Thin Cylinder / Standard Type Single Rod Double Acting

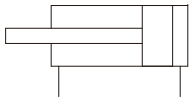
DCQ2 Series



Standard Specifications (Pneumatic Type)

Bore(mm)		12	16	20	25	32	40	50	63	80	100
Operating Method		Single Rod Double Acting									
Operating Fluid		Air									
Proof Pressure		1.5MPa									
Max Operating Pressure		1.0MPa									
Min Operating Pressure		0.07MPa		0.05MPa							
Environment & Fluid Temp		Without magnetic switch: -10~70°C (non-freezing conditions) With magnetic switch: -10~60°C (non-freezing conditions)									
Lubrication		Not required (Non-lubricated)									
Piston Speed		50~500mm/s									
Allowable Kinetic Energy(J)	Standard	0.022	0.038	0.055	0.09	0.15	0.26	0.46	0.77	1.36	2.27
	With Rubber Cushion	0.043	0.075	0.11	0.18	0.29	0.52	0.91	1.54	2.71	4.54
Stroke Length Tolerance		$^{+1.0mm}_{0}$ (Note: Stroke length tolerance does not include the variation due to the cushion.)									

Symbols

JIS-Non-cushioned	

标准行程表(气压型)

Bore(mm)	Standard Stroke - Double Acting(mm)
12、16	5 10 15 20 25 30
20、25	5 10 15 20 25 30 35 40 45 50
32、40	5 10 15 20 25 30 35 40 45 50 75 100
50、63、80、100	10 15 20 25 30 35 40 45 50 75 100

[Note] For intermediate strokes at 1mm intervals, the overall length is the same as the previous standard size.

Model Selection

DC | D ❶ | Q2 | B ❷ | 32 ❸ | – | 30 ❹ | D ❺ | M ❻ | – | M9B ❼ | T ❽ | □ ❾

❶ Built-in Magnet	❷ Mounting method	❸ Bore	❹ Stroke	❺ Operating Method	❻ Body Options	❼ Magnetic Switch	❽	❾ Numberof Magnetic Switches
No mark:No magnet D:Built-in Magnet	B:Through-hole type (Standard) A:Both ends tapped	12 20 25 32 40 50 63 80 100	Cylinder stroke mm	D: Double Acting S: Single Acting, Spring Return T: Single Acting, Spring Extend	No mark: Standard (Rod end internal thread) F: Non-rod side with boss C: With cushion [Note] M: Rod end external thread	No mark: No magnetic switch M9B:2-wire Electronic Switch M9N:3-wire Electronic Switch	Blank:Standard(not for cable carrier) T:For cable carrieruse	No mark:2个 S:1个 n:n个

[Note] Options can be combined as CM, FC, FM, FCM. Air-hydraulic type non-cushioned.

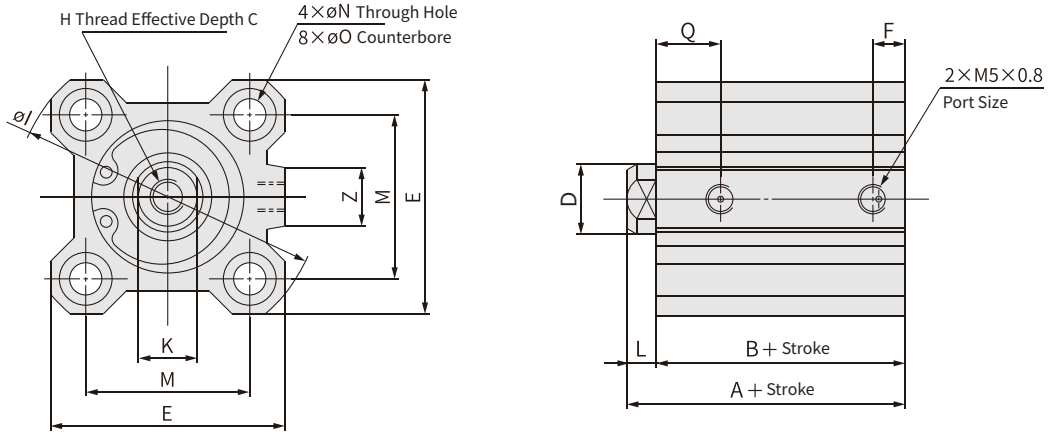
Modelfor Cylinder with Built-in Magnet

When a cylinder has a built-in magnetic piston but no magnetic switch is installed, the magnetic switch model designation should be left blank (no mark).	(Example)DCDQ2B32-25D

Thin Cylinder / Standard Type Single Rod Double Acting — DCQ2 Series

Bore∅12~∅25(Without magnetic switch)

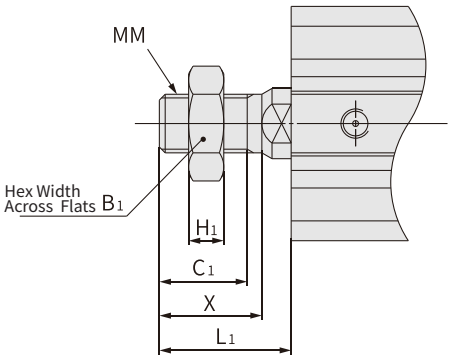
▶ Standard Type (Both Ends Through-Hole)DCQ2B



Bore(mm)	Stroke Range	A	B	C	D	E	F	H	I	K	L	M	N	O	Q	Z
12	5~30	20.5	17	6	6	25	5	M3×0.5	32	5	3.5	15.5	3.5	6.5 depth 3.5	7.5	-
16	5~30	22	18.5	8	8	29	5.5	M4×0.7	38	6	3.5	20	3.5	6.5 depth 3.5	8	10
20	5~50	24	19.5	7	10	36	5.5	M5×0.8	47	8	4.5	25.5	5.5	9 depth 7	9	10
25	5~30	27.5	22.5	12	12	40	5.5	M6×1.0	52	10	5	28	5.5	9 depth 7	11	10

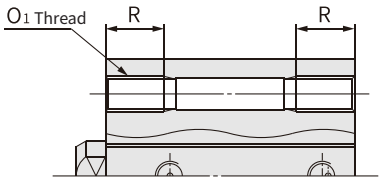
[Note] Dimensions for types with rubber cushion are the same as the standard type above.

▶ Standard Type (Both Ends Through-hole)DCQ2B Rod End External Thread Type



Bore(mm)	B1	C1	H1	L1	MM	X
12	8	9	4	14	M5×0.8	10.5
16	10	10	5	15.5	M6×1.0	12
20	13	12	5	18.5	M8×1.25	14
25	17	15	6	22.5	M10×1.25	17.5

▶ Both Ends Tapped TypeDCQ2A Both Ends Tapped Type

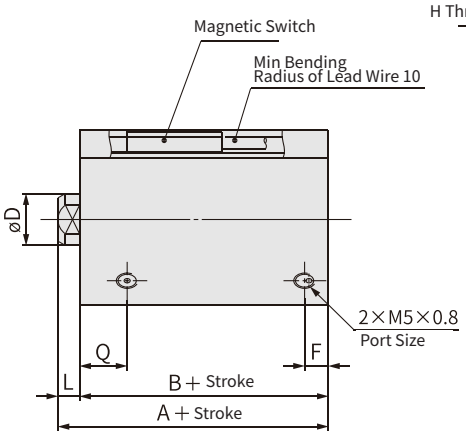


Bore(mm)	O1	R
12	M4×0.7	7
16	M4×0.7	7
20	M6×1.0	10
25	M6×1.0	10

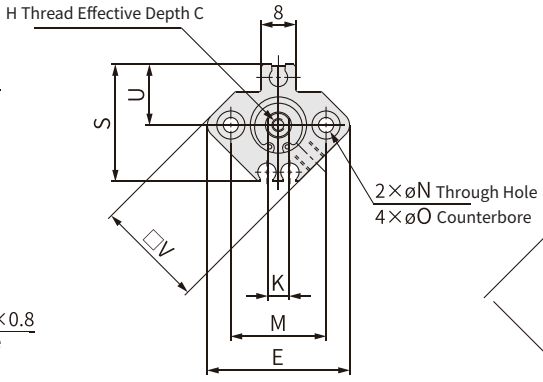
Thin Cylinder / Standard Type Single Rod Double Acting — DCQ2 Series

Bore∅12~∅255 (With Magnetic Switch)

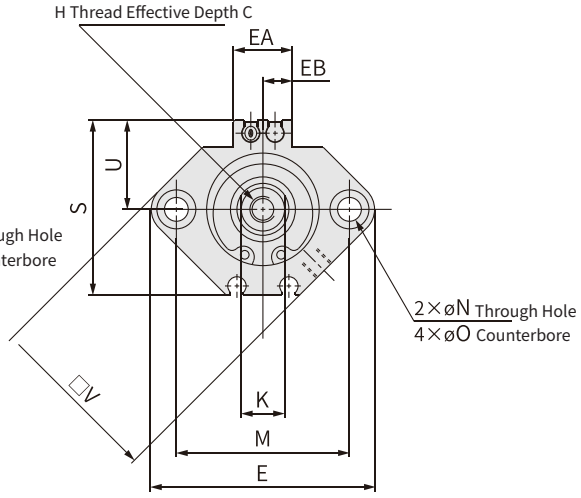
▶ Standard Type (Both Ends Through-Hole)DCDQ2B



▶ ∅12



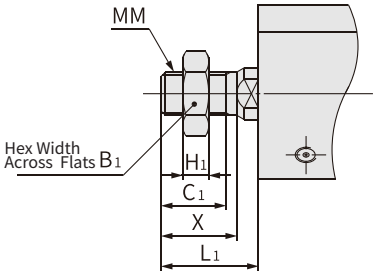
▶ ∅16~∅25



Bore(mm)	Stoke Range	A	B	C	D	E	EA	EB	F	H	K	L	M	N	O	Q	S	U	V
12	5~30	31.5	28	6	6	33	-	-	6.5	M3×0.5	5	3.5	22	3.5	6.5 depth 3.5	11	27.5	14	25
16	5~30	34	30.5	8	8	37	13.2	6.6	5.5	M4×0.7	6	3.5	28	3.5	6.5 depth 3.5	10	29.5	15	29
20	5~50	36	31.5	7	10	47	13.6	6.8	5.5	M5×0.8	8	4.5	36	5.5	9 depth 7	10.5	35.5	18	36
25	5~50	37.5	32.5	12	12	52	13.6	6.8	5.5	M6×1.0	10	5	40	5.5	9 depth 7	11	40.5	21	40

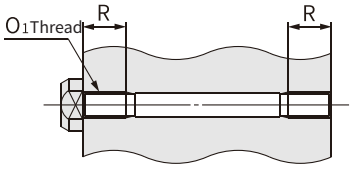
[Note] Dimensions for types with rubber cushion are the same as the standard type above.

▶ Standard Type (Both Ends Through-Hole)DCDQ2B Rod End External Thread Type



Bore(mm)	B1	C1	H1	L1	MM	X
12	8	9	4	14	M5×0.8	10.5
16	10	10	5	15.5	M6×1.0	12
20	13	12	5	18.5	M8×1.25	14
25	17	15	6	22.5	M10×1.25	17.5

▶ Both Ends Tapped Type DCDQ2A Both Ends Tapped Type

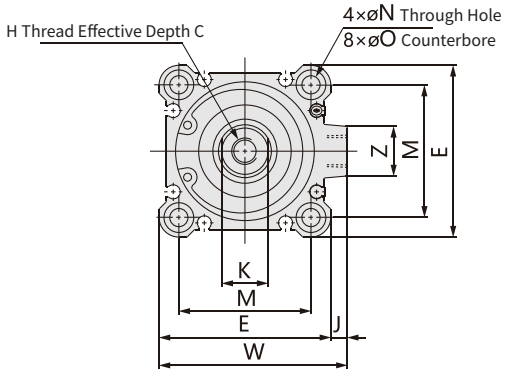


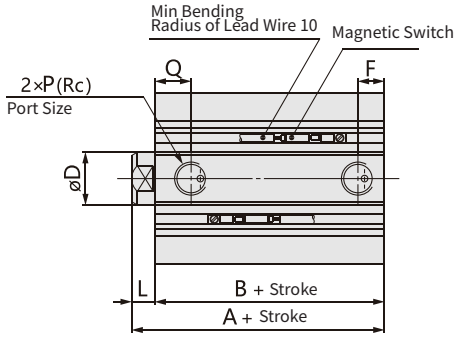
Bore(mm)	O1	R
12	M4×0.7	7
16	M4×0.7	7
20	M6×1.0	10
25	M6×1.0	10

Thin Cylinder / Standard Type Single Rod Double Acting — DCQ2 Series

Bore∅32~∅50(With Magnetic Switch)

▶ Standard Type (Both Ends Through-hole)DCQ2B·DCDQ2B

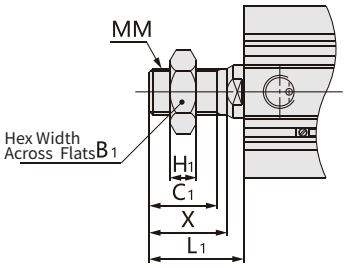




Bore(mm)	Stroke Range	Without Magnetic Switch					With Magnetic Switch					C	D	E	H	J	K	L	M	N	O	W	Z
		A	B	F	P	Q	A	B	F	P	Q												
32	5	30	23	5.5	M5×0.8	11.5	40	33	7.5	1/8	10.5	13	16	45	M8×1.25	4.5	14	7	34	5.5	9 depth 7	49.5	14
	10~50	30	23	7.5	1/8	10.5	40	33	7.5	1/8	10.5	13	16	45	M8×1.25	4.5	14	7	34	5.5	9 depth 7	49.5	14
	75/100	40	33	7.5	1/8	10.5	40	33	7.5	1/8	10.5	13	16	45	M8×1.25	4.5	14	7	34	5.5	9 depth 7	49.5	14
40	5~50	36.5	29.5	8	1/8	11	46.5	39.5	8	1/8	11	13	16	52	M8×1.25	5	14	7	40	5.5	9 depth 7	57	15
	75/100	46.5	39.5	8	1/8	11	46.5	39.5	8	1/8	11	13	16	52	M8×1.25	5	14	7	40	5.5	9 depth 7	57	15
50	10~50	38.5	30.5	10.5	1/4	10.5	48.5	40.5	10.5	1/4	10.5	13	20	64	M10×1.5	7	17	8	50	6.6	11 depth 8	71	19
	75/100	48.5	40.5	10.5	1/4	10.5	48.5	40.5	10.5	1/4	10.5	13	20	64	M10×1.5	7	17	8	50	6.6	11 depth 8	71	19

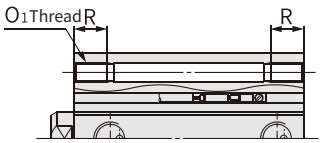
[Note] Dimensions for types with rubber cushion are the same as the standard type above.
[Note] For cylinders without magnetic switch, only dimensionsA、B、F、P、Qchange. Refer to the dimension table.

▶ Standard Type (Both Ends Through-Hole)DCQ2B·DCDQ2B Rod End External Thread Type



Bore(mm)	B1	C1	H1	L1	MM	X
32	22	20.5	8	28.5	M14×1.5	23.5
40	22	20.5	8	28.5	M14×1.5	23.5
50	27	26	11	33.5	M18×1.5	28.5

▶ Both Ends Tapped Type DCQ2A·DCDQ2A Both Ends Tapped Type

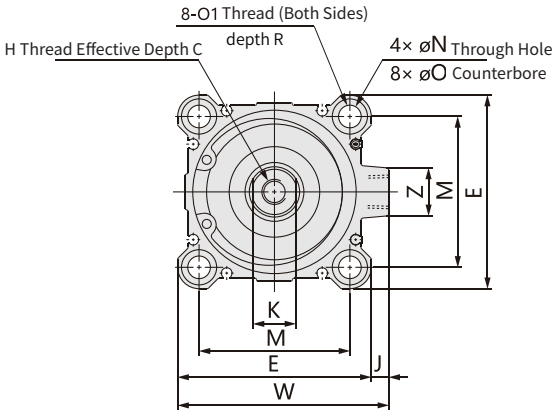


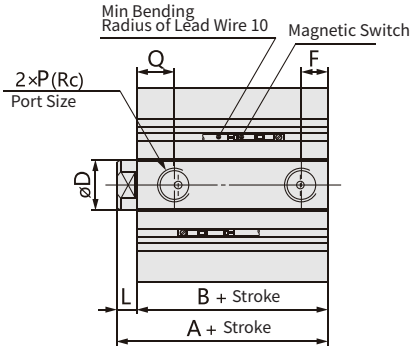
Bore(mm)	O1	R
32	M6×1.0	10
40	M6×1.0	10
50	M6×1.25	14

Thin Cylinder / Standard Type Single Rod Double Acting — DCQ2 Series

Bore∅63~∅100(With Magnetic Switch)

▶ Standard Type (Both Ends Through-Hole)DCQ2B·DCDQ2B

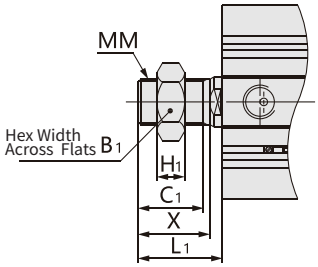




Bore(mm)	Stroke Range	WithoutMagnetic Switch		With Magnetic Switch		C	D	E	F	H	J	K	L	M	N	O	P	Q	W	Z
		A	B	A	B															
63	10~50	44	36	54	46	15	20	77	10.5	M10×1.5	7	17	8	60	9	14 depth 10.5	1/4	15	84	19
	75/100	54	46	54	46	15	20	77	10.5	M10×1.5	7	17	8	60	9	14 depth 10.5	1/4	15	84	19
80	10~50	53.5	43.5	63.5	53.5	21	25	98	12.5	M16×2.0	6	22	10	77	11	17.5 depth 13.5	3/8	16	104	25
	75/100	63.5	53.5	63.5	53.5	21	25	98	12.5	M16×2.0	6	22	10	77	11	17.5 depth 13.5	3/8	16	104	25
100	10~50	65	53	75	63	27	30	117	13	M20×2.5	6.5	27	12	94	11	17.5 depth 13.5	3/8	23	123.5	25
	75/100	75	63	75	63	27	30	117	13	M20×2.5	6.5	27	12	94	11	17.5 depth 13.5	3/8	23	123.5	25

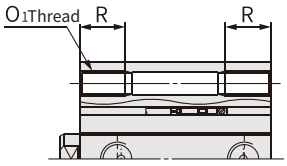
[Note] Dimensions for types with rubber cushion are the same as the standard type above.
[Note] For cylinders without magnetic switch, only dimensions A, B change. Refer to the dimension table.

▶ Standard Type (Both Ends Through-Hole)DCQ2B·DCDQ2B Rod End External Thread Type



Bore(mm)	B1	C1	H1	L1	MM	X
63	27	26	11	33.5	M18×1.5	28.5
80	32	32.5	13	43.5	M22×1.5	35.5
100	41	32.5	16	43.5	M26×1.5	35.5

▶ Both Ends Tapped Type DCQ2A·DCDQ2A Both Ends Tapped Type



Bore(mm)	O1	R
63	M10×1.5	18
80	M12×1.75	22
100	M12×1.75	22

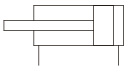
Long Stroke Type / Single Rod Double Acting — DCQ2 Series



Standard Specifications(Pneumatic Type)

Bore mm	32	40	50	63	80	100
Operating Method	Single Rod Double Acting					
Operating Fluid	Air					
Proof Pressure	1.5MPa					
Max Operating Pressure	1.0MPa					
Min Operating Pressure	0.05MPa					
Environment & Fluid Temp	Without Magnetic Switch -10~70°C (Non-freezing) With Magnetic Switch -10~60°C (Non-freezing)					
Lubrication	Not Required (Non-lubricated)					
Piston Speed	50~500mm/s					
Allowable Kinetic Energy (J)	0.29	0.52	0.91	1.54	2.71	4.54
Stroke Length Tolerance	$^{+1.4mm}_{0}$ (Note: Tolerance does not include cushion variation)					

Symbol

JIS-Non-cushioned	

Standard Stroke Table (Pneumatic Type)

Bore(mm)	Standard Stroke - Double Acting
32、40、50、63、80、100	125 150 175 200 250 300

[Note] For intermediate strokes at 1mm intervals, the overall length is the same as the previous standard size.

Model Selection

DC ❶ D ❷ Q2 A ❸ 32 — ❹ 200 ❺ D ❻ □ ❼ □ — ❽ M9B ❾ T ❿ □

❶ Built-in Magnet	
No mark	No magnet
D	Built-in Magnet

❷ Mounting Accessories	
A	Side Tapped Hole Type Mounting components included in the same package (uninstalled)

❸ Bore	
32	32mm
40	40mm
50	50mm
63	63mm
80	80mm
100	100mm

❹ Stroke
Refer to standard stroke table

❺ Operating Method	
D	Double acting

❻ Body Options
No mark: Rod end external thread M: Rod end external thread

❻ Cushion
No mark: Non-cushioned C: Non-cushioned

❼ Magnetic Switch
No mark: No magnetic switch M9B:2-wire Electronic Switch M9N:3-wire Electronic Switch

❽	
Blank	Standard(not for cable carrier)
T	For cable carrieruse

❾ Number of Magnetic Switches	
No mark	2个
S	1个
n	n个

[Note] Options can be combined as CM, FC, FM, FCM. Air-hydraulic type non-cushioned.

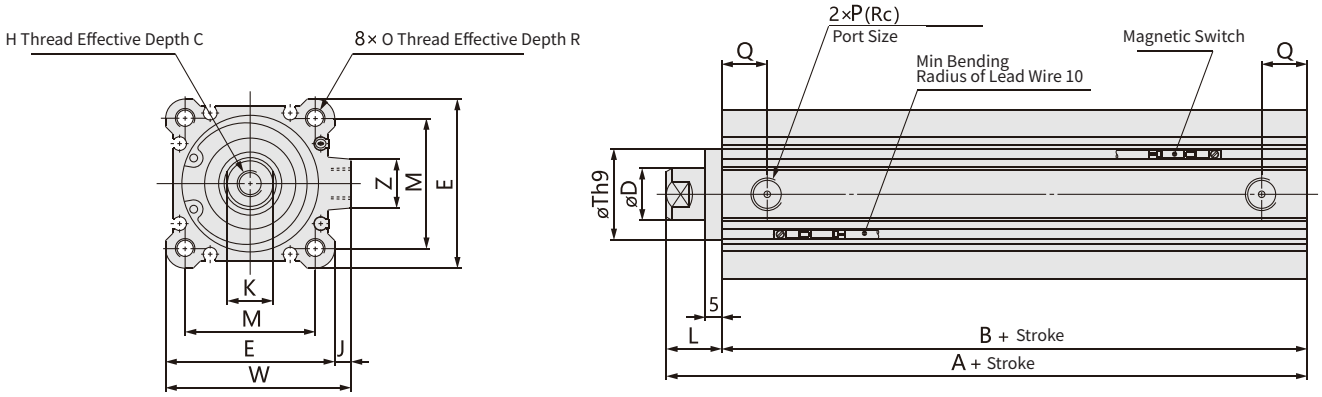
Modelfor Cylinders with Built-in Magnet

When a cylinder has a built-in magnet but no magnetic switch is installed, the magnetic switch model designation should be left blank (no mark).	(Example)DCDQ2A40-200DC

Long Stroke Type / Single Rod Double Acting — DCQ2 Series

Bore∅32~∅100

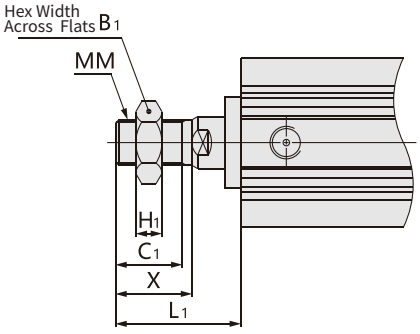
▶ DC□Q2A Series (Both Ends Tapped Type)



Bore(mm)	Stroke Range	A	B	C	D	E	H	J	K	L	M	O	P	Q	R	Th9	W	Z
32	125,150 175,200 250, 300	62.5	45.5	13	16	45	M8×1.25	4.5	14	17	34	M6×1.0	1/8	12.5	10	$22^{0}_{-0.052}$	49.5	14
40		72	55	13	16	52	M8×1.25	5	14	17	40	M6×1.0	1/8	14	10	$28^{0}_{-0.052}$	57	15
50		73.5	55.5	15	20	64	M10×1.5	7	17	18	50	M8×1.25	1/4	14	14	$35^{0}_{-0.062}$	71	19
63		75	57	15	20	77	M10×1.5	7	17	18	60	M10×1.5	1/4	16.5	18	$35^{0}_{-0.062}$	84	19
80		86	66	21	25	98	M16×2.0	6	22	20	77	M12×1.75	3/8	19	22	$43^{0}_{-0.062}$	104	25
100		97.5	75.5	27	30	117	M20×2.5	6.5	27	22	94	M12×1.75	3/8	23	22	$59^{0}_{-0.074}$	123.5	25

[Note] Stroke intervals are 25mm for 25~200mm.

▶ DC□Q2A Series (Both Ends Tapped Type) Rod End External Thread Type



Bore(mm)	B1	C1	H1	L1	MM	X
32	22	20.5	8	38.5	M14×1.5	23.5
40	22	20.5	8	38.5	M14×1.5	23.5
50	27	26	11	43.5	M18×1.5	28.5
63	27	26	11	43.5	M18×1.5	28.5
80	32	32.5	13	53.5	M22×1.5	35.5
100	41	32.5	16	53.5	M26×1.5	35.5