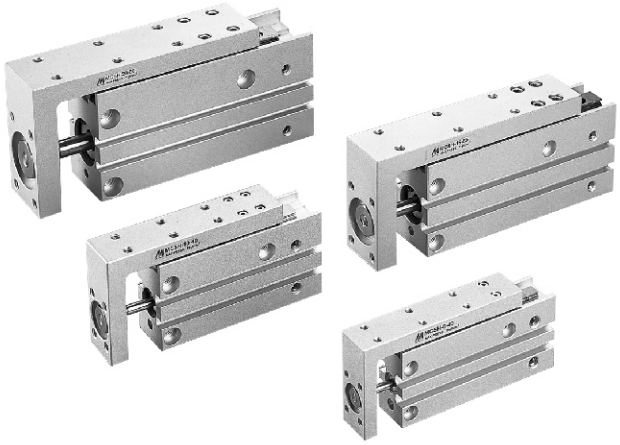
MCSH series

COMPACT SLIDE



Features:

- Compact precision cylinder.
- Cylinder can take high lateral loads and is also non rotating.
- Cylinder can be mounted in 3 or 4 positions.
- Magnetic as standard.

Specification:

Model	MCSH			
Acting type	Double acting			
Tube I.D. (mm)	6	10	16	20
Guide rail width (mm)	5	7	9	12
Port size	M5×0.8			
Medium	Air			
Min. operating pressure	1.2 kgf/cm^2 (0.12 MPa)	0.61 kgf/cm^2 (0.06 MPa)		0.51 kgf/cm^2 (0.05 MPa)
Max. operating pressure	7.1 kgf/cm^2 (0.7 MPa)			
Proof pressure	10.7 kgf/cm^2 (1.05 MPa)			
Ambient temperature	−5~+60℃ (No freezing)			
Piston speed	50~500mm/s			
Allowable kinetic energy J（kgf · cm）	0.0125 (0.127)	0.025 (0.25)	0.05 (0.5)	0.1 (1.0)
Lubricator	Not required			
Cushion	Rubber bumpper			
Stroke length tolerance	+1.0 0			
Sensor switch	RCE, RCE1			

Order example:

MCSH－10－60

MODEL　TUBE I.D.　STROKE

Cylinder weight:

(unit:g)

Stroke (mm)	Tube I.D.			
	ϕ6	ϕ10	ϕ16	ϕ20
5	62	117	216	437
10	67	125	227	455
15	76	140	247	486
20	81	148	258	505
25	91	162	279	542
30	96	170	290	560
40	111	192	323	597
50	125	215	353	656
60	140	238	386	700

Table for standard stroke:

Tube I.D.	Stroke (mm)
ϕ6,10,16,20	5, 10, 15, 20, 25, 30, 40, 50, 60

Theoretical force:

(Unit: N)

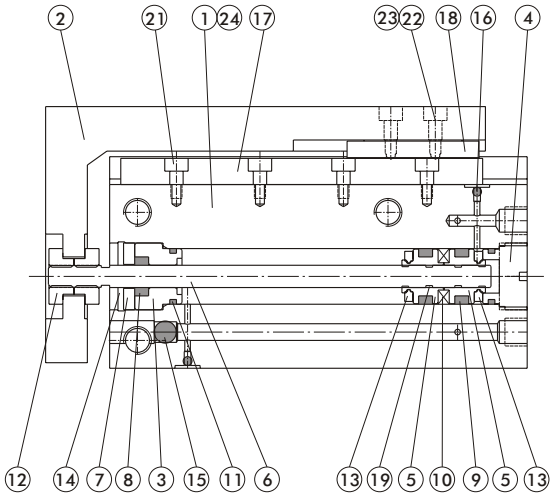
Tube I.D. (mm)	Piston rod (mm)	Operating direction	Piston area (mm^2)	Operating pressure (MPa)		
				0.3	0.5	0.7
6	3	OUT	28.3	8.49	14.2	19.8
		IN	21.2	6.36	10.6	14.8
10	4	OUT	78.5	23.6	39.3	55.0
		IN	66.0	19.8	33.0	46.2
16	6	OUT	201.0	60.3	101.0	141.0
		IN	172.0	51.6	86.0	121.0
20	8	OUT	314.0	94.2	157.0	220.0
		IN	264.0	79.2	132.0	185.0

MCSH Inside structure & Parts list

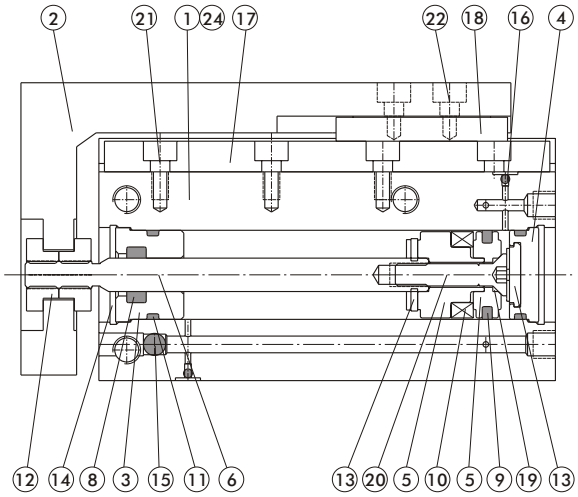
COMPACT SLIDE

Mindman

ϕ6, ϕ10



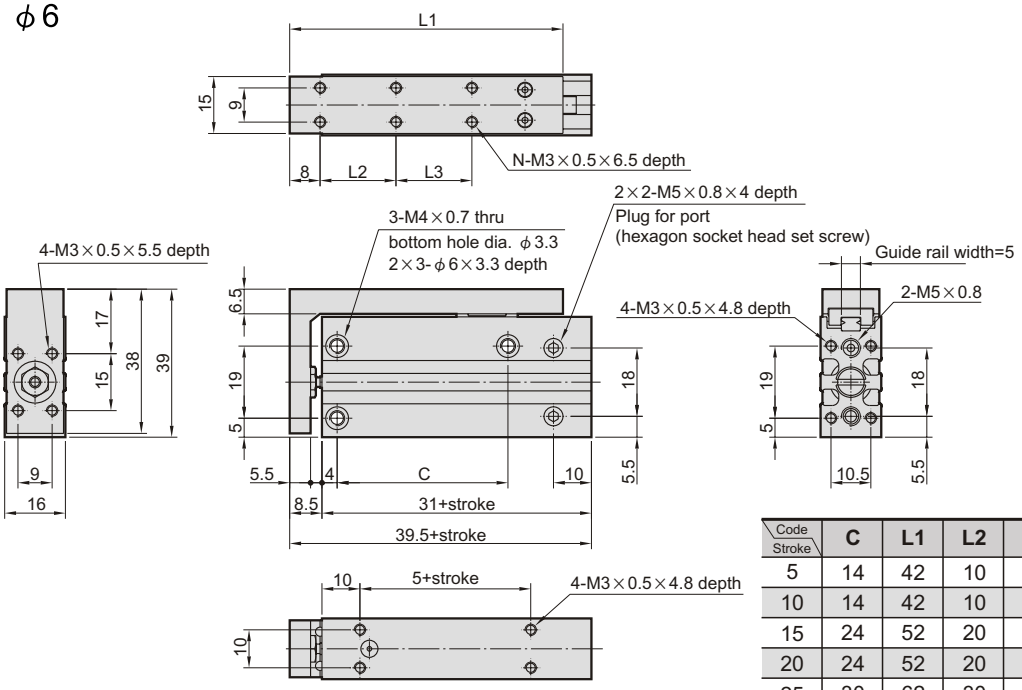
ϕ16, ϕ20



Material

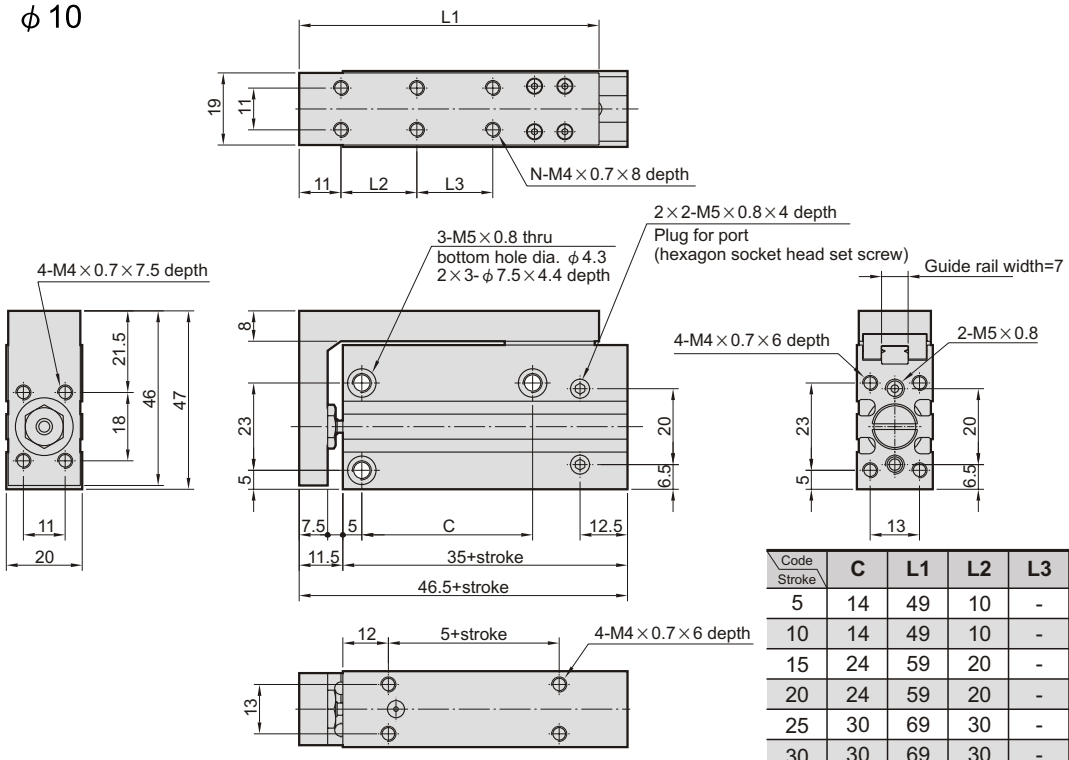
No.	Part name \ Tube I.D.	6	10	16	20	Note
1	Body	Aluminum alloy				Anodized
2	Table	Aluminum alloy				Anodized
3	Rod cover	Aluminum alloy				Anodized
4	Head cover	Aluminum alloy				Anodized
5	Piston	Aluminum alloy				
6	Piston rod	Stainless steel				
7	Washer	Aluminum alloy				
8	Rod packing	NBR				
9	Piston packing	NBR				
10	Magnet ring	Magnet material				
11	Cover ring	NBR				
12	Rod front nut	Brass				
13	Cushion packing	NBR				
14	C type snap ring for hole	Spring steel				
15	Steel ball A	Stainless steel				
16	Steel ball B	Stainless steel				
17	Linear guide	Stainless steel				
18	Guide seat	Stainless steel				
19	Piston gasket	NBR				
20	Piston bolt	SCM				
21	Hexagon socket head cap screw A	Stainless steel				
22	Hexagon socket head cap screw B	Stainless steel				
23	Round head Phillips screw	Stainless steel				Only for ϕ6
24	Hexagon socket head plug	Stainless steel				

ϕ6



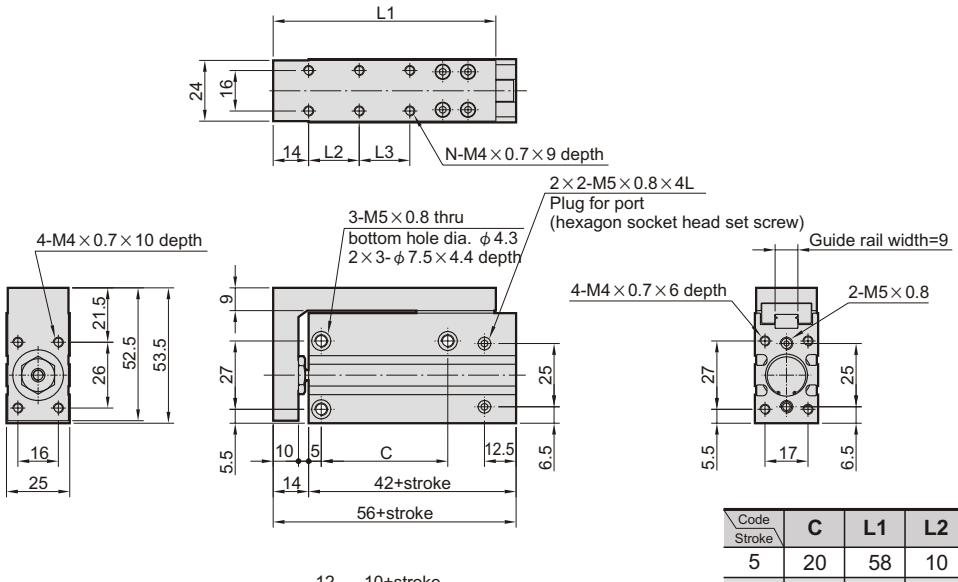
Code / Stroke	C	L1	L2	L3	N
5	14	42	10	-	4
10	14	42	10	-	4
15	24	52	20	-	4
20	24	52	20	-	4
25	30	62	30	-	4
30	30	62	30	-	4
40	45	72	20	20	6
50	55	82	25	25	6
60	60	92	30	30	6

ϕ10



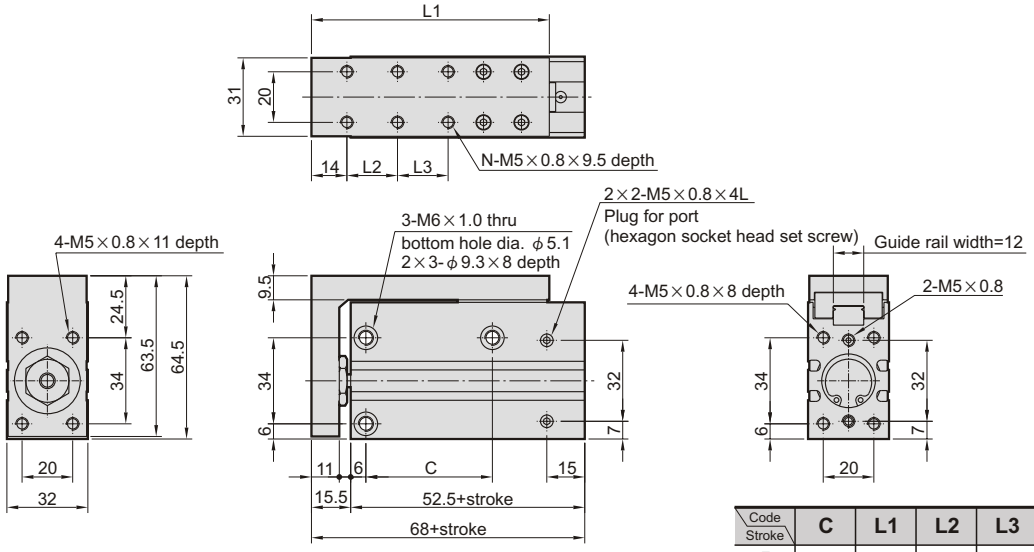
Code / Stroke	C	L1	L2	L3	N
5	14	49	10	-	4
10	14	49	10	-	4
15	24	59	20	-	4
20	24	59	20	-	4
25	30	69	30	-	4
30	30	69	30	-	4
40	45	79	20	20	6
50	55	89	25	25	6
60	60	99	30	30	6

ϕ16



Code / Stroke	C	L1	L2	L3	N
5	20	58	10	-	4
10	20	58	10	-	4
15	30	68	20	-	4
20	30	68	20	-	4
25	40	78	30	-	4
30	40	78	30	-	4
40	50	88	20	20	6
50	60	98	25	25	6
60	60	108	30	30	6

ϕ20



Code / Stroke	C	L1	L2	L3	N
5	20	64	10	-	4
10	20	64	10	-	4
15	25	74	20	-	4
20	25	74	20	-	4
25	40	84	30	-	4
30	40	84	30	-	4
40	50	94	20	20	6
50	70	104	25	25	6
60	70	114	30	30	6