P1D Pro Clean with sensor function

This version is a P1D Pro Clean design with 2 T slots on one face of the tube giving then the possibility to add sensors. The cylinder has a clean design and is intended for applications where sensors still need to be used.

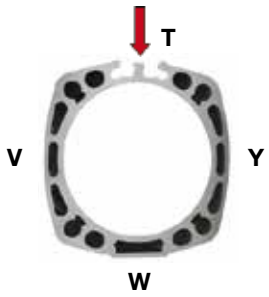
The P1D with the sensor function can of course be combined with other equipment and functions.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
P	1	D	–	C	0	4	0	W	S	T*	0	2	5	0

Cylinder version	
C	Pro Clean

P1D Pro Clean with sensor function is defined by the letter C in position 5, and in position 11 by the position of the 2 T slots.
*** T on the top, - Y on the right, W on the bottom, V on the left side and the 15-digit order code.**
Note: cylinder is showed piston rod in the front and air ports on the top to determine face position.

T slots position for ordering



With 2 T slots on the top - FPM scraper, stainless steel end covers screws

Cyl. bore mm	Stroke mm	Order code
32 Conn. G1/8	25	**P1D-C032WST0025**
	40	**P1D-C032WST0040**
	50	**P1D-C032WST0050**
	80	**P1D-C032WST0080**
	100	**P1D-C032WST0100**
	125	**P1D-C032WST0125**
	160	**P1D-C032WST0160**
	200	**P1D-C032WST0200**
	250	**P1D-C032WST0250**
	320	**P1D-C032WST0320**
	400	**P1D-C032WST0400**
	500	**P1D-C032WST0500**
40 Conn. G1/4	25	**P1D-C040WST0025**
	40	**P1D-C040WST0040**
	50	**P1D-C040WST0050**
	80	**P1D-C040WST0080**
	100	**P1D-C040WST0100**
	125	**P1D-C040WST0125**
	160	**P1D-C040WST0160**
	200	**P1D-C040WST0200**
	250	**P1D-C040WST0250**
	320	**P1D-C040WST0320**
	400	**P1D-C040WST0400**
	500	**P1D-C040WST0500**
50 Conn. G1/4	25	**P1D-C050WST0025**
	40	**P1D-C050WST0040**
	50	**P1D-C050WST0050**
	80	**P1D-C050WST0080**
	100	**P1D-C050WST0100**
	125	**P1D-C050WST0125**
	160	**P1D-C050WST0160**
	200	**P1D-C050WST0200**
	250	**P1D-C050WST0250**
	320	**P1D-C050WST0320**
	400	**P1D-C050WST0400**
	500	**P1D-C050WST0500**

Cyl. bore mm	Stroke mm	Order code
63 Conn. G3/8	25	**P1D-C063WST0025**
	40	**P1D-C063WST0040**
	50	**P1D-C063WST0050**
	80	**P1D-C063WST0080**
	100	**P1D-C063WST0100**
	125	**P1D-C063WST0125**
	160	**P1D-C063WST0160**
	200	**P1D-C063WST0200**
	250	**P1D-C063WST0250**
	320	**P1D-C063WST0320**
	400	**P1D-C063WST0400**
	500	**P1D-C063WST0500**
80 Conn. G3/8	25	**P1D-C080WST0025**
	40	**P1D-C080WST0040**
	50	**P1D-C080WST0050**
	80	**P1D-C080WST0080**
	100	**P1D-C080WST0100**
	125	**P1D-C080WST0125**
	160	**P1D-C080WST0160**
	200	**P1D-C080WST0200**
	250	**P1D-C080WST0250**
	320	**P1D-C080WST0320**
	400	**P1D-C080WST0400**
	500	**P1D-C080WST0500**
100 Conn. G1/2	25	**P1D-C100WST0025**
	40	**P1D-C100WST0040**
	50	**P1D-C100WST0050**
	80	**P1D-C100WST0080**
	100	**P1D-C100WST0100**
	125	**P1D-C100WST0125**
	160	**P1D-C100WST0160**
	200	**P1D-C100WST0200**
	250	**P1D-C100WST0250**
	320	**P1D-C100WST0320**
	400	**P1D-C100WST0400**
	500	**P1D-C100WST0500**

Cyl. bore mm	Stroke mm	Order code
125 Conn. G1/2	25	**P1D-C125WST0025**
	40	**P1D-C125WST0040**
	50	**P1D-C125WST0050**
	80	**P1D-C125WST0080**
	100	**P1D-C125WST0100**
	125	**P1D-C125WST0125**
	160	**P1D-C125WST0160**
	200	**P1D-C125WST0200**
	250	**P1D-C125WST0250**
	320	**P1D-C125WST0320**
	400	**P1D-C125WST0400**
	500	**P1D-C125WST0500**

The cylinders are supplied complete with one stainless steel piston rod nut as standard.

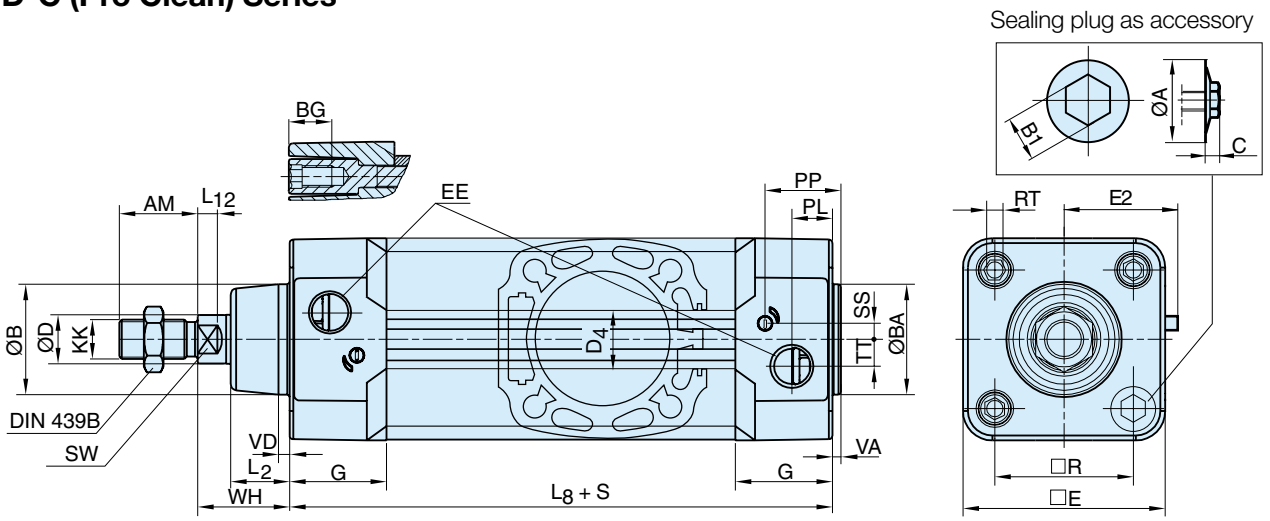
Sealing plugs for end cover screws

See page 35.

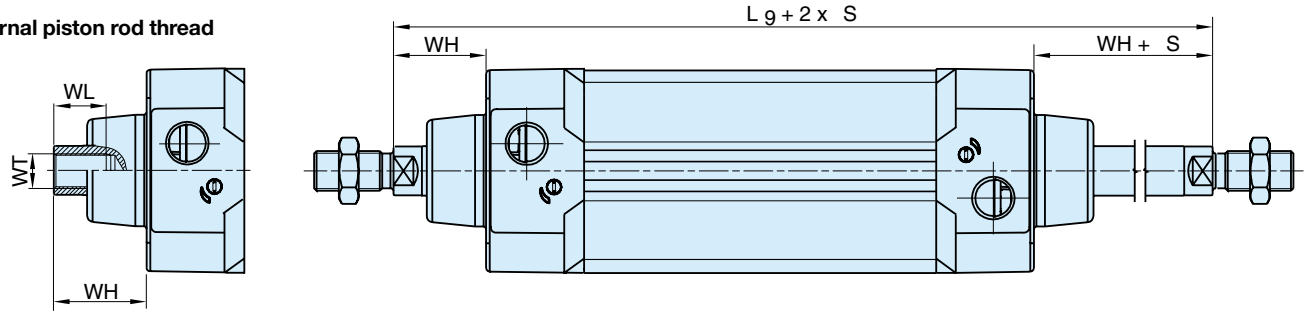
Sensors

For sensors see page 77.

P1D-C (Pro Clean) Series



Internal piston rod thread



Dimensions

Cylinder bore mm	A mm	AM mm	B mm	B1 mm	BA mm	BG mm	C mm	D mm	D4 mm	E mm	EE mm	G mm	KK	L2 mm
32	15	22	30	8	30	16	5,2	12	45,0	50,0	G1/8	28,5	M10x1,25	16,0
40	15	24	35	8	35	16	5,2	16	52,0	57,4	G1/4	33,0	M12x1,25	19,0
50	18,5	32	40	10	40	16	6,7	20	60,7	69,4	G1/4	33,5	M16x1,5	24,0
63	18,5	32	45	10	45	16	6,7	20	71,5	82,4	G3/8	39,5	M16x1,5	24,0
80	21,5	40	45	11	45	17	7,8	25	86,7	99,4	G3/8	39,5	M20x1,5	30,0
100	21,5	40	55	11	55	17	7,8	25	106,7	116,0	G1/2	44,5	M20x1,5	32,4
125	24	54	60	13	60	20	9,3	32	134,0	139,0	G1/2	51,0	M27x2	45,0

Cylinder bore mm	L8 mm	L9 mm	L12 mm	PL mm	PP mm	R mm	RT	SS mm	SW mm	TT mm	VA mm	VD mm	WH mm	WL mm	WT
32	94	146	6,0	13,0	21,8	32,5	M6	4,0	10	4,5	3,5	4,5	26	21	M8x1
40	105	165	6,5	14,0	21,9	38,0	M6	8,0	13	5,5	3,5	4,5	30	23	M10x1,25
50	106	180	8,0	14,0	23,0	46,5	M8	4,0	17	7,5	3,5	5,0	37	31	M14x1,5
63	121	195	8,0	16,4	27,4	56,5	M8	6,5	17	11,0	3,5	5,0	37	31	M14x1,5
80	128	220	10,0	16,0	30,5	72,0	M10	0	22	15,0	3,5	4,0	46	39	M18x1,5
100	138	240	14,0	18,0	35,8	89,0	M10	0	22	20,0	3,5	4,0	51	39	M18x1,5
125	160	290	18,0	28,0	40,5	110,0	M12	0	27	17,5	5,5	6,0	65	53	M24x2

S=Stroke

Tolerances

Cylinder bore mm	B	BA	L_8 mm	L_9 mm	R mm	Stroke tolerance up to stroke 500 mm	Stroke tolerance for stroke over 500 mm
32	d11	d11	±0,4	±2	±0,5	+0,3/+2,0	+0,3/+3,0
40	d11	d11	±0,7	±2	±0,5	+0,3/+2,0	+0,3/+3,0
50	d11	d11	±0,7	±2	±0,6	+0,3/+2,0	+0,3/+3,0
63	d11	d11	±0,8	±2	±0,7	+0,3/+2,0	+0,3/+3,0
80	d11	d11	±0,8	±3	±0,7	+0,3/+2,0	+0,3/+3,0
100	d11	d11	±1,0	±3	±0,7	+0,3/+2,0	+0,3/+3,0
125	d11	d11	±1,0	±3	±1,1	+0,3/+2,0	+0,3/+3,0

Design Variants for all P1D Series

Alternative piston rod materials

All P1D cylinders in all bores, Ø32-125 mm, can be ordered with the following piston rod materials:

– Steel, chromed-plated
– Stainless steel, roller polished (standard)
– Acid-proof steel, roller polished
– Stainless steel, chromed-plated

Through piston rod

All P1D cylinders in all bores, Ø32-125 mm, are available with a through rod. Cylinders with a through rod can take higher side forces thanks to the double support for the piston rod.

Operation with dry piston rod

In many applications, primarily in the foodstuffs industry, the cylinders are cleaned frequently. This means that the film of grease on the piston rod is washed off, which puts special demands on the materials and the design of the piston rod seal system (scraper ring and piston rod seal). Parker Hannifin has developed a piston rod seal system specially designed for dry rod operation. This is available as options for this type of applications, for all bores of P1D cylinders. The system has a specially designed L-shaped seal and the material is self-lubricating, high molecular weight plastics (HDPE) – the same system as in our P1S stainless steel cylinders.

Alternative scraper materials

For use in applications where chemicals may affect the scraper in the front end cover, an option with a scraper in FPM rubber for better chemical resistance is available.

On request there is also a scraper in food approved polyurethane material.