SD Series

Zero Backlash Disk Coupling

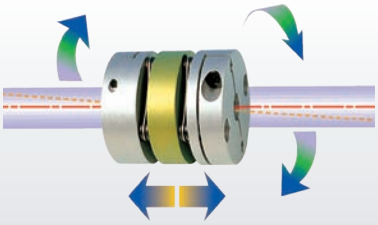
'SI. CO' mark(Trademark : 40-2012-0061376) indicates that the authenticity is certified.
'SDS, SDW'(Trademark : 40-2012-0044877, 0044876) is the original trademark for SUNGIL's Disk Coupling.

SUNGIL's DISK COUPLING has large torsional stiffness and zero backlash, and it is a highly precise coupling that has a infinite life. SUNGIL's DISK COUPLING can rotate with high speed in uni-direction or bi-directions and is used mainly in high-precision measuring equipments, high speed movement control systems, dynamometer, precision encoder and so forth.

RoHS COMPLIANT REACH The new EU chemicals legislation

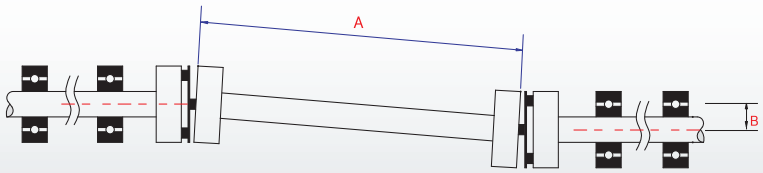
Features

- Absorbs misalignment by plat spring (Single disk type cannot accept parallel misalignment)
- High torsional stiffness
- Zero backlash
- Semi-permanent life time
- Identical clockwise and counter-clockwise rotational characteristics
- Low moment of inertia
- Accurate and fast response performance
- 2 types: Single disk, Double disk
- Assembly of Disk Coupling with stainless steel component(bolt, collar) is available(please contact us)



※ Patent application : 10-2012-0057200

Allowance for Parallel misalignment when applying midde shaft



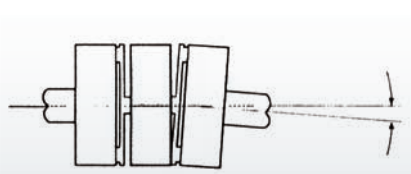
Allowance for parallel misalignment B

$B = A \times \sin\theta$

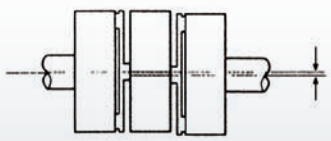
A : Fluctuating shaft length

θ : Allowance for Angular misalignment of Coupling

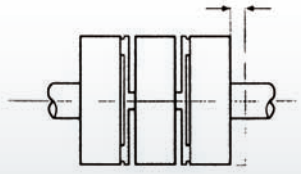
Misalignment



Angular Misalignment : ± °



Parallel Misalignment : ±mm



End-Play : ±mm

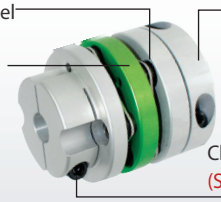
Application

- Servo motor, Stepping Motor
- Encorder for high precision
- High speed & precise position controlling system
- X-Y positioning, Linear Robot

Structure & Material

Disk : Stainless steel

Middle Plate: High strength aluminum Surface treatment: Alumite



Hub: High strength aluminum Surface treatment: Alumite

Clamping : SCM435 (Stainless bolts are available)

How to order product

※ Please mark each inner diameter size.
※ It is impossible to ask for additional keyways and change inner diameter size after ordering.
※ Do not disassemble because each part is assembled in an optimized position.
※ The clamp split hub can be applied to SDWB,C-54CW, SD□□-64CW(cylindrical hub), SD□□-80CW, SD□□-90CW and SD□□-100CW.)

Please, download CAD DATA from www.sungilfa.com

SDS - ■ ■

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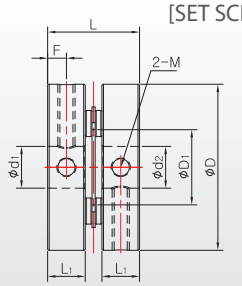

SD ■ S - ■ ■ C

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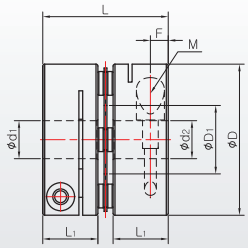

SDCS-54C

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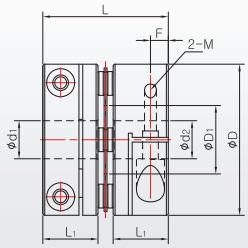

Dimensions & Performance

Product Number	Dimension (±0.3)					Fastening Bolt M	Fastening Torque (N · m)	Max• RPM (min^{-1})	Max Torque (N · m)	Rated Torque (N · m)	Torsional Stiffness (N · m/rad)	Moment of Inertia (kg · m^2)	Mass (g)	Permissible Misalignment		
	D	D1	L	L1	F									Angle (°)	Parallel (mm)	End-Play (mm)
SDS-16	16	6.7	12	5.1	2.5	M2.5	0.5	16,000	1	0.5	270	1.8×10^{-7}	5	0.5	0	±0.1
SDS-16C	16	6.7	17.4	7.8	2.5	M2	0.5	14,000	1	0.5	270	2.6×10^{-7}	7	1	0	±0.1
SDS-19	19	8.5	14.5	6.1	3	M3	0.7	16,000	1.8	0.9	600	3.0×10^{-7}	6	1	0	±0.1
SDS-19C	19	8.5	19.3	8.7	2.9	M2.6	1	14,000	1.8	0.9	600	4.0×10^{-7}	8	1	0	±0.1
SDS-22	22.2	10	14.8	6.2	3	M3	0.7	12,000	2.2	1.1	600	6.9×10^{-7}	10	1	0	±0.1
SDS-22C	22.2	10	19.7	8.7	2.8	M2.6	1	10,000	2.2	1.1	600	1.0×10^{-6}	15	1	0	±0.1
SDS-26	26.6	12.2	17.6	7.4	3.6	M4	1.7	12,000	3	1.5	900	2.0×10^{-6}	20	1	0	±0.15
SDS-26C	26.6	12.2	24.1	10.6	3.4	M3	1.7	10,000	3	1.5	900	2.4×10^{-6}	25	1	0	±0.15
SDS-31	31.8	14.4	17.6	7.2	3.6	M4	1.7	10,000	6	3	1,700	4.4×10^{-6}	30	1	0	±0.2
SDS-31C	31.8	14.4	26.4	11.6	3.7	M3	1.7	9,000	6	3	1,700	5.8×10^{-6}	40	1	0	±0.2
SDS-39C	39	17	31.3	13.7	4.3	M4	3.5	8,000	10	5	2,300	1.6×10^{-5}	70	1	0	±0.25
SDCS-42C	42.5	18	31.4	13.7	4.3	M4	3.5	8,000	14	7	2,800	3.4×10^{-5}	95	1	0	±0.25
SDCS-47C	47	20.4	35.6	16	5.2	M4	3.5	8,000	24	12	6,000	5.4×10^{-5}	140	1	0	±0.25
SDCS-54C	54	25	42.3	19	6.3	M5	8	8,000	44	22	11,000	9.8×10^{-5}	200	1	0	±0.25

* Mass and mass moment of inertia are measured with max. bore size

SDWA - ■ ■

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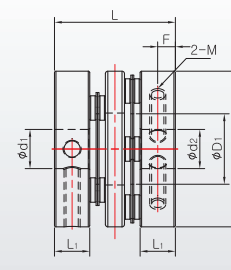

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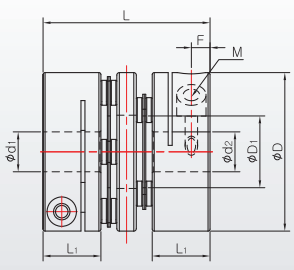


Dimensions & Performance

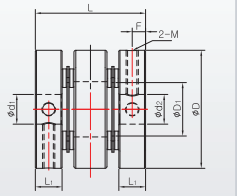
Product Number	Dimension (±0.3)					Fastening Bolt M	Fastening Torque (N · m)	Max• RPM(min^{-1})	Max Torque (N · m)	Rated Torque (N · m)	Torsional Stiffness (N · m/rad)	Moment of Inertia (kg · m^2)	Mass (g)	Permissible Misalignment		
	D	D1	L	L1	F									Angle (°)	Parallel (mm)	End-Play (mm)
SDWA-16	16	6.3	15.8	5.1	2.5	M2.5	0.5	16,000	1	0.5	200	2.2×10^{-7}	6	1	0.05	±0.2
SDWB-16	16	6.3	17.8	5.1	2.5	M2.5	0.5	16,000	1	0.5	200	2.6×10^{-7}	7	1	0.05	±0.2
SDWA-16C	16	6.3	21.2	7.8	2.5	M2	1	14,000	1	0.5	200	3.3×10^{-7}	9	1	0.05	±0.2
SDWB-16C	16	6.3	23.2	7.8	2.5	M2	1	14,000	1	0.5	200	3.7×10^{-7}	10	1	0.05	±0.2
SDWA-19	19	8.5	18.1	6.1	3	M3	0.7	16,000	1.8	0.9	300	5.3×10^{-7}	10	1	0.05	±0.2
SDWB-19	19	8.5	21.1	6.1	3	M3	0.7	16,000	1.8	0.9	300	5.8×10^{-7}	11	1	0.05	±0.2
SDWA-19C	19	8.5	23.3	8.7	2.9	M2.6	1	14,000	1.8	0.9	300	7.4×10^{-7}	14	1	0.05	±0.2
SDWB-19C	19	8.5	26.3	8.7	2.9	M2.6	1	14,000	1.8	0.9	300	7.9×10^{-7}	15	1	0.05	±0.2

* Mass and mass moment of inertia are measured with max. bore size

SD Series

Zero Backlash Disk Coupling

SDW ■ - ■ ■ [SET SCREW TYPE]



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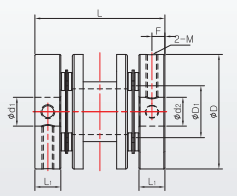

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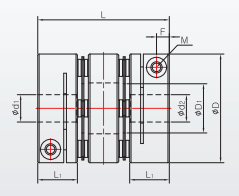

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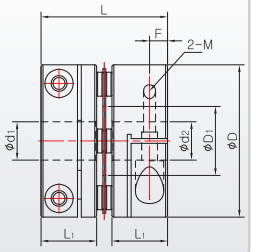

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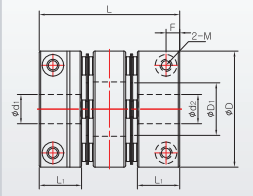

Dimensions & Performance

Product Number	Dimension (±0.3)					Fastening Bolt M	Fastening Torque (N · m)	Max• RPM (min^{-1})	Max Torque (N · m)	Rated Torque (N · m)	Torsional Stiffness (N · m/rad)	Moment of Inertia (kg · m^2)	Mass (g)	Permissible Misalignment		
	D	D_1	L	L_1	F									Angle (°)	Parallel (mm)	End-Play (mm)
SDWA-22	22.2	9	20.1	6.3	3	M3	0.7	12,000	2.2	1.1	400	1.0×10^{-6}	16	1.5	0.12	±0.2
SDWB-22	22.2	9	22.3	6.3	3	M3	0.7	12,000	2.2	1.1	400	1.1×10^{-6}	17	1.5	0.12	±0.2
SDA-22	22.2	8.3	28.3	6.3	3	M3	0.7	12,000	2.2	1.1	400	1.3×10^{-6}	18	1.5	0.12	±0.2
SDWA-22C	22.2	9	25	8.7	2.8	M2.6	1	10,000	2.2	1.1	400	1.3×10^{-6}	18	1.5	0.12	±0.2
SDWB-22C	22.2	9	27.2	8.7	2.8	M2.6	1	10,000	2.2	1.1	400	1.4×10^{-6}	19	1.5	0.12	±0.2
SDA-22C	22.2	8.3	33.2	8.7	2.8	M2.6	1	10,000	2.2	1.1	400	1.5×10^{-6}	20	1.5	0.12	±0.2
SDWA-26	26.6	12.2	26	7.4	3.6	M4	1.7	12,000	3	1.5	600	2.3×10^{-6}	28	1.5	0.15	±0.3
SDA-26	26.6	10.5	31.7	7.4	3.6	M4	1.7	12,000	3	1.5	600	3.2×10^{-6}	32	1.5	0.15	±0.3
SDWA-26C	26.6	12.2	32.5	10.6	3.4	M3	1.7	10,000	3	1.5	600	3.4×10^{-6}	34	1.5	0.15	±0.3
SDA-26C	26.6	10.5	38.2	10.6	3.4	M3	1.7	10,000	3	1.5	600	3.9×10^{-6}	39	1.5	0.15	±0.3
SDWA-31	31.8	14.4	24.7	7.2	3.6	M4	1.7	10,000	6	3	1,300	4.3×10^{-6}	30	1.5	0.15	±0.4
SDWB-31	31.8	14.4	29.7	7.2	3.6	M4	1.7	10,000	6	3	1,300	5.5×10^{-6}	38	1.5	0.15	±0.4
SDA-31	31.8	12.7	36.1	7.2	3.6	M4	1.7	10,000	6	3	1,300	5.5×10^{-6}	38	1.5	0.15	±0.4
SDWA-31C	31.8	14.4	33.5	11.6	3.7	M3	1.7	9,000	6	3	1,300	7.5×10^{-6}	52	1.5	0.15	±0.4
SDWB-31C	31.8	14.4	38.5	11.6	3.7	M3	1.7	9,000	6	3	1,300	8.8×10^{-6}	60	1.5	0.15	±0.4
SDA-31C	31.8	12.7	44.9	11.6	3.7	M3	1.7	9,000	6	3	1,300	8.8×10^{-6}	60	1.5	0.15	±0.4
SDWA-39C	39	17	39.5	13.7	4.3	M4	3.5	8,000	10	5	1,800	2.1×10^{-5}	95	1.5	0.18	±0.4
SDWC-39C	39	17	45	13.7	4.3	M4	3.5	8,000	10	5	1,800	2.4×10^{-5}	110	1.5	0.18	±0.4
SDA-39C	39	15.3	56.5	13.7	4.3	M4	3.5	8,000	10	5	1,800	3.0×10^{-5}	120	1.5	0.18	±0.4
SDWC-42C	42.5	18	46.2	13.7	4.3	M4	3.5	8,000	14	7	2,000	3.3×10^{-5}	120	1.5	0.18	±0.5
SDWC-47C	47	20.4	50	16	5.2	M4	3.5	8,000	24	12	4,000	5.5×10^{-5}	160	1.5	0.2	±0.5
SDWB-54C	54	25	52.6	19	6.3	M5	8	8,000	44	22	7,000	1.1×10^{-4}	250	1.5	0.2	±0.5
SDWC-54C	54	25	58.6	19	6.3	M5	8	8,000	44	22	7,000	1.2×10^{-4}	280	1.5	0.2	±0.5

* Mass and mass moment of inertia are measured with max. bore size

Standard Inner diameter

Product Number	Standard Inner Diameter(d_1, d_2, unit:mm)																						
	3	4	4.5	5	6	6.35	7	8	9	9.525	10	11	12	12.7	14	15	15.875	16	17	18	19	20	24	25
SD□□-16□	●	●	●	●																				
SD□□-19□	●	●	●	●	●																			
SD□□-22□	●	●	●	●	●	●	●	●	●★	●★														
SD□□-26□		●	●	●	●	●	●	●	●	●	●													
SD□□-31□				●	●	●	●	●	●	●	●	●	●	●	●	●★								
SD□□-39□				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
SD□□-42C					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●★	●★			
SD□□-47C								●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
SD□□-54□											●	●	●	●	●	●	●	●	●	●	●	●	●	●

■ For the inner diameter, INCH type is available ■ Nonstandard inner diameter is also available

■ Keyway is available ■ The recommendation for shaft tolerance is h7.

■ In case of the ★ inner bore diameter, a shaft cannot penetrate through the stainless steel plate spring.

Please, download CAD DATA from www.sungilfa.com

SDS - ■ ■ C

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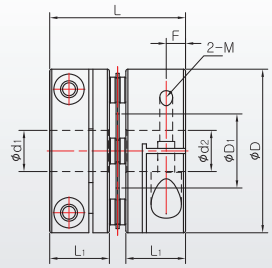

SDW - ■ ■ C

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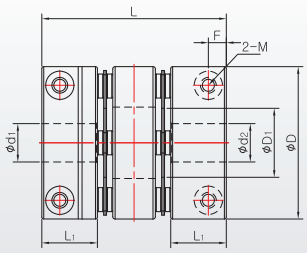

SDA - ■ ■ C

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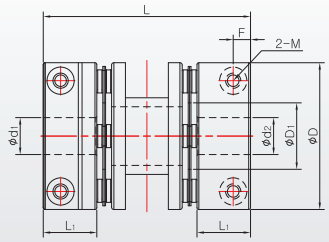


Dimensions & Performance

Product Number	Dimension (±0.3)					Fastening Bolt M	Fastening Torque (N · m)	Max• RPM (min^{-1})	Max Torque (N · m)	Rated Torque (N · m)	Torsional Stiffness (N · m/rad)	Moment of Inertia (kg · m^2)	Mass (g)	Permissible Misalignment		
	D	D_1	L	L_1	F									Angle (°)	Parallel (mm)	End-Play (mm)
SDS-80C	80	35.8	66.1	29.7	9.4	M8	30	7,000	150	75	40,000	7.5×10^{-4}	800	1	0	±0.4
SDW-80C	80	35.8	81.8	29.7	9.4	M8	30	6,000	150	75	20,000	8.4×10^{-4}	900	2	0.4	±0.6
SDA-80C	80	32	98.3	29.7	9.4	M8	30	6,000	150	75	20,000	9.5×10^{-4}	1,000	2	0.5	±0.6
SDS-90C	94.5	41.6	68.9	30.4	9.3	M8	30	6,000	300	150	60,000	1.2×10^{-3}	930	1	0	±0.5
SDW-90C	94.5	41.6	98.9	30.4	9.3	M8	30	6,000	300	150	35,000	1.8×10^{-3}	1,350	2	0.4	±0.8
SDS-100C	104.5	47.7	71.7	30.7	9.3	M8	30	6,000	440	220	70,000	2.2×10^{-3}	1,300	1	0	±0.6
SDW-100C	104.5	47.7	103.8	30.7	9.3	M8	30	6,000	440	220	50,000	2.9×10^{-3}	1,700	2	0.4	±0.8

* Mass and mass moment of inertia are measured with max. bore size

Standard Inner diameter

Product Number	Standard Inner Diameter(d_1, d_2, unit:mm)															
	15	16	18	19	20	22	24	25	28	30	32	35	40	45	50	50
SDS-80C	●	●	●	●	●	●	●	●	●	●	●					
SDW-80C	●	●	●	●	●	●	●	●	●	●	●					
SDS-90C					●	●	●	●	●	●	●	●	●	●		
SDW-90C					●	●	●	●	●	●	●	●	●	●		
SDS-100C					●	●	●	●	●	●	●	●	●	●	●★	
SDW-100C					●	●	●	●	●	●	●	●	●	●	●★	

■ For the inner diameter, INCH type is available ■ Nonstandard inner diameter is also available

■ Keyway is available ■ The recommendation for shaft tolerance is h7.

■ In case of the ★ inner bore diameter, a shaft cannot penetrate through the stainless steel plate spring.

SDS - ■ ■ C SDWA - ■ ■ C SDWB - ■ ■ C SDWC - ■ ■ C SDAA - ■ ■ C SDAB - ■ ■ C SDAC - ■ ■ C

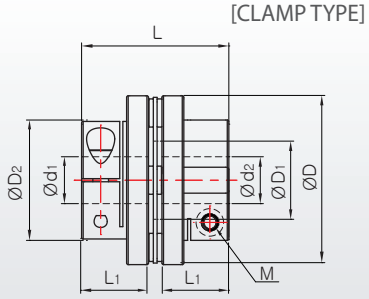
※ Hub design can be changed according to diameter size

SD Series

Zero Backlash Disk Coupling

SDS - ■ ■ C

[CLAMP TYPE]



SDW ■ - ■ ■ C

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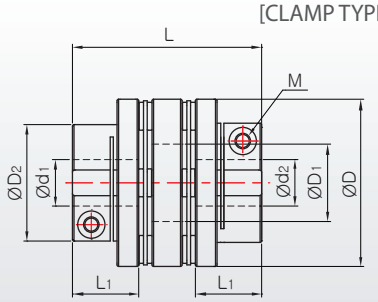

SDA ■ - ■ ■ C

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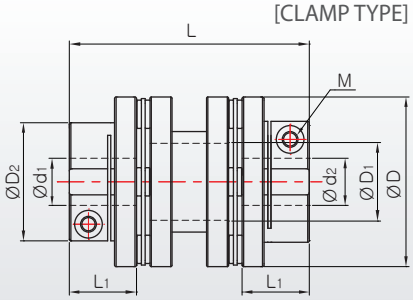


Dimensions & Performance

Product Number	Dimension (±0.3)						Fastening Bolt M	Fastening Torque (N · m)	Max· RPM (min^{-1})	Max Torque (N · m)	Rated Torque (N · m)	Torsional Stiffness (N · m/rad)	Moment of Inertia ($kg \cdot m^2$)	Mass (g)	Permissible Misalignment		
	D	D_1	D_2	L	L_1	F									Angle (°)	Parallel (mm)	End-Play (mm)
SDS-42C	42.5	18	29.3	30.8	13.4	3.8	M3	1.7	8,000	14	7	2,800	1.7×10^{-5}	65	1	0	±0.25
SDWA-42C	42.5	18	29.3	39.7	13.4	3.8	M3	1.7	8,000	14	7	2,000	2.1×10^{-5}	84	1.5	0.18	±0.5
SDWB-42C	42.5	18	29.3	44.2	13.4	3.8	M3	1.7	8,000	14	7	2,000	2.4×10^{-5}	94	1.5	0.18	±0.5
SDAA-42C	42.5	18	29.3	50	13.4	3.8	M3	1.7	8,000	14	7	2,000	2.7×10^{-5}	105	1.5	0.18	±0.5
SDAB-42C	42.5	18	29.3	57.9	13.4	3.8	M3	1.7	8,000	14	7	2,000	2.8×10^{-5}	110	1.5	0.18	±0.5
SDAC-42C	42.5	18	29.3	67.3	13.4	3.8	M3	1.7	8,000	14	7	2,000	2.9×10^{-5}	115	1.5	0.18	±0.5
SDS-47C	47	20.4	33	37	16.7	5	M4	3.5	8,000	24	12	6,000	3.2×10^{-5}	108	1	0	±0.25
SDWA-47C	47	20.4	33	45.6	16.7	5	M4	3.5	7,500	24	12	4,000	3.6×10^{-5}	120	1.5	0.2	±0.5
SDWB-47C	47	20.4	33	51.4	16.7	5	M4	3.5	7,500	24	12	4,000	3.9×10^{-5}	132	1.5	0.2	±0.5
SDAA-47C	47	20	33	63.8	16.7	5	M4	3.5	7,500	24	12	4,000	4.5×10^{-5}	152	1.5	0.2	±0.5
SDAB-47C	47	20	33	90.7	16.7	5	M4	3.5	7,500	24	12	4,000	5.1×10^{-5}	172	1.5	0.2	±0.5
SDS-54C	54	25	38.5	47.1	21.4	6.1	M5	8	8,000	44	22	11,000	5.5×10^{-5}	145	1	0	±0.25
SDWA-54C	54	25	38.5	60.6	21.4	6.1	M5	8	7,500	44	22	7,000	7.2×10^{-5}	192	1.5	0.2	±0.5
SDAA-54C	54	24.3	38.5	76	21.4	6.1	M5	8	7,500	44	22	7,000	9.0×10^{-5}	240	1.5	0.2	±0.5
SDAB-54C	54	24.3	38.5	89.9	21.4	6.1	M5	8	7,500	44	22	7,000	1.1×10^{-4}	266	1.5	0.2	±0.5
SDS-64C	64	25.8	48	58.2	26	7.5	M6	13	7,000	62	31	20,000	1.8×10^{-4}	292	1	0	±0.25
SDWA-64C	64	25.8	48	74.4	26	7.5	M6	13	6,500	62	31	11,000	2.2×10^{-4}	373	1.5	0.3	±0.5
SDA-64C	64	25.8	48	89.9	26	7.5	M6	13	6,500	62	31	11,000	2.7×10^{-4}	450	1.5	0.3	±0.5

* Mass and mass moment of inertia are measured with max. bore size.
■ For SDW □ -64C, cylinderical-shaped hubs are used from Φ28(inner bore diameter).

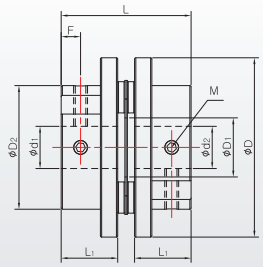
Standard Inner diameter

Product Number	Standard Inner Diameter(d_1, d_2, unit:mm)																										
	5	6	6.35	7	8	9	9.525	10	11	12	12.7	14	15	15.875	16	17	18	19	20	21	22	24	25	26	28	30	35
SD □ □ -42C		●	●	●	●	●	●	●	●	●	●	●	●														
SD □ □ -47C					●	●	●	●	●	●	●	●	●	●	●	●	●	●									
SD □ □ -54C								●	●	●	●	●	●	●	●	●	●	●	●								
SD □ □ -64C										●	●	●	●	●	●	●	●	●	●	●	●	●	●★	●★	●★	●★	

■ For the inner diameter, INCH type is available
■ Nonstandard inner diameter is also available
■ Keyway is available
■ The recommendation for shaft tolerance is h7.
■ In case of the ★ inner bore diameter, a shaft cannot penetrate through the stainless steel plate spring.

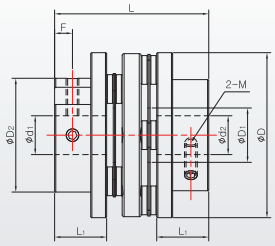
SDS - ■ ■

[SET SCREW TYPE]



SDW ■ - ■ ■

[SET SCREW TYPE]



SDA ■ - ■ ■

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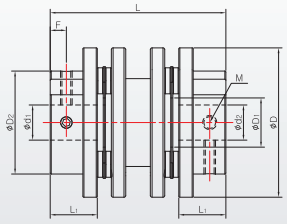


Dimensions & Performance

Product Number	Dimension (±0.3)						Fastening Bolt M	Fastening Torque (N · m)	Max• RPM (min^{-1})	Max Torque (N · m)	Rated Torque (N · m)	Torsional Stiffness (N · m/rad)	Moment of Inertia ($kg \cdot m^2$)	Mass (g)	Permissible Misalignment		
	D	D_1	D_2	L	L_1	F									Angle (°)	Parallel (mm)	End-Play (mm)
SDS-42	42.5	18	29.3	30.8	13.4	4.6	M4	1.7	8,000	14	7	2,800	1.7×10^{-5}	65	1	0	±0.25
SDWA-42	42.5	18	29.3	39.7	13.4	4.6	M4	1.7	8,000	14	7	2,000	2.1×10^{-5}	84	1.5	0.18	±0.5
SDWB-42	42.5	18	29.3	44.2	13.4	4.6	M4	1.7	8,000	14	7	2,000	2.4×10^{-5}	94	1.5	0.18	±0.5
SDAA-42	42.5	18	29.3	50	13.4	4.6	M4	1.7	8,000	14	7	2,000	2.7×10^{-5}	105	1.5	0.18	±0.5
SDAB-42	42.5	18	29.3	57.9	13.4	4.6	M4	1.7	8,000	14	7	2,000	2.8×10^{-5}	110	1.5	0.18	±0.5
SDAC-42	42.5	18	29.3	67.3	13.4	4.6	M4	1.7	8,000	14	7	2,000	2.9×10^{-5}	115	1.5	0.18	±0.5
SDS-47	47	20.4	33	31.4	13.9	4.5	M5	4	8,000	24	12	6,000	2.7×10^{-5}	91	1	0	±0.25
SDWA-47	47	20.4	33	39.9	13.9	4.5	M5	4	8,000	24	12	4,000	3.4×10^{-5}	115	1.5	0.2	±0.5
SDWB-47	47	20.4	33	45.7	13.9	4.5	M5	4	8,000	24	12	4,000	3.6×10^{-5}	120	1.5	0.2	±0.5
SDAA-47	47	20	33	58.1	13.9	4.5	M5	4	8,000	24	12	4,000	4.2×10^{-5}	140	1.5	0.2	±0.5
SDAB-47	47	20	33	85	13.9	4.5	M5	4	8,000	24	12	4,000	4.7×10^{-5}	160	1.5	0.2	±0.5
SDS-54	54	25	38.5	42.3	19	5.8	M5	4	7,500	44	22	11,000	4.9×10^{-5}	130	1	0	±0.25
SDWA-54	54	25	38.5	55.8	19	5.8	M5	4	7,500	44	22	7,000	6.7×10^{-5}	177	1.5	0.2	±0.5
SDAA-54	54	24.3	38.5	71.2	19	5.8	M5	4	7,500	44	22	7,000	9.0×10^{-5}	230	1.5	0.2	±0.5
SDAB-54	54	24.3	38.5	85.1	19	5.8	M5	4	7,500	44	22	7,000	1.1×10^{-4}	250	1.5	0.2	±0.5
SDS-64	64	25.8	48	58.2	26	8	M8	15	7,000	80	40	20,000	1.8×10^{-4}	292	1	0	±0.25
SDWA-64	64	25.8	48	74.4	26	8	M8	15	7,000	80	40	11,000	2.2×10^{-4}	373	1.5	0.3	±0.5
SDA-64	64	25.8	48	89.9	26	8	M8	15	7,000	80	40	11,000	2.7×10^{-4}	450	1.5	0.3	±0.5

* Mass and mass moment of inertia are measured with max. bore size.
■ For SDW □-64C, cylinderical-shaped hubs are used from Φ28(inner bore diameter).

Standard Inner diameter

Product Number	Standard Inner Diameter(d_1, d_2, unit:mm)																										
	5	6	6.35	7	8	9	9.525	10	11	12	12.7	14	15	15.875	16	17	18	19	20	21	22	24	25	26	28	30	35
SD□□-42		●	●	●	●	●	●	●	●	●	●	●	●														
SD□□-47					●	●	●	●	●	●	●	●	●	●	●	●	●	●									
SD□□-54								●	●	●	●	●	●	●	●	●	●	●	●								
SD□□-64										●	●	●	●	●	●	●	●	●	●	●	●	●	●★	●★	●★	●★	

■ For the inner diameter, INCH type is available ■ Nonstandard inner diameter is also available ■ Keyway is available
■ The recommendation for shaft tolerance is h7.
■ In case of the ★ inner bore diameter, a shaft cannot penetrate through the stainless steel plate spring.

SD Series (Stainless)

Zero Backlash Disk Coupling (Stainless)

'SI. CO' mark(Trademark : 40-2012-0061376) indicates that the authenticity is certified.
'SDS, SDW' (Trademark : 40-2012-0044877, 0044876) are the original trademarks for SUNGIL's Disk Coupling.

RoHS COMPLIANT REACH The new EU chemicals legislation

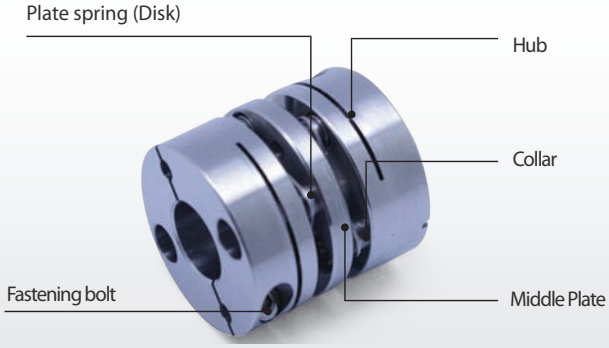
Features

- Standardized disk couplings made up of stainless steel domestically for the first time.
- Various sizes of outer diameter and inner bore is available
- High torsional stiffness
- Identical clockwise and counter-clockwise rotational characteristics
- Single Disk Type/Double Disk Type
- Excellent corrosion resistance (Cleanroom, High vacuum equipment, High, High Humidity)

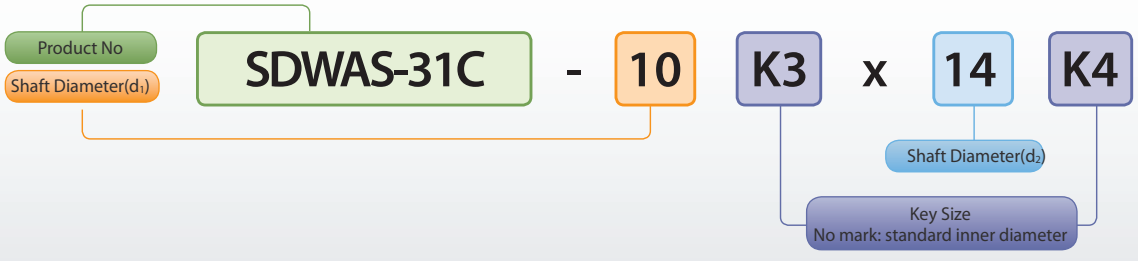
Application

- High precise stage
- Position controlling system
- Index table
- Servo Motor, Stepping Motor
- Power and motion transmission in vacuum or clean room
- Used in acidic or alkaline environments

Structure



How to order product



※ Please mark each inner bore diameter.
※ It is impossible to order the additional keyways after ordering.
※ Do not disassemble because each part is optimally assembled for the exact concentricity between each shaft hole.

SD Series (Stainless)
Zero Backlash Disk Coupling (Stainless)

Please, download CAD DATA from www.sungilfa.com

SDSS - ■■C

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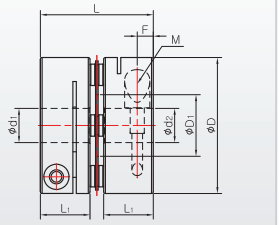

Outer diameter (D) : ø 22.2 ~ ø 47

SDSS - ■■C

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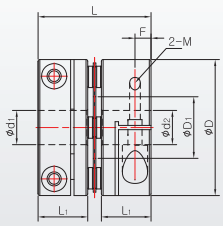

Outer diameter(D) : ø 54 ~ ø 64

SDW■S - ■■C

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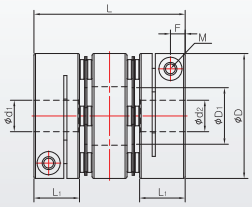

Outer diameter (D) : ø 22.2~ø 47

SDW■S - ■■C

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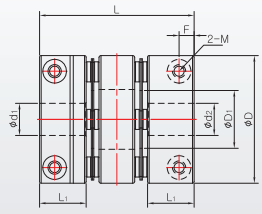

Outer diameter (D) : ø 54 ~ ø 64

Dimensions & Performance

Product Number	Dimension (±0.3)					Fastening Bolt M	Fastening Torque (N · m)	Max. RPM (min^{-1})	Max Torque (N · m)	Rated Torque (N · m)	Torsional Stiffness (N · m/rad)	Moment of Inertia (kg · m^2)	Mass (g)	Permissible Misalignment		
	D	D_1	L	L_1	F									Angle (°)	Parallel (mm)	End-Play (mm)
SDSS-19C	19	8.5	19.3	8.7	2.9	M2.6	1	14000	1	0.5	960	1.0×10^{-6}	21	1	0	±0.1
SDSS-22C	22.2	10	19.7	8.7	2.8	M2.6	1	10,000	2.2	1.1	960	2.5×10^{-6}	42	1	0	±0.1
SDSS-26C	26.6	12.2	24.1	10.7	3.4	M3	1.5	10,000	3	1.5	1,200	6.0×10^{-6}	70	1	0	±0.15
SDSS-31C	31.8	14.4	26.4	11.6	3.7	M3	1.5	9,000	6	3	2,600	1.5×10^{-5}	112	1	0	±0.2
SDSS-39C	39	17	31.3	13.7	4.3	M4	2.5	8,000	10	5	2,800	4.0×10^{-5}	196	1	0	±0.2
SDSS-42C	42.5	18	31.4	13.7	4.3	M4	2.5	8,000	14	7	3,300	8.5×10^{-5}	266	1	0	±0.25
SDSS-47C	47	20.4	36	16	5.2	M4	2.5	8,000	24	12	7,000	1.4×10^{-4}	392	1	0	±0.25
SDSS-54C	54	25	42	19	6.3	M5	4	8,000	44	22	12,000	2.5×10^{-4}	560	1	0	±0.25
SDSS-64C	64	25.8	57.5	26	7.5	M6	8	6,000	62	31	22,000	6.5×10^{-4}	950	1	0	±0.25
SDWAS-19C	19	8.5	23.3	8.7	2.9	M2.6	1	14,000	1	0.5	400	1.6×10^{-6}	37	1	0.05	±0.2
SDWBS-19C	19	8.5	26.3	8.7	2.9	M2.6	1	14,000	1	0.5	400	2.0×10^{-6}	39	1	0.05	±0.2
SDWAS-22C	22.2	9	25	8.7	2.8	M2.6	1	10,000	2.2	1.1	520	3.3×10^{-6}	47	1.5	0.12	±0.2
SDWBS-22C	22.2	9	27.2	8.7	2.8	M2.6	1	10,000	2.2	1.1	520	3.5×10^{-6}	50	1.5	0.12	±0.2
SDWAS-26C	26.6	12.2	32.5	10.7	3.4	M3	1.5	10,000	3	1.5	750	8.5×10^{-6}	92	1.5	0.15	±0.3
SDWAS-31C	31.8	14.4	33.5	11.6	3.7	M3	1.5	10,000	6	3	1,650	1.9×10^{-5}	140	1.5	0.15	±0.4
SDWBS-31C	31.8	14.4	38.5	11.6	3.7	M3	1.5	8,000	6	3	1,650	2.2×10^{-5}	162	1.5	0.15	±0.4
SDWAS-39C	39	17	39.5	13.7	4.3	M4	2.5	8,000	10	5	2,250	5.3×10^{-5}	257	1.5	0.18	±0.4
SDWCS-39C	39	17	45	13.7	4.3	M4	2.5	8,000	10	5	2,250	6.0×10^{-5}	297	1.5	0.18	±0.4
SDWCS-42C	42.5	18	46.2	13.7	4.3	M4	2.5	8,000	14	7	2,500	8.3×10^{-5}	324	1.5	0.18	±0.5
SDWCS-47C	47	20.4	50.7	16	5.2	M4	2.5	8,000	24	12	5,000	1.4×10^{-4}	432	1.5	0.2	±0.5
SDWBS-54C	54	25	52	19	6.3	M5	4	8,000	44	22	8,750	2.8×10^{-4}	675	1.5	0.2	±0.5
SDWCS-54C	54	25	58	19	6.3	M5	4	8,000	44	22	8,750	3.0×10^{-4}	756	1.5	0.2	±0.5
SDWAS-64C	64	25.8	73	26	7.5	M6	8	6,500	62	31	13,800	6.8×10^{-4}	1200	1.5	0.3	±0.5

※ Mass and mass moment of inertia are measured with max. bore size

Standard bore diameter

Product Number	Standard Inner Diameter(d_1, d_2, unit:mm)																											
	4	4.5	5	6	6.35	7	8	9	9.525	10	11	12	12.7	14	15	15.875	16	17	18	19	20	21	22	24	25	26	28	30
SD□□S-19C	●	●	●	●																								
SD□□S-22C	●	●	●	●	●	●	●	●★	●★																			
SD□□S-26C			●	●	●	●	●	●	●	●																		
SD□□S-31C				●	●	●	●	●	●	●	●	●	●	●	●★													
SD□□S-39C							●	●	●	●	●	●	●	●	●	●	●											
SD□□S-42C							●	●	●	●	●	●	●	●	●	●	●	●	●★	●★								
SD□□S-47C										●	●	●	●	●	●	●	●	●	●	●	●							
SD□□S-54C										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
SD□□S-64C												●	●	●	●	●	●	●	●	●	●	●	●	●	●★	●★	●★	●★

■ For the inner diameter, INCH type is available ■ Non-standard inner bore diameter is also available ■ h7 shaft tolerance is recommended.
■ Keyway is available. ■ The inner diameter marked ★ is not available for Shaft-penetration type.