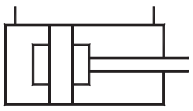


A02 - Non-magnetic

AIR CYLINDER

Series A02

Cat No A02 - 01 - 03 - B

COMPACT CYLINDERS Double Acting (Ø12 - 100 mm)

Features

- ❑ Compact, light weight, and space saving design
- ❑ Large clamping force in relation to their size
- ❑ Low friction, long life seal design
- ❑ Elastomer end cushion

Application

These compact cylinders are widely used in low cost automation, SPMs, industrial machinery, Jigs & fixtures etc.

Technical Specifications

Cylinder bore Ø (mm)	12	16	20	25	32	40	50	63	80	100
Standard strokes* (mm)	5, 10, 15, 20, 25, 30, 40		5, 10, 15, 20, 25, 30, 40, 50		5, 10, 15, 20, 25, 30, 40, 50, 60		10, 20, 30, 40, 50, 60, 70, 80			
Medium	Compressed air - Filtered - Lubricated									
Working pressure range	0.5 - 10 bar									
Ambient temperature	-10° to +60° C									
Medium temperature	+5° to +50° C									

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

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

Cylinder bore Ø (in mm)	Rod Ø (in mm)		Working pressure in bar								
			2	3	4	5	6	7	8	9	10
12	6	Extend	20	30	40	50	60	70	80	90	100
		Retract	15	22	30	38	46	53	61	68	76
16	8	Extend	36	54	72	90	108	126	144	162	180
		Retract	27	40	54	67	81	95	108	122	135
20	10	Extend	56	84	112	140	169	196	224	254	282
		Retract	42	63	84	106	127	148	169	190	212
25	12	Extend	88	132	176	220	264	308	352	396	440
		Retract	68	102	136	170	204	238	272	306	340
32	16	Extend	145	217	289	362	434	507	579	651	724
		Retract	108	162	217	271	325	380	434	488	542
40	16	Extend	226	339	452	565	678	792	905	1018	1130
		Retract	190	285	380	475	570	665	760	855	950
50	20	Extend	353	530	706	884	1060	1237	1414	1590	1767
		Retract	297	445	594	742	890	1039	1187	1336	1484
63	20	Extend	561	842	1122	1403	1683	1964	2244	2525	2805
		Retract	505	757	1009	1261	1514	1766	2018	2270	2523
80	25	Extend	905	1357	1809	2262	2714	3167	3619	4072	4524
		Retract	816	1225	1633	2041	2449	2857	3266	3674	4082
100	30	Extend	1414	2120	2827	3534	4241	4948	5655	6362	7068
		Retract	1287	1929	2573	3216	3859	4502	5145	5789	6432

(Above values have been worked out taking frictional loss into consideration)

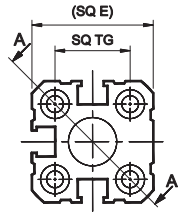
AIR CYLINDER

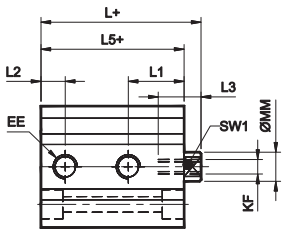
Series A02

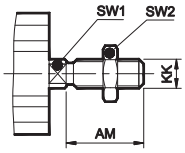
Cat No A02 - 01 - 03 - B

Basic cylinder

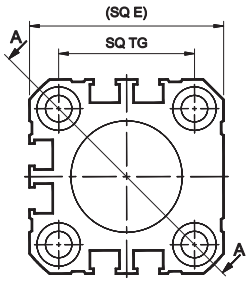
Sizes - Ø12, Ø16

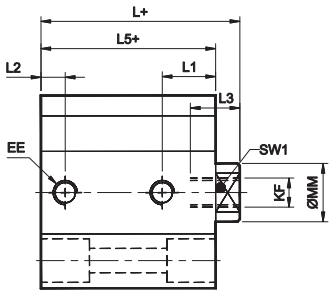


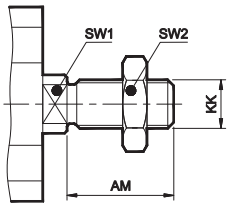




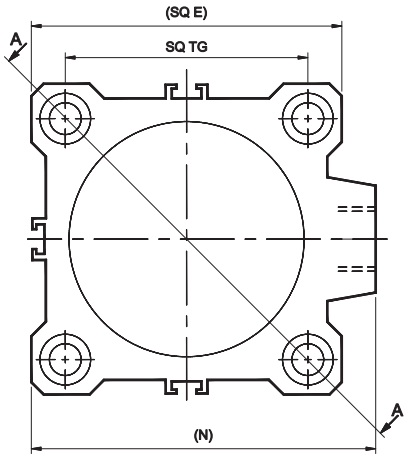
Sizes - Ø20, Ø25

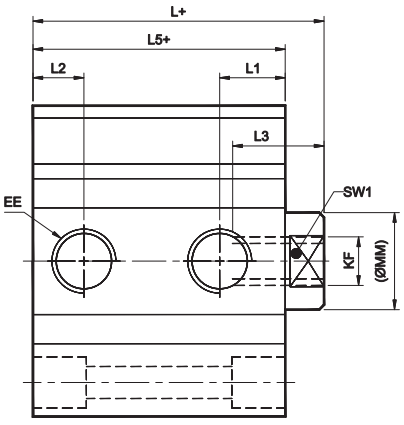


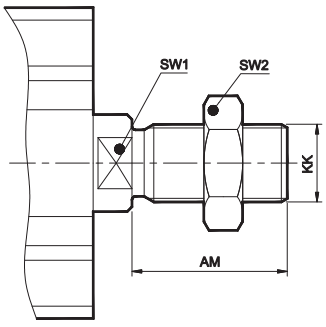




Sizes - Ø32, Ø40, Ø50, Ø63, Ø80, Ø100

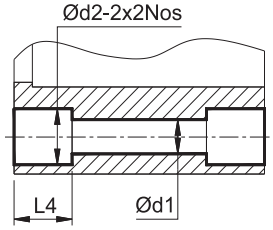
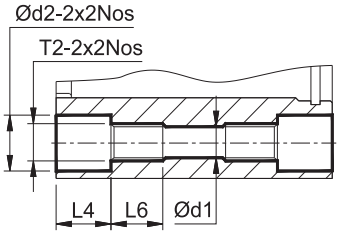
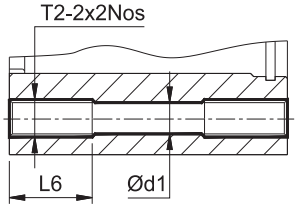






Section AA

+ Add stroke

Model O	Model 1	Model 2
Counter bore and through hole on both sides	Counter bore and thread on both sides	Thread on both sides
		

AIR CYLINDER

Series A02

Cat No A02 - 01 - 03 - B

Model O - Counter bore and through hole on both sides

+ Add stroke

Product No.	Cylinder bore Ø	KF	MM	L3	d1	d2	L4	SW1	L1	L2	EE	TG	E	N	L5	L	KK	AM	SW2
A020120000	12	M3 x 0.5	6	6	3.5	6	5.5	5	11.5	5	M5 x 0.8	15.5	25	-	29.5	33	M6 x 1	16	10
A020160000	16	M4 x 0.7	8	8	3.5	6	5.5	6	11	5.5	M5 x 0.8	20	29	-	30.5	34	M8 x 1.25	20	13
A020200000	20	M5 x 0.8	10	8	5.5	9	9.5	8	11.5	5	M5 x 0.8	25.5	36	-	31.5	35	M10 x 1.25	22	17
A020250000	25	M6 x 1	12	12	5.5	9	9.5	10	11	5	M5 x 0.8	28	40	-	36	41	M10 x 1.25	22	17
A020320000	32	M8 x 1.25	16	13	5.5	9	9.5	14	12.5	8	G1/8	34	45	49.5	41	48	M12 x 1.25	24	19
A020400000	40	M8 x 1.25	16	13	5.5	9	9.5	14	11.5	8	G1/8	40	52	57	36.5	43.5	M12 x 1.25	24	19
A020500000	50	M10 x 1.5	20	15	6.6	10.5	11	17	14	10.5	G1/4	50	64	71	42	50	M16 x 1.5	32	24
A020630000	63	M10 x 1.5	20	15	9	13.5	11	17	14	10.5	G1/4	60	77	84	43	51	M16 x 1.5	32	24
A020800000	80	M16 x 2	25	21	11	16.5	14.5	22	18.5	12.5	G3/8	77	98	104	54.5	64.5	M20 x 1.5	40	30
A021000000	100	M20 x 2.5	30	27	11	16.5	14.5	27	21	12.5	G3/8	94	117	123.5	57.5	68.5	M20 x 1.5	40	30

Model 1 - Counter bore and thread on both sides

+ Add stroke

Product No.	Cylinder bore Ø	KF	MM	L3	d1	d2	L4	SW1	L1	L2	EE	TG	E	N	L5	L6	L	KK	AM	SW2	T2
A020120001	12	M3 x 0.5	6	6	3.5	6	5.5	5	11.5	5	M5 x 0.8	15.5	25	-	29.5	8	33	M6 x 1	16	10	M4x0.7
A020160001	16	M4 x 0.7	8	8	3.5	6	5.5	6	11	5.5	M5 x 0.8	20	29	-	30.5	8	34	M8 x 1.25	20	13	M4x0.7
A020200001	20	M5 x 0.8	10	8	5.5	9	9.5	8	11.5	5	M5 x 0.8	25.5	36	-	31.5	10	35	M10 x 1.25	22	17	M6x1
A020250001	25	M6 x 1	12	12	5.5	9	9.5	10	11	5	M5 x 0.8	28	40	-	36	10	41	M10 x 1.25	22	17	M6x1
A020320001	32	M8 x 1.25	16	13	5.5	9	9.5	14	12.5	8	G1/8	34	45	49.5	41	10	48	M12 x 1.25	24	19	M6x1
A020400001	40	M8 x 1.25	16	13	5.5	9	9.5	14	11.5	8	G1/8	40	52	57	36.5	10	43.5	M12 x 1.25	24	19	M6x1
A020500001	50	M10 x 1.5	20	15	6.6	10.5	11	17	14	10.5	G1/4	50	64	71	42	13	50	M16 x 1.5	32	24	M8x1.25
A020630001	63	M10 x 1.5	20	15	9	13.5	11	17	14	10.5	G1/4	60	77	84	43	16	51	M16 x 1.5	32	24	M10x1.5
A020800001	80	M16 x 2	25	21	11	16.5	14.5	22	18.5	12.5	G3/8	77	98	104	54.5	19	64.5	M20 x 1.5	40	30	M12x1.75
A021000001	100	M20 x 2.5	30	27	11	16.5	14.5	27	21	12.5	G3/8	94	117	123.5	57.5	19	68.5	M20 x 1.5	40	30	M12x1.75

Model 2 - Thread on both sides

+ Add stroke

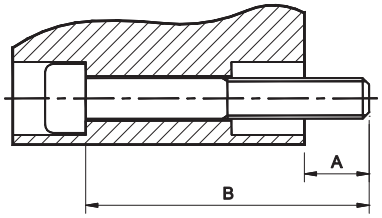
Product No.	Cylinder bore Ø	KF	MM	L3	d1	SW1	L1	L2	EE	TG	E	N	L5	L6	L	KK	AM	SW2	T2
A020120002	12	M3 x 0.5	6	6	3.5	5	11.5	5	M5 x 0.8	15.5	25	-	29.5	8	33	M6 x 1	16	10	M4x0.7
A020160002	16	M4 x 0.7	8	8	3.5	6	11	5.5	M5 x 0.8	20	29	-	30.5	8	34	M8 x 1.25	20	13	M4x0.7
A020200002	20	M5 x 0.8	10	8	5.5	8	11.5	5	M5 x 0.8	25.5	36	-	31.5	10	35	M10 x 1.25	22	17	M6x1
A020250002	25	M6 x 1	12	12	5.5	10	11	5	M5 x 0.8	28	40	-	36	10	41	M10 x 1.25	22	17	M6x1
A020320002	32	M8 x 1.25	16	13	5.5	14	12.5	8	G1/8	34	45	49.5	41	10	48	M12 x 1.25	24	19	M6x1
A020400002	40	M8 x 1.25	16	13	5.5	14	11.5	8	G1/8	40	52	57	36.5	10	43.5	M12 x 1.25	24	19	M6x1
A020500002	50	M10 x 1.5	20	15	6.6	17	14	10.5	G1/4	50	64	71	42	13	50	M16 x 1.5	32	24	M8x1.25
A020630002	63	M10 x 1.5	20	15	9	17	14	10.5	G1/4	60	77	84	43	16	51	M16 x 1.5	32	24	M10x1.5
A020800002	80	M16 x 2	25	21	11	22	18.5	12.5	G3/8	77	98	104	54.5	19	64.5	M20 x 1.5	40	30	M12x1.75
A021000002	100	M20 x 2.5	30	27	11	27	21	12.5	G3/8	94	117	123.5	57.5	19	68.5	M20 x 1.5	40	30	M12x1.75

AIR CYLINDER

Series A02

Cat No A02 - 01 - 03 - B

Recommended bolt size for basic mounting



Ordering no.	A	Bolt size B	Ordering no.	A	Bolt size B	Ordering no.	A	Bolt size B	Ordering no.	A	Bolt size B	Ordering no.	A	Bolt size B
A02 012 005	6	M3 x 35	A02 016 005	5	M3 x 35	A02 020 005	8	M5 x 35	A02 025 005	8.5	M5 x 40	A02 032 005	8.5	M5 x 45
010	6	x 40	010	5	x 40	010	8	x 40	010	8.5	x 45	010	8.5	x 50
015	6	x 45	015	5	x 45	015	8	x 45	015	8.5	x 50	015	8.5	x 55
020	6	x 50	020	5	x 50	020	8	x 50	020	8.5	x 55	020	8.5	x 60
025	6	x 55	025	5	x 55	025	8	x 55	025	8.5	x 60	025	8.5	x 65
030	6	x 60	030	5	x 60	030	8	x 60	030	8.5	x 65	030	8.5	x 70
040	6	x 70	040	5	x 70	040	8	x 70	040	8.5	x 75	040	8.5	x 80
						050	8	x 80	050	8.5	x 85	050	8.5	x 90
												060	8.5	x 100

Ordering no.	A	Bolt size B	Ordering no.	A	Bolt size B	Ordering no.	A	Bolt size B	Ordering no.	A	Bolt size B	Ordering no.	A	Bolt size B
A02 040 005	8	M5 x 40	A02 050 010	9	M6 x 50	A02 063 010	13	M8 x 55	A02 080 010	15	M10 x 65	A02 100 010	17	M10 x 70
010	8	x 45	020	9	x 60	020	13	x 65	020	15	x 75	020	17	x 80
015	8	x 50	030	9	x 70	030	13	x 75	030	15	x 85	030	17	x 90
020	8	x 55	040	9	x 80	040	13	x 85	040	15	x 95	040	17	x 100
025	8	x 60	050	9	x 90	050	13	x 95	050	15	x 105	050	17	x 110
030	8	x 65	060	9	x 100	060	13	x 105	060	15	x 115	060	17	x 120
040	8	x 75	070	9	x 110	070	13	x 115	070	15	x 125	070	17	x 130
050	8	x 85	080	9	x 120	080	13	x 125	080	15	x 135	080	17	x 140
060	8	x 95												

How to order

A02 — **040** — **050** — **O** — Optional: **M**

Piston Ø (mm)	
012	- Ø 12
016	- Ø 16
020	- Ø 20
025	- Ø 25
032	- Ø 32
040	- Ø 40
050	- Ø 50
063	- Ø 63
080	- Ø 80
100	- Ø 100

Stroke (mm)	
005	- 5
010	- 10
015	- 15
020	- 20
025	- 25
030	- 30
040	- 40
050	- 50
060	- 60
070	- 70
080	- 80

Mounting type	
O	- Basic Counter bore and through hole on both sides
1	- Counter bore and thread on both sides
2	- Thread on both sides

M - Male thread

Example:

Ordering no. for cylinder with 40 dia bore, 50 mm stroke with Female thread : **A02 040 050 O**

Ordering no. for cylinder with 40 dia bore, 50 mm stroke with Male thread : **A02 040 050 O - M**

Ordering no. for cylinder with 40 dia bore, 50 mm stroke, thread on both sides with Male thread : **A02 040 050 2 - M**

For your special requirements of cylinders or for further informations contact your regional dealer or **JANATICS**

Subject to change