



Valve Mounted Cylinder Double Acting, Single Rod Series **CVM5** ø20, ø25, ø32, ø40

How to Order

Bore size		Mounting style		Solenoid valve voltage		Electrical entry	
20	20 mm	B	Basic style	1	100 VAC (50/60 Hz)	G	Grommet
25	25 mm	L	Axial foot style	2	200 VAC (50/60 Hz)	L	L plug connector
32	32 mm	F	Rod side flange style	5	24 VDC	M	M plug connector
40	40 mm	G	Head side flange style	3	110 VAC (50/60 Hz)	D	DIN terminal
		C	Single clevis style	4	220 VAC (50/60 Hz)		
		D	Double clevis style	6	12 VDC		
		T	Head side trunnion style	9	Other		
		U	Rod side trunnion style				

Solenoid valve		Light/Surge voltage suppressor	
1	2 position single	Nil	None
2	2 position double	S	With surge voltage suppressor
3	3 position closed center (Option)	Z	With light/surge voltage suppressor (Except Type G)
4	3 position exhaust center (Option)		

Without auto switch CVM5 L 32 [] — 100 [] J — 1 1 M Z

With auto switch CDVM5 L 32 [] — 100 [] J — 1 1 M Z — H7BW []

Built-in magnet []

Piping

Nil	Screw-in type
F	Built-in One-touch fitting

Cylinder stroke (mm)

(Refer to "Standard Stroke" on page 10-15-17.)

Rod extended/retracted when energized

Nil	Rod extended when energized
B	Rod retracted when energized

* Only in case of 2 position single solenoid valve.

Suffix for cylinder

Nil	None
J	Nylon tarpaulin
K	Heat resistant tarpaulin

Auto switch

Nil	Without auto switch
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* For the applicable auto switch model, refer to the table below.

Number of auto switches

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

Applicable Auto Switch/Refer to page 10-20-1 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model	Lead wire length (m)*				Pre-wire connector	Applicable load			
					DC	AC		0.5 (Nil)	3 (L)	5 (Z)	None (N)					
Reed switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	C76	●	●	—	—	—	IC circuit	—	
				2-wire	24 V	12 V	100 V, 200 V	C73	●	●	●	—	—	—	—	Relay, PLC
	Diagnostic indication (2-color indication)	Connector	Grommet	2-wire	—	—	—	B54	●	●	●	●	—	—	—	
	—				—	—	C73C	●	●	●	●	—	—	—	—	
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	H7A1	●	●	○	—	○	IC circuit	Relay, PLC	
				3-wire (PNP)				H7A2	●	●	○	—	○	—		—
	Diagnostic indication (2-color indication)	Connector	Grommet	2-wire	12 V	—	—	H7B	●	●	○	—	○	—	—	
					5 V, 12 V			H7C	●	●	●	●	—	—	—	—
		With diagnostic output (2-color indication)	Grommet	3-wire (NPN)	5 V, 12 V	—	—	—	H7NW	●	●	○	—	○	IC circuit	—
					3-wire (PNP)				H7PW	●	●	○	—	○	—	—
	—	Grommet	2-wire	12 V	—	—	—	H7BW	●	●	○	—	○	—	—	
				4-wire (NPN)				5 V, 12 V	H7NF	●	●	○	—	○	—	IC circuit

* Lead wire length symbols: 0.5 m Nil (Example) C73C
 3 m L (Example) C73CL
 5 m Z (Example) C73CZ
 None N (Example) C73CN

* Solid state switches marked with "○" are produced upon receipt of order.

- Since there are other applicable auto switches than listed, refer to Best Pneumatics Vol. 6 for details.
- For details about auto switches with pre-wire connector, refer to page 10-20-66.

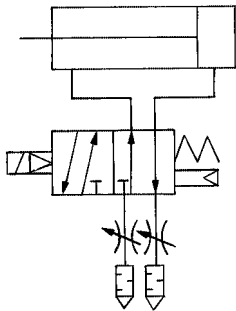
Valve Mounted Cylinder Double Acting, Single Rod Series CVM5

Operation type can be changed to rod extended when energized or rod retracted when energized.

An auto switch cylinder with the switch installed can also be manufactured.



JIS Symbol



Made to Order Specifications (For details, refer to page 10-21-1.)

Symbol	Specifications
-XA□	Change of rod end shape
-XC4	With heavy duty scraper
-XC6	Piston rod and rod end nut made of stainless steel

Specifications

Applicable bore size (mm)		20	25	32	40
Type	Non-lube type				
Fluid	Air				
Action	Double acting, Single rod				
Cushion	Rubber bumper				
Proof pressure	1.05 MPa				
Maximum operating pressure	0.7 MPa				
Minimum operating pressure	0.15 MPa				
Ambient and fluid temperature	-10 to 50°C (No freezing)				
Lubrication	Not required (Non-lube)				
Thread tolerance	JIS Class 2				
Stroke length tolerance	+1.4 0				
Effective area of valve (Cv factor)	4.5 mm ² (0.25)				
Port size	Screw-in type	Rc 1/8			
	Built-in One-touch fitting	O.D.: ø6/I.D.: ø4			
Piston speed (mm/s) ^{Note)}	50 to 700*	50 to 650*	50 to 590*	50 to 420*	
Mounting	Basic style, Axial foot style, Rod side flange style, Head side flange style, Single clevis style, Double clevis style, Head side trunnion style, Rod side trunnion style				

Note) The figures marked with "*" represent the values of the cylinder with the silencer type exhaust throttle valve removed. To operate the cylinder at these values, prevent dust from entering by installing an AN120-M5 silencer on the EXH port.

Allowable Kinetic Energy

Bore size (mm)	20	25	32	40
Allowable kinetic energy	0.27	0.4	0.65	1.2

Solenoid Valve Specifications

Applicable solenoid valve model	Series VZ3□90		
Coil rated voltage	Standard: 100/200 VAC (50/60 Hz), 24 VDC Option: 110/220 VAC, 12 VDC		
Allowable voltage	-15 to 10%		
Coil insulation	Class B or equivalent (130°C)		
Electrical entry	Grommet, L plug connector, M plug connector, DIN terminal		
Power consumption (W) ^{Note)}	DC	1.8 (With indicator light: 2.1)	
Apparent power (VA) ^{Note)}	AC	Inrush	4.5/50 Hz, 4.2/60 Hz
		Holding	3.5/50 Hz, 3.0/60 Hz

Note) At the rated voltage.

Standard Stroke

Bore size (mm)	Standard stroke (mm) ^{Note)}	Maximum stroke (mm)
20	25, 50, 75, 100, 125, 150, 200, 250, 300	1000
25		
32		
40		

Note) Other intermediate strokes can be manufactured upon receipt of order. When exceeding 300 stroke, the allowable maximum stroke length is determined by the stroke selection table.

Rod Boot Material

Symbol	Rod boot material	Maximum ambient temperature
J	Nylon tarpaulin	70°C
K	Heat resistant tarpaulin	110°C*

* Maximum ambient temperature for the rod boot itself.

RE_B^A

REC

C□X

C□Y

MQ_M^Q

RHC

MK(2)

RS_G^Q

RS_A^H

RZQ

MI_S^W

CEP1

CE1

CE2

ML2B

C₅-S

CV

MVGQ

CC

RB

J

D-

-X

20-

Data

Series CVM5

Minimum Stroke for Auto Switch Mounting

(mm)

Auto switch model	No. of auto switches mounted				1
	2		n		
	Different sides	Same side	Different sides	Same side	
D-C7□/C80	15	50	$15 + 45 \left(\frac{n-2}{2}\right)$ (n = 2, 4, 6...)	$50 + 45(n-2)$	10
D-H7□/H7□W D-H7NF	15	60		$60 + 45(n-2)$	10
D-C73C/C80C D-H7C	15	65	$15 + 50 \left(\frac{n-2}{2}\right)$ (n = 2, 4, 6...)	$65 + 50(n-2)$	10
D-B5□ D-B64 D-G5NTL	15	75	$15 + 50 \left(\frac{n-2}{2}\right)$ (n = 2, 4, 6...)	$75 + 55(n-2)$	10
D-B59W	20	75			$20 + 50 \left(\frac{n-2}{2}\right)$ (n = 2, 4, 6...)

Weight

(kg)

Bore size (mm)		20	25	32	40
Basic weight	Basic style	0.25	0.32	0.39	0.67
	Axial foot style	0.40	0.48	0.55	0.94
	Flange style	0.31	0.41	0.48	0.79
	Single clevis style	0.29	0.36	0.43	0.76
	Double clevis style	0.30	0.38	0.44	0.80
	Trunnion style	0.29	0.39	0.45	0.77
Additional weight per each 50 mm of stroke		0.05	0.07	0.09	0.14
Option bracket	Single knuckle joint	0.06	0.06	0.06	0.23
	Double knuckle joint (With pin)	0.07	0.07	0.07	0.20

Calculation: (Example) CVM5L32-100-11G

- Basic weight 0.55 (kg) (Axial foot ø32)
 - Additional weight 0.09/50 (kg/50 st)
 - Cylinder stroke 100 (st)
- $$0.55 + 0.09 \times 100 \div 50 = 0.73 \text{ kg}$$

Mounting Style and Accessory

(For details about accessory brackets, refer to Best Pneumatics Vol. 6.)

Mounting	Accessory	Standard equipment			Option	
	Mounting nut	Rod end nut	Clevis pin	Single knuckle joint	Double knuckle joint ⁽⁹⁾	
Basic style	● (1 pc.)	●	—	●	●	
Axial foot style	● (2)	●	—	●	●	
Rod side flange style	● (1)	●	—	●	●	
Head side flange style	● (1)	●	—	●	●	
Single clevis style	— ⁽¹⁾	●	—	●	●	
Double clevis style ⁽³⁾	— ⁽¹⁾	●	●	●	●	
Head side trunnion style	● (1) ⁽²⁾	●	—	●	●	
Rod side trunnion style	● (1) ⁽²⁾	●	—	●	●	

- Note 1) Mounting nut is not equipped with single clevis style and double clevis style.
 Note 2) Trunnion nuts are equipped for head side trunnion and rod side trunnion.
 Note 3) Pin and set ring are shipped together with double clevis and double knuckle joint.

Mounting Bracket Part No.

Bore size (mm)	20	25	32	40
Axial foot*	CM-L020B	CM-L032B	CM-L040B	CM-L040B
Flange	CM-F020B	CM-F032B	CM-F040B	CM-F040B
Single clevis	CM-C020B	CM-C032B	CM-C040B	CM-C040B
Double clevis**	CM-D020B	CM-D032B	CM-D040B	CM-D040B
Trunnion (With nut)	CM-T020B	CM-T032B	CM-T040B	CM-T040B

- * Two foot brackets and a mounting nut are attached.
 When ordering the foot bracket, order 2 pcs. per cylinder.
 ** Clevis pin and snap ring (cotter pin for ø40) are packaged together.

⚠ Precautions

Be sure to read before handling. For Safety Instructions and Actuator Precautions, refer to pages 10-24-3 to 10-24-6.

Mounting

⚠ 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. Not able to disassemble.

Cover and cylinder tube are connected to each other by caulking method, thus making it impossible to disassemble. Therefore, internal parts of a cylinder other than rod seal are not replaceable.

2. Use caution to the popping of a snap ring.

When replacing rod seals and removing and mounting a snap ring, use a proper tool (snap ring plier: tool for installing type C snap ring). Even if a proper tool is used, it is likely to inflict damage to a human body or peripheral equipment, as a snap ring may be flown out of the tip of a plier. Be much careful with the popping of a snap ring. Besides, be certain that a snap ring is placed firmly into the groove of rod cover before supplying air at the time of installment.

3. Do not touch the cylinder during operation.

Use caution when handling a cylinder, which is running at a high speed and a high frequency, because the surface of a cylinder tube could get so hot enough as to cause you get burns.

4. Do not use an air cylinder as an air-hydro cylinder.

If it uses turbine oil in place of fluids for cylinder, it may result in oil leakage.

5. Conjoin the rod end part, so that rod boot might not be twisted.

If a rod boot is installed with being twisted when installing a cylinder, it will cause a rod boot to fail during operation.

Auto Switch Mounting Bracket Part No.

Bore (mm)	20	25	32	40
D-C7□/C80 D-H7□	BM2-020	BM2-025	BM2-032	BM2-040
D-B5□/B64 D-G5NTL	BA2-020	BA2-025	BA2-032	BA2-040

Built-in One-touch Fitting

CVM5 Mounting style Bore size **F** — For “How to Order”, refer to page 10-15-16.

● Built-in One-touch fitting

One-touch fittings are installed on cylinders.



Application/Tubing O.D.

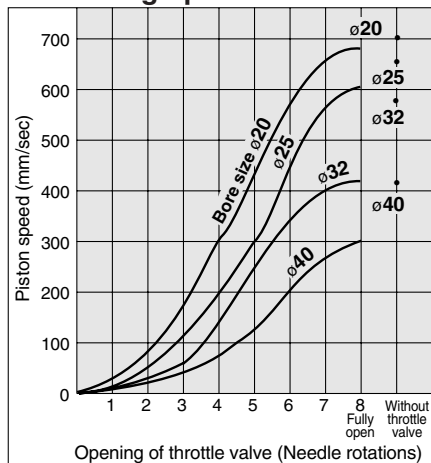
Bore size (mm)	20	25	32	40
Applicable tubing O.D. (mm)	ø6/4	ø6/4	ø6/4	ø6/4
Applicable tubing material	Can be used for either nylon, soft nylon or polyurethane tube.			

Specifications

Action	Double acting, Single rod			
Bore size (mm)	20, 25, 32, 40			
Maximum operating pressure	0.7 MPa			
Minimum operating pressure	0.15 MPa			
Cushion	Rubber bumper			
Piping	Built-in One-touch fitting			
Piston speed (mm/s)	ø20	ø25	ø32	ø40
	50 to 700	50 to 650	50 to 590	50 to 420
Mounting	Basic style, Axial foot style, Rod side flange style, Head side flange style, Single clevis style, Double clevis style, Rod side trunnion style, Head side trunnion style			

For the dimensions of mounting bracket, refer to pages 10-15-22 to 25.

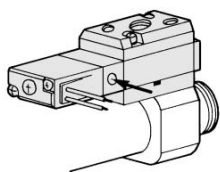
Opening Range of Throttle Valve and Driving Speed



Measuring conditions: Operating pressure 0.5 MPa
Mounting: horizontal Load: no load on the return side
The speeds indicated above are for reference.

Manual Operation

Manual operation is possible by pushing the manual button indicated with the arrow.



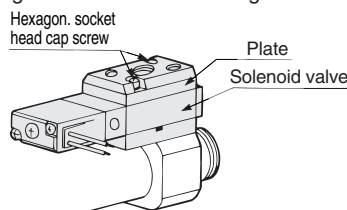
Piston Speed Adjustment

- To slow down the piston speed, screw in the needle of the silencer type exhaust throttle valve clockwise, which reduces the amount of air that is discharged.
- To adjust the piston extension side, regulate the “R1” side silencer type exhaust throttle valve.
To adjust the retraction side, regulate the “R2” side silencer exhaust throttle valve.
- The needle valve of the throttle valve can be fully opened by loosening it 8 turns from the fully closed position.
- The needle valve has a loosening prevention construction.

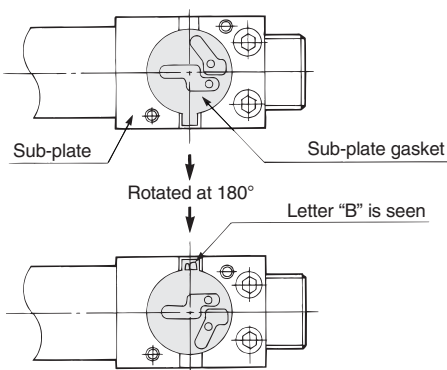
Changing between Rod Extended when Energized and Rod Retracted when Energized

Step [This procedure is for changing the rod extended when energized to the rod retracted when energized.]

1. Using a tool, loosen the two hexagon socket bolts, and remove the plate and the solenoid valve. At this time, instead of removing the plate and the solenoid valve separately, remove them together, with the hexagon socket bolts remaining inserted.

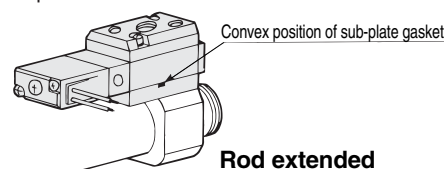


2. A sub-plate gasket is inside the sub-plate. Invert this sub-plate gasket 180° and install it with its letter “B” visible. (A portion that protrudes is provided on the periphery of the sub-plate gasket, and the letter “B” is on one side of this protrusion.)

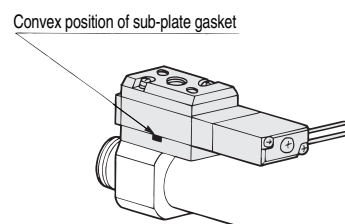


3. Install the solenoid valve and the plate, and tighten the hexagon socket bolts with a tool. The tightening torque is between 0.6 and 0.8 N·m.

After tightening, press the manual button on the solenoid valve, check for any air leaks, and verify the operating conditions. Distinction between rod extended when energized and rod retracted when energized can be determined from the outside, by looking through the small window in the sub-plate.



Rod extended when energized

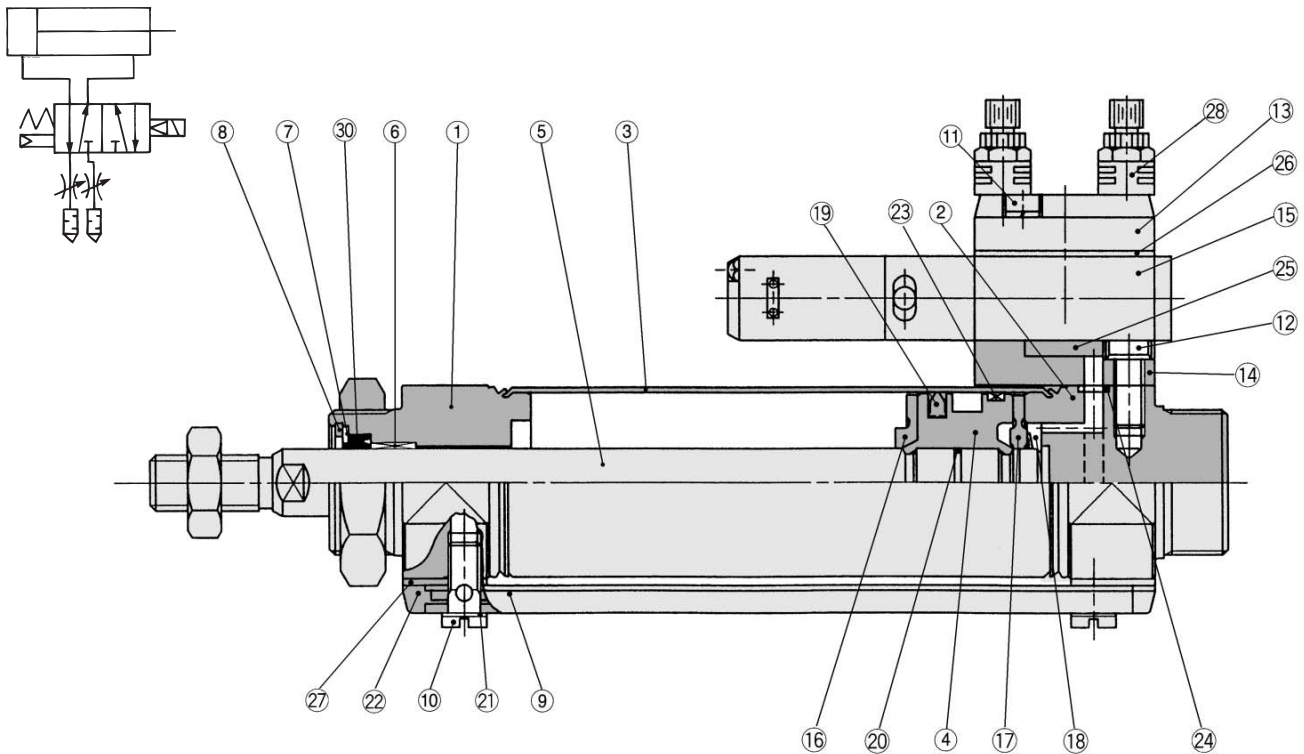


Rod retracted when energized

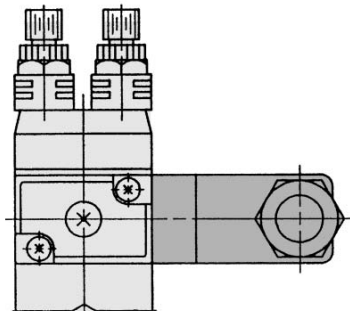
RE_A
REC
C□X
C□Y
MQ_M
RHC
MK(2)
RS_G
RS_A
RZQ
MI_S
CEP1
CE1
CE2
ML2B
C₅-S
CV
MVGQ
CC
RB
J
D-
-X
20-
Data

Series CVM5

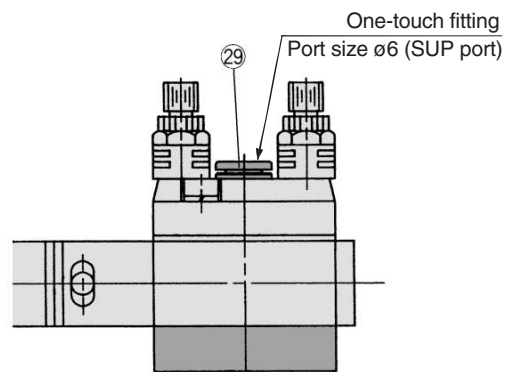
Construction



DIN terminal



Built-in One-touch fitting



Component Parts

No.	Description	Material	Note
①	Rod cover	Aluminum alloy	Clear anodized
②	Head cover	Aluminum alloy	Clear anodized
③	Cylinder tube	Stainless steel	
④	Piston	Aluminum alloy	Chromated
⑤	Piston rod	Carbon steel	Hard chrome plated
⑥	Bushing	Oil-impregnated sintered alloy	
⑦	Seal retainer	Rolled steel	Nickel plated
⑧	Snap ring	Carbon tool steel	Nickel plated
⑨	Pipe	Aluminum alloy	Clear anodized
⑩	Stud	Brass	Electroless nickel plated
⑪	Hex. socket head cap screw with spring washer	Stainless steel	M3 x 28ℓ
⑫	Hex. socket head cap screw with spring washer	Stainless steel	M3 x 10ℓ
⑬	Plate	Aluminum alloy	Metallic painted
⑭	Sub-plate	Aluminum alloy	Metallic painted
⑮	Solenoid valve	—	Refer to the "How to order" below.*
⑯	Bumper A	Urethane	
⑰	Bumper B	Urethane	

* How to order solenoid valves Electrical entry
VZ3□90- [Voltage]

No.	Description	Material	Note
⑱	Snap ring	Stainless steel	
⑲	Piston seal	NBR	
⑳	Piston gasket	NBR	
㉑	Gasket	Resin	
㉒	Pipe gasket	Urethane rubber	
㉓	Wear ring	Resin	
㉔	Head cover gasket	NBR	
㉕	Sub-plate gasket	NBR	
㉖	Gasket	NBR	
㉗	Spacer gasket	Resin	Not for ø25
㉘	Exhaust throttle with silencer	—	ASN2-M5
㉙	One-touch fitting	—	Port size: ø6

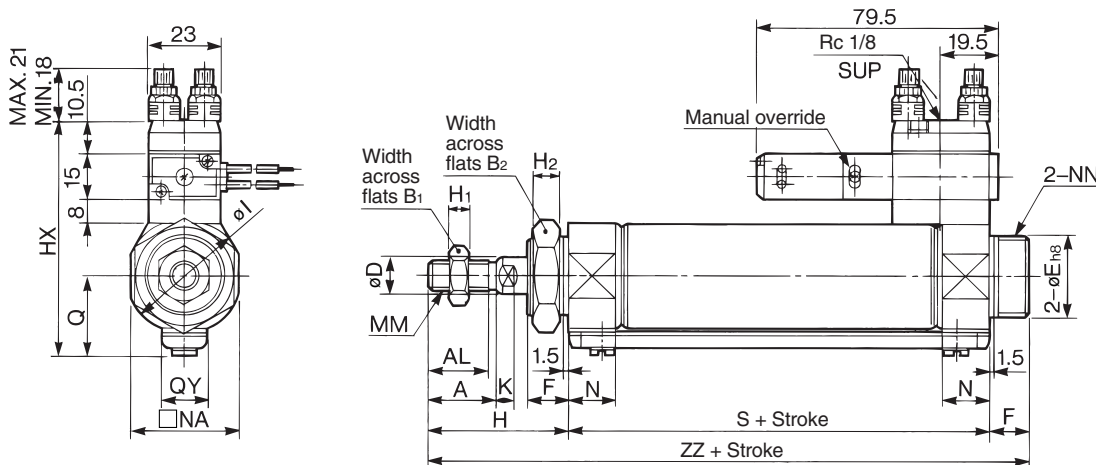
Replacement Parts

No.	Description	Material	Part no.			
			20	25	32	40
⑳	Rod seal	NBR	PDU-8Z	PDU-10Z	PDU-12LZ	PDU-14LZ

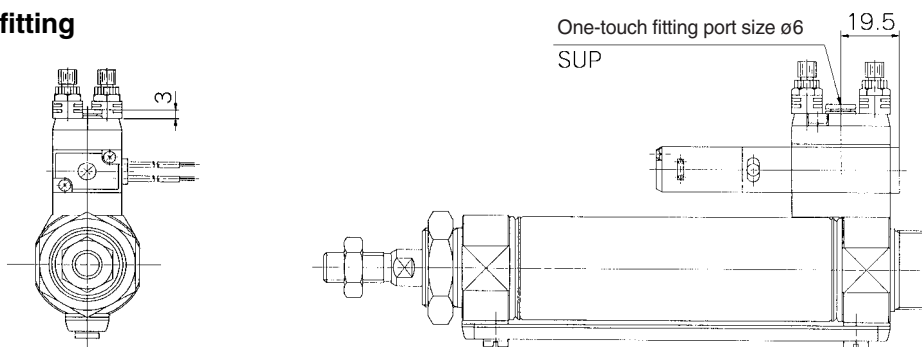
Valve Mounted Cylinder Double Acting, Single Rod Series CVM5

Basic Style (B)

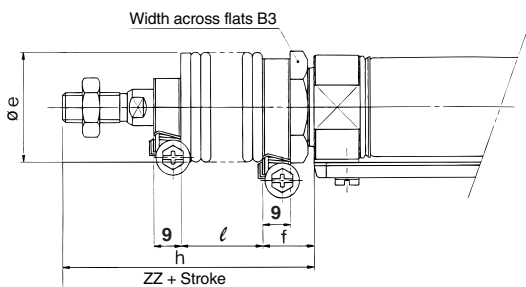
CVM5B Bore size Stroke



Built-in One-touch fitting



With rod boot



For DIN terminal and double solenoid, refer to page 10-15-25.

Bore size (mm)	Stroke range	A	AL	B ₁	B ₂	D	Eh ₈	F	Q	QY	H	H ₁	H ₂	HX	I	K	MM	N	NA	NN	S	ZZ
20	Up to 300	18	15.5	13	26	8	20 ⁰ _{-0.033}	13	19.8	14	41	5	8	65.3	28	5	M8 x 1.25	15	24	M20 x 1.5	62	116
25	Up to 300	22	19.5	17	32	10	26 ⁰ _{-0.033}	13	22	14	45	6	8	70.5	33.5	5.5	M10 x 1.25	15	30	M26 x 1.5	62	120
32	Up to 300	22	19.5	17	32	12	26 ⁰ _{-0.033}	13	25.8	16	45	6	8	76.5	37.5	5.5	M10 x 1.25	15	34.5	M26 x 1.5	64	122
40	Up to 300	24	21	22	41	14	32 ⁰ _{-0.039}	16	29.8	16	50	8	10	84.5	46.5	7	M14 x 1.5	21.5	42.5	M32 x 2	88	154

With Rod Boot

Bore size (mm)	B ₃	e	f	h							ℓ												
				1 to 50	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	1 to 50	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500						
20	30	36	17	68	81	93	106	131	156	—	12.5	25	37.5	50	75	100	—						
25	32	36	17	72	85	97	110	135	160	185	12.5	25	37.5	50	75	100	125						
32	32	36	17	72	85	97	110	135	160	185	12.5	25	37.5	50	75	100	125						
40	41	46	19	77	90	102	115	140	165	190	12.5	25	37.5	50	75	100	125						

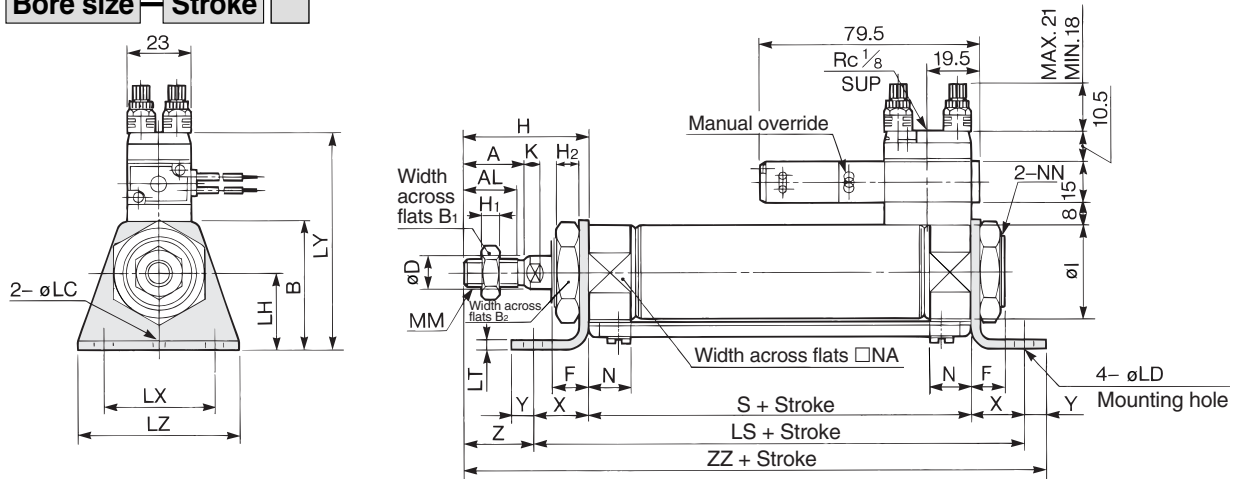
* Long stroke type includes ones for strokes more than 301 mm.

- RE^A_B
- REC
- C□X
- C□Y
- MQ^Q_M
- RHC
- MK(2)
- RS^Q_G
- RS^H_A
- RZQ
- MI^W_S
- CEP1
- CE1
- CE2
- ML2B
- C¹_G5-S
- CV**
- MVGQ
- CC
- RB
- J
- D-
- X
- 20-
- Data

Series CVM5

Axial Foot Style (L)

CVM5L **Bore size** **Stroke**

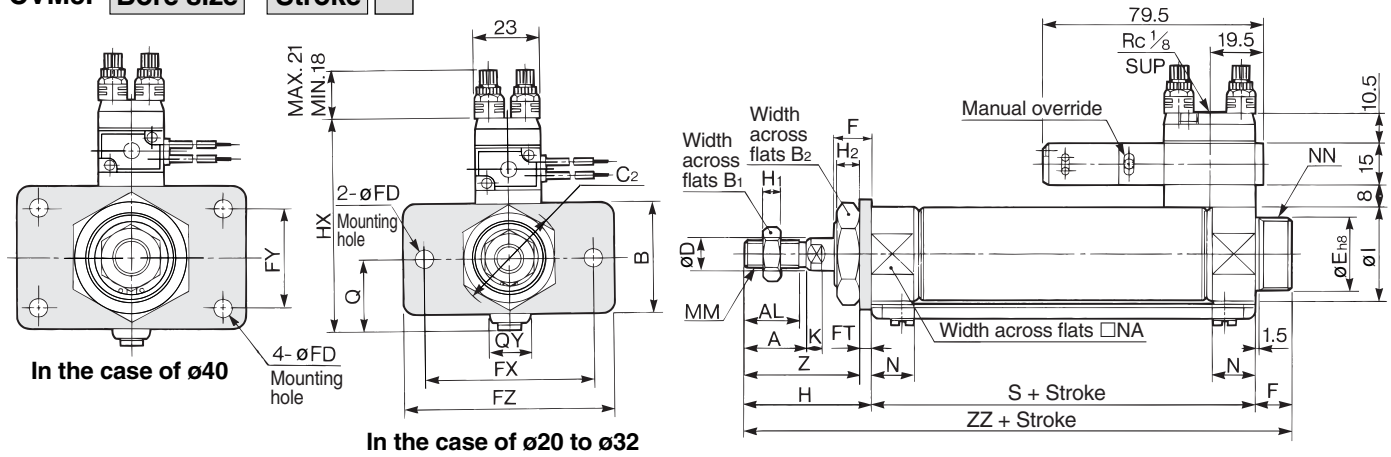


Bore size (mm)	Stroke range	A	AL	B	B ₁	B ₂	D	F	H	H ₁	H ₂	I	K	LC	LD	LH	LS	LT	LX	LY
20	Up to 300	18	15.5	40	13	26	8	13	41	5	8	28	5	4	6.8	25	102	3.2	40	70.5
25	Up to 300	22	19.5	47	17	32	10	13	45	6	8	33.5	5.5	4	6.8	28	102	3.2	40	76.5
32	Up to 300	22	19.5	47	17	32	12	13	45	6	8	37.5	5.5	4	6.8	28	104	3.2	40	78.8
40	Up to 300	24	21	54	22	41	14	16	50	8	10	46.5	7	4	7	30	134	3.2	55	84.8

Bore size (mm)	LZ	MM	N	NA	NN	S	X	Y	Z	ZZ
20	55	M8 x 1.25	15	24	M20 x 1.5	62	20	8	21	131
25	55	M10 x 1.25	15	30	M26 x 1.5	62	20	8	25	135
32	55	M10 x 1.25	15	34.5	M26 x 1.5	64	20	8	25	137
40	75	M14 x 1.5	21.5	42.5	M32 x 2	88	23	10	27	171

Rod Side Flange Style (F)

CVM5F **Bore size** **Stroke**



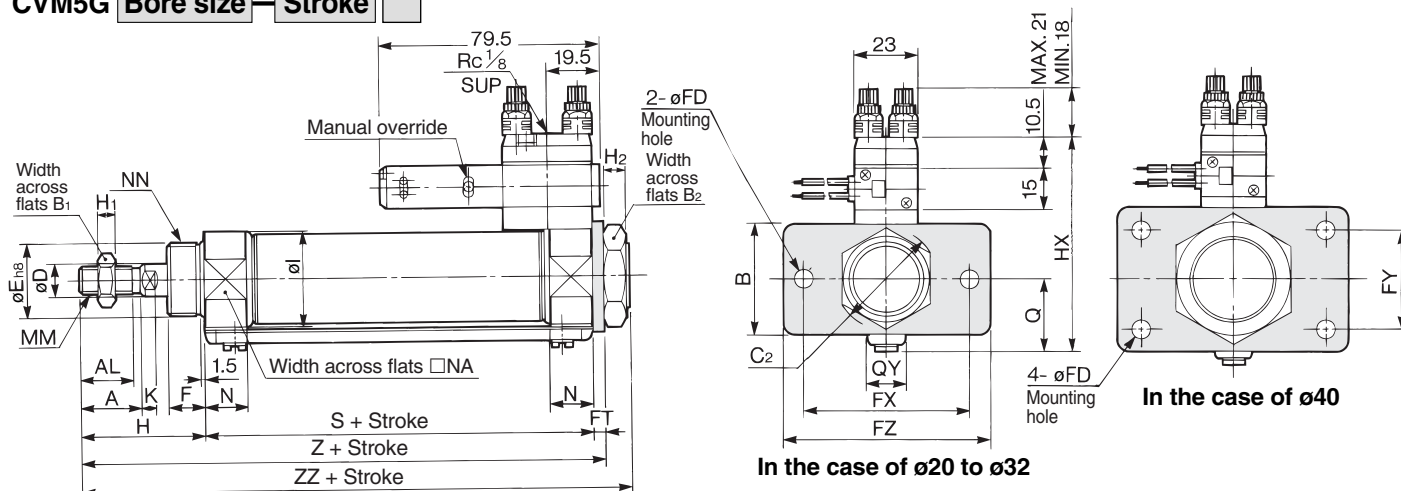
Bore size (mm)	Stroke range	A	AL	B	B ₁	B ₂	C ₂	D	E _{h8}	F	FD	FT	FX	FY	FZ	H	H ₁	H ₂	HX
20	Up to 300	18	15.5	34	13	26	30	8	20 ⁰ _{-0.033}	13	7	4	60	—	75	41	5	8	65.3
25	Up to 300	22	19.5	40	17	32	37	10	26 ⁰ _{-0.033}	13	7	4	60	—	75	45	6	8	70.5
32	Up to 300	22	19.5	40	17	32	37	12	26 ⁰ _{-0.033}	13	7	4	60	—	75	45	6	8	76.5
40	Up to 300	24	21	52	22	41	47.3	14	32 ⁰ _{-0.039}	16	7	5	66	36	82	50	8	10	84.5

Bore size (mm)	I	K	MM	N	NA	NN	Q	QY	S	Z	ZZ
20	28	5	M8 x 1.25	15	24	M20 x 1.5	19.8	14	62	37	116
25	33.5	5.5	M10 x 1.25	15	30	M26 x 1.5	22	14	62	41	120
32	37.5	5.5	M10 x 1.25	15	34.5	M26 x 1.5	25.8	16	64	41	122
40	46.5	7	M14 x 1.5	21.5	42.5	M32 x 2	29.8	16	88	45	154

Valve Mounted Cylinder Double Acting, Single Rod Series **CVM5**

Head Side Flange Style (G)

CVM5G

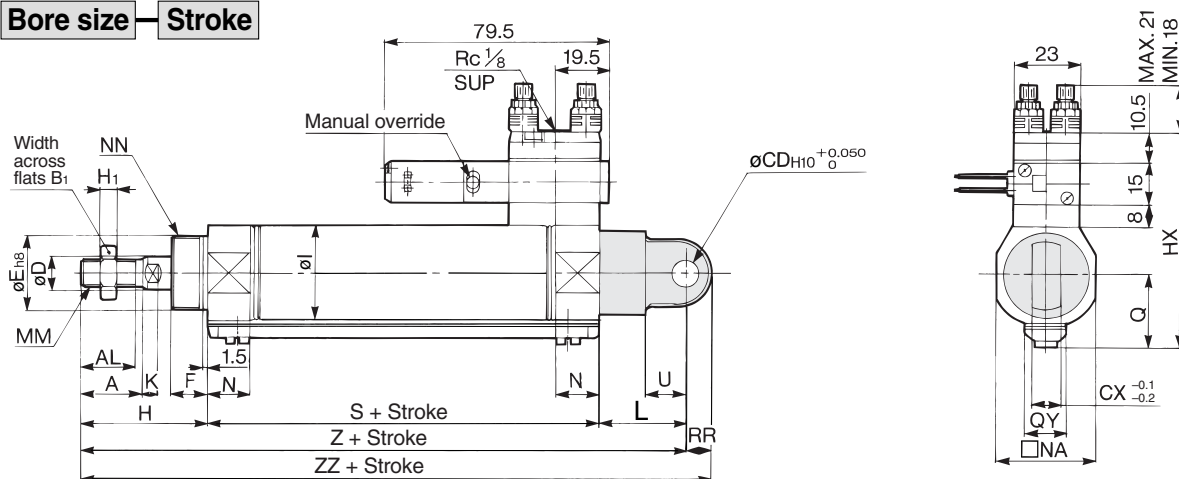


Bore size (mm)	Stroke range	A	AL	B	B ₁	B ₂	C ₂	D	Eh ₈	F	FD	FT	FX	FY	FZ	H	H ₁	H ₂	HX
20	Up to 300	18	15.5	34	13	26	30	8	20 ⁰ _{-0.033}	13	7	4	60	—	75	41	5	8	65.3
25	Up to 300	22	19.5	40	17	32	37	10	26 ⁰ _{-0.033}	13	7	4	60	—	75	45	6	8	70.5
32	Up to 300	22	19.5	40	17	32	37	12	26 ⁰ _{-0.033}	13	7	4	60	—	75	45	6	8	76.5
40	Up to 300	24	21	52	22	41	47.3	14	32 ⁰ _{-0.039}	16	7	5	66	36	82	50	8	10	84.5

Bore size (mm)	I	K	MM	N	NA	NN	Q	QY	S	Z	ZZ
20	28	5	M8 x 1.25	15	24	M20 x 1.5	19.8	14	62	107	116
25	33.5	5.5	M10 x 1.25	15	30	M26 x 1.5	22	14	62	111	120
32	37.5	5.5	M10 x 1.25	15	34.5	M26 x 1.5	25.8	16	64	113	122
40	46.5	7	M14 x 1.5	21.5	42.5	M32 x 2	29.8	16	88	143	154

Single Clevis Style (C)

CVM5C



Bore size (mm)	Stroke range	A	AL	B ₁	CD	CX	D	Eh ₈	F	H	H ₁	I	HX	K	L	MM	N	NA
20	Up to 300	18	15.5	13	9	10	8	20 ⁰ _{-0.033}	13	41	5	28	65.3	5	30	M8 x 1.25	15	24
25	Up to 300	22	19.5	17	9	10	10	26 ⁰ _{-0.033}	13	45	6	33.5	70.5	5.5	30	M10 x 1.25	15	30
32	Up to 300	22	19.5	17	9	10	12	26 ⁰ _{-0.033}	13	45	6	37.5	76.5	5.5	30	M10 x 1.25	15	34.5
40	Up to 300	24	21	22	10	15	14	32 ⁰ _{-0.039}	16	50	8	46.5	84.5	7	39	M14 x 1.5	21.5	42.5

Bore size (mm)	NN	Q	QY	RR	S	U	Z	ZZ
20	M20 x 1.5	19.8	14	9	62	14	133	142
25	M26 x 1.5	22	14	9	62	14	137	146
32	M26 x 1.5	25.8	16	9	64	14	139	148
40	M32 x 2	29.8	16	11	88	18	177	188

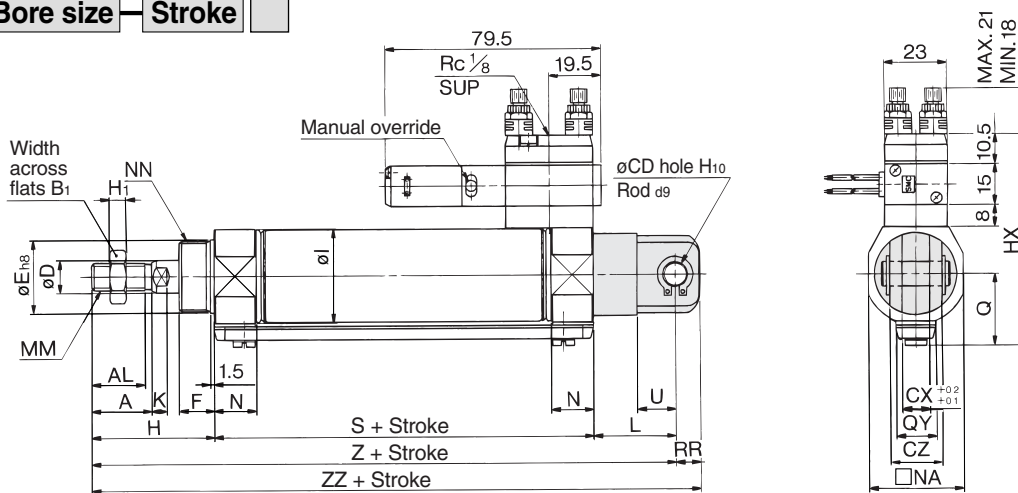
- RE^A_B
- REC
- C□X
- C□Y
- MQ^Q_M
- RHC
- MK(2)
- RS^Q_G
- RS^H_A
- RZQ
- MI^W_S
- CEP1
- CE1
- CE2
- ML2B
- C¹/₅-S
- CV**
- MVGQ
- CC
- RB
- J
- D-
- X
- 20-

Data

Series CVM5

Double Clevis Style (D)

CVM5D **Bore size** **Stroke**



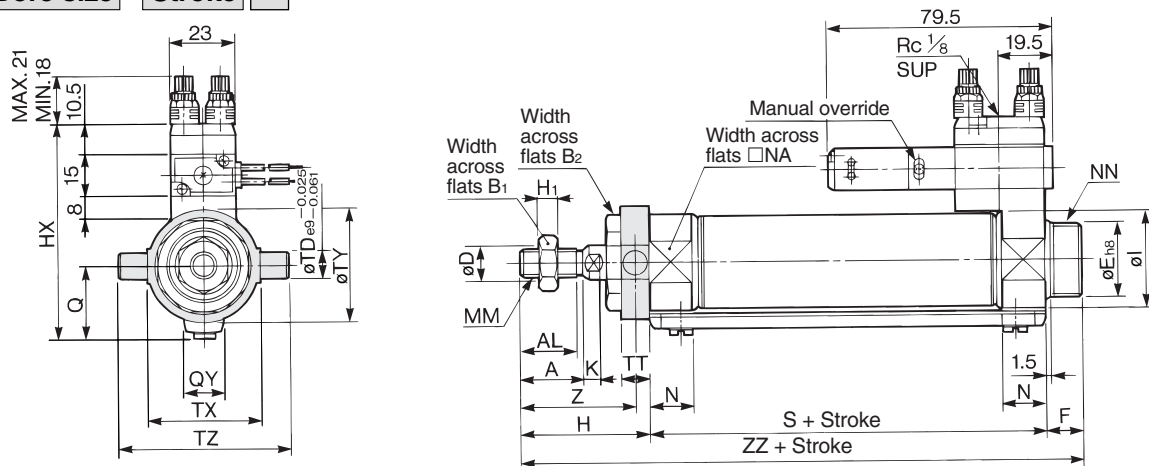
Bore size (mm)	Stroke range	A	AL	B ₁	CD	CX	CZ	D	Eh ₈	F	H	H ₁	HX	I	K	L	MM	N	NA
20	Up to 300	18	15.5	13	9	10	19	8	20 ⁰ _{-0.033}	13	41	5	65.3	28	5	30	M8 x 1.25	15	24
25	Up to 300	22	19.5	17	9	10	19	10	26 ⁰ _{-0.033}	13	45	6	70.5	33.5	5.5	30	M10 x 1.25	15	30
32	Up to 300	22	19.5	17	9	10	19	12	26 ⁰ _{-0.033}	13	45	6	76.5	37.5	5.5	30	M10 x 1.25	15	34.5
40	Up to 300	24	21	22	10	15	30	14	32 ⁰ _{-0.039}	16	50	8	84.5	46.5	7	39	M14 x 1.5	21.5	42.5

Bore size (mm)	NN	Q	QY	RR	S	U	Z	ZZ
20	M20 x 1.5	19.8	14	9	62	14	133	142
25	M26 x 1.5	22	14	9	62	14	137	146
32	M26 x 1.5	25.8	16	9	64	14	139	148
40	M32 x 2	29.8	16	11	88	18	177	188

* Clevis pin and snap ring (cotter pin for ø40) are packaged together.

Rod Side Trunnion Style (U)

CVM5U **Bore size** **Stroke**



Bore size (mm)	Stroke range	A	AL	B ₁	B ₂	D	Eh ₈	F	H	H ₁	HX	I	K	MM	N	NA	NN	Q
20	Up to 300	18	15.5	13	26	8	20 ⁰ _{-0.033}	13	41	5	65.3	28	5	M8 x 1.25	15	24	M20 x 1.5	19.8
25	Up to 300	22	19.5	17	32	10	26 ⁰ _{-0.033}	13	45	6	70.5	33.5	5.5	M10 x 1.25	15	30	M26 x 1.5	22
32	Up to 300	22	19.5	17	32	12	26 ⁰ _{-0.033}	13	45	6	76.5	37.5	5.5	M10 x 1.25	15	34.5	M26 x 1.5	25.8
40	Up to 300	24	21	22	41	14	32 ⁰ _{-0.039}	16	50	8	84.5	46.5	7	M14 x 1.5	21.5	42.5	M32 x 2	29.8

Bore size (mm)	QY	S	TD	TT	TX	TY	TZ	Z	ZZ
20	14	62	8	10	32	32	52	36	116
25	14	62	9	10	40	40	60	40	120
32	16	64	9	10	40	40	60	40	122
40	16	88	10	11	53	53	77	44.5	154