

SPECIAL COVERS

- Anti Corrosion treatment
No retention areas
Stainless steel nuts and protective screws as an option
- Adapted to aggressive cleaning agents, easy to clean and flexible configuration

QUALITY / RELIABILITY

- Based on 453 technology, ISO 15552 compliant specifically designed for "Food Industry Applications"
- Robust, reliable and long lasting

SPECIAL GREASE

- According to food & pharmaceutical process industry specifications



VERSIONS TO ATEX
(see page P229-6)

SPECIAL TUBE PROFILE

- Square shaped with rounded edges, no retention areas and light design with a "rail" for magnetic detector
- Easy to clean
- Laser marked tube as an option

MAGNETIC DETECTION

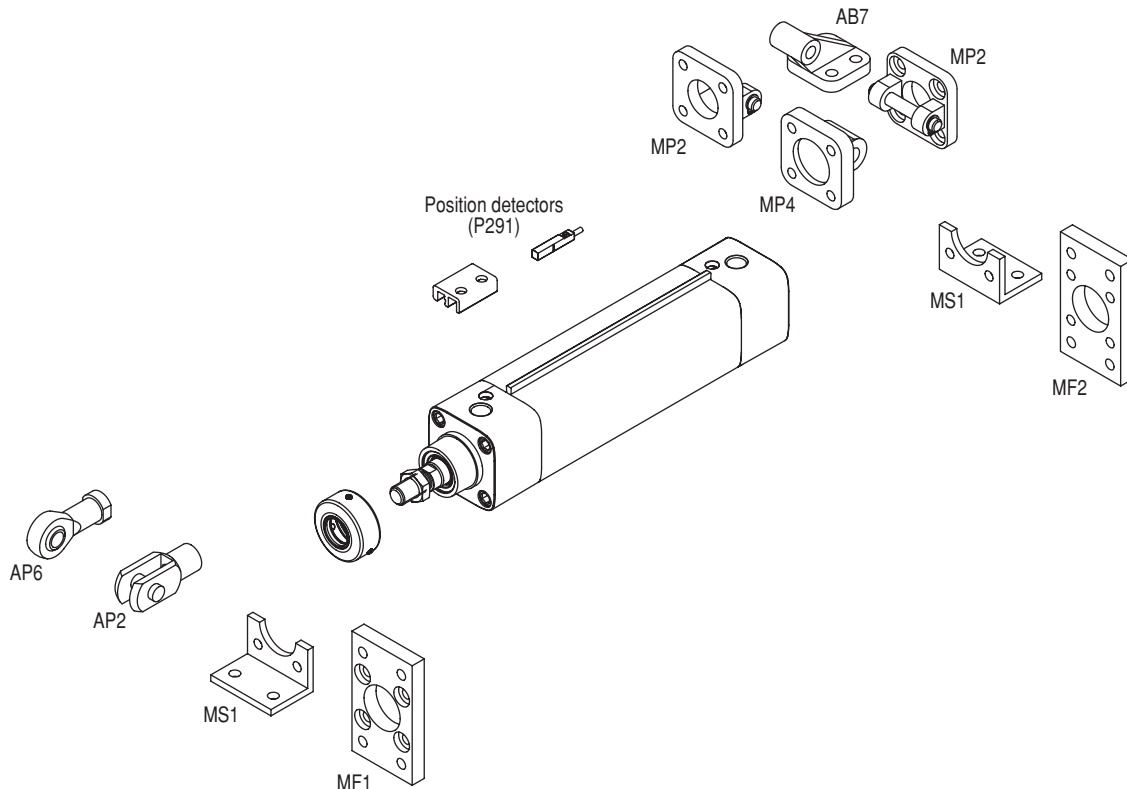
- "Rail" to adapt magnetic detectors (e.g. IP69K version)
- Reed-switch type or magneto-resistive type (MR)

ROD SEALS CONFIGURATION

- Rod Seals in special PUR, FPM, or FPM + PTFE
- External cartridge option for rod seal protection

OPTIONS (see page P229-6)

ANTICORROSION MOUNTINGS (see page P235)



MOUNTINGS

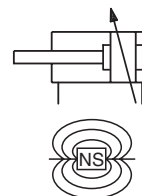
Mountings must be ordered separately: see page P235

Consult our range of mountings with anticorrosion treatment or in stainless steel: see page P235

POSITION DETECTORS

Magnetic position detectors must be ordered separately: "T" model (see page P291), reed switch or magneto-resistive type





GENERAL

Detection

Fluid

Operating pressure

Ambient temperature

Optimal max. speed

Max. speed rate

Standards

Equipped for magnetic position detectors

Air or inert gas, filtered, lubricated or not

10 bar, max. [1 bar = 100 kPa]

-20°C to +70°C

≤ 1 m/s (for optimal service life)

2 m/s (for higher and lower speed rate, see LFS option)

ISO 15552

CONSTRUCTION

Barrel	Hard anodized aluminium alloy Positive groove for adapting a magnetic sensor	
Front and rear ends	Aluminium alloy with anti-corrosion treatment	
Bearing	Self-lubricating metal	
Cushioning seals	PUR (polyurethane)	
Cushioning	Pneumatic, adjustable from both sides with captive screw	
Rod	Stainless steel, AISI 316L stainless steel, hard chromed	
Rod nut	Stainless steel	
Piston	Ø 32 to 80 mm	POM (polyacetal)
	Ø 100 mm	light alloy
	fitted with an annular permanent magnet	
Piston seals	PUR (polyurethane)	
Grease	Grease for food & pharmaceutical applications, ISO 21469 FDA 21 CFR § 178.3570	



2D/3D CAD models - *In 3D*

HOW TO ORDER

15-DIGIT PRODUCT CODE

Thread connection G = ISO 16030	G	454	A	-	3	A	- - -	A00
Product series 454								
Revision letter A = Initial release								
Diameter (mm) 3 = 32 4 = 40 5 = 50 6 = 63 8 = 80 1 = 100								
Rod options 1 3 = Stainless steel single rod 4 = Stainless steel through rod 6 = AISI 316L stainless steel single rod 7 = AISI 316L stainless steel through rod S = Hard chromed single rod 2 = Hard chromed through rod								

Options

A00 = Without Option

SCN = Stainless steel cover nuts

AT1 = ATEX zones 1/21

AT2 = ATEX zones 2/22

LFS = Low friction - Ø 32 to 80 mm

LSR = Laser marked Logo & Code

LSS = Option Combination LSR + SCN

Recommended standard strokes (mm) ⁽¹⁾

Ø mm	connect Ø (G)	25	50	80	100	125	160	200	250	320	400	500	630	700	800	900	1000	1500	max. stroke
32	G1/8	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2000
40	G1/4	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2000
50	G1/4	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2000
63	G3/8	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2000
80	G3/8	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2000
100	G1/2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2000

Strokes range available up to "max. stroke" column on the right.

Please note strokes marked in grey exceed the maximum recommended.

⁽¹⁾ Other strokes on request. / Min. stroke: 5 mm

Rod seal options

A = PUR rod seal for "Agro Applications"

F = FPM Rod seal

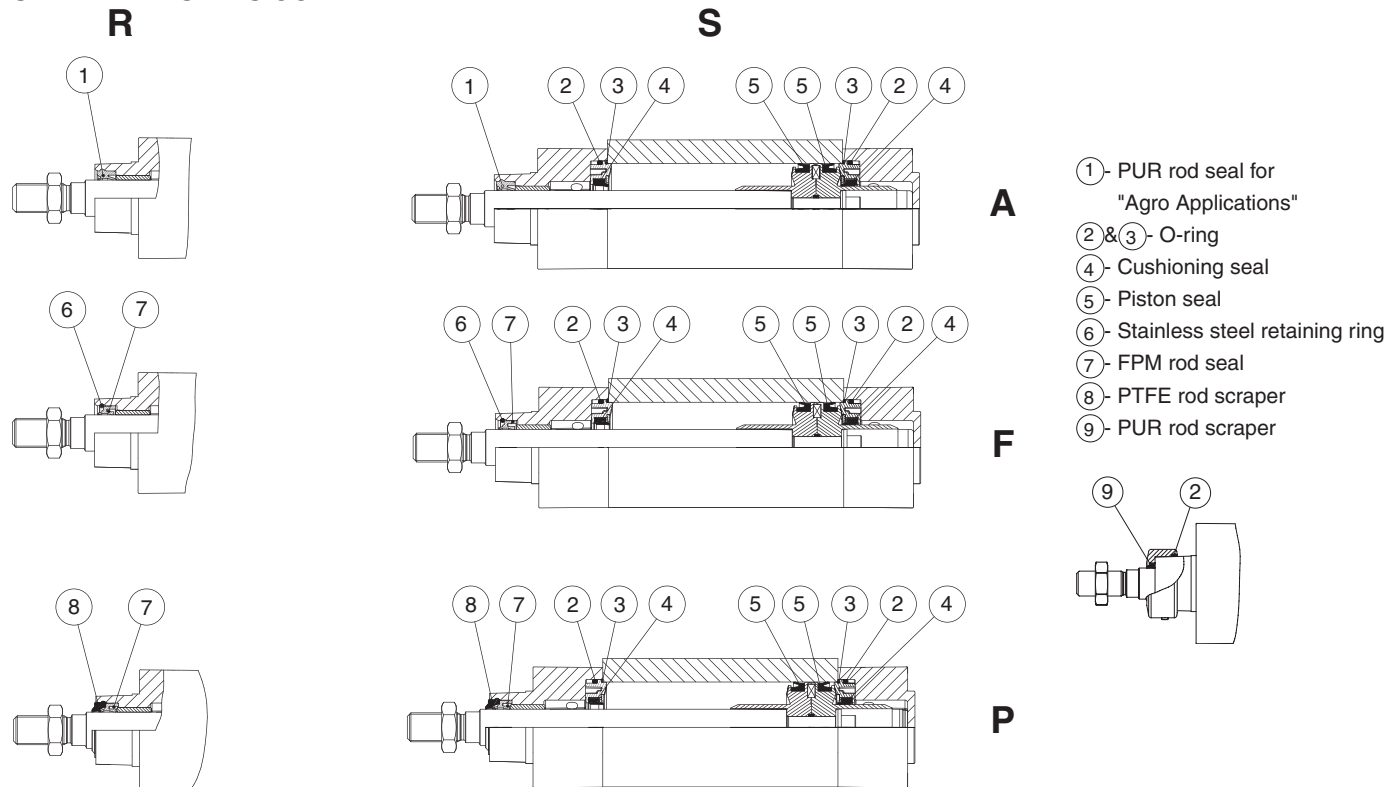
P = FPM Rod seal + PTFE rod scraper

C = Protective cartridge for rod seal protection + "AGRO" PUR rod seal, only available in Ø 80 and Ø 100 mm

Note: Cylinders with option "C" are delivered with 10 mm rod overlength.

For extended piston rod and special rod threads, please obtain a code with DPM, our on-line configurator tool.

SPARE PARTS KITS CODE



15-DIGIT PRODUCT CODE

M 454 A - S A 0000 A00

Spare Parts digit
M

Product series
454

Revision letter
A = Initial release

Diameter (mm)
3 = 32
4 = 40
5 = 50
6 = 63
8 = 80
1 = 100

Rod seal and rod scraper seal
A = PUR rod seal for "Agro Applications"
F = FPM Rod Seal
P = FPM Rod Seal+ PTFE Rod Scraper seal
C = Protective Cartridge for Rod Seal Protection + PUR rod seal for "Agro Applications"

Type of kit
S = Complete set of seals
R = Rod seals only

ACCESSORIES

- Special adaptor for magnetic detector (code : **P494A0029100A00**)
Magnetic position detectors must be ordered separately: "T" model (see page P291)

- Set of 4 stainless steel protection screws to cover the cylinder mounting holes:

Ø (mm)	code
32-40	P4994395723N001
50-63	P4994395735N001
80-100	P4994395748N001

- External cartridge for rod seal:

Ø (mm)	code
80	P4994378238N001
100	P4994378241N001



DIMENSIONS (mm), WEIGHT (kg)



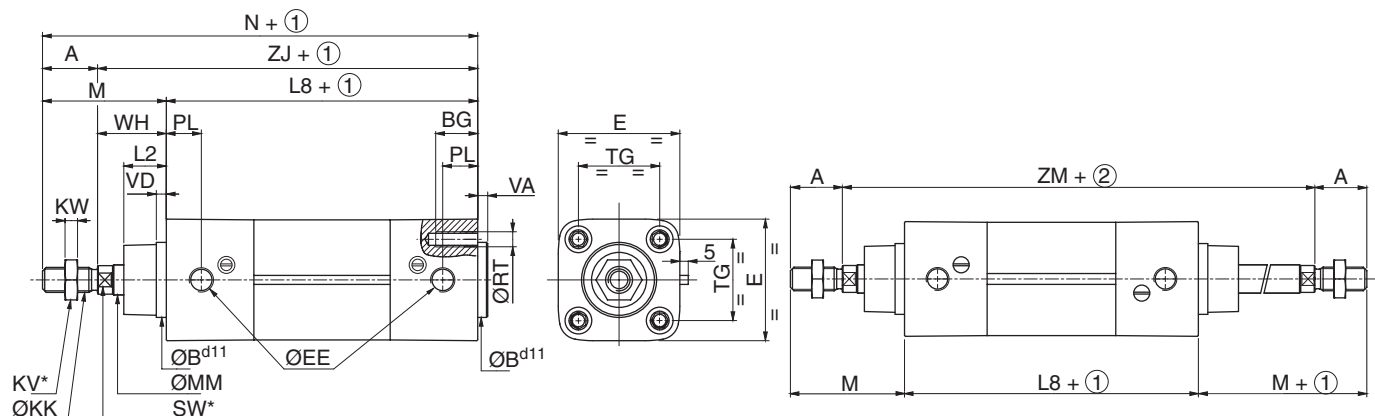
SINGLE-ROD TYPE CYLINDER

Bare cylinder
ISO 15552



THROUGH-ROD TYPE CYLINDER

Bare cylinder
ISO 15552



① Stroke

② Stroke x 2

*: Width across flats

Ø (mm)	A	ØB ^{d11}	BG	E	ØEE (3)	ØKK	KV	KW	L2	L8	M	ØMM	N	PL	ØRT	SW	TG	VA	VD min.	WH	ZJ	ZM	weight (4)	weight (5)
32	22	30	16	48	G1/8	M10x1,25	16	5	17	94	48	12	142	14	M6	10	32,5 ±0,5	4	4	26	120	146	0,49	0,0029
40	24	35	16	54	G1/4	M12x1,25	18	6	19	105	54	16	159	16	M6	13	38 ±0,5	4	4	30	135	165	0,78	0,0037
50	32	40	16	66	G1/4	M16x1,5	24	8	24	106	69	20	175	18,5	M8	17	46,5 ±0,5	4	4	37	143	180	1,00	0,0053
63	32	45	16	78	G3/8	M16x1,5	24	8	24	121	69	20	190	19	M8	17	56,5 ±0,5	4	4	37	158	195	1,35	0,0057
80	40	45	17	96	G3/8	M20x1,5	30	10	33	128	86	25	214	16,5	M10	22	72 ±0,5	4	4	46	174	220	2,36	0,0086
100	40	55	17	115	G1/2	M20x1,5	30	10	35,5	138	91	25	229	19,5	M10	22	89 ±0,5	4	4	51	189	240	3,46	0,0099

(3) Thread connections G have standard thread according to ISO 16030.

(4) Cylinder weight at 0 mm stroke.

(5) Weight to be added per additional mm length.