

A1021 - Magnetic

TWIN PISTON CYLINDER

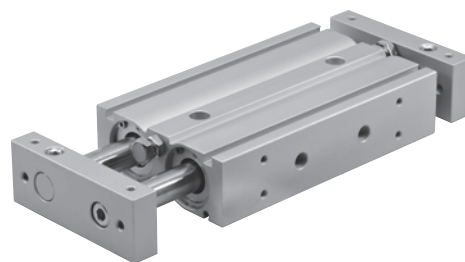
Series A1021

Cat No A1021 - 01 - 01 - C

TWIN PISTON CYLINDER DOUBLE END - (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
- ☐ Suitable for simultaneous pick and place applications
- ☐ Twin piston doubles the force in a compact form factor
- ☐ Guide plate for non-rotation of piston rod



Technical Specifications

Series	A1021M			A1021L	
Bearing type	Bushing			Linear ball bearing	
Medium	Compressed air - Filtered - Lubricated				
Cylinder bore Ø	10 mm	16 mm	20 mm	25 mm	32 mm
Standard Strokes *	10 to 50 mm		10 to 100 mm		
Working pressure	1.5 to 7 bar		1 to 7 bar		
Ambient / Medium temperature	-10°C to +60°C				
Stroke adjustable range	0 ~ -10mm 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 (in mm)	Piston Area (mm ²)	Working pressure in bar						
			1	2	3	4	5	6	7
10	6	100	10	20	30	40	50	60	70
16	8	252	25.2	50.4	75.6	101	126	151	176
20	10	471	47.1	94.2	141	188	236	283	330
25	12	756	75.6	151	227	302	378	454	529
32	16	1206	121	241	362	482	603	724	844

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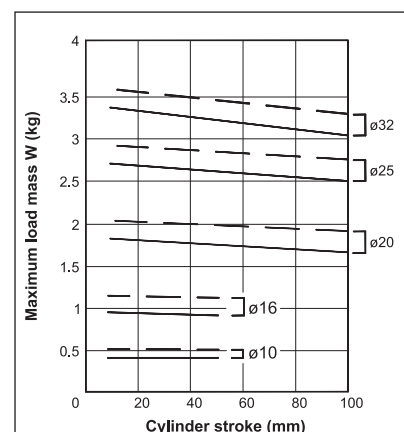
Weight list : (Unit : Kg)

Model	Standard stroke (mm)						
	10	20	30	40	50	75	100
A1021M10	0.24	0.26	0.28	0.3	0.32	-	-
A1021L10	0.25	0.27	0.29	0.31	0.33	-	-
A1021M16	0.43	0.45	0.48	0.51	0.54	-	-
A1021L16	0.47	0.5	0.52	0.55	0.58	-	-
A1021M20	0.71	0.74	0.78	0.82	0.85	0.95	1.04
A1021L20	0.75	0.79	0.82	0.86	0.9	0.99	1.08
A1021M25	1.06	1.11	1.17	1.22	1.28	1.41	1.55
A1021L25	1.07	1.12	1.18	1.23	1.29	1.42	1.56
A1021M32	2.04	2.12	2.21	2.29	2.38	2.59	2.81
A1021L32	2.06	2.15	2.23	2.32	2.41	2.62	2.83

Operating conditions

When the cylinder is mounted as shown in the diagrams below the maximum load (W) should not exceed the values illustrated in the graph

————	A1021M
-----	A1021L



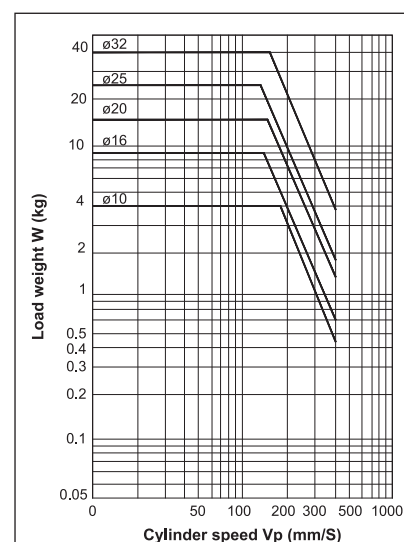
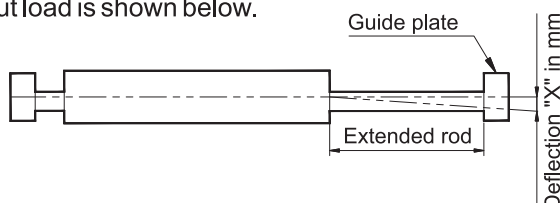
Allowable kinetic energy

Operate vertically mounted cylinder with load weight and cylinder not exceeding the ranges shown on the graph below. A horizontally mounted cylinder should with less load weight than the ranges given in the graph at right. Cylinder speed should be adjusted using flow control valve.

Deflection at guide plate

Guide plate deflection "X" without load is shown below.

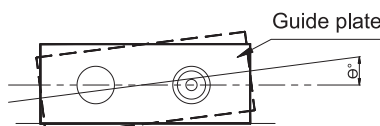
Bore (mm)	X = (Ø10 to Ø32)
A1021M	± 0.03mm
A1021L	



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)	$\Theta^\circ = (\text{Ø}10 - \text{Ø}32)$
A1021M	± 0.1°
A1021L	

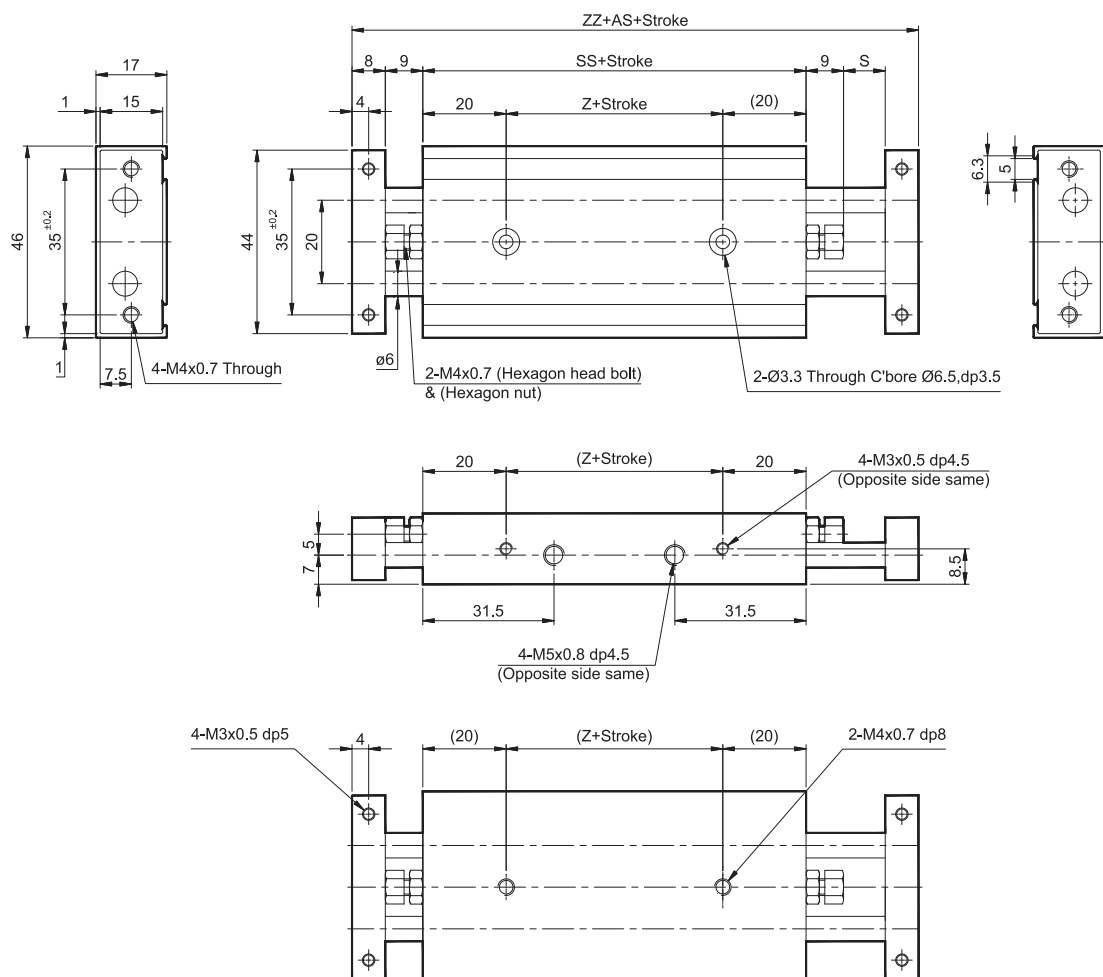


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Cat No A1021 - 01 - 01 - C

Basic Dimension - Ø10 mm

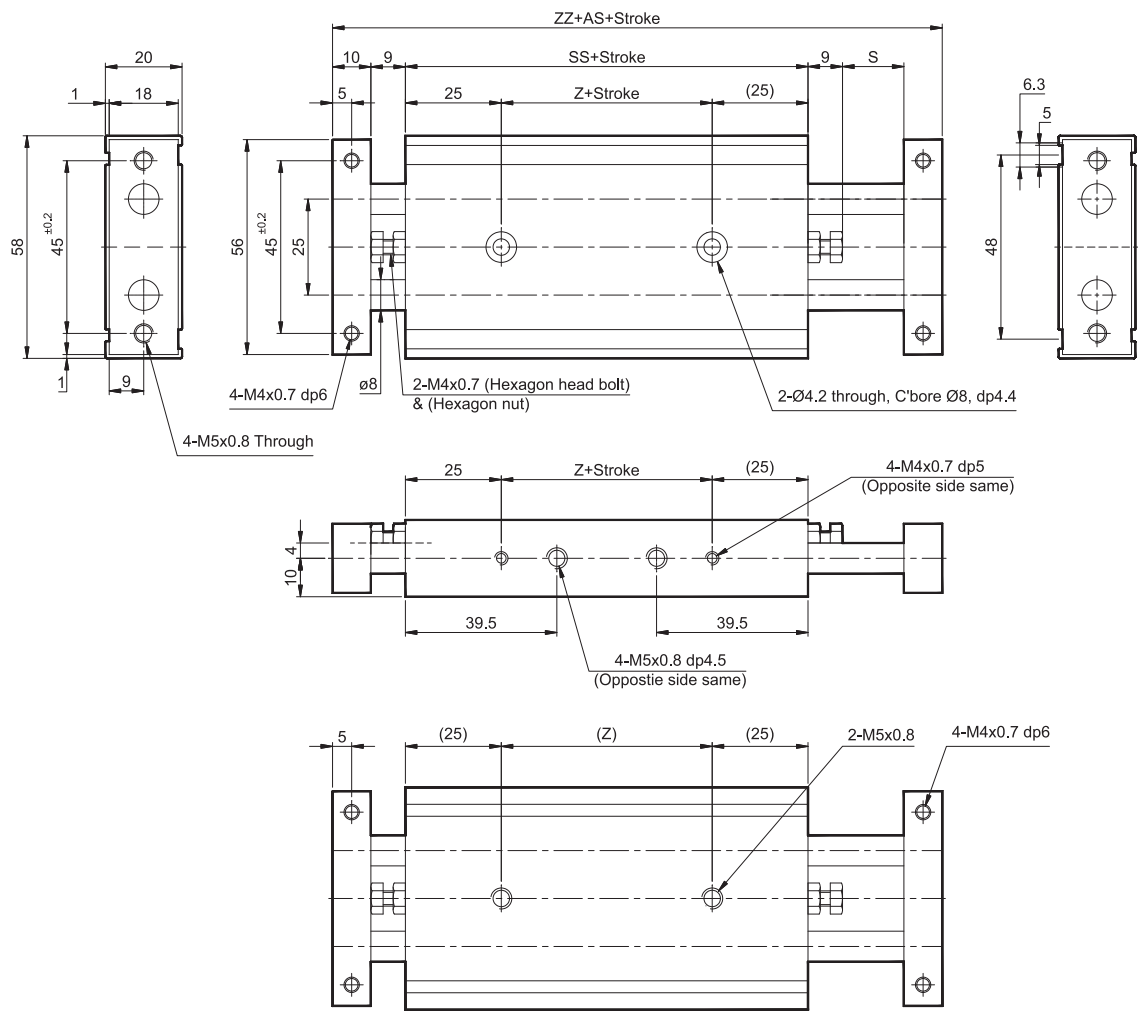


Bore	S	SS+Stroke	Z+Stroke	AS						ZZ+AS+Stroke
				Stroke	10	20	30	40	50	
Ø10	Stroke	82+Stroke	42+Stroke		0	10	20	30	40	126+AS+Stroke

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Basic Dimension - Ø16 mm



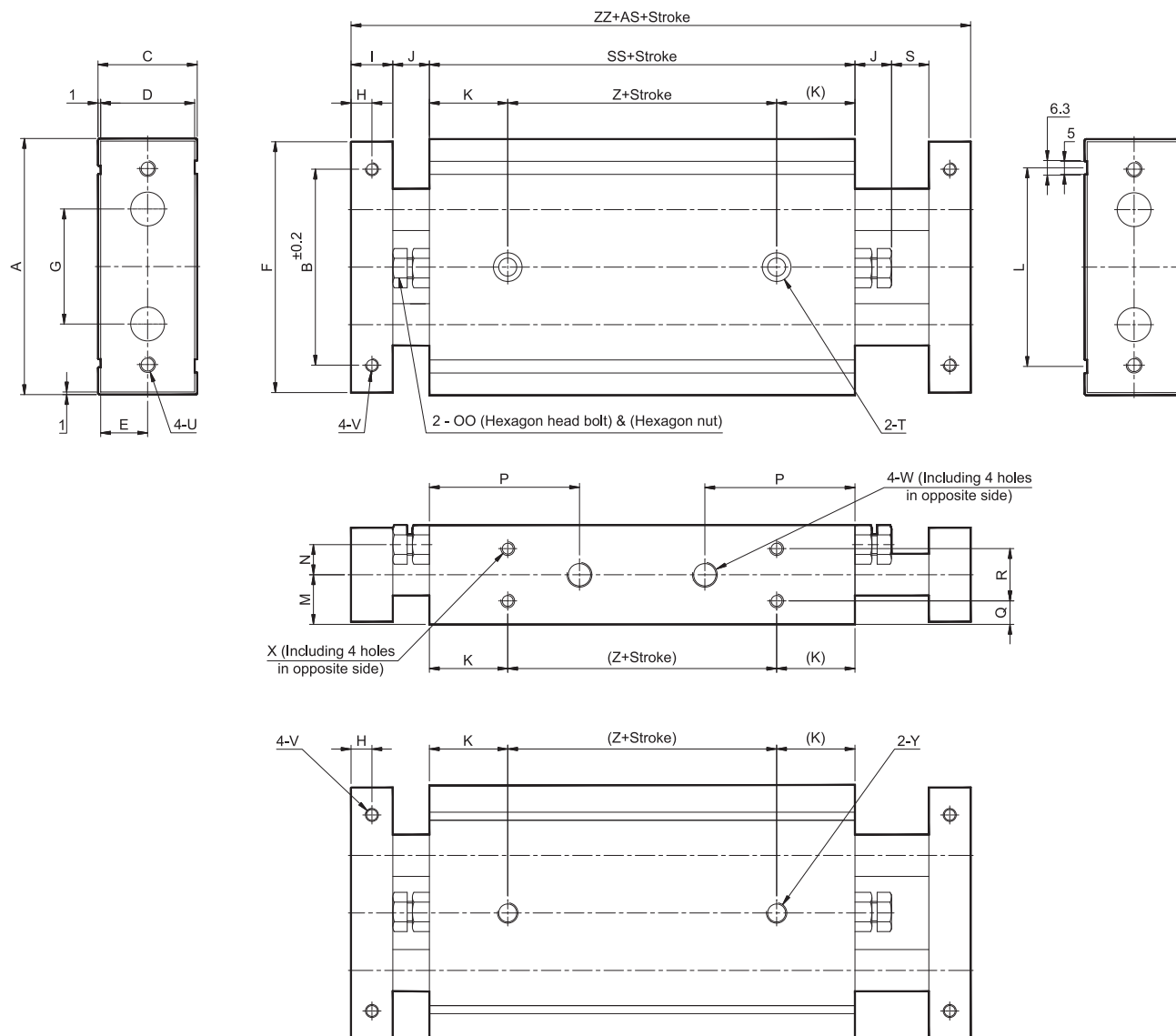
Bore	S	SS+Stroke	Z+Stroke	AS						ZZ+AS+Stroke
				Stroke	10	20	30	40	50	
Ø16	Stroke	95+Stroke	45+Stroke		0	10	20	30	40	143+AS+Stroke

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Basic Dimension - Ø20, Ø25, Ø32 mm



Bore	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R
Ø20	64	50	25	23	11.5	62	28	6	12	12	30	53	12.5	6.5	45	7.75	9.5
Ø25	80	60	30	28	14	78	35	6	12	12		64	15	9	48	8.5	13
Ø32	98	75	38	36	18	96	44	8	16	14		76	19	11.5	57.5	9	20

Bore	OO	T	U	V	W	X	Y
Ø20	M6x1.0	Ø5 through, C'bore Ø9.5, dp5.3	M5x0.8 through	M4x0.7 dp 6	M5x0.8 dp4.5	8-M4x0.7 dp6	M6x1.0
Ø25	M6x1.0	Ø6.8 through C'bore Ø11, dp6.3	M6x1.0 through	M5x0.8 dp 7.5	G1/8" dp6.5	8-M5x0.8 dp7.5	M8x1.25
Ø32	M8x1.25		M6x1.0 through	M5x0.8 dp 10	G1/8" dp6.5	8-M5x0.8 dp7.5	M8x1.25

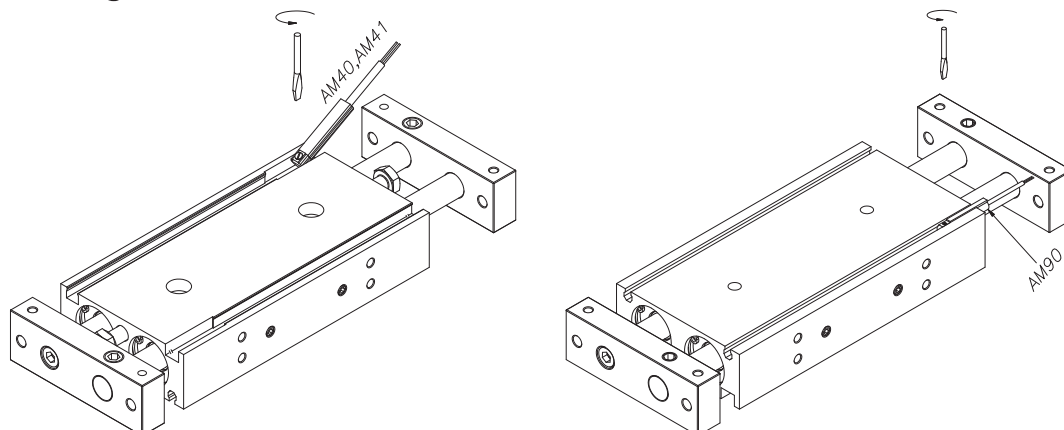
Bore	S	SS+Stroke	Z+Stroke	AS								ZZ+AS+Stroke
				Stroke	10	20	30	40	50	75	100	
Ø20	Stroke	110+Stroke	50+Stroke		0	10	20	30	40	65	90	168+AS+Stroke
Ø25		112+Stroke	52+Stroke									170+AS+Stroke
Ø32		133+Stroke	73+Stroke									203+AS+Stroke

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Sensor mounting



How to order

A1021

M

020

100

Type	
M	Bushing
L	Linear ball bearing

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

Stroke (mm)	
010	- 10
020	- 20
030	- 30
040	- 40
050	- 50
075	- 75
100	- 100

Note:

Ø10 & Ø16 - 75 and 100mm
stroke not available

Ordering example:

Twin piston cylinder, bore Ø20, stroke 100 mm, Bushing type : **A1021M020100**

Twin piston cylinder, bore Ø20, stroke 100 mm, Linear ball bearing type : **A1021L020100**

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))