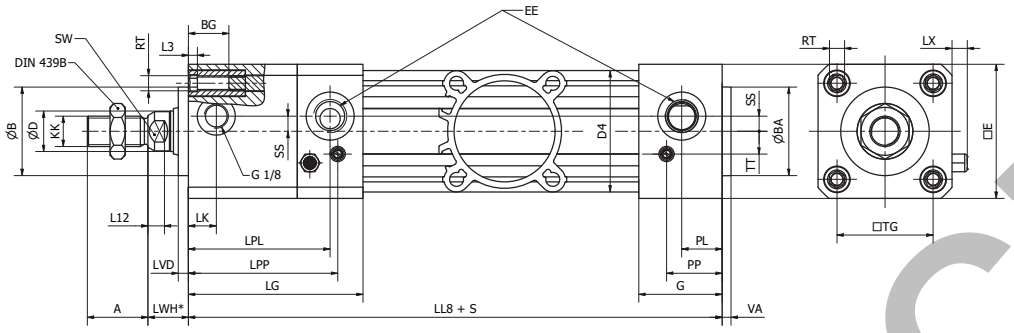
Dimensions

Dynamic rod lock with smooth profile design

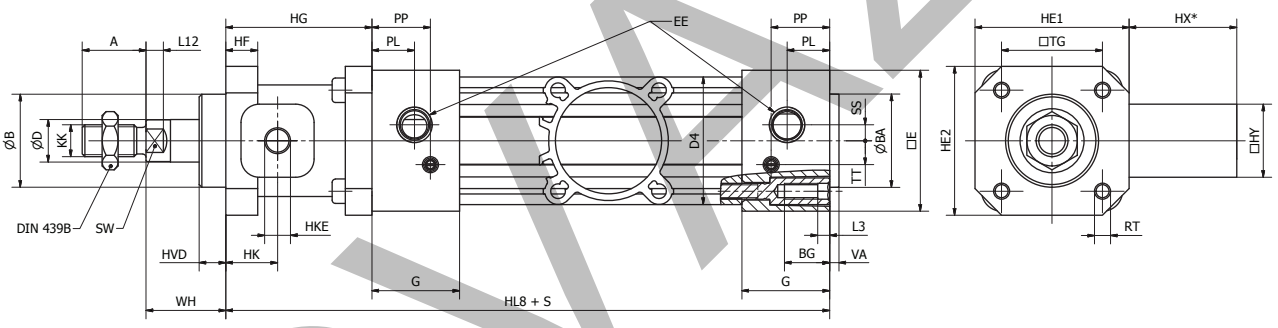
P1F-L



* Not ISO

Static rod lock with smooth profile design

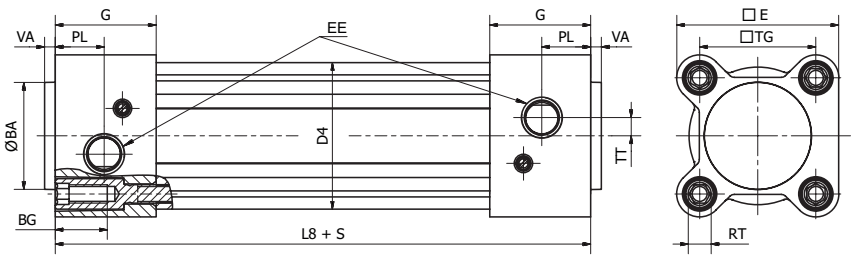
P1F-H



* Not ISO

Air reservoir with smooth profile design

P1F-P



Important
Pressure Equipment Directive. According (PED) to the directive 2014/68/EU, for uncertified pressure vessels:
Max Working pressure x Volume maximized to 50 Bar x litre, i.e. max 10 bar and 5 litre volume.
In accordance we therefore maximised the volume to max 5 litre cylinder.

Dimensions

Dimensions [mm]

Cyl.-bore [mm]	A	ØB e11	ØBA d11	BG Front Rear	ØD	D4	ØD5	ØD6	E	EE	G	KK	L2	L3	L8
Ø32	22	30	30	16 17	12	42.5	35	5.3	47	G1/8	28.4	M10x1.25	16.8	4.5	94
Ø40	24	35	35	16 17	16	48	43	5.3	53	G1/4	33	M12x1.25	19	4.5	105
Ø50	32	40	40	16 18	20	59.5	54	7.1	64.5	G1/4	33.4	M16x1.5	27.6	4.5	106
Ø63	32	45	45	16 18	20	69.5	67	7.1	75	G3/8	39.4	M16x1.5	24.3	4.5	121
Ø80	40	45	45	17 20	25	86	85	8.9	94	G3/8	39.4	M20x1.5	30.1	5.5	128
Ø100	40	55	55	17 20	25	103	105	8.9	111	G1/2	44.3	M20x1.5	34	5.5	138
Ø125	54	60	60	20 20	32	130	130	10.8	136	G1/2	50.8	M27x2	45	0	160

Cyl.-bore [mm]	L12	OA	PL	PP	RT	SS	SW	TG	TT	VA	VD	WH	WL	WT	ZM
Ø32	6	6	14	20	M6	5	10	32.5	6.5	3.6	6	26	21	M8x1	146
Ø40	6.5	6	16	22	M6	6	13	38	9	3.5	6	30	23	M10x1.25	165
Ø50	8	8	15.5	21.5	M8	6	17	46.5	9	3.6	6	37	31	M14x1.5	180
Ø63	8	8	18	28	M8	10	17	56.5	11	3.5	6	37	31	M14x1.5	195
Ø80	10	10	20	30	M10	11.5	22	72	14	3.5	6	46	39	M18x1.5	220
Ø100	10	10	18	33	M10	11.5	22	89	14	3.5	6	51	39	M18x1.5	240
Ø125	13	8	20	40	M12	0	27	110	22	5.5	9	65	53	M24x2	290

Cyl.-bore [mm]	LG	LK	LL8	LPL	LPP	LVD	LWH	LX
Ø32	66,4	10	132	52	58	4	15	6
Ø40	69	11	141	56	59	4	16	6
Ø50	73.3	9	146	57	65	4	17	7
Ø63	87.6	28	169	71	80	4	17	7
Ø80	102.4	27	191	85	95	4	20	7
Ø100	125.3	54	219	103	116	4	20	7
Ø125	132.8	59	242	111	124	6	27	7

Cyl.-bore [mm]	HE1	HE2	HF	HG	HK	HKE	HL8	HVD	HX	HY
Ø32	50	48	12	48	16	G1/8	142	10	40	25
Ø40	58	56	12	55	19.5	G1/8	160	10	40.5*	27.5
Ø50	70	68	16	70	21	G1/8	176	12	48.5*	32.5
Ø63	85	82	15	70	21	G1/8	191	12	49*	41
Ø80	105	100	16	90	28	G1/8	218	20	65.5*	49
Ø100	130	120	18	92	27	G1/8	230	23	59.5*	53
Ø125	150	140	27	122	37	G1/8	282	32	69.5*	65

Tolerances [mm]

Cyl.-bore [mm]	A	L8	TG	ZM	stroke tolerance s ⩽ 350 mm	350 mm < s ⩽ 600 mm	s > 600 mm
Ø32	0/-0.5	± 0.3	±0.4	-0.4/+2.2	+ 1.7	+ 1.9	+ 2.3
Ø40	0/-0.5	± 0.3	±0.4	-0.4/+2.2	+ 1.7	+ 1.9	+ 2.3
Ø50	0/-0.5	- 0.3 / + 0.5	±0.4	-0.4/+2.2	+ 1.8	+ 2	+ 2.4
Ø63	0/-0.5	- 0.6 / + 0.2	±0.4	-0.4/+2.2	+ 1.9	+ 2.1	+ 2.5
Ø80	0/-0.5	± 0.4	±0.4	-0.4/+2.2	+ 1.9	+ 2.1	+ 2.5
Ø100	0/-0.5	± 0.5	±0.4	-0/+2.5	+ 2.0	+ 2.2	+ 2.6
Ø125	0/-1.0	± 0.5	±0.4	-0/+2.6	+ 2.1	+ 2.3	+ 2.7

P1F-P

Cyl.-bore [mm]	Air volume base 0 mm [cm³]	Air volume per stroke of [cm³/100 mm]
Ø32	40	80
Ø40	68	126
Ø50	91	196
Ø63	137	312
Ø80	289	503
Ø100	417	785
Ø125	809	1227

Order code

Order Instructions	P	1	F	-	S	0	3	2	M	S	-	0	1	6	0	-	0	0	0	0	

Profile/cylinder design	
S	Smooth
A [1]	ATEX smooth
K	Smooth with through rod
L [2) 4)]	Smooth with dynamic rod lock
H [2) 4)]	Smooth with static rod lock
T	Tie-Rods
N	Tie-Rods with through rod
P [2)]	Air reservoir

Cylinder bore size	
032	32 mm
040	40 mm
050	50 mm
063	63 mm
080	80 mm
100	100 mm
125	125 mm

Temperature range	
M [1)]	Standard Temperature -20° to +80°C
F [3)]	High Temperature - 10° to +150°C
L [3)]	Low Temperature -40°C to +80°C
Q [4)]	Metallic scraper -30°C to +80°C
V [5)]	FKM rod seal -10°C to +80°C
D [5)]	Polon rod seal -20°C to +80°C

[1)] ATEX version is specified for standard temperature range -20°C to +60°C
[2)] in standard temperature range -20°C to +80°C
[3)] High and low temp option only with aluminium piston
[4)] Only in combination with chrome plated piston rod material
[5)] With anodised end covers, high polymer piston rod bushing and stainless steel end covers screws and nut. Only for S and K cylinder design

Rod extension or trunnion mounting	
0000	without
P . . .	Piston rod extension in mm
G000	Trunnion mount +90° vs. air ports
7000	Trunnion mount +0° vs. air ports
H . . .	piston rod extension in mm with trunnion +90°
8 . . .	piston rod extension in mm with trunnion +0°

Cylinder stroke	
....	Stroke length in mm

Piston style	
-	Standard with magnet
F	Standard w/o magnet
X *	Aluminium with magnet
A	Aluminium w/o magnet
Air reservoir	
-	without piston

Piston Rod material male thread	
S [1)]	Stainless steel
C	Chrome plated carbon steel
R	Chrome plated stainless steel
Piston Rod material female thread	
E [1)]	Stainless steel
F	Chrome plated carbon steel
G	Chrome plated stainless steel
Air reservoir	
A	without piston rod

* Note that for high temperature applications the magnetic field strength can be too low to ensure a reliable sensor function and therefore we cannot guarantee position detection.

Standard strokes for all P1F cylinders compliant to ISO 4393
(with the exception of stroke 40 mm)
Non standard strokes up to 2500 mm

Order code order | **Cylinder bore** (mm) | ● = **Standard stroke (mm)** | = **Non standard stroke to special**

		0025	0040	0050	0080	0100	0125	0160	0200	0250	0320	0400	0500	0600	0700	0800	2500	
P1F-S032MS -	**32**	●	●	●	●	●	●	●	●	●	●	●	●			//		**-0000**
P1F-S040MS -	**40**	●	●	●	●	●	●	●	●	●	●	●	●			//		**-0000**
P1F-S050MS -	**50**	●	●	●	●	●	●	●	●	●	●	●	●			//		**-0000**
P1F-S063MS -	**63**	●	●	●	●	●	●	●	●	●	●	●	●			//		**-0000**
P1F-S080MS -	**80**	●	●	●	●	●	●	●	●	●	●	●	●			//		**-0000**
P1F-S100MS -	**100**	●	●	●	●	●	●	●	●	●	●	●	●			//		**-0000**
P1F-S125MS -	**125**	●	●	●	●	●	●	●	●	●	●	●	●			//		**-0000**