

A27 - Magnetic



A28 - Non-magnetic

AIR CYLINDER

Series A27, A28

Cat No A27, A28 - 01 - 01

AIR CYLINDERS Double Acting - Ø32 - 100 mm

As per ISO 15552 / VDMA 24562 standards

Features

- ☐ Adjustable cushioning at both ends with elastomer pads
- ☐ Wide varieties of mountings.
- ☐ Magnetic and Non magnetic version
- ☐ High temperature (Viton seals) 150°C max.
- ☐ Non corrosive Stainless steel piston rod and piston rod lock nut (SS 304)



Technical Specifications

Cylinder bore Ø (mm)		32	40	50	63	80	100						
Cushion stroke (mm)		21	23	23	23	28	28						
Standard strokes * (mm)		25	50	80	100	125	160	200	250	300	320	400	500
Medium		Compressed air - filtered - lubricated											
Working pressure		0.5 - 10 bar											
Medium temperature	Regular	5° - 60° C											
	High temperature applications**	5° - 150° C max.											
Materials of construction		Aluminium, Brass, Nitrile, Steel, Acetal, Polyurethane											
Mountings		Basic cylinder, Foot mounting, Front flange, Rear flange, Male clevis, Male clevis (with spherical bearing), Female clevis, Female clevis (King pin), Front trunnion, Rear trunnion, Centre trunnion											
Accessories		Clevis foot bracket, Wall mounting bracket, Trunnion bracket, Rod end fork, Rod end aligner, Rod end spherical eye											

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

** Refer Special Ordering number.

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
32	12	Extend	145	217	289	362	434	507	579	651	724
		Retract	124	187	249	311	373	435	498	559	621
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	891	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	25	Extend	1414	2120	2828	3534	4241	4948	5655	6362	7069
		Retract	1325	1988	2650	3313	3976	4640	5300	5965	6625

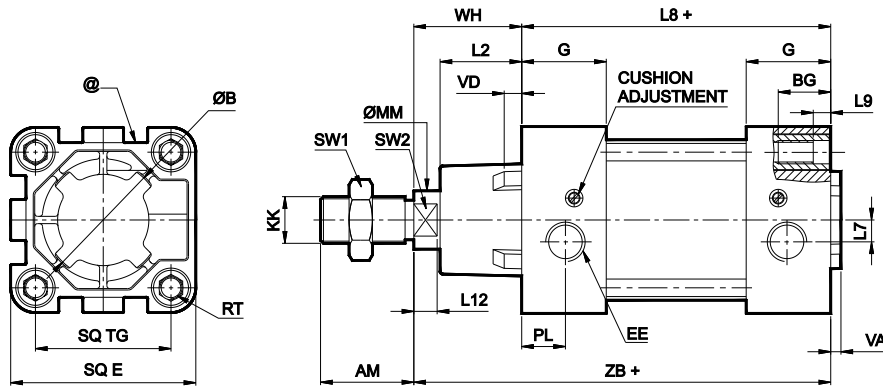
(Above values have been worked out taking frictional loss into consideration)

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Basic cylinder

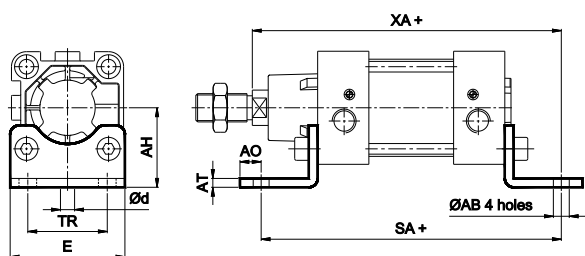


+ Add stroke

Cylinder bore Ø	KK	AM	MM	SW2	L12	SW1	B e11	VD	VA	L2	E max	G	TG	RT	BG min	EE	PL	L7	WH	Tol	ZB	Tol	L8	Tol	L9	Stroke tol
32	M10x1.25	22	12	10	6	17	30	6	4	18.5	45	25.5	32.5	M6	16	G1/8	13	5	26		120	± 1	94	± 0.6	5	+ 2 + 0
40	M12x1.25	24	16	13	6.5	19	35	6.5	4	20.5	51	29	38	M6	16	G1/4	14.5	5	30	± 1.4	135		105	± 0.7	5	
50	M16x1.5	32	20	16	8	24	40	6.5	4	28	64	29	46.5	M8	16	G1/4	15	7.5	37		143		106	± 0.7	6	+ 2.5 + 0
63	M16x1.5	32	20	16	8	24	45	6.5	4	27.5	74	35	56.5	M8	16	G3/8	17	10	37		158	± 1.1	121	± 0.8	6	
80	M20x1.5	40	25	21	10	30	45	6.5	4	34	94	35	72	M10	16	G3/8	18	14	46	± 1.8	174		128	± 0.8	6	
100	M20x1.5	40	25	21	10	30	55	6.5	4	35	111	38.5	89	M10	16	G1/2	18	10	51		189		138	± 1	6	

Foot mounting

+ Add stroke

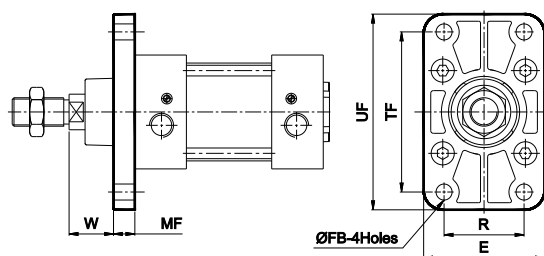


Cylinder bore Ø	TR ±0.3	AB H14	AH Js16	AO max	AT	E	d*	SA	Tol	XA	Tol	Recommended Bolt size	Ordering No
32	32	7	32	8	4	46	5.8	142		144		M6	ML1032
40	36	10	36	10	4	52	7.8	161	±1.25	163	±1.25	M8	ML1040
50	45	10	45	12	5	65	7.8	170		175		M8	ML1050
63	50	10	50	12	5	75	7.8	185		190		M8	ML1063
80	63	12	63	17	6	95	9.8	210	±1.6	215	±1.6	M10	ML1080
100	75	14.5	71	19	6	115	11.8	220		230		M12	ML1100

* Suitable for reaming

Front flange

+ Add stroke



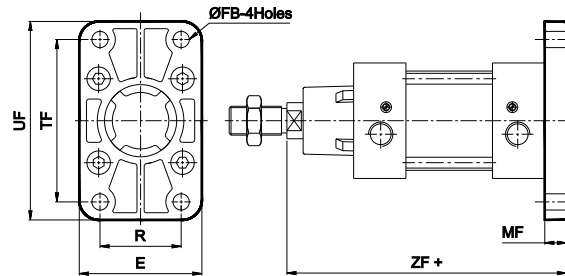
Cylinder bore Ø	TF ±0.3	R ±0.3	FB H13	MF	UF	E	W	Tol	Recommended Bolt size	Ordering No
32	64	32	7	10	80	50	16		M6	MF1032
40	72	36	9	10	90	55	20	±1.6	M8	MF1040
50	90	45	9	12	110	68	25		M8	MF1050
63	100	50	9	12	125	78	25		M8	MF1063
80	126	63	12	16	155	100	30	±2	M10	MF1080
100	150	75	14	16	185	120	35		M12	MF1100

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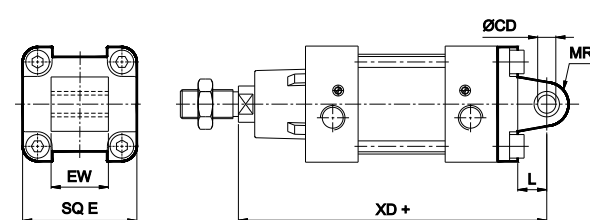
Rear flange



+ Add stroke

Cylinder bore Ø	TF ±0.3	R ±0.3	FB H13	MF	UF	E	ZF	Tol	Recommended Bolt size	Ordering No
32	64	32	7	10	80	50	130	±1.25	M6	MF1032
40	72	36	9	10	90	55	145		M8	MF1040
50	90	45	9	12	110	68	155		M8	MF1050
63	100	50	9	12	125	78	170	±1.6	M8	MF1063
80	126	63	12	16	155	100	190		M10	MF1080
100	150	75	14	16	185	120	205		M12	MF1100

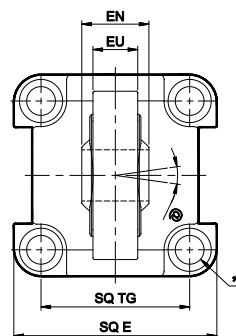
Male clevis



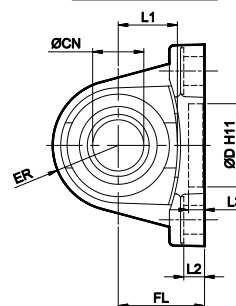
+ Add stroke

Cylinder bore Ø	CD H9	EW	Tol	L min	MR max	E max	XD	Tol	Ordering No
32	10	26	-0.2 -0.6	12	11	45	142	±1.25	MS1032
40	12	28		15	13	51	160		MS1040
50	12	32		15	13	64	170		MS1050
63	16	40		20	17	74	190	±1.6	MS1063
80	16	50		20	17	94	210		MS1080
100	20	60		25	21	111	230		MS1100

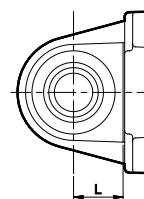
Male Clevis (with spherical bearing)



For Ø32, Ø50, Ø80



For Ø40, Ø63, Ø100



Bore dia	CN H7	EN	EU	L	L1	ER max	SQ E	SQ TG	L2	FL	ØD H11	L3 min	@	Recommended Bolt size *	Ordering no.
32	10	14	10.5	-	13.5	15.5	44.5	32.5	5.5	22	30	4.5	±4°	M6 x 20	MG1032
40	12	16	12	15.5	-	17.5	50.5	38	5.5	25	35			M6 x 20	MG1040
50	16	21	15	-	19min	20.5	63.5	46.5	6.5	27	40			M8 x 20	MG1050
63	16	21	15	19min	-	22.5	73.5	56.5	6.5	32	45			M8 x 20	MG1063
80	20	25	18	-	24min	27.5	93.5	72	10	36	45			M10 x 25	MG1080
100	20	25	18	24min	-	29.5	110.5	89	10	41	55			M10 x 25	MG1100

* Supplied with 4nos. of screws

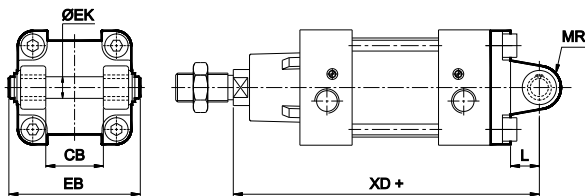
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Female clevis

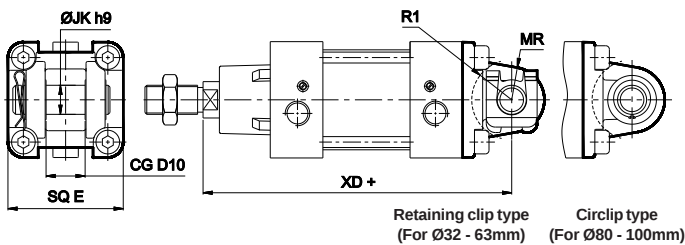
+ Add stroke



Cylinder bore Ø	EK e8	CB H14	L min	MR max	EB max	XD	Tol	Ordering No
32	10	26	12	11	56	142	±1.25	MD1032
40	12	28	15	13	65	160		MD1040
50	12	32	15	13	73	170		MD1050
63	16	40	20	17	86	190	±1.6	MD1063
80	16	50	20	17	106	210		MD1080
100	20	60	25	21	129	230		MD1100

Female clevis (King pin)

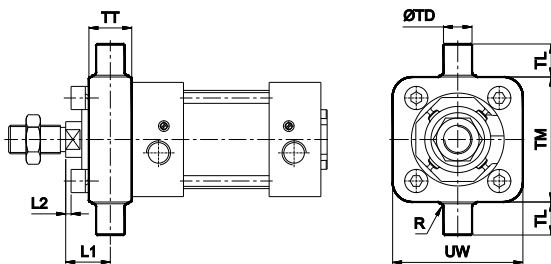
+ Add stroke



Cylinder bore Ø	JK h9	CG D10	R1	MR max	SQ E	XD	Tol	Ordering No
32	10	14	17	11	45	142	±1.25	MK1032
40	12	16	20	13	51	160		MK1040
50	16	21	22	18	64	170		MK1050
63	16	21	25	18	74	190	±1.6	MK1063
80	20	25	30	22	94	210		MK1080
100	20	25	32	22	111	230		MK1100

Front trunnion

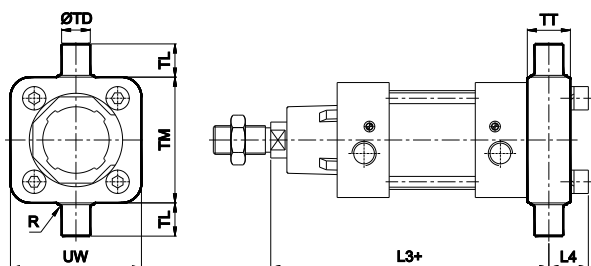
+ Add stroke



Cylinder bore Ø	TD e9	TL h14	TM h14	UW	TT	R	L1	Tol	L2 approx	Ordering No
32	12	12	50	48	16	1	18	±1.5	2	MT1032
40	16	16	63	55	22	1.6	19		0	MT1040
50	16	16	75	70	24	1.6	25		3	MT1050
63	20	20	90	86	28	1.6	23	±1.8	-1	MT1063
80	20	20	110	110	32	1.6	30		1.8	MT0080
100	25	25	132	135	40	2	31		-1.2	MT0100

Rear trunnion

+ Add stroke



Cylinder bore Ø	TD e9	TL h14	TM h14	UW	TT	R	L3	Tol	L4 approx	Ordering No
32	12	12	50	48	16	1	128	±1.5	16	MT1032
40	16	16	63	55	22	1.6	146		19	MT1040
50	16	16	75	70	24	1.6	155		22	MT1050
63	20	20	90	86	28	1.6	172	±1.8	24	MT1063
80	20	20	110	110	32	1.6	190		29	MT0080
100	25	25	132	135	40	2	209		33	MT0100

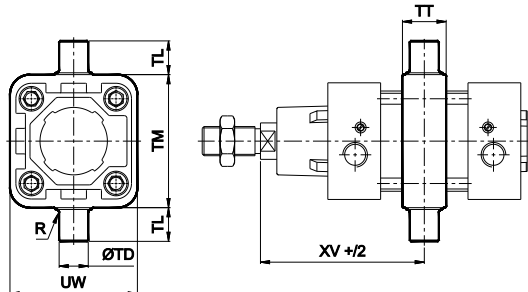
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Centre trunnion

+ Add stroke

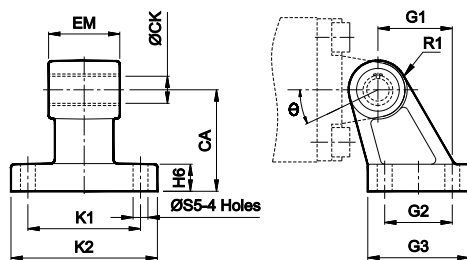


Cylinder bore Ø	TD e9	TL h14	TM h14	UW	TT	R	XV ± 2
32	12	12	50	48	16	1	73
40	16	16	63	55	22	1.5	82.5
50	16	16	75	70	24	1.6	90
63	20	20	90	86	28	1.6	97.5
80	20	20	110	110	32	1.6	110
100	25	25	132	135	40	2	120

Note : Cylinder with centre trunnion is factory fitted, please contact JANATICS - H.O

Accessories for Air Cylinder series A27, A28

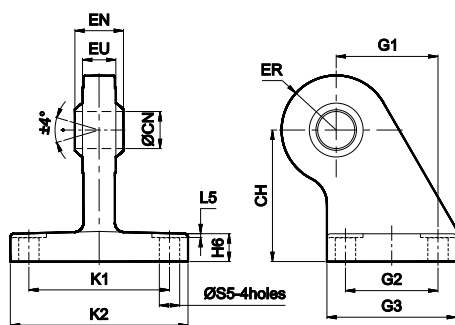
Clevis foot bracket



Cylinder bore Ø	K1 Js14	G2 Js14	S5 H13	CA Js15	CK H9	EM - 0.2 - 0.6	G1 Js14	H6	R1 max	K2	G3	θ°	Recommended Bolt size	Ordering no. @
32	38	18	6.6	32	10	26	21	8	10	51	31	10	M6	AA1032
40	41	22	6.6	36	12	28	24	10	11	54	35	15	M6	AA1040
50	50	30	9	45	12	32	33	12	13	65	45	15	M8	AA1050
63	52	35	9	50	16	40	37	12	15	67	50	15	M8	AA1063
80	66	40	11	63	16	50	47	14	15	86	60	15	M10	AA1080
100	76	50	11	71	20	60	55	15	19	96	70	15	M10	AA1100

@ Adoptable to cylinder with female clevis

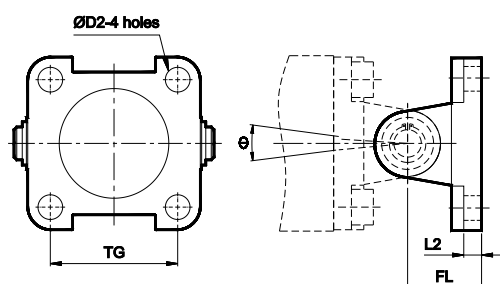
Clevis foot bracket (with spherical bearing)



Cylinder bore Ø	K1 Js14	G2 Js14	S5 H13	CH Js15	CN H7	EU max	G1 Js14	H6	ER max	K2 max	G3	EN -0.1	L5	Ordering no. @
32	38	18	6.6	32	10	10.5	21	10	16	51	31	14	1	AB1032
40	41	22	6.6	36	12	12	24	10	18	54	35	16	1	AB1040
50	50	30	9	45	16	15	33	12	21	65	45	21	1	AB1050
63	52	35	9	50	16	15	37	12	23	67	50	21	1	AB1063
80	66	40	11	63	20	18	47	14	28	86	60	25	2	AB1080
100	76	50	11	71	20	18	55	15	30	96	70	25	2	AB1100

@ Adoptable to cylinder with female clevis

Wall mounting bracket



Cylinder bore Ø	TG	D2	L2	FL	θ°	Recommended Bolt size	Ordering no. @	Ordering no. #
32	32.5	6.6	5.5	22	90	M6	AV1032	AW1032
40	38	6.6	5.5	25	90	M6	AV1040	AW1040
50	46.5	9	6.5	27	90	M8	AV1050	AW1050
63	56.5	9	6.5	32	90	M8	AV1063	AW1063
80	72	11	10	36	60	M10	AV1080	AW1080
100	89	11	10	41	60	M10	AV1100	AW1100

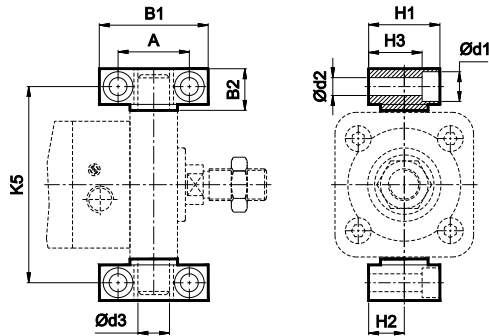
@ Adoptable to cylinder with male clevis
Adoptable to cylinder with female clevis

AIR CYLINDER

Series A27, A28

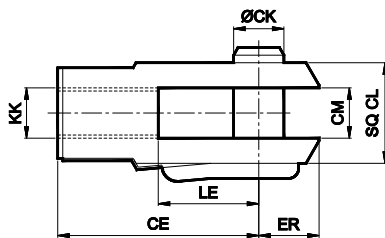
Cat No A27, A28 - 01 - 01

Trunnion bracket



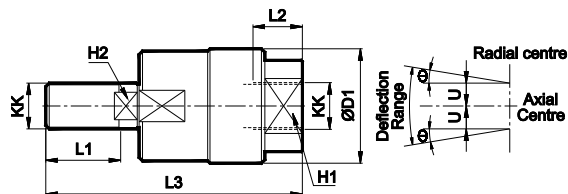
Cylinder bore Ø	B1	B2	A	d1	d2 H13	d3 H9	H1	H2	H3	K5 Js14	Ordering no.
32	46	18	32 ±0.2	11	6.6	12	30	15 ±0.1	23	71	AT032
40	55	21	36 ±0.2	15	9	16	36	18 ±0.1	27	87	AT040
50	55	21	36 ±0.2	15	9	16	36	18 ±0.1	27	99	AT040
63	65	23	42 ±0.2	16.5	11	20	40	20 ±0.1	29	116	AT063
80	65	23	42 ±0.2	16.5	11	20	40	20 ±0.1	29	136	AT063
100	75	28.5	50 ±0.2	20	14	25	50	25 ±0.1	37	164	AT100

Rod end Fork (ISO 8140)



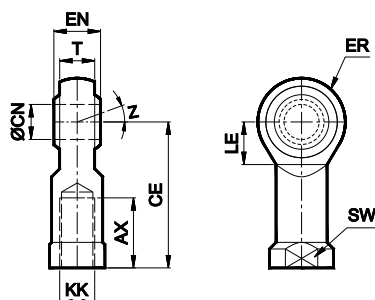
Cylinder bore Ø	KK	CE	CK f 8	CM B12	LE	ER max	CL	Ordering no.
32	M10 x 1.25	40	10	10	20	16	20	AF010
40	M12 x 1.25	48	12	12	24	19	24	AF012
50 / 63	M16 x 1.5	64	16	16	32	25	32	AF016
80 / 100	M20 x 1.5	80	20	20	40	32	40	AF020

Rod end Aligner



Cylinder bore Ø	KK	L1	L2	L3	H1	H2	D1	U	± θ°	Ordering no.
32	M10 x 1.25	20	14	65	17	8	28	0.75	5	AR010
40	M12 x 1.25	22	18	75	19	10	32	1	5	AR012
50 / 63	M16 x 1.5	25	22	91	27	13	41	1	5	AR016
80 / 100	M20 x 1.5	30	28	112	32	16	50	1.5	5	AR020

Rod end spherical eye (ISO 8139)



Cylinder bore Ø	KK	CN H9	T	EN h12	CE	LE min	ER max	AX	SW	Z	Ordering no.
32	M10 x 1.25	10	10.5	14	43	15	14	20	17	13°	AP010
40	M12 x 1.25	12	12	16	50	17	16	22	19		AP012
50 / 63	M16 x 1.5	16	15	21	64	22	21	28	22	15°	AP016
80 / 100	M20 x 1.5	20	18	25	77	26	25	33	30/32		AP020

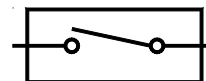
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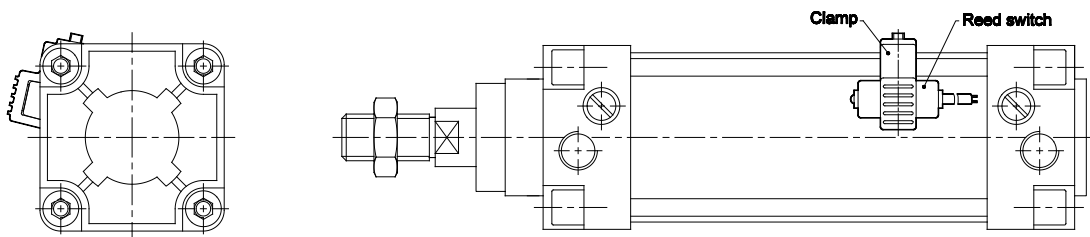
ACCESSORIES FOR MAGNETIC CYLINDERS Series A25, A27

REED SWITCH



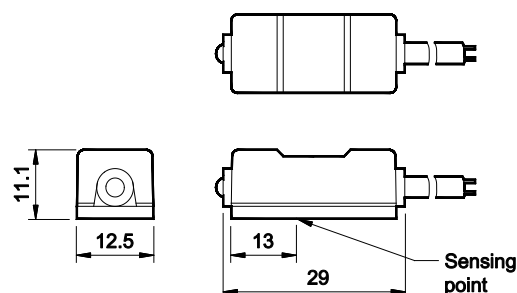
Function

The reed switch and clamping kit assembly is mounted on the Air cylinder (Series A25, A27), for proximity sensing. The piston of the cylinder is equipped with a permanent magnet which activates the reed switch on approaching it. The reed switch closes the circuit giving an electrical signal, which could be used further as required. The accuracy of the sensing distance depends on the speed of operation of the piston.

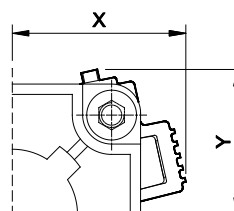


Technical Specifications - Reed Switch

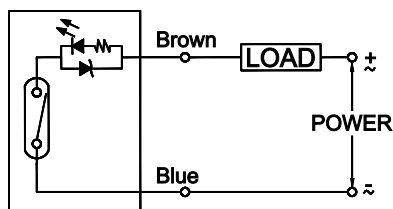
Model	880006
Operating voltage	DC / AC 5 - 240V
Switching current	100mA max
Switch rating	10 W max
Voltage drop	3.5V max.
Response time	On + off <1ms
Switching logic	SPST, Normally open
Operating temperature	-10° to +70° C
Shock	30 G
Vibration	9 G
Protection circuit	None
Type of protection	IEC 529, IP67
Colour of LED	Green
Cable	Ø4, 2C, 2meter



Cylinder bore Ø	X	Y	Ordering no. for Clamp (a)	Ordering no. Reed Switch (b)	Ordering no. (a+b)
32	37	29	SA0001	880006	AM1032
40	40	31			
50	44	37			
63	45	48	SA0002		AM1063
80	57	-	SA0003		AM1080
100	65	-			



Circuit and connect diagram



AIR CYLINDER

Series A27, A28

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How to order

A

Model		Piston Ø (mm)		Stroke (mm)		Mountings		Special Cylinders	
27	Magnetic cylinder	032	- Ø 32	025	- 25	O	- Basic	H	- High temp
28	Standard cylinder	040	- Ø 40	050	- 50	L	- Foot Mounting	S	- SS piston rod
		050	- Ø 50	080	- 80	F	- Front Flange		
		063	- Ø 63	100	- 100	R	- Rear Flange		
		080	- Ø 80	125	- 125	S	- Male Clevis		
		100	- Ø 100	160	- 160	G	- Male Clevis (with spherical bearing)		
				200	- 200	D	- Female Clevis		
				250	- 250	K	- Female Clevis (King pin)		
				300	- 300	M	- Rear Trunnion		
				320	- 320	N	- Front Trunnion		
				400	- 400	T	- Center Trunnion		
				500	- 500				

Example :

Ordering no. for standard cylinder with 40 dia bore, 50 mm stroke with female clevis mounting with High temp:
A28 040 050 D - T

Note :

If ordered as 40 dia, 50 mm stroke cylinder, Basic cylinder **A28 040 050 O** will be supplied.

For repeat order when the details are taken from cylinder nameplate, mention the mounting style separately.

For ordering **Accessories** refer corresponding tables for ordering numbers.

For ordering individual **Mounting** kits (If needed separately) the order numbers are as below

Cylinder bore Ø	Foot mounting *	Front / Rear flange *	Male clevis *	Female clevis *	Front / Rear trunnion *	Female clevis (King pin) *
						
32	ML1032	MF1032	MS1032	MD1032	MT1032	MK1032
40	ML1040	MF1040	MS1040	MD1040	MT1040	MK1040
50	ML1050	MF1050	MS1050	MD1050	MT1050	MK1050
63	ML1063	MF1063	MS1063	MD1063	MT1063	MK1063
80	ML1080	MF1080	MS1080	MD1080	MT0080	MK1080
100	ML1100	MF1100	MS1100	MD1100	MT0100	MK1100

* Supplied with 4nos. of screws

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

Subject to change