

A1011 - Magnetic

TWIN PISTON CYLINDER

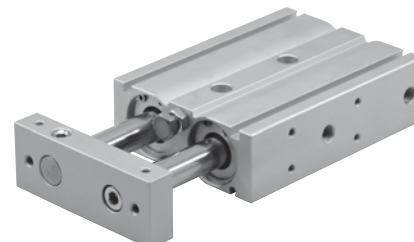
Series A1011

Cat No A1011 - 01 - 01 - C

TWIN PISTON CYLINDER - (Ø10, Ø16, Ø20, Ø25, Ø32 mm)

Features

- ❑ Body machined from extruded aluminum that mounts directly to equipment for rigid, secure mounting in small place
- ❑ Compact equipment design is possible. Suitable for electronic parts inspection clamps. Ideal for use in small mounting place
- ❑ Twin piston doubles the force in a compact form factor
- ❑ Guide plate for non-rotation of piston rod



Technical Specifications

Series	A1011M			A1011L	
Bearing type	Bushing			Linear ball bearing	
Medium	Compressed air - Filtered - Lubricated				
Piston Ø	10 mm	16 mm	20 mm	25 mm	32 mm
Standard Strokes *	10 to 100 mm				
Working pressure	1 to 7 bar		0.5 to 7 bar		
Ambient / Medium temperature	-10°C to +60°C				
Stroke adjustable range	0 ~ -5mm Compared to standard stroke				
Materials of construction	Aluminium, Nitrile, Steel, Polyurethane, Acetal				

* For Non standard or longer stroke cylinders, contact your regional office, dealer or **JANATICS**

Output force (force in N : 1N = 0.1 kgf)

Cylinder bore Ø (in mm)	Rod Ø (in mm)	Condition	Piston Area (mm ²)	Working pressure in bar						
				1	2	3	4	5	6	7
10	6	Extend	157	15.7	31.4	47.1	62.8	78.5	94.2	110
		Retract	100	10.0	20.0	30.0	40.0	50.0	60.0	70.0
16	8	Extend	353	35.3	70.6	106	141	177	212	247
		Retract	252	25.2	50.4	75.6	101	126	151	176
20	10	Extend	628	62.8	126	188	251	314	377	440
		Retract	471	47.1	94.2	141	188	236	283	330
25	12	Extend	982	98.2	196	295	393	491	589	687
		Retract	756	75.6	151	227	302	378	454	529
32	16	Extend	1608	161	322	482	643	804	965	1126
		Retract	1206	121	241	362	482	603	724	844

TWIN PISTON CYLINDER

Series A1011

Cat No A1011 - 01 - 01 - C

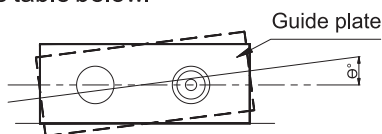
Weight list : (Unit : Kg)

Model	Standard stroke (mm)									
	10	15	20	25	30	40	50	60	75	100
A1011M010	0.15	0.16	0.17	0.18	0.19	0.21	0.23	0.25	0.28	0.33
A1011L010	0.15	0.16	0.17	0.18	0.19	0.21	0.23	0.25	0.28	0.33
A1011M016	0.25	0.265	0.28	0.29	0.30	0.33	0.36	0.39	0.435	0.51
A1011L016	0.27	0.285	0.30	0.31	0.32	0.35	0.38	0.41	0.435	0.53
A1011M020	0.40	0.42	0.44	0.46	0.48	0.51	0.55	0.585	0.65	0.74
A1011L020	0.43	0.445	0.46	0.48	0.50	0.53	0.57	0.605	0.66	0.75
A1011M025	0.61	0.635	0.66	0.69	0.72	0.77	0.83	0.89	0.97	1.10
A1011L025	0.62	0.645	0.67	0.70	0.73	0.78	0.84	0.895	0.98	1.11
A1011M032	1.15	1.19	1.23	1.275	1.32	1.40	1.49	1.58	1.71	1.93
A1011L032	1.16	1.205	1.25	1.295	1.34	1.42	1.51	1.595	1.72	1.94

Non-rotating accuracy:

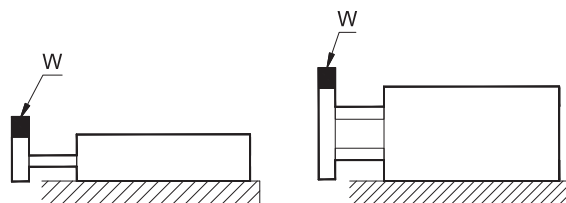
Non-rotating accuracy Θ° without a load should be less than or equal to the value provided in the table below.

Bore (mm)	$\Theta^\circ = (\varnothing 10 \text{ to } \varnothing 32)$
A1011M	$\pm 0.1^\circ$
A1011L	

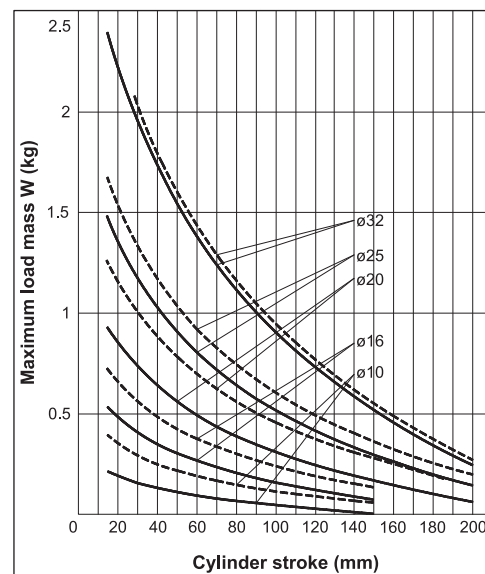


Maximum load mass:

When the cylinder is mounted as shown in the diagrams below the maximum load (**W**) Should not exceed the values illustrated in the graph at right.



—	A1011M
- - -	A1011L



CAUTION

If the cylinder is horizontally mounted and the guide plate surface does not reach the load (**W**) center of gravity, use formula to calculate overhanging length **L** that includes the distance between the load's center of gravity and guide plate surface. Select the graph that corresponds to the overhanging length **L'**

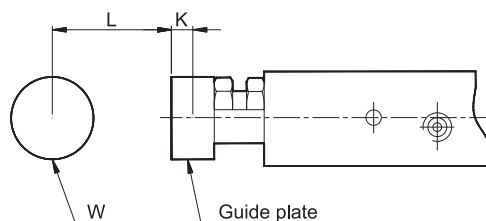
Overhanging length **L' = (Stroke) + K + L**

K: Distance between the center and end of the plate

Example:

When using A1011M10 & L = 15mm
Overhanging Length **L' = 10+4+15 = 29**

Therefore, the graph used for your
Model should be the one for A1011M010030



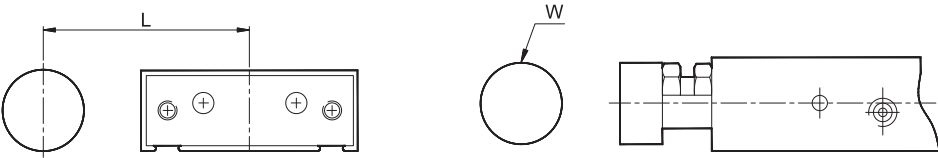
Bore	K
Ø10	4 mm
Ø16	5 mm
Ø20	6 mm
Ø25	6 mm
Ø32	8 mm

TWIN PISTON CYLINDER

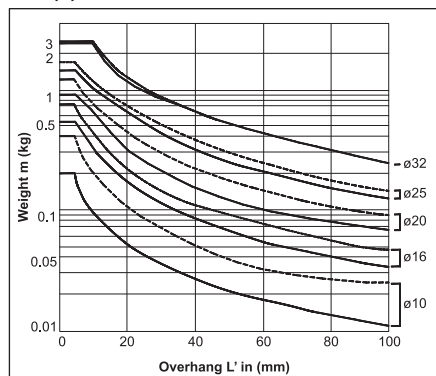
Series A1011

Cat No A1011 - 01 - 01 - C

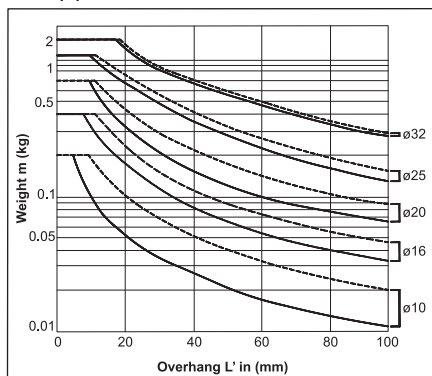
Horizontal Mounting:

Mounting Orientation											
Stroke		Under 10		Under 30		Under 50		Under 75		Under 100	
Max. speed (mm/sec)		Under 400	Over 400	Under 400	Over 400	Under 400	Over 400	Under 400	Over 400	Under 400	Over 400
Selection Graph	Ø10	(1)		(3)		(5)		(7)		(8)	
	Ø16										
	Ø20										
	Ø25										
	Ø32										

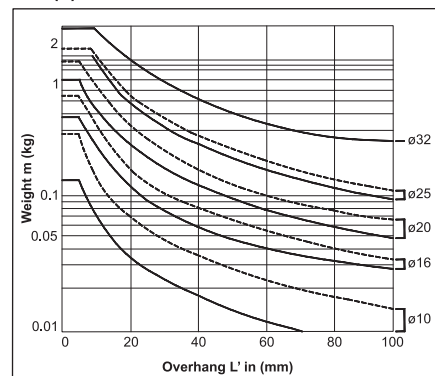
(1) V = under 400mm/s, under 10st



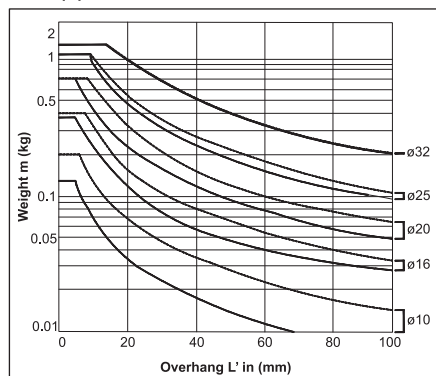
(2) V = over 400mm/s, under 10st



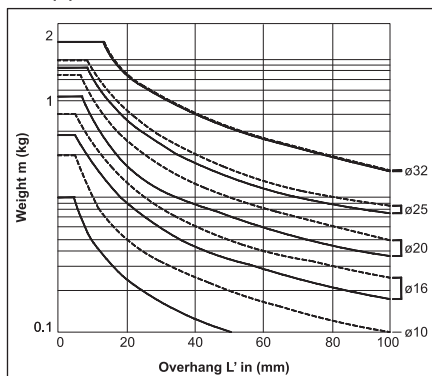
(3) V = under 400 mm/s, under 30st



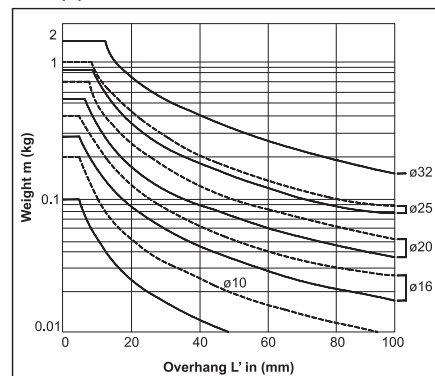
(4) V = over 400mm/s, under 30st



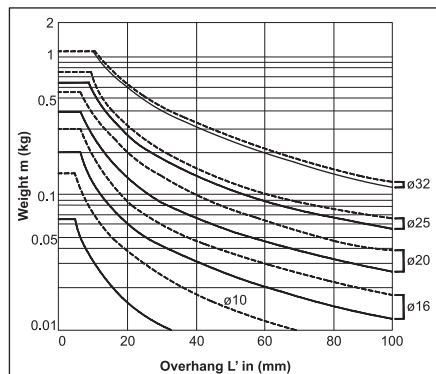
(5) V = under 400mm/s, under 50st



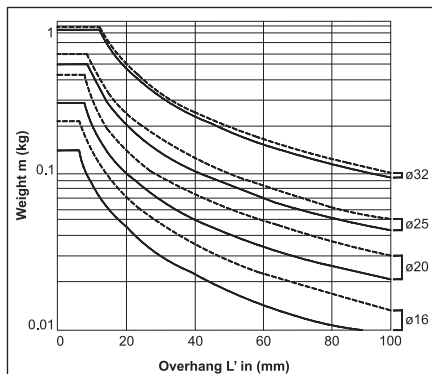
(6) V = over 400 mm/s, under 50st



(7) V = Under & Over 400mm/s, under 75st



(8) V = Under & Over 400mm/s, under 100st



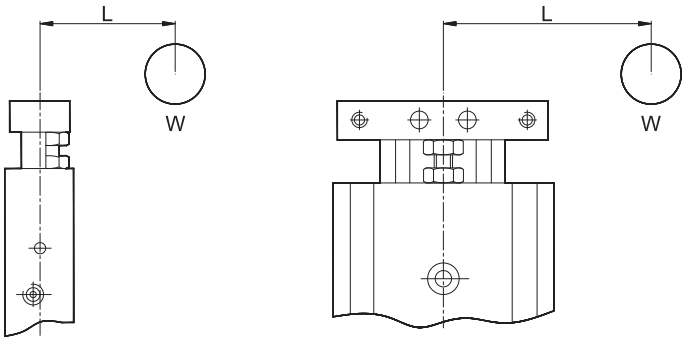
	A1011M
	A1011L

TWIN PISTON CYLINDER

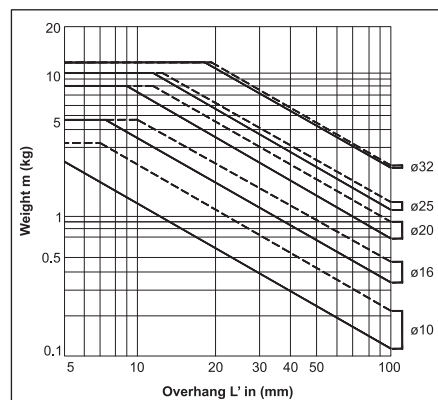
Series A1011

Cat No A1011 - 01 - 01 - C

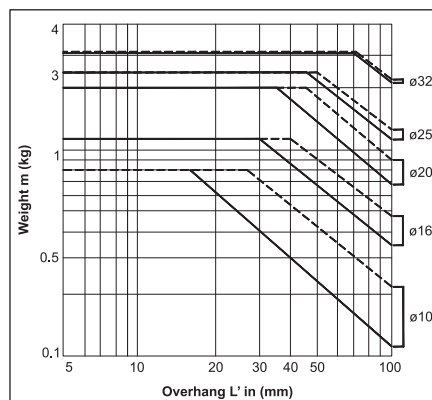
Vertical Mounting:

Mounting Orientation					
Stroke		All Stroke			
Max. speed (mm/sec)		Under 200	Under 400	Under 600	Under 700 (800)
Selection Graph	Ø10	(1)	(2)	(3)	(4)
	Ø16				
	Ø20				
	Ø25				
	Ø32				

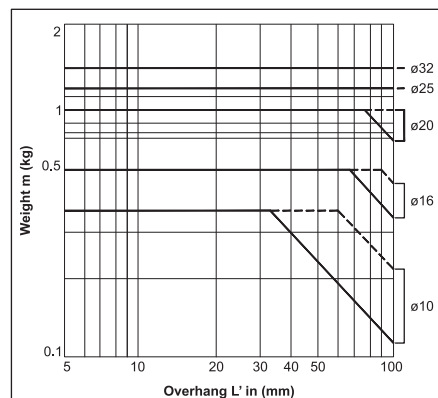
(1) V = 200 mm/s



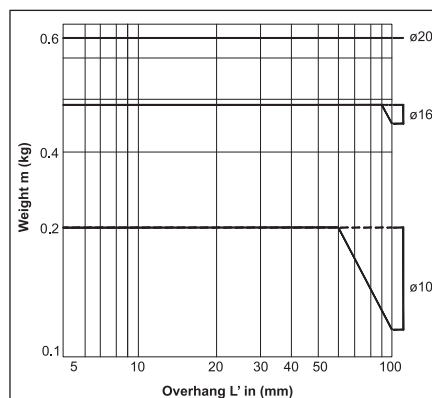
(2) V = 400 mm/s



(3) V = 600 mm/s



(4) V = 700 mm/s (Ø10:800mm/s)



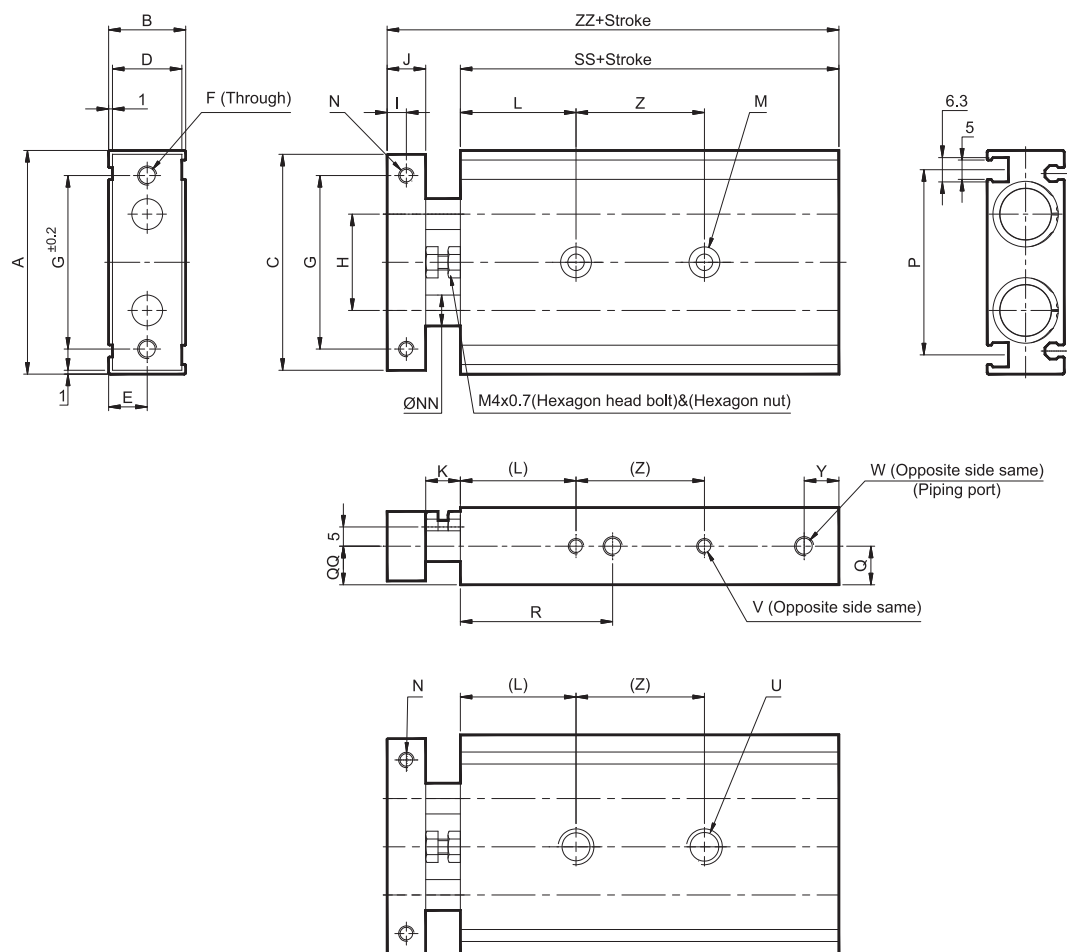
—	A1011M
- - -	A1011L

TWIN PISTON CYLINDER

Series A1011

Cat No A1011 - 01 - 01 - C

Basic Dimension - Ø10 & Ø16 mm



Bore	A	B	C	D	E	F	G	H	I	J	K	L	M	N	NN	P	Q	QQ	R	V	W	Y	U
Ø10	46	17	44	15	7.5	2-M4x0.7	35	20	4	8	10	20	2-ø3.4 Through ø6.5 C'bore with dp4	2-M3x0.5 dp5	ø6	35	8.5	7	31.5	4-M3x0.5 dp4.5	4-M5x0.8 dp4.5	9.5	2-M4x0.7 dp8
Ø16	58	20	56	18	9	2-M5x0.8	45	25	5	10	9	30	2-ø4.3 Through ø8 C'bore with dp4.4	2-M4x0.7 dp6	ø8	48	10	10	39.5	4-M4x0.7 dp6	4-M5x0.8 dp4.5	9	2-M5x0.8 dp8

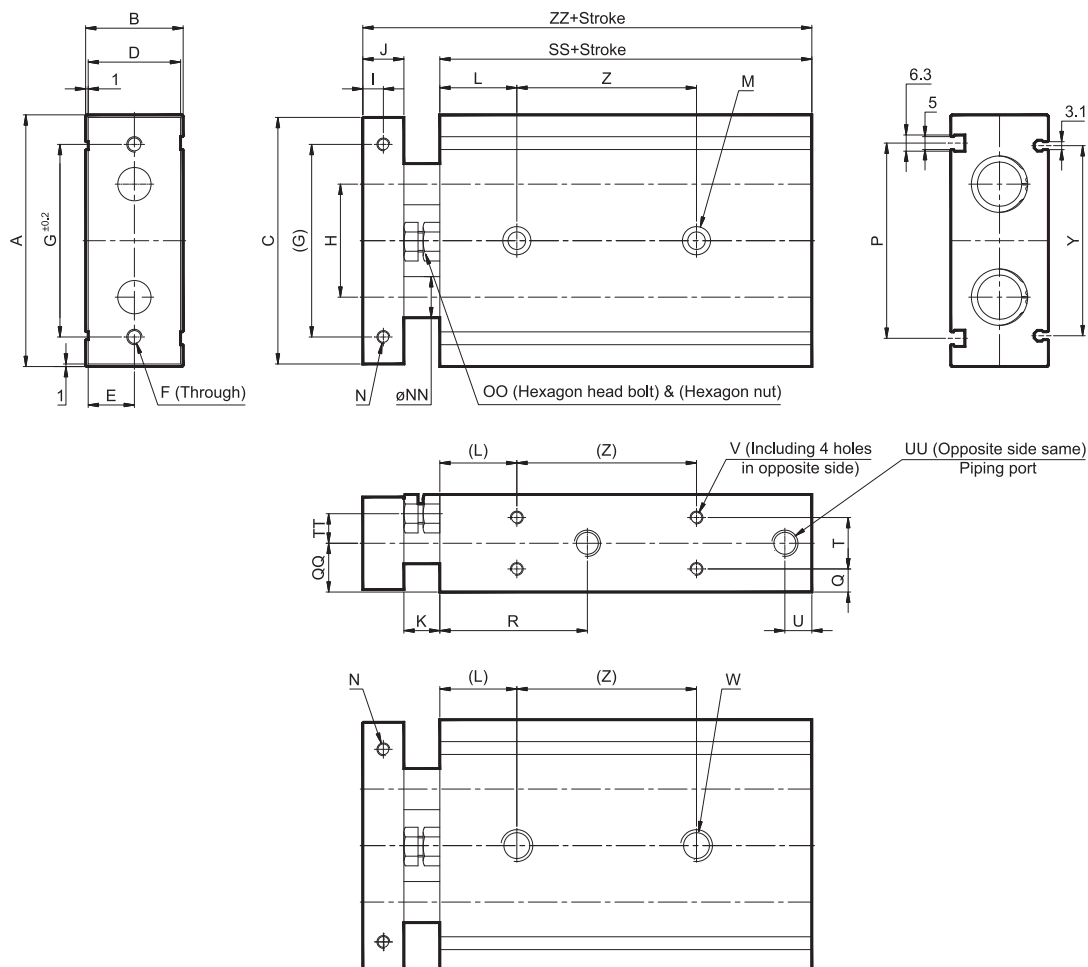
Bore	SS+Stroke	Z (Stroke)				ZZ+Stroke
		10, 15, 20, 25	30, 40, 50	60, 75	100	
Ø10	55+Stroke	30	40	50	60	73+Stroke
Ø16	60+Stroke	25	35	45	55	79+Stroke

TWIN PISTON CYLINDER

Series A1011

Cat No A1011 - 01 - 01 - C

Basic Dimension - Ø20, Ø25, Ø32 mm



Bore	A	B	C	D	E	F	G	H	I	J	K	L	M	N	NN	OO	P
Ø20	64	25	62	23	11.5	2-M5x0.8	50	28	6	12	12	30	2- Ø5 through, Ø9.5 C'bore with, dp5.3	2-M4x0.7 dp6	Ø10	M6x1.0	53
Ø25	80	30	78	28	14	2-M6x1.0	60	35	6	12	12	30	2- Ø6.9 through, Ø11 C'bore with, dp6.3	2-M5x0.8 dp7.5	Ø12	M6x1.0	64
Ø32	98	38	96	36	18	2-M6x1.0	75	44	8	16	14	30	2-Ø6.9 through, Ø11 C'bore with, dp6.3	2-M5x0.8 dp10	Ø16	M8x1.25	76

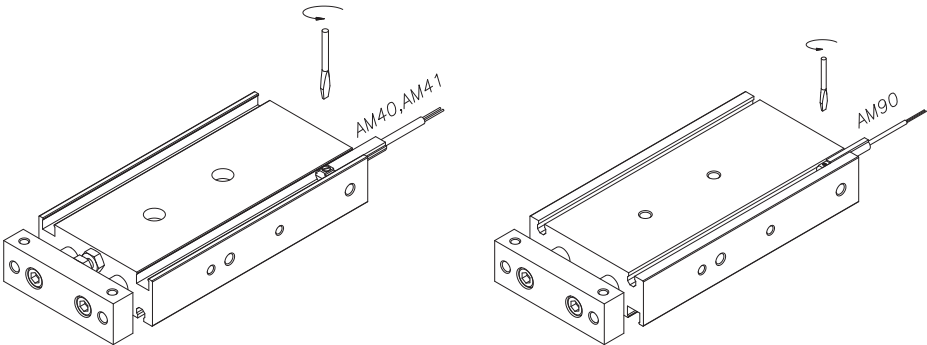
Bore	PP	Q	QQ	R	T	TT	U	UU	V	Y	W
Ø20	M6x1.0	7.75	12.5	45	9.5	6.5	10.5	4-M5x0.8 dp4.5	8-M4x0.7 dp6	51	2-M6x1 dp10
Ø25	M6x1.0	8.5	15	48	13	9	10	4-G1/8" dp6.5	8-M5x0.8 dp7.5	62	2-M8x1.25 dp12
Ø32	M8x1.25	9	19	57.5	20	11.5	10.5	4-G1/8" dp6.5	8-M5x0.8 dp7.5	74	2-M8x1.25 dp12

Bore	SS+Stroke	Z (Stroke)			ZZ+Stroke
		10, 15, 20, 25	30, 40, 50	60, 75, 100	
Ø20	70+Stroke	30	40	60	94+Stroke
Ø25	72+Stroke	30	40	60	96+Stroke
Ø32	82+Stroke	40	50	70	112+Stroke

TWIN PISTON CYLINDER
Series A1011

Cat No A1011 - 01 - 01 - C

Sensor mounting



How to order

A1011

M

Type	
M	Bushing
L	Linear ball bearing

016

Bore Ø (mm)	
010	- 10
016	- 16
020	- 20
025	- 25
032	- 32

100

Stroke (mm)	
010	- 10
015	- 15
020	- 20
025	- 25
030	- 30
040	- 40
050	- 50
060	- 60
075	- 75
100	- 100

Ordering example:

Twin piston cylinder,bore Ø16, stroke 100 mm, bushing type : **A1011M016100**

Twin piston cylinder,bore Ø16, stroke 100 mm, linear ball bearing type : **A1011L016100**

Magnetic sensor (Refer Pneumatic Actuator catalogue **Series AM4: AM40 & AM41** (Page no.1a.1.1 & 1a.1.2), **Series A1R: AM090** (Page no.1.12.8 & 1.12.9)