

MAL series Aluminum alloy cylinder



Reference models

MAL	CM	32×50 -	B	FA
Series code	Rear cover	Cylinder inner diameter x traveling distance	Magnet code	Fixed type:
MAL: standard repeated move	Nil: tail swing CM: Round tail U: Flat tail		Nil: without magnet S: with magnet	Nil: basic type FA: Front cover fixed type SDB: Rear cover fixed type LB: Foot bracket
MALD: double shaft repeated move				
MALJ: Double shaft adjustable repeated move				
MSA2: Pre-shrink				

Stroke of cylinder

Inner diameter (mm)	Standard Stroke (mm)										Maxi travelling distance (mm)	Permissible (limit) travelling distance (mm)			
	12	16	25	50	75	100	125	150	175	200			250	300	
16	25	50	75	100	125	150	175	200	250	300	500	800			
20	25	50	75	100	125	150	175	200	250	300	500	800			
25	25	50	75	100	125	150	175	200	250	300	350	400	500	800	1200
32	25	50	75	100	125	150	175	200	250	300	350	400	500	800	1200
40	25	50	75	100	125	150	175	200	250	300	350	400	500	1200	1500

Technical specifications

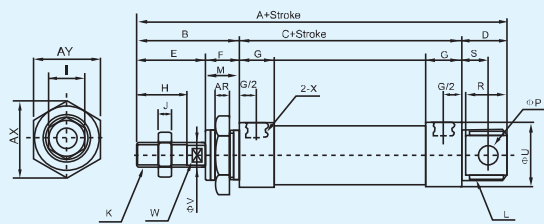
Inner diameter (mm)	16	20	25	32	40
Acting mode	Repeated move				
Working medium	Air (Cleaned by 40µm filter)				
Operating pressure	0.1~0.9Mpa(kgf/cm ²)				
Guaranteed withstand pressure	1.35Mpa(13.5kgf/cm ²)				
Working temperature	-5~70°C				
Buffering	Air buffering				
Port size	M5	1/8"			
Body material	Aluminum alloy				

Selection of sensor switch

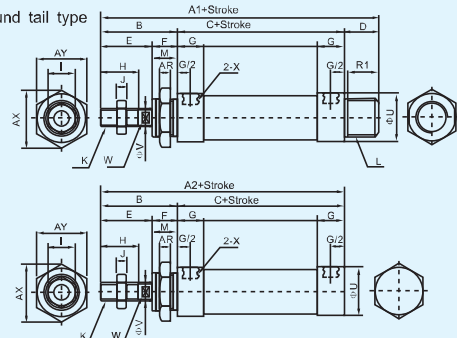
Inner diameter	16	20	25	32	40
	Mode				CS1-F
Sensor switch	CS1-F CS1-U				
Fixed base of sensor switch	MAL-16	MAL-20	MAL-25	MAL-32	MAL-40

Outline dimensions

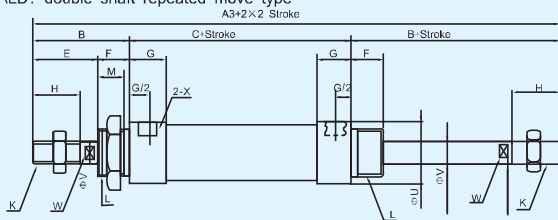
Tail swing type



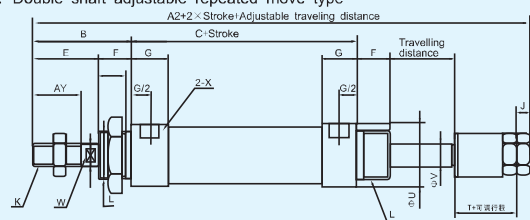
CM: Round tail type



MALD: double shaft repeated move type



MALJ: Double shaft adjustable repeated move type



Cylinder diameter (mm)	A	A1	A2	A3	A4	B	C	D	D1	E	F	G	H	I	J
16	107	108	92	131	137	40	51	16	16	24	16	10	16	10	5
20	131	122	110	150	147	40	70	21	12	28	12	16	20	12	5
25	135	128	114	158	154	44	70	21	14	30	14	16	22	17	6
32	141	128	114	158	154	44	70	21	14	30	14	16	22	17	6
40	143	130	116	162	160	46	70	27	14	32	14	16	24	19	7
50	170		134			64	70	36		42	22	16	32		

Cylinder diameter (mm)	K	L	M	φP	Q	R	S	U	V	X	AR	AX	AY
16	M6×1	M16×1.5	14	φ6	12	16	10	22	6	M5	6	25	22
20	M8×1.25	M22×1.5	10	φ8	16	19	12	30	10	RC1/8	7	33	29
25	M10×1.25	M22×1.5	12	φ8	16	19	12	34	12	RC1/8	7	33	29
32	M10×1.25	M24×2.0	12	φ10	16	25	15	39	12	RC1/8	8	37	32
40	M12×1.25	M30×2.0	12	φ12	20	25	15	49	16	RC1/8	9	47	41
50	M16×1.5	M36×2.0	20	φ16	20	35	21	55	20	RC1/8			

Note: for Stroke more than 300 for φ32 ~ φ40, the F part of the cylinder is 24mm, the F part for cylinder diameter φ20 ~ φ25 is 21mm, the length of A part added at same time.