

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 1552 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)

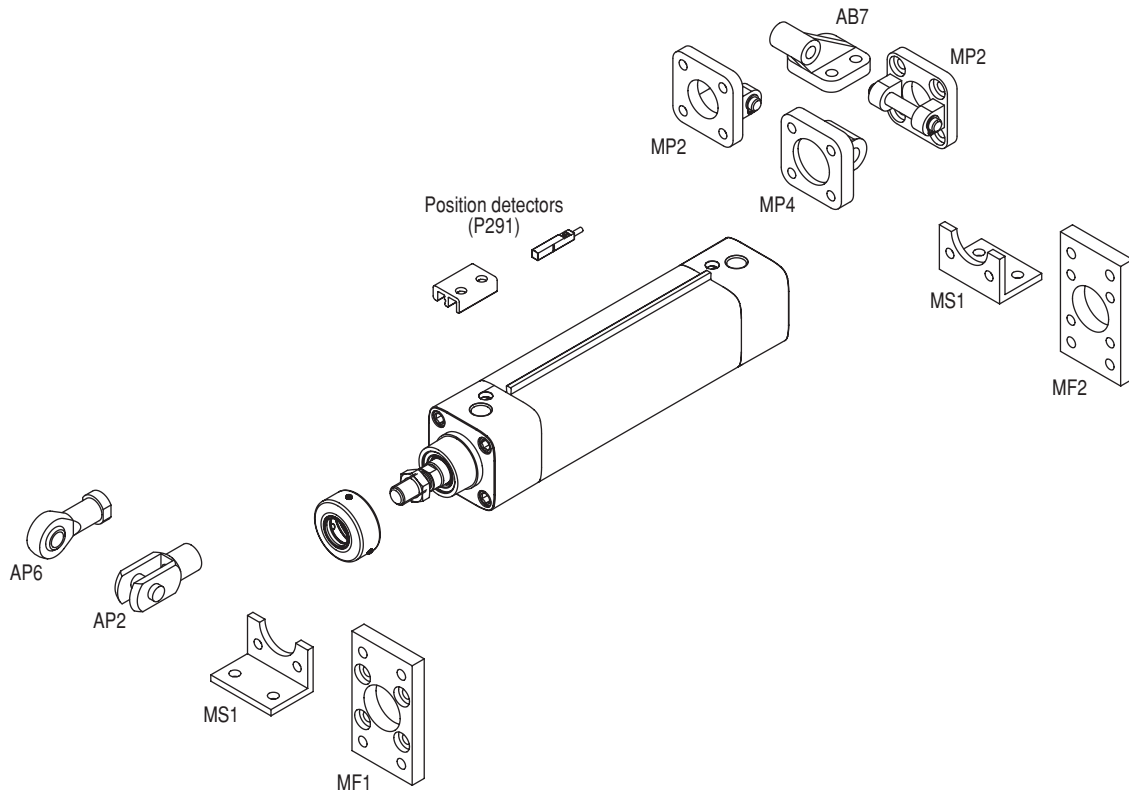
ROD SEALS CONFIGURATION

- 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

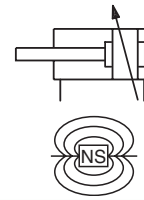
Mountings must be ordered separately: see page P235

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	Equipped for magnetic position detectors
Fluid	Air or inert gas, filtered, lubricated or not
Operating pressure	10 bar, max. [1 bar = 100 kPa]
Ambient temperature	-20°C to +70°C
Optimal max. speed	≤ 1 m/s (for optimal service life)
Max. speed rate	2 m/s (for higher and lower speed rate, see LFS option)
Standards	ISO 15552



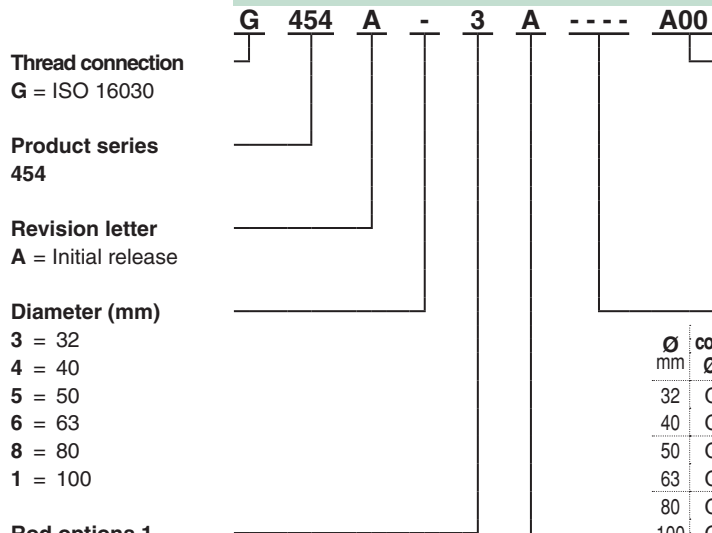
CONSTRUCTION

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



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

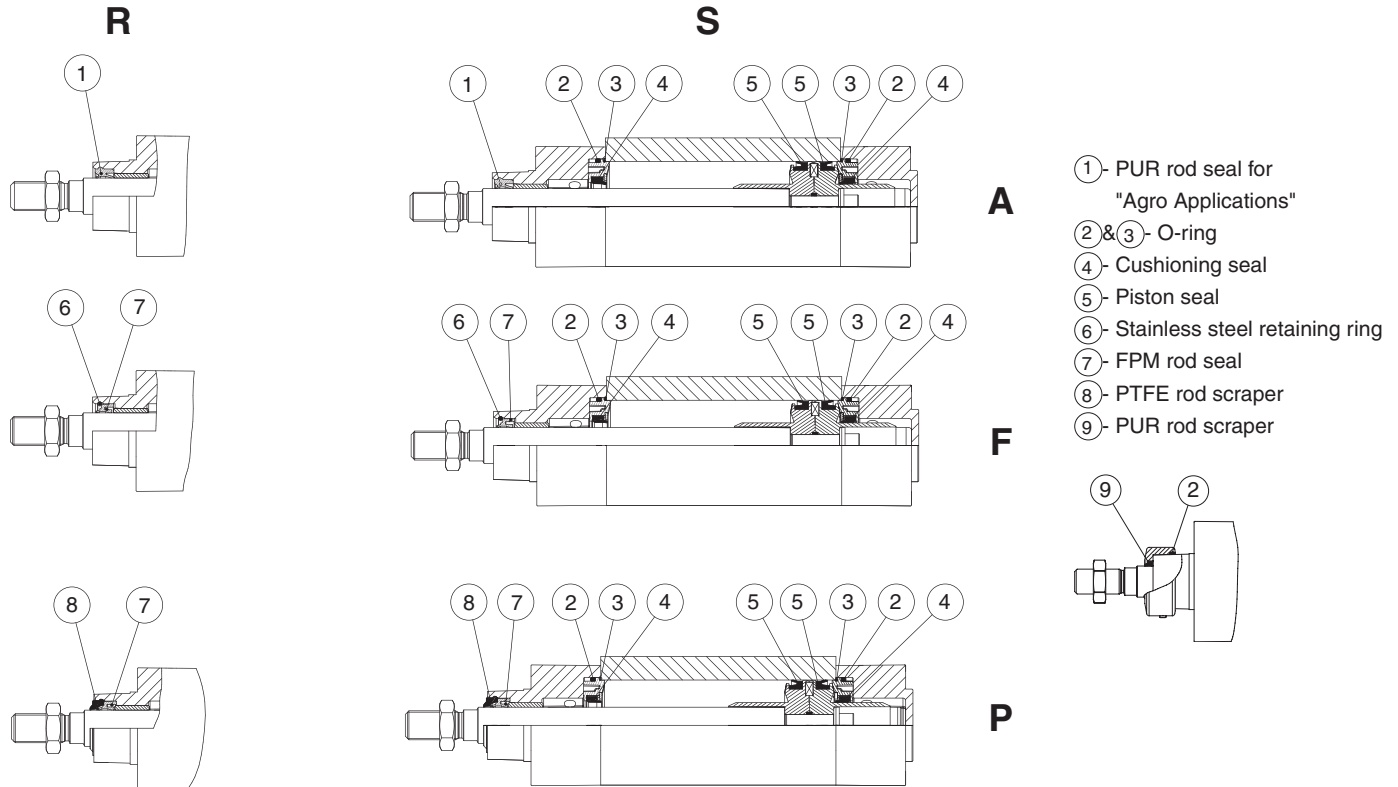
Rod seal options

- 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.

All cylinders delivered with rod nut, in stainless steel for options 3, 4, 6 and 7.

SPARE PARTS KITS CODE



- ①- PUR rod seal for "Agro Applications"
- ②&③- O-ring
- ④- Cushioning seal
- ⑤- Piston seal
- ⑥- Stainless steel retaining ring
- ⑦- FPM rod seal
- ⑧- PTFE rod scraper
- ⑨- PUR rod scraper

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



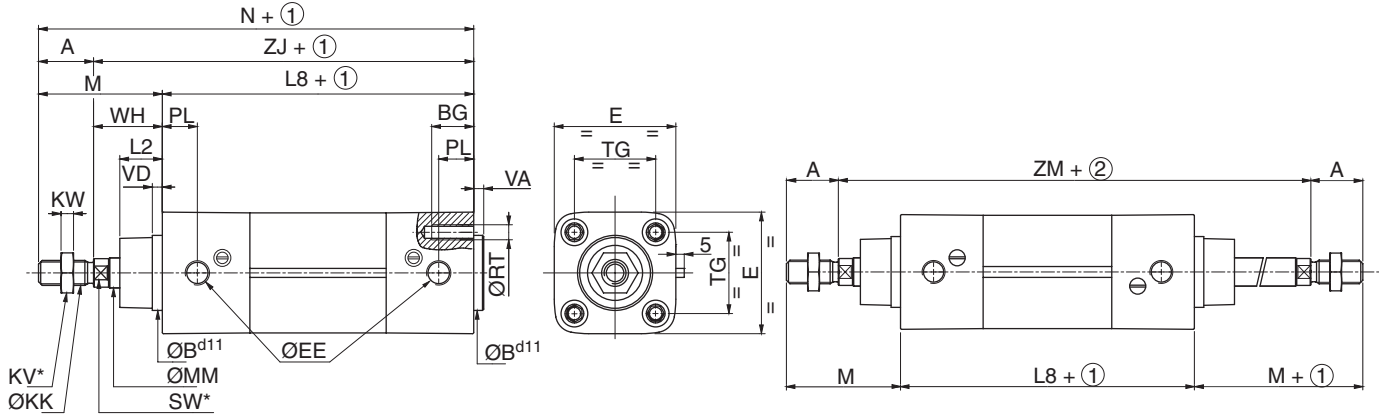
DIMENSIONS (mm), WEIGHT (kg)



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)	(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.