

Series 10-11-CM2X-Z

ø20, ø25, ø32, ø40 Low Speed Cylinder
Double Acting, Single Rod

How to Order

• **Clean series**

10	Relief type
11	Vacuum suction type

• **Built-in magnet**

Nil	No
D	With auto switch (Built-in magnet)

• **Low speed cylinder**

• **Mounting**

B	Basic (Double-side bossed)
L	Axial foot
F	Rod flange
G	Head flange
BZ	Boss-cut, Basic
FZ	Boss-cut, Rod flange

• **Bore size (mm)**

• **Port thread type**

Nil	Rc
TN	NPT*
TF	G*

* Rubber bumper only

• **Cylinder stroke (mm)**

• **Auto switch**

Nil	Without auto switch
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* For applicable auto switches, refer to the "Applicable Auto Switch List".
* The minimum stroke for auto switch mounting, operating range and auto switch mounting brackets/part no. are the same as standard products.

• **Number of auto switches**

Nil	2 pcs.
S	1 pc.
n	n pcs.

• **Rod end thread**

Nil	Male rod end
F	Female rod end



Model

Model		Bore size (mm)	Port size	Lubrication	Action	Standard stroke (mm)	Auto switch mounting	Cushion Rubber
Vacuum suction type	Relief type	10-CM2X□20	20	Non-lube	Double acting, Single Rod	25, 50, 75, 100, 125, 150, 200, 250, 300	○	○
		10-CM2X□25	25					
		10-CM2X□32	32					
		10-CM2X□40	40					
	Vacuum suction type	11-CM2X□20	20	Non-lube	Double acting, Single Rod	25, 50, 75, 100, 125, 150, 200, 250, 300	○	○
		11-CM2X□25	25					
		11-CM2X□32	32					
		11-CM2X□40	40					

Specifications

Item	Bore size (mm)	20/25/32/40
Proof pressure		1.5 MPa
Maximum operating pressure		1.0 MPa
Minimum operating pressure		0.05 MPa
Ambient and fluid temperature		Without auto switch: -10°C to 70°C With auto switch: -10°C to 60°C (No freezing)
Piston speed		30 to 400 mm/s
Stroke length tolerance		$+1.4$ 0
Mounting		Basic/Axial foot/Rod flange/Head flange
Grease		Fluorine grease
Cleanliness class (ISO class)		10-: Class 4
		11-: Class 3

Dimensions and applicable auto switches are the same as 10-/11-CM2-Z.
Refer to pages 701 to 707.

Suction Flow Rate of Vacuum Suction Type (Reference values)

Bore size (mm)	Suction flow rate L/min (ANR)
20/25/32/40	2

⚠ Specific Product Precautions

Be sure to read this before handling.

Handling

⚠ Warning

1. Do not rotate the cover.

If a cover is rotated when installing a cylinder or screwing a fitting into the port, it is likely to damage the junction part with cover.

⚠ Caution

1. Use caution to the popping of a retaining ring.

When replacing rod seals and removing and mounting a retaining ring, be much careful with the popping of a retaining ring.

Maintenance

⚠ Caution

1. Grease pack

When maintenance requires only grease, use the following part number to order.

Grease pack part no.: GR-X-005 (5 g)

Series ¹⁰⁻₁₁₋CQSX ø12, ø16, ø20, ø25 Low Speed Cylinder

How to Order

• **Clean series**

10	Relief type
11	Vacuum suction type

10-C D QSX B 20 30 D [] M9B []

• **Built-in magnet**

Nil	No
D	With auto switch (Built-in magnet)

• **Low speed cylinder**

• **Mounting**

B	Through-hole/Both ends tapped (Standard)
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• **Bore size**

12	12 mm
16	16 mm
20	20 mm
25	25 mm

• **Cylinder stroke (mm)**

Bore size (mm)	Standard stroke (mm)
12, 16	5, 10, 15, 20, 25, 30
20	5, 10, 15, 20, 25, 30, 35, 40, 45, 50
25	

• **Auto switch**

Reed switch	A93
Solid state	F9B, F91

• **Number of auto switches**

Nil	2 pcs.
S	1 pc.
n	n pcs.

• **Rod end thread**

Nil	Standard (Rod end female thread)
M	Rod end male thread

• **Action**


D	Double acting
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• **Auto switch**

* The minimum stroke for auto switch mounting and operating range are the same as standard products.

• **Manufacturing of intermediate strokes**
Intermediate strokes in 1 mm increments are available by using spacers with standard stroke cylinders. The overall length of cylinder is the same as a standard stroke one size longer than this intermediate stroke.

Example) 10-CQSB25-47D: Install a 3 mm width spacer in a standard stroke cylinder 10-CQSB25-50D.



Model

	Model	Bore size (mm)	Port size	Lubrication	Action	Standard stroke (mm)	Auto switch mounting	Cushion	
								Rubber	Air
Vacuum suction type	10-CQSB12	12	M5 x 0.8	Non-lube	Double acting Single rod	5, 10, 15, 20, 25, 30	○	—	—
	10-CQSB16	16				5, 10, 15, 20, 25, 30, 35, 40, 45, 50			
	10-CQSB20	20				5, 10, 15, 20, 25, 30, 35, 40, 45, 50			
	10-CQSB25	25				5, 10, 15, 20, 25, 30, 35, 40, 45, 50			
	11-CQSB12	12				5, 10, 15, 20, 25, 30, 35, 40, 45, 50			
	11-CQSB16	16				5, 10, 15, 20, 25, 30, 35, 40, 45, 50			
	11-CQSB20	20				5, 10, 15, 20, 25, 30, 35, 40, 45, 50			
	11-CQSB25	25				5, 10, 15, 20, 25, 30, 35, 40, 45, 50			

Specifications

Bore size (mm)	10- (Relief type)			
	12	16	20	25
Fluid	Air			
Proof pressure	1.5 MPa			
Maximum operating pressure	1.0 MPa			
Minimum operating pressure	0.04 MPa		0.035 MPa	
Ambient and fluid temperature	Without auto switch: -10 to 70°C (With no freezing)			
	With auto switch: -10 to 60°C (With no freezing)			
Piston speed	1 to 200 mm/s			
Stroke length tolerance	+1.0 0 mm			
Port size	M5 x 0.8			
Relief port	M5 x 0.8			
Grease	Fluorine grease			
Cleanliness class (ISO class)	Class 4			

Bore size (mm)	11- (Vacuum suction type)			
	12	16	20	25
Fluid	Air			
Proof pressure	1.5 MPa			
Maximum operating pressure	1.0 MPa			
Minimum operating pressure	0.03 MPa		0.025 MPa	
Ambient and fluid temperature	Without auto switch: -10 to 70°C (With no freezing)			
	With auto switch: -10 to 60°C (With no freezing)			
Piston speed	1 to 200 mm/s		0.5 to 200 mm/s	
Stroke length tolerance	+1.0 0 mm			
Port size	M5 x 0.8			
Vacuum suction port	M5 x 0.8			
Grease	Fluorine grease			
Cleanliness class (ISO class)	Class 3			
Suction flow rate (Reference values)	5 L/min (ANR)			

Dimensions and applicable auto switches are the same as 10-/11-CQS.
Refer to pages 750 to 754.

Series 10-11-CQ2X

ø32, ø40, ø50, ø63
Low Speed Cylinder

How to Order

● **Clean series**

10	Relief type
11	Vacuum suction type

10 — C D Q2XB 40 — 30 D [] J79 []

● **Built-in magnet**

Nil	No
D	With auto switch (Built-in magnet)

● **Low speed cylinder**

● **Bore size**

32	32 mm
40	40 mm
50	50 mm
63	63 mm

● **Cylinder stroke (mm)**

Bore size (mm)	Standard stroke (mm)
32, 40	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100
50, 63	10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100

● **Auto switch**

Reed switch	A73, A93
Solid state	J79, M9B, F79, M9N

* The minimum stroke for auto switch mounting and operating range are the same as standard products.

● **Number of auto switches**

Nil	2 pcs.
S	1 pc.
n	n pcs.


● **Rod end thread**

Nil	Standard (Rod end female thread)
M	Rod end male thread

● **Action**

D	Double acting
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● **Modular F. R.**



Example 1) 10-CQ2XB40-57D: Install an 18 mm width spacer in a standard stroke cylinder 10-CQ2XB40-75D.

Model

	Model	Bore size (mm)	Port size	Lubrication	Action	Standard stroke (mm)	Auto switch mounting	Cushion	
								Rubber	Air
Vacuum suction type	10-CQ2XB32	32	M5 x 0.8, Rc1/8 <small>Note 1)</small>	Non-lube	Double acting Single rod	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100	○	—	—
	10-CQ2XB40	40	Rc1/8			10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100			
	10-CQ2XB50	50	Rc1/4			5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100			
	10-CQ2XB63	63	Rc1/4			5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100			
	11-CQ2XB32	32	M5 x 0.8, Rc1/8 <small>Note 1)</small>			5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100			
	11-CQ2XB40	40	Rc1/8			10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100			
Relief type	11-CQ2XB50	50	Rc1/4	Non-lube	Double acting Single rod	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100	○	—	—
	11-CQ2XB63	63	Rc1/4			5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100			

Note 1) For ø32 without an auto switch, M5 x 0.8 is used for 5 mm stroke only.

Specifications

Bore size (mm)	10- (Relief type)			
	32	40	50	63
Fluid	Air			
Proof pressure	1.5 MPa			
Maximum operating pressure	1.0 MPa			
Minimum operating pressure	0.035 MPa		0.03 MPa	
Ambient and fluid temperature	Without auto switch: -10 to 70°C (With no freezing)			
	With auto switch: -10 to 60°C (With no freezing)			
Piston speed	1 to 200 mm/s			
Stroke length tolerance	+1.0 0 mm			
Port size	M5 x 0.8, 1/8	1/8	1/4	
Relief port	M5 x 0.8			
Grease	Fluorine grease			
Cleanliness class (ISO class)	Class 4			

Bore size (mm)	11- (Vacuum suction type)			
	32	40	50	63
Fluid	Air			
Proof pressure	1.5 MPa			
Maximum operating pressure	1.0 MPa			
Minimum operating pressure	0.025 MPa		0.02 MPa	
Ambient and fluid temperature	Without auto switch: -10 to 70°C (With no freezing)			
	With auto switch: -10 to 60°C (With no freezing)			
Piston speed	0.5 to 200 mm/s			
Stroke length tolerance	+1.0 0 mm			
Port size	M5 x 0.8, 1/8	1/8	1/4	
Vacuum suction port	M5 x 0.8			
Grease	Fluorine grease			
Cleanliness class (ISO class)	Class 3			
Suction flow rate (Reference values)	5 L/min (ANR)		10 L/min (ANR)	

Dimensions and applicable auto switches are the same as 10-/11-CQ2.
Refer to pages 759 to 762.