

CJ1

CJP

CJ2

CM2

CG1

MB

MB1

CA2

CS1

C76

C85

C95

CP95

NCM

NCA

D-

-X

20-

Data

Copper-free

How to Read the Table

1. For copper-free products or standard products for each series, refer to the list below.

- Copper-free specifications (20-)
Shows the products for copper-free with prefix "20-".

Example)

Copper-free specifications **20**-CQ2B12-20D

└ **Copper-free**

2. For the detailed dimensions, refer to each series catalog.

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

Note) Dimensions

Note 1) Refer to the catalog, since full length dimension of Series CQ2 is different from that of CDQ2 for auto switches.

Note 2) Refer to the catalog, since the full length dimension of Series CQS is different from that of CDQS compliant with auto switches.







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

SMC Actuators: Copper-free Air Cylinders











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

Air Cylinders

* 20-series has been added by design modification. (98.6.1)

Series	Series variations	Application		Bore size (mm)															
		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 type		20-CQ2			*	*	*	*	*	*								
	Standard long stroke type		20-CQ2																
	Double rod type		20-CQ2W			*	*	*	*	*	*								
	Non-rotating rod type		20-CQ2K																
	Non-rotating rod type/Dual rod type		20-CQ2KW																
	Anti-lateral load type		20-CQ2□S																
Compact cylinder with auto switch Series CDQ2 (Note 1, 3) 	Standard type		20-CDQ2			*	*	*	*	*	*								
	Standard long stroke type		20-CDQ2																
	Double rod type		20-CDQ2W			*	*	*	*	*	*								
	Non-rotating rod type		20-CDQ2K																
	Non-rotating rod/Dual rod type		20-CDQ2KW																
	Anti-lateral load type		20-CDQ2□S																
Compact cylinder Series CQS (Note 2, 3) 	Standard type		20-CQS			*	*	*	*										
	Standard long stroke		20-CQS																
	Double rod type		20-CQSW			*	*	*	*										
	Anti-lateral load type		20-CQS□S																
Compact cylinder with auto switch Series CDQS (Note 2, 3) 	Standard type		20-CDQS			*	*	*	*										
	Standard long stroke type		20-CDQS																
	Double rod type		20-CDQSW			*	*	*	*										
	Anti-lateral load type		20-CDQS□S																
Air cylinder Series C(D)M2 	Standard type		20-CM2□																
	Standard with air cushion type		20-CM2□A																
	Double rod type		20-CM2W																
	Non-rotating rod type		20-CM2K																
	Direct mount type		20-CM2R																
	End lock type		20-CBM2																
Air cylinder Series M(D)B 	Standard type		20-M(D)B																
	Double rod type		20-M(D)BW																
	End lock type		20-M(D)BB																

Air Cylinders

	Series	Application	Bore size (mm)															
			Standard	Copper-free	6	8	12 (10)	16 (15)	20	25	32	40	50	63	80	100	125	140
Air cylinder Series C(D)A1* 	Standard type	20-CA1□N																
	Double rod type	20-CA1W□N																
	Non-rotating rod type	20-CA1K□																
	Non-rotating double rod type	20-CA1KW□																
Air cylinder Series C(D)G1 	Standard type	20-CG1□□																
	Non-rotating rod type	20-CG1K																
	Direct mount type	20-CG1R																
Air cylinder Series C(D)J2 	Standard type (Except with air cushion)	20-CJ2																
	Double rod type (Except with air cushion)	20-CJ2W																
	Non-rotating rod type	20-CJ2K																
	With speed controller type	20-CJ2Z																
	Direct mount type	20-CJ2R																
Free mount cylinder Series C(D)U 	Standard type	20-CU																
	Non-rotating rod type	20-CUK																
Pin cylinder Series C(D)JP 	Double acting	20-CJP																
	Single acting	20-CJP																
Large bore size cylinder Series C(D)S1 	Standard type	20-CS1□N																
Cylinder with lock Series C(D)NA 	Standard type	20-CNA																
Cylinder with end lock Series C(D)B 	Standard type	20-CBM2																
	Standard type	20-CBA1																
Plate cylinder Series M(D)U 	Standard type	20-MU																
	Double rod type	20-MUW																
Precision cylinder Series MTS 	Standard type	MTS																

* The Series CA1 has been changed to the Series CA2.

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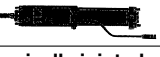









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SMC Actuators: Copper-free Air Cylinders




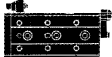
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Air Cylinders

* 20-series has been added by design modification. (98.6.1)



	Series	Application		Bore size (mm)															
		Standard	Copper-free	6	8	12 (10)	16 (15)	20	25	32	40	50	63	80	100	125	140	160	
Stroke reading cylinder Series CE1 	Standard type		20-CE1																
			20-CE2																
Stroke reading cylinder with brake Series CE2 	Standard type		20-CE2																
			20-MY1B																
			20-MY1M																
			20-MY1C																
			20-MY1H																
Mechanically jointed rodless cylinder Series MY1 	Basic type Slide bearing type Cam follower guide type High precision guide type High rigidity/High precision guide type		20-MY1HT																
			20-MY1MW																
			20-MY1CW																
			20-MY2H																
			20-MY2HT																
Mechanically jointed rodless cylinder with protective cover Series MY1 □W	Slide bearing type Cam follower guide type		20-MY1MW																
			20-MY1CW																
			20-MY2H																
Mechanically jointed rodless cylinder Series MY2	High precision guide type (Single axis) High precision guide type (Double axis)		20-MY2H																
			20-MY2HT																
Magnetically coupled rodless cylinder Series C(D)Y1 	Basic type Slider type/Slide bearing type Slider type/Ball bushing bearing type	CY1B																	
			20-CY1S																
			20-CY1L																
Compact guide cylinder Series MGQ 	Standard type/Slide bearing type Standard type/Ball bushing bearing type		20-MGQM																
			20-MGQL			*	*	*	*	*	*								
Compact guide cylinder Series MGP 	Standard type/Slide bearing type Standard type/Ball bushing bearing type		20-MGPM																
			20-MGPL			*	*	*	*	*	*								
Guide cylinder Series MGG 	Standard type/Slide bearing type Standard type/Ball bushing bearing type		20-MGGM																
			20-MGGL																
Guide cylinder (Compact type) Series MGC 	Standard type/Slide bearing type Standard type/Ball bushing bearing type		20-MGCM																
			20-MGCL																
Platform cylinder Series CXT 	Standard type With shock absorber		20-CXT																
			20-CXT																
Dual rodless cylinder Series CXS 	Standard type/Slide bearing type Standard type/Ball bushing bearing type	CXSM	20-CXSM																
		CXSL	20-CXSL																
Slide unit double rod type Series CX2 	With adjusting bolts/ Slide bearing With shock absorber/ Ball bushing bearing	CX2□																	
		CX2□	20-CX2□																

Air Cylinders

Series	Application	Bore size (mm)																	
		Series variations	Standard	Copper-free	6	8 (10)	12	16 (15)	20	25	32	40	50	63	80	100	125	140	160
Slide unit Built-in shock absorber type (Slide bearing) Series CXWM 	Standard type	CXWM	20-CXWM																
	With end lock	CXWM	20-CXWM																
Slide unit (Ball bushing bearing) Series CXWL 	Standard type	CXWL	20-CXWL																
	With end lock	CXWL	20-CXWL																
Stopper cylinder Series RS 	Standard type/RSQ		20-RSQ																
	Standard type/RSG		20-RSG																
Air slide table Series MX 	Series MXS		20-MXS																
	Series MXQ		20-MXQ																
	Series MXW		20-MXW																
	Series MXF		20-MXF																
	Series MXP		20-MXP	*	*	*	*												

* Series MXP: ø6, ø10, ø12, ø16

Accessory

Series	Application	Bore size (mm)																	
		Series variations	Standard	Copper-free	6	8	12 (10)	16 (15)	20	25	32	40	50	63	80	100			
Floating joint Series JA 	Standard type	JA																	
	For compact cylinders	JB																	
Shock absorber Series RB 	Series RB		20-RB	O.D. thread M8/M10/M14/M20/M27															
	Series RBL		20-RBL	O.D. thread M10/M14/M20/M27															

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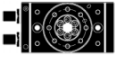
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SMC Actuators: Copper-free Rotary Actuators

Size: 1, 3, 7, 10, 20, 30, 50, 70, 100, 200










Rotary Actuators

Series		Application		Size (Torque)									
	Series variations	Standard	Copper-free	1	3	7	10	20	30	50	70	100	200
Rotary table Series MSU 	Basic type	MSU											
	With auto switch	MDSU											
Rotary table Series MSQ 	Basic type (Adjusting bolt type)		20-MSQ										
	High precision type (Adjusting bolt type)		20-MSQA										
	Basic type (Internal absorber type)		20-MSQ□R										
	High precision type (Internal absorber type)		20-MSQA										
	Basic type (External absorber type)												
	High precision type (External absorber type)												

SMC Actuators: Copper-free Air Grippers

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

Air Grippers

Series	Series variations	Application		Cylinder bore size (mm)													
		Standard	Copper-free	6	10	12	16	20	25	32	40	50	63	80	100	125	
Parallel style gripper Series MHZ 	Standard type	MHZ2															
	With dust cover	MHZJ2															
Angular style gripper Series MHC 	Standard type	MHC2															
Toggle type air gripper Series MHT 	Standard type		20-MHT2														
Parallel type gripper Series MHS 	2 finger		20-MHS2														
	3 finger		20-MHS3														
	4 finger		20-MHS4														
Wedge cam operation slide guide air gripper Series MHK 	Standard type		20-MHK														
Wide opening air gripper Series MHL 	Standard type		20-MHL2														
180° angular style gripper Series MHW 	Standard type		20-MHW2														
180° angular style gripper Series MHY 	Standard type		20-MHY														
Rotary gripper Series M(D)HR 	Standard type	MHR2		Nominal size 10, 15													
	With auto switch	MDHR2															