

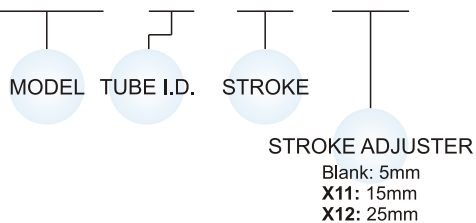
Table for standard stroke

Tube I.D.	Stroke (mm)
φ 8	10, 20, 30
φ 12	20, 30, 50
φ 16	30, 50, 75
φ 20	30, 50, 75, 100

※ Produce after received your orders.

Order example

MCSF-12-50-X11



※ X12 (adjustable range 25mm) is not available in series MCSS-8 / MCSS-12

Cylinder weight

(unit: g)

Stroke (mm)	Tube I.D.			
	φ 8	φ 12	φ 16	φ 20
10	125	—	—	—
20	132	212	—	—
30	171	248	372	608
50	—	357	522	775
75	—	—	696	1,053
100	—	—	—	1,351

Features:

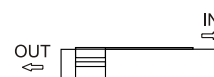
- Parallel mounting of guide to cylinder gives slim compact unit.
- Flush fitting sensor groove.
- Magnetic as standard.

Specification

Model	MCSF	
Acting type	Double acting	
Tube I.D. (mm)	8	12, 16, 20
Port size	M3 × 0.5	M5 × 0.8
Medium	Air	
Operating pressure range	0.15~0.7 MPa	
Proof pressure	1 MPa	
Ambient temperature	- 10~ + 60°C (No freezing)	
Operating speed range	50~500 mm/sec	
Lubricator	Not required	
Cushion	Rubber bumper	
Stroke length tolerance	+1.0 0	
Stroke adjuster range	Extend 5mm / Retract 5mm	
Sensor switch (※)	RCE, RCE1	

※ RCE, RCE1 specification, please refer to page V-09.

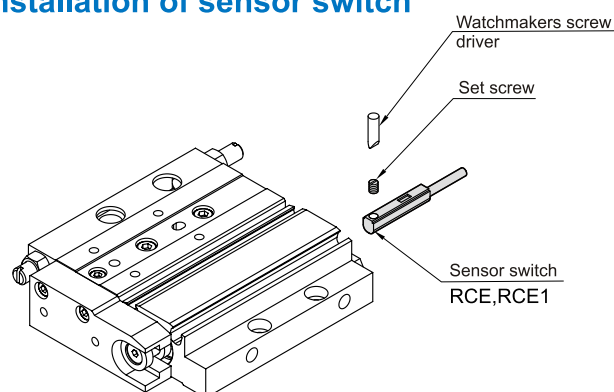
Theoretical force



(Unit: N)

Tube I.D. (mm)	Piston rod (mm)	Operating direction	Piston area (mm ²)	Operating pressure (MPa)					
				0.2	0.3	0.4	0.5	0.6	0.7
8	4	OUT	50	10	15	20	25	30	35
		IN	38	8	11	15	19	23	27
12	6	OUT	113	23	34	45	57	68	79
		IN	85	17	26	34	43	51	60
16	8	OUT	201	40	60	80	101	121	141
		IN	151	30	45	60	76	91	106
20	10	OUT	314	63	94	126	157	188	220
		IN	236	47	71	94	118	142	165

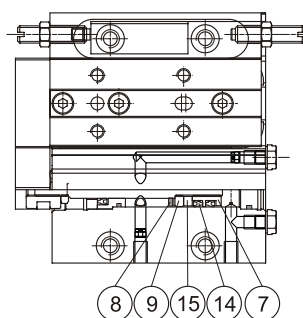
Installation of sensor switch



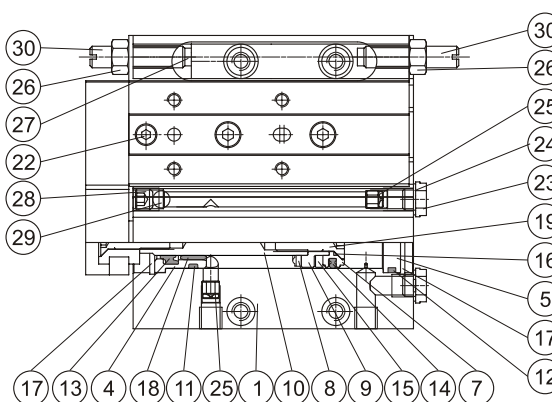
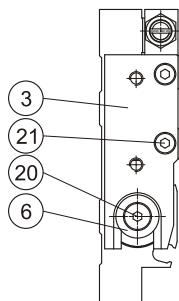
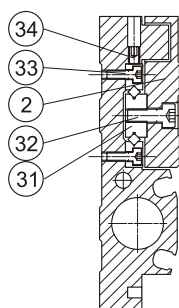
LOW PROFILE SLIDE CYLINDER

Mindman

$\phi 8$



$\phi 12, \phi 16, \phi 20$



Material

No.	Part name	Tube I.D.		Q'y	Repair kits (inclusion)
		8	12~20		
1	Body	Aluminum alloy		1	
2	Table	Aluminum alloy		1	
3	Plate	Aluminum alloy		1	
4	Rod cover	Aluminum alloy		1	
5	Head cover	Aluminum alloy		1	
6	Floating connector	Stainless steel		1	
7	Piston	※2	※1	1	
8	Cushion pad	NBR		1	●
9	Piston	※2	※1	1	
10	Piston rod	Stainless steel		1	
11	Cover ring	NBR		1	●
12	Cover ring	NBR		1	●
13	Rod packing	NBR		1	●
14	Piston packing	NBR		1 or 2	●
15	Magnet ring	Magnet material		1	
16	Gasket	—	NBR	1	●
17	Stop ring	Stainless steel		2	
18	Rod bush	—	Bearing alloy	1	
19	Piston bolt	—	※2	1	
20	Floating connector bolt	—	※2	1	
21	Bolt	Stainless steel		2	

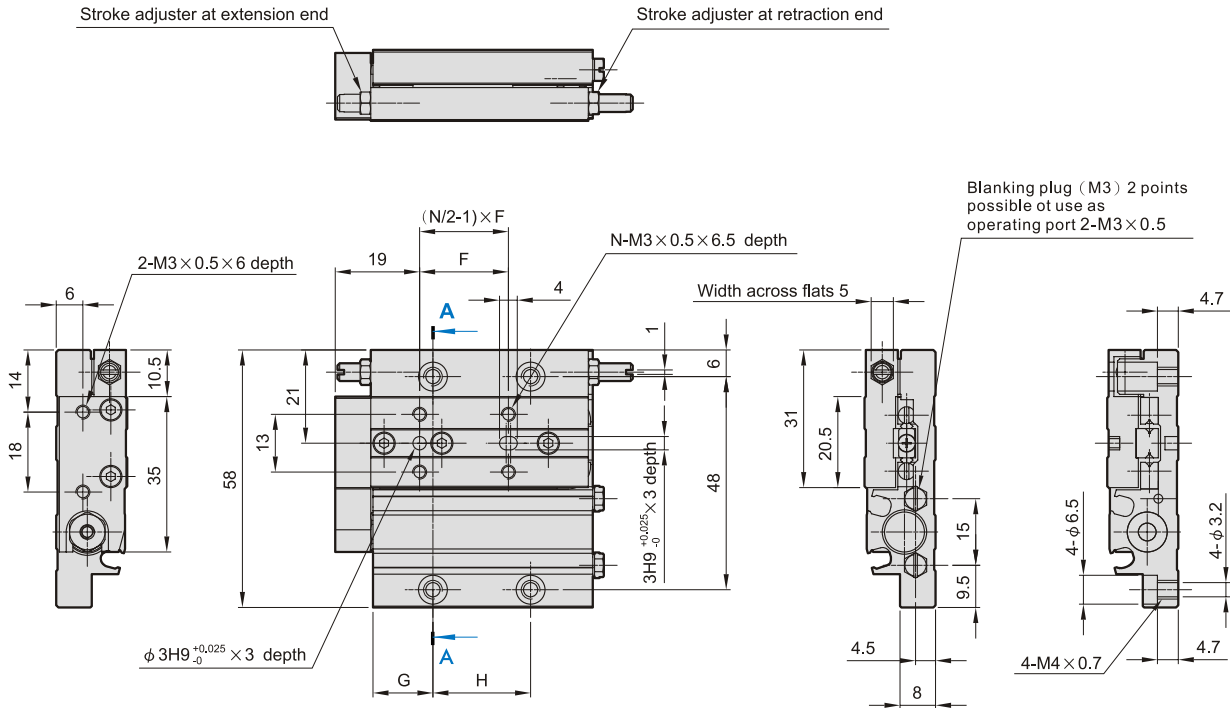
No.	Part name	Tube I.D.		Q'y	Repair kits (inclusion)
		8	12~20		
22	Bolt	Stainless steel		1	
23	Plug	Copper		2	
24	Plug gasket	POM		2	
25	Orifice	Stainless steel		2	
26	Nut	Copper/Stainless steel		2	
27	End cushion	PU		2	●
28	Plug	—	※2	1	
29	Ball	—	※2	1	
30	Adjuster bolt	Copper/Stainless steel		2	
31	Slide way	Bearing steel		1	
32	Bolt	Stainless steel		※3	
33	Bolt	Stainless steel		※3	
34	Bolt	Stainless steel		※3	

※1. Aluminum alloy ※2. Stainless steel
 ※3. Quantity varies depending on the stroke length.

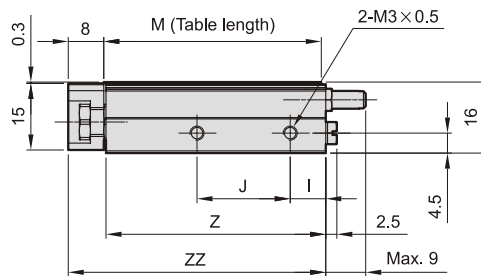
Order example of repair kits

Tube I.D.	Repair kits
$\phi 8$	PS-MCSF-8
$\phi 12$	PS-MCSF-12
$\phi 16$	PS-MCSF-16
$\phi 20$	PS-MCSF-20

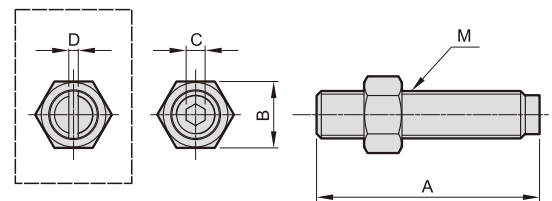
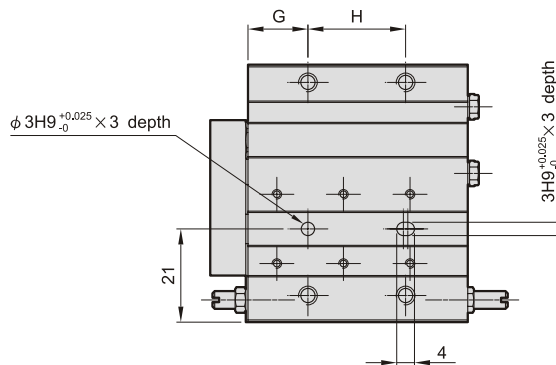
※ Item 14, Tube I.D. $\phi 8$ (Required quantity :2pcs) : Tube I.D. $\phi 12 \sim 20$ (Required quantity :1pcs)



A-A

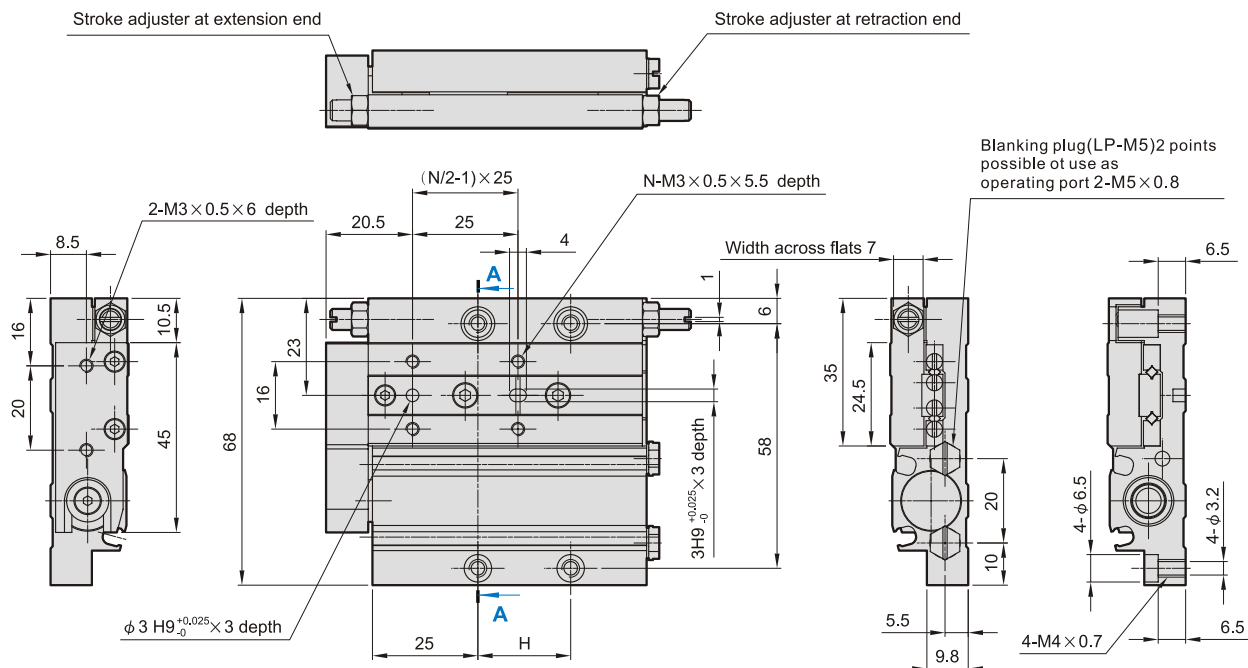


Stroke adjuster bolt $\phi 8 \sim \phi 20$

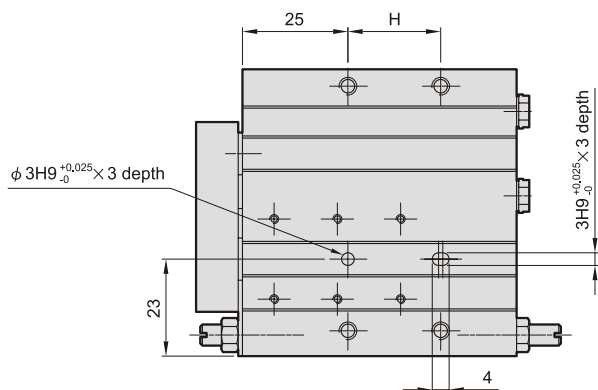
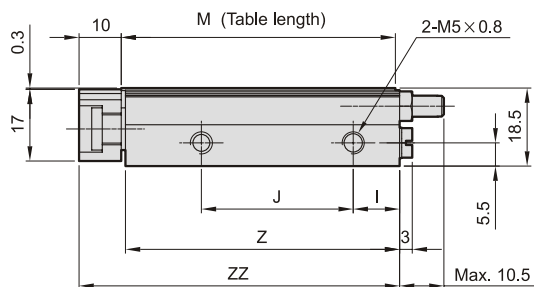


Code Stroke	F	G	H	I	J	M	N	Z	ZZ
10	20	13.5	22	8	21	49	4	49.5	58
20	26	14.5	26	6.5	28	54	4	54.5	63
30	26	14.5	40	8	41	69	6	69.5	78

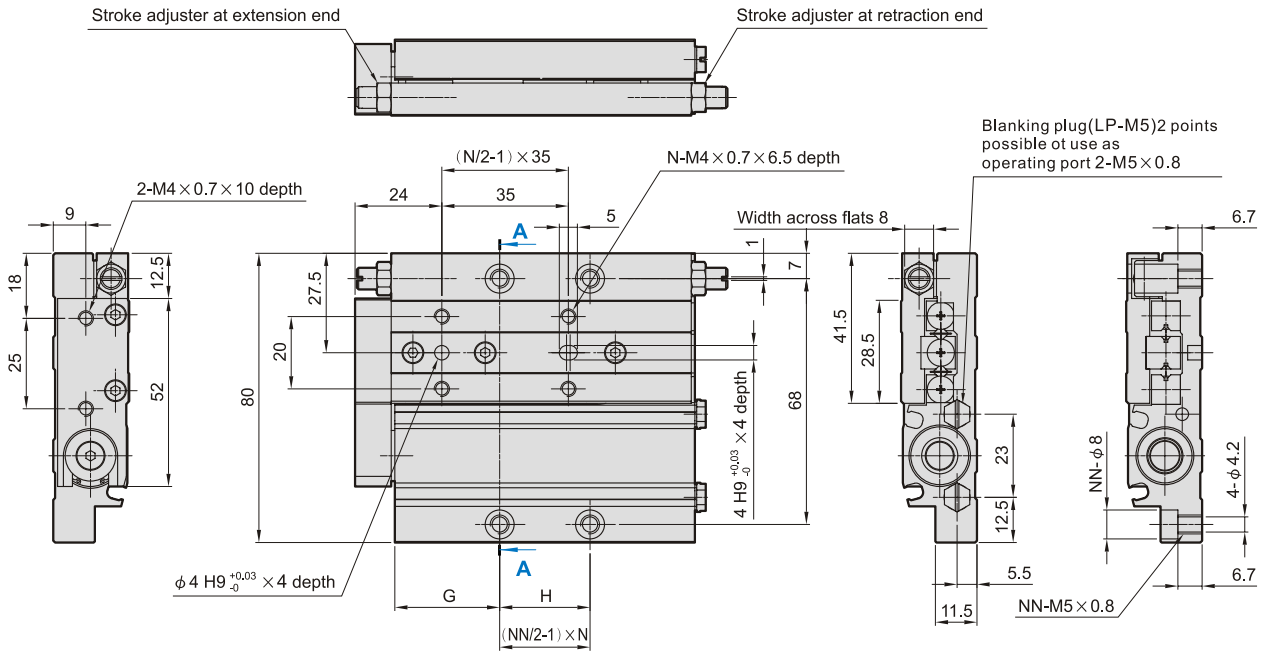
Tube I.D.	Order code	Adjustable stroke range (mm)	A	B	C	D	M
8	MCSF-8	5	17	5	—	1	M4×0.7
	MCSF-8-X11	15	27				
12	MCSF-12	5	23.5	7	—	1	M5×0.8
	MCSF-12-X11	15	33.5				
16	MCSF-16	5	26.5	8	3	—	M6×1
	MCSF-16-X11	15	36.5				
	MCSF-16-X12	25	46.5				
20	MCSF-20	5	30	11	4	—	M8×1
	MCSF-20-X11	15	40				
	MCSF-20-X12	25	50				



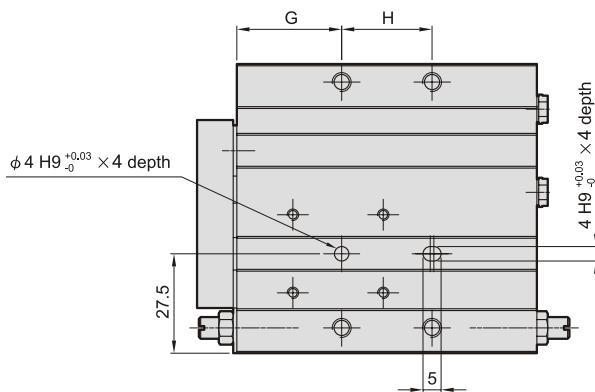
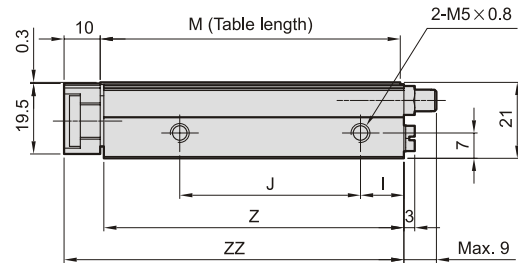
A-A



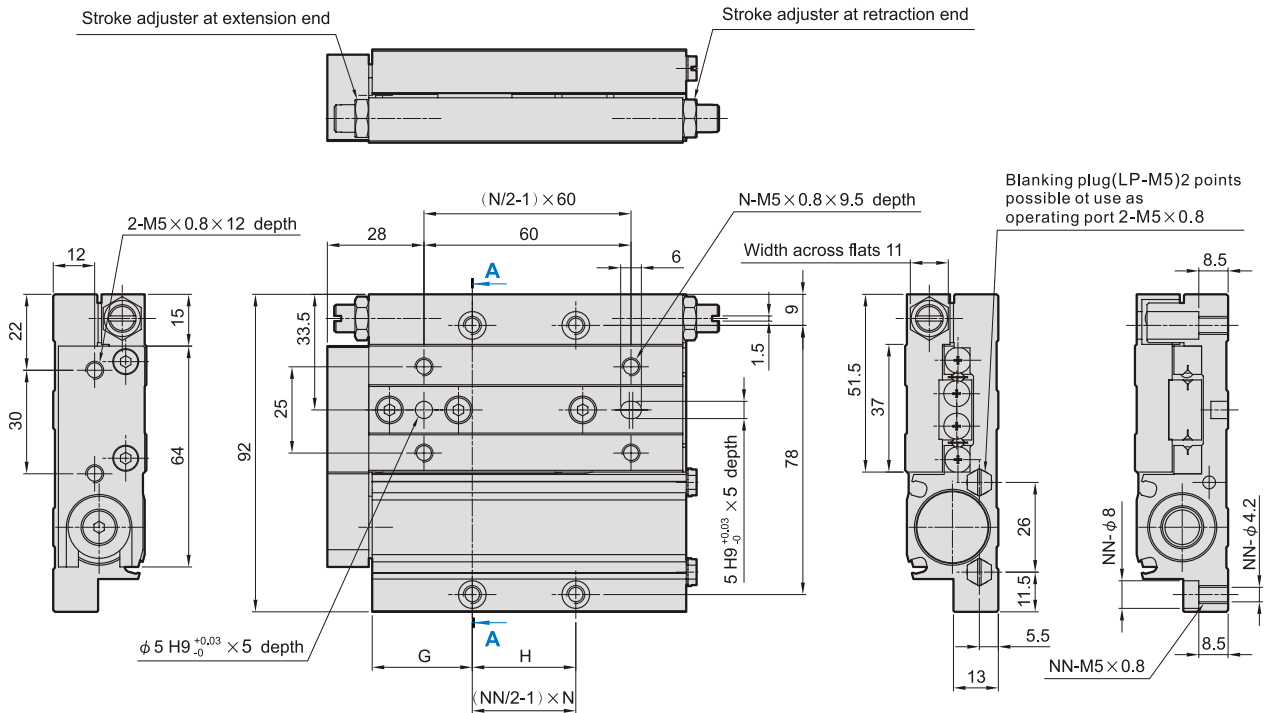
Code Stroke	H	I	J	M	N	Z	ZZ
20	22	11	36	65	4	65	76
30	30	12	45	75	4	75	86
50	65	13	80	111	6	111	122



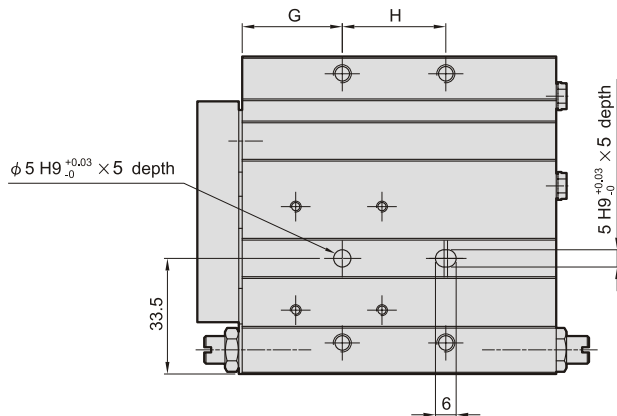
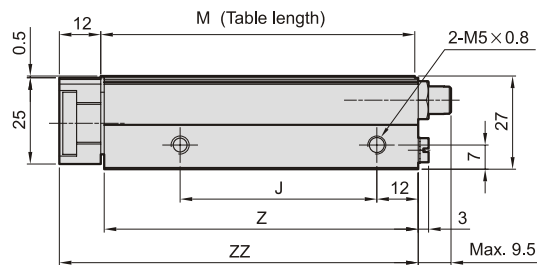
A-A



Code Stroke	G	H	J	M	N	NN	Z	ZZ
30	29	25	50	83	4	4	83	94
50	29	55	80	113	6	4	113	124
75	39	45	125	159	6	6	159	170



A-A



Code Stroke	G	H	J	M	N	NN	Z	ZZ
30	29	30	57	91	4	4	91	104
50	36	45	77	113	4	4	113	126
75	40	45	125	162	6	6	162	175
100	59	60	175	211	6	6	211	224