AIGNEP

Actuator Series

Cartridge Cylinders
Ø 6-16 mm



CA - CAF Series
Pg. 20.3

Mini Cylinders ISO 6432
Ø 8-25 mm



Mini Series
Pg. 20.5

Mini Stainless Steel Cylinders
ISO 6432 Ø 16-25 mm



Mini Stainless Steel Series
Pg. 20.13

Limited Space
Ø 32-63 mm



A95 Series
Pg. 20.16

Compact Cylinders
Ø 12-100 mm



Q Series
Pg. 20.23

ISO 15552 Cylinders
Ø 32-125 mm



L Series
Pg. 20.36

ISO 6431 Cylinders
Ø 160-320 mm



E Series
Pg. 20.45

Stainless Steel ISO 15552 Cylinders
Ø 32-125 mm



V Series
Pg. 20.47

Twin Rod Cylinders
Ø 32-100 mm



NHA Series
Pg. 20.50

Compact Cylinders ISO 21287
Ø 20-100 mm



W Series
Pg. 20.54

Cylinder Accessories
ISO 6431 - ISO 15552 - ISO 21287



Accessories
Pg. 20.62

Magnetic Position Sensing Switches



Sensors
Pg. 20.72

Rodless Actuator Series

Rodless Cylinders Standard Version



S1 Series
Pg. 20.82

Rodless Cylinder with Integrated Guides in Technopolymer



S5 Series
Pg. 20.91

Click here to view the Actuator Series on our Website

AIGNEP

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PNEUMATIC ACTUATORS

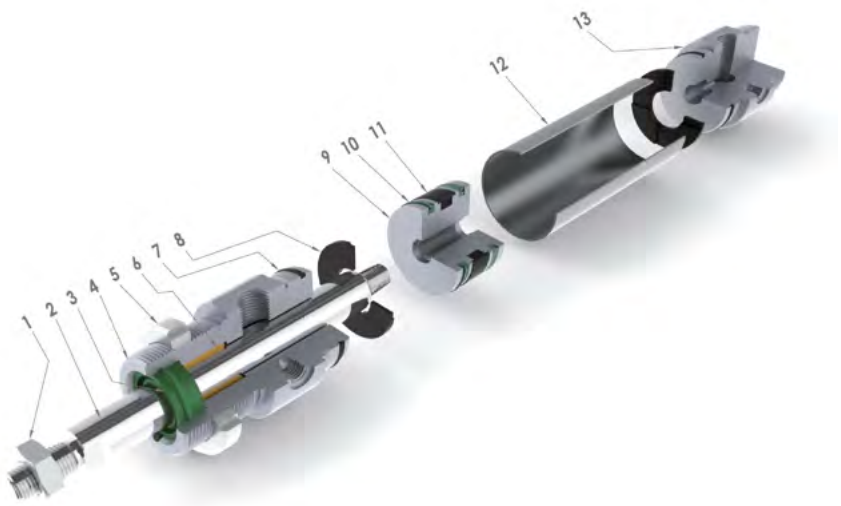


Actuator Series

P.A.

SERIES A95 - LIMITED SPACE CYLINDERS

TECHNICAL CHARACTERISTICS





Component Parts and Materials

1	Zinc plated steel rod jam nut
2	Chrome-plated steel piston rod
3	Polyurethane rod seal
4	Anodized aluminum end cap
5	Zinc-plated mounting nut
6	Sintered bronze rod bearing
7	NBR O-ring seals
8	Neoprene bumper
9	Anodized aluminum piston
10	Polyurethane piston seal
11	Bonded ferrite magnet
12	304 stainless steel body
13	Anodized aluminum end cap

Reference Standard

1907/2006 REACH ✓ | 2011/65/CE RoHS ✓ | PED 2014/68/UE | SILICON FREE | ATEX 2014/34/UE

Pressures

14.5 psi (1 bar / 0.1 MPa)
145 psi (10 bar / 1 MPa)

Temperatures

32 °F ~ 176 °F
0 °C ~ 80 °C (- 4 °F / -20 °C with dry air)

Media

Filtered and lubricated or non-lubricated compressed air.

Functions

Single acting magnetic or non-magnetic. Double acting single or double rod end, magnetic or non-magnetic, cushioned or non-cushioned.

Bores

32 - 40 - 50 - 63 mm

Standard Strokes

from 10 to 500 mm

FORCES, SPRING LOADS, AND AIR CONSUMPTION

Extend and Retract Forces

Cylinder	Piston Rod	Piston Area	Operating pressure									
Ø	Ø	mm²	bar									
			1	2	3	4	5	6	7	8	9	10
			Output force N									
32	12	Extend = 804	72	144	216	288	360	432	504	576	648	720
		Retract = 691	62	124	186	248	310	372	434	496	558	620
40	16	Extend = 1257	110	220	330	440	550	660	770	880	990	1100
		Retract = 1056	95	190	285	380	475	570	665	760	855	950
50	20	Extend = 1963	175	350	525	700	875	1050	1225	1400	1575	1750
		Retract = 1649	148	296	444	592	740	888	1036	1184	1332	1480
63	20	Extend = 3117	280	560	840	1120	1400	1680	1960	2240	2520	2800
		Retract = 2803	250	500	750	1000	1250	1500	1750	2000	2250	2500

Spring Loads

Cylinder	Spring load	Stroke (mm)		
Ø		10	25	50
		Output force N		
32	Load of spring at rest	56	51	42
	Load of compressed spring	60	60	60
40	Load of spring at rest	60	55	44
	Load of compressed spring	65	65	65
50	Load of spring at rest	64	57	46
	Load of compressed spring	68	68	68
63	Load of spring at rest	65	58	47
	Load of compressed spring	70	70	70

Air Consumption

Cylinder	Piston Rod	Piston Area	Operating pressure									
Ø	Ø	mm²	bar									
			1	2	3	4	5	6	7	8	9	10
			Air consumption for each 10 mm of stroke Nl									
32	12	Extend = 804	0.016	0.024	0.032	0.040	0.048	0.056	0.064	0.072	0.080	0.088
		Retract = 691	0.014	0.021	0.028	0.035	0.041	0.048	0.055	0.062	0.069	0.076
40	16	Extend = 1257	0.025	0.038	0.050	0.063	0.075	0.088	0.101	0.113	0.126	0.138
		Retract = 1056	0.021	0.032	0.042	0.053	0.063	0.074	0.084	0.095	0.106	0.116
50	20	Extend = 1963	0.039	0.059	0.079	0.098	0.118	0.137	0.157	0.177	0.196	0.216
		Retract = 1649	0.033	0.049	0.066	0.082	0.099	0.115	0.132	0.148	0.165	0.181
63	20	Extend = 3117	0.062	0.094	0.125	0.156	0.187	0.218	0.249	0.281	0.312	0.343
		Retract = 2803	0.056	0.084	0.112	0.140	0.168	0.196	0.224	0.252	0.280	0.308

Series	Ø (mm)	Stroke (mm)
A B	0 3 2	0 0 2 5

- ▲ AB Single acting - magnetic
- ▲ AD Single acting - magnetic - spring extend
- ● AF Double acting - magnetic
- ♦ AH Double acting - cushioned - magnetic
- ● AJ Double acting - magnetic with double rod end
- ♦ AL Double acting - cushioned - magnetic with double rod end

032
040
050
063

0010
0025
0050
0080
0100
0125
0150
0160
0200
0250
0320
0400
0500

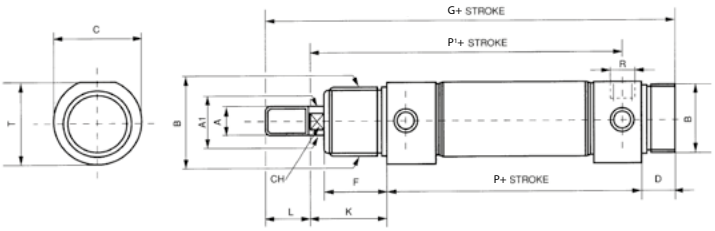
Intermediate or longer strokes are available upon request.

Ø (mm)	Stroke (mm)											
	10	25	50	80	100	125	160	200	250	320	400	500
32	▲●	▲♦●	▲♦●	♦●	♦●	♦●	♦●	♦●	♦●	♦●	♦●	♦●
40	▲●	▲♦●	▲♦●	♦●	♦●	♦●	♦●	♦●	♦●	♦●	♦●	♦●
50	▲●	▲♦●	▲♦●	♦●	♦●	♦●	♦●	♦●	♦●	♦●	♦●	♦●
63	▲●	▲♦●	▲♦●	♦●	♦●	♦●	♦●	♦●	♦●	♦●	♦●	♦●

AB

SINGLE ACTING - MAGNETIC



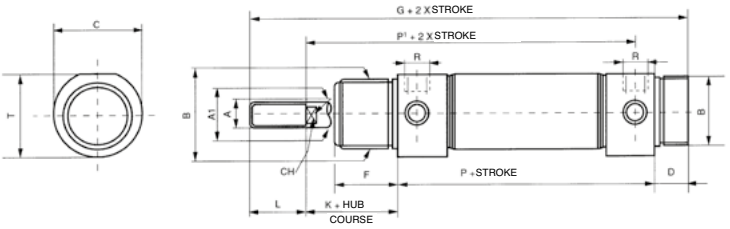


Ø	A	A1	B	T	C	D	F	G	K	L	P	P¹	CH	R
32	M10x1.25	12	M30x1.5	36.5	38	14	30	168	38	20	96	125	10	1/8"GAS
40	M12x1.25	16	M38x1.5	44	46	16	35	196	45	24	111	144	12	1/4"GAS
50	M16x1.5	20	M45x1.5	55	57	18	38	220	50	32	120	158	16	1/4"GAS
63	M16x1.5	20	M45x1.5	67.5	70	18	38	224	50	32	124	161	16	3/8"GAS

AD

SINGLE ACTING - MAGNETIC - SPRING EXTEND



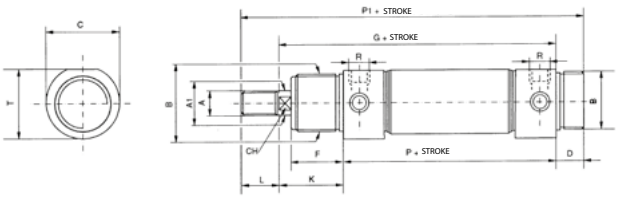


Ø	A	A1	B	T	C	D	F	G	K	L	P	P¹	CH	R
32	M10x1.25	12	M30x1.5	36.5	38	14	30	168	38	20	96	125	10	1/8"GAS
40	M12x1.25	16	M38x1.5	44	46	16	35	196	45	24	111	144	12	1/4"GAS
50	M16x1.5	20	M45x1.5	55	57	18	38	220	50	32	120	158	16	1/4"GAS
63	M16x1.5	20	M45x1.5	67.5	70	18	38	224	50	32	124	161	16	3/8"GAS

AF

DOUBLE ACTING - MAGNETIC



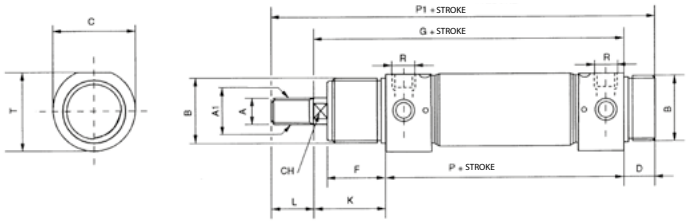


Ø	A	A1	B	T	C	D	F	G	K	L	P	P¹	CH	R
32	M10x1.25	12	M30x1.5	36.5	38	14	30	134	38	20	96	168	10	1/8"GAS
40	M12x1.25	16	M38x1.5	44	46	16	35	156	45	24	111	196	12	1/4"GAS
50	M16x1.5	20	M45x1.5	55	57	18	38	170	50	32	120	220	16	1/4"GAS
63	M16x1.5	20	M45x1.5	67.5	70	18	38	174	50	32	124	224	16	3/8"GAS

AH

DOUBLE ACTING - CUSHIONED - MAGNETIC



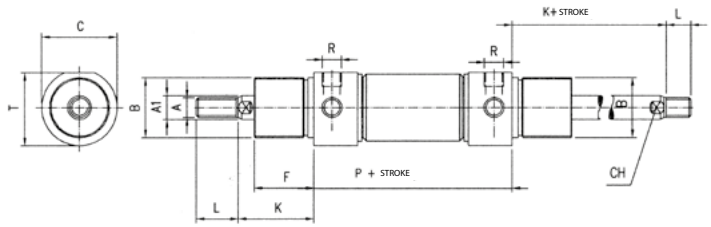


Ø	A	A1	B	T	C	D	F	G	K	L	P	P1	CH	R
32	M10x1.25	12	M30x1.5	36.5	38	14	30	134	38	20	96	168	10	1/8"GAS
40	M12x1.25	16	M38x1.5	44	46	16	35	156	45	24	111	196	12	1/4"GAS
50	M16x1.5	20	M45x1.5	55	57	18	38	170	50	32	120	220	16	1/4"GAS
63	M16x1.5	20	M45x1.5	67.5	70	18	38	174	50	32	124	224	16	3/8"GAS

AJ

DOUBLE ACTING - MAGNETIC WITH DOUBLE ROD END



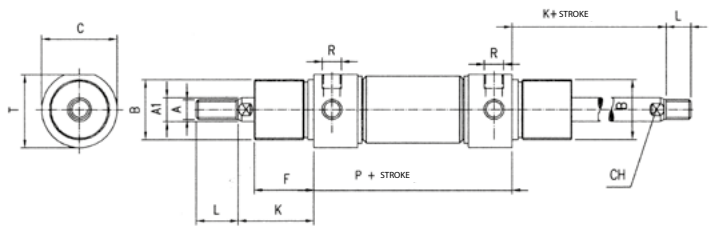


Ø	A	A1	B	T	C	F	K	L	P	CH	R
32	M10x1.25	12	M30x1.5	36.5	38	30	38	20	96	10	1/8"GAS
40	M12x1.25	16	M38x1.5	44	46	35	45	24	111	12	1/4"GAS
50	M16x1.5	20	M45x1.5	55	57	38	50	32	120	16	1/4"GAS
63	M16x1.5	20	M45x1.5	67.5	70	38	50	32	124	16	3/8"GAS

AL

DOUBLE ACTING - CUSHIONED - MAGNETIC WITH DOUBLE ROD END





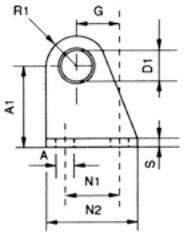
Ø	A	A1	B	T	C	F	K	L	P	CH	R
32	M10x1.25	12	M30x1.5	36.5	38	30	38	20	96	10	1/8"GAS
40	M12x1.25	16	M38x1.5	44	46	35	45	24	111	12	1/4"GAS
50	M16x1.5	20	M45x1.5	55	57	38	50	32	120	16	1/4"GAS
63	M16x1.5	20	M45x1.5	67.5	70	38	50	32	124	16	3/8"GAS

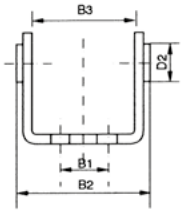
A95 Cylinder Mounting Accessories

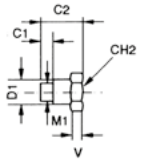
ACC

CLEVIS BRACKET WITH PINS









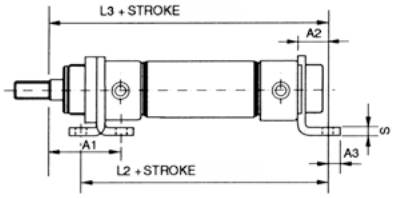
MATERIAL: Steel

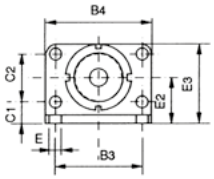
Code	Ø	D1	D2	A	A1	G	M1	N1	N2	R1	S	CH2	B1	B2	B3	V	C1	C2
ACC 032	32	10	16	7	35	20	M8x1	24	40	12	4	13	20	50.1	38.1	4	6	18
ACC 040	40	12	18	9	40	27	M10x1	30	50	13	5	17	28	60.1	46.1	5	7	21.6
ACC 050	50	14	23	9	45	30	M12x1.5	34	54	14	6	19	34	74.1	57.1	6	9	26.4
ACC 063	63	16	24	9	50	34	M14x1.5	35	65	16	6	19	42	88.1	70.1	6	15	34

APD

FOOT FLANGE







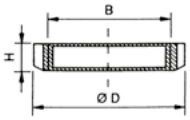
MATERIAL: Steel

Code	Ø	E	E2	E3	C1	C2	L2	L3	B3	B4	S	A1	A2	A3
APD 032	32	7	28	49	14	28	124	148	52	66	4	48	14	7
APD 040	40	9	33	58	18	30	151	176	60	80	5	60	20	10
APD 050	50	9	40	70	20	40	160	190	70	90	6	64	20	10
APD 063	63	9	45	80	20	50	164	194	76	96	6	65	20	10

AGT

MOUNTING NUT





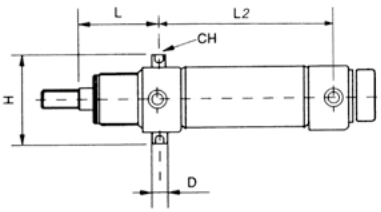
MATERIAL: Steel

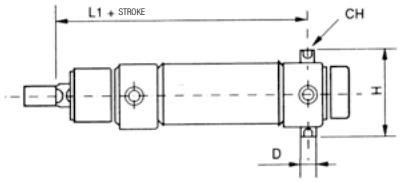
Code	B	D	H
AGT 032	M30x1.5	45	7
AGT 040	M38x1.5	50	8
AGT 050	M45x1.5	58	9

APE

HEAD TRUNNION







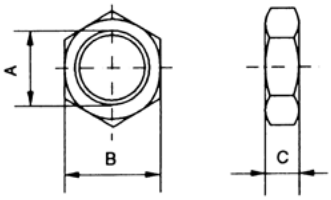
MATERIAL: Steel

Code	Ø	D	H	L1	L2	L	CH
APE 032	32	10	51	125	78	47	5
APE 040	40	12	61	144	87	57	6
APE 050	50	14	75	158	96	62	6
APE 063	63	16	90	161	98	63	8

DA

ROD JAM NUT





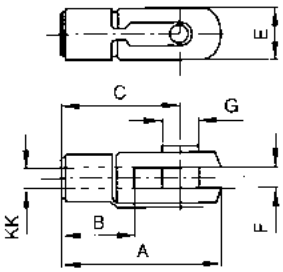
MATERIAL: Steel

Code	A	B	C
0DA00 00 51 C9 ZI	M10x1.25	17	8
0DA00 00 51 D5 ZI	M12x1.25	19	7
0DA00 00 51 E3 ZI	M16x1.5	22	6

FC

ROD CLEVIS WITH LOCKABLE PIN





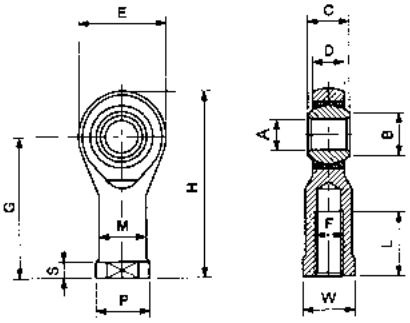
MATERIAL: Steel

Code	KK	A	B	C	E	F	G
FC 025	M10x1.25	52	20	40	20	10	10
FC 040	M12x1.25	62	24	48	24	12	12
FC 050	M16x1.5	83	32	64	32	16	16

TF

SELF-LUBRICATING SPHERICAL ROD EYE





- ● MATERIAL: Steel
- ■ MATERIAL: Stainless Steel

Code ●	Code ■	F	A	B	C	Ø Sphere	D	E	G	H	L	M	P	S	W	Radial load Dynamic	Radial load Static	Weight
			H7	0	0 - 0.13		± 0.13	± 0.5	± 0.5		± 0.7	± 0.7	± 0.5	+ 0.2 - 0.7	± 0.25	kg	kg	g
TF 025	TFI 025	M10x1.25	10	12.9	14	19.05	11.5	30	43	58	15	15	19	6.5	16	1.200	3.100	88
TF 040	TFI 040	M12x1.25	12	15.4	16	22.23	12.5	34	50	67	18	17.5	22	6.5	18	1.400	3.700	120
TF 050	TFI 050	M16x1.5	16	19.3	21	28.58	15.5	42	64	85	24	22	27	8	24	2.500	6.300	240