

SMC Actuator Copper-free Actuators

ø6, ø8, ø10, ø12, ø15, ø16, ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100, ø125, ø140, ø160

How to Use This List

① Refer to the list below for copper-free products or standard products for each series.

Application	
Standard	Copper-free
CQ2	20-CQ2

- Standard specifications
Shows the standard products for copper-free.
- Copper-free specifications
Shows the products for copper-free with prefix "20-".

Example)

Standard specifications CQ2B32-20D
Copper-free specifications 20-CM2B40-200
└ Copper-free

② Refer to each series catalog for the detailed dimensions.

③ Contact SMC for directional control valves, air line equipment, air preparation equipment and others.

⑤ Name of CAD file

CAD system has file name for using "SMC electronic catalog". Refer to p.0-36 to 0-37 for detailed information.







Note) Dimensions

Note 1) Refer to the catalog since overall length of series CQ2 is different from that of CDQ2 for auto switches.












Note 2) Refer to the catalog since overall length of series CQS is different from that of CDQS for auto switches.

Note 3) Refer to the catalog since dimensions of standard stroke series CQ2 and CQS are different from that of long stroke style.

Air Cylinder

	Series	Application		Bore size (mm)																Page in Vol.2	Name of CAD file
		Standard	Copper-free	6	8	12 (10)	16 (15)	20	25	32	40	50	63	80	100	125	140	160			
Compact cylinder Series CQ2 (Note 1, 3) 	Standard		20-CQ2																2.3-2	SCQ2□	
	Standard long stroke		20-CQ2																2.3-108		
	Double rod		20-CQ2W																2.3-22		
	Non-rotating rod		20-CQ2K																2.3-56		
	Anti-lateral load		20-CQ2□S																2.3-118		
Compact cylinder with auto switch Series CDQ2 (Note 1, 3) 	Standard		20-CDQ2																2.3-8	SCQ2□	
	Standard long stroke		20-CDQ2																2.3-116		
	Double rod		20-CDQ2W																2.3-26		
	Non-rotating rod		20-CDQ2K																2.3-60		
	Anti-lateral load		20-CDQ2□S																2.3-122		
Compact cylinder Series CQS (Note 2, 3) 	Standard		20-CQS																2.2-2	SCQS□	
	Standard long stroke		20-CQS																2.2-10		
	Double rod		20-CQSW																2.2-30		
	Anti-lateral load		20-CQS□S																2.2-30		
Compact cylinder Series CDQS (Note 2, 3) 	Standard		20-CDQS																2.2-2	SCQS□	
	Standard long stroke		20-CDQS																2.2-10		
	Double rod		20-CDQSW																2.2-30		
	Anti-lateral load		20-CDQS□S																2.2-30		
Air cylinder Series C(D)M2 	Standard		20-CM2□																1.4-3	SCM2□	
	Standard with air cushion		20-CM2□A																1.4-22		
	Double rod		20-CM2W																1.4-50		
	Non-rotating rod		20-CM2K																1.4-66		
	Direct mounting		20-CM2R																1.7-6		
Air cylinder Series M(D)B 	Standard		20-M(D)B																1.7-16	SMB-□	
	Double rod		20-M(D)BW																1.7-30		
	With end lock		20-M(D)BB																		

Air Cylinder

Series	Application	Bore size (mm)														Page in Vol.2	Name of CAD file			
		Standard	Copper-free	6	8	12 (10)	16 (15)	20	25	32	40	50	63	80	100			125	140	160
Air cylinder Series C(D)A1 	Standard		20-CA1□N																1.9-2	SCA1□
	Double rod		20-CA1W□N																1.9-16	
	Non-rotating rod		20-CA1K□																1.9-22	
	Non-rotating double rod		20-CA1KW□																1.9-28	
Air cylinder Series C(D)G1 	Standard		20-CG1□□																1.6-2	SCG1□
	Non-rotating rod		20-CG1K																1.6-26	
	Direct mount		20-CG1R																1.6-35	
Air cylinder Series C(D)J2 	Standard		20-CJ2																1.3-2	SCJ2□
	Double rod		20-CJ2W																1.3-13	
	Non-rotating piston rod		20-CJ2K																1.3-30	
	Built-in speed controller		20-CJ2Z																1.3-42	
	Direct mount		20-CJ2R																1.3-56	
Free mount cylinder Series C(D)U 	Standard		20-CU																2.1-4	SCU□
	Non-rotating rod		20-CUK																2.1-24	
Pin Cylinder Series C(D)JP 	Double acting		20-CJP																1.2-2	SCJP□
	Single acting		20-CJP																1.2-8	
Large bore size cylinder Series C(D)S1 	Standard		20-CS1□N																1.10-2	SC51□
Fine lock cylinder Series C(D)L 	Standard		20-CLA																3.1-33	SCLA□
Cylinder with lock Series C(D)NA 	Standard		20-C(D)NA																3.3-1	SCNA□
End lock cylinder Series C(D)B 	Standard		20-CBM2																3.4-4	SCBM2□
	Standard		20-CBA1																3.4-12	SCBA1□
Plate cylinder Series M(D)U 	Standard		20-MU																2.4-2	SMU□
	Double rod		20-MUW																2.4-6	
Precision cylinder Series MTS 	Standard	MTS																	4.11-6	SMTS□
	With end lock	MTSR																	4.11-6	

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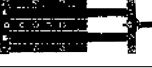
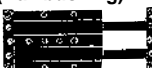
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Technical Data



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Air Cylinder



Series	Application	Bore size (mm)														Page in Vol.2	Name of CAD file		
		Standard	Copper-free	6	8	12 (10)	16 (15)	20	25	32	40	50	63	80	100			125	140
Mechanical joint rodless cylinder Series MY1 	Basic		20-MY1B															3.23-7	SMY1B□
	Slide bearing guide		20MY1M															3.23-23	SMY1M□
	Cam follower guide		20-MY1C															3.23-37	SMY1C□
	High precision guide		20-MY1H															3.23-51	SMY2H□
Magnetically coupled rodless cylinder Series C(D)Y1 	Basic	CY1B																3.22-4	
	Slider/Slide bearing		20-CY1S															3.22-26	SCY1S□
	Slider/Ball bushing	CY1L																3.22-38	
Compact guide cylinder Series MGQ 	Standard		20-MGQM															3.18-1	SMGQ□
	Standard		20-MGQL																
Compact guide cylinder Series MGP 	Standard		20-MGPM															3.17-1	SMGP□
	Standard		20-MGPL																
Guide cylinder Series MGG 	Standard		20-MGGM															3.19-1	SMGG□
	Standard		20-MGGL																
Guide cylinder (Compact style) Series MGC 	Standard		20-MGCM															3.20-1	SMGC□
	Standard		20-MGCL																
Platform cylinder Series CXT 	Standard		20-CXT															3.8-1	SCXT□
	With shock absorber		20-CXT																
Dual rod cylinder Series CXS 	Standard	CXSM																3.7-1	SCXS□
	Standard	CXSL																	
Slide unit double rod style Series CX2 	With adjusting bolt	CX2□																Refer to the catalog sheet	SCX2□
	With shock absorber		20-CX2□																
Slide unit with built-in shock absorber/ Series CXWM (Slide bearing) 	With adjusting bolt		20-CXWM															3.6-6	SCXW□
	With end lock		20-CXWM																
Slide unit/ Series CXWL (Ball bushing) 	Standard		20-CXWL															3.6-31	SCXW□
	With end lock		20-CXWL																

Air Cylinder

Series	Application	Bore size (mm)															Page in Vol.2	Name of CAD file		
		Standard	Copper-free	6	8 (10)	12	16 (15)	20	25	32	40	50	63	80	100	125			140	160
Stopper cylinder Series RS 	Standard/RSQ		20-RSQ																4.2-3	SRSQ□
	Standard/RSG		20-RSG																4.2-15	SRSG□
Air slide table Series MX 	Series MXS		20-MXS																3.11-1	SMXS□
	Series MXQ		20-MXQ																3.12-1	SMXQ□
	Series MXW		20-MXW																3.14-1	SMXW□
	Series MXF		20-MXF																3.13-1	SMXF□
	Series MXP		20-MXP	*	*	*	*												3.15-1	SMXP□

*Series MXP: ø6, ø10, ø12, ø16

Accessories

Series	Application	Bore size (mm)													Page in Vol.2	Name of CAD file				
		Standard	Copper-free	6	8	12 (10)	16 (15)	20	25	32	40	50	63	80			100			
Floating joint Series JA 	Standard	JA																	5.2-2	SJA□
	For compact cylinder	JB																	5.2-10	SJB□
Shock absorber/ Series RB 			20-RB	O.D. thread M8/M10/M14/M20/M27													5.1-2	SRB□		
			20-RBL	O.D. thread M10/M14/M20/M27													5.1-7	SRBL□		

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

Technical Data

SMC Actuator



Copper-free Actuators

ø6, ø10, ø16, ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100, ø125

Air Gripper

Series	Application	Cylinder bore size (mm)															Page in Vol.3	Name of CAD file
		Series/Variation	Standard	Copper-free	6	10	12	16	20	25	32	40	50	63	80	100		
Parallel style gripper Series MHZ 	Standard	MHZ2															2.1-1	—
	With dust cover	MHZJ2																2.1-18
Angular style gripper Series MHC 	Standard	MHC2															2.6-1	SMH03
Toggle style air gripper Series MHT 	Standard		20-MHT2														2.7-1	SMHT2
Parallel style gripper Series MHS 	2 finger	MHS2															2.5-3	SMHS1
	3 finger	MHS3															2.5-10	SMHS2
	4 finger	MHS4															2.5-17	SMHS3
Slide guide style air gripper Series MHK 	Standard	MHK															2.4-1	—
Wide opening air gripper Series MHL 	Standard		20-MHL2														2.2-1	SMHL2
180° angular gripper Series MHW 	Standard		20-MHW2														2.8-16	SMHW2
180° angular gripper Series MHY 	Standard	MHY															2.8-1	—
Rotary gripper Series M(D)HR 	Standard	MHR2		Nominal size 10, 15												2.3-1	SMH03	
	With auto switch	MDHR2																

Rotary Actuator

Series	Application	Size (Torque)												Page in Vol.3	Name of CAD file	
		Series/Variation	Standard	Copper-free	1	3	7	10	20	30	50	70	100			200
Rotary table Series MSU 	Standard	MSU													1.7-1	SMSU□
	With auto switch	MDSU														
Rotary table Series MSQ 	Standard	MSQ												1.6-1	SMSQ□	
	With auto switch	MSQ														
	With shock absorber	MSQ*R														

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