

P1D Series

The innovative P1D is a long lasting ISO/VDMA cylinder. The cylinders are double acting, with a new design of air cushioning.

The P1D complies with the current ISO 6431, ISO 15552, VDMA 24562 and AFNOR installation dimension standards

- Available in 32 to 200mm bores
- PUR seals for long service life
- Drop-in sensors
- Corrosion resistant design
- Magnetic piston as standard
- Lubricated with food grade grease



Operating information

Operating pressure:	145 PSIG (10 bar) maximum
Temperature range:	Standard: -4°F to 176°F (-20°C to 80°C) High temperature: 14°F to 250°F (-10°C to 121°C)
Cylinders for low pressure hydraulic operation:	Ø32 - 125mm
ATEX approval:	CE Ex IIGD c T4 248°F (120°C)
Filtration requirements:	40 micron, dry filtered air

P1D Standard - Double acting

Ø32mm - (G¹/₈)

Stroke (mm)	Order Code
25	P1D-S032MC-0025NNNNN
40	P1D-S032MC-0040NNNNN
50	P1D-S032MC-0050NNNNN
80	P1D-S032MC-0080NNNNN
100	P1D-S032MC-0100NNNNN
125	P1D-S032MC-0125NNNNN
160	P1D-S032MC-0160NNNNN
200	P1D-S032MC-0200NNNNN
250	P1D-S032MC-0250NNNNN
320	P1D-S032MC-0320NNNNN
400	P1D-S032MC-0400NNNNN
500	P1D-S032MC-0500NNNNN

Ø40mm - (G¹/₄)

25	P1D-S040MC-0025NNNNN
40	P1D-S040MC-0040NNNNN
50	P1D-S040MC-0050NNNNN
80	P1D-S040MC-0080NNNNN
100	P1D-S040MC-0100NNNNN
125	P1D-S040MC-0125NNNNN
160	P1D-S040MC-0160NNNNN
200	P1D-S040MC-0200NNNNN
250	P1D-S040MC-0250NNNNN
320	P1D-S040MC-0320NNNNN
400	P1D-S040MC-0400NNNNN
500	P1D-S040MC-0500NNNNN

Ø50mm - (G¹/₄)

25	P1D-S050MC-0025NNNNN
40	P1D-S050MC-0040NNNNN
50	P1D-S050MC-0050NNNNN
80	P1D-S050MC-0080NNNNN
100	P1D-S050MC-0100NNNNN
125	P1D-S050MC-0125NNNNN
160	P1D-S050MC-0160NNNNN
200	P1D-S050MC-0200NNNNN
250	P1D-S050MC-0250NNNNN
320	P1D-S050MC-0320NNNNN
400	P1D-S050MC-0400NNNNN
500	P1D-S050MC-0500NNNNN

Ø63mm - (G³/₈)

Stroke (mm)	Order Code
25	P1D-S063MC-0025NNNNN
40	P1D-S063MC-0040NNNNN
50	P1D-S063MC-0050NNNNN
80	P1D-S063MC-0080NNNNN
100	P1D-S063MC-0100NNNNN
125	P1D-S063MC-0125NNNNN
160	P1D-S063MC-0160NNNNN
200	P1D-S063MC-0200NNNNN
250	P1D-S063MC-0250NNNNN
320	P1D-S063MC-0320NNNNN
400	P1D-S063MC-0400NNNNN
500	P1D-S063MC-0500NNNNN

Ø80mm - (G³/₈)

25	P1D-S080MC-0025NNNNN
40	P1D-S080MC-0040NNNNN
50	P1D-S080MC-0050NNNNN
80	P1D-S080MC-0080NNNNN
100	P1D-S080MC-0100NNNNN
125	P1D-S080MC-0125NNNNN
160	P1D-S080MC-0160NNNNN
200	P1D-S080MC-0200NNNNN
250	P1D-S080MC-0250NNNNN
320	P1D-S080MC-0320NNNNN
400	P1D-S080MC-0400NNNNN
500	P1D-S080MC-0500NNNNN

Ø100mm - (G¹/₂)

Stroke (mm)	Order Code
25	P1D-S100MC-0025NNNNN
40	P1D-S100MC-0040NNNNN
50	P1D-S100MC-0050NNNNN
80	P1D-S100MC-0080NNNNN
100	P1D-S100MC-0100NNNNN
125	P1D-S100MC-0125NNNNN
160	P1D-S100MC-0160NNNNN
200	P1D-S100MC-0200NNNNN
250	P1D-S100MC-0250NNNNN
320	P1D-S100MC-0320NNNNN
400	P1D-S100MC-0400NNNNN
500	P1D-S100MC-0500NNNNN

Ø125mm - (G¹/₂)

25	P1D-S125MC-0025NNNNN
40	P1D-S125MC-0040NNNNN
50	P1D-S125MC-0050NNNNN
80	P1D-S125MC-0080NNNNN
100	P1D-S125MC-0100NNNNN
125	P1D-S125MC-0125NNNNN
160	P1D-S125MC-0160NNNNN
200	P1D-S125MC-0200NNNNN
250	P1D-S125MC-0250NNNNN
320	P1D-S125MC-0320NNNNN
400	P1D-S125MC-0400NNNNN
500	P1D-S125MC-0500NNNNN

The cylinders are supplied complete with a zinc plated steel piston rod nut.

Sensors

For sensors see page B339.



☐ Most popular.

Design Versions

P1D Basic Version

The P1D Basic Version cylinders meet the specifications in the ISO 15552 standard. This means full interchangeability to any ISO 15552 cylinder anywhere around the globe. P1D Basic Version will be available throughout the extensive worldwide Parker Hannifin organization.



P1D Standard Version

P1D Standard Version cylinders are available in 32-125mm bores and utilize internal composite technology to save weight, while assuring the high performance and functionality expected of ISO cylinders. Cushions and bumpers at both ends and a magnetic piston are included as standard. The Standard Version serves all markets where performance at an affordable price is desired.



P1D Removable Gland Version

P1D Removable Gland Version cylinders are available in 32-200mm bores and utilize bar stock endcaps and a removable high-strength bronze bearing for traditional and custom applications. The bronze bearing assembly is externally removable for quick and easy maintenance. No other ISO cylinder manufacturer in the world produces a Removable Gland Version and meets these demands. This version covers all applications which require performance and customization at all bore sizes.



P1D Rod Lock Cylinder

The P1D Rod Lock Cylinder incorporates a powerful piston rod locking device, which clamps the piston rod and locks it in position. The locking device is a spring lock with an air pressure release and is integrated into the front (head) cover of the cylinder.



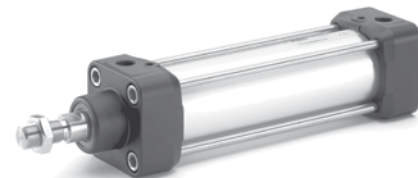
P1D Clean Version

The P1D Clean Version is completely designed for the food industry. The stringent requirements for hygiene regarding choice of material and corrosion resistance have guided the development of this cylinder version. Available with BSPP ports (ISO 1179-1 with ISO 228-1 threads).



P1D Tie-Rod Version

The P1D Tie-Rod Version cylinders are based on the same high level technology as the Standard Version. They accept either Standard Version or Removable Gland Version heads and caps. This cylinder is the perfect choice wherever a true tie-rod cylinder is needed.



Guided Cylinders

For guided versions of the P1D, see the P5E Series and HB Series.



P5E Series

B	Tie Rod Cylinders Actuator Products
	3MA Series
	4MA/4ML Series
	3MAJ/4MAJ Series
	4MNR Series
	P1D Series

Ordering information

P1D	-	S	032	M	C	-	0500	N	N	N	N	N
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Piston Style			Bore size		Stroke ¹⁴		Rod end	
Cushions	Piston material		032	32mm	Specify whole mm using 4 digits, i.e. 0500		N	Metric male
	Composite ¹	Aluminum ²	040	40mm			6	Metric female
None	M	Y	050	50mm			3	Special*
Cush B/E	- 3, 20	4	063	63mm			* Please provide desired dimensions for KK, AM and WH or W. If otherwise, please provide dimensioned sketch.	
Cush head	J	5	080	80mm				
Cush cap	K	6	100	100mm				
			125	125mm				
			160	160mm ⁸				
			200	200mm ⁸				

Version				
	Cylinder body profile	Rod lock		
		None	Fitted w/ standard rod lock ⁷	Fitted w/ manual override rod lock ⁷
Die cast end caps ⁴	Basic	B	N/A	N/A
	Standard	S	L	N/A
	Tie Rod ¹³	T	M	N/A
	Clean	C	D	N/A
Machined end caps rod lock not available with removable gland. ⁵	Standard	G ⁵	R	J
	Tie Rod ¹³	E ⁵	7 ⁴	Consult Factory
Special ⁶	Any Special	/		

Function				
Fastener type	Rod wiper style	Double acting	Double rod	Tandem ¹³
Standard end cover screws	Std scraper	M ²⁰	F	C
	Metal scraper	Q	R	J
Stainless steel end cover screws ⁹	Std scraper	A	G	N/A
	Metal scraper	S	T	N/A

Piston rod & seal material			
Piston rod material	Seal material		
	Standard	Fluorocarbon ¹⁰	Hydraulic ¹¹
Chrome plated carbon steel ²	C ²⁰	G	J
Chrome plated stainless steel ^{2, 19}	R ²⁰	D	Z
303 Stainless steel ¹³	S	N/A	N/A
Acid-resistant stainless steel	M	N ²	N/A

Cylinder ports front & rear		
-	BSPP Ports (G Threads)**	
E	NPTF Ports*	
Q	BSPT Ports (Rc Threads)*†	

* Not available on clean version.
† Not available on die cast version.
** ISO 1179-1 with ISO 228-1 threads.

Rod mountings & plugs ¹⁵		
Rod mounting	No plugs ^{16, 20}	With plugs ¹
Swivel rod eye	S	A
Swivel rod eye SS	T	1
Swivel rod eye with clevis bracket GA ¹⁹	V	E
Swivel rod eye SS with clevis bracket GA	W	2
Clevis	C	B
Clevis SS	D	3
Flexco coupling	F	G
One additional piston rod nut	X	P
Stainless steel piston rod nut	Y	4
Acid-resistant nut	Z	5
None (piston rod nut only)	N	R

Sensors ¹⁷			
Prepared for factory-fitted sensors	Cable location		
	Front or left	Rear or right	Front & rear
P1D clean version	6	7	8
P1D all versions (except Clean) prepared for sensors or clean version without sensor capability ^{18, 20}	N		

Mounting style		
	Standard ²⁰	Rotated 90°
Flange MF1 at head (front) end	1	3
Flange MF2 at cap (rear) end	B	4
Flanges MF1 and MF2 at both ends	2	K
Foot brackets MS1	F	R
Clevis bracket GA aluminum	C	U
Rear eye MP4 aluminum	E	V
Rear swivel eye MP6 aluminum	S	W
Clevis bracket MP2 aluminum	T	Y
Rear eye + clevis (MP4 + MP2) aluminum	L	Z
Clevis bracket MP2 + pivot hinge aluminum	X	5
Clevis bracket GA aluminum + steel swivel hinge	Q	0
Rear swivel eye + clevis bracket GA aluminum	M	A
Intermediate trunnion MT4 (requires XV dimension)	G	7
Trunnion flange at head (front) end ⁴	H	P
Trunnion flange at cap (rear) end ⁴	J	8
None (MX0)	N	9

Notes:

- Not available for 160-200mm bores.
- Not available on Clean Version.
- Must be placed in model code.
- Not available for 160-200mm bores or with fluorocarbon seals.
- When Removable Gland Version is fitted with rod lock, gland cannot be replaced without disassembling cylinder.
- If special cylinder is ordered (other than rod end), End Cap Style, Cylinder Body Profile and Rod Lock option must be given in addition to the special request.
- Cylinders fitted with rod locks must be cushioned on both ends.
- Tie Rod Version E must be specified for these bores.
- Applies only to end cover screws for 32-125mm bores. For stainless steel tie rods and nuts (all bore sizes), change Version to special and request stainless steel tie rods and nuts.
- If used for temperature above 80°C (176°F), aluminum piston required. Not available with die cast end caps.
- Hydraulic seal option valid for Removable Gland Version only. Adjustable cushion options and Rod Lock Versions not available.
- Only available on Clean Version.
- Tie Rod Version is required for Tandem Function.
- When specifying a stop tube, place a "/" in the version field. Then specify the version, amount of stop tube and amount of net stroke. The stroke used in the model code should be gross stroke (net stroke plus stop tube).
- Please review Piston Rod Selection Chart in the Engineering Section to check for a rod buckling condition.
- Clean Version comes standard with plugs. Use this column when ordering Clean Version.
- For sensor part numbers and specifications, please refer to Electronic Sensors section.
- P1D Clean Version ordered without sensors cannot be retrofitted with sensor capability.
- Consult factory for this option.
- Only option for Basic Version.

Double Rod Cylinders
Double rod option is available with Mounting Styles MX0, MS1, MF1, MF2 and MT4.
For double rod cylinders, it is assumed that the rod number and rod end are the same for both piston rods. On a double rod cylinder where the two rod ends are different, use a rod end of '3' and be sure to clearly state which rod end is to be assembled at which end.

B

Tie Rod Cylinders
Actuator Products

3MA Series

4MA/4ML Series

3MAJ/4MAJ Series

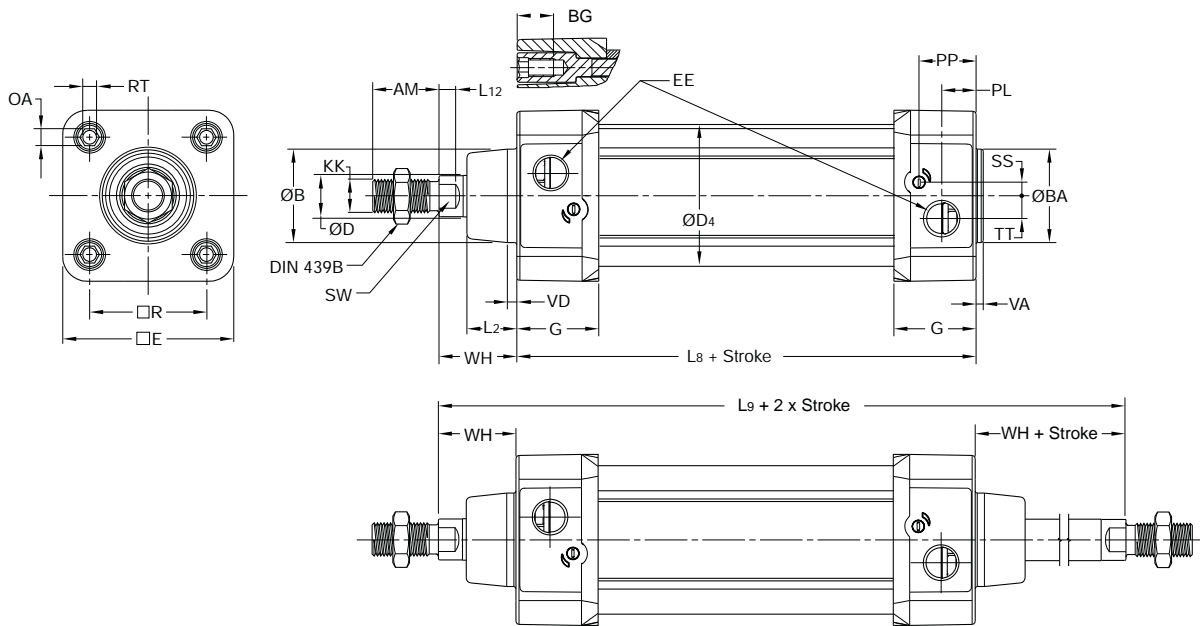
4MNR Series

P1D Series

For ordering purposes, when special options or common modifications are requested, the factory will assign a sequential part number in place of the model number.



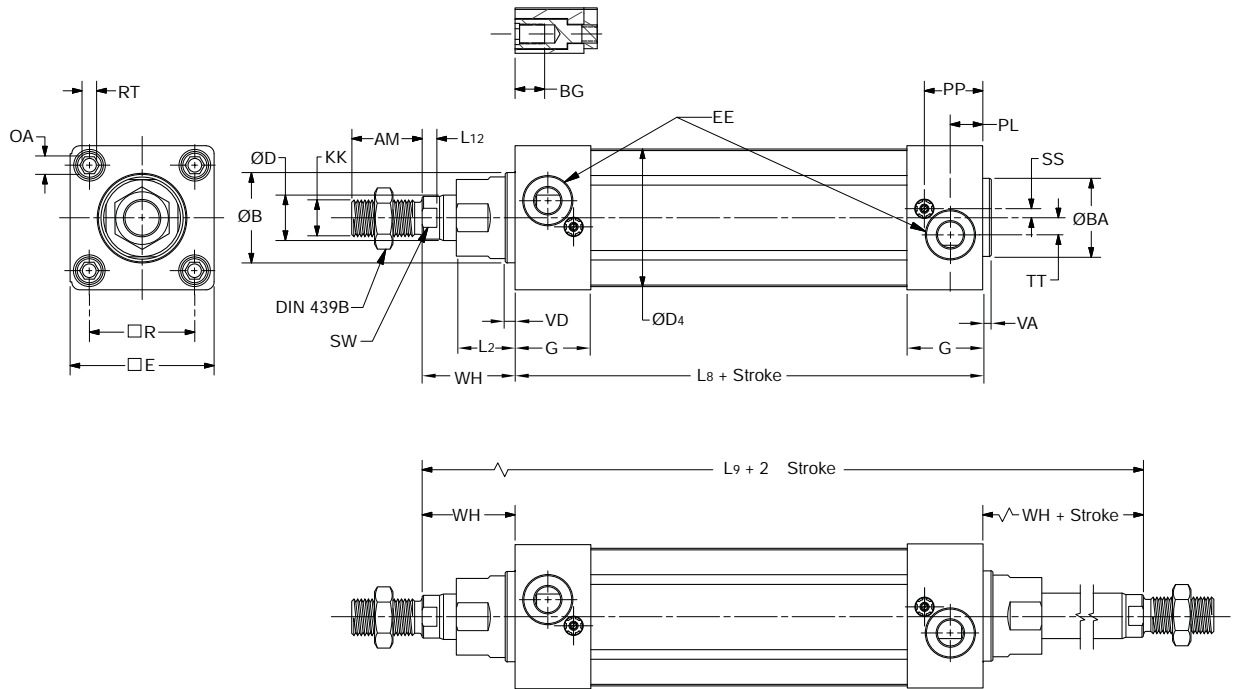
P1D Basic & Standard Version



Series	EE															
	Bore size	AM mm	B mm	BA mm	BG mm	D mm	D4 mm	E	BSPP*	NPTF/BSPT	G mm	KK	L2 mm	L8 mm	L9 mm	L12 mm
3MA Series	32	22	30	30	16	12	45.0	50.0	G1/8	1/8	28.5	M10x1.25	16.0	94	146	6.0
	40	24	35	35	16	16	52.0	57.4	G1/4	1/4	33.0	M12x1.25	19.0	105	165	6.5
4MA/4ML Series	50	32	40	40	16	20	60.7	69.4	G1/4	1/4	33.5	M16x1.5	24.0	106	180	8.0
	63	32	45	45	16	20	71.5	82.4	G3/8	3/8	39.5	M16x1.5	24.0	121	195	8.0
	80	40	45	45	17	25	86.7	99.4	G3/8	3/8	39.5	M20x1.5	30.0	128	220	10.0
	100	40	55	55	17	25	106.7	116.0	G1/2	1/2	44.5	M20x1.5	32.4	138	240	10.0
3MAJ/4MAJ Series	125	54	60	60	20	32	134.0	139.0	G1/2	1/2	51.0	M27x2	45.0	160	290	13.0
Series	Bore size	OA mm	PL mm	PP mm	R mm	RT	SS mm	SW mm	TT mm	VA mm	VD mm	WH mm				
	4MNR Series	32	6	13	21.8	32.5	M6	4.0	10	4.5	3.5	4.5	26			
P1D Series	40	6	14	21.9	38.0	M6	8.0	13	5.5	3.5	4.5	30				
	50	8	14	25.9	46.5	M8	4.0	17	7.5	3.5	4.5	37				
	63	8	16	27.4	56.5	M8	6.5	17	11.0	3.5	4.5	37				
	80	6	16	30.5	72.0	M10	0	22	15.0	3.5	4.5	46				
P1D Series	100	6	18	35.8	89.0	M10	0	22	20.0	3.5	4.5	51				
	125	8	23	40.5	110.0	M12	0	27	17.5	3.5	6.5	65				

* ISO 1179-1 with ISO 228-1 threads

P1D Removable Gland Version



Bore size	AM mm	B mm	BA mm	BG mm	D mm	D4 mm	E mm	EE		G mm	KK	L2 mm	L8 mm	L9 mm	L12 mm
								BSPP *	NPTF/BSPT						
32	22	30	30	16	12	45.0	46.5	G1/8	1/8	28.5	M10x1.25	18	94	146	6.0
40	24	35	35	16	16	52.0	52.0	G1/4	1/4	33.0	M12x1.25	20	105	165	6.5
50	32	40	40	16	20	60.7	63.5	G1/4	1/4	33.5	M16x1.5	26	106	180	6.5
63	32	45	45	16	20	71.5	76.0	G3/8	3/8	39.5	M16x1.5	26	121	195	6.5
80	40	45	45	17	25	86.7	95.5	G3/8	3/8	39.5	M20x1.5	33	128	220	10.0
100	40	55	55	17	25	106.7	114.5	G1/2	1/2	44.5	M20x1.5	33	138	240	10.0
125	54	60	60	20	32	134.0	140.0	G1/2	1/2	51.0	M27x2	41	160	290	13.0

Bore size	OA mm	PL mm	PP mm	R mm	RT	SS mm	SW mm	TT mm	VA mm	VD mm	WH mm
40	6	14	21.9	38.0	M6	8.0	13	5.5	3.5	4.5	30
50	8	14	25.9	46.5	M8	4.0	17	7.5	3.5	4.5	37
63	8	16	27.4	56.5	M8	6.5	17	11.0	3.5	4.5	37
80	6	16	30.5	72.0	M10	0	22	15.0	3.5	4.5	46
100	6	18	35.8	89.0	M10	0	22	20.0	3.5	4.5	51
125	8	23	40.5	110.0	M12	0	27	17.5	5.5	6.5	65

* ISO 1179-1 with ISO 228-1 threads

B

Tie Rod Cylinders
 Actuator Products

3MA
 Series

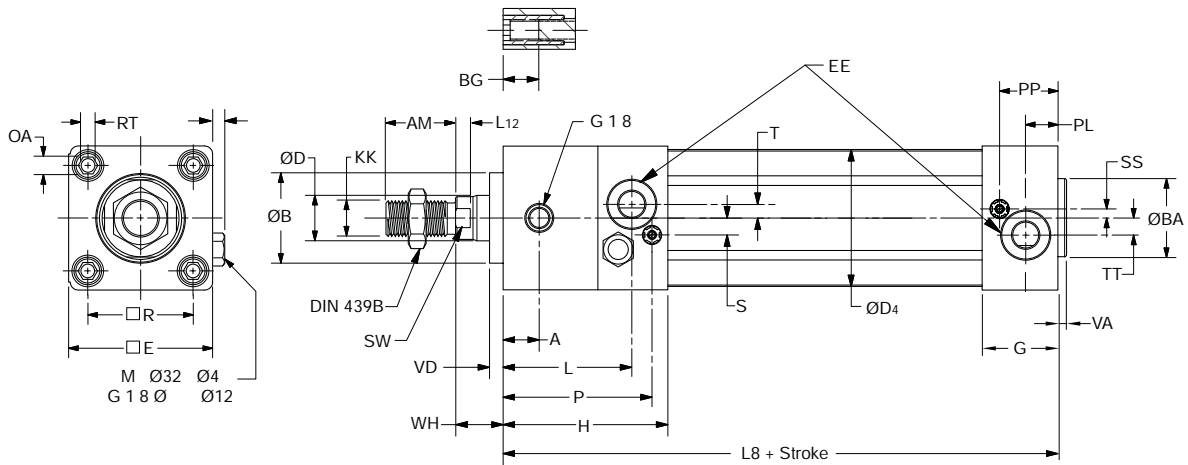
4MA/4ML
 Series

3MAJ/4MAJ
 Series

4MNR
 Series

P1D
 Series

P1D Rod Lock Version (Version R or L)



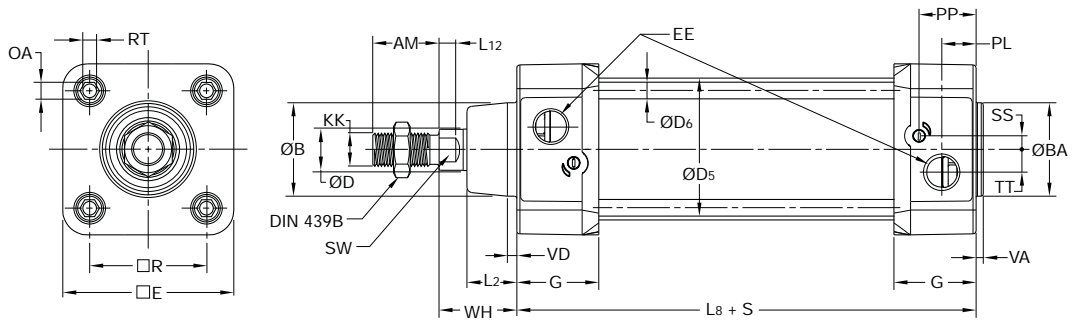
Bore size	A mm	AM mm	B mm	BA mm	BG mm	D mm	D4 mm	E mm	EE *	G mm	H mm	KK	L mm	L8 mm	L12 mm
32	16	22	30	30	16	12	45.0	46.5	G1/8	28.5	71.5	M10x1.25	56.0	137	6.0
40	16	24	35	35	16	16	52.0	52.0	G1/4	33.0	77.0	M12x1.25	56.0	149	6.5
50	18	32	40	40	16	20	60.7	63.5	G1/4	33.5	80.5	M16x1.5	62.5	153	6.5
63	26	32	45	45	16	20	71.5	76.0	G3/8	39.5	96.5	M16x1.5	74.5	178	6.5
80	35	40	45	45	17	25	86.7	95.5	G3/8	39.5	110.5	M20x1.5	87.0	199	10.0
100	50	40	55	55	17	25	106.7	114.5	G1/2	44.5	132.5	M20x1.5	106.0	226	10.0
125	60	54	60	60	20	32	134.0	140.0	G1/2	51.0	145.0	M27x2	117.0	254	13.0

Bore size	OA mm	P mm	PL mm	PP mm	R mm	RT mm	S mm	SS mm	SW mm	T mm	TT mm	VA mm	VD mm	WH mm
32	6	64.8	13	21.8	32.5	M6	7	6.5	10	2.5	4.5	3.5	4.5	15
40	6	68.0	14	21.9	38.0	M6	9	8.0	13	2.0	5.5	3.5	4.5	16
50	8	73.5	14	25.9	46.5	M8	8	4.0	17	4.0	7.5	3.5	5.0	17
63	8	89.5	16	27.4	56.5	M8	8	6.5	17	2.0	11.0	3.5	5.0	17
80	6	101.5	16	30.5	72.0	M10	9	0	22	5.0	15.0	3.5	4.0	20
100	6	123.5	18	35.8	89.0	M10	12	0	22	6.0	20.0	3.5	4.0	20
125	8	136.0	23	40.5	110.0	M12	12	0	27	6.0	17.5	5.5	6.0	27

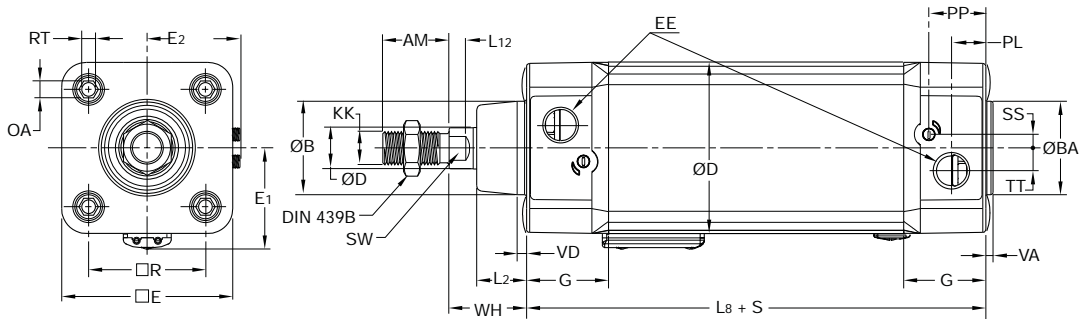
* ISO 1179-1 with ISO 228-1 threads

B
 Tie Rod Cylinders
 Actuator Products
 Series
 3MA
 4MA/4ML
 3MAJ/4MAJ
 4MNR
 P1D Series

P1D Tie-Rod Version (32-125mm)



P1D Clean Version



Bore size	D5 mm	D6 mm	D7 mm	E1 mm	E2 max mm
32	36	5.3	49.6	32	5
40	45	5.3	57.3	36	6
50	55	7.1	69.3	42	6
63	68	7.1	82.3	49	5
80	85	8.9	99.3	57	5
100	105	8.9	117.6	68	6
125	132	10.7	142.8	81	6

Other dimensions, see P1D removable gland version.

B

Tie Rod Cylinders
 Actuator Products

3MA
 Series

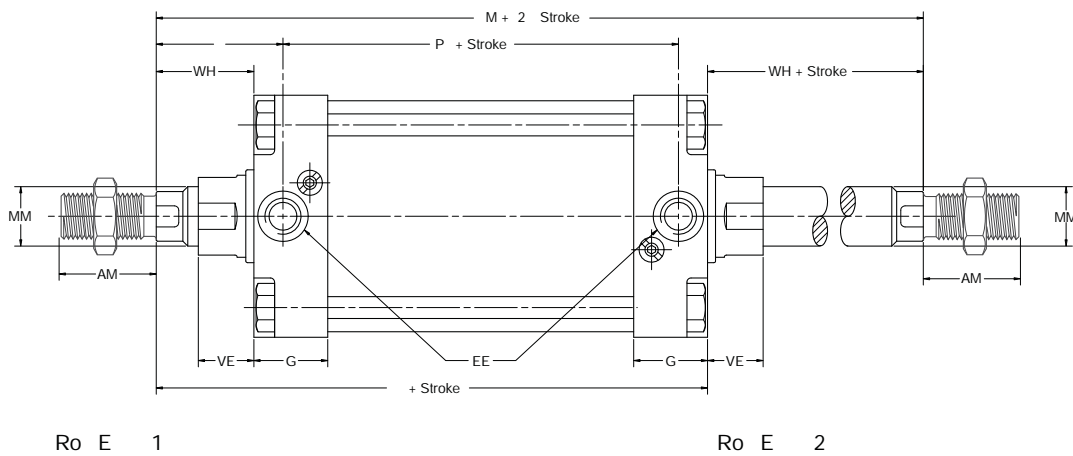
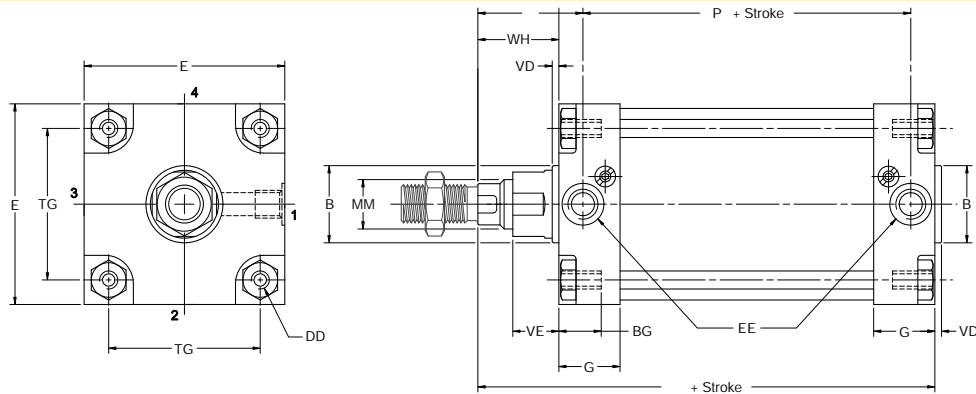
4MA/4ML
 Series

3MAJ/4MAJ
 Series

4MNR
 Series

P1D
 Series

P1D Tie-Rod Version (160-200mm)



Ro E 1

Ro E 2

Bore size	AM mm	B d11 mm	BG mm	DD	E mm	EE		G mm	MM mm	TG mm	VD mm	VE mm	WH mm	Y mm	PJ1 mm	ZJ1 mm	ZM2 mm
						BSPP ³	NPTF/BSPT										
160	72	65	24	M16	177	G3/4	3/4	54	40	140	6	56	80	105	130	260	340
200	72	75	24	M16	214	G3/4	3/4	54	40	175	6	56	95	120	130	275	370

1 Add stroke
 2 Add 2x stroke
 3 ISO 1179-1 with ISO 228-1 threads

Double Rod Cylinders

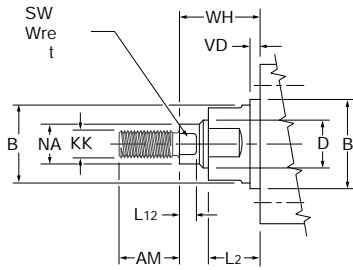
Double rod option is available on Mounting Styles MX0, MS1, MF1, MF2 and MT4.

For double rod cylinders, it is assumed that the rod number and rod end are the same for both piston rods. On a double rod cylinder where the two rod ends are different, use a rod end of '3' and be sure to clearly state which rod end is to be assembled at which end.

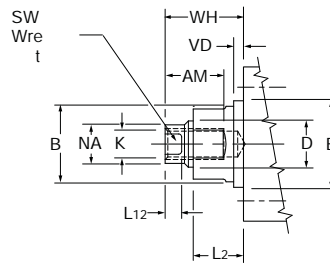
B
 Tie Rod Cylinders
 Actuator Products
 Series
 3MA
 4MA/4ML
 3MAJ/4MAJ
 4MNR
 P1D

All Mountings Except MF1

Thread Style N



Thread Style 6



**Thread Style 3 -
 “Special Thread”**

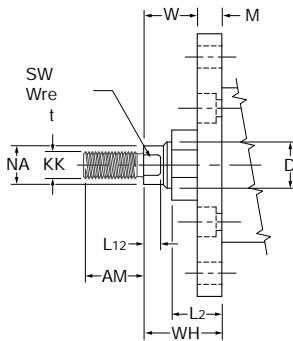
Special thread, extension, rod eye, blank, etc are also available. To order, specify “Style 3” and provide desired dimensions for KF or KK, AM and WH. If otherwise special, furnish dimensioned sketch.

Bore size	D	KK	KF	AM	B d11	BC	SW across flats	L12	NA	VD	L2	WH*
32	12	M10x1.25	M8x1	22	30	27	10	6	11	4.5	18	26
40	16	M12x1.25	M10x1.25	24	35	32	13	6.5	15	4.5	20	30
50	20	M16x1.5	M14x1.5	32	40	36	17	6.5	19	4.5	26	37
63	20	M16x1.5	M14x1.5	32	45	36	17	6.5	19	4.5	26	37
80	25	M20x1.5	M18x1.5	40	45	41	22	10	24	4.5	33	46
100	25	M20x1.5	M18x1.5	40	55	41	22	10	24	4.5	33	51
125	32	M27x2	M24x2	54	60	50	27	13	31	6.5	41	65
160	40	M36x2	M30x2	72	65	60	36	16	39	6	56	80
200	40	M36x2	M30x2	72	75	60	36	16	39	6	56	95

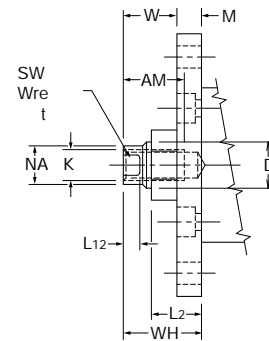
*NOTE: Dimensions do not apply to Rod Lock Versions.

With MF1 Mounting

Thread Style N



Thread Style 6



**“Special Thread”
 Style 3**

Special thread, extension, rod eye, blank, etc are also available. To order, specify “Style 3” and provide desired dimensions for KF or KK, AM and WH. If otherwise special, furnish dimensioned sketch.

Bore size	D	KK	KF	AM	SW across flats	L12	MF	NA	L2	W†	WH†
32	12	M10x1.25	M8x1	22	10	6	10	11	18	16	26
40	16	M12x1.25	M10x1.25	24	13	6.5	10	15	20	20	30
50	20	M16x1.5	M14x1.5	32	17	6.5	12	19	26	25	37
63	20	M16x1.5	M14x1.5	32	17	6.5	12	19	26	25	37
80	25	M20x1.5	M18x1.5	40	22	10	16	24	33	30	46
100	25	M20x1.5	M18x1.5	40	22	10	16	24	33	35	51
125	32	M27x2	M24x2	54	27	13	20	31	41	45	65
160	40	M36x2	M30x2	72	36	16	20	39	56	60	80
200	40	M36x2	M30x2	72	36	16	25	39	56	70	95

†NOTE: Dimensions do not apply to Rod Lock Versions.



Flange – MF1, MF2

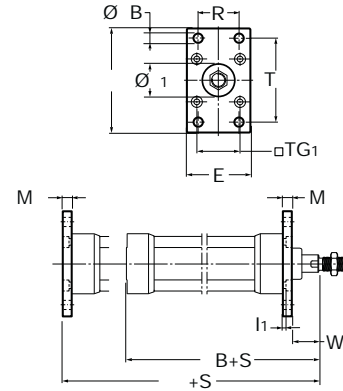


Intended for fixed mounting of cylinder. Flange can be fitted to front or rear end cover of cylinder.

Materials:

32-100mm bore flange: Surface-treated aluminum, black
 125-200mm bore flange: Steel, black
 Mounting screws acc. to DIN 6912: Zinc-plated steel 8.8

Supplied complete with mounting screws for attachment to cylinder.



According to ISO MF1/MF2, VDMA 24 562, AFNOR

Bore size mm	d1 H11 mm	FB H13 mm	TG1 mm	E mm	R JS14 mm	MF JS14 mm	TF JS14 mm	UF	I1 -0.5 mm	W mm	ZF mm	ZB mm	Weight kg	Part number
32	30	7	32.5	45	32	10	64	80	5.0	16	130	123.5	0.23	P1C-4KMBA
40	35	9	38.0	52	36	10	72	90	5.0	20	145	138.5	0.28	P1C-4LMBA
50	40	9	46.5	65	45	12	90	110	6.5	25	155	146.5	0.53	P1C-4MMBA
63	45	9	56.5	75	50	12	100	120	6.5	25	170	161.5	0.71	P1C-4NMBA
80	45	12	72.0	95	63	16	126	150	8.0	30	190	177.5	1.59	P1C-4PMBA
100	55	14	89.0	112	75	16	150	185	8.0	35	205	192.5	2.19	P1C-4QMBA
125	60	16	110.0	140	90	20	188	220	10.5	45	245	230.5	3.78	P1C-4RMB
160	65	18	140.0	180	115	20	230	260	9.5	60	280	266	C.F.	L075370160
200	75	22	175.0	220	135	25	270	300	12.5	70	300	281	C.F.	L075370200

S = Stroke length C.F. = Consult Factory

Foot Bracket – MS1

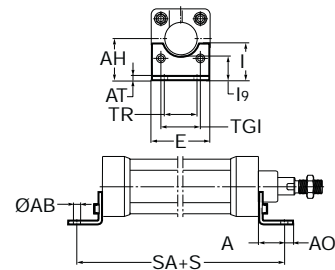


Intended for fixed mounting of cylinder. Foot bracket can be fitted to front and rear end covers of cylinder.

Materials:

Foot bracket: Surface-treated steel, black
 Mounting screws acc. to DIN 912: Zinc-plated steel 8.8

Supplied in pairs with mounting screws for attachment to cylinder.



According to ISO MS1, VDMA 24 562, AFNOR

Bore size mm	AB H14 mm	TG1 mm	E mm	TR JS14 mm	AO mm	AU mm	AH JS15 mm	I7 mm	AT mm	I9 JS14 mm	SA mm	Weight* kg	Part number
32	7	32.5	45	32	10	24	32	30	4.5	17.0	142	0.06	P1C-4KMF
40	9	38.0	52	36	8	28	36	30	4.5	18.5	161	0.08	P1C-4LMF
50	9	46.5	65	45	13	32	45	36	5.5	25.0	170	0.16	P1C-4MMF
63	9	56.5	75	50	13	32	50	35	5.5	27.5	185	0.25	P1C-4NMF
80	12	72.0	95	63	14	41	63	49	6.5	40.5	210	0.50	P1C-4PMF
100	14	89.0	115	75	15	41	71	54	6.5	43.5	220	0.85	P1C-4QMF
125	16	110.0	140	90	22	45	90	71	8.0	60.0	250	1.48	P1C-4RMF
160	18	140.0	180	115	15	60	115	100	9.0	63.5	300	C.F.	L075380160
200	22	175.0	220	135	30	70	135	100	12.0	65.0	320	C.F.	L075380200

S = Stroke length C.F. = Consult Factory

*Weight per item



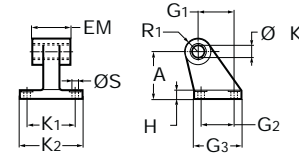
Pivot Bracket with Rigid Bearing



Intended for flexible mounting of cylinder. The pivot bracket can be combined with clevis bracket MP2.

Materials:

Pivot bracket: Surface-treated aluminium, black
 Bearing: Sintered oil-bronze bushing



According to CETOP RP 107 P, VDMA 24 562, AFNOR

Bore size mm	CK H9 mm	S5 H13 mm	K1 JS14 mm	K2	G1 JS14 mm	G2 JS14 mm	EM mm	G3 mm	CA JS15 mm	H6 mm	R1 mm	Weight kg	Part number
32	10	6.6	38	51	21	18	25.5	31	32	8	10.0	0.06	P1C-4KMD
40	12	6.6	41	54	24	22	27.0	35	36	10	11.0	0.08	P1C-4LMD
50	12	9.0	50	65	33	30	31.0	45	45	12	13.0	0.15	P1C-4MMD
63	16	9.0	52	67	37	35	39.0	50	50	12	15.0	0.20	P1C-4NMD
80	16	11.0	66	86	47	40	49.0	60	63	14	15.0	0.33	P1C-4PMD
100	20	11.0	76	96	55	50	59.0	70	71	15	19.0	0.49	P1C-4QMD
125	25	14.0	94	124	70	60	69.0	90	90	20	22.5	1.02	P1C-4RMD
160	30	14.0	118	156	97	89	88.5	126	115	25	31.0	C.F.	L075480160
200	30	16.0	122	162	105	89	88.5	130	135	30	31.0	C.F.	L075480200

C.F. = Consult Factory

Swivel Eye Bracket – MP6

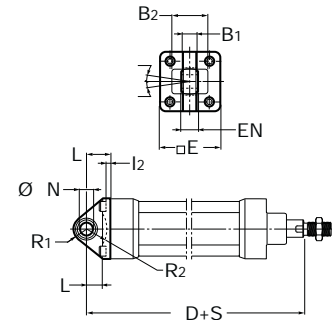


Intended for use together with clevis bracket GA

Materials:

Bracket: Surface-treated aluminium, black
 (Cast iron for 160-200mm bores)
 Swivel bearing acc. to DIN 648K: Hardened steel

Supplied complete with mounting screws for attachment to cylinder.



According to VDMA 24 562, AFNOR

Bore size mm	E mm	B1 mm	B2 mm	EN mm	R1 mm	R2 mm	FL mm	I2 mm	L mm	CN H7 mm	XD mm	Z	Weight kg	Part number
32	45	10.5	–	14	16	–	22	5.5	12	10	142	4°	0.08	P1C-4KMSA
40	52	12.0	–	16	18	–	25	5.5	15	12	160	4°	0.11	P1C-4LMSA
50	65	15.0	51	21	21	19	27	6.5	15	16	170	4°	0.20	P1C-4MMSA
63	75	15.0	–	21	23	–	32	6.5	20	16	190	4°	0.27	P1C-4NMSA
80	95	18.0	–	25	29	–	36	10.0	20	20	210	4°	0.52	P1C-4PMSA
100	115	18.0	–	25	31	–	41	10.0	25	20	230	4°	0.72	P1C-4QMSA
125	140	25.0	–	37	40	–	50	10.0	30	30	275	4°	1.53	P1C-4RMSA
160	177	30.0	–	43	44	41	55	4.0	41	35	315	16°	C.F.	L075420160
200	214	30.0	–	43	48	42	60	8.0	42	35	335	16°	C.F.	L075420200

S = Stroke length C.F. = Consult Factory



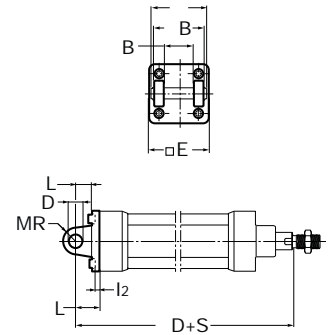
Clevis Bracket – MP2



Intended for flexible mounting of cylinder. Clevis bracket MP2 can be combined with clevis bracket MP4.

Materials:

Clevis bracket: Surface-treated aluminium, black for 32-160mm bores; Cast iron for 200mm bore
 Pin: Surface hardened steel
 Circlips according to DIN 471: Spring steel
 Mounting screws acc. to DIN 912: Zinc-plated steel 8.8
 Supplied complete with mounting screws for attachment to cylinder.



According to ISO MP2, VDMA 24 562, AFNOR

Bore size mm	C mm	E mm	UB h14 mm	CB H14 mm	FL ±0.2 mm	L mm	l2 mm	CD H9 mm	MR mm	XD mm	Weight kg	Part number
32	53	45	45	26	22	13	5.5	10	10	142	0.08	P1C-4KMT
40	60	52	52	28	25	16	5.5	12	12	160	0.11	P1C-4LMT
50	68	65	60	32	27	16	6.5	12	12	170	0.14	P1C-4MMT
63	78	75	70	40	32	21	6.5	16	16	190	0.29	P1C-4NMT
80	98	95	90	50	36	22	10.0	16	16	210	0.36	P1C-4PMT
100	118	115	110	60	41	27	10.0	20	20	230	0.64	P1C-4QMT
125	139	140	130	70	50	30	10.0	25	25	275	1.17	P1C-4RMT
160	178	180	170	90	55	35	10.0	30	25	315	C.F.	L075390160
200	178	200	170	90	60	35	14.0	30	25	335	C.F.	L075390200

S = Stroke length C.F. = Consult Factory

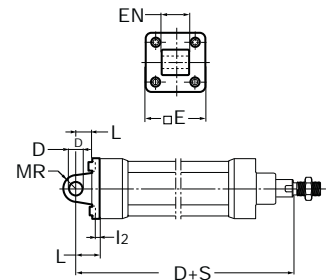
Clevis Bracket – MP4



Intended for flexible mounting of cylinder. Clevis bracket MP4 can be combined with clevis bracket MP2.

Materials:

Clevis bracket: Surface-treated aluminium, black for 32-125mm bores; Cast iron for 160-200mm bores
 Mounting screws acc. to DIN 912: Zinc-plated steel 8.8
 Supplied complete with mounting screws for attachment to cylinder.



According to ISO MP4, VDMA 24 562, AFNOR

Bore size mm	E mm	EW mm	FL mm	L ±0.2 mm	l2 mm	CD mm	MR H9 mm	XD mm	Weight kg	Part number
32	45	26	22	13	5.5	10	10	142	0.09	P1C-4KME
40	52	28	25	16	5.5	12	12	160	0.13	P1C-4LME
50	65	32	27	16	6.5	12	12	170	0.17	P1C-4MME
63	75	40	32	21	6.5	16	16	190	0.36	P1C-4NME
80	95	50	36	22	10.0	16	16	210	0.46	P1C-4PME
100	115	60	41	27	10.0	20	20	230	0.83	P1C-4QME
125	140	70	50	30	10.0	25	25	275	1.53	P1C-4RME
160	180	90	55	35	10.0	30	25	315	C.F.	L075410160
200	220	90	60	35	14.0	30	25	335	C.F.	L075410200

S = Stroke length C.F. = Consult Factory

B
 Tie Rod Cylinders
 Actuator Products
 3MA Series
 4MA/4ML Series
 3MAJ/4MAJ Series
 4MNR Series
 P1D Series



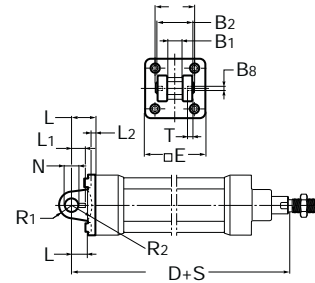
Clevis Bracket – GA



Intended for flexible mounting of cylinder. Clevis bracket GA can be combined with pivot bracket with swivel bearing, swivel eye bracket and swivel rod eye.

Materials:

- Clevis bracket: Surface-treated aluminium
 - Pin: Surface hardened steel
 - Locking pin: Spring steel
 - Circlips according to DIN 471: Spring steel
 - Mounting screws acc. to DIN 912: Zinc-plated steel 8.8
- Supplied complete with mounting screws for attachment to cylinder.

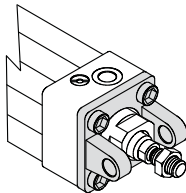


According to VDMA 24 562, AFNOR

Bore size mm	C mm	E mm	B2 d12 mm	B1 H14 mm	T mm	B3 mm	R2 mm	L1 mm	FL ±0.2 mm	I2 mm	L mm	CN F7 mm	R1 mm	XD mm	Weight kg	Part number
32	41	45	34	14	3	3.3	17	11.5	22	5.5	12	10	11	142	0.09	P1C-4KMCA
40	48	52	40	16	4	4.3	20	12.0	25	5.5	15	12	13	160	0.13	P1C-4LMCA
50	54	65	45	21	4	4.3	22	14.0	27	6.5	17	16	18	170	0.17	P1C-4MMCA
63	60	75	51	21	4	4.3	25	14.0	32	6.5	20	16	18	190	0.36	P1C-4NMCA
80	75	95	65	25	4	4.3	30	16.0	36	10.0	20	20	22	210	0.58	P1C-4PMCA
100	85	115	75	25	4	4.3	32	16.0	41	10.0	25	20	22	230	0.89	P1C-4QMCA
125	110	140	97	37	6	6.3	42	24.0	50	10.0	30	30	30	275	1.75	P1C-4RMCA
160	140	178	122	43	6	6.3	46	26.5	55	10.0	37	35 h9	36	C.F.	C.F.	L075510160
200	175	218	122	43	6	6.3	49	26.5	60	11.5	40	35 h9	38	C.F.	C.F.	L075510200

S = Stroke length C.F. = Consult Factory

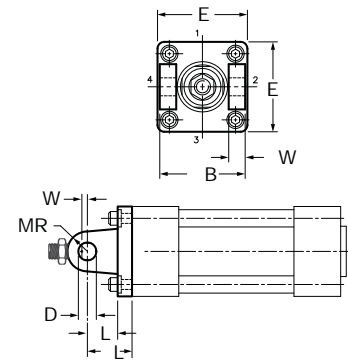
Head Detachable Clevis – MP7



Intended for flexible mounting of cylinder

Materials:

- Clevis bracket: Cast iron for 32-63mm bores;
 - Surface treated aluminum, black for 80-200mm bores
 - Mounting screws acc. to DIN 912: Zinc-plated steel 8.8
- Supplied complete with mounting screws for attachment to cylinder.



According to ISO MP7, VDMA 24 562, AFNOR

Bore size mm	CD mm	E mm	FL mm	FW mm	L mm	MR mm	UB mm	XW mm	Part number
32	10	46.5	22	8	12	10	45	4	L075400032
40	12	52	25	9	15	12	52	5	L075400040
50	12	63.5	27	10	15	13	60	10	L075400050
63	16	76	32	15	20	16	70	5	L075400063
80	16	95.5	36	20	20	17	90	10	L075400080
100	20	114.5	41	25	25	21	110	10	L075400100
125	25	140	50	30	35	25	130	15	L075400125
160	30	177	55	40	36	30	170	25	L075400160
200	30	214	60	40	41	30	170	35	L075400200

B

Tie Rod Cylinders
Actuator Products

3MA Series

4MA/4ML Series

3MAJ/4MAJ Series

4MNR Series

P1D Series

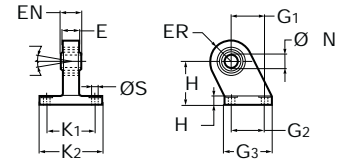


Pivot Bracket with Swivel Bearing



Intended for use together with clevis bracket GA.

Materials:
 Pivot bracket: Surface-treated steel, black
 Swivel bearing acc. to DIN 648K: Hardened steel



According to VDMA 24 562, AFNOR

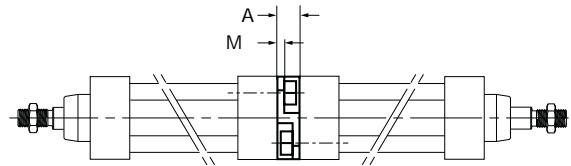
Bore size mm	CN H7 mm	S5 H13 mm	K1 JS14 mm	K2 mm	EU mm	G1 JS14 mm	G2 JS14 mm	EN mm	G3 mm	CH JS15 mm	H6 mm	ER mm	Z	Weight kg	Part number
32	10	6.6	38	51	10.5	21	18	14	31	32	10	16	4°	0.18	P1C-4KMA
40	12	6.6	41	54	12.0	24	22	16	35	36	10	18	4°	0.25	P1C-4LMA
50	16	9.0	50	65	15.0	33	30	21	45	45	12	21	4°	0.47	P1C-4MMA
63	16	9.0	52	67	15.0	37	35	21	50	50	12	23	4°	0.57	P1C-4NMA
80	20	11.0	66	86	18.0	47	40	25	60	63	14	28	4°	1.05	P1C-4PMA
100	20	11.0	76	96	18.0	55	50	25	70	71	15	30	4°	1.42	P1C-4QMA
125	30	14.0	94	124	25.0	70	60	37	90	90	20	40	4°	3.10	P1C-4RMA

Mounting Kit

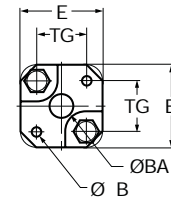


Mounting kit for back to back mounted cylinders, 3 and 4 position duplex cylinders.

Materials:
 Mounting: Aluminium
 Mounting screws: Zinc-plated steel 8.8



Bore size mm	E mm	TG mm	ØFB mm	MF mm	A mm	ØBA mm	Weight kg	Part number
32	50	32.5	6.5	5	16	30	0.060	P1E-6KB0
40	60	38.0	6.5	5	16	35	0.078	P1E-6LB0
50	66	46.5	8.5	6	20	40	0.162	P1E-6MB0
63	80	56.5	8.5	6	20	45	0.194	P1E-6NB0
80	100	72.0	10.5	8	25	45	0.450	P1E-6PB0
100	118	89.0	10.5	8	25	55	0.672	P1E-6QB0

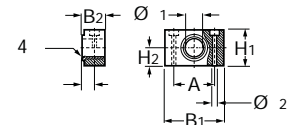


Pivot Bracket – MT4



Intended for use together with central trunnion MT4.

Materials:
 Pivot bracket: Surface-treated aluminium
 Bearing acc. to DIN 1850 C: Sintered oil-bronze bushing
 Supplied in pairs.



According to ISO, VDMA 24 562, AFNOR

Bore size mm	B1 mm	B2 mm	A mm	C mm	d1 mm	d2 H13 mm	H1 mm	H2 mm	fx45° min mm	Weight* kg	Part number
32	46	18.0	32	10.5	12	6.6	30	15	1.0	0.04	9301054261
40	55	21.0	36	12.0	16	9.0	36	18	1.6	0.07	9301054262
50	55	21.0	36	12.0	16	9.0	36	18	1.6	0.07	9301054262
63	65	23.0	42	13.0	20	11.0	40	20	1.6	0.12	9301054264
80	65	23.0	42	13.0	20	11.0	40	20	1.6	0.12	9301054264
100	75	28.5	50	16.0	25	14.0	50	25	2.0	0.21	9301054266
125	75	28.5	50	16.0	25	14.0	50	25	2.0	0.21	9301054266

* Weight per item

Intermediate Trunnion – MT4



Standard*



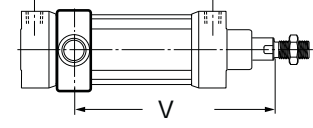
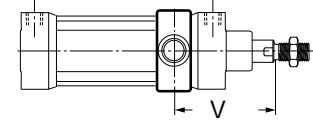
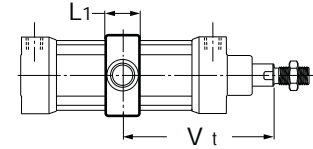
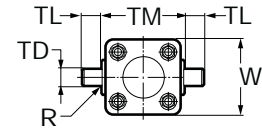
Tie Rod Version

Intended for articulated mounting of cylinder. The trunnion is factory-fitted at an optional location. Order by specifying Mounting Style G or 7 and providing the desired XV dimension (3-digit measure in mm). See page B67 for ordering information. Combined with pivot bracket for MT4 for 32-125mm bores.

Materials:

Trunnion: Zinc plated steel
 (Cast iron for 160-200mm bores)

* Standard mounting is for the Standard cylinder body and is permanently affixed by the factory.



According to ISO MT4, VDMA 24 562, AFNOR

Bore size mm	TM h14 mm	TL h14 mm	TD e9 mm	R mm	UW mm	L1 mm	X1 mm	XVmin mm	X2 mm	Weight kg
32	50	12	12	1.0	46	15	73.0	62.0	84.0	0.13
40	63	16	16	1.6	59	20	82.5	73.0	92.0	0.31
50	75	16	16	1.6	69	20	90.0	80.5	99.5	0.37
63	90	20	20	1.6	84	25	97.5	89.5	106.0	0.69
80	110	20	20	1.6	102	25	110.0	98.0	122.0	0.89
100	132	25	25	2.0	125	30	120.0	110.5	129.5	1.58
125	160	25	25	2.0	155	32	145.0	132.0	158.0	2.60
160	200	32	32	2.5	190	70	C.F.	169	C.F.	C.F.
200	250	32	32	2.5	242	70	C.F.	184	C.F.	C.F.

XVstd = X1 + Stroke length/2

XVmax = X2 + Stroke length

C.F. = Consult Factory

Flange Mounted Trunnion

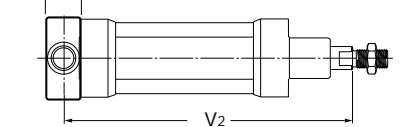
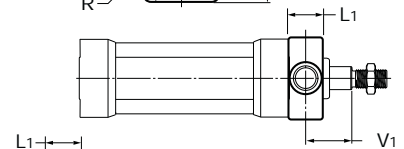
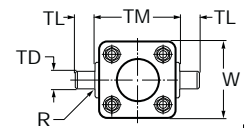


Intended for articulated mounting of cylinder. This trunnion can be flange mounted on the front or rear end cover of all P1D cylinders. If you choose, you can order a complete cylinder with factory-fitted flange mounted trunnion – see the ordering information on page B67 Individual trunnions have part numbers as shown below.

Materials:

Trunnion: zinc plated steel
 Screws: zinc plated steel, 8.8

Delivered complete with mounting screws for attachment to the cylinder



According to ISO MT4, VDMA 24 562, AFNOR

Bore size mm	TM h14 mm	TL h14 mm	TD e9 mm	R mm	UW mm	L1 mm	XV1 mm	X mm	Weight kg	Part number
32	50	12	12	1.0	46	14	19.0	127.0	0.17	P1D-4KMYF
40	63	16	16	1.6	59	19	20.5	144.5	0.43	P1D-4LMYF
50	75	16	16	1.6	69	19	27.5	152.5	0.55	P1D-4MMYF
63	90	20	20	1.6	84	24	25.0	170.0	1.10	P1D-4NMYF
80	110	20	20	1.6	102	24	34.0	186.0	1.66	P1D-4PMYF
100	132	25	25	2.0	155	29	36.5	203.5	3.00	P1D-4QMYF

XV2 = X + Stroke length

B	Tie Rod Cylinders Actuator Products
	3MA Series
	4MA/4ML Series
	3MAJ/4MAJ Series
	4MNR Series
	P1D Series



Swivel Rod Eye



Stainless Steel
 Swivel Rod Eye

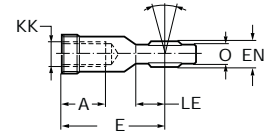
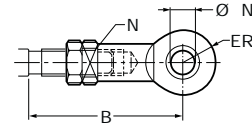
Swivel rod eye for articulated mounting of cylinder.
 Swivel rod eye can be combined with clevis bracket GA.
 Maintenance-free.

Materials:

Swivel rod eye: Zinc-plated steel
 Swivel bearing according to DIN 648K: Hardened steel

Swivel rod eye: Stainless steel
 Swivel bearing according to DIN 648K: Stainless steel

Use stainless steel nut (see next page) with stainless steel swivel rod eye.



According to ISO 8139

Bore size mm	A mm	B min mm	B max mm	CE mm	CN H9 mm	EN h12 mm	ER mm	KK	LE min mm	N mm	O mm	Z	Weight kg	Part number	Stainless steel part number
32	20	48.0	55	3	10	14	14	M10x1.25	15	17	10.5	12°	0.08	P1C-4KRS	P1S-4JRT
40	22	56.0	62	50	12	16	16	M12x1.25	17	19	12.0	12°	0.12	P1C-4LRS	P1S-4LRT
50	28	72.0	80	64	16	21	21	M16x1.5	22	22	15.0	15°	0.25	P1C-4MRS	P1S-4MRT
63	28	72.0	80	64	16	21	21	M16x1.5	22	22	15.0	15°	0.25	P1C-4PRS	P1S-4PRT
80	33	87.0	97	77	20	25	25	M20x1.5	26	32	18.0	15°	0.46	P1C-4RRS	P1S-4RRT
100	33	87.0	97	77	20	25	25	M20x1.5	26	32	18.0	15°	0.46	P1C-4RRS	P1S-4RRT
125	51	123.5	137	110	30	37	35	M27x2	36	41	25.0	15°	1.28	P1C-4RRS	P1S-4RRT
160/200	56	C.F.	C.F.	125	35*	43	40	M36x2	40	50	28.0	15°	C.F.	L075470036	C.F.

*H7 C.F. = Consult Factory

Clevis



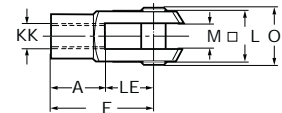
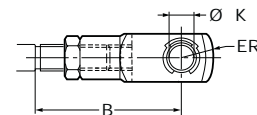
Stainless Steel
 Clevis

Clevis for articulated mounting of cylinder.

Materials:

Clevis, clip: Galvanized steel
 Pin: Hardened steel

Clevis: Stainless steel
 Pin: Stainless steel
 Circlips according to DIN 471: Stainless steel



According to ISO 8140

Bore size mm	A mm	B min mm	B max mm	CE mm	CK h11/E9 mm	CL mm	CM mm	ER mm	KK	LE mm	O mm	Weight kg	Part number	Stainless steel part number
32	20	45.0	52	40	10	20	10	16	M10x1.25	20	28.0	0.09	P1C-4KRC	P1S-4JRD
40	24	54.0	60	48	12	24	12	19	M12x1.25	24	32.0	0.15	P1C-4LRC	P1S-4LRD
50	32	72.0	80	64	16	32	16	25	M16x1.5	32	41.5	0.35	P1C-4MRC	P1S-4MRD
63	32	72.0	80	64	16	32	16	25	M16x1.5	32	41.5	0.35	P1C-4MRC	P1S-4MRD
80	40	90.0	100	80	20	40	20	32	M20x1.5	40	50.0	0.75	P1C-4PRC	P1S-4PRD
100	40	90.0	100	80	20	40	20	32	M20x1.5	40	50.0	0.75	P1C-4PRC	P1S-4PRD
125	56	123.5	137	110	30	55	30	45	M27x2	54	72.0	2.10	P1C-4RRC	P1S-4RRD
160/200	71	C.F.	C.F.	144	35	70	35	57	M36x2	72	95	C.F.	L075490036	C.F.

C.F. = Consult Factory



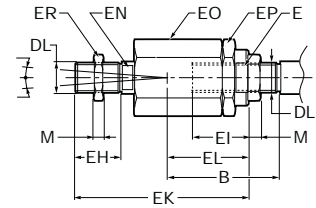
Flexo Coupling



Flexo coupling for articulated mounting of piston rod. Flexo fitting is intended to take up axial angle errors within a range of $\pm 4^\circ$.

Materials:

Flexo coupling, nut: Zinc-plated steel
 Socket: Hardened steel
 Supplied complete with galvanized adjustment nut.



Bore size mm	B min mm	B max mm	DL	EH mm	EI mm	EK mm	EL mm	EN mm	EO mm	EP mm	EQ mm	ER mm	M mm	Z	Weight kg	Part number
32	36.0	43	M10x1.25	20	23	70	31	12	30	30	19	30	5.0	4°	0.21	P1C-4KRF
40	37.0	43	M12x1.25	23	23	67	31	12	30	30	19	30	6.0	4°	0.22	P1C-4LRF
50	53.0	61	M16x1.5	40	32	112	45	19	41	41	30	41	8.0	4°	0.67	P1C-4MRF
63	53.0	61	M16x1.5	40	32	112	45	19	41	41	30	41	8.0	4°	0.67	P1C-4PRF
80	57.0	67	M20x1.5	39	42	122	56	19	41	41	30	41	10.0	4°	0.72	P1C-4RRF
100	57.0	67	M20x1.5	39	42	122	56	19	41	41	30	41	10.0	4°	0.72	P1C-4RRF
125	75.5	89	M27x2	48	48	145	60	24	55	55	32	55	13.5	4°	1.80	P1C-4RRF
160/200	C.F.	C.F.	M36x2	72	78	251	C.F.	36	75	75	50	55	18.0	4°	C.F.	L075530036

C.F. = Consult Factory

Nuts



Intended for fixed mounting of accessories to the piston rod.

Material: Zinc-plated steel

All P1D cylinders are delivered with a zinc-plated steel piston rod nut, except P1D Clean, which is delivered with a stainless steel piston rod nut instead.

Stainless Steel Nut

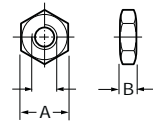
Material: Stainless steel A2

All P1D cylinders are delivered with a zinc-plated steel piston rod nut, except P1D Clean, which is delivered with a stainless steel piston rod nut instead.

Acid-proof nut

Material: Acid-proof steel A4

Cylinders with acid-proof piston rod are supplied with nut of acid-proof steel.



According to DIN 439 B

Bore size mm	A mm	B mm	C	Weight kg	Part numbers		
					Steel	Stainless steel	Acid-proof
32	17	5.0	M10x1.25	0.007	9128985601	9126725404	0261109919
40	19	6.0	M12x1.25	0.010	0261109910	9126725405	0261109920
50	24	8.0	M16x1.5	0.021	9128985603	9126725406	0261109917
63	24	8.0	M16x1.5	0.021			
80	30	10.0	M20x1.5	0.040	0261109911	0261109921	0261109916
100	30	10.0	M20x1.5	0.040			
125	41	13.5	M27x2	0.100	0261109912	0261109922	0261109918
160/200	55	18.0	M36x2	C.F.	L075540036	C.F.	C.F.

C.F. = Consult Factory

B

Tie Rod Cylinders
Actuator Products

3MA
Series

4MA/4ML
Series

3MAJ/4MAJ
Series

4MNR
Series

P1D
Series



**Service Kits: P1D-S, P1D-T, P1D-C,
and P1D-F Versions**

Cylinder bore mm	P1D cylinder version Consisting of: piston, rod and o-ring seals
32	SK032P1D01
40	SK040P1D01
50	SK050P1D01
63	SK063P1D01
80	SK080P1D01
100	SK100P1D01
125	SK125P1D01

Gland Service Kits: P1D-G and P1D-E Versions

Bore size mm	Rod dia. mm	Rod no.	RG-rod gland cartridge kit Consisting of: rod gland, seals, and wiper		RK-rod seal kit Consisting of: gland seals, and wiper	
			Nitrile seals part number	Fluorocarbon seals part number	Nitrile seals part number	Fluorocarbon seals Part number
32	12	1	RG0P1D0121	RG0P1D0125	RK0P1D0121	RK0P1D0125
40	16	1	RG0P1D0161	RG0P1D0165	RK0P1D0161	RK0P1D0165
50 & 63	20	1	RG0P1D0201	RG0P1D0205	RK0P1D0201	RK0P1D0205
80 & 100	25	1	RG0P1D0251	RG0P1D0255	RK0P1D0251	RK0P1D0255
125	32	1	RG0P1D0321	RG0P1D0325	RK0P1D0321	RK0P1D0325

Piston and End Seal Service Kits: P1D-G and P1D-E Versions

Bore size mm	PK – piston seal kit Consisting of: piston seals, wear ring, and magnetic strip (nitrile only)		CB – cylinder body end seal kit Consisting of: end seal o-rings	
	Nitrile seals part number	Fluorocarbon seals part number	Nitrile seals part number	Fluorocarbon seals part number
32	PK032P1D01	PK032P1D05	CB032P1D01	CB032P1D05
40	PK040P1D01	PK040P1D05	CB040P1D01	CB040P1D05
50	PK050P1D01	PK050P1D05	CB050P1D01	CB050P1D05
63	PK063P1D01	PK063P1D05	CB063P1D01	CB063P1D05
80	PK080P1D01	PK080P1D05	CB080P1D01	CB080P1D05
100	PK100P1D01	PK100P1D05	CB100P1D01	CB100P1D05
125	PK125P1D01	PK125P1D05	CB125P1D01	CB125P1D05

B
Tie Rod Cylinders
Actuator Products

3MA
Series

4MA/4ML
Series

3MAJ/4MAJ
Series

4MNR
Series

P1D
Series