

Actuators

Cartridge Cylinders

Ø 6-16 mm



CA - CAF Series

Pg. 15.3

Mini Cylinders ISO 6432

Ø 8-25 mm



Mini Series

Pg. 15.5

Mini Stainless Steel ISO 6432

Ø 16-25 mm



Mini Stainless Steel Series

Pg. 15.14

Limited Space

Ø 32-63 mm



A95 Series

Pg. 15.17

Compact Cylinders

Ø 12-100 mm



Q Series

Pg. 15.24

ISO 15552 Cylinders

Ø 32-125 mm



L Series

Pg. 15.37

ISO 6431 Cylinders

Ø 160-320 mm



E Series

Pg. 15.44

ISO 15552 Cylinders

Ø 32-125 mm



X Series

Pg. 15.46

Stainless Steel ISO 15552

Ø 32-125 mm



V Series

Pg. 15.51

Twin Rod Cylinders

Ø 32-100 mm



NHA Series

Pg. 15.54

Compact Cylinders

Ø 20-100 mm



W Series

Pg. 15.58

Cylinder Accessories

ISO 6431 - ISO 15552 - ISO 21287



Pg. 15.66

Guided Units

ISO 15552 - Ø 12-25 mm
ISO 6431 VDMA - Ø 32-100 mm



Pg. 15.76

Rodless Cylinders

Ø 16-63 mm



R Series

Pg. 15.85

Rotary Actuators

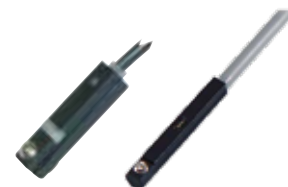
Ø 32-100 mm



XR Series

Pg. 15.96

Magnetic Position Sensing Switches



Sensor

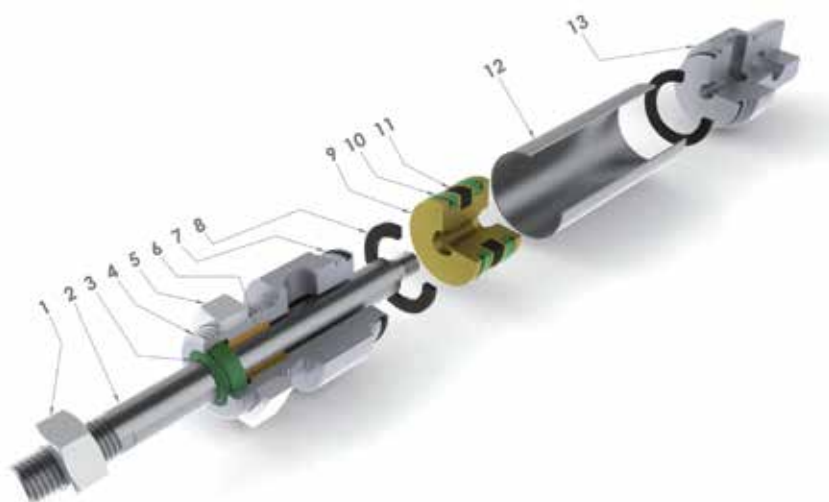
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STAINLESS STEEL MINI CYLINDERS - ISO 6432



TECHNICAL CHARACTERISTICS



Component Parts and Materials

- 1 304 Stainless steel rod jam nut
- 2 316 Stainless steel piston rod
- 3 Polyurethane rod seal
- 4 304 Stainless steel end cap
- 5 304 Stainless steel mounting nut
- 6 Sintered bronze rod bearing
- 7 NBR o-ring seals
- 8 Neoprene bumper
- 9 Brass piston
- 10 Polyurethane piston seal
- 11 Plastroferrite magnet
- 12 304 Stainless steel body
- 13 304 Stainless steel end cap



Reference Standard

1907/2006
REACH ✓

2011/65/CE
RoHS ✓

PED
2014/68/UE

SILICON
FREE

ATEX
2014/34/UE


Pressures

2 bar (0.2 MPa) / 29 psi
10 bar (0.7 MPa) / 145 psi



Temperatures

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



Media

Filtered and lubricated or
non-lubricated compressed air.



Functions

Double-acting magnetic.
Double-acting without magnet.



Bores

16 - 20 - 25 mm



Standard Strokes

from 10 to 320 mm

Series	Ø (mm)	Stroke (mm)	Special version
M F I	0 1 6	0 0 2 5	V S
• MFI Double acting - magnetic	016 020 025	0010 0025 0050 0080 0100 0125	0150 0160 0200 0250 0320
			VS Rod Seals in FKM V Seals in FKM

Intermediate or longer strokes are available upon request.

Ø (mm)	Stroke (mm)									
	10	25	50	80	100	125	160	200	250	320
16	•	•	•	•	•	•	•	•	•	•
20	•	•	•	•	•	•	•	•	•	•
25	•	•	•	•	•	•	•	•	•	•

Extend and Retract Forces

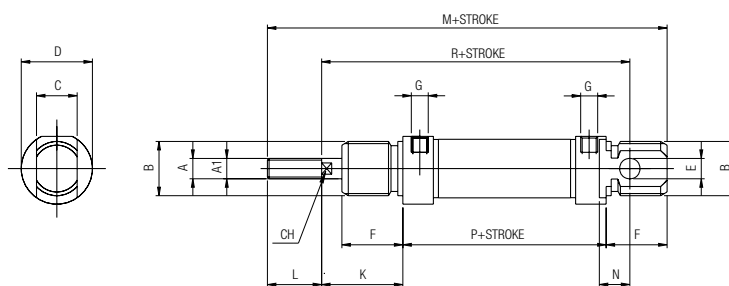
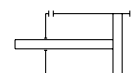
Cylinder	Piston Rod	Piston Area	Operating pressure									
Ø	Ø	mm ²	bar									
			1	2	3	4	5	6	7	8	9	10
Output force N												
16	6	Extend = 200	18	36	54	72	90	108	126	144	162	180
		Retract = 173	16	32	48	64	80	96	112	128	144	160
20	8	Extend = 314	28	56	84	112	140	168	196	224	252	280
		Retract = 264	24	48	72	96	120	144	168	192	216	240
25	10	Extend = 490	44	88	132	176	220	264	308	352	396	440
		Retract = 412	36	72	108	144	180	216	252	288	324	360

Air Consumption

Cylinder	Piston Rod	Piston Area	Operating pressure									
Ø	Ø	mm ²	bar									
			1	2	3	4	5	6	7	8	9	10
Air consumption for each 10 mm of stroke NI												
16	6	Extend = 200	0.004	0.006	0.008	0.010	0.012	0.014	0.016	0.018	0.020	0.022
		Retract = 173	0.003	0.005	0.007	0.009	0.010	0.012	0.014	0.016	0.017	0.019
20	8	Extend = 314	0.006	0.009	0.013	0.016	0.019	0.022	0.025	0.028	0.031	0.035
		Retract = 264	0.005	0.008	0.011	0.013	0.016	0.018	0.021	0.024	0.026	0.029
25	10	Extend = 490	0.010	0.015	0.020	0.025	0.029	0.034	0.039	0.044	0.049	0.054
		Retract = 412	0.008	0.012	0.016	0.021	0.025	0.029	0.033	0.037	0.041	0.045

MFI

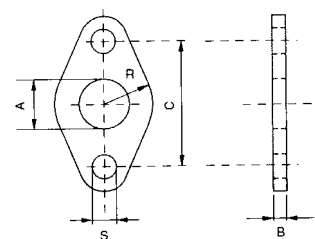
DOUBLE ACTING - MAGNETIC



Ø	A	A1	B	C	D	E	F	G	K	L	M	N	P	R	CH
16	M6	6	M16x1.5	12	19	6	18	M5	22	16	109	9	53	82	5
20	M8	8	M22x1.5	16	27	8	20	1/8G	24	20	131	12	67	95	7
25	M10x1.25	10	M22x1.5	16	30	8	22	1/8G	28	22	140	12	68	104	9

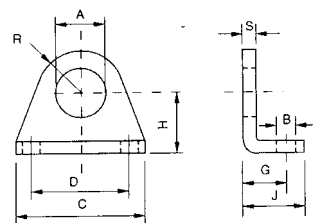
ISO 6432 Stainless Steel Mounting Accessories

MFLI

FLANGE

MATERIAL: Stainless Steel

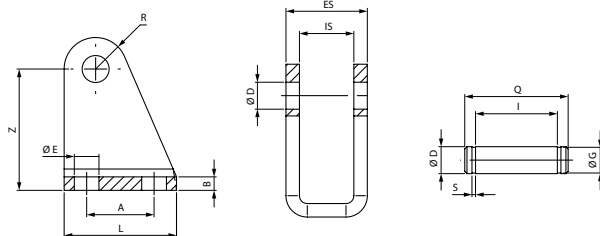
Part No.	Ø	A	B	C	R	S
MFLI 016	16	16	4	40	13	5.5
MFLI 020	20-25	22	5	50	19	6.6

MPDI

FOOT

MATERIAL: Stainless Steel

Part No.	Ø	A	B	C	D	G	H	J	R	S
MPDI 016	16	16	5.5	42	32	14	20	20	13.5	4
MPDI 020	20-25	22	6.6	54	43	17	25	25	18	5

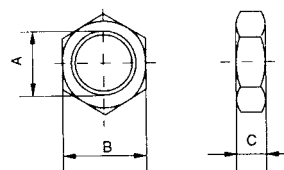
MCCI

CLEVIS BRACKET WITH PIN

MATERIAL: Stainless Steel

Code	Ø	A	B	R	L	Z	IS	ES	S	I	Q	ØE	ØD	ØG
MCCI 012	16	15	3	7	25	27	12	18	0.8	19	24	5.5	6	4
MCCI 020	20-25	20	4	10	32	30	16	24	0.9	25	30	6.5	8	7

DA

MOUNTING NUTS

ROD JAM NUT

MATERIAL: Stainless Steel

Part No.	A	B	C
ODA00 00 43 E3 00	M16x1.5	22	6
ODA00 00 43 F6 00	M22x1.5	27	8

Part No.	A	B	C
ODA00 00 43 B8 00	M6	10	5
ODA00 00 43 C3 00	M8x1.25	13	6.5
ODA00 00 43 C9 00	M10x1.25	17	8