SERVOFLEX SFC SA2 – Datasheet

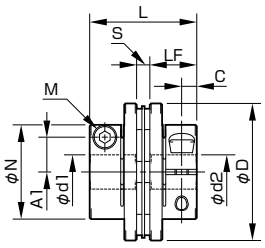
SINGLE ELEMENT TYPE / CLEAN ROOM COMPATIBLE

Specifications

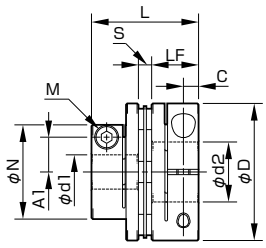
Model	Shape type	Rated torque [N·m]	Misalignment			Max. rotation speed [min^{-1}]	Torsional stiffness [N·m/rad]	Axial stiffness [N/mm]	Moment of inertia [kg·m^2]	Mass [kg]
			Parallel [mm]	Angular [°]	Axial [mm]					
	A								4.09×10^{-6}	0.034
SFC-030SA2	B	5	0.02	1	±0.2	10000	8000	64	6.11×10^{-6}	0.040
	C								8.23×10^{-6}	0.048
SFC-035SA2	C	10	0.02	1	±0.25	10000	18000	112	18.50×10^{-6}	0.083
	A								16.71×10^{-6}	0.077
SFC-040SA2	B	12	0.02	1	±0.3	10000	20000	80	22.59×10^{-6}	0.085
	C								29.28×10^{-6}	0.100
	A								56.26×10^{-6}	0.160
SFC-050SA2	B	25	0.02	1	±0.4	10000	32000	48	76.71×10^{-6}	0.178
	C								99.38×10^{-6}	0.207
SFC-055SA2	C	40	0.02	1	±0.42	10000	50000	43	188.7×10^{-6}	0.315
	A								147.0×10^{-6}	0.285
SFC-060SA2	B	60	0.02	1	±0.45	10000	70000	76.4	206.3×10^{-6}	0.328
	C								270.0×10^{-6}	0.387
SFC-080SA2	C	100	0.02	1	±0.55	10000	140000	128	716.3×10^{-6}	0.720

- The rated torque of the coupling may be limited for bore diameters.
- Higher rpm possible with balancing.
- Torsional stiffness values given are measured values for the flexible element alone.
- The moment of inertia and mass are specified for the maximum bore diameter.

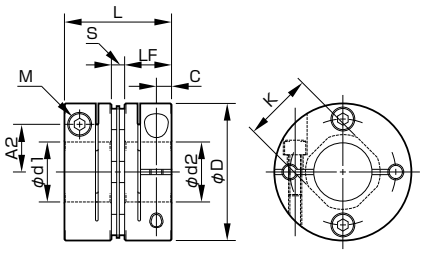
Dimensions



Shape type A



Shape type B



Shape type C

Model	Shape type	d1 [mm]		d2 [mm]		D [mm]	N [mm]	L [mm]	LF [mm]	S [mm]	A1 [mm]	A2 [mm]	C [mm]	K [mm]	M Quantity – Nominal dia.	Tightening torque [N·m]	
		Min.	Max.	Min.	Max.											CC Low dust	CF Fluorine
	A	5	10	5	10		21.6				8	—					
SFC-030SA2	B	5	10	Over 10	16	34	21.6	27.3	12.4	2.5	8	12.5	3.75	14.5	1-M3	1.5	3.2
	C	Over 10	14	Over 10	16		—				—	12.5					
SFC-035SA2	C	6	16	6	19	39	—	34	15.5	3	—	14	4.5	17	1-M4	4	7.7
	A	8	15	8	15		29.6				11	—					
SFC-040SA2	B	8	15	Over 15	24	44	29.6	34	15.5	3	11	17	4.5	19.5	1-M4	4	7.7
	C	Over 15	19	Over 15	24		—				—	17					
	A	8	19	8	19		38				14.5	—					
SFC-050SA2	B	8	19	Over 19	30	56	38	43.4	20.5	2.4	14.5	22	6	26	1-M5	7	12
	C	Over 19	25	Over 19	30		—				—	22					
SFC-055SA2	C	10	30	10	30	63	—	50.6	24	2.6	—	23	7.75	31	1-M6	13	22.5
	A	11	24	11	24		46				17.5	—					
SFC-060SA2	B	11	24	Over 24	35	68	46	53.6	25.2	3.2	17.5	26.5	7.75	31	1-M6	13	22.5
	C	Over 24	30	Over 24	35		—				—	26.5					
SFC-080SA2	C	18	35	18	40	82	—	68	30	8	—	28	9	38	1-M8	27	45

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Standard Bore Diameter (Low dust generation grease)

Model	Standard bore diameter, d1/d2 [mm] and restricted rated torque [N·m]																											
	d1·d2	5	6	6.35	7	8	9	9.525	10	11	12	13	14	15	16	17	18	19	20	22	24	25	28	30	32	35	38	40
SFC-030SA2	d1	0.8	1.6	2	2.6	3.4	4.4	4.9	●	●	●	●	●															
	d2	0.8	1.6	2	2.6	3.4	4.4	4.9	●	●	●	●	●	●	●													
SFC-035SA2	d1		3.3	3.8	4.8	6.3	7.7	8.5	9.2	●	●	●	●	●	●													
	d2		3.3	3.8	4.8	6.3	7.7	8.5	9.2	●	●	●	●	●	●	●	●	●										
SFC-040SA2	d1					9	9	9	9	9	●	●	●	●	●	●	●	●										
	d2					9	9	9	9	9	●	●	●	●	●	●	●	●	●	●	●							
SFC-050SA2	d1					11	16	17	19	19	19	24	24	24	●	●	●	●	●	●	●	●						
	d2					11	16	17	19	19	19	24	24	24	●	●	●	●	●	●	●	●	●	●				
SFC-055SA2	d1								20	24	29	33	37	●	●	●	●	●	●	●	●	●	●	●				
	d2								20	24	29	33	37	●	●	●	●	●	●	●	●	●	●	●				
SFC-060SA2	d1									38	41	44	48	55	55	58	●	●	●	●	●	●	●	●				
	d2									38	41	44	48	55	55	58	●	●	●	●	●	●	●	●	●	●		
SFC-080SA2	d1																54	60	65	75	85	90	●	●	●	●		
	d2																54	60	65	75	85	90	●	●	●	●	●	●

• The shaft tolerance for standard bore diameter is h7 (h6 or g6): designation B. However, for a bore diameter of ø35, the shaft tolerance is $^{+0.010}_{-0.025}$.
• Bore diameters marked with ● or numbers are supported as the standard bore diameters. Please contact Miki Pulley regarding special arrangements which may be possible for other bore diameters.
• Bore diameters whose fields contain numbers are restricted in their rated torque by the holding power of the shaft connection component because the bore diameter is small. The numbers indicate the rated torque [N·m].

Standard Bore Diameter (Fluorine grease)

Model	Standard bore diameter, d1/d2 [mm] and restricted rated torque [N·m]																											
	d1·d2	5	6	6.35	7	8	9	9.525	10	11	12	13	14	15	16	17	18	19	20	22	24	25	28	30	32	35	38	40
SFC-030SA2	d1	0.8	2	2.4	3.1	4.3	●	●	●	●	●	●	●															
	d2	0.8	2	2.4	3.1	4.3	●	●	●	●	●	●	●	●	●													
SFC-035SA2	d1		3.6	5.2	6.4	8.2	●	●	●	●	●	●	●	●	●													
	d2		3.6	5.2	6.4	8.2	●	●	●	●	●	●	●	●	●	●	●	●										
SFC-040SA2	d1					●	●	●	●	●	●	●	●	●	●	●	●	●										
	d2					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●							
SFC-050SA2	d1					11	17	19	20	22	●	●	●	●	●	●	●	●	●	●	●	●						
	d2					11	17	19	20	22	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
SFC-055SA2	d1								28	37	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
	d2								28	37	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
SFC-060SA2	d1									40	44	49	53	●	●	●	●	●	●	●	●	●	●	●				
	d2									40	44	49	53	●	●	●	●	●	●	●	●	●	●	●	●	●		
SFC-080SA2	d1																60	66	71	81	90	95	●	●	●	●		
	d2																60	66	71	81	90	95	●	●	●	●	●	●

• The shaft tolerance for standard bore diameter is h7 (h6 or g6): designation B. However, for a bore diameter of ø35, the shaft tolerance is $^{+0.010}_{-0.025}$.
• Bore diameters marked with ● or numbers are supported as the standard bore diameters. Please contact Miki Pulley regarding special arrangements which may be possible for other bore diameters.
• Bore diameters whose fields contain numbers are restricted in their rated torque by the holding power of the shaft connection component because the bore diameter is small. The numbers indicate the rated torque [N·m].

How to Place an Order

SFC-030SA2-CC-10B-14B

- Size
- Type
  SA2: Single element
- Grease type
  CC : Low dust generation grease
  CF : Fluorine grease
- Supported shaft tolerance
  B : h7(h6,g6) shaft
  * Bore diameter of ø35, the shaft tolerance is $^{+0.010}_{-0.025}$.
  * For nominal bore diameter, select d1 (small dia.)-d2 (large dia.) in that order.
- Bore diameter d2 (Large diameter)
- Bore diameter d1 (Small diameter)

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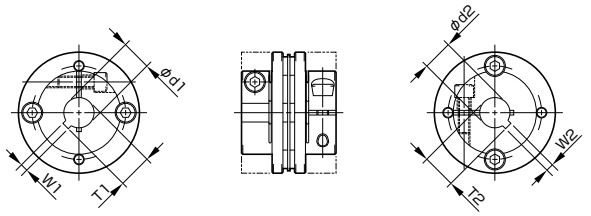
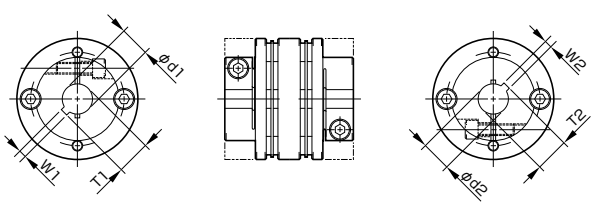
Options Keyway

Keyway Standards

■SFC(SA2)



■SFC(DA2)



H9 keyway													JS9 keyway											
Nominal bore dia.				Bore dia. d1 · d2 [mm]	Keyway width W1 · W2 [mm]	Keyway height T1 · T2 [mm]	Nominal bore dia.				Bore dia. d1 · d2 [mm]	Keyway width W1 · W2 [mm]	Keyway height T1 · T2 [mm]	Nominal bore dia.				Bore dia. d1 · d2 [mm]	Keyway width W1 · W2 [mm]	Keyway height T1 · T2 [mm]	Nominal bore dia.				Bore dia. d1 · d2 [mm]	Keyway width W1 · W2 [mm]	Keyway height T1 · T2 [mm]
Shaft diameter	Shaft tolerance						Shaft diameter	Shaft tolerance						Shaft diameter	Shaft tolerance						Shaft diameter	Shaft tolerance					
	h7	j6	k6					h7	j6	k6					h7	j6	k6					h7	j6	k6			
8	BH	—	KH	8	3 $^{+0.025}_{0}$	9.4 $^{+0.3}_{0}$	20	BH	—	—	20	6 $^{+0.030}_{0}$	22.8 $^{+0.3}_{0}$	8	BJ	—	KJ	8	3 ±0.0125	9.4 $^{+0.3}_{0}$	20	BJ	—	—	20	6 ±0.0150	22.8 $^{+0.3}_{0}$
9	BH	—	KH	9	3 $^{+0.025}_{0}$	10.4 $^{+0.3}_{0}$	22	BH	JH	KH	22	6 $^{+0.030}_{0}$	24.8 $^{+0.3}_{0}$	9	BJ	—	KJ	9	3 ±0.0125	10.4 $^{+0.3}_{0}$	22	BJ	JJ	KJ	22	6 ±0.0150	24.8 $^{+0.3}_{0}$
10	BH	—	—	10	3 $^{+0.025}_{0}$	11.4 $^{+0.3}_{0}$	24	BH	JH	KH	24	8 $^{+0.036}_{0}$	27.3 $^{+0.3}_{0}$	10	BJ	—	—	10	3 ±0.0125	11.4 $^{+0.3}_{0}$	24	BJ	JJ	KJ	24	8 ±0.0180	27.3 $^{+0.3}_{0}$
11	BH	—	—	11	4 $^{+0.030}_{0}$	12.8 $^{+0.3}_{0}$	25	BH	—	—	25	8 $^{+0.036}_{0}$	28.3 $^{+0.3}_{0}$	11	BJ	—	—	11	4 ±0.0150	12.8 $^{+0.3}_{0}$	25	BJ	—	—	25	8 ±0.0180	28.3 $^{+0.3}_{0}$
12	BH	—	—	12	4 $^{+0.030}_{0}$	13.8 $^{+0.3}_{0}$	28	BH	JH	—	28	8 $^{+0.036}_{0}$	31.3 $^{+0.3}_{0}$	12	BJ	—	—	12	4 ±0.0150	13.8 $^{+0.3}_{0}$	28	BJ	JJ	—	28	8 ±0.0180	31.3 $^{+0.3}_{0}$
13	BH	—	—	13	5 $^{+0.030}_{0}$	15.3 $^{+0.3}_{0}$	30	BH	—	—	30	8 $^{+0.036}_{0}$	33.3 $^{+0.3}_{0}$	13	BJ	—	—	13	5 ±0.0150	15.3 $^{+0.3}_{0}$	30	BJ	—	—	30	8 ±0.0180	33.3 $^{+0.3}_{0}$
14	BH	—	KH	14	5 $^{+0.030}_{0}$	16.3 $^{+0.3}_{0}$	32	BH	—	KH	32	10 $^{+0.036}_{0}$	35.3 $^{+0.3}_{0}$	14	BJ	—	KJ	14	5 ±0.0150	16.3 $^{+0.3}_{0}$	32	BJ	—	KJ	32	10 ±0.0180	35.3 $^{+0.3}_{0}$
15	BH	—		15	5 $^{+0.030}_{0}$	17.3 $^{+0.3}_{0}$	35	BH	—	—	35	10 $^{+0.036}_{0}$	38.3 $^{+0.3}_{0}$	15	BJ	—	—	15	5 ±0.0150	17.3 $^{+0.3}_{0}$	35	BJ	—	—	35	10 ±0.0180	38.3 $^{+0.3}_{0}$
16	BH	—	KH	16	5 $^{+0.030}_{0}$	18.3 $^{+0.3}_{0}$	38	BH	—	KH	38	10 $^{+0.036}_{0}$	41.3 $^{+0.3}_{0}$	16	BJ	—	KJ	16	5 ±0.0150	18.3 $^{+0.3}_{0}$	38	BJ	—	KJ	38	10 ±0.0180	41.3 $^{+0.3}_{0}$
17	BH	—	—	17	5 $^{+0.030}_{0}$	19.3 $^{+0.3}_{0}$	40	BH	—	—	40	12 $^{+0.043}_{0}$	43.3 $^{+0.3}_{0}$	17	BJ	—	—	17	5 ±0.0150	19.3 $^{+0.3}_{0}$	40	BJ	—	—	40	12 ±0.0215	43.3 $^{+0.3}_{0}$
18	BH	—	—	18	6 $^{+0.030}_{0}$	20.8 $^{+0.3}_{0}$	42	BH	—	—	42	12 $^{+0.043}_{0}$	45.3 $^{+0.3}_{0}$	18	BJ	—	—	18	6 ±0.0150	20.8 $^{+0.3}_{0}$	42	BJ	—	—	42	12 ±0.0215	45.3 $^{+0.3}_{0}$
19	BH	JH	KH	19	6 $^{+0.030}_{0}$	21.8 $^{+0.3}_{0}$	45	BH	—	—	45	14 $^{+0.043}_{0}$	48.8 $^{+0.3}_{0}$	19	BJ	JJ	KJ	19	6 ±0.0150	21.8 $^{+0.3}_{0}$	45	BJ	—	—	45	14 ±0.0215	48.8 $^{+0.3}_{0}$

• We can also handle standards not listed above. Please contact Miki Pulley.

Standard Bore Diameter

Standard (option) bore diameter, d1/d2 [mm] and related rated torque [N·m]																												
Nominal bore diameter			8	9	10	11	12	13	14	15	16	17	18	19	20	22	24	25	28	30	32	35	38	40	42	45
Shaft tolerance	h7 (h6 · g6)	B	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	j6 (Option)	J												○		○	○		○							
	k6 (Option)	K	○	○					○		○			○		○	○				○		○			
Supported bore diameter for each model	SFC-025DA2	d1	●	●	●	●	●	●	●																	
		d2	●	●	●	●	●	●	●																	
	SFC-030DA2	d1	●	●	●	●	●	●	●																	
		d2	●	●	●	●	●	●	●	●	●															
	SFC-035DA2	d1	●	●	●	●	●	●	●	●	●															
		d2	●	●	●	●	●	●	●	●	●	●	●	●												
	SFC-040DA2	d1	9	●	●	●	●	●	●	●	●	●	●	●												
		d2	9	●	●	●	●	●	●	●	●	●	●	●	●	●	●									
	SFC-050DA2	d1	18	20	22	●	●	●	●	●	●	●	●	●	●	●	●	●								
		d2	18	20	22	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
	SFC-055DA2	d1			31	34	36	38	●	●	●	●	●	●	●	●	●	●	●	●						
		d2			31	34	36	38	●	●	●	●	●	●	●	●	●	●	●	●						
	SFC-060DA2	d1				50	51	●	●	●	●	●	●	●	●	●	●	●	●	●	●					
		d2				50	51	●	●	●	●	●	●	●	●	●	●	●	●	●	●					
	SFC-080DA2	d1											●	●	●	●	●	●	●	●	●	●				
		d2											●	●	●	●	●	●	●	●	●	●	●	●		
	SFC-090DA2	d1																●	●	●	●	●	●	●		
		d2																●	●	●	●	●	●	●	●	●
	SFC-100DA2	d1																			226	●	●	●	●	●
		d2																			226	●	●	●	●	●

• The shaft tolerance for standard bore diameter is h7 (h6 or g6): designation B. However, for a bore diameter of ø35, the shaft tolerance is $^{+0.010}_{-0.025}$.
• Shaft tolerances j6/k6: designations J/K are optional, and are only supported for bore diameters marked with ○.
• Bore diameters marked with ● or numbers are supported as the standard bore diameters. Please contact Miki Pulley regarding special arrangements which may be possible for other bore diameters.
• Bore diameters whose fields contain numbers are restricted in their rated torque by the holding power of the shaft connection component because the bore diameter is small. The numbers indicate the rated torque [N·m].

How to Place an Order

SFC-060SA2-12BH-14KJ

- Size
- Type: SA2: Single element; DA2: Double element
- Bore diameter d1 (Small diameter)
- Bore diameter d2 (Large diameter)
- Affixing method BH: h7 (h6, g6) shaft + H9 keyway
- Affixing method KJ: k6 shaft + JS9 keyway

• For nominal bore diameter, select d1 (small diameter) -d2 (large diameter) in that order.
• If d1=d2 (same diameters), select B, J, and K in that order.
B • J • K • BH • BJ • JH • JJ • KH • KJ

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