,5
14-R	2	27.000	11.000	0,21	0,16	7	0,6	0,10	7	0,7	0,5
20-R	5	20.000	7.500	1,0	1,1	16	0,8	0,10	18	0,7	1
30-R	12,5	13.000	5.000	5,9	6,2	38	1,0	0,10	48	1,7	2,5

temperature range: -20°C up to +70°C

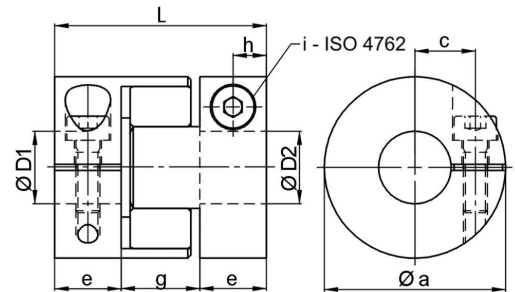


## Series MJT

material:  
hubs: aluminum  
elastomer spider: polyurethane  
B 80-Sh-A (blue), R 98-Sh-A (red)



## Series MJT-C



Dimensions [mm]: length dimensions according to DIN ISO 2768 cH

MJT/MJT-C	Øa	c	e	g	h	L	f	i
14	14	4	7	8	3,5	22	2x M 3	M 2
20	20	6,5	10	10	5	30	2x M 3	M 2,5
30	30	10	11	13	5,5	35	2x M 4	M 4

stock bores D1/D2 (H8)

• MJT ◊ MJT-C

MJT/MJT-C	Ø3	Ø4	Ø5	Ø6	Ø6,35	Ø8	Ø9,53	Ø10	Ø12	Ø14
14	• ◊	• ◊	• ◊	•						
20		◊	• ◊	• ◊	• ◊	• ◊	•	•		
30						• ◊	• ◊	• ◊	• ◊	•

note: further bore sizes possible on request  
for easier disassembly of the MJT series, we recommend to have end faces on the shaft

temperature correction for nominal torques

-20°C up to +30°C	+50°C	+70°C
100%	75%	60%

order example: MJT-B30 - D1 = 8<sup>H8</sup> D2 = 10<sup>H8</sup> MJT-C-R 20 - D1 = 5<sup>H8</sup> D2 = 6<sup>H8</sup>

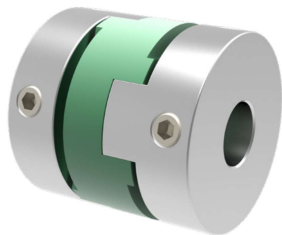
# Miniature Oldham-type Coupling | Series MOH/MOH-C

- /// compensation of big lateral shaft misalignments /// plug-in
- /// MOH-C: standard series with lateral clamping hub /// MOH: cost-effective version with set screws

technical data:

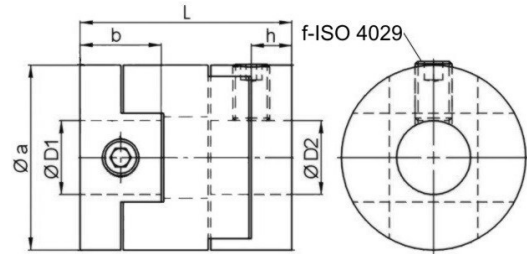
MOH/ MOH-C size	T <sub>N</sub> [Nm]	max. speed [min <sup>-1</sup> ]	moment of inertia [10 <sup>-6</sup> kgm <sup>2</sup> ]		torsional stiffness [10 <sup>-3</sup> Nm/arcmin]	max. misalignment lateral angular [mm] [°]		mass approx. [g]		tightening torque of screws [Nm]	
			MOH	MOH-C		MOH	MOH-C	f	i		
16	1	8.000	0,24	0,32	19	1	2	7	10	1	1
20	1,5	7.000	0,81	0,82	35	1,5	2	14	16	1,7	1
25	2,5	6.000	1,8	2,6	58	2	2	20	34	1,7	1,5
32	7	4.800	6,7	8,3	180	2,5	2	48	80	4	2,5
43	15	4.000	39	20	340	3	2	160	160	4	5

temperature range: -20°C up to +100°C

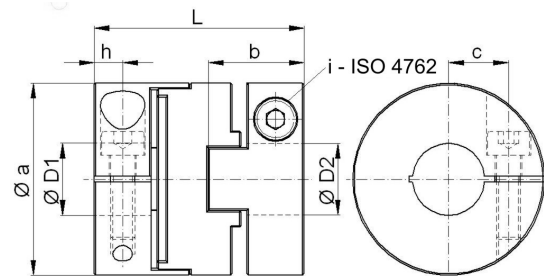


## Series MOH

material:  
hub: aluminum - alloy  
spacer: polyacetal



## Series MOH-C



temperature correction for nominal torques

-20°C up to +30°C	+40°C	+60°C	+100°C
100%	80%	60%	50%

Dimensions [mm]: length dimensions according to DIN ISO 2768 cH

MOH/ MOH-C	Øa	b		c	h		L		f	i
		MOH	MOH-C		MOH	MOH-C	MOH	MOH-C		
16	16	8	9,5	5	2,3	3	18	21	1 x M 3	M 2,6
20	20	9	10	6,5	3,3	3	20	22,5	1 x M 4	M 2,6
25	25	11,5	12	8	3	4	25,5	27	2 x M 4	M 3
32	32	14,5	16	11	4	5	32	35	2 x M 5	M 4
43	43	24	21,5	15	7	7	52	47	2 x M 5	M 5

stock bores D1/D2 (H8)

MOH/MOH-C	Ø3	Ø4	Ø5	Ø6	Ø6,35	Ø8	Ø9,53	Ø10	Ø12	Ø14	Ø15	Ø16	Ø19
16	•	•	•	•									
20		•	•	•	•	•							
25			•	•	•	•	•	•					
32				•	•	•	•	•	•	•	•		
43				•	•	•	•	•	•	•	•	•	•

note: further bore sizes possible on request

order example: MOH 25 - D1 = 8<sup>H8</sup> D2 = 10<sup>H8</sup>

MOH-C 32 - D1 = 10<sup>H8</sup> D2 = 12<sup>H8</sup>