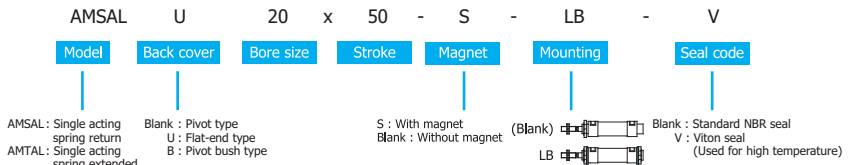


Pneumatic Equipment

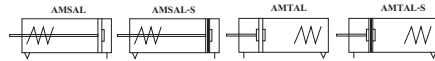
Aluminium Slim Cylinder (AMSAL AMTAL Series)



Ordering Code



Symbol



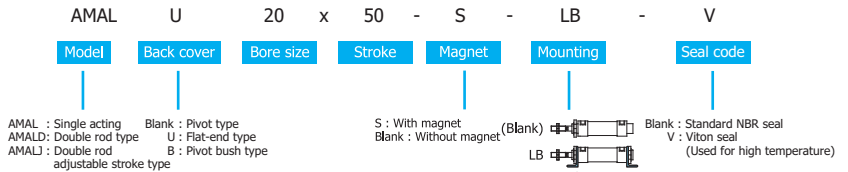
Specifications

Bore size	mm	20	25	32	40
Rod diameter	mm	8	10	12	16
Port size	inch	1/8	1/8	1/8	1/8
Standard stroke	mm	25~100	25~100	25~100	25~100
Maximum stroke	mm	100	100	100	100
Available stroke up	mm	150	150	150	150
Action type		Single acting			
Media		Air			
Pressure range	kgf/cm <sup>2</sup>	2.00 ~ 9.00			
Temperature range	°C	0 ~ 70 (Viton : 120)			
Speed range	mm/sec	30 ~ 800			
Magnet type		Without magnet (Blank) , With magnet (S)			
Back cover type		Pivot (Blank) , Flat end (U) , Pivot bush (B)			
Cushion type		Bumper			
Mounting type		Basic (Blank),Foot (LB),Flange(FA),Pivot (SDB)			
End rod type		I knuckle (I), Y knuckle (Y), Floating joint(FJ),Universal joint(EJ)			
Sensor switch type		Light in front (CS1-F),Light on top(CS1-U),Mini (CS1-S)			
Sensor switch holder		BL-20	BL-25	BL-32	BL-40
Additional variants		Stainless steel piston rod, female, extended, special thread piston rod			

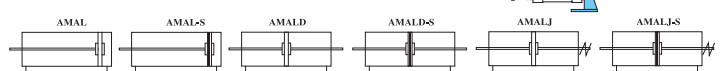
Aluminium Slim Cylinder (AMAL AMALD AMALJ Series)



Ordering Code



Symbol



Specifications

Bore size	mm	20	25	32	40
Rod diameter	mm	8	10	12	16
Port size	inch	1/8	1/8	1/8	1/4
AMAL standard stroke	mm	25~300	25~400	25~400	25~400
AMALD AMALJ standard stroke	mm	25~200	25~250	25~250	25~250
AMAL maximum stroke	mm	1500	1500	1500	1500
AMALD AMALJ maximum stroke	mm	200	250	250	250
AMAL available stroke up	mm	600	600	600	600
AMALD AMALJ available stroke up	mm	300	300	300	300
AMALJ adjusting stroke	mm	25,50,75			
Action type		Double acting			
Media		Air			
Pressure range	kgf/cm <sup>2</sup>	1.00~9.00			
Temperature range	°C	0 ~ 70 (Viton : 120)			
Speed range	mm/sec	30~800			
Magnet type		Without magnet (Blank) , With magnet (S)			
AMAL Back cover type		Pivot (Blank) , Flat end (U) , Pivot bush (B)			
Cushion type		Bumper			
AMAL mounting type		Basic (Blank),Foot (LB),Flange(FA),Pivot (SDB)			
AMALD AMALJ mounting type		Basic (Blank) , Foot (LB) , Flange (FA)			
End rod type		I knuckle (I), Y knuckle (Y), Floating joint(FJ),Universal joint(EJ)			
Sensor switch type		Light in front (CS1-F),Light on top(CS1-U), Mini (CS1-S)			
Sensor switch holder		BL-20	BL-25	BL-32	BL-40
Additional variants		Stainless steel piston rod, female, extended, special thread piston rod			

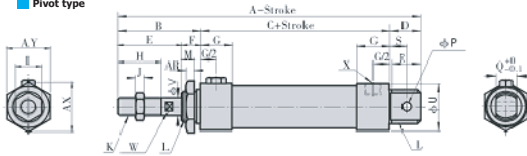
Other Available Series

Description	Ordering Code	Mounting type		
		LB	FA	SDB
Double rod type AMALD	AMALD - CA 20 x 50 - S - LB LB : Mounting type S : Magnet 50 : Stroke 20 : Bore size CA : Back cap type AMALD : Double rod type	●	●	×
Adjustable stroke type AMALJ	AMALJ - 20 x 50 - 30 S - LB LB : Mounting type S : Magnet 30 : Adjust stroke 50 : Stroke 20 : Bore size AMALJ : Adjustable stroke type	●	●	×

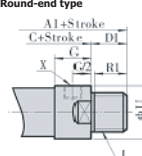
Dimensions

AMSAL

Pivot type



Round-end type



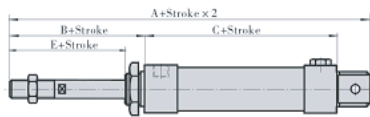
Flat-end type



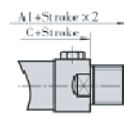
Item	A			A1			A2			B	C				D	D1	E	F	G	H	I	J	K	L	M	P	Q	R	R1	S	U	V	W	X	AR	AX	AY
	0-50	51-100	>100	0-50	51-100	>100	0-50	51-100	>100		0-50	51-100	>100																								
20	156	181	206	147	172	197	135	160	185	40	95	120	145	21	12	28	12	16	20	12	6	M8 x 1.25	M22 x 1.5	10	8	16	19	10	12	29	8	6	1/8"	7	33	29	
25	160	185	210	153	178	203	139	164	189	44	95	120	145	21	14	30	14	16	22	17	6	M10 x 1.25	M22 x 1.5	12	8	16	19	12	12	34	10	8	1/8"	7	33	29	
32	166	191	216	153	178	203	139	164	189	44	95	120	145	27	14	30	14	16	22	17	6	M10 x 1.25	M24 x 2.0	12	10	16	25	12	15	39.5	12	10	1/8"	8	37	32	
40	190	215	240	177	202	227	163	188	213	46	117	142	167	27	14	32	14	22	24	17	7	M12 x 1.25	M30 x 2.0	12	12	20	25	12	15	49.5	16	14	1/4"	9	47	41	

AMTAL

Pivot type



Round-end type



Flat-end type

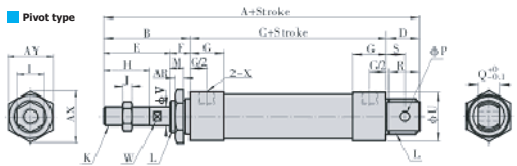


Item	A				A1				A2				C			
	0-25	26-50	51-75	76-100	0-25	26-50	51-75	76-100	0-25	26-50	51-75	76-100	0-25	26-50	51-75	76-100
20	146	156	171	181	137	147	162	172	125	135	150	160	85	95	110	120
25	150	160	175	185	143	153	168	178	129	139	154	164	85	95	110	120
32	156	166	186	196	143	153	173	183	129	139	159	169	85	95	115	125
40	180	190	210	220	167	177	197	207	153	163	183	193	107	117	137	147

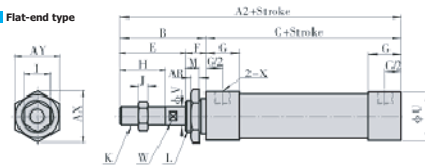
Item	A				A1				A2				C			
	0-25	26-50	51-75	76-100	0-25	26-50	51-75	76-100	0-25	26-50	51-75	76-100	0-25	26-50	51-75	76-100
20	146	156	171	181	137	147	162	172	125	135	150	160	85	95	110	120
25	150	160	175	185	143	153	168	178	129	139	154	164	85	95	110	120
32	156	166	186	196	143	153	173	183	129	139	159	169	85	95	115	125
40	180	190	210	220	167	177	197	207	153	163	183	193	107	117	137	147

AMAL

Pivot type



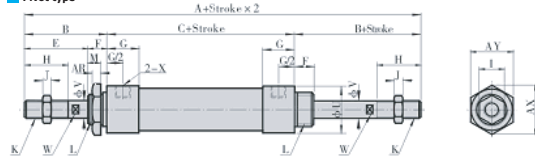
Flat-end type



Item	Bore size	A	A1	A2	B	C	D	D1	E	F	G	H	I	J	K	L	M	P	Q	R	R1	S	U	V	W	X	AR	AX	AY
		20	131	122	110	40	70	21	12	28	12	16	20	12	6	M8 x 1.25	M22 x 1.5	10	8	16	19	10	12	29	8	6	1/8"	7	33
25	135	128	114	44	70	21	14	30	14	16	22	17	6	M10 x 1.25	M22 x 1.5	12	8	16	19	12	12	34	10	8	1/8"	7	33	29	
32	141	128	114	44	70	27	14	30	14	16	22	17	6	M10 x 1.25	M24 x 2.0	12	10	16	25	12	15	39.5	12	10	1/8"	8	37	32	
40	165	152	138	46	92	27	14	32	14	22	24	17	7	M12 x 1.25	M30 x 2.0	12	12	20	25	12	15	49.5	16	14	1/4"	9	47	41	

AMALD

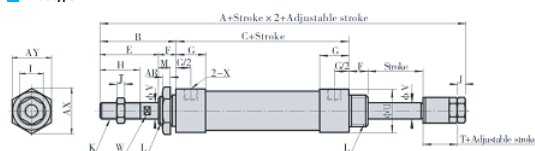
Pivot type



Item	Bore size	A	B	C	E	F	G	H	I	J	K	L	M	U	V	W	X	AR	AX	AY
		20	150	40	70	28	12	16	20	12	6	M8 x 1.25	M22 x 1.5	10	29	8	6	1/8"	7	33
25	158	44	70	30	14	16	22	17	6	M10 x 1.25	M22 x 1.5	12	34	10	8	1/8"	7	33	29	
32	158	44	70	30	14	16	22	17	6	M10 x 1.25	M24 x 2.0	12	39.5	12	10	1/8"	8	37	32	
40	184	46	92	32	14	22	24	17	7	M12 x 1.25	M30 x 2.0	12	49.5	16	14	1/4"	9	47	41	

AMALJ

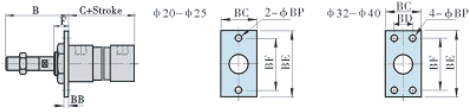
Pivot type



Item	Bore size	A	B	C	E	F	G	H	I	J	K	L	M	T	U	V	W	X	AR	AX	AY
		20	147	40	70	28	12	16	20	12	6	M8 x 1.25	M22 x 1.5	10	19	29	8	6	1/8"	7	33
25	155	44	70	30	14	16	22	17	6	M10 x 1.25	M22 x 1.5	12	21	34	10	8	1/8"	7	33	29	
32	155	44	70	30	14	16	22	17	6	M10 x 1.25	M24 x 2.0	12	21	39.5	12	10	1/8"	8	37	32	
40	180	46	92	32	14	22	24	17	7	M12 x 1.25	M30 x 2.0	12	21	49.5	16	14	1/4"	9	47	41	

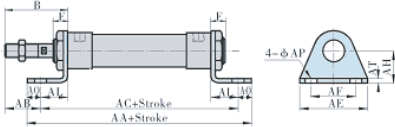
Pneumatic Equipment

FA



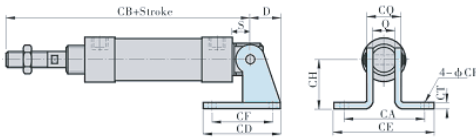
Item Bore size	B	C (M/A)	C (MISA)			BB	BC	BD	BE	BF	BP	F				
			0-50	51-100	101-150											
20	40	70	95	120	145	4	38	-	64	50	6.5	12				
25	44	70	95	120	145	4	38	-	64	50	6.5	14				
32	44	70	95	120	145	4	47	33	72	58	6.5	14				
40	46	92	117	142	167	4	50	36	84	70	6.5	14				

LB



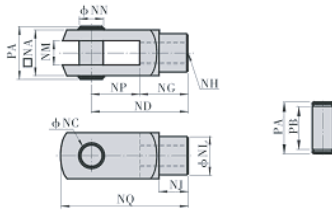
Item Bore size	B	F	AA (M/A)	AA (MISA)			AB	AC (M/A)	AC (MISA)			AE	AF	AL	AQ	AP	AT	AH
				0-50	51-100	101-150			0-50	51-100	101-150							
20	40	12	116	141	166	191	25	100	125	150	175	54	40	15	8	6.5	3	25
25	44	14	116	141	166	191	29	100	125	150	175	54	40	15	8	6.5	3	25
32	44	14	136	161	186	211	19	120	145	170	195	59	45	25	8	6.5	4	32
40	46	14	158	183	208	233	21	142	167	192	217	64	50	25	8	6.5	4.5	36

SDB



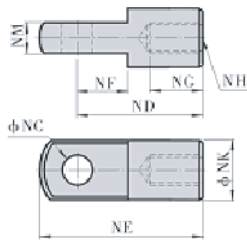
Item Bore size	D	S	Q	CA	CB (M/A)	CB (MISA)			CD	CE	CF	CH	CT	CP	CQ				
						0-50	51-100	101-150											
20	21	12	16	51	122	147	172	197	48	67	32	32	3	6.5	22				
25	21	12	16	51	126	151	176	201	48	67	32	32	3	6.5	22				
32	27	15	16	51	129	154	179	204	52	67	36	36	4	6.5	24				
40	27	15	20	55	153	178	203	228	56	71	40	40	4	6.5	28				

Y Knuckle



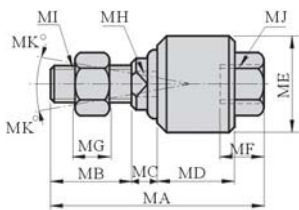
Item Bore size	NA	NC	ND	NE	NF	NG	NH	NJ	NK	NL	NM	NN	NP	NQ	PA	PB
25	19	10	40	52	15	20	M10 x 1.25	12	20	18	10	10	20	52	25	19.5
32	19	10	40	52	15	20	M10 x 1.25	12	20	18	10	10	20	52	25	19.5
40	25.4	10	45	57	15	25	M12 x 1.25	15	24	23	14	10	20	57	31	26

I Knuckle



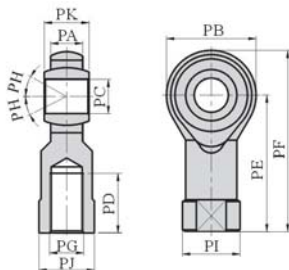
Item Bore size	NA	NC	ND	NE	NF	NG	NH	NJ	NK	NL	NM	NN	NP	NQ	PA	PB
25	19	10	40	52	15	20	M10 x 1.25	12	20	18	10	10	20	52	25	19.5
32	19	10	40	52	15	20	M10 x 1.25	12	20	18	10	10	20	52	25	19.5
40	25.4	10	45	57	15	25	M12 x 1.25	15	24	23	14	10	20	57	31	26

Floating Joint



Item Bore size	MA	MB	MC	MD	ME	MF	MG	MH	MI	MJ	MK				
												20	51	20	6
25	58	22	7	21	26	11.5	7	10	M10 x 1.25	M10 x 1.25	12				
32	58	22	7	21	26	11.5	7	10	M10 x 1.25	M10 x 1.25	12				
40	58	22	8	21	28	11.5	8	12	M12 x 1.25	M12 x 1.25	12				

Universal (Fish eye) Joint



Item Bore size	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK				
												20	9	24	8
25	11	26	10	20	43	56	M10 x 1.25	13	19	17	14				
32	11	26	10	20	43	56	M10 x 1.25	13	19	17	14				
40	12	32	12	24	50	66	M12 x 1.25	13	22	19	16				