

P1P Short Build Compact Cylinders

According to ISO 21287



The P1P Series is a complete range of ISO 21287 compact cylinders developed to meet the highest requirements for quality and performance. The careful design in every detail provides first class function and service life properties.

Reliability and long service life are key qualities of any pneumatic cylinder. Therefore we have given P1P highest possible quality in every detail based on our 40 years of experience and extensive testing. The design is based on the following important principles.

- **Proven seal design and materials throughout the cylinder. The expertise for seal technology within Parker Hannifin is the basis for leading and proven tribology solutions for all our pneumatic actuators.**
- **Body extrusion in anodised aluminium with extra fine and hard internal surface for optimum operational conditions.**
- **End covers and body extrusion with external anodisation for excellent corrosion resistance.**
- **Stainless steel piston rod for versatile use in corrosive environment.**

Order Code Key

Cylinder version

S	Standard
G	Guided

Cylinder bore mm

020
025
032
040
050
063
080
100

Stroke length

See below table for standard stroke lengths in mm.

Cylinder ports & magnetic function

Magnet	
G	20 - 25mm : M5 threads 32 - 100mm : BSP threads

Piston rod thread

7	Female
8	Male (not for guided version)

Function

D	Double acting
S	Single acting: Spring return (Bore 20 - 63mm)
T	Single acting: Spring extended (Bore 20 - 63mm)
K	Through Piston rod

Piston rod material

Stainless steel	
S	Standard -20°C to +80°C
F	High temperature version -10°C to +120°C Non magnetic function
L	Low temperature version -40°C to +80°C

Seals

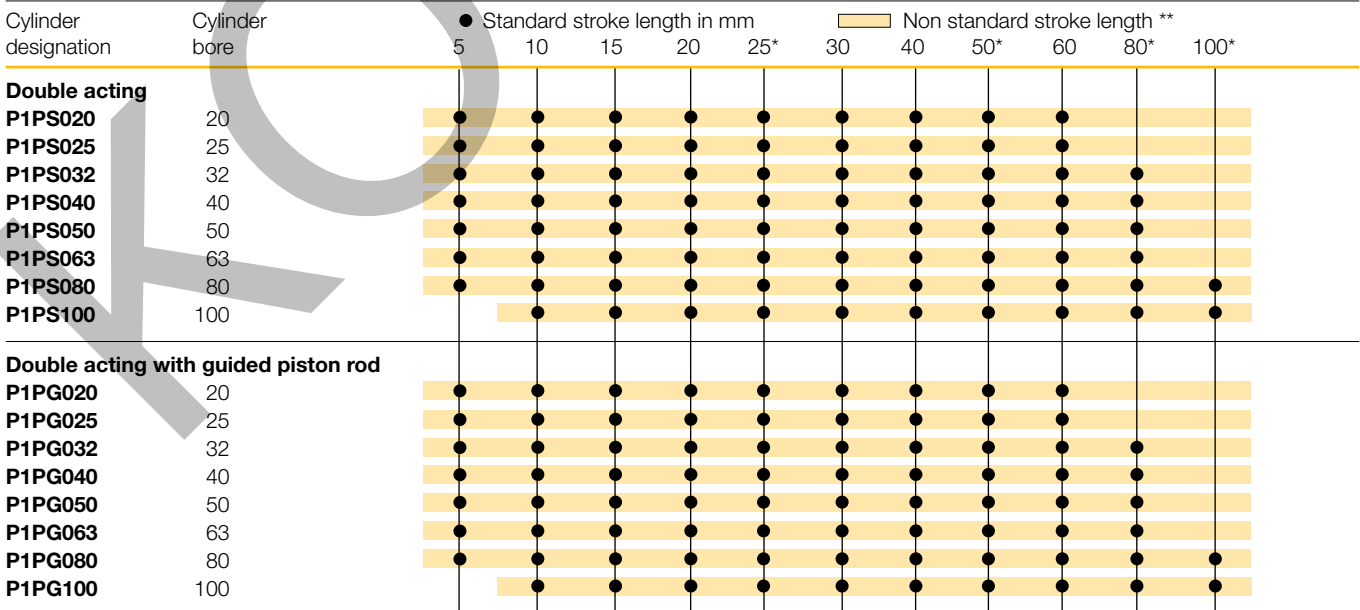
Rod extension only digits 5-6-7

Cylinder bore mm	
H	20
J	25
K	32
L	40
M	50
N	63
P	80
Q	100

Piston rod extension			
E.g. KR5 = Cylinder bore 32 mm with piston rod extension = 255 mm			
01-99	1-99	N0-N9	220-229
A0-A9	100-109	P0-P9	230-239
B0-B9	110-119	Q0-Q9	240-249
C0-C9	120-129	R0-R9	250-259
D0-D9	130-139	S0-S9	260-269
E0-E9	140-149	T0-T9	270-279
F0-F9	150-159	U0-U9	280-289
G0-G9	160-169	V0-V9	290-299
H0-H9	170-179	W0-W9	300-309
J0-J9	180-189	X0-X9	310-319
K0-K9	190-199	Y0-Y9	320-329
L0-L9	200-209	Z0-Z9	330-339
M0-M9	210-219	Longer on request	

Note: single acting only stroke of 25 mm

Standard stroke length



* Standard stroke lengths in mm according to ISO 4393

** Max stroke 500 mm

Double acting

The versatile high quality ISO compact cylinder range, P1P cylinders are up to 50% shorter than ISO15552 cylinders for the same stroke. Suitable for a wide range of applications.

Double acting - Guided

This cylinder version feature twin guide rods connected to the piston rod by a large flange plate. These cylinders are ideal for clamping an moving applications where turning of the piston rod must be avoided.

- Bore 20 - 100 mm
- ISO 21287 conformity
- Corrosion resistant design and low weight construction
- Magnetic piston as standard
- Elastic cushioning
- Flexible direct mounting
- ISO 15552 mountings and global sensor range common with P1D



Operating information

Working pressure: Max 10 bar
 Permissible fluid: Air, with or without lubrication
 Seals / Temperature options
 Standard: -20°C to +80°C
 High temperature: -10°C to +120°C
 Low temperature: -40°C to +80°C
 Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.
 For more information see www.parker.com/euro_pneumatic

*** Double acting - Guided order code.**

Place **G** in position **4** of the order code

Example: P1P**G**020DS7G0025

Double acting - Female threaded piston rod

Ø20mm - (M5)

Stroke mm	Order code
5	P1PS020DS7G0005
10	P1PS020DS7G0010
15	P1PS020DS7G0015
20	P1PS020DS7G0020
25	P1PS020DS7G0025
30	P1PS020DS7G0030
40	P1PS020DS7G0040
50	P1PS020DS7G0050
60	P1PS020DS7G0060

Ø25mm - (M5)

Stroke mm	Order code
5	P1PS025DS7G0005
10	P1PS025DS7G0010
15	P1PS025DS7G0015
20	P1PS025DS7G0020
25	P1PS025DS7G0025
30	P1PS025DS7G0030
40	P1PS025DS7G0040
50	P1PS025DS7G0050
60	P1PS025DS7G0060

Ø32mm - (G1/8)

Stroke mm	Order code
5	P1PS032DS7G0005
10	P1PS032DS7G0010
15	P1PS032DS7G0015
20	P1PS032DS7G0020
25	P1PS032DS7G0025
30	P1PS032DS7G0030
40	P1PS032DS7G0040
50	P1PS032DS7G0050
60	P1PS032DS7G0060
80	P1PS032DS7G0080

Ø40mm - (G1/8)

Stroke mm	Order code
5	P1PS040DS7G0005
10	P1PS040DS7G0010
15	P1PS040DS7G0015
20	P1PS040DS7G0020
25	P1PS040DS7G0025
30	P1PS040DS7G0030
40	P1PS040DS7G0040
50	P1PS040DS7G0050
60	P1PS040DS7G0060
80	P1PS040DS7G0080

Ø50mm - (G1/8)

Stroke mm	Order code
5	P1PS050DS7G0005
10	P1PS050DS7G0010
15	P1PS050DS7G0015
20	P1PS050DS7G0020
25	P1PS050DS7G0025
30	P1PS050DS7G0030
40	P1PS050DS7G0040
50	P1PS050DS7G0050
60	P1PS050DS7G0060
80	P1PS050DS7G0080

Ø63mm - (G1/8)

Stroke mm	Order code
5	P1PS063DS7G0005
10	P1PS063DS7G0010
15	P1PS063DS7G0015
20	P1PS063DS7G0020
25	P1PS063DS7G0025
30	P1PS063DS7G0030
40	P1PS063DS7G0040
50	P1PS063DS7G0050
60	P1PS063DS7G0060
80	P1PS063DS7G0080

Ø80mm - (G1/8)

Stroke mm	Order code
5	P1PS080DS7G0005
10	P1PS080DS7G0010
15	P1PS080DS7G0015
20	P1PS080DS7G0020
25	P1PS080DS7G0025
30	P1PS080DS7G0030
40	P1PS080DS7G0040
50	P1PS080DS7G0050
60	P1PS080DS7G0060
80	P1PS080DS7G0080
100	P1PS080DS7G0100

Ø100mm - (G1/8)

Stroke mm	Order code
10	P1PS100DS7G0010
15	P1PS100DS7G0015
20	P1PS100DS7G0020
25	P1PS100DS7G0025
30	P1PS100DS7G0030
40	P1PS100DS7G0040
50	P1PS100DS7G0050
60	P1PS100DS7G0060
80	P1PS100DS7G0080
100	P1PS100DS7G0100

Sensors



For sensors see page 77.

Double acting

The versatile high quality ISO compact cylinder range, P1P cylinders are up to 50% shorter than ISO15552 cylinders for the same stroke. Suitable for a wide range of applications.

- Bore 20 - 100 mm
- ISO 21287 conformity
- Corrosion resistant design and low weight construction
- Magnetic piston as standard
- Elastic cushioning
- Flexible direct mounting
- ISO 15552 mountings and global sensor range common with P1D



Double acting - Male threaded piston rod

Ø20mm - (M5)

Stroke mm	Order code
5	P1PS020DS8G0005
10	P1PS020DS8G0010
15	P1PS020DS8G0015
20	P1PS020DS8G0020
25	P1PS020DS8G0025
30	P1PS020DS8G0030
40	P1PS020DS8G0040
50	P1PS020DS8G0050
60	P1PS020DS8G0060

Ø25mm - (M5)

Stroke mm	Order code
5	P1PS025DS8G0005
10	P1PS025DS8G0010
15	P1PS025DS8G0015
20	P1PS025DS8G0020
25	P1PS025DS8G0025
30	P1PS025DS8G0030
40	P1PS025DS8G0040
50	P1PS025DS8G0050
60	P1PS025DS8G0060

Ø32mm - (G1/8)

Stroke mm	Order code
5	P1PS032DS8G0005
10	P1PS032DS8G0010
15	P1PS032DS8G0015
20	P1PS032DS8G0020
25	P1PS032DS8G0025
30	P1PS032DS8G0030
40	P1PS032DS8G0040
50	P1PS032DS8G0050
60	P1PS032DS8G0060
80	P1PS032DS8G0080

Ø40mm - (G1/8)

Stroke mm	Order code
5	P1PS040DS8G0005
10	P1PS040DS8G0010
15	P1PS040DS8G0015
20	P1PS040DS8G0020
25	P1PS040DS8G0025
30	P1PS040DS8G0030
40	P1PS040DS8G0040
50	P1PS040DS8G0050
60	P1PS040DS8G0060
80	P1PS040DS8G0080

Ø50mm - (G1/8)

Stroke mm	Order code
5	P1PS050DS8G0005
10	P1PS050DS8G0010
15	P1PS050DS8G0015
20	P1PS050DS8G0020
25	P1PS050DS8G0025
30	P1PS050DS8G0030
40	P1PS050DS8G0040
50	P1PS050DS8G0050
60	P1PS050DS8G0060
80	P1PS050DS8G0080

Ø63mm - (G1/8)

Stroke mm	Order code
5	P1PS063DS8G0005
10	P1PS063DS8G0010
15	P1PS063DS8G0015
20	P1PS063DS8G0020
25	P1PS063DS8G0025
30	P1PS063DS8G0030
40	P1PS063DS8G0040
50	P1PS063DS8G0050
60	P1PS063DS8G0060
80	P1PS063DS8G0080

Ø80mm - (G1/8)

Stroke mm	Order code
5	P1PS080DS8G0005
10	P1PS080DS8G0010
15	P1PS080DS8G0015
20	P1PS080DS8G0020
25	P1PS080DS8G0025
30	P1PS080DS8G0030
40	P1PS080DS8G0040
50	P1PS080DS8G0050
60	P1PS080DS8G0060
80	P1PS080DS8G0080
100	P1PS080DS8G0100

Ø100mm - (G1/8)

Stroke mm	Order code
10	P1PS100DS8G0010
15	P1PS100DS8G0015
20	P1PS100DS8G0020
25	P1PS100DS8G0025
30	P1PS100DS8G0030
40	P1PS100DS8G0040
50	P1PS100DS8G0050
60	P1PS100DS8G0060
80	P1PS100DS8G0080
100	P1PS100DS8G0100

Sensors



For sensors see page 77.

Single acting

Single acting P1P cylinders are available in bore sizes 20 - 63 mm and in two versions to suit a wide range of applications. Choose between the spring return (SS) and the spring extended (TS) versions.



*** Spring return order code.**

Place **S** in position **8** of the order code

Example: P1PS020**S**S7G0025

*** Spring extended order code.**

Place **T** in position **8** of the order code

Example: P1PS020**T**S7G0025

Single acting - Female threaded piston rod

Ø20mm - (M5)

Stroke mm	Order code
25	P1PS020 * S7G0025

Ø40mm - (G1/8)

Stroke mm	Order code
25	P1PS040 * S7G0025

Ø25mm - (M5)

Stroke mm	Order code
25	P1PS025 * S7G0025

Ø50mm - (G1/8)

Stroke mm	Order code
25	P1PS050 * S7G0025

Ø32mm - (G1/8)

Stroke mm	Order code
25	P1PS032 * S7G0025

Ø63mm - (G1/8)

Stroke mm	Order code
25	P1PS063 * S7G0025

Double acting - Through piston rod

The P1P through rod cylinder version is available in bore sizes 20 - 100 mm. This cylinder type is used in many ways e.g. in applications with higher lateral forces or when performing a movement on both sides of the cylinder.



Double acting - Through piston rod - Female threaded piston rod

Ø20mm - (M5)

Stroke mm	Order code
5	P1PS020KS7G0005
10	P1PS020KS7G0010
15	P1PS020KS7G0015
20	P1PS020KS7G0020
25	P1PS020KS7G0025
30	P1PS020KS7G0030
40	P1PS020KS7G0040
50	P1PS020KS7G0050
60	P1PS020KS7G0060

Ø25mm - (M5)

Stroke mm	Order code
5	P1PS025KS7G0005
10	P1PS025KS7G0010
15	P1PS025KS7G0015
20	P1PS025KS7G0020
25	P1PS025KS7G0025
30	P1PS025KS7G0030
40	P1PS025KS7G0040
50	P1PS025KS7G0050
60	P1PS025KS7G0060

Ø32mm - (G1/8)

Stroke mm	Order code
5	P1PS032KS7G0005
10	P1PS032KS7G0010
15	P1PS032KS7G0015
20	P1PS032KS7G0020
25	P1PS032KS7G0025
30	P1PS032KS7G0030
40	P1PS032KS7G0040
50	P1PS032KS7G0050
60	P1PS032KS7G0060
80	P1PS032KS7G0080

Ø40mm - (G1/8)

Stroke mm	Order code
5	P1PS040KS7G0005
10	P1PS040KS7G0010
15	P1PS040KS7G0015
20	P1PS040KS7G0020
25	P1PS040KS7G0025
30	P1PS040KS7G0030
40	P1PS040KS7G0040
50	P1PS040KS7G0050
60	P1PS040KS7G0060
80	P1PS040KS7G0080

Ø50mm - (G1/8)

Stroke mm	Order code
5	P1PS050KS7G0005
10	P1PS050KS7G0010
15	P1PS050KS7G0015
20	P1PS050KS7G0020
25	P1PS050KS7G0025
30	P1PS050KS7G0030
40	P1PS050KS7G0040
50	P1PS050KS7G0050
60	P1PS050KS7G0060
80	P1PS050KS7G0080

Ø63mm - (G1/8)

Stroke mm	Order code
5	P1PS063KS7G0005
10	P1PS063KS7G0010
15	P1PS063KS7G0015
20	P1PS063KS7G0020
25	P1PS063KS7G0025
30	P1PS063KS7G0030
40	P1PS063KS7G0040
50	P1PS063KS7G0050
60	P1PS063KS7G0060
80	P1PS063KS7G0080

Ø80mm - (G1/8)

Stroke mm	Order code
5	P1PS080KS7G0005
10	P1PS080KS7G0010
15	P1PS080KS7G0015
20	P1PS080KS7G0020
25	P1PS080KS7G0025
30	P1PS080KS7G0030
40	P1PS080KS7G0040
50	P1PS080KS7G0050
60	P1PS080KS7G0060
80	P1PS080KS7G0080
100	P1PS080KS7G0100

Ø100mm - (G1/8)

Stroke mm	Order code
10	P1PS100KS7G0010
15	P1PS100KS7G0015
20	P1PS100KS7G0020
25	P1PS100KS7G0025
30	P1PS100KS7G0030
40	P1PS100KS7G0040
50	P1PS100KS7G0050
60	P1PS100KS7G0060
80	P1PS100KS7G0080
100	P1PS100KS7G0100

Sensors



For sensors see page 77.

Double acting - Low temperature

This P1P cylinder version is developed for use in temperatures down to -40°C. It is available in bore sizes 20 - 100 mm. With the combination of compactness and corrosion resistance the P1P low temperature version can be used in many industries e.g. Bus, Truck and Rail applications.

*** Low temperature order code.**

Place **L** in position **9** of the order code

Example: P1PS020DL7G0005



Double acting - High temperature

Use this P1P cylinder version, available in bore sizes 20 - 100 mm, for high temperature applications with temperatures up to +120°C. The chemical resistance thanks to the design in anodised aluminium is an advantage in many high temperature applications.

*** High temperature order code.**

Place **F** in position **9** of the order code

Example: P1PS020DF7G0005



Double acting - Female threaded piston rod

Ø20mm - (M5)

Stroke mm	Order code
5	P1PS020D * 7G0005
10	P1PS020D * 7G0010
15	P1PS020D * 7G0015
20	P1PS020D * 7G0020
25	P1PS020D * 7G0025
30	P1PS020D * 7G0030
40	P1PS020D * 7G0040
50	P1PS020D * 7G0050
60	P1PS020D * 7G0060

Ø25mm - (M5)

Stroke mm	Order code
5	P1PS025D * 7G0005
10	P1PS025D * 7G0010
15	P1PS025D * 7G0015
20	P1PS025D * 7G0020
25	P1PS025D * 7G0025
30	P1PS025D * 7G0030
40	P1PS025D * 7G0040
50	P1PS025D * 7G0050
60	P1PS025D * 7G0060

Ø32mm - (G1/8)

Stroke mm	Order code
5	P1PS032D * 7G0005
10	P1PS032D * 7G0010
15	P1PS032D * 7G0015
20	P1PS032D * 7G0020
25	P1PS032D * 7G0025
30	P1PS032D * 7G0030
40	P1PS032D * 7G0040
50	P1PS032D * 7G0050
60	P1PS032D * 7G0060
80	P1PS032D * 7G0080

Ø40mm - (G1/8)

Stroke mm	Order code
5	P1PS040D * 7G0005
10	P1PS040D * 7G0010
15	P1PS040D * 7G0015
20	P1PS040D * 7G0020
25	P1PS040D * 7G0025
30	P1PS040D * 7G0030
40	P1PS040D * 7G0040
50	P1PS040D * 7G0050
60	P1PS040D * 7G0040
80	P1PS040D * 7G0050

Ø50mm - (G1/8)

Stroke mm	Order code
5	P1PS050D * 7G0005
10	P1PS050D * 7G0010
15	P1PS050D * 7G0015
20	P1PS050D * 7G0020
25	P1PS050D * 7G0025
30	P1PS050D * 7G0030
40	P1PS050D * 7G0040
50	P1PS050D * 7G0050
60	P1PS050D * 7G0060
80	P1PS050D * 7G0080

Ø63mm - (G1/8)

Stroke mm	Order code
5	P1PS063D * 7G0005
10	P1PS063D * 7G0010
15	P1PS063D * 7G0015
20	P1PS063D * 7G0020
25	P1PS063D * 7G0025
30	P1PS063D * 7G0030
40	P1PS063D * 7G0040
50	P1PS063D * 7G0050
60	P1PS063D * 7G0060
80	P1PS063D * 7G0080

Ø80mm - (G1/8)

Stroke mm	Order code
5	P1PS080D * 7G0005
10	P1PS080D * 7G0010
15	P1PS080D * 7G0015
20	P1PS080D * 7G0020
25	P1PS080D * 7G0025
30	P1PS080D * 7G0030
40	P1PS080D * 7G0040
50	P1PS080D * 7G0050
60	P1PS080D * 7G0060
80	P1PS080D * 7G0080
100	P1PS080D * 7G0100

Ø100mm - (G1/8)

Stroke mm	Order code
10	P1PS100D * 7G0010
15	P1PS100D * 7G0015
20	P1PS100D * 7G0020
25	P1PS100D * 7G0025
30	P1PS100D * 7G0030
40	P1PS100D * 7G0040
50	P1PS100D * 7G0050
60	P1PS100D * 7G0060
80	P1PS100D * 7G0080
100	P1PS100D * 7G0100

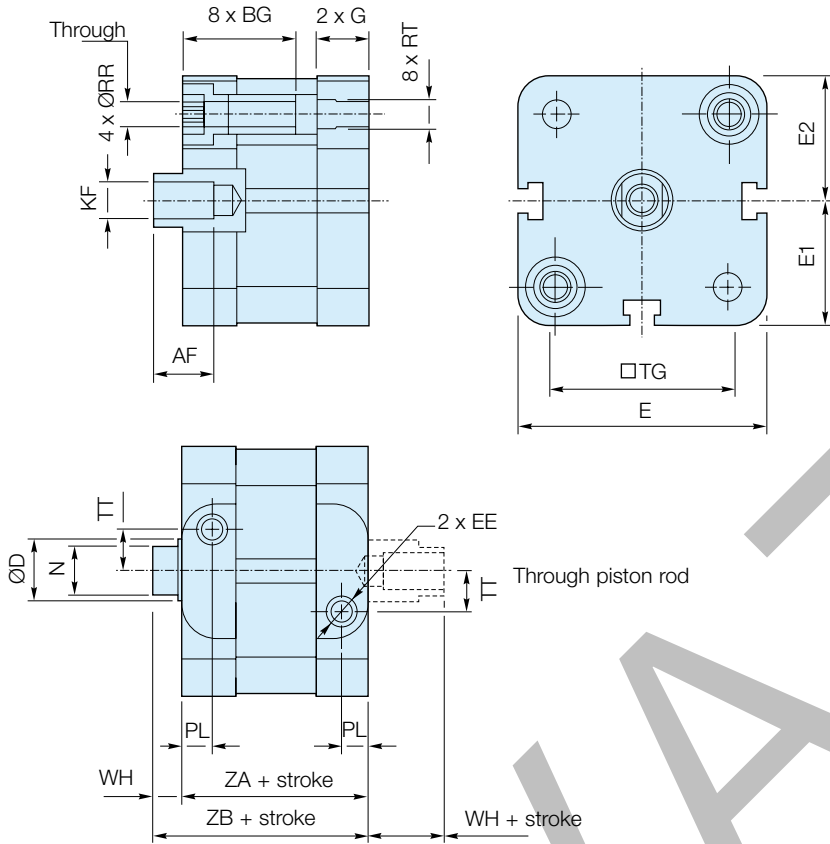
Sensors
Low temperature only



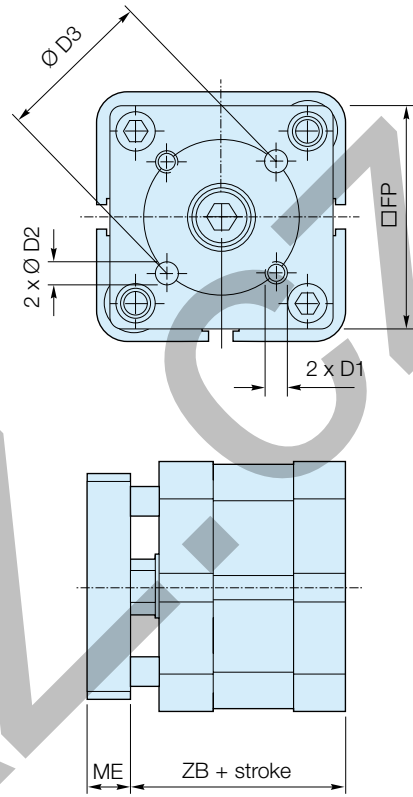
For sensors see page 77.

Dimensions - Bore 20 - 63mm

P1PS...DS7G Double acting with female piston rod thread

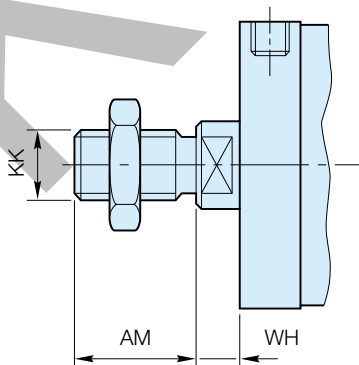


P1PG...DS Double acting with guided piston rod



Bore size	AF min	BG min	ØD	D1	ØD2 H8	ØD3	EE	E	E1	E2	FP	G	KF	ME	N h14	PL	ØRR min	RT	TG	TT	WH	ZA ± 0,3	ZB ± 0,6
Ø20	10	15	10	M4	4	17	M5	38,0	19,0	19,1	35	11,60	M6	8	8	7,6	4,1	M5	22,0	4,0	6	37	43
Ø25	10	15	10	M5	5	22	M5	41,0	20,5	20,6	38	11,90	M6	8	8	7,5	4,1	M5	26,0	5,5	6	39	45
Ø32	12	16	12	M5	5	28	G1/8	49,4	24,7	24,9	45	15,25	M8	10	10	7,8	5,1	M6	32,5	6,5	7	44	51
Ø40	12	16	12	M5	5	33	G1/8	56,0	28,0	28,5	50	15,25	M8	10	10	8,0	5,1	M6	38,0	8,0	7	45	52
Ø50	16	16	16	M6	6	42	G1/8	67,0	33,5	33,7	60	14,30	M10	12	13	7,7	6,4	M8	46,5	11,0	8	45	53
Ø63	16	16	16	M6	6	50	G1/8	79,0	39,5	39,8	70	16,30	M10	12	13	8,0	6,4	M8	56,5	16,0	8	49	57

P1PS...DS8G Double acting with male piston rod thread

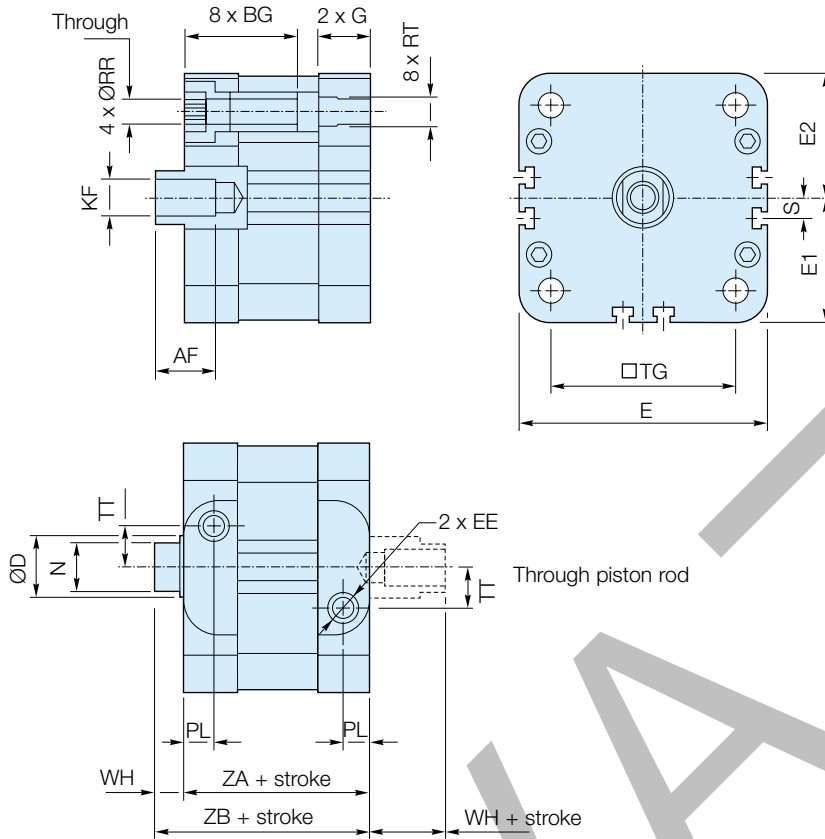


Bore size	AM +0 -0.5	WH		KK
		nom.	tol.	
Ø20	16	6	± 1,6	M8 x 1,25
Ø25	16	6	± 1,6	M8 x 1,25
Ø32	19	7	± 1,6	M10 x 1,25
Ø40	19	7	± 1,6	M10 x 1,25
Ø50	22	8	± 1,6	M12 x 1,25
Ø63	22	8	± 1,6	M12 x 1,25

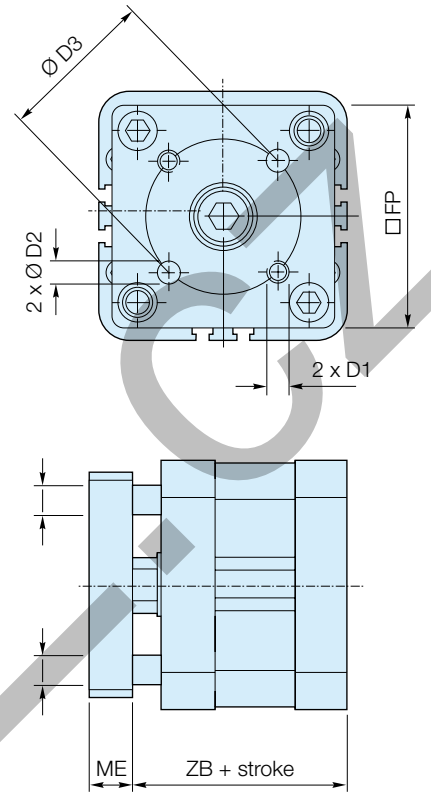
Note: Cylinders with male piston rod thread are delivered with one piston rod nut in zinc plated steel

Dimensions - Bore 80 - 100mm

P1PS...DS7G Double acting with female piston rod thread

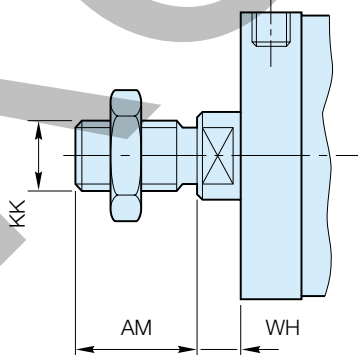


P1PG...DS Double acting with guided piston rod



Bore size	AF	BG	ØD	D1	ØD2	ØD3	EE	E	E1	E2	FP	G	KF	ME	N	PL	ØRR	RT	S	TG	TT	WH	ZA	ZB
	min	min			H8										h14		min					± 0,3	± 0,6	
Ø80	20	17	20	M8	8	65	G1/8	96	48,0	48,2	90	17,7	M12	14	17	10,5	8,4	M10	8	72	20	10	54	64
Ø100	20	17	25	M10	10	80	G1/8	115	57,5	57,7	110	23,0	M12	14	21	12,0	8,4	M10	18,5	89	24	10	67	77

P1PS...DS8G Double acting with male piston rod thread



Bore size	AM	WH		KK
		nom.	tol.	
Ø80	28	10	± 1,6	M16 x 1,5
Ø100	28	10	± 1,6	M16 x 1,5

Note: Cylinders with male piston rod thread are delivered with one piston rod nut in zinc plated steel