AIR INDIA
PNEUMATICS

your automation partner

Pneumatics Cylinders

PRODUCT CATALOG

Company Profile

The mission of our company is to achieve and maintain the highest quality level in Indian Pneumatics. This quality you will find in our products like cycle time and high tech materials, but in AIR INDIA PNEUMATICS quality means also a smooth running organization, well organized logistics. We must understand our customers needs clearly and are never afraid to ask for more information. That is why our customers always come back and give us repeating orders.

- ☆ We have independent quality control department has the highest standard in quality control based on international standards.
- ☆ Our sales team has the highest level of communication and is trained in pneumatics every day.
- ☆ We have experienced technical engineers to support the sales team in the same office.
- ☆ This gives you, our customer, the highest quality level in Pneumatics.
- ☆ Our prices are at a very competitive level because all our products are manufactured inhouse.
- ☆ Air India produces or supplies a full range of pneumatic products including air preparation equipment (FRL), pneumatic cylinders, Polyurathene Pipe(PU pipe,air pipe) rotary actuators, solenoid valves, pneumatic valves, mechanical valves and more.
- ☆ We have well established manufacturing unit located in highly industrial area with all modern facility and precision machinery for production of zero error material.
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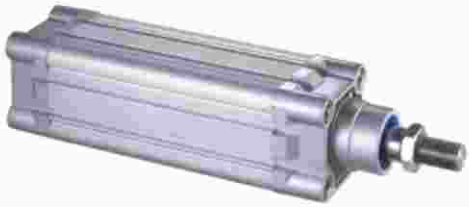
DNC Series ISO 15552 (previously ISO:6431)

DNC-50×100



DNC-63×100

Ordering Code

DNC — **63** × **50** — **25** — **S**

DNC:ISO6431
DNCD:ISO6431
DNCJ:ISO6431
Series Code
DNC:ISO6431 Standard
Double Action Type
DNCD:ISO6431 Standard Double-shaft
Double Action Type
DNCJ:ISO6431 Double-shaft
adjustable stroke type

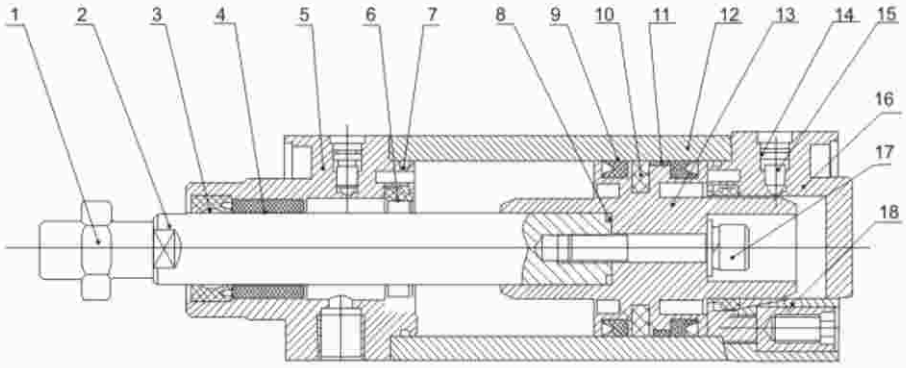
Cylinder Bore

Stroke

Adjustable Storke
25:25mm
50:50mm
75:75mm

S:
Magnet Code
Blank:Without Magnet
S:With Magnet

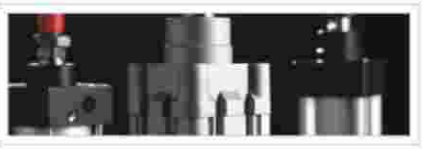
Internal Structure



Sr no	Designation	Sr no	Designation
1	Piston Rod Nut	2	Piston Rod
3	Front Cover Seal Ring	4	Oil Bearing
5	Front Cover	6	Cushion Seal
7	Cover O Ring	8	Piston Rod O Ring
9	Piston Seal	10	Magnetic (optional)
11	Wear Ring	12	Barrel
13	Piston	14	Cushion Seal
15	Cushion Niddle	16	Rear Cover
17	Hexagon Screw	18	Profile Bolt

Features

- Confirms To ISO:15552 (previously Iso:6431)
- Hard Anodized Aluminum Profile (square) Type Cylinder Barrel.
- Modern Design And Consistent Engineering
- Configuration With Or Without Magnet
- Double And Single Acting Available
- Wide Variety Of Seal Available (nbr, polyurathene ,Viton)
- Non Corrosive Stainless Steel And Hard Crome Piston Rod
- Extensive Range Of Accessories
- Lower Friction To Increase Service Life

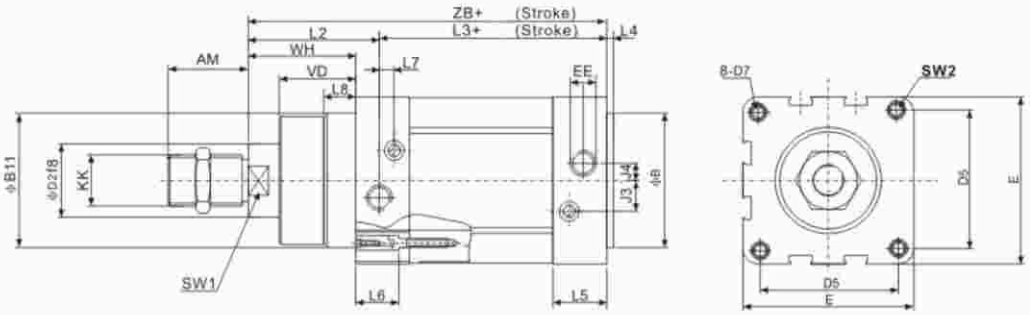


Specification

Bore (mm)	32	40	50	63	80	100
Motion Pattern	Double Action					
Working Medium	Filtered Air					
Guaranteed Pressure	1.5 MPA					
Max. Operating Pressure	1.0 MPA					
Min. Operating Pressure	0.1 MPA					
Buffer	Air Buffer (Standard)					
Condition Temperature	(-)5 to (+)70					
Operating Speed	50 - 800 mm/s					
Port Size	1/8"	1/4"	1/4"	3/8"	3/8"	1/2"

Dimension

DNC-S Normal Type

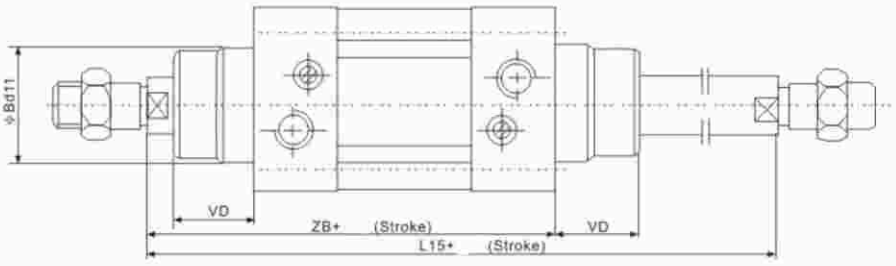


Dimension Sheet

內徑/Bore	AM	B	D2	D5	D7	E	EE(G)	J3	J4	KK	L2	L3	L4	L5	L6	L7	L8	SW1	SW2	VD	WH	ZB
32	22	30	12	32.5	M6	45	1/8	6	5.2	M10×1.25	41.6	62.8	4	26	16	3.3	10	10	6	16	26	120
40	24	35	16	38	M6	54	1/4	8	6	M12×1.25	44	77	4	29.6	16	3.6	10.5	13	6	20	30	135
50	32	40	20	46.5	M8	64	1/4	10	8.5	M16×1.5	51	78	4	30	17	5.1	11.5	17	8	27	37	143
63	32	45	20	56.5	M8	75	3/8	12.4	10	M16×1.5	54	87	4	35.6	17	6.6	15	17	8	27	37	158
80	40	45	25	72	M10	93	3/8	12.5	8	M20×1.5	62.4	95.2	4	35.9	17	10.5	15.7	22	10	34.7	46	174
100	40	55	25	89	M10	110	1/2	11.8	10	M20×1.5	69.8	100.4	4	39	17	8	19.2	22	10	38.2	51	189

Dimension (mm)

DNC-D-S Double Piston Rod Type



Dimension Sheet

Bore	32	40	50	63	80	100
B	30	35	40	45	45	55
L15	46	165	180	195	220	240
VD	16	20	27	27	34.7	38.2
ZB	120	135	143	158	174	189

SI Series ISO 6431 Standard Cylinder

SI50×100-S

SIJ50×100

SID50×100

Ordering Code

SI — **50** × **50** — **25** — **S** — **LB**

Series Code
SI : ISO 6431 Standard
Double Action Type
SIO: ISO 6431 Standard Double Shaft
Double Action Type
SIJ : ISO 6431 Double Shaft
Adjustable Stroke Type

Cylinder Bore

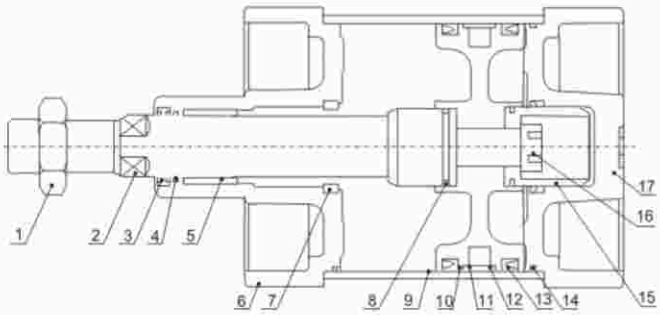
Stroke

Adjustable Stroke
25 : 25 mm
50 : 50 mm

S - Magnet Code
Blank - Without Magnet
S - With Magnet

Fixed Type
BLANK - Normal Type
LB Front and Back Fixed Type
FA Front Cover Fixed Type(front flange type)
FB Back Cover Fixe Type (rear flange type)
CA Back Cover Fixed Type (single Earing)
CB Back Cover Fixed Type (double earring)
TC Central Swinging Type
SDB Back Cover Fixed Type

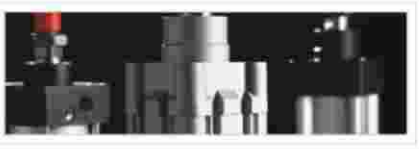
Internal Structure



Sr no	Designation	Sr no	Designation
1	Piston Rod Nut	10	Piston
2	Piston Rod	11	Wearing
3	Front Cover Seal Ring	12	Magnet (optional)
4	O Ring	13	Piston O Ring
5	Oil Bearing	14	Cover O Ring
6	Front Cover	15	Damping
7	Buffering O Ring	16	Hexagon Screw
8	Piston Rod O Ring	17	Rear Cover
9	Barrel		

Features

- Cylinder manufactured by ISO 6431 Standard Cylinder
- Robust in construction , tie-rod design
- Configuration with or without magnet
- Adjustable cushioning for smooth functioning
- Single and double acting version
- Extensive range of mounting accessories
- Lower fiction for longer service life
- Standard 5 microne hard crome plated rod



Specification

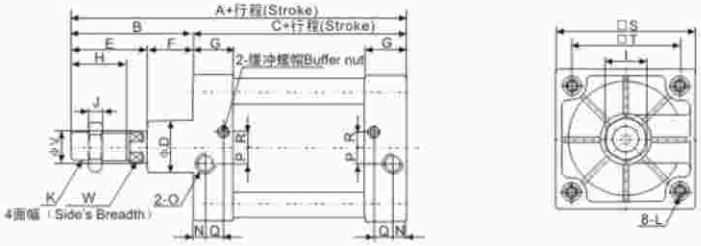
Bore (mm)	32	40	50	63	80	100	63	80	100
Motion Pattern	Double Action								
Working Medium	Filtered Air								
Fixed Type	Normal type FA type FB type CA type CB type LB type TC type								
Working Pressure Range	0.1 - 0.9 MPA								
Ensured Pressure Resistance	1.35 MPA								
Operating Temperature Range	(-)5 to (+)70								
Operating Speed Range	50 - 800 mm/s								
Buffer Type	Adjustable Buffer								
Buffer Stroke	24						32		
Port Size	1/8"	1/4"	1/4"	3/8"	3/8"	1/2"	3/8"	3/8"	1/2"

Stroke

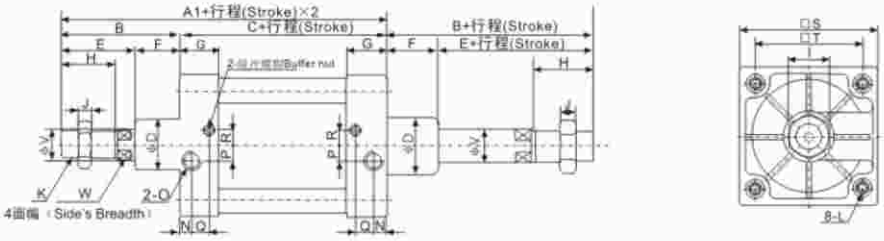
Bore(mm)	Standard Stroke	Max.Stroke	Permissible Stroke
32	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500	1000	2000
40	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800	1200	2000
50	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	2000
63	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
80	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
100	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
125	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

Main Dimensions (mm)

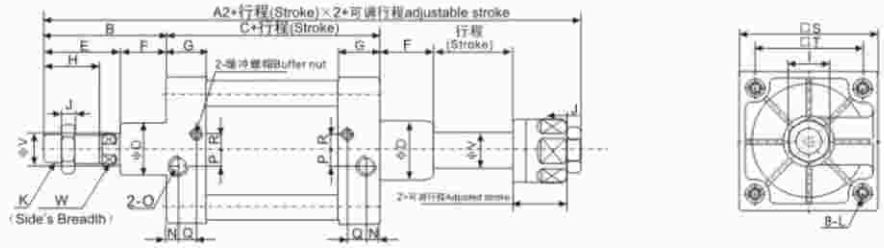
SI Series



SID Series



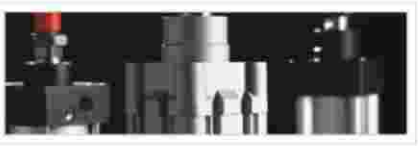
SIJ Series



Dimension Sheet

Bore/Symbol	A	A1	A2	B	C	D	E	F	G	H	I	J	K	L
32	142	190	187	48	94	30	28	20	27.5	22	17	6	M10×1.25	M6
40	159	213	207	54	105	35	32	22	29	24	19	7	M12×1.25	M6
50	175	244	233	69	106	40	42	27	30	32	24	8	M16×1.5	M8
63	190	259	250	69	120	45	40	29	31	32	24	8	M16×1.5	M8
80	214	300	286	86	128	45	53	33	35	40	30	10	M20×1.5	M10
100	229	320	308	91	138	55	55	36	36	40	30	10	M20×1.5	M10
125	279	398	372.5	119	160	60	74	45	46	54	41	13.5	M27×2	M12
160	332	484	448	152	180	65	94	58	50	72	55	18	M36×2	M16
200	337	514	472	157	180	75	100	57	50	72	55	18	M36×2	M16

Bore/Symbol	N	O	P	Q	R	S	T	V	W	Z
32	13.5	G1/8"	4	7.5	7	47	32.5	12	10	21
40	16	G1/4"	6	8.5	9	53	38	16	13	21
50	15.5	G1/4"	8.5	7.5	7.5	65	46.5	20	17	23
63	16.5	G3/8"	7.5	8.5	9	75	56.5	20	17	23
80	16.5	G3/8"	11	8.5	13.5	95	72	25	22	29
100	18.5	G1/2"	13.5	9.5	14.5	115	89	25	22	29
125	23	G1/2"	14	12	14	140	110	32	27	35
160	25	G3/4"	15	12	20	180	140	40	36	40
200	25	G3/4"	15	12	20	220	175	40	36	40



SC/SU Series Standard Cylinder

SC-50×100-S

SC-100×130

SCJ-50×100-25

Ordering Code

SC — **50** × **50** — **25** — **S** — **LB**

SC — Type
SC - Standard Double Action (Tie Rod Type)
SCD Double Shaft Double Action (Tie Rod Type)
SCJ Double Shaft Double Action
adjustable Type (Tie Rod Type)
SU - Standard Double Action
(With Out Tie Rod Type)

50 — Cylindr Bore

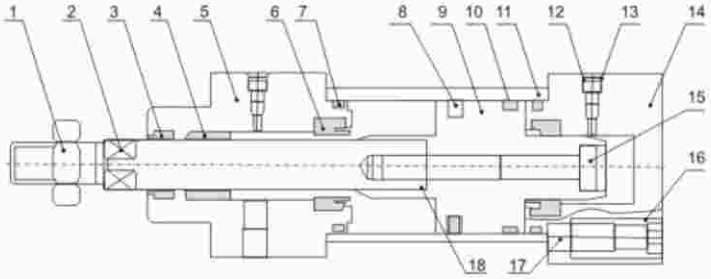
50 — Stroke

25 — Adjustable Stroke
25 : 25 mm
50 : 50 mm
75 : 75 mm

S — S Magnet Code
Blank - With Out Magnet
S - With Magnet

LB — Fixed Type
BLANK - Normal Type
LB Front and Back Fixed Type
FA Front Cover Fixed Type(front flange type)
FB Back Cover Fixe Type (rear flange type)
CA Back Cover Fixed Type (single Earing)
CB Back Cover Fixed Type (double earring)
TC Central Swinging Type
TC - M Central Swinging Type Attaching foot Seal

Internal Structure

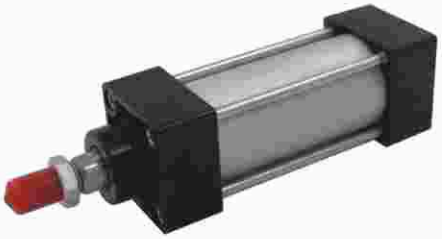


Sr no	Designation	Sr no	Designation
1	Piston Rod Nut	10	Wear Ring
2	Piston Rod	11	Barrel
3	Front Cover Seal Ring	12	Buffer Seal Ring
4	Oil Bearing	13	Damping Adjustable Screw
5	Front Cover	14	Back Cover
6	Buffering O Ring	15	Hexagon Screw
7	Cover O Ring	16	Tie Rod Nut
8	Piston O Ring	17	Tie Rod
9	Piston	18	Piston Rod Seal

Features

- Cylinder manufactured by International Standards
- Robust in construction , tie-rod design
- Configuration with or without magnet
- Adjustable cushioning for smooth functioning
- Single and double acting version
- Extensive range of mounting accessories
- Lower fiction for longer service life
- Standard 5 microne hard crome plated rod

SC/SU Series Standard Cylinder

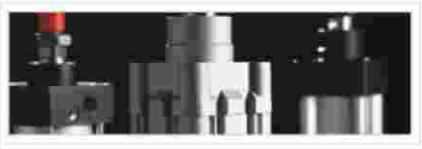


Specification

Bore (mm)	32	40	50	63	80	100	63	80	100
Motion Pattern	Double Action								
Working Medium	Filtered Air								
Fixed Type	Normal type FA type FB type CA type CB type LB type TC type								
Working Pressure Range	0.1 - 0.9 MPA								
Ensured Pressure Resistance	1.35 MPA								
Operating Temperature Range	(-)5 to (+)70								
Operating Speed Range	50 - 800 mm/s								
Buffer Type	Adjustable Buffer								
Buffer Stroke	24						32		
Port Size	1/8"	1/4"	1/4"	3/8"	3/8"	1/2"	3/8"	3/8"	1/2"

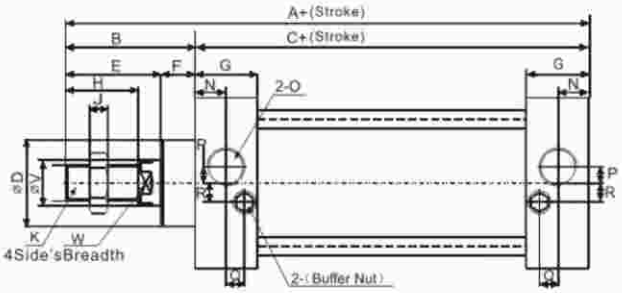
Stroke

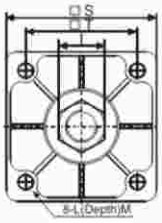
Bore(mm)	Standard Stroke	Max.Stroke	Permissible Stroke
32	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500	1000	2000
40	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800	1200	2000
50	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	2000
63	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
80	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
100	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
125	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000



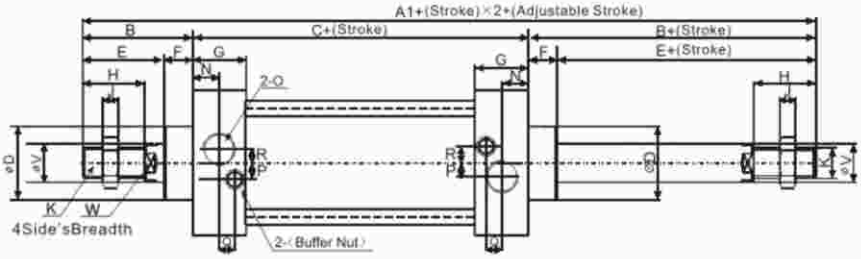
Main Dimensions (mm)

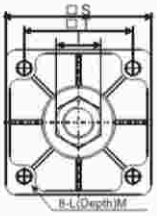
ϕ32~ϕ200



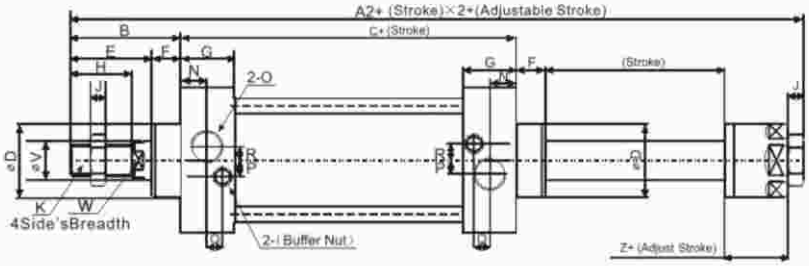


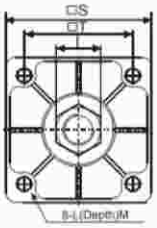
ϕ32~ϕ200





ϕ32~ϕ200





Dimension Sheet

Bore/Symbol	A	A1	A2	B	C	D	E	F	G	H	I	J	K
32	140	187	182	47	93	28	32	15	27.5	22	17	6	M10×1.25
40	142	191	185	49	93	32	34	15	27.5	24	17	7	M12×1.25
50	150	207	196	57	93	38	42	15	27.5	32	23	8	M16×1.5
63	153	210	199	57	96	38	42	15	27.5	32	23	8	M16×1.5
80	183	258	243	75	108	47	54	21	33	40	26	10	M20×1.5
100	183	243	243	75	108	47	54	21	33	40	26	10	M20×1.5
125	226	330	363	104	122	55	70	34	33	54	40	10	M27×2
160	291	412	450	123	168	62	91	32	48	72	55	18	M36×2
200(Lron)	347	409	451	167	180	80	112	55	48	72	55	18	M36×2

Bore/Symbol	L	M	N	O	P	Q	R	S	T	V	W	Z
32	M6×1	9.5	13.7	G1/8"	3.5	7.5	7	45	33	12	12	21
40	M6×1	9.5	13.5	G1/4"	6	8.2	9	50	37	16	14	21
50	M6×1	9.5	13.5	G1/4"	8.5	8.2	9	62	47	20	17	23
63	M8×1.25	9.5	13.5	G3/8"	7	8.2	8.5	75	56	20	17	23
80	M10×1.5	11.5	16.5	G3/8"	10	9.5	14	94	70	25	22	29
100	M10×1.5	11.5	16.5	G1/2"	11	9.5	14	112	84	25	22	29
125	M12×1.75	15.5	16.5	G1/2"	/	/	/	140	110	32	27	33
160	M16×2	17.5	25	G1/2"	/	/	/	180	140	40	36	38
200	M16×2	17.5	25	G3/4"	/	/	/	220	175	40	36	42

Ma6436 Series Stainless Steel Mini Cylinder

MA 16×75

MA 20×100

Ordering Code

MA — **CA** **50** × **50** — **25** — **S** — **LB**

MA: Double Action Type
MSA : Single Extrusion Type
MAD : Double Shaft Double Action
MACD : Double Shaft Double Action Type
MAC : With Cushion Type
MAJ : Double-shaft and Adjustable Stroke Type

Back Cover Type
CA : Swivering Tail
CM : Round Tail
U : Flat Tail

Cylinder bore

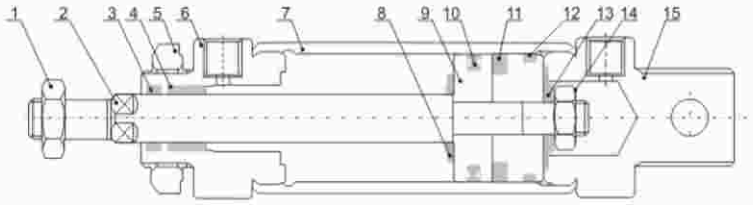
Stroke

Adjustable stroke type
0-100mm

Magnet code
Blank without magnet
S with magnet

Fixed type
Blank Normal type
LB Front and back fixed type
FA front cover fixed type
SDB Back cover swinging type
U Back cover fixed type

Internal Structure



Sr no	Designation	Sr no	Designation
1	Piston Rod Nut	2	Piston Rod
3	Front Cover Seal Ring	4	Oil Bearing
5	Front Cover Nut	6	Front Cover
7	Stainless Steel Tube	8	Anti Crash Cushion
9	Piston	10	Piston O Ring
11	Magnet (optional)	12	Wear Ring
13	Seal Cushion	14	Hexagon Screw
15	Back Cover		

Specification

Bore (mm)	16	20	25	32	40
Motion Pattern	Double Action Or Single Action				
Working Medium	Filtered Air				
Fixed Type	Normal Type / LB / FA / SDB / U				
Operating Voltage Range	0.1 to 0.9 Mpa				
Ensured Pressure Resistance	1.35 Mpa				
Operating Temperatrure Range	5 to 70 c				
Operating Speed Range	50 to 800 mm/s				
Port Size	M5x0.8	1/8"	1/8"	1/8"	1/8"

Features

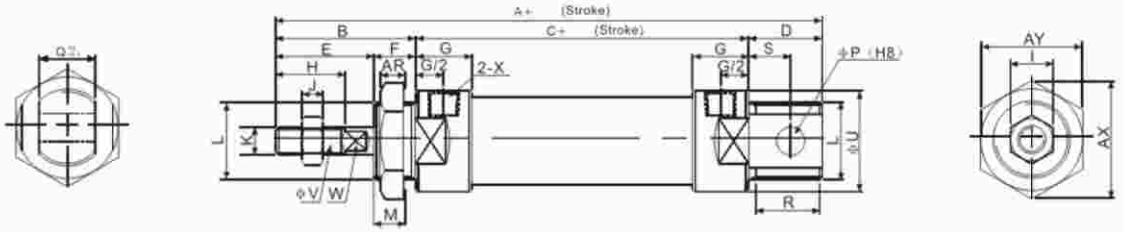
- Confirms to ISO : 6432 Standards
- Elastomer cushioning at both sides
- Sooth Running Performance Long established Design
- Fixed and adjustable cushioning version available
- Front cap , end cap and barrel are crimped together
- Robust structure with inbuilt magnet
- Single and Double acting configuration
- Anti corrosive Stainless body
- Standard 5 microne hard crome plated rod

Stroke

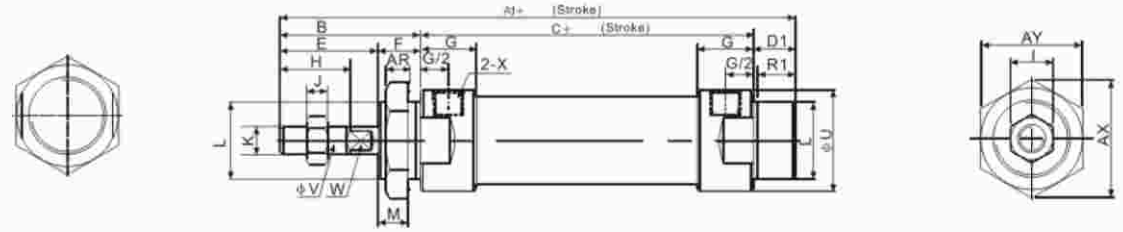
Bore(mm)	Standard Stroke	Max.Stroke	Permissible Stroke
16	25 50 75 80 100 125 160 175 200	300	500
20	25 50 75 80 100 125 160 175 200 250 300	500	650
25	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500	500	650
32	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500	500	650
40	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500	500	650

Main Dimensions (mm)

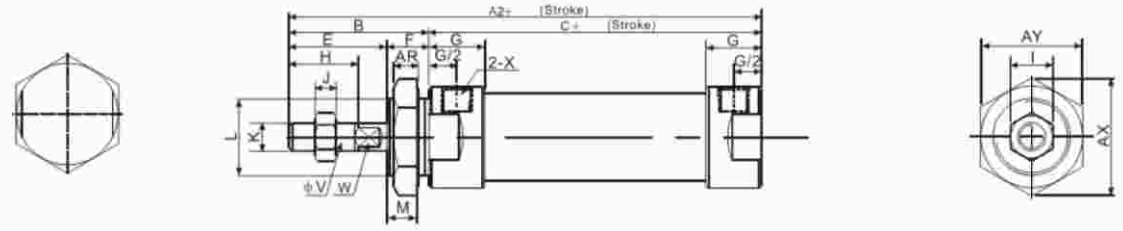
CA



MA-CM



MA-U



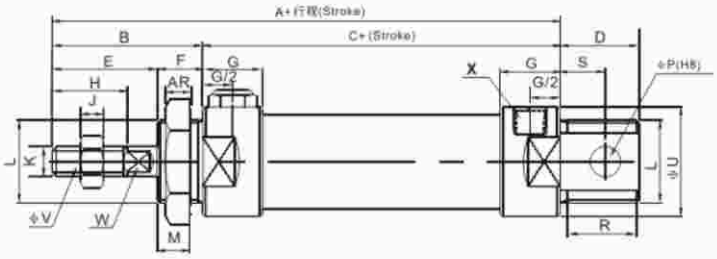
Dimension Sheet

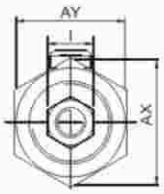
Bore/Symbol	A	A1	A2	B	C	D	D1	E	F	G	H	I	J	K
16	114	114	98	38	60	16	16	22	16	10	16	10	5	M6×1
20	137	128	116	40	76	21	12	28	12	16	20	12	6	M8×1.25
25	141	134	120	44	76	21	14	30	14	16	22	17	6	M10×1.25
32	147	134	120	44	76	27	14	30	14	16	22	17	6	M10×1.25
40	149	136	122	46	76	27	14	32	14	16.7	24	17	7	M12×1.25

Bore/Symbol	L	M	P	Q	R	R1	S	U	V	W	X	AR	AX	AY
16	M16×1.5	14	6	12	14	14	9	21	6	5	M5	6	24	27.5
20	M22×1.5	10	8	16	19	10	12	27	8	6	G1/8"	7	33	29
25	M22×1.5	12	8	16	19	14	12	30	10	8	G1/8"	7	33	29
32	M24×2.0	12	10	16	25	14	15	35	12	10	G1/8"	8	37	32
40	M30×2.0	12	12	20	25	14	15	41.6	16	14	G1/8"	9	47	41

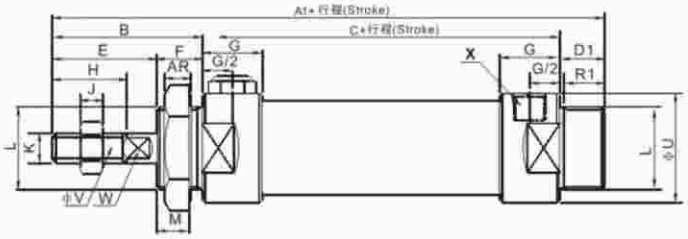
MA Series Stainless Steel Mini Cylinder

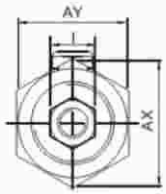
MSA



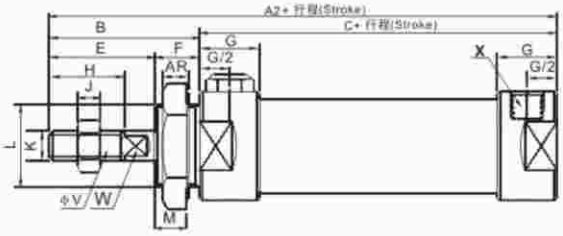


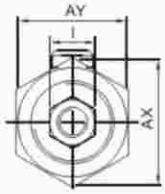
MSA-CM





MSA-U





MA Series Stainless Steel Mini Cylinder

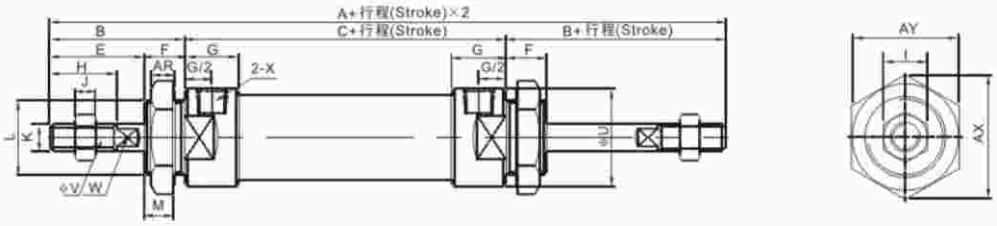
Dimension Sheet

Symbol	A		A1		A2		B	C		D	D1	E	F	G	H	I	J
Bore/Stroke	0-50	51-100	0-50	51-100	0-50	51-100		0-50	51-100								
16	114	139	128	153	98	123	38	60	85	16	16	22	16	10	16	10	5
20	137	162	134	159	116	141	40	76	101	21	12	28	12	16	20	12	6
25	141	166	134	159	120	145	44	76	101	21	14	30	14	16	22	17	6
32	147	172	136	161	120	145	44	76	101	27	14	30	14	16	22	17	6
40	149	174	122	144	122	147	46	76	101	27	14	32	14	22	24	17	7

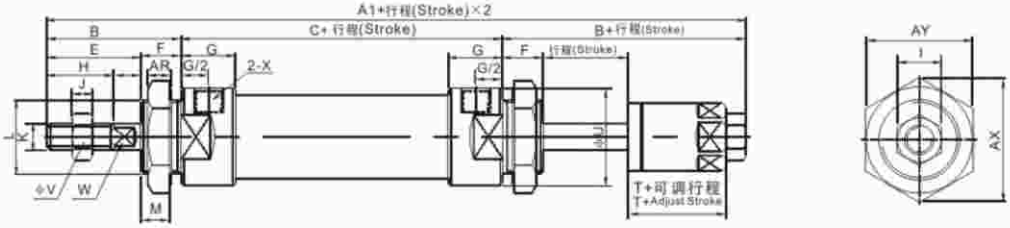
Inside Diameter/Symbol	K	L	M	P	Q	R	R1	S	U	V	W	X	AR	AX	AY
16	M6×1	M16×1.5	14	6	12	14	14	9	21	6	5	M5	6	25	22
20	M8×1.25	M22×1.5	10	8	16	19	10	12	27	8	6	G1/8"	7	33	29
25	M10×1.25	M22×1.5	12	8	16	19	12	12	30	10	8	G1/8"	7	33	29
32	M10×1.25	M24×2.0	12	10	16	25	12	15	35	12	10	G1/8"	8	37	32
40	M12×1.25	M30×2.0	12	12	20	25	12	15	41.6	16	14	G1/8"	9	47	41

Main Dimensions (mm)

MAD



MAJ



Dimension Sheet

Inside Diameter/Symbol	A	A1	B	C	E	F	G	H	I	J	K
16	136	135	38	60	22	16	10	16	10	5	M6×1
20	156	153	40	70	28	12	16	20	12	6	M8×1.25
25	164	161	44	70	30	14	16	22	17	6	M10×1.25
32	164	161	44	70	30	14	16	22	17	6	M10×1.25
40	168	164	46	92	32	14	22	14	17	7	M12×1.25

Inside Diameter/Symbol	L	M	U	V	W	X	AR	AX	AY	T
16	M16×1.5	14	21	6	5	M5	6	25	22	16
20	M22×1.5	10	29	9	6	G1/8"	7	33	29	19
25	M22×1.5	12	34	10	8	G1/8"	7	33	29	21
32	M24×1.5	12	39.5	12	10	G1/8"	8	37	32	21
40	M30×2.0	12	49.5	16	12	G1/8"	9	47	41	21

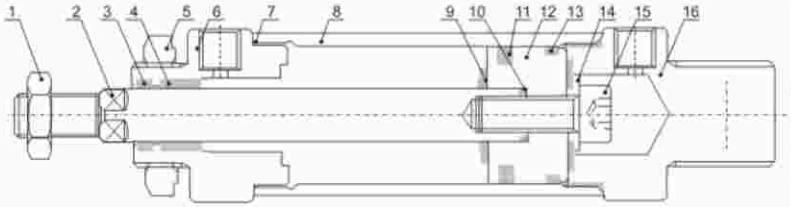
MAL Series Aluminum Alloy Mini Cylinder

Ordering Code

MAL — □ 20 × 50 — 25 S — LB

- MAL: Double Action Type
  MSAL : Single Extrusion Type
  MALD : Double Shaft Double Action
  MALC : With Cushion Type
  MALJ : Double shaft Adjustable Stroke Type
- Back Cover Type
  CA : Swivering Tail
  CM : Round Tail
  U : Flat Tail
- Cylinder bore
- stroke
- Adjustable stroke type
  0-100mm
- Magnet code
  Blank without magnet
  S with magnet
- Fixed type
  Blank Normal type
  LB Front and back fixed type
  FA front cover fixed type
  SDB Back cover swinging type
  U Back cover fixed type

Internal Structure



Sr no	Designation	Sr no	Designation
1	Piston Rod Nut	2	Piston Rod
3	Front Cover Seal Ring	4	Oil Bearing
5	Front Cover Nut	6	Front Cover
7	Cover O Ring	8	Alluminium Tube
9	Anti Crash Cushion	10	Piston Rod O Ring
11	Piston O Ring	12	Piston
13	Wear Ring	14	Seal Cushion
15	Hexagon Screw	16	Back Cover

Specification

Bore (mm)	16	20	25	32	40
Motion Pattern	Double Action Or Single Action				
Working Medium	Filtered Air				
Fixed Type	Normal Type / LB / FA / SDB / U				
Operating Voltage Range	0.1 to 0.9 Mpa				
Ensured Pressure Resistance	1.35 Mpa				
Operating Temperatrure Range	5 to 70 c				
Operating Speed Range	50 to 800 mm/s				
Port Size	M5x0.8	1/8"	1/8"	1/8"	1/4"

Features

- Cylinder manufactured according to International Standards
- Compact shape and wear resistant
- Low fiction for longer service life
- Available in magnetic and non magnetic version
- Elastomer Cushioning at both ends
- Standard 5 microne hard crome plated rod

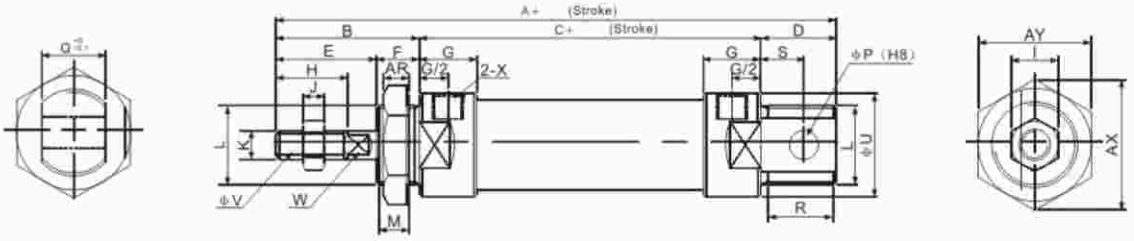
MAL Series Aluminum Alloy Mini Cylinder

Stroke

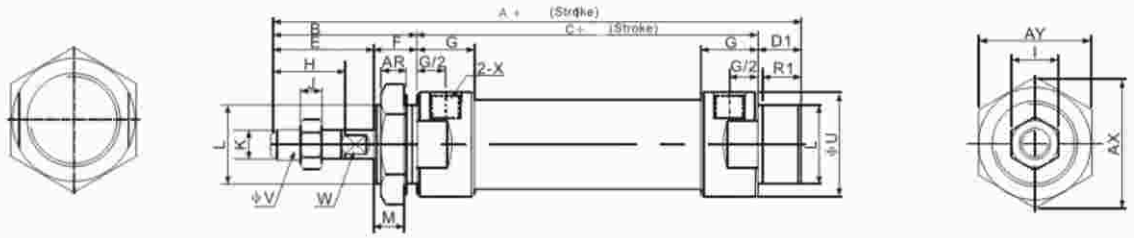
Bore(mm)	Standard Stroke	Max Stroke	Permissible Stroke
16	25 50 75 80 100 125 160 175 200	300	500
20	25 50 75 80 100 125 160 175 200 250 300	500	650
25	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500	500	650
32	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500	500	650
40	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500	500	650

Overall Dimensions (mm)

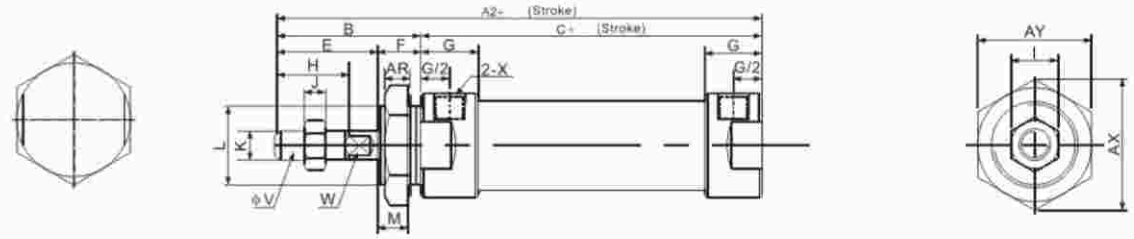
MAL-CA



MAL-CM



MAL-U



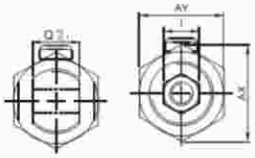
Dimension Sheet

Bore/Symbol	A	A1	A2	B	C	D	D1	E	F	G	H	I	J	K
16	114	114	98	38	60	16	16	22	14	11	16	10	5	M6×1
20	131	122	110	40	70	21	12	28	12	16	20	12	6	M8×1.25
25	135	128	114	44	70	21	14	30	14	16	22	17	6	M10×1.25
32	141	128	114	44	70	27	14	30	14	16	22	17	6	M10×1.25
40	165	152	138	45	92	27	14	32	14	22	24	17	7	M12×1.25

Bore/Symbol	L	M	P	Q	R	R1	S	U	V	W	X	AR	AX	AY
16	M16×1.5	8	6	12	14	13	9	21	6	5	M5	6	25	22
20	M22×1.5	10	8	16	19	12	12	29	8	6	G1/8"	7	33	29
25	M22×1.5	12	8	16	19	14	12	34	10	8	G1/8"	7	33	29
32	M24×2.0	12	10	16	25	14	15	39.5	12	10	G1/8"	8	37	32
40	M30×2.0	12	12	20	25	14	15	49.5	16	14	G1/4"	9	37	41

MAL Series Aluminum Alloy Mini Cylinder

MSAL-CA



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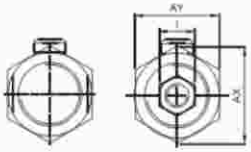

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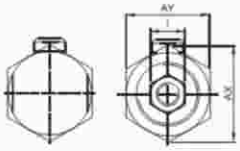
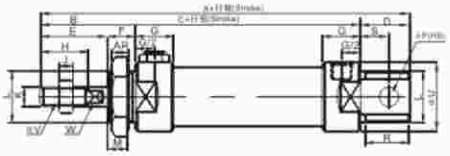
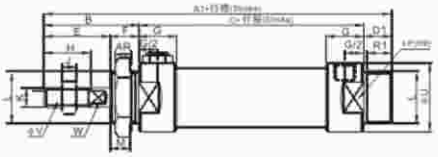
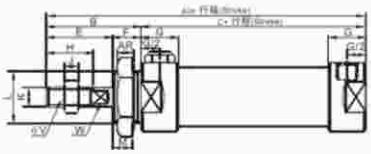








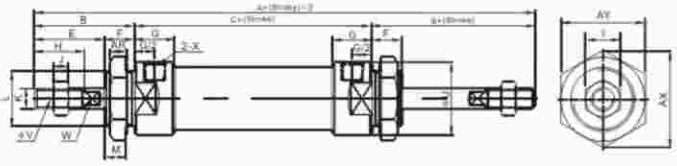
Dimension Sheet

Symbol	A		A1		A2		B	C		D	D1	E	F	G	H	I	J
Bore/Stroke	0-50	51-100	0-50	51-100	0-50	51-100		0-50	51-100								
20	131	156	122	147	110	135	40	70	95	21	12	28	12	16	20	12	6
25	135	160	128	153	114	139	44	70	95	21	14	30	14	16	22	17	6
32	141	166	128	153	114	139	44	70	95	27	14	30	14	16	22	17	6
40	165	190	152	177	138	163	46	92	117	27	14	32	14	22	24	17	7

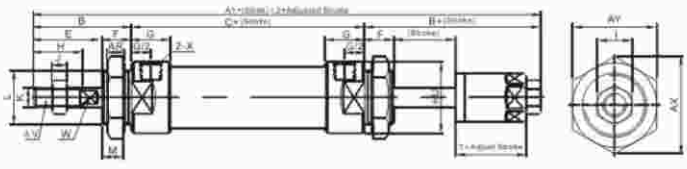
Inside Diameter/Symbol	K	L	M	P	Q	R	R1	S	U	V	W	X	AR	AX	AY
20	M8×1.25	M22×1.5	10	8	16	19	10	12	29	8	6	G1/8"	7	33	29
25	M10×1.25	M22×1.5	12	8	16	19	12	12	34	10	8	G1/8"	7	33	29
32	M10×1.25	M24×2.0	12	10	16	25	12	15	39.5	12	10	G1/8"	8	37	32
40	M12×1.25	M30×2.0	12	12	20	25	12	15	49.5	16	14	G1/4"	9	47	41

Main Dimensions (mm)

MALD



MALJ

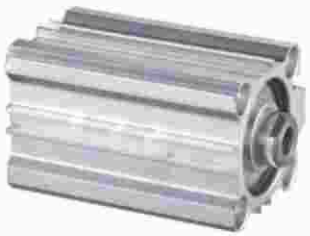


Dimension Sheet

Inside Diameter/Symbol	A	A1	B	C	E	F	G	H	I	I	K
20	150	147	40	70	28	12	16	20	12	6	M8×1.25
25	158	155	44	70	30	14	16	22	17	6	M10×1.25
32	158	155	44	70	30	14	16	22	17	6	M10×1.25
40	184	180	46	92	32	14	22	24	17	7	M12×1.25

Inside Diameter/Symbol	L	M	U	V	W	X	AR	AX	AY	T
20	M22×1.5	10	29	8	6	G1/8"	7	33	29	19
25	M22×1.5	12	34	10	8	G1/8"	7	33	29	21
32	M24×1.5	12	39.5	12	10	G1/8"	8	37	32	21
40	M30×2.0	12	49.5	16	14	G1/4"	9	47	41	21

SDA Series Thin Type (Compact) Cylinder



SDA 32×25

SDAJ 32×25-10

Ordering Code

SDA — **20** — **30** — **5** — **S** — **B**

SDA : Double Action Type
SSA : Single Action Extrusion Type
STA : Single Action Drawing in Type
SDAD : Double Shaft Double Action Type
SDAJ : Double Shaft Adjustable Stroke Type

Cylinder Bore
12 mm - 100 mm

Stroke

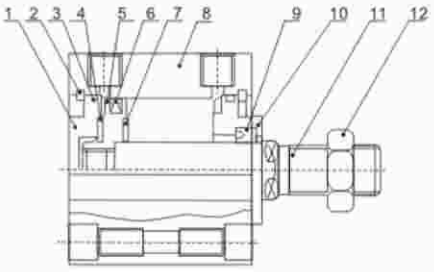
Adjustable Stroke
5 mm
15 mm
25 mm

Magnet Code
S - With Magnet
Blank - With out Magnet

Cog Type
Blank : Inner Thread
B : Outer Thread
N : No Thread

Internal Structure

Sr no	Designation	Sr no	Designation
1	Back Cover	2	Type C Buckle Ring
3	O Ring	4	Anti Crash Cushion
5	Piston	6	Piston O Ring
7	Anti Crash Cushion	8	Barrel
9	Front Cover Seal Ring	10	Front Cover
11	Piston Rod	12	Piston Rod Nut



Features

- Manufactured according to International Standards
- Compact , light weight and space saving design
- Large clamping force in relavent to their size
- Available in male and female thread piston rod
- Magnetic and Non magnetic version
- Available in Single and Double acting version
- Standard 5 microne hard crome plated rod

ADVU Series Compact Cylinder (ISO 6431)

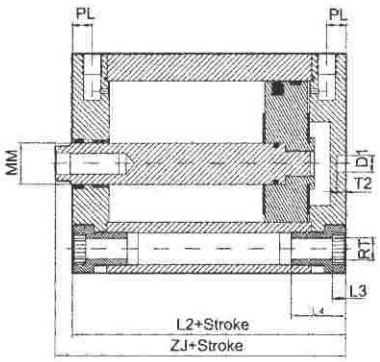
Ordering Code

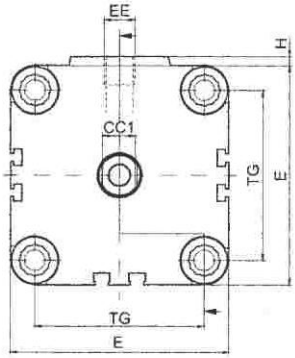
AVDU	50	80	S	B
Series Code ADVU : Double Action Type AEVUZ : Single-Action Type ADVUD : Double-Shaft Double Action Type	Cylinder Bore 16 mm - 100 mm	Stroke	Magnet Code Blank : Without Magnet S : With Magnet	Cog Type Blank : Inner Thread B : Outer Thread

Specification

Bore (mm)	16	20	25	32	40	50	63	80	100
Working Medium	Filtered Air								
Motion Pattern	Double Action / Single Action / Extrusion Type / Single Action Drawing In Type								
Ensured Pattern Resistance	13.5 kgf/cm2 (1.5 Mpa)								
Max .Pressure	10.2 kgf/cm2 (1.0 Mpa)								
Enviroment And Fluid Temperature	(-)5 - 70 c								
Thread Type	Inner Thread / Outer Thread								
Buffering	NO								
Margin Of Stroke	1								
Installation	Through Hole								
Port Size	M5	M5	M5	1/8"	1/8"	1/8"	1/8"	1/8"	1/4"

Main Dimensions (mm)





Features

- Manufactured according to International Standards
- Compact , light weight and space saving design
- Large clamping force in relavent to their size
- Available in male and female thread piston rod
- Magnetic and Non magnetic version
- Available in Single and Double acting version
- Standard 5 microne hard crome plated rod

Specification

Bore Size mm	D1	E	EE	H	L2	L3	L4	MM	PL	RT	T2	TG	ZJ	Cc1
16	6	29	M5	1	38	4	18.5	8	8	M4	4	18	44	6
20	6	36	M5	1.5	38	4	18.5	10	8	M5	4	22	43.5	8
25	6	40	M5	1.5	39.5	4	18.5	10	8	M5	4	26	46	8
32	6	50	1/8"	2	44.5	5	22	12	8	M6	4	32	51.5	10
40	6	60	1/8"	2.5	45.5	5	22	12	8	M6	4	42	52	10
50	6	68	1/8"	2.8	46.5	5	22	16	8	M8	4	50	54.5	13
63	8	88	1/8"	4	50	6	26	16	8	M10	4	62	56	14
80	8	107	1/4"	4	56	6	26	20	8.5	M10	4	82	62	17
100	8	128	1/4"	5	66.5	8	26	20	10.5	M10	4	103	76.5	22

CQ2 Series Compact Cylinder

CQ2B 32×50

Ordering Code

CQ2 — □ **12** — **10** **D** □

- **CQ2** — Series Code
  - CQ2 - Normal Type
  - CDQ2 - Attach Magnet Type
- □ — Mounting Style
  - B with through bore
  - A with female thread on both ends
- **12** — Cylinder Bore
  - Single Action 12 to 50 mm
  - Double Action 12 to 100 mm
- **10** — Stroke
  - 0 - 100 mm
- **D** — Action
  - D Double Action
  - S Single Action With Spring Return
  - T Single Action With Spring Extent
- □ — Cylinder Body
  - Blank - Inner Thread Type
  - M - Outer Thread Type
  - C With Cushion Seal

Specification

Bore (mm)	12	16	20	25	32	40	50	63	80	100
Working Medium	Filtered Air									
Motion Pattern	Double Action / Single Action / Extrusion Type / Single Action Drawing In Type									
Ensured Pattern Resistance	13.5 kgf/cm2 (1.5 Mpa)									
Max .Pressure	10.2 kgf/cm2 (1.0 Mpa)									
Enviroment And Fluid Temperature	5 - 70 c									
Thread Type	Inner Thread / Outer Thread									
Buffering	NO									
Margin Of Stroke	1									
Installation	Through Hole									
Port Size	M5 x 0.8	M5 x 0.8	M5 x 0.8	M5 x 0.8	1/8"	1/8"	1/4"	1/4"	3/8"	3/8"

Features

- Manufactured according to International Standards
- Compact , light weight and space saving design
- Large clamping force in relavent to their size
- Available in male and female thread piston rod
- Magnetic and Non magnetic version
- Available in Single and Double acting version
- Standard 5 microne hard crome plated rod

TN Series Double - Shaft Cylinder

TN 20×25

Ordering Code

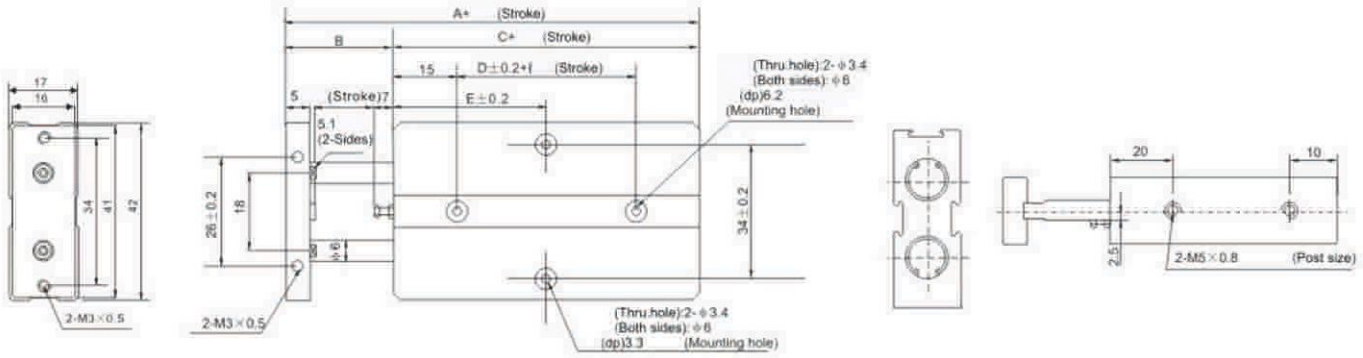
TN — 20 × 50 — S

- TN — Series Code: Double Shaft, Double Action Type
- 20 — Cylinder Bore: 10 mm to 32 mm
- 50 — Stroke
- S — Magnet Code: Blank - Without Magnet; S - Attached Magnet

Specification

Bore (mm)	10	16	20	25	32
Motion Pattern	Double Action				
Working Medium	Filtered Air				
Operating Voltage Range	1 to 9 kgf/cm2				
Ensured Pressure Resistance	10.5 kgf/cm2 (1.0 Mpa)				
Operating Temparature Range	5 to 70 C				
Operating Speed Range	100 to 500 mm/s				
Adjustable Stroke	(-)10 to 0 mm				
Cushion Type	Adjustable Cushion				
Non - Rotating Precision	0.4 C	0.3 C			
Port Size	M5x0.5	M5x0.5	M5x0.5	M5x0.5	1/8"

Main Dimensions (mm)



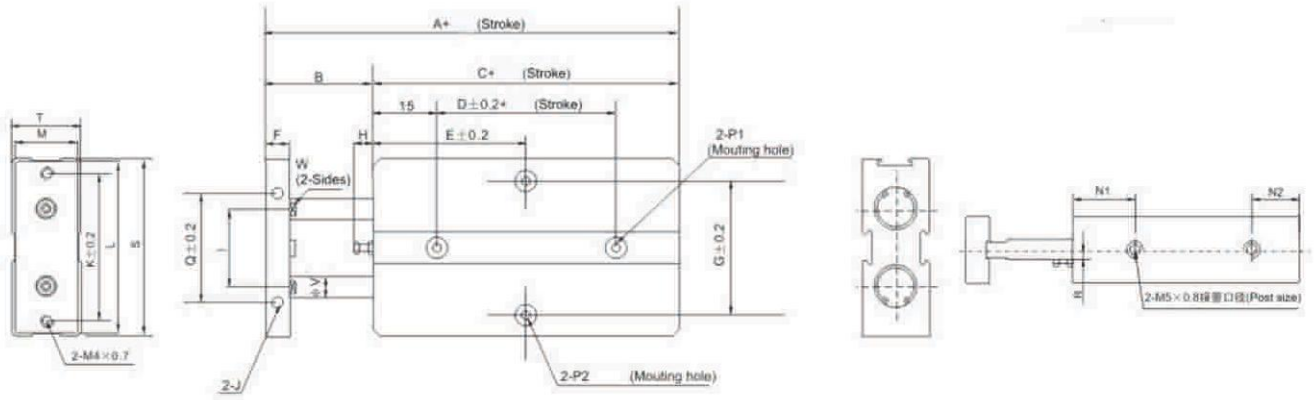
Dimension Sheet

Bore size / Item	A	B	C	D	E						
					10	20	30	40	50	60	70
10	63	12	51	10	30	30	35	40	45	50	55

Features

- Dual rod cylinder with guide function
- Best use in Pick and place application
- Push pull type configuration also available
- Magnetic and non magnetic version available
- Standard 5 microne hard crome plated rod

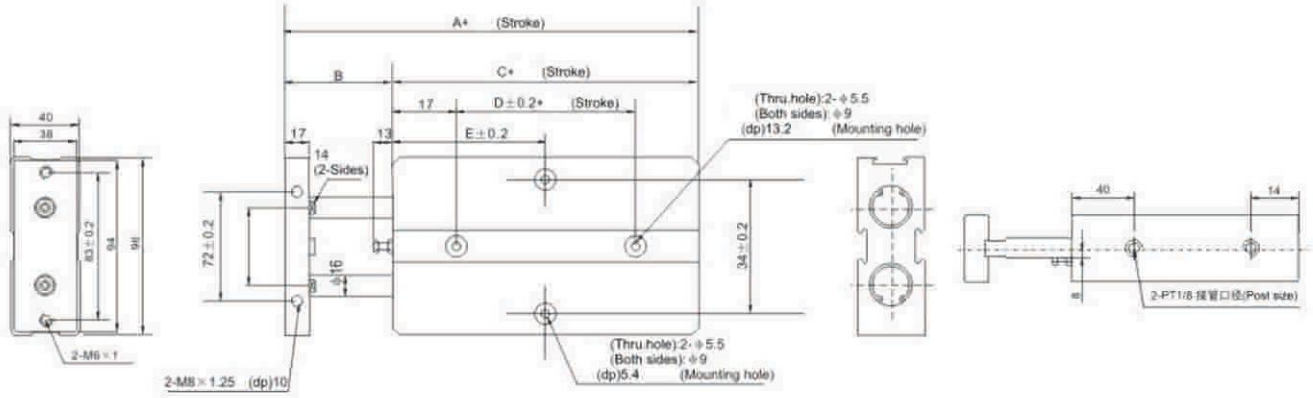
Main Dimensions (mm)



Dimension Sheet

Bore size / Item	A	B	C	D	E												F	G	H	I
					10	20	30	40	50	60	70	80	90	100	125	150				
16	68	15	53	20	30	35	40	45	50	55	60	65	70	75	87.5	100	8	47	6	24
20	78	20	58	20	35	35	40	45	50	55	60	65	70	75	87.5	100	10	55	9	28
25	81	19	62	30	40	40	45	50	55	60	65	70	75	80	92.5	105	10	66	8	34

Main Dimensions

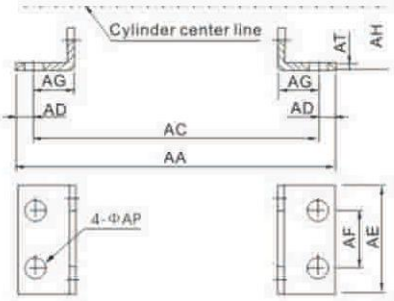


Dimension Sheet

Bore size / Item	A	B	C	D	E											
					10	20	30	40	50	60	70	80	90	100	125	150
32	108	30	78	35	45	50	55	60	65	70	75	80	85	90	102.5	115

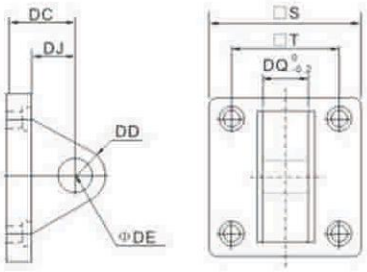
ISO 6431 Standard Cylinder Asscessories

CA (Type)
(Foot Bracket)



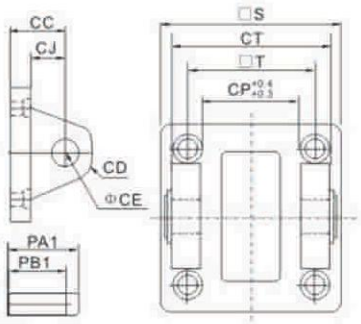
Symbol/Bore	32	40	50	63	80	100	125	160	200
AA	158	179	190	209	248	266	290	340	380
AC	142	161	170	185	210	228	250	300	320
AD	8	9	10	12	19	19	20	20	30
AE	47	53	65	75	95	115	140	180	220
AF	32	36	45	50	63	75	90	115	135
AG	24	28	32	32	41	45	45	60	70
AH	32	36	45	50	63	71	90	115	135
AP	7	9	9	9	12	14.5	16.5	18.5	24
AT	3	3	3	3	4	4	6	6	9

CA (Type)
(Single Earring)



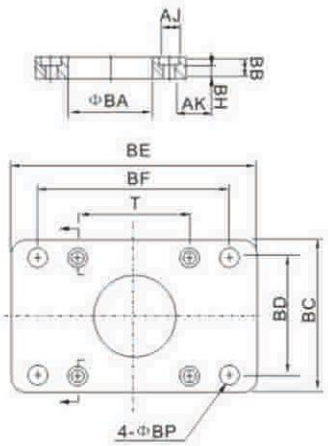
Symbol/Bore	32	40	50	63	80	100	125	160	200
S	47	53	65	75	95	115	140	180	220
T	32.5	38	46.5	56.5	72	89	110	140	175
DC	22	25	27	32	36	41	50	55	60
DD	9	12	12	15	15	20	25	30	30
DE	10	12	12	16	16	20	25	30	30
DJ	13	16	17	22	22	27	33	35.5	36
DQ	25.8	27.8	31.7	39.7	49.7	59.7	69.7	89.7	89.7

CA (Type)
(Double Earring)



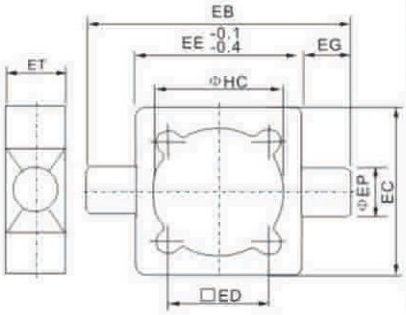
Symbol/Bore	32	40	50	63	80	100	125	160	200
CC	22	25	27	32	36	41	50	55	60
CD	9	12	12	15	15	20	25	30	30
CE	10	12	12	16	16	20	25	30	30
CJ	13	16	17	22	22	27	31	35.5	36
CP	26	28	32	40	50	60	70	90	90
CT	45	52	60	70	90	110	130	170	170
PA1	51	59	67	77	97	119	139	181	181
PB1	45.5	52.5	60.5	70.5	90.5	110.5	130.5	170.5	170.5
S	47	53	65	75	95	115	140	180	220
T	32.5	38	46.5	56.5	72	89	110	140	175

FA (Type)
(Flanger)



Symbol/Bore	32	40	50	63	80	100	125	160	200
AJ	11	11	14	14	17	17	19	25	25
AK	7	7	9	9	11	11	13	17	17
BA	30.5	35.5	40.5	45.5	45.5	55.5	60.5	65.5	75.5
BB	10	10	12	12	16	16	20	20	25
BC	47	53	65	75	95	115	140	180	220
BD	32	36	45	50	63	75	90	115	135
BE	80	90	110	125	154	186	224	280	320
BF	64	72	90	100	126	150	180	230	270
BH	4	4	4	6	6	6	8	8	12
BP	7	9	9	9	12.5	14.5	16.5	18.5	24
T	32.5	38	46.5	56.5	72	89	110	140	175

TC (Type)
(Central Trunnion)

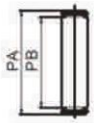


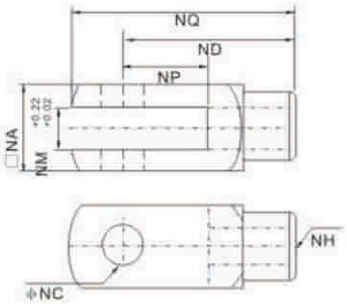
Symbol/Bore	32	40	50	63	80	100	125	160	200
EB	100	113	125	140	160	182	-	-	-
EC	52	63	74	80	105	128	-	-	-
ED	32.5	38	46.5	56.5	72	89	-	-	-
EE	52	63	75	90	105	128	-	-	-
EG	25	25	25	25	25	25	-	-	-
EP	12	16	16	20	20	25	-	-	-
ET	20	22	22	28	28	34	-	-	-
HC	37	45	55	68	87	107.5	-	-	-

Y (Type)
(Joine)

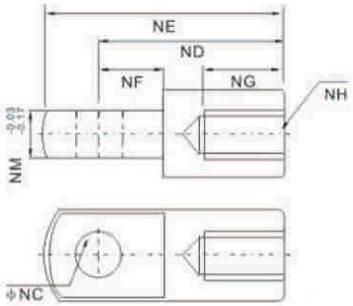
Y (Type)
(Pin)

Y
(Clip)





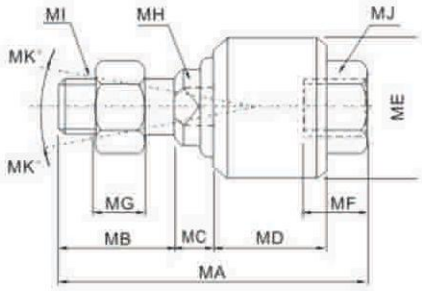
Y
(Type)



I (Type)
(Joine)

Symbol/Bore	32	40	50	63	80	100	125	160	200
NA	19	25.4	32	32	44.4	44.4	55	70	70
NC	10	12	16	16	20	20	30	35	35
ND	40	48	64	64	80	80	110	144	144
NE	52	67	89	89	112	112	155	201	201
NF	15	24	32	32	40	40	50	50	55
NG	20	20	23	23	30	30	56	72	72
NH	M10×1.25	M12×1.25	M16×1.5	M16×1.5	M20×1.5	M20×1.5	M27×2.0	M36×2.0	M36×2.0
NM	10	12	16	16	20	20	30	35	35
NP	20	24	32	32	40	40	54	72	72
NQ	52	62	83	83	105	105	148	191	191
PA	26.2	32.8	39.3	39.3	53.3	53.3	64	80	80
PB	20	26.5	33	33	45	45	55.6	70.6	70.6

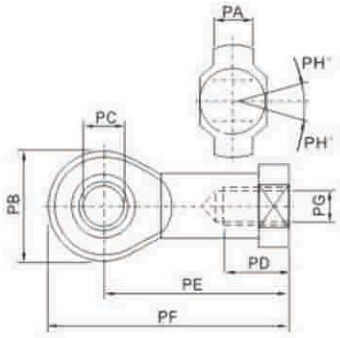
UJ (Type)
(Float Joint)



Symbol/Bore	MA	MB	MC	MD	ME	MF	MG	MH	MI	MK
32	58	22	7	21	26	11.5	7	10	M10×1.25	12
40	58	22	8	21	28	11.5	8	12	M12×1.25	12
50	90	27	10	41	44.5	20	10	17	M16×1.5	7
63	90	27	10	41	44.5	20	10	17	M16×1.5	7
80	102	29	13	46	53	24	13	22	M20×1.5	10
100	102	29	13	46	53	24	13	22	M20×1.5	10
125	147	54	13	64	62	39	14	30	M27×2.0	9
160	251	72	22	115	80	80	18	36	M36×2.0	4
200	251	72	22	115	80	80	18	36	M36×2.0	4

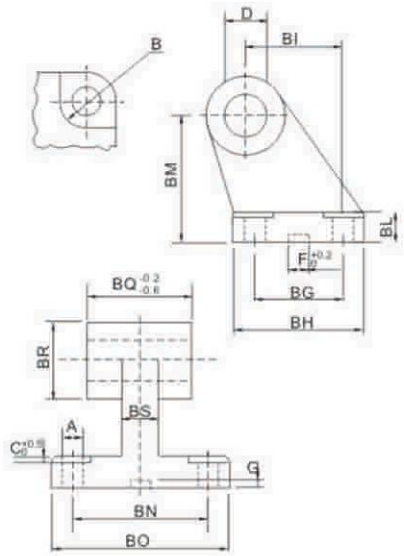
ISO 6431 Standard Cylinder Asscessories

PHS (Type)
(Fish Eye Joint)



符号/缸径 Symbol/Bore	PA	PB	PC	PD	PE	PF	PG	PH
32	11	26	10	21	43	56	M10×1.25	13
40	12	30	12	24	50	65	M12×1.25	13
50	15	38	16	33	64	83	M16×1.5	15
63	15	38	16	33	64	83	M16×1.5	15
80	18	46	20	40	77	100	M20×1.5	15
100	18	46	20	40	77	100	M20×1.5	15
125	37	70	30	51	110	145	M27×2.0	15
160	43	80	35	56	125	165	M36×2.0	16
200	43	80	35	56	125	165	M36×2.0	16

SDB (Type)

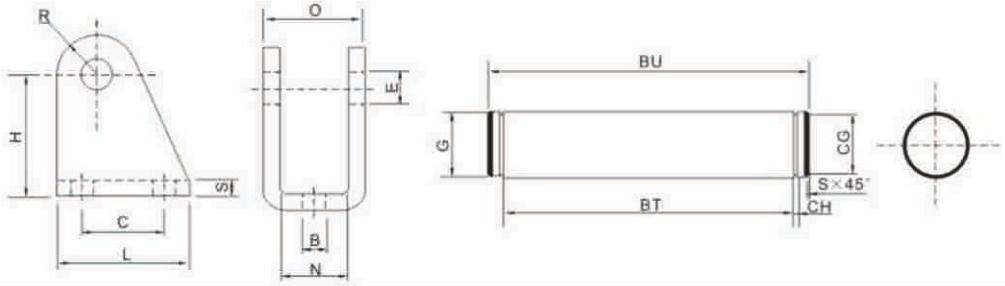


符号/缸径 Symbol/Bore	32	40	50	63	80	100	125
A	6.6	6.6	9	9	11	11	14
B	11	11	15	15	18	18	20
BG	18	22	30	35	40	50	60
BH	31	35	45	50	60	70	90
BI	21	24	33	37	47	55	70
BL	8	10	10.5	12	14	17	20
BM	32	36	45	50	63	71	90
BN	38	41	50	52	66	76	94
BO	51	54	65	67	86	96	124
BS	12	15	18	22	20	20	30
BR	20	22	26	30	30	38	45
C	1.6	1.6	1.6	1.6	2.5	2.5	3.2
D	10	12	12	16	16	20	25
F	10.5	10.5	10.5	10.5	10.5	10.5	10.5
G	3	3	3	3	3	3	3
BQ	25	28	32	40	50	60	70

M-FA-A (Type)
(Flange)

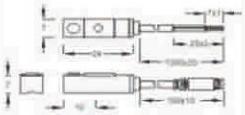
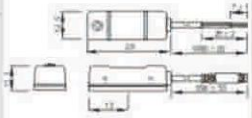
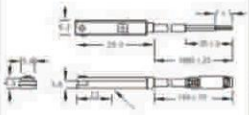
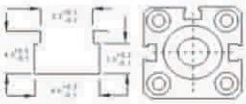
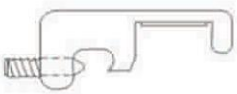
Symbol/Bore	B	C		C(MSA Series)		C(MSAL Series)		BB	BC	BD	BE	BF	BP	F
		MA (Series)	MAL (Series)	0-50	51-100	0-50	51-100							
16	38	60	-	60	85	-	-	3	26	-	52	40	5.5	16
20	40	76	70	76	101	70	95	4	38	-	64	50	6.5	12
25	44	76	70	76	101	70	95	4	38	-	64	50	6.5	14
32	44	76	70	76	101	70	95	4	47	33	72	58	6.5	14
40	46	76	92	76	101	92	117	4	50	36	84	70	6.5	14

M-U (Type)
(Bracket)



Symbol/Bore	B	E	C	H	L	N	O	R	S	G	BT	CG	CH	BU	S
8/10	4.5	4	12.5	24	20	8.1	13	5	2.5	4	14	3.7	0.5	17	0.2
12/16	5.5	6	15	27	25	13	18	7	3	6	19	5.6	0.8	24	0.4
20/25	6.6	8	20	29.5	32	16.1	24	10	4	8	25.2	7.5	0.9	29.5	0.5

Magnetism Switch

Model	Product	Contact Type	Working Voltage	Diameter	Joint Pipe Bore
JC-03R		Reed switch	5~240V DC/AC		 For:IAS/IAL/RAS/RAL D6-D63 Cylinder
JC-03N		NPN	5~30V DC		
JC-03P		PNP			
JC-15R		Reed switch	5~240V DC/AC		 For:IAS/IAL/RAS/RAL D6-D63 Cylinder
JC-15N		NPN	5~30V DC		
JC-15P		PNP			
JC-21R		Reed switch	5~240V DC/AC		 For:FXBC/VBC/LBC/TBC/XBC Cylinder
JC-21N		NPN	5~30V DC		
JC-21P		PNP			
JC-31R		Reed switch	5~240V DC/AC		 For:FXBC Cylinder
JC-31N		NPN	5~30V DC		
JC-31P		PNP			
BK-81 BK-82		BK BK fixed metal band series	BK BK Series		PBN PBN Series  PN PN Series 
PBN-01 PBN-02		PBN PBN Series metal band			
PN		PN PN Series metal band			
PAC		PAC PAC Series clamp	PAC PAC Series 		
PM		PM PM Series clamp	PM PM Series 		
PI		PI PI Series clamp	PI PI Series 		

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