

Offset Pin Shift Cylinder

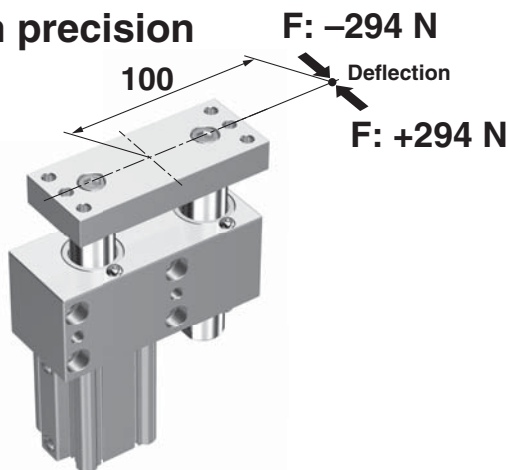
with high rigidity offset load capacity
 $\varnothing 32, \varnothing 40, \varnothing 50$

High rigidity, High precision

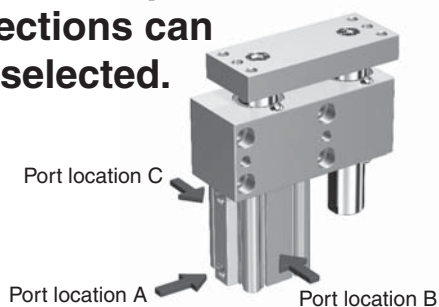
With plate extended:

Deflection of ± 0.1 mm or less

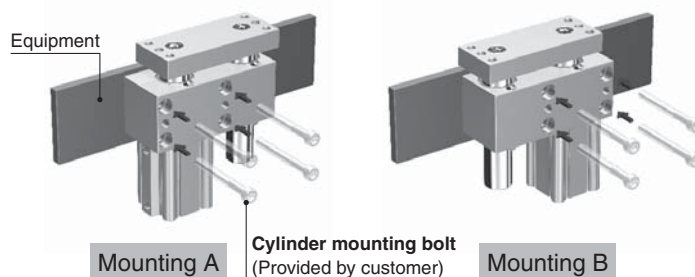
(For $\varnothing 50$, 25 mm stroke, when allowable moment 29.4 N·m is applied)



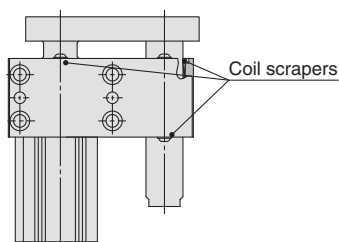
3 different port location directions can be selected.



Can be mounted from 2 directions



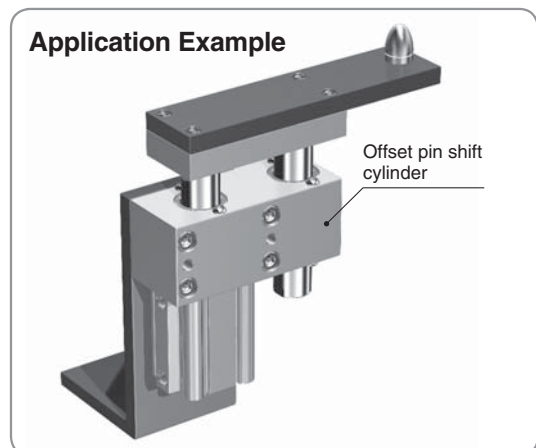
Coil scrapers equipped as standard



Auto switches are mountable.

Applicable Auto Switches:

- Magnetic field-resistant solid state auto switch: D-P3DWA□, D-P4DW□
- Small auto switch: D-M9□, D-A9□



CDQ2B-X2839

Offset Pin Shift Cylinder

CDQ2B-X2839

∅ 32, ∅ 40, ∅ 50

How to Order

C D Q2B 40 - 50 A Z - P3DWA - X2839

Built-in magnet for auto switch → C

Bore size → 40

Stroke [mm] → 50

Port location → A

Auto switch → Z

Number of auto switches → P3DWA

Offset pin shift cylinder → X2839

32	32 mm
40	40 mm
50	50 mm

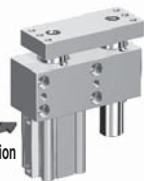
Bore size	Stroke
32	25, 50
40	25, 50, 75
50	25, 50, 75

—	2
S	1

—	Without auto switch
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Select applicable auto switch models from the table below.

A



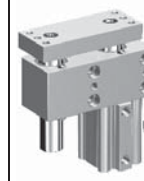
A direction

B



B direction

C



C direction

Auto Switch Models: Refer to Auto Switch Guide for further information.

Magnetic Field-resistant Auto Switches

Type	Auto switch model	Applicable magnetic field	Electrical entry	Indicator light	Wiring (Pin no. in use)	Load voltage	Lead wire length	Applicable load	
Solid state auto switch	D-P3DWASC	AC magnetic field (Single-phase AC welding magnetic field)	Pre-wired connector	2-colour indicator	2-wire (3-4)	24 VDC	0.3 m	Relay, PLC	
	D-P3DWA				2-wire (1-4)		0.5 m		
	D-P3DWA		Grommet		2-wire		3 m		
	D-P3DWA						5 m		
	D-P3DWA						0.3 m		
	P4DWSC		Pre-wired connector		2-wire (3-4)		2-wire (1-4)		3 m
	P4DWE								5 m
	P4DWL								5 m
	P4DWZ		Grommet		2-wire				

Small Auto Switches Small auto switches cannot be used under a strong magnetic field.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length [m]				Pre-wired connector	Applicable load			
					DC	AC	Perpendicular	In-line	0.5 (—)	1 (M)	3 (L)	5 (Z)		IC circuit	Relay, PLC		
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC	
				3-wire (PNP)				M9PV	M9P	●	●	●	○	○			
				2-wire				M9BV	M9B	●	●	●	○	○			
	Diagnostic indication (2-colour indicator)			3-wire (NPN)	24 V	5 V, 12 V	—	M9NWV	M9NW	●	●	●	○	○	○		IC circuit
				3-wire (PNP)				M9PWV	M9PW	●	●	●	○	○			
				2-wire				M9BWV	M9BW	●	●	●	○	○			
	Water resistant (2-colour indicator)			3-wire (NPN)	24 V	5 V, 12 V	—	M9NAV	M9NA	○	○	●	○	○	○		IC circuit
				3-wire (PNP)				M9PAV	M9PA	○	○	●	○	○			
				2-wire				M9BAV	M9BA	○	○	●	○	○			
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	●	—	●	—	—	IC circuit	—	
				2-wire	12 V	100 V	A93V*1	A93	●	●	●	●	—	—	Relay, PLC		
					5 V, 12 V	100 V or less	A90V	A90	●	—	●	—	—	—	IC circuit		

*1 The 1 m lead wire is only applicable to the D-A93.

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

* Auto switches and mounting brackets are shipped together, but not assembled.

* Lead wire length symbols: 0.5 m.....— (Example) M9NWV
 1 m..... M (Example) M9NWVM
 3 m..... L (Example) M9NWVL
 5 m..... Z (Example) M9NWVZ

Specifications



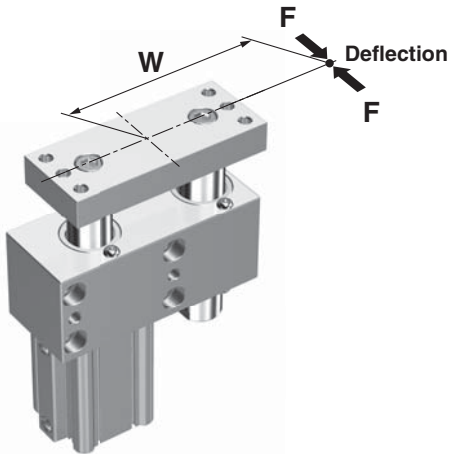
Bore size		32	40	50
Maximum operating pressure		1.0 MPa		
Proof pressure		1.5 MPa		
Minimum operating pressure		0.2 MPa		
Ambient temperature		-10 to 60 °C (No freezing)		
Cushion		Head end: Rubber bumper, Rod end: None		
Allowable kinetic energy	Extended	0.15 J	0.26 J	0.46 J
	Retracted	0.29 J	0.52 J	0.91 J

Weight

Bore size	Stroke [mm]			[kg]
	25	50	75	
32	1.5	1.6	—	
40	3.3	3.5	3.7	
50	5.4	5.7	6.0	

Deflection

Bore Size: 32 [mm]



Stroke	Offset W	Lateral load F [N]	
		98	196
25	0	±0.1 or less	±0.1 or less
	50		±0.1 or less
	100		±0.1 or less
	150	±0.2 or less	
50	0	±0.1 or less	±0.2 or less
	50		±0.2 or less
	100		±0.2 or less
	150	±0.2 or less	

Bore Size: 40 [mm]

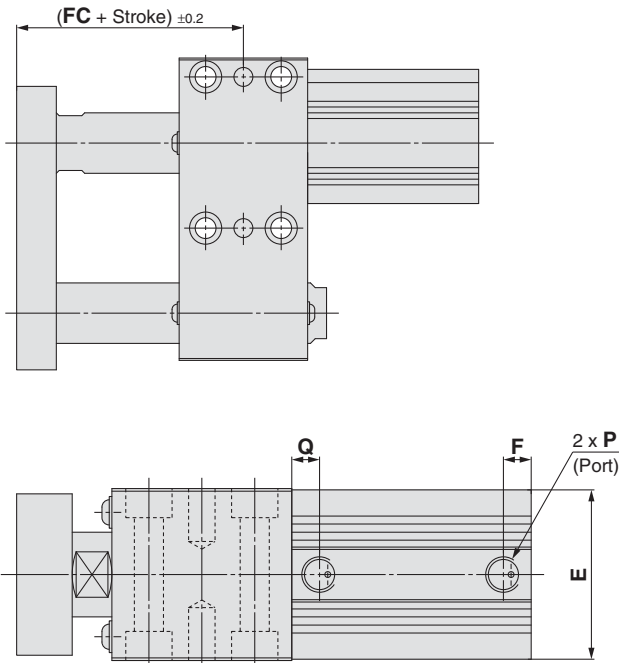
Stroke	Offset W	Lateral load F [N]		
		98	196	294
25	0	±0.1 or less	±0.1 or less	±0.1 or less
	50		±0.1 or less	±0.1 or less
	100		±0.1 or less	±0.1 or less
	150	±0.2 or less	±0.2 or less	
50	0	±0.1 or less	±0.1 or less	±0.2 or less
	50		±0.1 or less	±0.2 or less
	100		±0.2 or less	±0.2 or less
	150	±0.2 or less	±0.2 or less	
75	0	±0.1 or less	±0.2 or less	±0.2 or less
	50	±0.1 or less	±0.2 or less	±0.2 or less
	100	±0.2 or less	—	—
	150	±0.2 or less	—	—

Bore Size: 50 [mm]

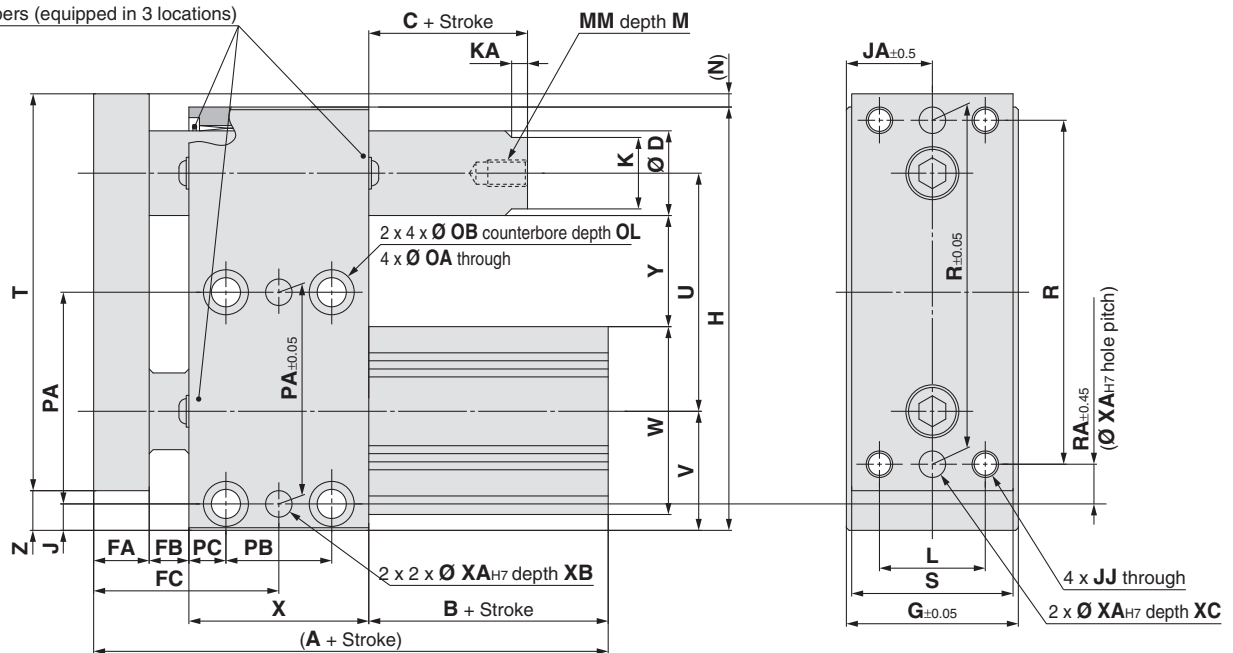
Stroke	Offset W	Lateral load F [N]		
		98	196	294
25	0	±0.1 or less	±0.1 or less	±0.1 or less
	50		±0.1 or less	±0.1 or less
	100		±0.1 or less	±0.1 or less
	150	±0.2 or less	±0.2 or less	
50	0	±0.1 or less	±0.1 or less	±0.1 or less
	50		±0.1 or less	±0.1 or less
	100		±0.2 or less	±0.2 or less
	150	±0.2 or less	±0.2 or less	
75	0	±0.1 or less	±0.1 or less	±0.2 or less
	50	±0.1 or less	±0.1 or less	±0.2 or less
	100	±0.2 or less	±0.2 or less	—
	150	±0.2 or less	—	—

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Dimensions



Coil scrapers (equipped in 3 locations)



The above figure shows the condition when a stroke is extended.

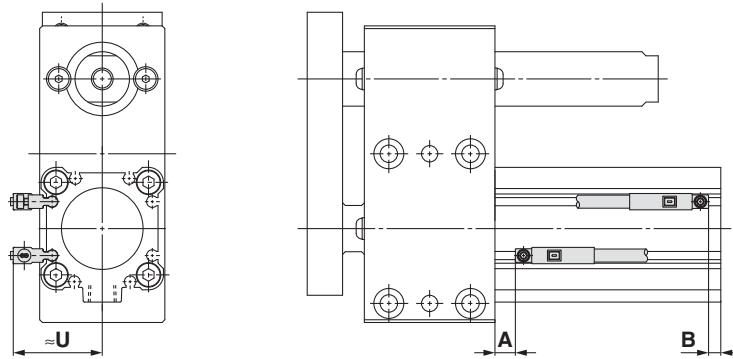
Bore size	Stroke	A	B	C	D	E	F	FA	FB	FC	G	H	J	JA	JJ	K	KA	L	M	MM	N
32	25, 50	102	33	10	20	45	7.5	13	8	45	46	109	7	23	M6 x 1.0	17	4.5	30	12	M8 x 1.25	5
40	25, 50, 75	128.5	39.5	10	25	52	7.5	18	11	60	53	137	8.5	26.5	M8 x 1.25	22	5	34	15	M10 x 1.5	5
50		144.5	40.5	10	32	64	10.5	21	15	70	65	160	10	32.5	M10 x 1.5	27	6	40	15	M10 x 1.5	5

Bore size	Stroke	OA	OB	OL	P	PA	PB	PC	Q	R	RA	S	T	U	V	W	X	XA	XB	XC	Y	Z
32	25, 50	6.4	11	16.5	Rc1/8	55	30	9	10	90	10	44	104	55	34.5	49.5	48	6	12	8	22.5	10
40	25, 50, 75	9	14	8.6	Rc1/8	70	40	11	12.5	110	15	51	127	75	41	57	60	8	15	10	36.5	15
50		11	17	11	Rc1/4	80	40	14	10.5	130	15	61	150	90	45	71	68	10	20	12	42	15

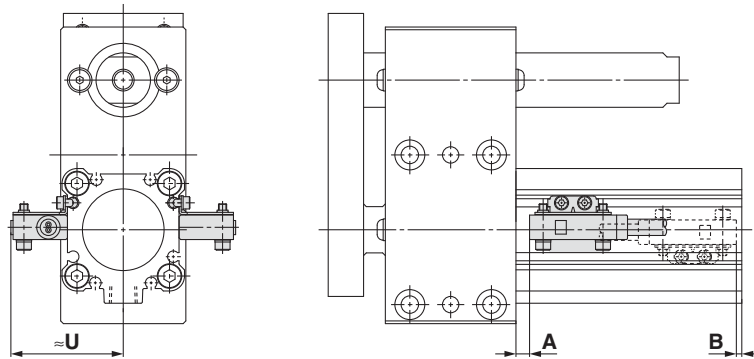
CDQ2B-X2839 Auto Switch Mounting

Auto Switch Proper Mounting Position (Detection at stroke end) and Mounting Height

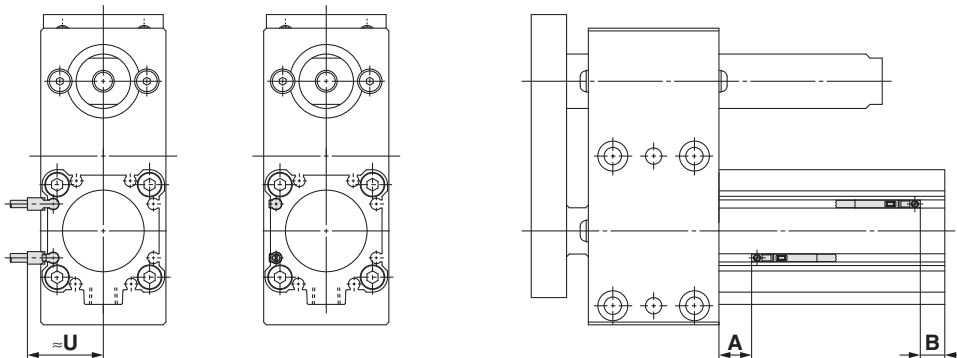
D-P3DWA□



D-P4DW□



D-M9□(V) D-M9□W(V) D-M9□A(V) D-A9□(V)



Auto Switch Proper Mounting Position

Auto switch model	D-P3DWA		D-P4DW		D-M9□ D-M9□V D-M9□W D-M9□WV D-M9□A D-M9□AV		D-A9□ D-A9□V	
	A	B	A	B	A	B	A	B
Bore size 32	7.5	4.5	5	2	12	9	8	5
40	11.5	7	9	4.5	16	11.5	12	7.5
50	9.5	10	9.5	10.5	14	14.5	10	10.5

Auto Switch Proper Mounting Height

Auto switch model	D-P3DWA	D-P4DW	D-M9□V	D-A9□V
	U	U	U	U
Bore size 32	35.5	41.5	30	27.5
40	38	45	32	30
50	43	50	37.5	35

Minimum Stroke for Auto Switch Mounting

Number of auto switches	D-P3DWA D-M9□□ D-A9□□	D-P4DW
	1	25
2	25	75

Mounting

When installing the cylinders with auto switches, pay attention to the bending radius of the auto switch lead wire. For details, refer to the Operation Manual.

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Auto Switch Mounting Bracket Part Nos./Mounting Method

Applicable auto switch	D-P3DWA□, D-M9□(V), D-M9□W(V), D-M9□A(V), D-A9□(V)
Bore size [mm]	∅ 32, ∅ 40, ∅ 50
Auto switch mounting bracket part no.	No mounting bracket required as the auto switch is directly mounted.
Auto switch tightening torque	0.2 to 0.3 N·m

Applicable auto switch	D-P4DW□	
Bore size [mm]	∅ 32, ∅ 40	∅ 50
Auto switch mounting bracket part no.	BQ7-032	BQ7-050
Auto switch mounting bracket fitting parts lineup/weight	<ul style="list-style-type: none"> • Auto switch mounting bracket • Auto switch mounting nut (M2.5 x 0.45 x 5 L) • Hexagon socket head cap screw (M3 x 0.5 x 14 L, with spring washer) 	<ul style="list-style-type: none"> • Hexagon socket head cap screw (M2.5 x 0.45 x 5 L) • Spring washer (for M2.5) Weight = 8.5 g

<p>Mounting of auto switch</p>	<ol style="list-style-type: none"> 1. Fix the auto switch and the auto switch mounting bracket temporarily with the hexagon socket head cap screws (M3 x 14 L). 2. Insert the hexagon socket head cap screws (M2.5 x 5 L) into the spring washers (for M2.5), and tighten the auto switch mounting bracket and auto switch mounting nut temporarily. 3. Insert the temporarily fixed auto switch mounting nut into the mating groove of the cylinder tube. 4. Check the detecting position of the auto switch and fix the auto switch firmly with the hexagon socket head cap screws (M2.5 x 5 L, M3 x 14 L). <p>* The tightening torque for the hexagon socket head cap screw (M3 x 14 L) is 0.5 to 0.6 N·m. * The tightening torque for the hexagon socket head cap screw (M2.5 x 5 L) is 0.25 to 0.35 N·m.</p> <div style="text-align: center;"> </div>
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