

Single acting, spring return cylinders ideal for applications where space is at a premium. The threaded body makes installation simple.

- Non - lube operation
- Corrosion resistant design
- Integral mounting
- Compact construction
- Single acting as standard



Operating information

Working pressure 2 - 7 bar
 working temperature -20 °C to +80 °C
 Supplied complete with 1 rod nut and 2 fixing nuts

For technical information see CD

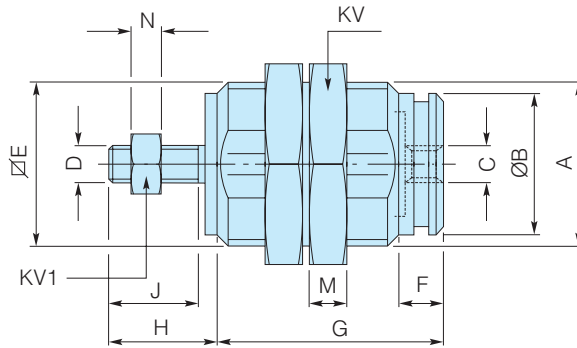
Single acting push type

Symbol	Cyl. bore mm	Rod thread mm	Body thread mm	Spring force		Port size	Stroke mm	Order code
				Max N	Min N			
	6	M3	M10x1,0	3,8	1,2	M5	5	P1G-S006SS-0005
							10	P1G-S006SS-0010
							15	P1G-S006SS-0015
	10	M4	M15x1,5	7,3	2,7	M5	5	P1G-S010SS-0005
							10	P1G-S010SS-0010
							15	P1G-S010SS-0015
	16	M5	M22x1,5	6,6	3,3	M5	5	P1G-S016SS-0005
							10	P1G-S016SS-0010
							15	P1G-S016SS-0015

The spring forces in single acting cylinders are sufficient to return the piston without load.

Indicates stocked product.

Dimensions (mm)



Cylinder bore	A	ØB	C	D	E	F	G			H	J	KV	KV1	M	N
	mm	mm	mm	mm	mm	mm	5 ¹⁾	10 ¹⁾	15 ¹⁾	mm	mm	mm	mm	mm	mm
6	M10x1	8,5	M5	M3x0,5	9	5	19,5	26,5	33,5	8	8	14	5,5	3	2,4
10	M15x1,5	12	M5	M4x0,7	14	7	23	29,5	36,5	10,5	10,5	19	7	4	3,2
16	M22x1,5	19	M5	M5x0,8	20	6	27	32	37	13	12	27	8	5	4

1) Stroke length in mm



Caution

Avoid side loads on the piston rod
 Avoid loading the piston rod during retraction
 Do not operate the cylinders with excessive inertia.

Compact short stroke cylinders available in single as well as double acting versions. Ideally suited for clamping and locking operations. The compact design with mounting holes through the cylinder body makes the unit easy to install in confined spaces. The main body is machined from one piece thus providing an easy to clean unit. Fitted with stainless steel piston rod as standard for corrosion resistance.



- Short stroke cylinders providing high clamping forces
- Compact dimensions for confined spaces
- Single and double acting versions
- Simple installation and mounting

Operating information

Working pressure: Max 10 bar
 Working temperature: -20°C to +70°C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For technical information see CD


C05 Double acting cylinders

Cyl. bore mm	Stroke mm	Port	Order code
12	10	M5	C05-12-5-10
20	10	M5	C05-20-10-10
32	10	G1/8	C05-32-12-10
32	25	G1/8	C05-32-12-25
50	25	G1/4	C05-50-16-25
63	25	G1/4	C05-63-16-25

C05S Single acting cylinders

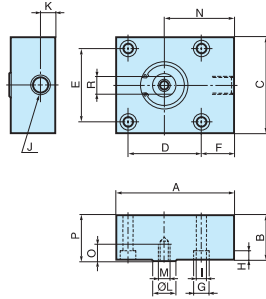
Cyl. bore mm	Stroke mm	Port	Order code
8	4	M5	C05S-8-4-4
12	4	M5	C05S-12-5-4
20	4	G1/8	C05S-20-10-4
32	5	G1/8	C05S-32-12-5
50	10	G1/4	C05S-50-16-10
63	10	G1/4	C05S-63-16-10

The spring forces in single acting cylinders are sufficient to return the piston without load.

 Indicates stocked product.

Dimensions (mm), basic cylinder

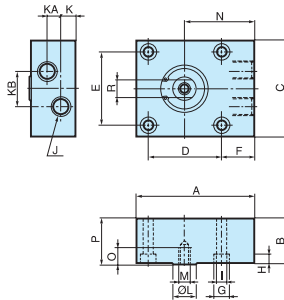
Single acting



Type	A	B	C	D	E	F	G	H	I	J	K	KA	KB	L
C05S-8-4-4	20	16	18	0*	11	5,5	6	3,4	3,4	M5	5,0	-	-	4
C05S-12-5-4	25	16	20	0*	13	7,0	6	3,4	3,4	M5	6,0	-	-	5
C05S-20-10-4	40	20	32	0*	20	9,0	10	5,0	5,5	G1/8	9,5	-	-	10
C05S-32-12-5	55	26	45	0*	32	14,0	10	5,0	5,5	G1/8	9,5	-	-	12
C05S-50-16-10	80	30	65	50	50	22,5	11	6,5	6,5	G1/4	11,0	-	-	16
C05S-63-16-10	90	35	80	62	62	19,0	15	9,0	9,0	G1/4	11,0	-	-	16

Type	M	N	O	P	R
C05S-8-4-4	-	13,5	-	17	-
C05S-12-5-4	-	15,0	-	17	-
C05S-20-10-4	M5	24,0	8	21	-
C05S-32-12-5	M6	32,0	12	27	9
C05S-50-16-10	M8	47,5	12	31	14
C05S-63-16-10	M8	50,0	14	36	14

Double acting



Type	A	B	C	D	E	F	G	H	I	J	K	KA	KB	L
C05-12-5-10	25	27	20	0*	13	7,0	6	3,4	3,4	M5	6,0	13,0	3	5
C05-20-10-10	40	30	32	0*	20	9,0	10	5,0	5,5	M5	6,0	16,0	6	10
C05-32-12-10	55	36	45	0*	32	14,0	10	5,0	5,5	G1/8	9,5	16,5	14	12
C05-32-12-25	55	51	45	0*	32	14,0	10	5,0	5,5	G1/8	9,5	31,5	0**	12
C05-50-16-25	80	50	65	50	50	22,5	11	6,5	6,5	G1/4	11,0	28,0	0**	16
C05-63-16-25	90	55	80	62	62	19,0	15	9,0	9,0	G1/4	11,0	33,0	0**	16

Type	M	N	O	p	R
C05-12-5-10	-	16,0	-	28	-
C05-20-10-10	M5	24,0	8	31	-
C05-32-12-10	M6	32,0	12	37	9
C05-32-12-25	M6	32,0	12	52	9
C05-50-16-25	M8	47,5	12	51	14
C05-63-16-25	M8	50,0	14	56	14

* Only two mounting holes (F).

** Connections in-line.

The thrust cylinders are linear actuators, designed for a high force to size ratio. This makes the cylinder ideal to use for clamping, riveting, punching and similar applications where a high force is required.

- Thrust cylinders provide large forces
- Compact dimensions
- COD, diaphragm type
- COP, piston type
- Available in single and double acting versions



Operating information

Working pressure: Max 8 bar
 Working temperature: -20°C to +70°C

Stainless steel piston rod
 Piston rod according to ISO 4395



Compressed air cylinders, types COD and COP should not be used in vertical applications without external stop.

For technical information see CD

COD - Double acting

Force at 6 bar, N	Port size	Stroke mm	Order code
3000	G1/4	40	COD300-40
6000	G1/4	50	COD600-50
12000	G1/2	50	COD1200-50
25000	G1/2	60	COP2500-60
25000	G1/2	80	COP2500-80

COP - Single acting

Force at 6 bar, N	Spring N force		Port size	Stroke mm	Order code
	Max N	Min N			
1600	314	128	G1/4	50	COP160-50S
1600	314	128	G1/4	80	COP160-80S
3000	314	128	G1/4	50	COP300-50S
3000	314	128	G1/4	80	COP300-80S
3000	294	98	G1/4	40	COD300-40S
6000	638	98	G1/4	50	COD600-50S
12000	981	235	G1/2	50	COD1200-50S
25000	2700	883	G1/2	60	COP2500-60S
25000	2700	883	G1/2	100	COP2500-100S

The spring forces in single acting cylinders are sufficient to return the piston rod without load

Accessories

Neck mounting nut

Lock nut thread	For cylinder	Order code
M24x2	COD300	9141100000
M36x3	COD600/1200	9141100100
M48x3	COP2500	9141100200
M24x3	COP160/300	9141100300



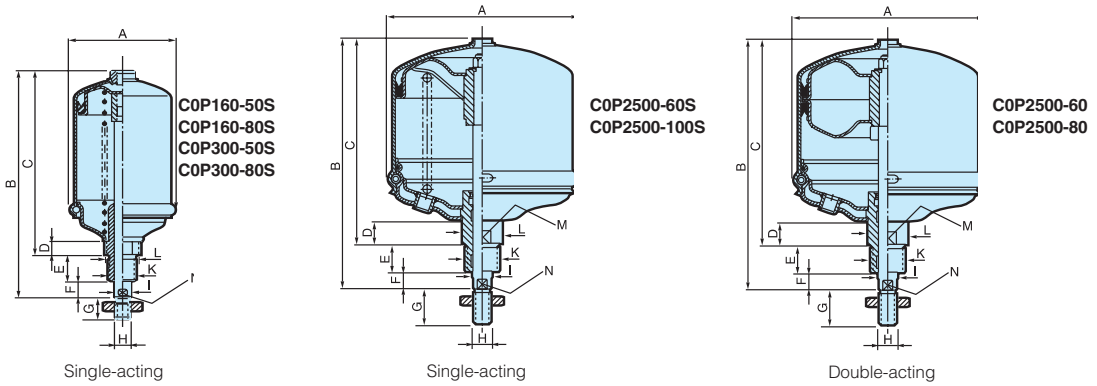
Piston rod nut (one nut is included)

Piston rod nut thread	For cylinder	Order code
M12	COP160/300 and COD300	0266211200
M16	COD600	0266211400
M20	COD1200	0266211600
M24	COP2500	0266211800



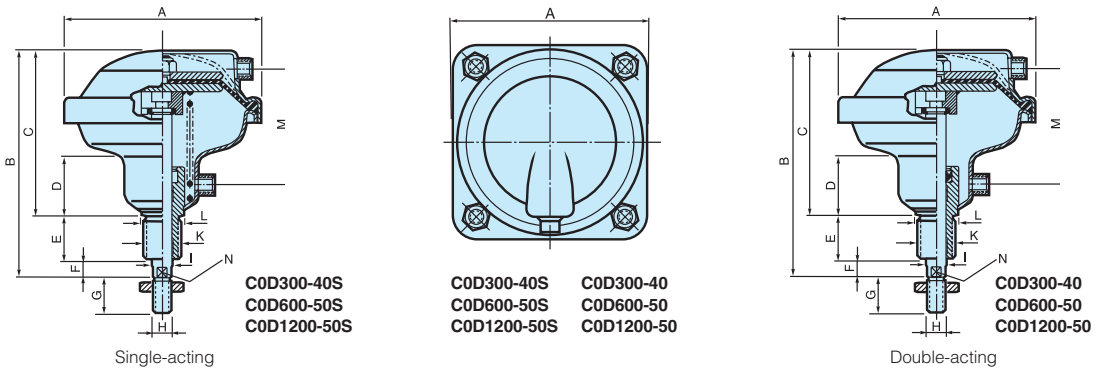
Indicates stocked product.

Dimensions (mm), piston type



Type	Connection thread	A	B	C	D	E	F	G	H	I Ø	K	L Ø	M	N
COP160-50S	G1/4	66	192	151	18	30	11	24	M12x1,75	14	M24x3	30	30	12
COP160-80S	G1/4	66	222	181	18	30	11	24	M12x1,75	14	M24x3	30	30	12
COP300-50S	G1/4	93	192	151	18	30	11	24	M12x1,75	14	M24x3	30	30	12
COP300-80S	G1/4	93	222	181	18	30	11	24	M12x1,75	14	M24x3	30	30	12
COP2500-60S	G1/2	268	345	285	33	40	20	48	M24x3	28	M48x3	56	50	25
COP2500-100S	G1/2	268	385	325	33	40	20	48	M24x3	28	M48x3	56	50	25
COP2500-60	G1/2	268	345	285	33	40	20	48	M24x3	28	M48x3	56	50	25
COP2500-80	G1/2	268	385	325	33	40	20	48	M24x3	28	M48x3	56	50	25

Dimensions (mm), diaphragm type



Type	Connection thread	A	B	C	D	E	F	G	H	I Ø	K	L Ø	M	N
COD300-40S	G1/4	150	183	131	48	38	14	24	M12x1,75	16	M24x2	30	90	13
COD300-40	G1/4	150	183	131	48	38	14	24	M12x1,75	16	M24x2	30	90	13
COD600-50S	G1/4	195	212	154	55	38	20	32	M16x2	20	M36x3	43	107	17
COD600-50	G1/4	195	212	154	55	38	20	32	M16x2	20	M36x3	43	107	17
COD1200-50S	G1/2	261	243	178	58	45	20	40	M20x2,5	25	M36x3	43	117	22
COD1200-50	G1/2	261	243	178	58	45	20	40	M20x2,5	25	M36x3	43	117	22

Press stand for thrust cylinders

A simple press for efficient mounting and pressing can easily be built by screwing the thrust cylinders into the threaded holes in the very stable and strong steel press stand. The stand is available in two versions with different fastening threads for the cylinders.

The top plate has two different threads, and can be rotated through 180 degrees to present the correct thread for nose fitting of the cylinders.

The sub-base is fitted with a T-track for easy mounting of accessories. It also has two through holes for simple and secure fitting to a work bench.

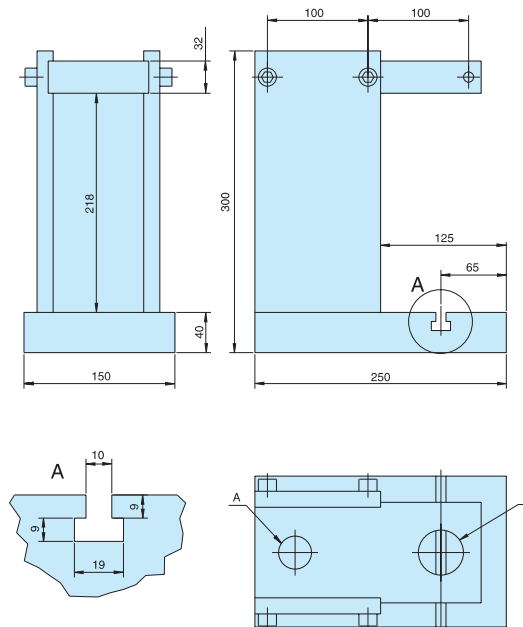


NOTE! Remember that an approved two-handed press control must be used with the cylinders and the press stand to prevent crush injuries. We recommend the use of our type PXP two-handed press control. It is available in a number of versions, and is simple, ergonomic and safe to incorporate in the press stand. It meets the requirements of safety standards EN574 and EN954-1.

For more information, see our website:
www.parker.com/euro_pneumatic

Description	Threads A/B	Weight kg	Order No.
Press stand for C0P160 / C0P300 / C0D300	M24x2/M24x3	24	C0P-C0D-P01
Press stand for C0D600 / C0D1200 / C0P2500	M36x3/M48x3	24	C0P-C0D-P02

Dimensions



The P1J cylinder is ideal for applications where you need compact dimensions and high overall performance. The versatile P1J cylinder range provides a long trouble-free operation in a variety of applications.

- Compact and versatile
- Magnetic piston for direct fit with electronic controls
- Fit flush global sensor range with many functions
- Patent press fit end cover for short axial length
- Choose from our wide range of double-acting, single-acting and double-acting with guide rod



Operating information

Working pressure: Max 10 bar
 Permissible fluid: Air, with or without lubrication
 Standard working temperature: -20°C to +80°C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For technical information see CD

Double acting - Standard seals - Female threaded piston rod

Ø12mm - (M5)

Stroke mm	Order code
10	P1J-S012DS-0010
15	P1J-S012DS-0015
20	P1J-S012DS-0020
25	P1J-S012DS-0025

Ø20mm - (M5)

Stroke mm	Order code
10	P1J-S020DS-0010
15	P1J-S020DS-0015
20	P1J-S020DS-0020
25	P1J-S020DS-0025
30	P1J-S020DS-0030
40	P1J-S020DS-0040
50	P1J-S020DS-0050

Ø25mm - (M5)

Stroke mm	Order code
10	P1J-S025DS-0010
15	P1J-S025DS-0015
20	P1J-S025DS-0020
25	P1J-S025DS-0025
30	P1J-S025DS-0030
40	P1J-S025DS-0040
50	P1J-S025DS-0050

Ø32mm - (G1/8)

Stroke mm	Order code
10	P1J-S032DS-0010
15	P1J-S032DS-0015
20	P1J-S032DS-0020
25	P1J-S032DS-0025
30	P1J-S032DS-0030
40	P1J-S032DS-0040
50	P1J-S032DS-0050
80	P1J-S032DS-0080

Ø40mm - (G1/8)


Stroke mm	Order code
10	P1J-S040DS-0010
15	P1J-S040DS-0015
20	P1J-S040DS-0020
25	P1J-S040DS-0025
30	P1J-S040DS-0030
40	P1J-S040DS-0040
50	P1J-S040DS-0050
80	P1J-S040DS-0080

Ø50mm - (G1/8)

Stroke mm	Order code
10	P1J-S050DS-0010
15	P1J-S050DS-0015
20	P1J-S050DS-0020
25	P1J-S050DS-0025
30	P1J-S050DS-0030
40	P1J-S050DS-0040
50	P1J-S050DS-0050
80	P1J-S050DS-0080

Ø63mm - (G1/8)

Stroke mm	Order code
10	P1J-S063DS-0010
15	P1J-S063DS-0015
20	P1J-S063DS-0020
25	P1J-S063DS-0025
30	P1J-S063DS-0030
40	P1J-S063DS-0040
50	P1J-S063DS-0050
80	P1J-S063DS-0080
100	P1J-S063DS-0100

 Indicates stocked product.

Single acting - Standard seals - Female threaded piston rod

Ø12mm - (M5)

Stroke mm	Order code
10	P1J-S012SS-0010
15	P1J-S012SS-0015

Ø20mm - (M5)

Stroke mm	Order code
5	P1J-S020SS-0005
10	P1J-S020SS-0010
15	P1J-S020SS-0015
20	P1J-S020SS-0020
25	P1J-S020SS-0025
30	P1J-S020SS-0030

Ø25mm - (M5)

Stroke mm	Order code
5	P1J-S025SS-0005
10	P1J-S025SS-0010
15	P1J-S025SS-0015
20	P1J-S025SS-0020
25	P1J-S025SS-0025
30	P1J-S025SS-0030
40	P1J-S025SS-0040
50	P1J-S025SS-0050

Ø32mm - (G1/8)

Stroke mm	Order code
5	P1J-S032SS-0005
10	P1J-S032SS-0010
15	P1J-S032SS-0015
20	P1J-S032SS-0020
25	P1J-S032SS-0025
30	P1J-S032SS-0030
40	P1J-S032SS-0040
50	P1J-S032SS-0050

Ø40mm - (G1/8)

Stroke mm	Order code
5	P1J-S040SS-0005
10	P1J-S040SS-0010
15	P1J-S040SS-0015
20	P1J-S040SS-0020
25	P1J-S040SS-0025
30	P1J-S040SS-0030
40	P1J-S040SS-0040
50	P1J-S040SS-0050

Ø50mm - (G1/8)

Stroke mm	Order code
5	P1J-S050SS-0005
10	P1J-S050SS-0010
15	P1J-S050SS-0015
20	P1J-S050SS-0020
25	P1J-S050SS-0025
30	P1J-S050SS-0030
40	P1J-S050SS-0040
50	P1J-S050SS-0050

Ø63mm - (G1/8)

Stroke mm	Order code
5	P1J-S063SS-0005
10	P1J-S063SS-0010
15	P1J-S063SS-0015
20	P1J-S063SS-0020
25	P1J-S063SS-0025
30	P1J-S063SS-0030
40	P1J-S063SS-0040
50	P1J-S063SS-0050

The spring forces in single acting cylinders are sufficient to return the piston without load.

Double acting - Guided

These cylinders feature twin guide rods connected to the piston rod by a flange plate. These are ideal for clamping and moving applications where turning of the piston rod must be avoided or side load is present.



Double Acting - Guided

Ø20mm - (M5)

Stroke mm	Order code
5	P1J-G020DS-0005
10	P1J-G020DS-0010
15	P1J-G020DS-0015
20	P1J-G020DS-0020
25	P1J-G020DS-0025
30	P1J-G020DS-0030
40	P1J-G020DS-0040
50	P1J-G020DS-0050

Ø25mm - (M5)

Stroke mm	Order code
5	P1J-G025DS-0005
10	P1J-G025DS-0010
15	P1J-G025DS-0015
20	P1J-G025DS-0020
25	P1J-G025DS-0025
30	P1J-G025DS-0030
40	P1J-G025DS-0040
50	P1J-G025DS-0050

Ø32mm - (G1/8)

Stroke mm	Order code
5	P1J-G032DS-0005
10	P1J-G032DS-0010
15	P1J-G032DS-0015
20	P1J-G032DS-0020
25	P1J-G032DS-0025
30	P1J-G032DS-0030
40	P1J-G032DS-0040
50	P1J-G032DS-0050
80	P1J-G032DS-0080

Ø40mm - (G1/8)


Stroke mm	Order code
5	P1J-G040DS-0005
10	P1J-G040DS-0010
15	P1J-G040DS-0015
20	P1J-G040DS-0020
25	P1J-G040DS-0025
30	P1J-G040DS-0030
40	P1J-G040DS-0040
50	P1J-G040DS-0050
80	P1J-G040DS-0080

Ø50mm - (G1/8)

Stroke mm	Order code
5	P1J-G050DS-0005
10	P1J-G050DS-0010
15	P1J-G050DS-0015
20	P1J-G050DS-0020
25	P1J-G050DS-0025
30	P1J-G050DS-0030
40	P1J-G050DS-0040
50	P1J-G050DS-0050
80	P1J-G050DS-0080

Ø63mm - (G1/8)

Stroke mm	Order code
5	P1J-G063DS-0005
10	P1J-G063DS-0010
15	P1J-G063DS-0015
20	P1J-G063DS-0020
25	P1J-G063DS-0025
30	P1J-G063DS-0030
40	P1J-G063DS-0040
50	P1J-G063DS-0050
80	P1J-G063DS-0080
100	P1J-G063DS-0100

 Indicates stocked product.

Cylinder mountings

Flange MF1

Anodised aluminium

Cyl. dia.	Order code
12	P1J-4DMB
20	P1J-4HMB
25	P1J-4JMB
32	P1J-4KMB
40	P1J-4LMB
50	P1J-4MMB
63	P1J-4NMB



Foot bracket

Anodised aluminium

Cyl. dia.	Order code
12	P1J-4DMF
20	P1J-4HMF
25	P1J-4JMF
32	P1J-4KMF
40	P1J-4LMF
50	P1J-4MMF
63	P1J-4NMF



Piston rod mountings

Clevis *

Galvanised steel

Cyl. dia.	Order code
20	P1J-4HRC
25	P1J-4HRC
32	P1A-4DRC
40	P1A-4DRC
50	P1A-4HRC
63	P1A-4HRC



Swivel rod eye *

Galvanised steel

Cyl. dia.	Order code
12	P1J-4DRS
20	P1J-4HRS
25	P1J-4HRS
32	P1A-4DRS
40	P1A-4DRS
50	P1A-4HRS
63	P1A-4HRS



Male stud kit

Surface treated steel

Cyl. dia.	Order code
12	P1J-6DSO
20	P1J-6HSO
25	P1J-6HSO
32	P1J-6KSO
40	P1J-6KSO
50	P1J-6MSO
63	P1J-6MSO



* Used in connection with Male Stud Kit

Sensors

Reed switch sensor Solid state sensor

3m cable	P8S-DRFLX	P8S-DPFLX
8mm snap-on connector	P8S-DRSHX	P8S-DPSHX

Connecting cables with one connector


The cables have an integral snap-in female connector.



Type of cable	Cable length/connector	Weight kg	Order code
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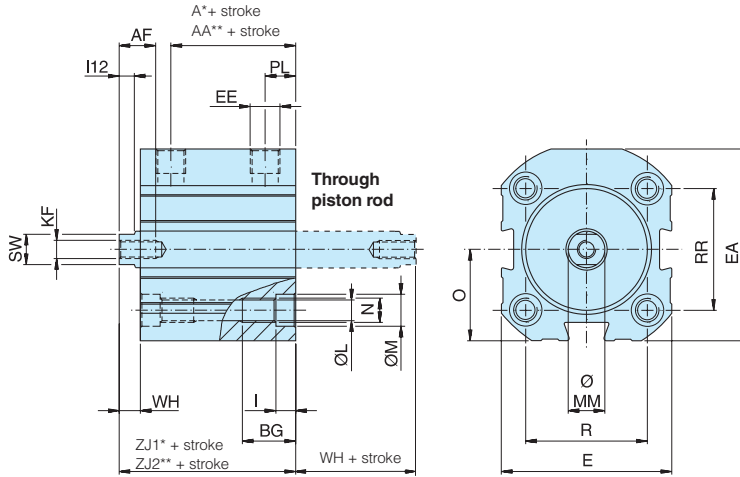
Cables for sensors, complete with female connector

Cable, Flex PVC	3 m, 8 mm round connector	0,07	9126344341
Cable, Flex PVC	10 m, 8 mm round connector	0,21	9126344342
Cable, Super Flex PVC	3 m, 8 mm round connector	0,07	9126344343
Cable, Super Flex PVC	10 m, 8 mm round connector	0,21	9126344344
Cable, Polyuretan	3 m, 8 mm round connector	0,01	9126344345
Cable, Polyuretan	10 m, 8 mm round connector	0,20	9126344346
Cable, Polyuretan	3 m, M12 connector	0,07	9126344348
Cable, Polyuretan	10 m, M12 connector	0,20	9126344349

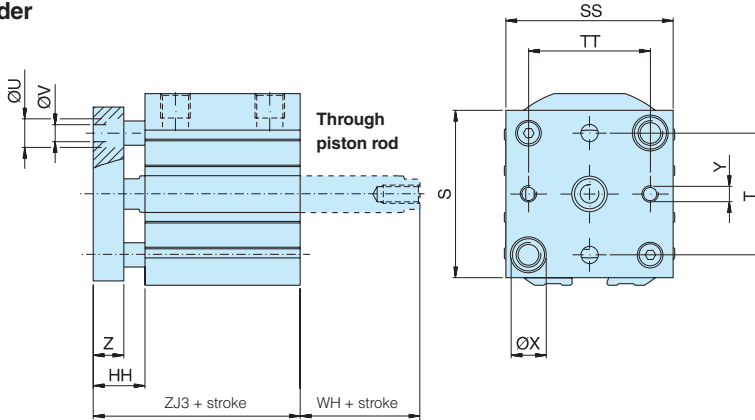
 Indicates stocked product.

Dimensions (mm),

Double and single acting cylinders



Guided cylinder



Cylinder bore	A*	AA**	AF	BG	E	EA	EE	HH	I	KF	L	I12	M	MM	N	O	PL
12	25,0	-	5	9	26	30,0	M5	-	3,5	M3	3,4	3,0	6,1	6	M4	15,0	6,5
20	31,5	-	10	15	33	43,0	M5	14,8	5,5	M5	5,3	4,5	9,2	10	M6	21,5	6,5
25	32,5	47,5	10	15	40	44,5	M5	16,0	5,5	M5	5,3	4,5	9,2	10	M6	22,5	6,5
32	32,6	50,6	12	15	46	54,0	G1/8	15,7	5,5	M6	5,3	5,0	9,2	12	M6	25,5	10,0
40	34,0	52,0	12	18	56	63,0	G1/8	17,0	6,5	M6	6,9	5,0	10,5	12	M8	30,0	10,0
50	38,5	56,5	12	18	66	73,0	G1/8	19,0	6,5	M8	6,9	5,5	10,5	16	M8	35,0	10,0
63	40,0	60,0	12	25	83	87,5	G1/8	20,0	9,0	M8	9,3	5,5	15,0	16	M10	41,5	10,0

Cylinder bore	R	RR	S	SS	SW	T	TT	U	V	WH	X	Y	Z	ZJ1*	ZJ2**	ZJ3
12	13	18	-	-	5	-	-	-	-	4,0	-	-	-	38,0	-	-
20	20	30	42	32	8	22	22	8,0	4,5	4,8	9,4	M4	10	42,8	-	52,8
25	27	27	40	39	8	28	26	8,0	4,5	6,0	9,4	M4	10	45,0	60,0	45,5
32	32	36	48	45	10	36	32	9,4	5,5	5,7	9,4	M4	10	45,5	63,5	55,5
40	40	40	55	55	10	40	40	9,4	5,5	7,0	11,5	M5	10	47,0	65,0	57,0
50	50	50	65	65	13	50	50	11,5	6,5	7,0	11,5	M6	12	53,0	71,0	65,0
63	62	62	80	80	13	62	62	14,5	9,0	8,0	14,5	M6	12	57,0	77,0	69,0

* A and ZJ1 = Double acting cylinders and single acting cylinders up to stroke length 30 mm

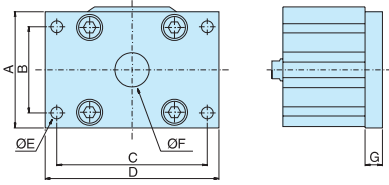
** AA and ZJ2 = Single acting cylinders, stroke length 31 to 50 mm

Length tolerances ±1 mm

Stroke length tolerances +1.5/0 mm

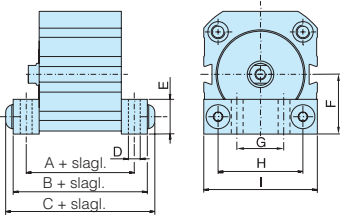
Dimensions (mm),

Flange, MF1



Cyl. Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm
12	25,4	18	38	46,0	3,6	10	4,8
20	38,0	24	50	58,0	3,6	15	6,0
25	40,0	28	54	63,5	4,6	15	6,0
32	48,0	36	66	76,0	4,6	15	6,0
40	63,5	42	78	92,0	6,6	20	9,5
50	70,0	50	90	102,0	6,6	25	9,5
63	85,0	63	110	127,0	8,6	25	12,7

Foot bracket

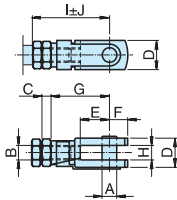


Cyl. Ø mm	A1* mm	A2** mm	B1* mm	B2** mm	C1* mm	C2** mm	D mm	E mm	F mm	G mm	H mm	I mm
12	42,0	-	50,0	-	54,4	-	3,5	12,7	17,0	25	13	33
20	44,5	-	51,0	-	57,5	-	3,5	12,7	22,0	35	20	43
25	48,5	63,5	58,0	73,0	64,5	79,5	4,5	16,0	23,0	41	27	51
32	49,3	67,3	58,7	76,7	65,3	83,3	4,5	16,0	27,0	19	32	46
40	53,7	71,7	66,5	84,5	75,2	93,2	6,5	19,0	31,5	21	40	56
50	58,7	76,7	71,5	89,5	80,3	98,3	6,5	19,0	37,0	27	50	66
63	69,0	89,0	88,0	108,0	99,0	119,0	8,5	25,4	43,0	34	62	83

* Double acting cylinders and single acting cylinders up to stroke length 30 mm

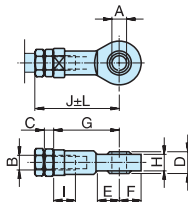
** Single acting cylinders, stroke length 31 to 50 mm

Clevis



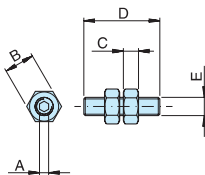
Cyl. Ø mm	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm
20	5	M5	2,5	10	10	6	20	5	25	2,0
25	5	M5	2,5	10	10	6	20	5	25	2,0
32	6	M6	3,0	12	12	7	24	6	30	3,0
40	6	M6	3,0	12	12	7	24	6	30	3,0
50	8	M8	5,0	16	16	10	32	8	42	3,5
63	8	M8	5,0	16	16	10	32	8	42	3,5

Swivel rod eye



Cyl. Ø mm	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	L mm
12	3	M3	1,6	6	10	7	21	4,5	4,5	24,2	1,0
20	5	M5	2,5	8	10	9	27	6,0	7,5	34,5	1,0
25	5	M5	2,5	8	10	9	27	6,0	7,5	34,5	1,0
32	6	M6	3,0	9	10	10	30	6,8	9,0	38,5	1,5
40	6	M6	3,0	9	10	10	30	6,8	9,0	38,5	1,5
50	8	M8	5,0	12	12	12	36	9,0	12,0	49,0	2,0
63	8	M8	5,0	12	12	12	36	9,0	12,0	49,0	2,0

Pin bolt



Cyl. Ø mm	A mm	B mm	C mm	D mm	E
12	1,5	5,5	1,6	10	M3
20	2,5	8,0	2,5	20	M5
25	2,5	8,0	2,5	20	M5
32	3,0	10,0	3,0	25	M6
40	3,0	10,0	3,0	25	M6
50	4,0	13,0	5,0	25	M8
63	4,0	13,0	5,0	25	M8

The versatile range of Short Build Cylinders, with unique porting options, integral sensor grooves and one of the shortest overall lengths on the market is suitable for a wide range of applications.



- 4 ported design - optional port configuration
- VDMA mounting centres 32mm to 100mm bore size
- Corrosion resistant design and low weight construction
- Magnetic piston as standard
- End of stroke buffers for long service life
- Lubricated with food grade grease

Operating information

Working pressure: Max 10 bar
 Permissible fluid: Air, with or without lubrication
 Standard working temperature: -20°C to +80°C
 High temperature: -10°C to +150°C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For technical information see CD

Double acting - female threaded piston rod

Ø20mm - (M5)

Stroke mm	Order code
5	P1M020VDMA7G005
10	P1M020VDMA7G010
25	P1M020VDMA7G025
40	P1M020VDMA7G040
50	P1M020VDMA7G050
80	P1M020VDMA7G080
100	P1M020VDMA7G100
125	P1M020VDMA7G125
160	P1M020VDMA7G160
200	P1M020VDMA7G200

Ø25mm - (M5)

Stroke mm	Order code
5	P1M025VDMA7G005
10	P1M025VDMA7G010
25	P1M025VDMA7G025
40	P1M025VDMA7G040
50	P1M025VDMA7G050
80	P1M025VDMA7G080
100	P1M025VDMA7G100
125	P1M025VDMA7G125
160	P1M025VDMA7G160
200	P1M025VDMA7G200

Ø32mm - (G1/8)

Stroke mm	Order code
5	P1M032VDMA7G005
10	P1M032VDMA7G010
25	P1M032VDMA7G025
40	P1M032VDMA7G040
50	P1M032VDMA7G050
80	P1M032VDMA7G080
100	P1M032VDMA7G100
125	P1M032VDMA7G125
160	P1M032VDMA7G160
200	P1M032VDMA7G200
250	P1M032VDMA7G250
320	P1M032VDMA7G320

Ø40mm - (G1/8)

Stroke mm	Order code
5	P1M040VDMA7G005
10	P1M040VDMA7G010
25	P1M040VDMA7G025
40	P1M040VDMA7G040
50	P1M040VDMA7G050
80	P1M040VDMA7G080
100	P1M040VDMA7G100
125	P1M040VDMA7G125
160	P1M040VDMA7G160
200	P1M040VDMA7G200
250	P1M040VDMA7G250
320	P1M040VDMA7G320

Ø50mm - (G1/8)

Stroke mm	Order code
5	P1M050VDMA7G005
10	P1M050VDMA7G010
25	P1M050VDMA7G025
40	P1M050VDMA7G040
50	P1M050VDMA7G050
80	P1M050VDMA7G080
100	P1M050VDMA7G100
125	P1M050VDMA7G125
160	P1M050VDMA7G160
200	P1M050VDMA7G200
250	P1M050VDMA7G250
320	P1M050VDMA7G320

Ø63mm - (G1/8)


Stroke mm	Order code
5	P1M063VDMA7G005
10	P1M063VDMA7G010
25	P1M063VDMA7G025
40	P1M063VDMA7G040
50	P1M063VDMA7G050
80	P1M063VDMA7G080
100	P1M063VDMA7G100
125	P1M063VDMA7G125
160	P1M063VDMA7G160
200	P1M063VDMA7G200
250	P1M063VDMA7G250
320	P1M063VDMA7G320
400	P1M063VDMA7G400
500	P1M063VDMA7G500

Ø80mm - (G1/4)

Stroke mm	Order code
5	P1M080VDMA7G005
10	P1M080VDMA7G010
25	P1M080VDMA7G025
40	P1M080VDMA7G040
50	P1M080VDMA7G050
80	P1M080VDMA7G080
100	P1M080VDMA7G100
125	P1M080VDMA7G125
160	P1M080VDMA7G160
200	P1M080VDMA7G200
250	P1M080VDMA7G250
320	P1M080VDMA7G320
400	P1M080VDMA7G400
500	P1M080VDMA7G500

Ø100mm - (G1/4)

Stroke mm	Order code
5	P1M100VDMA7G005
10	P1M100VDMA7G010
25	P1M100VDMA7G025
40	P1M100VDMA7G040
50	P1M100VDMA7G050
80	P1M100VDMA7G080
100	P1M100VDMA7G100
125	P1M100VDMA7G125
160	P1M100VDMA7G160
200	P1M100VDMA7G200
250	P1M100VDMA7G250
320	P1M100VDMA7G320
400	P1M100VDMA7G400
500	P1M100VDMA7G500

 Indicates stocked product.

Sensors

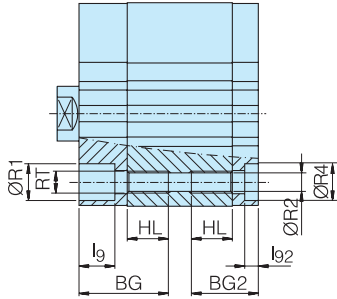


For sensors see page 96.

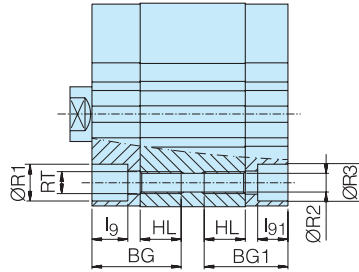
Dimensions (mm),

Double acting standard cylinders

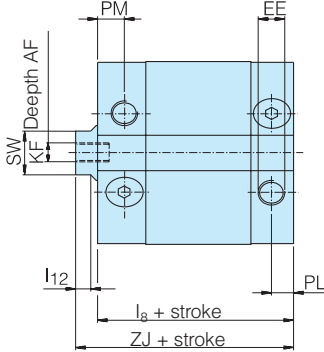
Port Position G, J



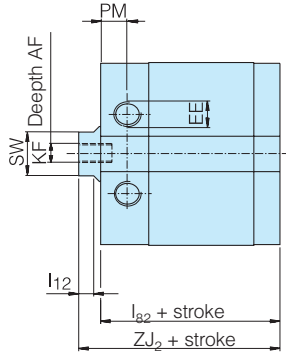
Port Position H



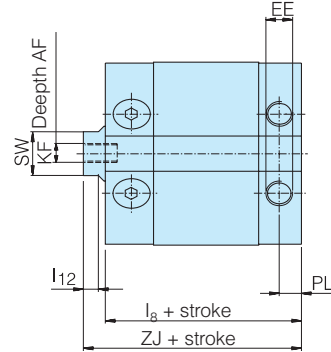
Port Position G



Port Position H



Port Position J



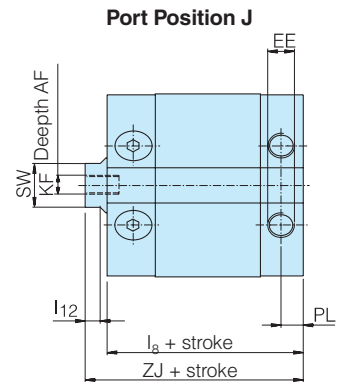
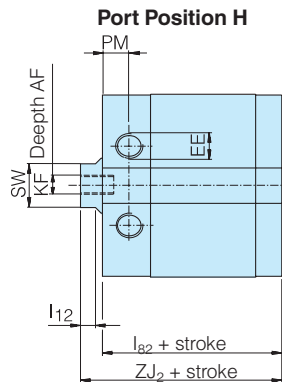
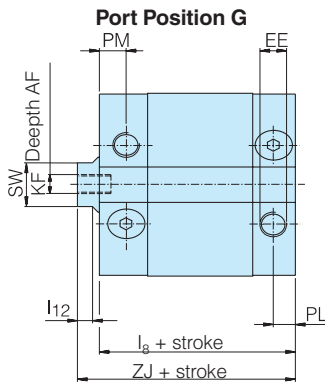
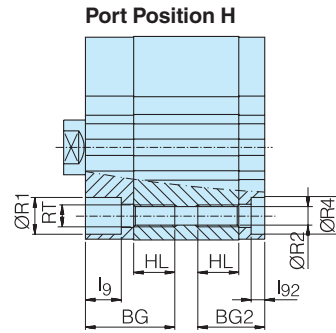
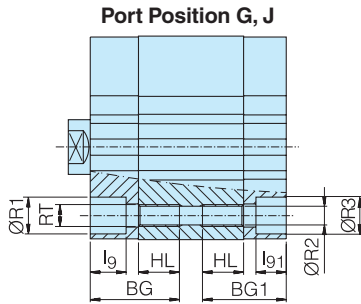
Cylinder designation	AF mm	BG mm	BG1 mm	BG2 mm	EE	HL mm	l8 mm	l9* mm	l12 mm	l82 mm	l91* mm	l92* mm	KF
P1M012	6	25,5	20,5	15,5	M5	12	40,0	3,5	3,0	35,0	3,5	3,5	M3
P1M016	8	26,0	21,0	15,5	M5	12	41,5	5,5	3,0	36,5	3,0	4,0	M4
P1M020	10	32,5	27,0	22,0	M5	18	42,5	10,5	4,0	37,5	5,0	4,5	M5
P1M025	12	32,5	29,0	23,0	M5	18	44,5	4,1	4,0	38,5	4,1	5,0	M6
P1M032	12	41,5	39,0	31,0	G1/8	24	49,0	4,5	5,0	41,0	4,5	4,0	M6
P1M040	12	41,5	39,5	31,0	G1/8	24	50,5	7,2	5,5	42,5	5,2	3,5	M6
P1M050	12	42,5	40,5	34,5	G1/8	25	51,0	5,2	5,5	44,5	5,2	5,0	M8
P1M063	12	43,5	40,5	35,0	G1/8	25	55,5	6,5	5,5	50,0	6,5	4,0	M8
P1M080	14	51,0	51,0	42,0	G1/4	30	63,5	9,5	6,0	54,5	9,5	8,5	M10
P1M100	16	52,0	52,0	43,5	G1/4	30	72,5	9,5	6,0	64,0	9,5	8,5	M12

Cylinder designation	PL mm	PM mm	R1* mm	R2 mm	R3* mm	R4* mm	RT mm	SW mm	ZJ mm	ZJ2 mm
P1M012	5,0	8,0	6,0	3,5	6,0	6,0	M4	5	43,5	38,5
P1M016	5,0	9,0	7,5	3,5	6,0	6,0	M4	7	45,0	40,0
P1M020	5,0	9,0	10,5	5,0	9,0	9,0	M6	9	47,0	42,0
P1M025	7,0	9,0	10,5	5,0	9,0	9,0	M6	9	49,5	43,5
P1M032	8,0	10,5	10,5	5,0	9,5	9,5	M6	10	57,0	48,5
P1M040	7,5	9,5	10,5	5,0	10,5	10,5	M6	13	58,5	50,5
P1M050	8,0	10,0	14,5	7,0	14,5	11,0	M8	16	59,0	52,5
P1M063	8,0	11,0	10,5	7,0	10,5	10,5	M8	16	63,5	58,0
P1M080	11,5	11,5	14,0	8,5	14,0	14,0	M10	21	73,5	64,5
P1M100	12,0	12,0	14,0	8,5	14,0	14,0	M10	21	84,5	76,0

Length tolerances ± 1 mm Stroke length tolerances $+1,5/0$ mm

Dimensions (mm),

Single acting and High temperature variants



Cylinder designation	AF mm	BG mm	BG1 mm	BG2 mm	EE	HL mm	l8 mm	l9* mm	l12 mm	l82 mm	l91* mm	l92* mm	KF
P1M012	6	25,5	20,5	15,5	M5	12	40,0	3,5	3,0	35,0	3,5	3,5	M3
P1M016	8	26,0	21,0	15,5	M5	12	41,5	5,5	3,0	36,5	3,0	4,0	M4
P1M020	10	32,5	27,0	22,0	M5	18	42,5	10,5	4,0	37,5	5,0	4,5	M5
P1M025	12	32,5	29,0	23,0	M5	18	44,5	10,5	4,0	38,5	7,0	5,0	M6
P1M032	12	41,5	39,0	31,0	G1/8	24	49,0	14,5	5,0	41,0	12,5	4,0	M6
P1M040	12	41,5	39,5	31,0	G1/8	24	50,5	14,0	5,5	42,5	12,0	4,0	M6
P1M050	12	42,5	40,5	34,5	G1/8	25	51,0	13,0	5,5	44,5	11,0	5,0	M8
P1M063	12	43,5	40,5	35,0	G1/8	25	55,5	6,5	5,5	50,0	6,5	6,5	M8
P1M080	14	51,0	51,0	42,0	G1/4	30	63,5	9,5	6,0	54,5	9,5	8,5	M10
P1M100	16	52,0	52,0	43,5	G1/4	30	72,5	9,5	6,0	64,0	9,5	8,5	M12

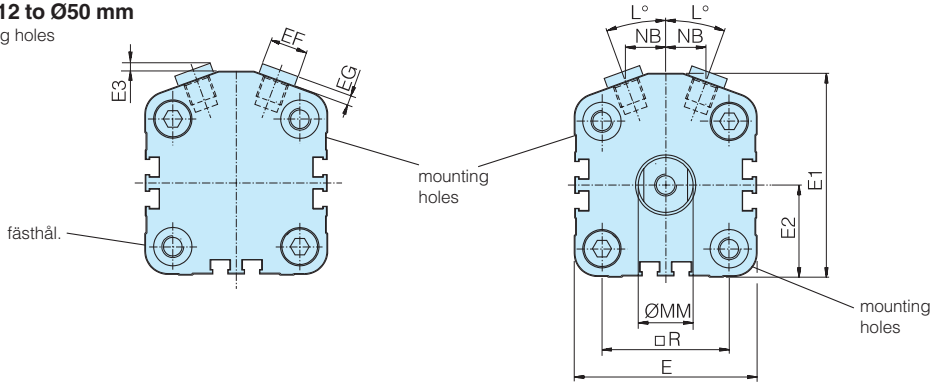
Cylinder designation	PL mm	PM mm	R1* mm	R2 mm	R3* mm	R4* mm	RT mm	SW	ZJ mm	ZJ2 mm
P1M012	5,0	8,0	6,0	3,5	6,0	6,0	M4	5	43,5	38,5
P1M016	5,0	9,0	7,5	3,5	6,0	6,0	M4	7	45,0	40,0
P1M020	5,0	9,0	10,5	5,0	9,0	9,0	M6	9	47,0	42,0
P1M025	7,0	9,0	10,5	5,0	9,0	9,0	M6	9	49,5	43,5
P1M032	8,0	10,5	10,5	5,0	10,5	10,5	M6	10	57,0	48,5
P1M040	7,5	9,5	10,5	5,0	10,5	10,5	M6	13	58,5	50,5
P1M050	8,0	10,0	13,5	7,0	13,5	13,5	M8	16	59,0	52,5
P1M063	8,0	11,0	10,5	7,0	10,5	10,5	M8	16	63,5	58,0
P1M080	11,5	11,5	14,0	8,5	14,0	14,0	M10	21	73,5	64,5
P1M100	12,0	12,0	14,0	8,5	14,0	14,0	M10	21	84,5	76,0

Length tolerances ± 1 mm Stroke length tolerances $+1,5/0$ mm

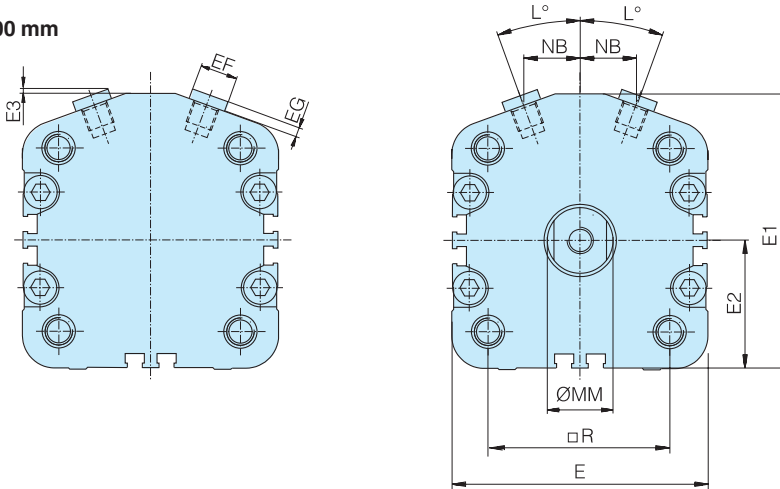
Dimensions (mm),

Port Position G, H, J

Bore Ø12 to Ø50 mm 2 mounting holes



Bore Ø63 to Ø100 mm 4 mounting holes

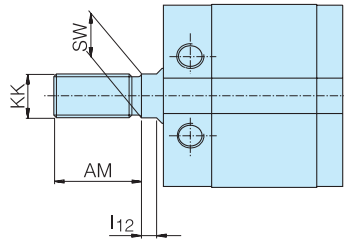


Cylinder designation	E mm	E1 mm	E2 mm	E3 mm	EE mm	EF mm	EG mm	L	MM mm	NB mm	R mm
P1M 012	27,0	31,0	14,0	-	M5	-	-	26°	6	5,5	15,5
P1M 016	31,5	35,0	16,0	-	M5	-	-	20°	8	6,5	20,0
P1M 020	38,5	42,5	19,5	3,5	M5	7*	4,5	20°	10	7,5	25,5
P1M 025	41,5	45,5	21,0	3,5	M5	7*	4,5	20°	10	8,5	28,0
P1M 032	48,0	56,0	24,0	3,0	G1/8	14	2,5	20°	12	9,5	32,5
P1M 040	56,0	62,5	28,0	3,0	G1/8	14	2,5	20°	16	11,5	38,0
P1M 050	67,0	74,5	33,5	3,0	G1/8	14	2,5	20°	20	14,5	46,5
P1M 063	82,0	86,0	40,5	2,5	G1/8	14	2,5	20°	20	17,5	56,5
P1M 080	98,0	106,5	48,5	2,5	G1/4	17	3,0	20°	25	25,5	72,0
P1M 100	119,0	126,5	59,5	2,5	G1/4	17	3,0	20°	25	31,5	89,0

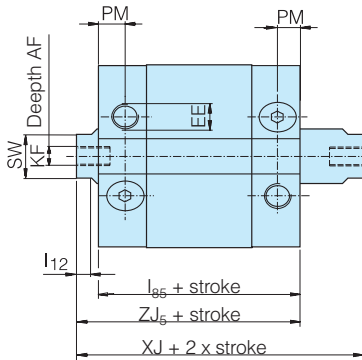
** Hexagon head screw

Dimensions (mm),

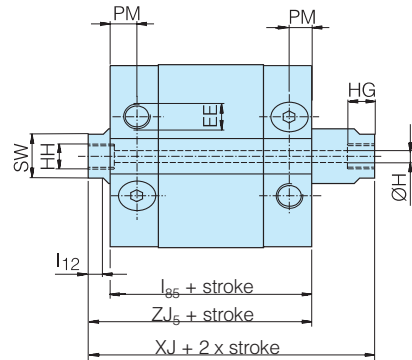
**Piston rod thread 8
(external)**



**Cylinder type K
(through piston rod)**



**Cylinder type H
(hollow, through piston rod)**



Cylinder designation	AF mm	AM mm	H* mm	HG mm	HH mm	I12 mm	l85 mm	KF mm	KK mm	PM mm	SW mm	XJ mm	ZJ5 mm
P1M 012	6	16	-	-	-	3,0	46,0	M3	M6	8,0	5	54,0	50,0
P1M 016	8	20	-	-	-	3,0	47,5	M4	M6	9,0	7	54,5	51,5
P1M 020	10	22	3	7	M5	4,0	49,5	M5	M8	9,0	9	58,5	54,0
P1M 025	12	22	3	7	M5	4,0	49,5	M6	M10X1,25	9,0	9	60,0	55,0
P1M 032	12	22	3	7	G1/8	5,0	51,5	M6	M10X1,25	10,5	10	67,5	59,5
P1M 040	12	24	4	8	G1/8	5,5	52,5	M6	M12X1,25	9,5	13	69,0	60,5
P1M 050	12	32	5	8	G1/8	5,5	53,0	M8	M16X1,5	10,0	16	69,0	61,0
P1M 063	12	32	5	8	G1/8	5,5	58,5	M8	M16X1,5	11,0	16	75,0	66,5
P1M 080	14	40	6	11	G1/4	6,0	63,5	M10	M20X1,5	11,5	21	84,0	73,5
P1M 100	16	40	6	11	G1/4	6,0	72,5	M12	M20X1,5	12,0	21	97,0	84,5

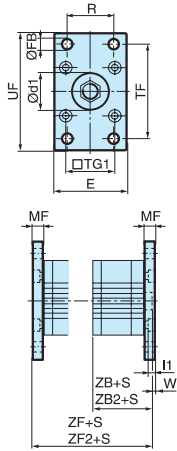
* Dimension H only for cylinder H

Length tolerances ± 1 mm

Stroke length tolerances $+1,5/0$ mm

Dimensions (mm),

Flange MF1/MF2



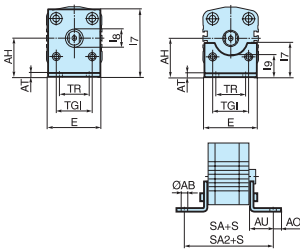
Cyl. bore mm	d1 mm	FB mm	TG1 mm	E mm	R mm	MF mm	TF mm	UF mm	I1 mm	W mm	ZF* mm	ZB* mm	ZF2* mm	ZB2* mm	Order code
	H11	H13		JS14	JS14	JS14	-0,5								
12	9,0	4,5	15,5	25	-	5,5	45,0	55	3,0	2,0	44,0	38,5	49,0	43,5	P1M-4DMB
16	11,5	4,5	20,0	30	-	5,5	45,0	55	3,0	2,0	45,5	40,0	50,5	45,0	P1M-4FMB
20	14,0	6,6	25,5	39	-	8,0	50,5	62	4,2	4,5	49,0	41,0	54,0	46,0	P1M-4HMB
25	14,0	6,6	28,0	42	-	8,0	53,0	65	4,2	3,0	51,5	43,5	56,5	49,5	P1M-4JMB
32	30,0	7,0	32,5	45	32	10,0	64,0	80	5,0	2,0	58,5	48,5	67,0	57,0	P1C-4KMB
40	35,0	9,0	38,0	52	36	10,0	72,0	90	5,0	2,0	60,5	50,5	68,5	58,5	P1C-4LMB
50	40,0	9,0	46,5	65	45	12,0	90,0	110	6,5	4,0	64,5	52,5	71,0	59,0	P1C-4MMB
63	45,0	9,0	56,5	75	50	12,0	100,0	120	6,5	4,0	70,0	58,0	75,5	63,5	P1C-4NMB
80	45,0	12,0	72,0	95	63	16,0	126,0	150	8,0	6,0	80,5	64,5	89,5	73,5	P1C-4PMB
100	55,0	14,0	89,0	115	75	16,0	150,0	170	8,0	4,0	92,0	76,0	100,5	84,5	P1C-4QMB

S = Stroke length

* ZF, ZB for cylinders with both ports in front end (type H)
ZF2, ZB2 for all other cylinders (type G, J, K)

Angle bracket MS1

Bore 12-50 mm Bore 63-100 mm

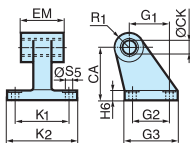


Cyl. bore mm	AB mm	TG1 mm	E mm	TR mm	AO mm	AU mm	AH mm	I7 mm	AT mm	I9 mm	I8 mm	SA* mm	SA2* mm	Order code
	H14			JS14		JS15			JS14					
12	4,5	15,5	44	35	5,5	8,0	17	29,5	2	-	8	51,0	56,0	P1M-4DMF
16	4,5	20,0	48	39	6,0	8,0	19	33,5	2	-	10	52,5	57,5	P1M-4FMF
20	6,6	25,5	62	50	7,5	9,0	24	42,0	3,2	-	12	59,5	64,5	P1M-4HMF
25	6,6	28,0	66	52	7,5	10,5	26	46,0	3,2	-	12	59,5	65,5	P1M-4JMF
32	7,0	32,5	45	32	11,0	24,0	32	54,5	8,0	-	30	88,5	97,0	P1C-4KMZ
40	9,0	38,0	52	36	7,0	28,0	36	62,0	8,0	-	35	98,5	106,5	P1C-4LMZ
50	9,0	46,5	65	45	13,0	32,0	45	77,5	10,0	-	40	108,5	115,0	P1C-4MMZ
63	9,0	56,5	75	50	13,0	32,0	50	35,0	5,5	27,5	-	114,0	119,5	P1C-4NMF
80	12,0	72,0	95	63	14,0	41,0	63	49,0	6,5	40,5	-	136,5	145,5	P1C-4PMF
100	14,0	89,0	115	75	15,0	41,0	71	54,0	6,5	43,5	-	146,0	154,5	P1C-4QMF

S = Stroke length

* SA for cylinders with both ports in front end (type H)
* SA2 for all other cylinders (type G, J, K)

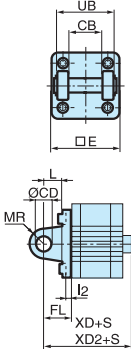
Pivot bracket with rigid bearing



Cyl. bore mm	CK mm	S5 mm	K1 mm	K2 mm	G1 mm	G2 mm	EM mm	G3 mm	CA mm	H6 mm	R1 mm	Order code
	H9	H13	JS14		JS14	JS14			JS15			
32	10	6,6	38	51	21	18	25,5	31	32	8	10	P1C-4KMD
40	12	6,6	41	54	24	22	27,0	35	36	10	11	P1C-4LMD
50	12	9,0	50	65	33	30	31,0	45	45	12	13	P1C-4NMD
63	16	9,0	52	67	37	35	39,0	50	50	12	15	P1C-4NMD
80	16	11,0	66	86	47	40	49,0	60	63	14	15	P1C-4PMD
100	20	11,0	76	96	55	50	59,0	70	71	15	19	P1C-4QMD

Dimensions (mm),

Clevis bracket MP2

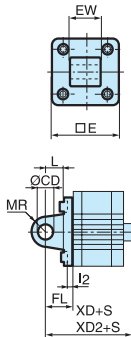


Cyl. bore mm	E mm	UB mm	CB mm	FL mm	L mm	I2 mm	CD mm	MR mm	XD* mm	XD2* mm	Order code
12	27,0	10	5,2	14	7	-	5	6	52,5	57,5	P1M-4DMT
16	31,5	12	6,7	15	10	-	5	6	55,0	60,0	P1M-4FMT
20	38,5	16	8,2	18	12	-	8	9	59,0	65,0	P1M-4HMT
25	41,0	20	10,2	20	14	-	10	10	63,5	69,5	P1M-4JMT
32	45,0	45	26,0	22	13	5,5	10	10	70,5	79,0	P1C-4KMT
40	52,0	52	28,0	25	16	5,5	12	12	75,5	83,5	P1C-4LMT
50	65,0	60	32,0	27	16	6,5	12	12	79,5	86,0	P1C-4MMT
63	75,0	70	40,0	32	21	6,5	16	16	90,0	95,5	P1C-4NMT
80	95,0	90	50,0	36	22	10,0	16	16	100,5	109,5	P1C-4PMT
100	115,0	110	60,0	41	27	10,0	20	20	117,0	125,5	P1C-4QMT

S = Stroke length

* XD for cylinders with both ports in front end (type H)
XD2 for all other cylinders (type G, J, K)

Clevis bracket MP4

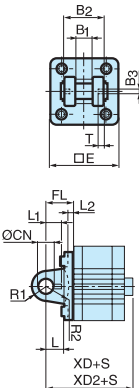


Cyl. bore mm	E mm	EW mm	FL mm	L mm	I2 mm	CD mm	MR mm	XD* mm	XD2* mm	Order code
12	27,0	4,7	14	7	-	5	6	52,5	57,5	P1M-4DME
16	31,5	6,2	15	10	-	5	6	55,0	60,0	P1M-4FME
20	38,5	7,7	18	12	-	8	9	59,0	65,0	P1M-4HME
25	41,0	9,7	20	14	-	10	10	63,5	69,5	P1M-4JME
32	45,0	26,0	22	13	5,5	10	10	70,5	79,0	P1C-4KME
40	52,0	28,0	25	16	5,5	12	12	75,5	83,5	P1C-4LME
50	65,0	32,0	27	16	6,5	12	12	79,5	86,0	P1C-4MME
63	75,0	40,0	32	21	6,5	16	16	90,0	95,5	P1C-4NME
80	95,0	50,0	36	22	10,0	16	16	100,5	109,5	P1C-4PME
100	115,0	60,0	41	27	10,0	20	20	117,0	125,5	P1C-4QME

S = Stroke length

* XD for cylinders with both ports in front end (type H)
XD2 for all other cylinders (type G, J, K)

Clevis bracket GA



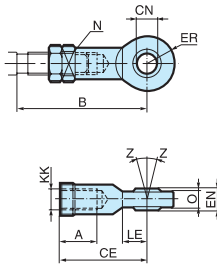
Cyl. bore mm	E mm	B2 mm	B1 mm	T mm	B3 mm	R2 mm	L1 mm	FL mm	I2 mm	L mm	CN mm	R1 mm	XD* mm	XD2* mm	Order code
32	45	34	14	3	3,3	17	11,5	22	5,5	12	10	11	70,5	79,0	P1C-4KMCA
40	52	40	16	4	4,3	20	12,0	25	5,5	15	12	13	75,5	83,5	P1C-4LMCA
50	65	45	21	4	4,3	22	14,0	27	6,5	17	16	18	79,5	86,0	P1C-4MMCA
63	75	51	21	4	4,3	25	14,0	32	6,5	20	16	18	90,0	95,5	P1C-4NMCA
80	95	65	25	4	4,3	30	16,0	36	10,0	20	20	22	100,5	109,5	P1C-4PMCA
100	115	75	25	4	4,3	32	16,0	41	10,0	25	20	22	117,0	125,5	P1C-4QMCA

S = Stroke length

* XD for cylinders with both ports in front end (type H)
XD2 for all other cylinders (type G, J, K)

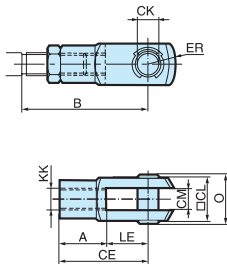
Dimensions (mm),

Swivel rod eye



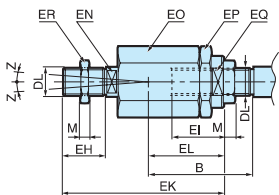
Cyl. bore mm	A	B min max	B min max	CE	CN H9	EN h12	ER	KK	LE min	M	N	O	Z	Order code
	mm	mm	mm	mm	mm	mm	mm		mm	mm	mm	mm		
12	9	37	40	30	6	9	10	M6	10	3,2	10	6,8	10°	P1A-4DRS
16	9	37	40	30	6	9	10	M6	10	3,2	10	6,8	10°	P1A-4DRS
20	12	44	48	36	8	12	12	M8	12	4,0	13	9,0	12°	P1A-4HRS
25	15	48	55	43	10	14	14	M10x1,25	14	5,0	17	10,5	12°	P1A-4JRS
32	20	48	55	43	10	14	14	M10x1,25	15	5,0	17	10,5	12°	P1C-4KRS
40	22	56	62	50	12	16	16	M12x1,25	17	6,0	19	12,0	12°	P1C-4LRS
50	28	72	80	64	16	21	21	M16x1,5	22	8,0	22	15,0	15°	P1C-4MRS
63	28	72	80	64	16	21	21	M16x1,5	22	8,0	22	15,0	15°	P1C-4MRS
80	33	87	97	77	20	25	25	M20x1,5	26	10,0	32	18,0	15°	P1C-4PRS
100	33	87	97	77	20	25	25	M20x1,5	26	10,0	32	18,0	15°	P1C-4PRS

Clevis



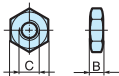
Cyl. bore mm	A	B min max	B min max	CE	CK h11/E9	CL	CM	ER	KK	LE mm	M	O	Order code
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
12	12	28	34	24	6	12	6	7	M6	12	3,2	17,0	P1A-4DRC
16	12	28	34	24	6	12	6	7	M6	12	3,2	17,0	P1A-4DRC
20	16	37	44	32	8	16	8	10	M8	16	4,0	22,0	P1A-4HRC
25	20	45	52	40	10	20	10	12	M10x1,25	20	5,0	28,0	P1A-4JRC
32	20	45	52	40	10	20	10	16	M10x1,25	20	5,0	28,0	P1C-4KRC
40	24	54	60	48	12	24	12	19	M12x1,25	24	6,0	32,0	P1C-4LRC
50	32	72	80	64	16	32	16	25	M16x1,5	32	8,0	41,5	P1C-4MRC
63	32	72	80	64	16	32	16	25	M16x1,5	32	8,0	41,5	P1C-4MRC
80	40	90	100	80	20	40	20	32	M20x1,5	40	10,0	50,0	P1C-4PRC
100	40	90	100	80	20	40	20	32	M20x1,5	40	10,0	50,0	P1C-4PRC

Flexocoupling



Cyl. bore mm	B min max	DL	EH	EI	EK	EL	EN	EO	EP	EQ	M	Z	Order code
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
32	36	43	M10x1,25	20	23	70	31	12	30	30	19	5	4°
40	37	43	M12x1,25	23	23	67	31	12	30	30	19	6	4°
50	53	61	M16x1,5	40	32	112	45	19	41	41	30	8	4°
63	53	61	M16x1,5	40	32	112	45	19	41	41	30	8	4°
80	57	67	M20x1,5	39	42	122	56	19	41	41	30	10	4°
100	57	67	M20x1,5	39	42	122	56	19	41	41	30	10	4°

Nut



Cyl. bore mm	d	M	S	Order code
	mm	mm	mm	
12		M6	3,2	0261210800
16		M6	3,2	0261210800
20		M8	4,0	0261211000
25		M10x1,25	5,0	9128985601
32		M10x1,25	5,0	9128985601
40		M12x1,25	6,0	0261109910
50		M16x1,5	8,0	9128985603
63		M16x1,5	8,0	9128985603
80		M20x1,5	10,0	0261109911
100		M20x1,5	10,0	0261109911

The P1K series cylinders are double acting with fixed end cushioning for light duty applications. The range is based upon the International ISO 6431 standard, but with considerably shorter overall length. They are available in bore sizes 32-125 mm with standard stroke lengths, 25-320 mm. The clean design with end plates that precisely line up with the unique housing tube profile means that a lot of P1K cylinders are used in the foodstuffs industry. With a few adaptations, such as fully anodised end plate screws, the P1K is the perfect cylinder for cheesemaking equipment.



- Ø32 - 125mm Bore sizes
- Single and double acting
- Clean line profile design
- Designed for dry piston rod operation
- End stroke buffers for long service life
- Position sensing versions.

Operating information

Working pressure: Max 10 bar
 Temperature range: -20°C to +70°C

For technical information see CD

Double acting

Ø32mm

Stroke mm	Order code
25	P1K-S032DT-0025
50	P1K-S032DT-0050
80	P1K-S032DT-0080
100	P1K-S032DT-0100
125	P1K-S032DT-0125
160	P1K-S032DT-0160
200	P1K-S032DT-0200
250	P1K-S032DT-0250

Ø40mm

Stroke mm	Order code
25	P1K-S040DT-0025
50	P1K-S040DT-0050
80	P1K-S040DT-0080
100	P1K-S040DT-0100
125	P1K-S040DT-0125
160	P1K-S040DT-0160
200	P1K-S040DT-0200
250	P1K-S040DT-0250

Ø50mm

Stroke mm	Order code
25	P1K-S050DT-0025
50	P1K-S050DT-0050
80	P1K-S050DT-0080
100	P1K-S050DT-0100
125	P1K-S050DT-0125
160	P1K-S050DT-0160
200	P1K-S050DT-0200
250	P1K-S050DT-0250

Ø63mm

Stroke mm	Order code
25	P1K-S063DT-0025
50	P1K-S063DT-0050
80	P1K-S063DT-0080
100	P1K-S063DT-0100
125	P1K-S063DT-0125
160	P1K-S063DT-0160
200	P1K-S063DT-0200
250	P1K-S063DT-0250

Ø80mm

Stroke mm	Order code
25	P1K-S080DT-0025
50	P1K-S080DT-0050
80	P1K-S080DT-0080
100	P1K-S080DT-0100
125	P1K-S080DT-0125
160	P1K-S080DT-0160
200	P1K-S080DT-0200
250	P1K-S080DT-0250
320	P1K-S080DT-0250

Ø100mm

Stroke mm	Order code
25	P1K-S0100DT-0025
50	P1K-S0100DT-0050
80	P1K-S0100DT-0080
100	P1K-S0100DT-0100
125	P1K-S0100DT-0125
160	P1K-S0100DT-0160
200	P1K-S0100DT-0200
250	P1K-S0100DT-0250
320	P1K-S0100DT-0250

Ø125mm

Stroke mm	Order code
25	P1K-S0125DT-0025
50	P1K-S0125DT-0050
80	P1K-S0125DT-0080
100	P1K-S0125DT-0100
125	P1K-S0125DT-0125
160	P1K-S0125DT-0160
200	P1K-S0125DT-0200
250	P1K-S0125DT-0250
320	P1K-S0125DT-0250

Single acting - Push type

Ø32mm

Stroke mm	Order code
25	P1K-S032ST-0025
50	P1K-S032ST-0050

Ø63mm

Stroke mm	Order code
25	P1K-S063ST-0025
50	P1K-S063ST-0050

Ø125mm

Stroke mm	Order code
50	P1K-S0125ST-0050

Ø40mm

Stroke mm	Order code
25	P1K-S040ST-0025
50	P1K-S040ST-0050

Ø80mm

Stroke mm	Order code
50	P1K-S080ST-0050

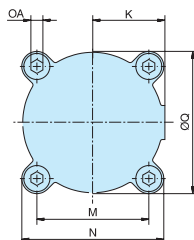
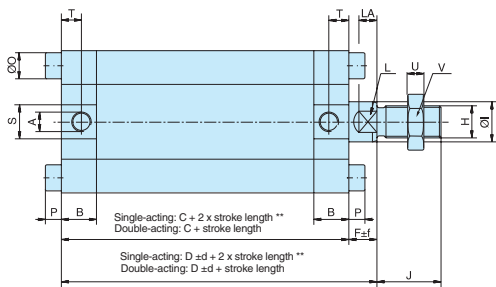
Ø50mm

Stroke mm	Order code
25	P1K-S050ST-0025
50	P1K-S050ST-0050

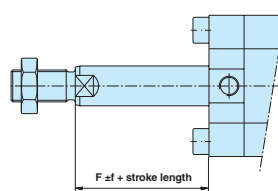
Ø100mm

Stroke mm	Order code
50	P1K-S0100ST-0050

Dimensions, basic cylinder



P1KU, through piston rod



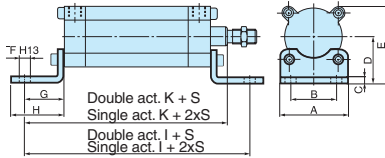
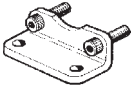
Cylinder bore	A	B	C	D	F	H	I	J	K	L	LA	M	N	O	OA
32	G1/8	17,0	65	75	10	M10x1,25	12	22	21,0	10	6	32,5	42,5	8,5	4
40	G1/8	17,0	65	78	13	M12x1,25	16	24	24,0	14	9	36,8	48,0	10,0	5
50	G1/8	17,5	71	85	14	M16x1,5	20	32	29,0	17	9	46,7	59,0	10,0	5
63	G1/8	17,5	72	86	14	M16x1,5	20	32	36,0	17	9	55,9	71,0	13,0	6
80	G1/4	21,5	85	101	16	M20x1,5	25	40	44,5	22	10	70,0	87,0	16,0	8
100	G1/4	21,5	87	108	21	M20x1,5	32	40	55,0	27	13	84,1	102,0	16,0	8
125	G3/8	25,5	94,5	115,5	21	M27x2	32	54	68,0	27	13	104,0	124,0	18,0	10

Cylinder bore	P	Q	S	T	U	V	Assembly tolerances		Stroke length tolerances 0-320 (at 6 bar)
							d	f	
32	5	37	17	10	5	17	0,9	1,2	+2,0
40	6	45	17	10	6	19	0,9	1,2	+2,0
50	6	56	17	10	8	24	0,9	1,2	+2,0
63	8	70	17	10	8	24	1,2	1,6	+2,5
80	10	87	21	12	10	30	1,2	1,6	+2,5
100	10	108	21	12	10	30	1,2	1,6	+2,5
125	12	134	25	14	13,5	41	1,2	1,6	+2,5

* S = stroke length ** Stroke length for bore sizes 32-63 = 25 and 50 mm, for bore sizes 80-100 = 50 mm.

Cylinder mountings

Foot bracket MS1



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

Material
Body galvanized steel. These brackets are supplied in pairs.

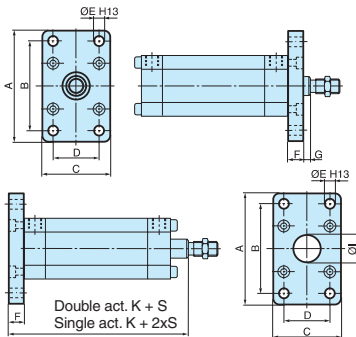
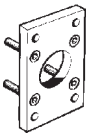
When fitting:

Remove the bolts from the cylinder end cover and fit the bracket, using the same bolts. The bolts supplied with the mount are intended for use with another range of cylinders and must not be used with the P1K range.

Cyl. Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	Weight kg	Order code
32	48	32	5,0	32	53	7	24	32	113,0	99,0	0,08	9121644801
40	54	36	5,0	36	60	9	31	42	127,0	109,0	0,11	9121644802
50	64	45	6,0	45	75	9	33	45	137,0	118,0	0,18	9121644803
63	76	50	6,0	50	86	9	36	48	144,0	122,0	0,26	9121644804
80	94	63	8,0	63	107	12	43	58	171,0	144,0	0,50	9121644805
100	110	75	10,5	71	122	14	43	60	173,0	151,0	0,80	9121644806
125	135	90	12,5	90	157	16	45	70	184,5	160,5	1,40	9121644807

S=stroke length

Flange MF1 and MF2



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

Material
Diam. 32 - 63 mm: flange anodised aluminium
Diam. 80 - 125 mm: flange galvanized steel
The flange is supplied complete with screws for mounting on the cylinder.

When fitting:

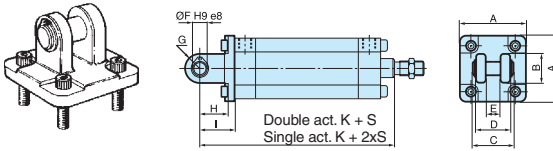
Remove the bolts from the cylinder end cover and fit the bracket, using the same bolts. The bolts supplied with the mount are intended for use with another range of cylinders and must not be used with the P1K range.

Cyl. Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	Weight kg	Order code
32	80	64	48	32	7	10	0	86,0	27	0,26	9121644901
40	90	72	54	36	9	13	0	91,0	32	0,37	9121644902
50	110	90	64	45	9	13	1	98,0	40	0,52	9121644903
63	120	100	76	50	9	16	-2	102,0	40	0,90	9121644904
80	155	126	94	63	12	18	-2	119,0	50	1,59	9121644905
100	180	150	110	75	14	18	3	126,0	60	2,19	9121644906
125	220	180	135	90	16	20	1	135,5	72	3,90	9121644907

S=stroke length

Cylinder mountings

Clevis bracket MP4



Intended for flexible mounting of cylinder. This bracket can be combined with clevis bracket MP2 and swivel rod bracket.

Materials:
Body anodised aluminium and shaft of hardened steel. The mount is supplied complete with shaft.

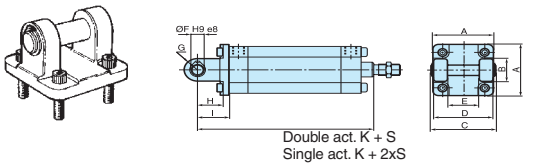
When fitting:

Remove the bolts from the cylinder end cover and fit the mount, using the same bolts. The bolts supplied with the mount are intended for use with another range of cylinders and must not be used with the P1K range.

Cyl. Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	Weight kg	Order code
32	48	22	33	26	10	10	11	15,0	22	97,0	0,05	9121644601
40	54	24	35	28	12	12	12	21,0	28	106,0	0,13	9121644602
50	64	32	39	32	12	12	13	19,5	28	113,0	0,18	9121644603
63	76	39	47	40	16	16	17	26,0	36	122,0	0,34	9121644604
80	94	48	57	50	16	16	17	26,0	38	139,0	0,57	9121644605
100	110	62	67	60	20	20	21	29,0	43	151,0	0,91	9121644606
125	135	70	77	70	25	25	26	35,0	50	165,5	2,90	9121644607

S=stroke length

Clevis bracket MP2



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

Materials:
Body anodised aluminium and shaft of hardened steel. The mount is supplied complete with shaft.

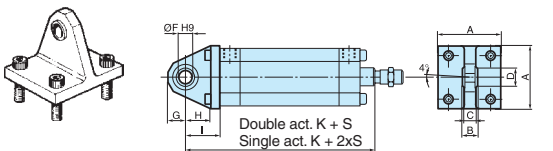
When fitting:

Remove the bolts from the cylinder end cover and fit the mount, using the same bolts. The bolts supplied with the mount are intended for use with another range of cylinders and must not be used with the P1K range.

Cyl. Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	Weight kg	Order code
32	48	22	52	45	26	10	11	15,0	22	97,0	0,13	9121644701
40	54	24	59	52	28	12	12	21,0	28	106,0	0,19	9121644702
50	64	32	67	60	32	12	13	19,5	28	113,0	0,22	9121644703
63	76	39	77	70	40	16	17	26,0	36	122,0	0,40	9121644704
80	94	48	97	90	50	16	17	26,0	38	139,0	0,65	9121644705
100	110	62	117	110	60	20	21	29,0	43	151,0	1,09	9121644706
125	135	70	137	130	70	25	26	35,0	50	165,5	3,60	9121644707

S=stroke length

Swivel rod bracket



Intended for flexible mounting of cylinder. The swivel rod permits lateral articulation. The bracket can be combined with clevis bracket MP4.

Materials:
Body anodised aluminium and swivel bearing of hardened steel.

When fitting:

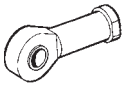
Remove the bolts from the cylinder end cover and fit the mount, using the same bolts. The bolts supplied with the mount are intended for use with another range of cylinders and must not be used with the P1K range.

Cyl. Ø mm	A mm	B mm	C mm	D mm	F mm	G mm	H mm	I mm	K mm	Weight kg	Order code
32	48	9	7,5	13,0	10	12,5	15,0	22	97,0	0,08	9121568601
40	54	12	9,0	15,5	12	15,5	21,0	28	106,0	0,12	9121568602
50	64	12	9,0	15,5	12	16,5	19,5	28	113,0	0,17	9121568603
63	76	16	12,5	20,0	16	19,5	26,0	36	122,0	0,30	9121568604
80	94	16	12,5	20,0	16	21,5	26,0	38	139,0	0,49	9121568605
100	110	20	16,0	25,0	20	25,5	29,0	43	151,0	0,73	9121568606
125	135	25	20,5	30,5	25	30,0	35,0	50	165,5	2,40	9121568607

S=stroke length

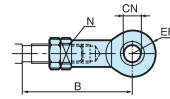
Cylinder mountings

Swivel rod eye

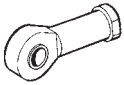


Intended for articulated mounting of the cylinder.
Maintenance-free PTFE.

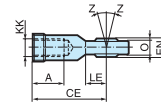
Material:
Swivel rod eye, nut: galvanized steel.
Swivel bearing according to DIN 648K: Hardened steel.



Stainless steel swivel rod eye Stainless-steel swivel rod eye for articulated mounting of cylinder.
Maintenance-free.



Materials
Swivel rod eye: Stainless steel
Swivel bearing according to DIN 648K: Stainless steel
Use stainless steel nut with stainless steel swivel rod eye.

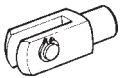


ISO 8139

Cyl.- dia. mm	A mm	B min mm	B max mm	CE mm	CN H9 mm	EN h12 mm	ER mm	KK	LE	N* min mm	O mm	Z mm	Weight kg	Order code Galvanised Steel	Order code Stainless Steel
32	20	48,0	55	43	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-4MRS	P1S-4MRT
80	33	87,0	97	77	20	25	25	M20x1,5	26	32	18,0	15°	0,46	P1C-4PRS	P1S-4PRT
100	33	87,0	97	77	20	25	25	M20x1,5	26	32	18,0	15°	0,46	P1C-4PRS	P1S-4PRT
125	51	123,5	137	110	30	37	35	M27x2	36	41	25,0	15°	1,28	P1C-4RRS	P1S-4RRT

*key grip

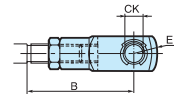
Clevis



Intended for articulated mounting of the cylinder.

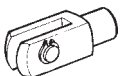
Material:
Clevis and clip galvanized steel.
Pin: Hardened steel

Supplied complete with axle.

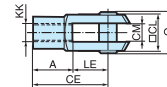


Stainless steel clevis

Stainless-steel clevis for articulated mounting of cylinder.



Material:
Clevis: Stainless steel
Pin: Stainless steel
Circlips according to DIN 471: Stainless steel
Use stainless steel nut with stainless steel swivel rod eye.

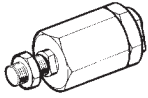


ISO 8140

Cyl.- dia. 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	Order code Galvanised Steel	Order code Stainless Steel
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	M27x254	72,0		2,10	P1C-4RRC	P1S-4RRD

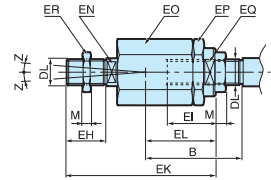
Cylinder mountings

Flexo coupling



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

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



Cyl.-bore mm	B min mm	B max mm	DL mm	EH mm	EI mm	EK mm	EL mm	EN mm	EO mm	EP mm	EQ mm	ER mm	M mm	Z	Weight kg	Order code
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-4MRF
80	57,0	67	M20x1,5	39	42	122	56	19	41	41	30	41	10,0	4°	0,72	P1C-4PRF
100	57,0	67	M20x1,5	39	42	122	56	19	41	41	30	41	10,0	4°	0,72	P1C-4PRF
125	75,5	89	M27x2	48	48	145	60	24	55	55	32	55	13,5	4°	1,80	P1C-4RRF

Piston rod nut



Intended for fixed mounting of accessories to the piston rod.

Material: Zinc-plated steel

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

Stainless steel nut



Intended for fixed mounting of accessories to the piston rod.

Material: Stainless steel A2

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

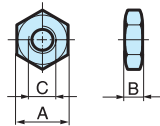
Acid-proof nut



Intended for fixed mounting of accessories to the piston rod.

Material: Acid-proof steel A4

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

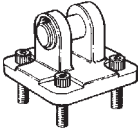


Enligt DIN 439 B

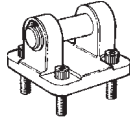
Cyl. Ø	A mm	B mm	C mm	Weight kg	Order code Piston rod nut	Order code Stainless steel nut	Order code Acid-proof nut
32	17	5,0	M10x1,25	0,007	9128985601	9126725404	0261109919
40	19	6,0	M12x1,25	0,010	0261109910	9126725405	0261109920
50	24	8,0	M16x1,5	0,021	9128985603	9126725406	0261109917
63	24	8,0	M16x1,5	0,021	9128985603	9126725406	0261109917
80	30	10,0	M20x1,5	0,040	0261109911	0261109921	0261109916
100	30	10,0	M20x1,5	0,040	0261109911	0261109921	0261109916
125	41	13,5	M27x2	0,100	0261109912	0261109922	0261109918

Cylinder mountings

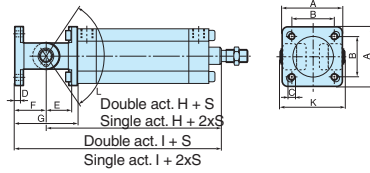
Clevis bracket MP4



Clevis bracket MP2



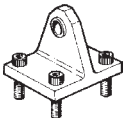
In this combination the clevis bracket MP4 is attached to the indicated cylinder.



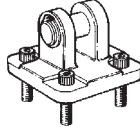
Cyl. Ø	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	L mm	Order code MP4	Order code MP2
32	48	32,5	5,5	7,0	15,0	22	44	97,0	119,0	52	104°	9121644601	9121644701
40	54	36,8	6,6	7,0	21,0	28	56	106,0	134,0	59	130°	9121644602	9121644702
50	64	46,7	6,6	8,5	19,5	28	56	113,0	141,0	67	120°	9121644603	9121644703
63	76	55,9	9,0	10,0	26,0	36	72	122,0	158,0	77	110°	9121644604	9121644704
80	94	70,0	11,0	12,0	26,0	38	76	139,0	177,0	97	80°	9121644605	9121644705
100	110	84,1	11,0	14,0	29,0	43	86	146,0	189,0	117	82°	9121644606	9121644706
125	135	104,0	14,0	15,0	35,0	50	100	165,5	215,5	137	82°	9121644607	9121644707

S=stroke length

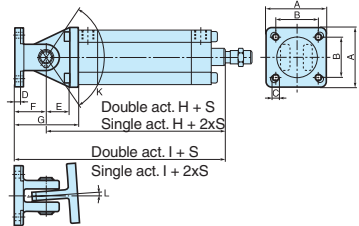
Swivel rod bracket



Clevis bracket MP4



In this combination the swivel rod bracket is attached to the indicated cylinder.



Cyl. Ø	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	L mm	Order code Swivel rod bracket	Order code MP2
32	48	32,5	5,5	7,0	15,0	22	44	97,0	119,0	104°	5,7°	9121568601	9121644601
40	54	36,8	6,6	7,0	21,0	28	56	106,0	134,0	130°	5,5°	9121568602	9121644602
50	64	46,7	6,6	8,5	19,5	28	56	113,0	141,0	120°	5,2°	9121568603	9121644603
63	76	55,9	9,0	10,0	26,0	36	72	122,0	158,0	110°	5,1°	9121568604	9121644604
80	94	70,0	11,0	12,0	26,0	38	76	139,0	177,0	80°	4,6°	9121568605	9121644605
100	110	84,1	11,0	14,0	29,0	43	86	146,0	189,0	82°	4,4°	9121568606	9121644606
125	135	104,0	14,0	15,0	35,0	50	100	165,5	215,5	82°	4,4°	9121568607	9121644607

S=stroke length

The P1A range of cylinders is intended for use in a wide range of applications. The cylinders are particularly suitable for lighter duties in the packaging, food and textile industries. Careful design and high quality manufacture throughout ensure long service life and optimum economy. Mounting dimensions fully in accordance with ISO 6432 and CETOP RP52P greatly simplifies installation and world-wide interchangeability.



- Mini cylinder according to ISO 6432
- Available in 10 to 25 mm bores
- Corrosion resistant design and low weight construction
- Magnetic piston as standard
- End stroke buffers for long service life

Operating information

Working pressure: Max 10 bar
 Temperature range: -20°C to +80°C Ø10-25mm

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For technical information see CD

Double acting buffer cushioning

Ø10mm - (M5)

Stroke mm	Order code
10	P1A-S010DS-0010
15	P1A-S010DS-0015
25	P1A-S010DS-0025
30	P1A-S010DS-0030
40	P1A-S010DS-0040
50	P1A-S010DS-0050
80	P1A-S010DS-0080
100	P1A-S010DS-0100
125	P1A-S010DS-0125

Ø12mm - (M5)

Stroke mm	Order code
10	P1A-S012DS-0010
15	P1A-S012DS-0015
25	P1A-S012DS-0025
30	P1A-S012DS-0030
40	P1A-S012DS-0040
50	P1A-S012DS-0050
80	P1A-S012DS-0080
100	P1A-S012DS-0100
125	P1A-S012DS-0125
160	P1A-S012DS-0160
200	P1A-S012DS-0200

Ø16mm - (M5)

Stroke mm	Order code
10	P1A-S016DS-0010
15	P1A-S016DS-0015
25	P1A-S016DS-0025
30	P1A-S016DS-0030
40	P1A-S016DS-0040
50	P1A-S016DS-0050
80	P1A-S016DS-0080
100	P1A-S016DS-0100
125	P1A-S016DS-0125
160	P1A-S016DS-0160
200	P1A-S016DS-0200

Ø20mm - (G1/8)

Stroke mm	Order code
10	P1A-S020DS-0010
15	P1A-S020DS-0015
25	P1A-S020DS-0025
30	P1A-S020DS-0030
40	P1A-S020DS-0040
50	P1A-S020DS-0050
80	P1A-S020DS-0080
100	P1A-S020DS-0100
125	P1A-S020DS-0125
160	P1A-S020DS-0160
200	P1A-S020DS-0200
250	P1A-S020DS-0250
320	P1A-S020DS-0320

Ø25mm - (G1/8)

Stroke mm	Order code
10	P1A-S025DS-0010
15	P1A-S025DS-0015
25	P1A-S025DS-0025
30	P1A-S025DS-0030
40	P1A-S025DS-0040
50	P1A-S025DS-0050
80	P1A-S025DS-0080
100	P1A-S025DS-0100
125	P1A-S025DS-0125
160	P1A-S025DS-0160
200	P1A-S025DS-0200
250	P1A-S025DS-0250
320	P1A-S025DS-0320

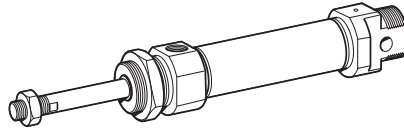
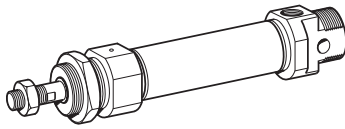
 Indicates stocked product.

Sensors



For sensors see page 96.

Single acting push type (Spring return for retract stroke)



Ø10mm - (M5)

Stroke mm	Order code
10	P1A-S010SS-0010
15	P1A-S010SS-0015
25	P1A-S010SS-0025
40	P1A-S010SS-0040
50	P1A-S010SS-0050
80	P1A-S010SS-0080

Ø16mm - (M5)

Stroke mm	Order code
10	P1A-S016SS-0010
15	P1A-S016SS-0015
25	P1A-S016SS-0025
40	P1A-S016SS-0040
50	P1A-S016SS-0050
80	P1A-S016SS-0080

Ø25mm - (G1/8)

Stroke mm	Order code
10	P1A-S025SS-0010
15	P1A-S025SS-0015
25	P1A-S025SS-0025
40	P1A-S025SS-0040
50	P1A-S025SS-0050
80	P1A-S025SS-0080

Ø12mm - (M5)

Stroke mm	Order code
10	P1A-S012SS-0010
15	P1A-S012SS-0015
25	P1A-S012SS-0025
40	P1A-S012SS-0040
50	P1A-S012SS-0050
80	P1A-S012SS-0080

Ø20mm - (G1/8)

Stroke mm	Order code
10	P1A-S020SS-0010
15	P1A-S020SS-0015
25	P1A-S020SS-0025
40	P1A-S020SS-0040
50	P1A-S020SS-0050
80	P1A-S020SS-0080

Single acting pull type (Spring return for advance stroke)



Ø16mm - (M5)

Stroke mm	Order code
10	P1A-S016TS-0010
15	P1A-S016TS-0015
25	P1A-S016TS-0025
40	P1A-S016TS-0040
50	P1A-S016TS-0050

Ø20mm - (G1/8)

Stroke mm	Order code
10	P1A-S020TS-0010
15	P1A-S020TS-0015
25	P1A-S020TS-0025
40	P1A-S020TS-0040
50	P1A-S020TS-0050
80	P1A-S020TS-0080

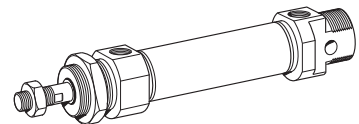
Ø25mm - (G1/8)

Stroke mm	Order code
10	P1A-S025TS-0010
15	P1A-S025TS-0015
25	P1A-S025TS-0025
40	P1A-S025TS-0040
50	P1A-S025TS-0050
80	P1A-S025TS-0080

Double acting adjustable cushioning

Effective cushioning

The Mini ISO range is available with fixed end cushioning or with adjustable pneumatic cushioning, controlled by simple bleed screws for fine adjustment. The adjustable cushioned cylinders can be operated with higher mass loads and at higher speeds than those with fixed end cushioning, reducing overall cycle times.



Ø16mm - (M5)


Stroke mm	Order code
20	P1A-S016MS-0020
25	P1A-S016MS-0025
30	P1A-S016MS-0030
40	P1A-S016MS-0040
50	P1A-S016MS-0050
80	P1A-S016MS-0080
100	P1A-S016MS-0100
125	P1A-S016MS-0125
160	P1A-S016MS-0160
200	P1A-S016MS-0200

Ø20mm - (G1/8)

Stroke mm	Order code
20	P1A-S020MS-0020
25	P1A-S020MS-0025
30	P1A-S020MS-0030
40	P1A-S020MS-0040
50	P1A-S020MS-0050
80	P1A-S020MS-0080
100	P1A-S020MS-0100
125	P1A-S020MS-0125
160	P1A-S020MS-0160
200	P1A-S020MS-0200
250	P1A-S020MS-0250
320	P1A-S020MS-0320

Ø25mm - (G1/8)

Stroke mm	Order code
20	P1A-S025MS-0020
25	P1A-S025MS-0025
30	P1A-S025MS-0030
40	P1A-S025MS-0040
50	P1A-S025MS-0050
80	P1A-S025MS-0080
100	P1A-S025MS-0100
125	P1A-S025MS-0125
160	P1A-S025MS-0160
200	P1A-S025MS-0200
250	P1A-S025MS-0250
320	P1A-S025MS-0320

 Indicates stocked product.

Design Variants

Working temperatures

High temperature

Ø10, 12 and 16mm -10°C to +120°C Non-magnetic piston
 Ø20 and 25mm -10°C to +150°C Non-magnetic piston

External seals

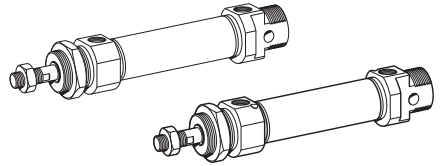
fluorinated rubber -20°C to +80°C Magnetic piston



Double acting options

Double-acting adjustable cushioning Ø16 - Ø25 (not for seal material type F and L)

Double-acting non-adjustable cushioning Ø10 - Ø25

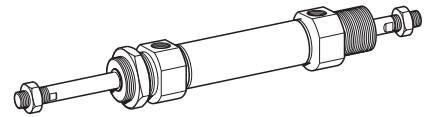


Double-acting, adjustable cushioning through rod Ø16 - Ø25 (not for seal material type F and L)

Double-acting, non-adjustable cushioning through rod Ø10 - Ø25

Double-acting, adjustable cushioning through rod, hollow Ø16 - Ø25 (not for seal material type F and L)

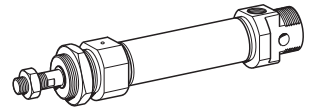
Double-acting, non-adjustable cushioning through rod, hollow Ø10 - Ø25



Single acting options

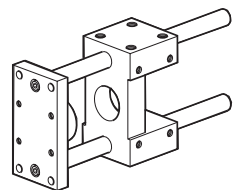
Single-acting, non-adjustable cushioning, spring return for retract stroke Ø16 - Ø25

Single-acting, push type Ø10 - Ø25



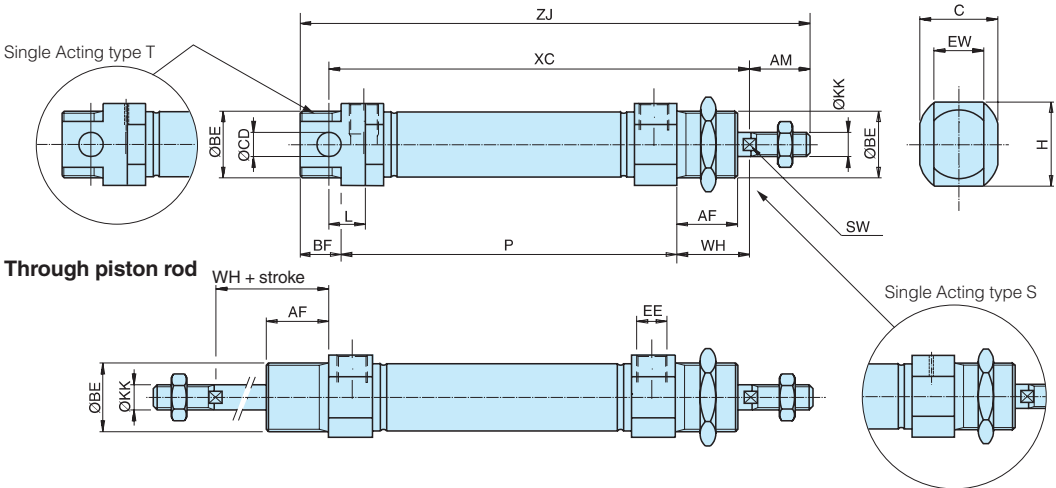
"U" style rod guidance modules, plain bearings

The P1A series cylinders can be equipped with an external guiding device to prevent the piston rod from turning. When fitted the guide provides a guided piston movement enabling the cylinder to resist turning moments on the piston rod, as well as greater transverse forces.



Dimensions

Double and single acting cylinders



Cylinder bore mm	AM 0/-2 mm	BE	AF mm	BF mm	C mm	CDH9	EE mm	EW mm	H mm	KK	L mm	SW mm	WH±1,2 mm
10	12	M12x1,25	12	10	13,0	4	M5	8	13,0	M4	6	-	16
12	16	M16x1,5	18	13	17,8	6	M5	12	17,8	M6	9	5	22
16 ¹⁾	16	M16x1,5	18	13	17,8	6	M5	12	17,8	M6	9	5	22
16 ²⁾	16	M16x1,5	18	13	23,8	6	M5	12	23,8	M6	9	5	22
20	20	M22x1,5	20	14	23,8	8	G1/8	16	23,8	M8	12	7	24
25	22	M22x1,5	22	14	26,8	8	G1/8	16	26,8	M10x1,25	12	9	28

1) P1A-S016DS/SS/TS

2) P1A-S016MS

Double acting cylinders

Cylinder bore mm	XC mm	ZJ mm	P mm
10	64 + stroke	84 + stroke	46 + stroke
12	75 + stroke	99 + stroke	48 + stroke
16	82 + stroke	104 + stroke	53 + stroke
20	95 + stroke	125 + stroke	67 + stroke
25	104 + stroke	132 + stroke	68 + stroke

Single-acting, spring return, type SS

Stroke/ Cylinder bore mm	10 XC	15 XC	25 XC	40 XC	50 XC	80 XC	10 ZJ	15 ZJ	25 ZJ	40 ZJ	50 ZJ	80 ZJ	10 P	15 P	25 P	40 P	50 P	80 P
10	74	79	89	126	136	174	94	99	109	146	156	194	56	61	71	108	118	156
12	85	90	100	132	142	185	109	114	124	156	166	209	58	63	73	105	115	158
16	92	97	107	122	132	184	114	119	129	144	154	206	63	68	78	93	103	155
20	105	110	120	135	145	191	135	140	150	165	175	221	77	82	92	107	117	163
25	114	119	129	144	154	201	142	147	157	172	182	229	78	83	93	108	118	165

Single-acting, spring-extended, type TS

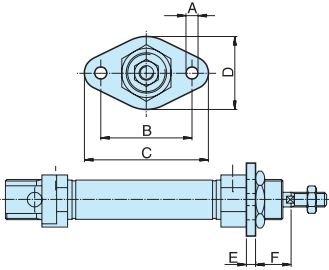
Stroke/ Cylinder bore mm	10 XC ³⁾	15 XC ³⁾	25 XC ³⁾	40 XC ³⁾	50 XC ³⁾	80 XC ³⁾	10 ZJ ³⁾	15 ZJ ³⁾	25 ZJ ³⁾	40 ZJ ³⁾	50 ZJ ³⁾	80 ZJ ³⁾	10 P	15 P	25 P	40 P	50 P	80 P
16	107	112	122	137	147	-	129	134	144	159	169	-	78	83	93	108	118	-
20	120	125	135	150	160	195	150	155	165	180	190	225	92	97	107	122	132	167
25	129	134	144	159	169	205	157	162	172	187	197	233	93	98	108	123	133	169

3) With piston rod retracted, as shown in the dimension drawing

Length tolerances ±1 mm

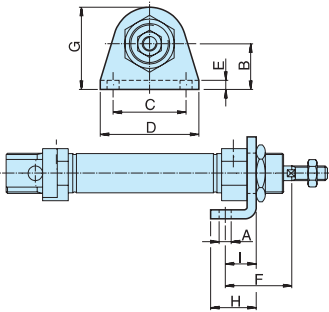
Stroke length tolerances +1,5/0 mm

Cylinder Mountings



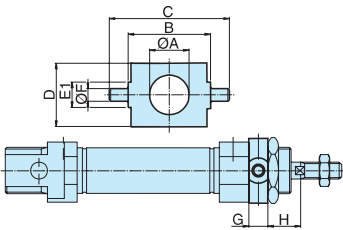
Flange-MF8

Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	Order code
10	4,5	30	40	22	3	13	P1A-4CMB
12-16	5,5	40	52	30	4	18	P1A-4DMB
20	6,6	50	66	40	5	19	P1A-4HMB
25	6,6	50	66	40	5	23	P1A-4HMB



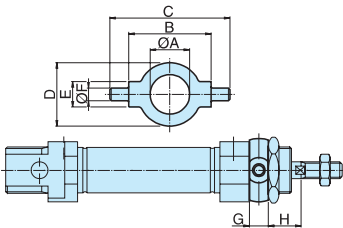
Foot-MS3

Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	Order code
10	4,5	16	25	35	3	24	26,0	16	11	P1A-4CMF
12-16	5,5	20	32	42	4	32	32,5	20	14	P1A-4DMF
20	6,5	25	40	54	5	36	45,0	25	17	P1A-4HMF
25	6,5	25	40	54	5	40	45,0	25	17	P1A-4HMF



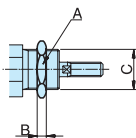
Cover trunnion

Cylinder Ø mm	A mm	B h14 mm	C mm	D mm	E1 mm	Fe9 mm	G mm	H mm	Order code
10	12,5	26	38	20	9	4	6	10	P1A-4CMZ
12-16	16,5	38	58	25	13	6	8	14	P1A-4DMZ
20	22,5	46	66	30	13	6	8	16	P1A-4HMZ
25	22,5	46	66	30	13	6	8	20	P1A-4HMZ



Cover trunnion
Stainless steel

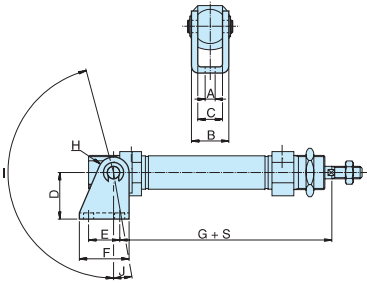
Cylinder Ø mm	A mm	B h14 mm	C mm	D mm	E mm	Fe9 mm	G mm	H mm	Order code
10	12,5	26	38	20	8	4	6	10	P1A-4CMJZ
12-16	16,5	38	58	25	10	6	8	14	P1A-4DMJZ
20	22,5	46	66	30	10	6	8	16	P1A-4HMJZ
25	22,5	46	66	30	10	6	8	20	P1A-4HMJZ



Stainless Mounting nut

Cylinder Ø mm	A mm	B mm	C	Order code
10	19	6	M12x1,25	9126725405
12-16	24	8	M16x1,50	9126725406
20-25	32	11	M22x1,50	9126725407

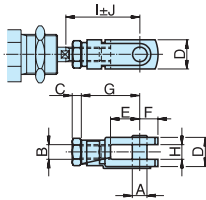
Cylinder Mountings



Clevis bracket

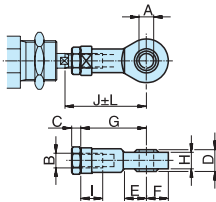
Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I °	J °	Order code
10	4,5	13	8	24	12,5	20	65,3	5	160	17	P1A-4CMT
12	5,5	18	12	27	15,0	25	73,0	7	170	15	P1A-4DMT
16	5,5	18	12	27	15,0	25	80,0	7	170	15	P1A-4DMT
20	6,5	24	16	30	20,0	32	91,0	10	165	10	P1A-4HMT
25	6,5	24	16	30	20,0	32	100,0	10	165	10	P1A-4HMT

S=stroke



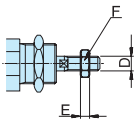
Clevis

Cylinder Ø mm	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	Order code
10	4	M4	2,2	8	8	5	16	4	22,0	2,0	P1A-4CRC
12-16	6	M6	3,2	12	12	7	24	6	31,0	3,0	P1A-4DRC
20	8	M8	4,0	16	16	10	32	8	40,5	3,5	P1A-4HRC
25	10	M10x1,25	5,0	20	20	12	40	10	49,0	3,0	P1A-4JRC



Swivel rod eye

Cylinder Ø mm	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	K mm	L mm	Order code
10	5	M4	2,2	8	10	9	27	6,0	8	33,0	9	2,0	P1A-4CRS
12-16	6	M6	3,2	9	10	10	30	6,8	9	38,5	11	1,5	P1A-4DRS
20	8	M8	4,0	12	12	12	36	9,0	12	46,0	14	2,0	P1A-4HRS
25	10	M10x1,25	5,0	14	14	14	43	10,5	15	52,5	17	2,5	P1A-4JRS



Stainless Rod nut

Cylinder Ø mm	D	F mm	E mm	Order code
10	M4	7	2,2	9127385121
12-16	M6	10	3,2	9127385122
20	M8	13	4,0	9127385123
25	M10x1,25	17	5,0	9126725404

Stainless steel cylinders, ISO 6432, Bore 10 - 25mm P1S

This range of stainless steel cylinders has been specially designed for use in difficult environments. Hygienic design, external seals of flourianted rubber and prelubrication with our food-industry-approved grease according to USDA-H1 make the cylinders particularly suitable for food industry use. All cylinders have magnetic pistons for proximity position sensing. Fixing dimensions to ISO 6432 simplify installation and make the cylinders physically interchangeable throughout the world.



- Mini - cylinders according to ISO 6432
- All stainless in 10 to 25 mm bores
- Magnetic piston as standard
- Double and single acting
- End stroke buffers for long service life
- Available with adjustable cushioning

Operating information

Working pressure: Max 10 bar
 Temperature range: -20°C to +80°C Ø10-25mm

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For technical information see CD

Double acting fixed cushioning

Ø10mm - (M5)

Stroke mm	Order code
10	P1S-S010DS-0010
15	P1S-S010DS-0015
25	P1S-S010DS-0025
40	P1S-S010DS-0040
50	P1S-S010DS-0050
80	P1S-S010DS-0080
100	P1S-S010DS-0100
125	P1S-S010DS-0125

Ø12mm - (M5)

Stroke mm	Order code
10	P1S-S012DS-0010
15	P1S-S012DS-0015
25	P1S-S012DS-0025
40	P1S-S012DS-0040
50	P1S-S012DS-0050
80	P1S-S012DS-0080
100	P1S-S012DS-0100
125	P1S-S012DS-0125
160	P1S-S012DS-0160
200	P1S-S012DS-0200

Ø16mm - (M5)

Stroke mm	Order code
10	P1S-S016DS-0010
15	P1S-S016DS-0015
25	P1S-S016DS-0025
40	P1S-S016DS-0040
50	P1S-S016DS-0050
80	P1S-S016DS-0080
100	P1S-S016DS-0100
125	P1S-S016DS-0125
160	P1S-S016DS-0160
200	P1S-S016DS-0200

Ø20mm - (G1/8)

Stroke mm	Order code
10	P1S-S020DS-0010
15	P1S-S020DS-0015
25	P1S-S020DS-0025
40	P1S-S020DS-0040
50	P1S-S020DS-0050
80	P1S-S020DS-0080
100	P1S-S020DS-0100
125	P1S-S020DS-0125
160	P1S-S020DS-0160
200	P1S-S020DS-0200
250	P1S-S020DS-0250
320	P1S-S020DS-0320

Ø25mm - (G1/8)

Stroke mm	Order code
10	P1S-S025DS-0010
15	P1S-S025DS-0015
25	P1S-S025DS-0025
40	P1S-S025DS-0040
50	P1S-S025DS-0050
80	P1S-S025DS-0080
100	P1S-S025DS-0100
125	P1S-S025DS-0125
160	P1S-S025DS-0160
200	P1S-S025DS-0200
250	P1S-S025DS-0250
320	P1S-S025DS-0320

Double acting adjustable cushioning

Ø20mm - (G1/8)

Stroke mm	Order code
15	P1S-S020MS-0015
25	P1S-S020MS-0025
40	P1S-S020MS-0040
50	P1S-S020MS-0050
80	P1S-S020MS-0080
100	P1S-S020MS-0100
125	P1S-S020MS-0125
160	P1S-S020MS-0160
200	P1S-S020MS-0200
250	P1S-S020MS-0250
320	P1S-S020MS-0320

Ø25mm - (G1/8)

Stroke mm	Order code
15	P1S-S025MS-0015
25	P1S-S025MS-0025
40	P1S-S025MS-0040
50	P1S-S025MS-0050
80	P1S-S025MS-0080
100	P1S-S025MS-0100
125	P1S-S025MS-0125
160	P1S-S025MS-0160
200	P1S-S025MS-0200
250	P1S-S025MS-0250
320	P1S-S025MS-0320

Sensors



For sensors see page 96.

Stainless steel cylinders, ISO 6432, Bore 10 - 25mm P1S

Design Variants

Working temperatures

High temperature

Ø10 and Ø16mm -10°C to +120°C Non-magnetic piston
Ø20 and Ø25mm -10°C to +150°C Non-magnetic piston

Low temperature

Ø10, 12 and 16mm -40°C to +60°C Non-magnetic piston

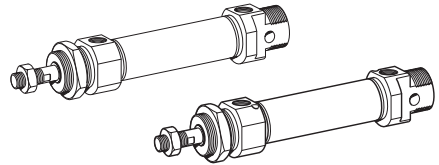


Double acting options

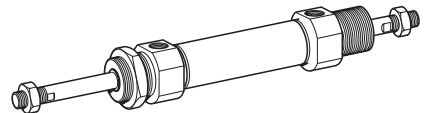
Effective end-cushioning

A version of ISO 6432 Ø10-Ø25 incorporates fixed end-cushioning, while the cylinders Ø20-Ø125 have pneumatic end-cushioning with adjusting screws for exact setting, permitting heavier loads and higher speeds for short cycle times.

Double-acting adjustable cushioning	Ø20 - Ø25 (not for seal material type F and L)
Double-acting non-adjustable cushioning	Ø10 - Ø25

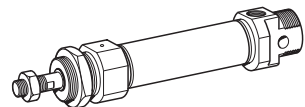


Double-acting, adjustable cushioning through rod	Ø20 - Ø25 (not for seal material type F and L)
Double-acting, non-adjustable cushioning through rod	Ø10 - Ø25
Double-acting, adjustable cushioning through rod, hollow	Ø20 - Ø25 (not for seal material type F and L)
Double-acting, non-adjustable cushioning through rod, hollow	Ø20 - Ø25 max stroke 125mm

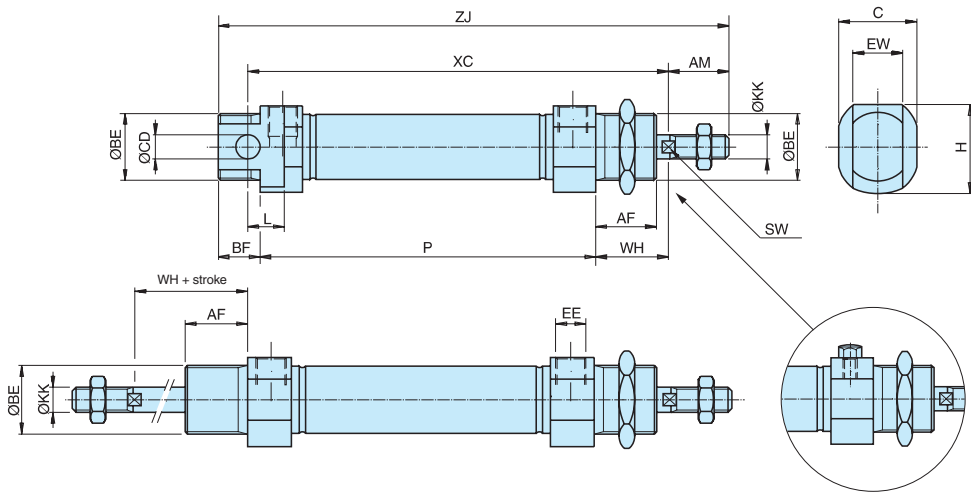


Single acting options

Single-acting, non-adjustable cushioning, spring return for retract stroke	Ø10 - Ø25
Single-acting, push type	Ø20 - Ø25



Stainless steel cylinders, ISO 6432, Bore 10 - 25mm P1S



Dimensions

Cyl. bore mm	AM 0/-2 mm	BE	AF mm	BF mm	C mm	CDH9 mm	EE mm	EW mm	H mm	KK	L mm	SW mm	WH±1,2 mm
10	12	M12x1,25	12	10	14	4	M5	8	19	M4	6	-	16
12	16	M16x1,5	18	13	18	6	M5	12	19	M6	9	5	22
16	16	M16x1,5	18	13	18	6	M5	12	19	M6	9	5	22
20	20	M22x1,5	20	14	24	8	G1/8	16	29	M8	12	7	24
25	22	M22x1,5	22	14	28	8	G1/8	16	32	M10x1,25	12	9	28

Double acting cylinders

Cyl. bore mm	XC mm	ZJ mm	P mm
10	64 + stroke	84 + stroke	46 + stroke
12	75 + stroke	99 + stroke	48 + stroke
16	82 + stroke	104 + stroke	53 + stroke
20	95 + stroke	125 + stroke	67 + stroke
25	104 + stroke	132 + stroke	68 + stroke

Single acting with spring return, type SS

Stroke/ Cyl. bore mm	10 XC mm	15 XC mm	25 XC mm	40 XC mm	50 XC mm	80 XC mm	10 ZJ mm	15 ZJ mm	25 ZJ mm	40 ZJ mm	50 ZJ mm	80 ZJ mm	10 P mm	15 P mm	25 P mm	40 P mm	50 P mm	80 P mm
10	74	79	89	126	136	174	94	99	109	146	156	194	56	61	71	108	118	156
12	85	90	100	132	142	185	109	114	124	156	166	209	58	63	73	105	115	158
16	92	97	107	122	132	184	114	119	129	144	154	206	63	68	78	93	103	155
20	105	110	120	135	145	191	135	140	150	165	175	221	77	82	92	107	117	163
25	114	119	129	144	154	201	142	147	157	172	182	229	78	83	93	108	118	165

Length tolerances ±1 mm

Stroke length tolerances +1,5/0 mm

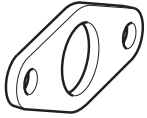
Cylinders are supplied complete with mounting and adjusting nuts.

Cylinders with through piston rod are supplied complete with two adjusting nuts and one mounting nut.

Stainless steel cylinders, ISO 6432, Bore 10 - 25mm P1S

Cylinder mountings

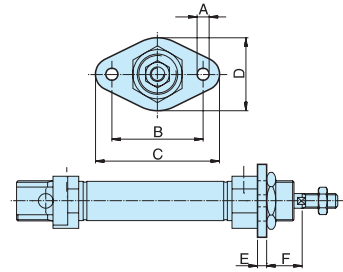
Flange-MF8



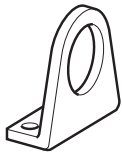
Intended for fixed attachment of the cylinder. The flange is designed for mounting on the front or rear end-covers.

Material:
Stainless steel, DIN X 10 CrNiS 18 9

Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	Weight Kg	Order code
10	4,5	30	40	22	3	13	0,012	P1S-4CMB
12-16	5,5	40	52	30	4	18	0,025	P1S-4DMB
20	6,6	50	66	40	5	19	0,045	P1S-4HMB
25	6,6	50	66	40	5	23	0,045	P1S-4HMB



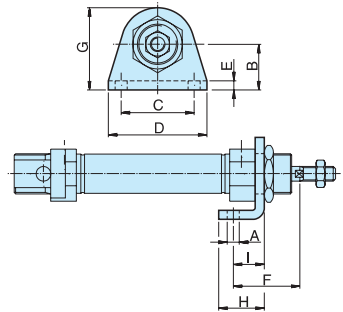
Foot-MS3



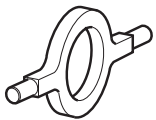
Intended for fixed attachment of the cylinder. The bracket is designed for mounting on the front or rear end-covers.

Material:
Stainless steel, DIN X 10 CrNiS 18 9

Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	Weight Kg	Order code
10	4,5	16	25	35	3	24	26	16	11	0,020	P1S-4CMF
12-16	5,5	20	32	42	4	32	32,5	20	14	0,040	P1S-4DMF
20	6,5	25	40	54	5	36	45	25	17	0,080	P1S-4HMF
25	6,5	25	40	54	5	40	45	25	17	0,080	P1S-4HMF



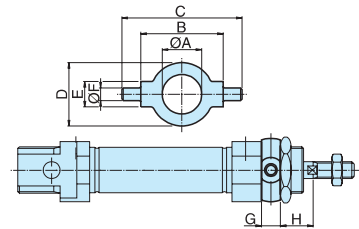
Cover trunnion



Intended for articulated mounting of the cylinder. The flange is designed for mounting on the front or rear end-covers.

Material:
Stainless steel, DIN X 10 CrNiS 18 9

Cylinder Ø	A mm	B h14 mm	C mm	D mm	E e9 mm	F mm	G mm	H mm	Weight Kg	Order code
10	12,5	26	38	20	8	4	6	10	0,014	P1A-4CMJ
12-16	16,5	38	58	25	10	6	8	14	0,033	P1A-4DMJ
20	22,5	46	66	30	10	6	8	16	0,037	P1A-4HMJ
25	22,5	46	66	30	10	6	8	20	0,037	P1A-4HMJ



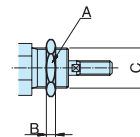
Mounting nut



Intended for fixed mounting of the cylinder. Cylinders are supplied complete with one mounting nut.

Material:
Stainless steel, DIN X 5 CrNi 18 10

Cylinder Ø mm	A mm	B mm	C	Weight Kg	Order code
10	16	3	M12x1,25	0,009	9126725405
12-16	20	4	M16x1,50	0,018	9126725406
20-25	27	5	M22x1,50	0,042	9126725407



Stainless steel cylinders, ISO 6432, Bore 10 - 25mm P1S

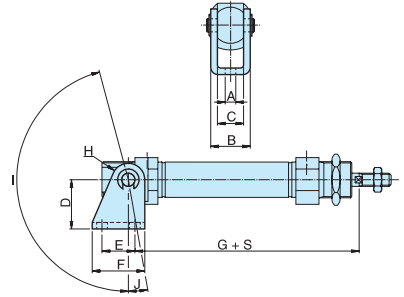
Cylinder mountings

Clevis bracket

Intended for articulated mounting of the cylinder. Supplied with shaft for mounting on the rear end cover.



Material:
Bracket: stainless steel, DIN X 5 CrNi 18 10
Pin: tempered stainless steel, DIN X 20 Cr 13
Locking rings: stainless steel, DIN X 5 CrNi 18 10

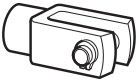


Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J °	Weight Kg	Order code
10	4,5	13	8	24	12,5	20	65,3	5	160	17	0,020	P1S-4CMT
12	5,5	18	12	27	15	25	73	7	170	15	0,040	P1S-4DMT
16	5,5	18	12	27	15	25	80	7	170	15	0,040	P1S-4DMT
20	6,5	24	16	30	20	32	91	10	165	10	0,080	P1S-4HMT
25	6,5	24	16	30	20	32	100	10	165	10	0,080	P1S-4HMT

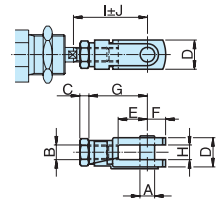
S=stroke

Clevis

According to ISO 8140
Intended for articulated mounting of the cylinder. This mounting is adjustable in the axial direction. Supplied complete with pin.



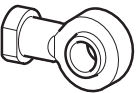
Material:
Stainless steel, DIN X 5 CrNi 18 10



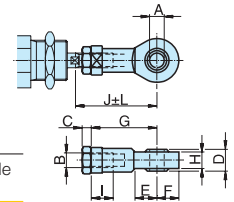
Cylinder Ø mm	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	Weight	Order code
10	4	M4	2,2	8	8	5	16	4	22	2	0,007	P1S-4CRD
12-16	6	M6	3,2	12	12	7	24	6	31	3	0,022	P1S-4DRD
20	8	M8	4	16	16	10	32	8	40,5	3,5	0,045	P1S-4HRD
25	10	M10x1,25	5	20	20	12	40	10	49	3	0,095	P1S-4JRD

Swivel rod eye

According to ISO 8139
Intended for articulated mounting of the cylinder. This mounting is adjustable in the axial direction.



Material:
Swivel rod eye: stainless steel, DIN X 5 CrNi 18 10
Ball: hardened stainless steel, DIN X 5 CrNi 18 10



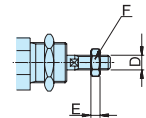
Cylinder Ø mm	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	K mm	L mm	Weight	Order code
10	5	M4	2,2	8	10	9	27	6	8	33	9	2	0,017	P1S-4CRT
12-16	6	M6	3,2	9	10	10	30	6,8	9	38,5	11	1,5	0,025	P1S-4DRT
20	8	M8	4	12	12	12	36	9	12	46	14	2	0,045	P1S-4HRT
25	10	M10x1,25	5	14	14	14	43	10,5	15	52,5	17	2,5	0,085	P1S-4JRT

Rod nut

Intended for fixed mounting on the piston rod. Cylinders are supplied complete with one rod nut. (cylinders with through piston rod are supplied with two rod nuts.)



Material:
Stainless steel, DIN X 5 CrNi 18 10



Cylinder Ø mm	D	F mm	E mm	Weight	Order code
10	M4	7	2,2	0,001	9127385121
12-16	M6	10	3,2	0,002	9127385122
20	M8	13	4	0,005	9127385123
25	M10x1,25	17	5	0,007	9126725404

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S

This range of stainless steel cylinders has been specially designed for use in difficult environments. Hygienic design, external seals of flouriated rubber and prelubrication with our food-industry-approved grease according to USDA-H1 make the cylinders particularly suitable for food industry use. All cylinders have magnetic pistons for proximity position sensing. Fixing dimensions to ISO 6431 simplify installation and make the cylinders physically interchangeable throughout the world.



- Round cylinder to ISO 6431
- All stainless steel
- Clean, smooth washdown design
- Magnetic piston as standard
- Adjustable cushioning for long service life
- Complete range of mountings and sensors

Operating information

Working pressure: Max 10 bar
Temperature range: -20°C to +70°C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For technical information see CD

Standard stroke lengths

Ø32mm - (G1/8)

Stroke mm	Order code
25	P1S-D032MS-0025
50	P1S-D032MS-0050
80	P1S-D032MS-0080
100	P1S-D032MS-0100
125	P1S-D032MS-0125
160	P1S-D032MS-0160
200	P1S-D032MS-0200
250	P1S-D032MS-0250
320	P1S-D032MS-0320
400	P1S-D032MS-0400
500	P1S-D032MS-0500

Ø63mm - (G3/8)

Stroke mm	Order code
25	P1S-D063MS-0025
50	P1S-D063MS-0050
80	P1S-D063MS-0080
100	P1S-D063MS-0100
125	P1S-D063MS-0125
160	P1S-D063MS-0160
200	P1S-D063MS-0200
250	P1S-D063MS-0250
320	P1S-D063MS-0320
400	P1S-D063MS-0400
500	P1S-D063MS-0500

Ø100mm - (G1/2)

Stroke mm	Order code
25	P1S-L100MS-0025
50	P1S-L100MS-0050
80	P1S-L100MS-0080
100	P1S-L100MS-0100
125	P1S-L100MS-0125
160	P1S-L100MS-0160
200	P1S-L100MS-0200
250	P1S-L100MS-0250
320	P1S-L100MS-0320
400	P1S-L100MS-0400
500	P1S-L100MS-0500

Ø40mm - (G1/4)

Stroke mm	Order code
25	P1S-D040MS-0025
50	P1S-D040MS-0050
80	P1S-D040MS-0080
100	P1S-D040MS-0100
125	P1S-D040MS-0125
160	P1S-D040MS-0160
200	P1S-D040MS-0200
250	P1S-D040MS-0250
320	P1S-D040MS-0320
400	P1S-D040MS-0400
500	P1S-D040MS-0500

Ø80mm - (G3/8)

Stroke mm	Order code
25	P1S-L080MS-0025
50	P1S-L080MS-0050
80	P1S-L080MS-0080
100	P1S-L080MS-0100
125	P1S-L080MS-0125
160	P1S-L080MS-0160
200	P1S-L080MS-0200
250	P1S-L080MS-0250
320	P1S-L080MS-0320
400	P1S-L080MS-0400
500	P1S-L080MS-0500

Ø125mm - (G1/2)

Stroke mm	Order code
25	P1S-L125MS-0025
50	P1S-L125MS-0050
80	P1S-L125MS-0080
100	P1S-L125MS-0100
125	P1S-L125MS-0125
160	P1S-L125MS-0160
200	P1S-L125MS-0200
250	P1S-L125MS-0250
320	P1S-L125MS-0320
400	P1S-L125MS-0400
500	P1S-L125MS-0500

Ø50mm - (G1/4)

Stroke mm	Order code
25	P1S-D050MS-0025
50	P1S-D050MS-0050
80	P1S-D050MS-0080
100	P1S-D050MS-0100
125	P1S-D050MS-0125
160	P1S-D050MS-0160
200	P1S-D050MS-0200
250	P1S-D050MS-0250
320	P1S-D050MS-0320
400	P1S-D050MS-0400
500	P1S-D050MS-0500

Sensors



For sensors see pages 96.

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S

Design Variants

Working temperatures

High temperature -10°C to +150°C Non-magnetic piston

Low temperature

Ø10 and Ø125mm -40°C to +40°C Non-magnetic piston

Stainless steel scraper for piston rod

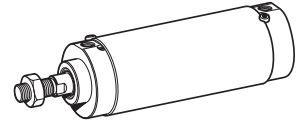
-20°C to +80°C Magnetic piston



Double acting options

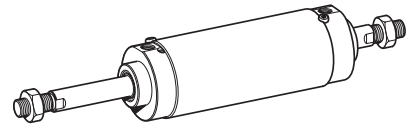
Double-acting
adjustable cushioning

Ø80 - Ø125



Double-acting
adjustable cushioning
through rod only

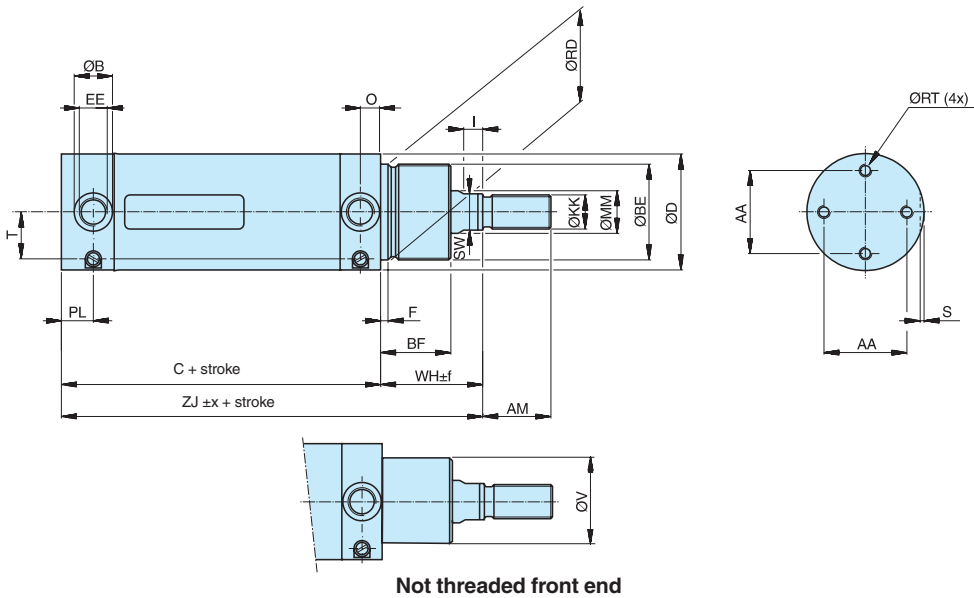
Ø80 - Ø125



Mounting options

ISO 6431 Stainless Steel Cylinders are available with a variety of integral threaded mounting holes or trunnion pegs. See Technical Catalogue CD for details.

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S



Dimensions Ø32-Ø63

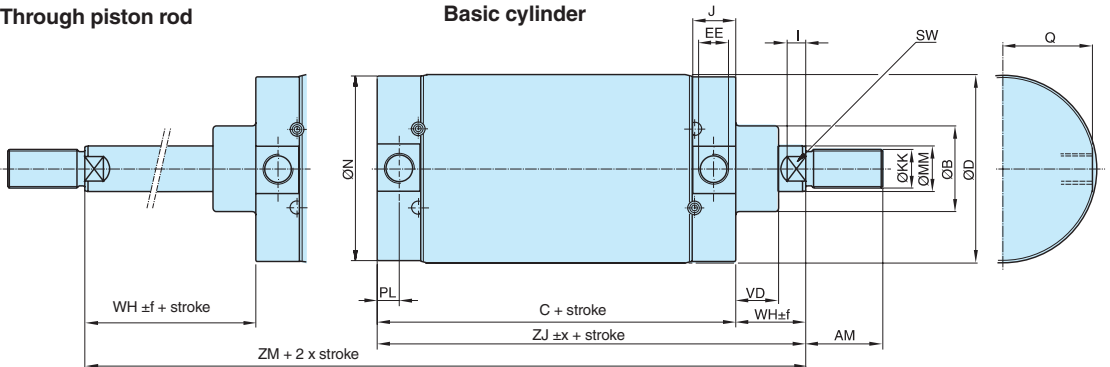
Cylinder designation	AA mm	AM mm	B mm	BF mm	BE	C mm	D mm	EE mm	F mm	I mm	KK	MM mm	O mm	PL mm	RD mm	RT mm
P1S-D032M	24,5	22	15	25	M30x1,5	88	36	G1/8	4,2	6	M10x1,25	12	8	13	30	M5
P1S-D040M	30	24	18	30	M38x1,5	97	44	G1/4	4,5	9	M12x1,25	16	9,5	15	38	M6
P1S-D050M	39	32	18	33	M45x1,5	101	55	G1/4	4,5	9	M16x1,5	20	9,5	15	45	M6
P1S-D063M	49	32	25	33	M45x1,5	117	68	G3/8	4,5	9	M16x1,5	20	13,3	20,5	45	M8

Cylinder designation	S mm	SW mm	T mm	V mm	WH mm	ZJ mm	Mounting tolerances x f mm mm	Stroke length 0-500 mm mm
P1S-D032M	1,5	10	12,2	26	35,5	123,5	1,2 2,5	+2,0
P1S-D040M	1,5	14	16,5	35	44	141	1,0 2,2	+2,0
P1S-D050M	1,5	17	22	41	47	148	0,9 2,3	+2,0
P1S-D063M	1,5	17	26	41	47	164	1,4 2,3	+2,5

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S

Through piston rod

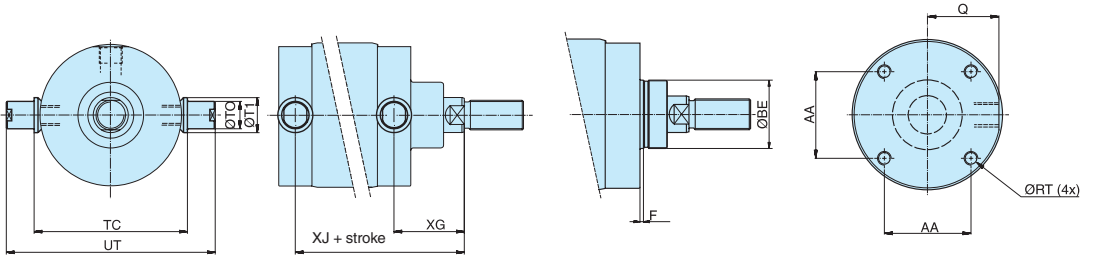
Basic cylinder



Trunnion pegs on front or rear end cover

Threaded front end

Mounting holes in the end covers



Dimensions Ø80-Ø125

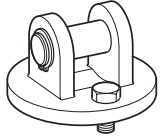
Cylinder designation	AA mm	AM mm	B mm	BE	C mm	D mm	EE mm	F mm	KK	I mm	J mm	MM mm	N mm	PL mm	Q mm
P1S-•080M	46	40	50	M50x1,5	141	86	G3/8	4	M20x1,5	10	24,5	25	84	12,5	40
P1S-•100M	60	40	50	M50x1,5	158	106	G1/2	4	M20x1,5	8	30	25	104	15,5	49,5
P1S-•125M	76	54	60	M60x2	183	132	G1/2	4	M27x2	13	30	32	129	15,5	62,5

Cylinder designation	RT	SW	TC	TO	T1	UT	VD	WH	XG	X3	ZJ	ZM	Mounting tol. x f	Stroke length 0-500 mm
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
P1S-•080M	M8	21	98	20	25	125	19	37	49,5	165,5	178	215	1,5 2,5	+2,5
P1S-•100M	M10	21	109	25	32	152	19	35	50,5	177,5	193	228	1,5 2,5	+2,5
P1S-•125M	M12	27	134	25	32	177	24	47	63	214	230	277	2,0 2,5	+4,0

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S

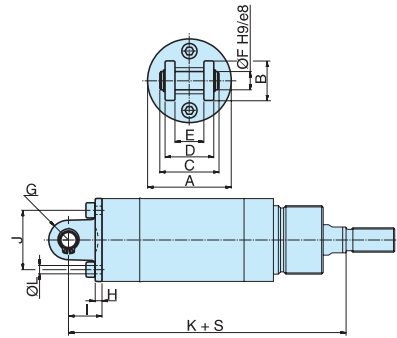
Cylinder mountings Ø32 - Ø63

Clevis bracket MP2



Intended for articulated mounting of the cylinder versions D, F or K. The bracket is mounted at the rear end cover and is supplied complete with shaft, mounting screw and O-ring for a clean joint between end cover and bracket.

Material:
Stainless steel, DIN X 5 CrNi 18 10



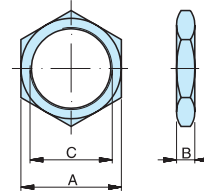
Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	K mm	L mm	Weight Kg	Order code
32	35,5	20	33	26	15	10	10	4,5	18,5	25	142	5,5	0,09	P1S-4KME
40	43,5	24	35	28	17	12	12	4	19	30	160	6,5	0,12	P1S-4LME
50	54,5	26	39	32	17	12	13	4,5	22	39	170	6,5	0,19	P1S-4MME
63	67,5	34	47	40	22	16	17	6	26	49	190	8,6	0,34	P1S-4NME

S = Stroke

Mounting nut

Intended for fixed mounting of the cylinder via the neck.

Material: stainless steel, DIN X 5 CrNi 18 10



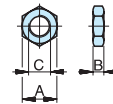
Cylinder Ø mm	A mm	B mm	C	Weight Kg	Order code
32	36	8	M30x1,5	0,03	9127294401
40	46	10	M38x1,5	0,06	9127294402
50	55	10	M45x1,5	0,08	9127294403
63	55	10	M45x1,5	0,08	9127294403

Cylinder mountings Ø32-Ø125

Rod nut

Intended for fixed mounting on the piston rod. Cylinders are supplied complete with one rod nut. (cylinders with through piston rods are supplied with two rod nuts.)

Material:
Stainless steel, DIN X 5 CrNi 18 10



Cylinder Ø	A mm	B mm	C mm	Weight Kg	Order code
32	17	5	M10x1,25	0,01	9126725404
40	19	6	M12x1,25	0,01	9126725405
50	24	8	M16x1,5	0,02	9126725406
63	24	8	M16x1,5	0,02	9126725406
80	30	10	M20x1,5	0,04	0261109921
100	30	10	M20x1,5	0,04	0261109921
125	41	13,5	M27x2	0,10	0261109922

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S

Cylinder mountings Ø32 - Ø125

Swivel rod eye

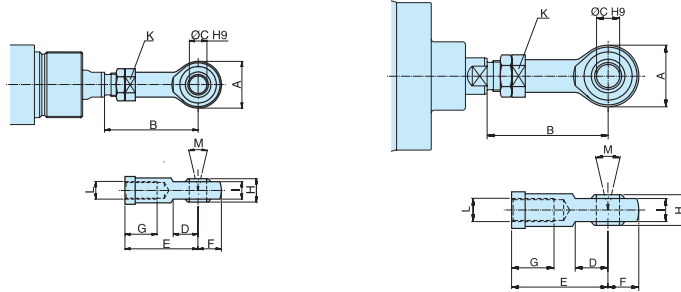


According to ISO 8139
Intended for articulated mounting of the cylinder. This mounting is adjustable in the axial direction.

Material:
Swivel rod eye: stainless steel, DIN X 5 CrNi 18 10
Ball: hardened stainless steel, DIN X 5 CrNi 18 10

32	0,09
40	0,15
50-63	0,35
80-100	0,75
125	2,10

P1S-4JRD
P1S-4LRD
P1S-4MRD
P1S-4PRD
P1S-4RRD



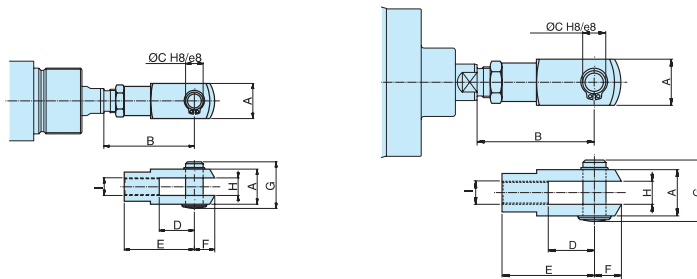
Cyl. Ø mm	A mm	B _{min} mm	B _{max} mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	L	M	Weight Kg	Order code
32	28	50	55	10	15	43	14	15	14	10,5	17	M10x1,25	24°	0,08	P1S-4JRT
40	32	56	62	12	17	50	16	22	16	12	19	M12x1,25	24°	0,12	P1S-4LRT
50	42	72	80	16	22	64	21	28	21	15	22	M16x1,5	30°	0,25	P1S-4MRT
63	42	72	80	16	22	64	21	28	21	15	22	M16x1,5	30°	0,25	P1S-4MRT
80	50	87	97	20	26	77	25	33	25	18	32	M20x1,5	30°	0,46	P1S-4PRT
100	50	87	97	20	26	77	25	33	25	18	32	M20x1,5	30°	0,46	P1S-4PRT
125	70	123,5	137	30	36	110	35	51	37	25	41	M27x2	30°	1,28	P1S-4RRT

Clevis



According to ISO 8140
Intended for articulated mounting of the cylinder. This mounting is adjustable in the axial direction. Supplied complete with pin.

Material:
Clevis: stainless steel, DIN X 10 CrNiS 18 9
Pin: stainless steel, DIN X 5 CrNi 18 10
Locking rings according to DIN 471

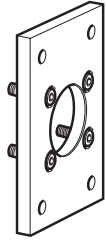


Cylinder Ø mm	A mm	B _{min} mm	B _{max} mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	Weight Kg	Order code
32	20	46	52	10	20	40	12	28	10	M10x1,25	0,09	P1S-4JRD
40	24	54	60	12	24	48	19	32	12	M12x1,25	0,15	P1S-4LRD
50	32	72	80	16	32	64	25	42	16	M16x1,5	0,35	P1S-4MRD
63	32	72	80	16	32	64	25	42	16	M16x1,5	0,35	P1S-4MRD
80	40	90	100	20	40	80	32	50	20	M20x1,5	0,75	P1S-4PRD
100	40	90	100	20	40	80	32	50	20	M20x1,5	0,75	P1S-4PRD
125	55	123,5	137	30	54	110	45	72	30	M27x2	2,10	P1S-4RRD

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S

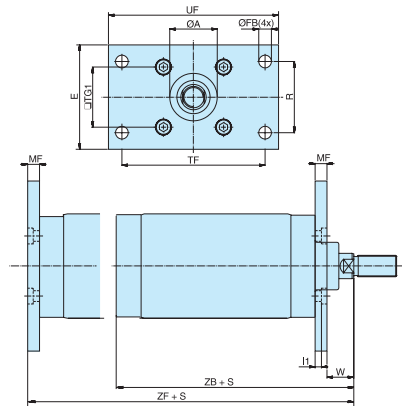
Cylinder mountings

Flange MF1/MF2



Intended for fixed attachment of cylinder version D, E, F, L, M or Q. The flange is designed for mounting on the front or rear end covers.

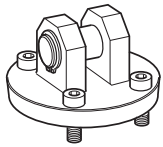
Material:
Stainless steel, DIN X 5 CrNiMo 17 13 3



Cylinder Ø mm	A	FB	E	R	TF	TG1	UF	MF	I1	W	ZB	ZF	Weight	Order code
80	50,2	12	86	63	126	46	150	12	6	25	178	190	0,97	P1S-4PMB
100	51	14	106	75	150	60	170	12	6	23	193	205	1,42	P1S-4QMB
125	61	16	132	90	180	76	205	15	8	32	230	245	1,55	P1S-4RMB

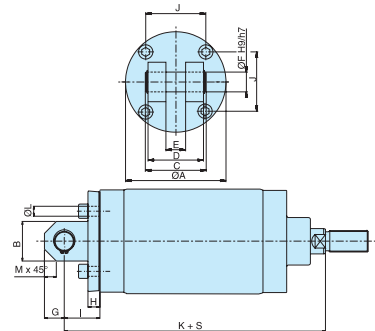
S = Stroke

Clevis bracket MP4



Intended for articulated mounting of cylinder versions D, F, L or Q. The bracket is mounted on the rear end cover and is supplied complete with shaft, mounting screw and O-ring for a clean joint between end cover and bracket.

Material:
Bracket: stainless steel, DIN X 5 CrNi 18 10
Pin: stainless steel, DIN X 5 CrNiMo 17 13 3



Cylinder Ø mm	A	B	C	D	E	F	G	H	I	J	K	L	M	Weight	Order code
80	80	30	57	50	16	16	15	12	32	46	210	8,6	9	0,78	P1S-4PME
100	103	42	67	60	20	20	21	12	37	60	230	10,6	12	1,42	P1S-4QME
125	127	50	77	70	25	25	25	15	45	76	275	12,6	15	2,06	P1S-4RME

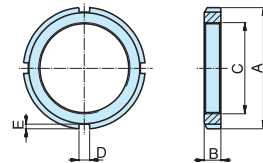
S = Stroke

Mounting nut



Intended for fixed mounting on the front end cover of cylinders according to cylinder version C or D.

Material:
Stainless steel, DIN X 5 CrNi 18 10

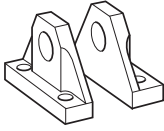


Cylinder Ø mm	A	B	C	D	E	Weight	Order code
80	70	11	M50x1,5	6	2,5	0,16	9126461304
100	70	11	M50x1,5	6	2,5	0,16	9126461304
125	80	11	M60x2	7	3	0,19	9126461305

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S

Cylinder mountings

Bearing bracket for trunnion pegs



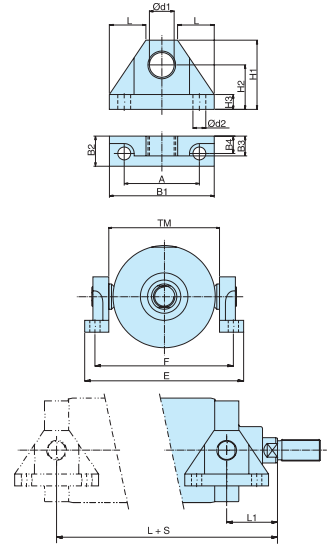
Intended for articulated mounting of the cylinder. The trunnion pegs are factory mounted on the front or rear end cover and are combined with bearing brackets. Supplied in pairs.

Material:
 Bearing brackets: stainless steel, DIN X 5 CrNi 18 10
 Journal bearing: stainless steel,
 DIN X 5 CrNiMo 17 13 3/PTFE

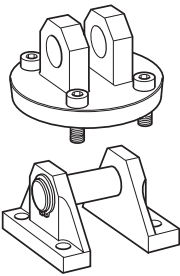
Cylinder Ø mm	A mm	B1 mm	B2 mm	B3 mm	B4 mm	d1 mm	d2 mm	H1 mm	H2 mm	H3 mm	L mm	Weight Kg	Order code
80-100	60	90	28	15	15,5	20	11	58	37	12	34,5	0,16	P1S-4PMW
125	76	106	30	20	17,5	25	13	70	45	15	40	0,19	P1S-4QMW

Cylinder Ø mm	E mm	F mm	L1 mm	L2 mm	TM mm	Weight Kg	Order code
80	154	129	49,5	165,5	98	0,16	P1S-4PMW
100	169	144	50,5	177,5	109	0,16	P1S-4QMW
125	194	169	63	214	134	0,19	P1S-4QMW

S = Stroke

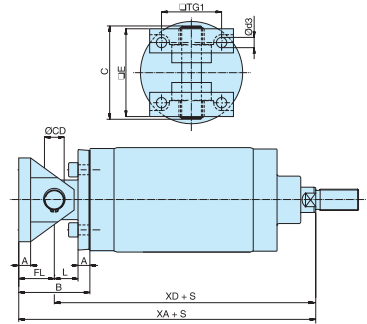


Combined mounting MP2/MP4



Intended for articulated mounting of cylinder versions D, F, L or Q. The unit is mounted on the rear end cover and is combined with bearing brackets MP2 and is supplied complete with shaft, mounting screw and O-ring for a clean joint between end cover and bracket.

Material:
 Bearing brackets: stainless steel, DIN X 5 CrNi 18 10
 Journal bearing: stainless steel,
 DIN X 5 CrNiMo 17 13 3/PTFE
 Bracket: stainless steel, DIN X 5 CrNi 18 10
 Pin: stainless steel, DIN X 5 CrNiMo 17 13 3



Cylinder Ø mm	A mm	B mm	C mm	CD mm	d3 mm	E mm	FL mm	L mm	TG1 mm	XA mm	XD mm	Weight Kg	Order code
80	12	64	82	16	9	74	32	20	46	242	210	1,29	P1S-4PML
100	12	74	98	20	11	90	37	25	60	267	230	2,33	P1S-4QML
125	15	90	118	25	13	110	45	30	76	320	275	3,30	P1S-4RML

S = Stroke

The innovative P1D is a future-proof generation of ISO/VDMA cylinders. 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 125 mm bores
- PUR seals for long service life
- Drop-in sensors
- Corrosion resistant design
- Magnetic piston as standard
- Lubricated with food grade grease

Operating information

Working pressure:	Max 10 bar
Seals / Temperature options	
Standard:	-20°C to +80°C
High temperature:	-10°C to +150°C
Low temperature:	-40°C to +40°C
Cylinders for low pressure	
hydraulic operation:	Ø32-125mm
ATEX approval:	CE Ex IIGD c T4 120°C

For ATEX specific products contact Sales Office

For technical information see CD

P1D Standard - Double acting

Ø32mm - (G^{1/8})

Stroke mm	Order code
25	P1D-S032MS-0025
40	P1D-S032MS-0040
50	P1D-S032MS-0050
80	P1D-S032MS-0080
100	P1D-S032MS-0100
125	P1D-S032MS-0125
160	P1D-S032MS-0160
200	P1D-S032MS-0200
250	P1D-S032MS-0250
320	P1D-S032MS-0320
400	P1D-S032MS-0400
500	P1D-S032MS-0500

Ø40mm - (G^{1/4})

Stroke mm	Order code
25	P1D-S040MS-0025
40	P1D-S040MS-0040
50	P1D-S040MS-0050
80	P1D-S040MS-0080
100	P1D-S040MS-0100
125	P1D-S040MS-0125
160	P1D-S040MS-0160
200	P1D-S040MS-0200
250	P1D-S040MS-0250
320	P1D-S040MS-0320
400	P1D-S040MS-0400
500	P1D-S040MS-0500

Ø50mm - (G^{1/2})

Stroke mm	Order code
25	P1D-S050MS-0025
40	P1D-S050MS-0040
50	P1D-S050MS-0050
80	P1D-S050MS-0080
100	P1D-S050MS-0100
125	P1D-S050MS-0125
160	P1D-S050MS-0160
200	P1D-S050MS-0200
250	P1D-S050MS-0250
320	P1D-S050MS-0320
400	P1D-S050MS-0400
500	P1D-S050MS-0500

Ø63mm - (G^{3/8})

Stroke mm	Order code
25	P1D-S063MS-0025
40	P1D-S063MS-0040
50	P1D-S063MS-0050
80	P1D-S063MS-0080
100	P1D-S063MS-0100
125	P1D-S063MS-0125
160	P1D-S063MS-0160
200	P1D-S063MS-0200
250	P1D-S063MS-0250
320	P1D-S063MS-0320
400	P1D-S063MS-0400
500	P1D-S063MS-0500

Ø80mm - (G^{3/8})

Stroke mm	Order code
25	P1D-S080MS-0025
40	P1D-S080MS-0040
50	P1D-S080MS-0050
80	P1D-S080MS-0080
100	P1D-S080MS-0100
125	P1D-S080MS-0125
160	P1D-S080MS-0160
200	P1D-S080MS-0200
250	P1D-S080MS-0250
320	P1D-S080MS-0320
400	P1D-S080MS-0400
500	P1D-S080MS-0500

Ø100mm - (G^{1/2})

Stroke mm	Order code
25	P1D-S100MS-0025
40	P1D-S100MS-0040
50	P1D-S100MS-0050
80	P1D-S100MS-0080
100	P1D-S100MS-0100
125	P1D-S100MS-0125
160	P1D-S100MS-0160
200	P1D-S100MS-0200
250	P1D-S100MS-0250
320	P1D-S100MS-0320
400	P1D-S100MS-0400
500	P1D-S100MS-0500

Ø125mm - (G^{1/2})


Stroke mm	Order code
25	P1D-S125MS-0025
40	P1D-S125MS-0040
50	P1D-S125MS-0050
80	P1D-S125MS-0080
100	P1D-S125MS-0100
125	P1D-S125MS-0125
160	P1D-S125MS-0160
200	P1D-S125MS-0200
250	P1D-S125MS-0250
320	P1D-S125MS-0320
400	P1D-S125MS-0400
500	P1D-S125MS-0500

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

Sensors



For sensors see page 96.

 Indicates stocked product.

Design Variants

P1D Tie-Rod

The P1D is available in a tie-rod version, based on the same high level technology. This future-proof cylinder is the perfect choice wherever a tie-rod cylinder is needed.

The P1D Tie-Rod uses "drop-in" P1D sensors. An ingenious multi-jointed adapter fixes the sensors in any chosen position along the stroke.



P1D Clean

P1D Clean is a new version in our ISO cylinder system, completely designed for the foodstuffs industry. Many years' experience of the stringent requirements for hygiene, choice of material and corrosion resistance, from a wide spectrum of foodstuffs applications have guided the development of this cylinder version. Great emphasis has been put on the external design of the cylinder, choice of materials and corrosion protection.



P1D Clean without sensor function

Special order code for P1D Clean without sensor function.

This version is a permanently sealed. The cylinder has a very clean design and is intended for applications where no sensors are used.



Alternative piston rod materials

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

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



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. In addition, this design makes it easier to install external position sensors.



3 and 4 position cylinders

By installing two cylinders with the same or different stroke, it is possible to build a working unit with three or four positions. This type of unit is available as factory-fitted P1D tie-rod cylinders (P1D-T) in all bores, Ø32-125 mm. Other P1D cylinders can be flange mounted back-to-back with a special mounting



Tandem version

The P1D is also available as a tandem cylinder, i.e. two cylinders connected in series. This cylinder unit has almost twice the force, which is a great advantage in restricted spaces. Tandem cylinders are available as tie-rod cylinders, P1D-T, in all bores Ø32-125 mm.



Design Variants

Low and high ambient temperature

For all bores, Ø32-125 mm, the P1D can be supplied in special high ambient temperature and low ambient temperature versions. The cylinders have seal systems, materials and grease for their particular temperature ranges. The high temperature version does not have magnetic piston (no function at high temperatures). The low temperature cylinders do have magnetic piston, but remember that most sensors are specified to - 25 °C (no function below this temperature). Ambient temperature ranges:

- Low temperature: -40 °C to +40 °C
- High temperature: -10 °C to +150 °C, peaks up to +200 °C



Low pressure hydraulics

The P1D in bores Ø32 - 125 mm can be supplied with special seals for operation with low pressure hydraulics up to 10 bar. Temperature range -20 °C to +80°C.

P1D complete working unit

P1D Standard can be ordered with a factory-fitted valve and piping. The valve series is the robust and compact Viking series, with product code P2L-A (for cylinder bores 32-63), P2L-B (for cylinder bores 80-100) and P2L-D (for cylinder bore 125).



P1D cylinder with piston rod locking

The P1D cylinder is available in a version with piston rod locking, allowing the piston rod to be locked in any position. The lock unit, of the air/spring actuated type, is integrated in the front end piece of the cylinder.



P1D Standard with piston rod locking



P1D Clean with piston rod locking

Cylinders complete with mountings, sensors, speed regulation, fittings etc.

Order a complete working unit on a single order code instead of a lot of separate numbers. Save time in all phases, such as purchasing, goods reception and installation. A factory installed complete cylinder makes your work more efficient!

For complete ordering information see Technical Catalogue CD.

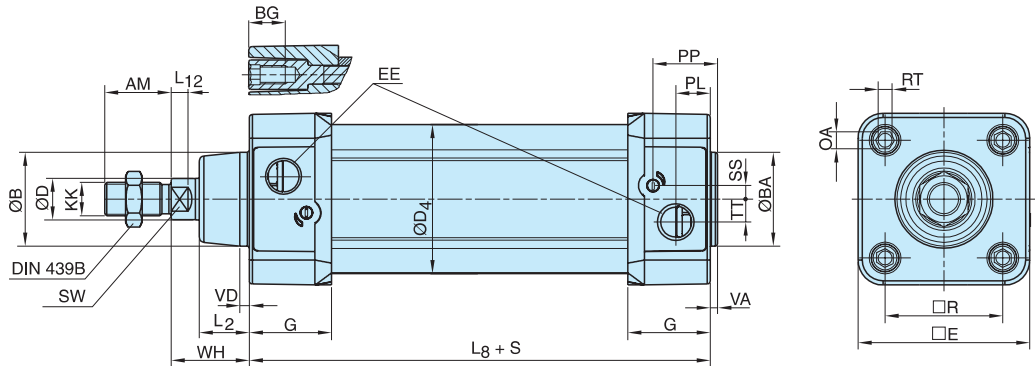


Operation with dry piston rod

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). A piston rod seal system specially designed for dry rod operation is available as options for this type of application, 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 previous P1C cylinders, with proven function.



P1D Standard



Dimensions

Cylinder bore mm	AM mm	B mm	BA mm	BG mm	D mm	D4 mm	E mm	EE mm	G mm	KK	L2 mm	L8 mm	L12 mm
32	22	30	30	16	12	45,0	50,0	G1/8	28,5	M10x1,25	16,0	94	6,0
40	24	35	35	16	16	52,0	57,4	G1/4	33,0	M12x1,25	19,0	105	6,5
50	32	40	40	16	20	60,7	69,4	G1/4	33,5	M16x1,5	24,0	106	8,0
63	32	45	45	16	20	71,5	82,4	G3/8	39,5	M16x1,5	24,0	121	8,0
80	40	45	45	17	25	86,7	99,4	G3/8	39,5	M20x1,5	30,0	128	10,0
100	40	55	55	17	25	106,7	116,0	G1/2	44,5	M20x1,5	32,4	138	14,0
125	54	60	60	20	32	134,0	139,0	G1/2	51,0	M27x2	45,0	160	18,0

Cylinder bore mm	OA mm	PL mm	PP mm	R mm	RT mm	SS mm	SW mm	TT mm	VA mm	VD mm	WH mm
32	6,0	13,0	21,8	32,5	M6	4,0	10	4,5	3,5	4,5	26
40	6,0	14,0	21,9	38,0	M6	8,0	13	5,5	3,5	4,5	30
50	8,0	14,0	23,0	46,5	M8	4,0	17	7,5	3,5	5,0	37
63	8,0	16,4	27,4	56,5	M8	6,5	17	11,0	3,5	5,0	37
80	6,0	16,0	30,5	72,0	M10	0	22	15,0	3,5	4,0	46
100	6,0	18,0	35,8	89,0	M10	0	22	20,0	3,5	4,0	51
125	8,0	28,0	40,5	110,0	M12	0	27	17,5	5,5	6,0	65

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

Cylinder mountings

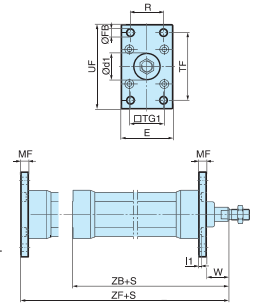
Flange MF1/MF2



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

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

Supplied complete with mounting screws for attachment to cylinder.



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

Cyl. bore mm	d1 mm	FB mm	TG1 mm	E mm	R mm	MF mm	TF mm	UF mm	I1 mm	W* mm	ZF* mm	ZB* mm	Weight Kg	Order code
	H11	H13			JS14	JS14	JS14		-0,5					
32	30	7	32,5	45	32	10	64	80	5,0	16	130	123,5	0,23	P1C-4KMB
40	35	9	38,0	52	36	10	72	90	5,0	20	145	138,5	0,28	P1C-4LMB
50	40	9	46,5	65	45	12	90	110	6,5	25	155	146,5	0,53	P1C-4MMB
63	45	9	56,5	75	50	12	100	120	6,5	25	170	161,5	0,71	P1C-4NMB
80	45	12	72,0	95	63	16	126	150	8,0	30	190	177,5	1,59	P1C-4PMB
100	55	14	89,0	115	75	16	150	170	8,0	35	205	192,5	2,19	P1C-4QMB
125	60	16	110,0	140	90	20	180	205	10,5	45	245	230,5	3,78	P1C-4RMB

S = Stroke length

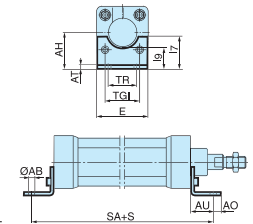
Foot bracket MS1



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

Cyl. bore mm	AB mm	TG1 mm	E mm	TR mm	AO mm	AU mm	AH mm	I7 mm	AT mm	I9 mm	SA* mm	Weight Kg	Order code
	H14			JS14			JS15			JS14			
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

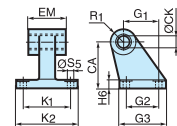
S = Stroke length

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

Cyl. bore mm	CK mm	S5 mm	K1 mm	K2 mm	G1 mm	G2 mm	EM mm	G3 mm	CA mm	H6 mm	R1 mm	Weight Kg	Order code
	H9	H13	JS14		JS14	JS14			JS15				
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

Cylinder mountings

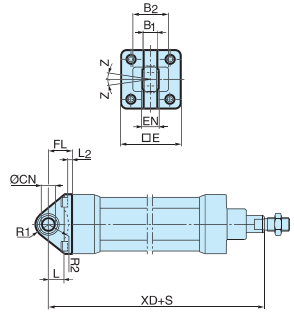
Swivel eye bracket



Intended for use together with clevis bracket GA

Material
Bracket: Surface-treated aluminium, black
Swivel bearing acc. to DIN 648K: Hardened steel

Supplied complete with mounting screws for attachment to cylinder.



According to VDMA 24 562, AFNOR

Cyl. bore 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 mm	Weight Kg	Order code
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

S = Stroke length * Does not apply to cylinders with lock unit.

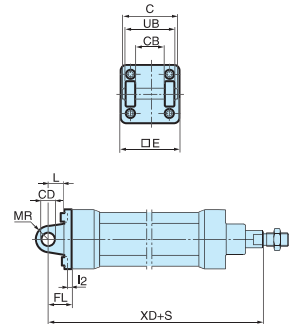
Clevis bracket MP2



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

Materials
Clevis bracket: Surface-treated aluminium, black
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

Cyl. bore mm	C mm	E mm	UB h14 mm	CB H14 mm	FL ±0,2 mm	L mm	I2 mm	CD H9 mm	MR mm	XD* mm	Weight Kg	Order code
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

S = Stroke length * Does not apply to cylinders with lock unit

Cylinder mountings

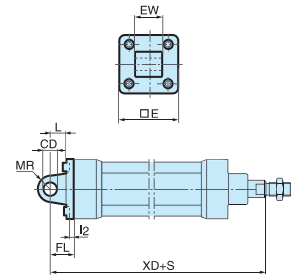
Clevis bracket MP4



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

Materials
 Clevis bracket: Surface-treated aluminium, black
 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

Cyl. bore	E	EW	FL	L	I2	CD	MR	XD*	Weight	Order code
mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
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

S = Stroke length * Does not apply to cylinders with lock unit.

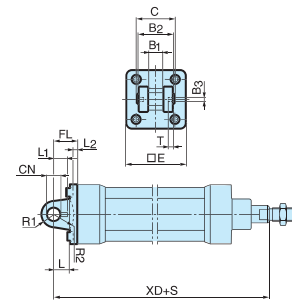
Clevis bracket GA



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

Cyl. bore	C	E	B2	B1	T	B3	R2	L1	FL	I2	L	CN	R1	XD*	Weight	Order code
mm	mm	mm	d12	H14	mm	mm	mm	mm	mm	mm	mm	F7	mm	mm	Kg	
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

S = Stroke length * Does not apply to cylinders with lock unit.

Stainless steel Pin Set GA

Cyl. bore	Weight	Order code
mm	Kg	
32	0,05	P1C-4KMCA
40	0,06	P1C-4LMCA
50	0,07	P1C-4MMCA
63	0,07	P1C-4NMCA
80	0,17	P1C-4PMCA
100	0,31	P1C-4QMCA
125	0,54	P1C-4RMCA

Materials
 Pin: Stainless steel
 Locking pin: Stainless steel
 Circlips according to DIN 471: Stainless steel

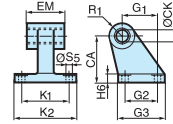
Cylinder mountings

Pivot bracket with swivel bearing



Intended for use together with clevis bracket GA.

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



According to VDMA 24 562, AFNOR

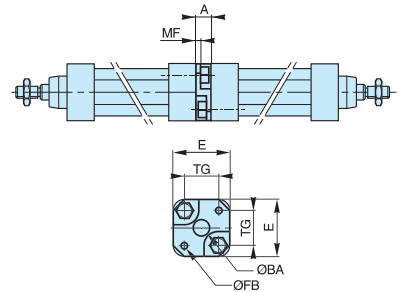
Cyl. bore	CN	S5	K1	K2	EU	G1	G2	EN	G3	CH	H6	ER	Z	Weight	Order code
mm	H7	H13	JS14	mm	mm	JS14	JS14	mm	mm	mm	mm	mm	mm	Kg	
32	10	6,6	38	51	10,5	21	18	14	31	32	10	16	4°	0,18	P1C-4KMA
40	12	6,6	41	54	12,0	24	22	16	35	36	10	18	4°	0,25	P1C-4LMA
50	16	9,0	50	65	15,0	33	30	21	45	45	12	21	4°	0,47	P1C-4MMA
63	16	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 cylinders.

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



Cyl. bore	E	TG	ØFB	MF	A	ØBA	Weight	Order code
mm	mm	mm	mm	mm	mm	mm	Kg	
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

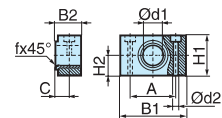
Pivot bracket for MT4



Intended for use together with central trunnion MT4.

Material
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

Cyl. bore	B1	B2	A	C	d1	d2	H1	H2	fx45°	Weight	Order code
mm	mm	mm	mm	mm	mm	H13	mm	mm	min	Kg	
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

Cylinder mountings

Centre trunnion MT4 for P1D-S



Intended for articulated mounting of cylinder. This mounting is available for the P1D Standard and for the tie-rod design of P1D. The trunnion is factory-fitted in the centre of the cylinder or at an optional location specified by the XV-measure – Combined with pivot bracket for MT4.

Material:
Trunnion: zinc plated steel

Centre trunnion MT4 for P1D-T



Trunnion centred

The central trunnion for the P1D-S and P1D-T is ordered with letter D in position 17 (no dimension specified in positions 18-20).

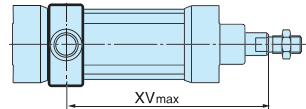
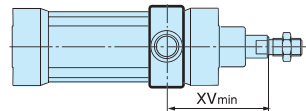
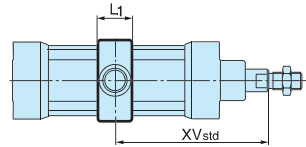
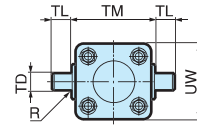
Trunnion with optional location

The central trunnion for the P1D-S and P1D-T is ordered with letter G in position 17 and desired XV-measure (3-digit measure in mm) in positions 18-20.

Trunnion loose

P1D-S can also be ordered with the central trunnion loosely fitted to the cylinder (not fixed in position). This allows the position to be established at the time of installation.

Ordered with letter G in position 17 and 000 in positions 18-20.



According to ISO MT4, VDMA 24 562, AFNOR

Cyl. bore	TM	TL	TD	R	UW	UW	L1	L1	X1*	XV* _{min}	XV* _{min}	X2*	X2*
mm	h14	h14	e9	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
32	50	12	12	1,0	52	46	18	15	73,0	89	62	57	84
40	63	16	16	1,6	59	59	20	20	82,5	95	73	70	92
50	75	16	16	1,6	71	69	20	20	90,0	113	81	67	99
63	90	20	20	1,6	84	84	26	25	97,5	118	90	78	106
80	110	20	20	1,6	105	102	26	25	110,0	132	98	88	122
100	132	25	25	2,0	129	125	32	30	120,0	140	111	100	129
125	160	25	25	2,0	159	155	33	32	145,0	168	132	122	158

$XV_{std} = X1 + \text{Stroke length}/2$, $XV_{max} = X2 + \text{Stroke length}$

* Does not apply to cylinders with lock unit.

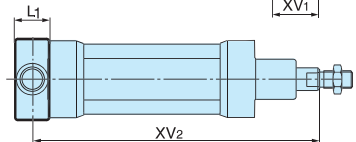
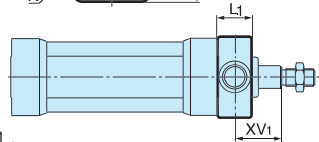
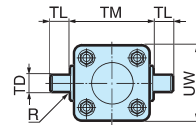
Flange mounted trunnion



Intended for articulated mounting of cylinder. This trunnion can be flange mounted on the front or rear end cover of all P1D cylinders. At your choice, you can order a complete cylinder with factory-fitted flange mounted trunnion. Individual trunnions have order code as shown to the right.

Material:
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

Cyl. bore	TM	TL	TD	R	UW	L1	XV ₁ *	X*	Y	Weight	Order code
mm	h14	h14	e9	mm	mm	mm	mm	mm	mm	Kg	
32	50	12	12	1,0	46	14	19,5	126,5	11	0,17	P1D-4KMYF
40	63	16	16	1,6	59	19	21,0	144,0	14	0,43	P1D-4LMYF
50	75	16	16	1,6	69	19	28,0	152,0	20	0,55	P1D-4MMYF
63	90	20	20	1,6	84	24	25,5	169,5	20	1,10	P1D-4NMYF
80	110	20	20	1,6	102	24	34,5	185,5	26	1,66	P1D-4PMYF
100	132	25	25	2,0	125	29	37,0	203,0	31	3,00	P1D-4QMYF

$XV_2 = X + \text{Stroke length}$ * Does not apply to cylinders with lock unit.

To fit a flange mounted trunnion at the front end cover of a P1D cylinder with lock unit, the piston rod must be extended. This is in order to provide the same WH dimensions as for the P1D base cylinder with dimension Y.

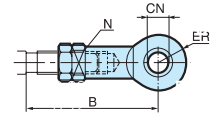
Piston rod mountings

Swivel rod eye



Intended for articulated mounting of the cylinder.
Maintenance-free PTFE.

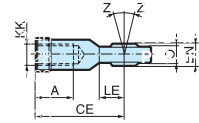
Material:
Swivel rod eye, nut: galvanized steel.
Swivel bearing according to DIN 648K: Hardened steel.



Stainless steel swivel rod eye Stainless-steel swivel rod eye for articulated mounting of cylinder.
Maintenance-free.



Materials
Swivel rod eye: Stainless steel
Swivel bearing according to DIN 648K: Stainless steel
Use stainless steel nut with stainless steel swivel rod eye.



ISO 8139

Cyl.-dia. mm	A mm	B min mm	B max mm	CE mm	CN H9 mm	EN h12 mm	ER mm	KK	LE mm	N* min mm	O mm	Z mm	Weight kg	Order code Galvanised Steel	Order code Stainless Steel
32	20	48,0	55	43	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-4MRS	P1S-4MRT
80	33	87,0	97	77	20	25	25	M20x1,5	26	32	18,0	15°	0,46	P1C-4PRS	P1S-4PRT
100	33	87,0	97	77	20	25	25	M20x1,5	26	32	18,0	15°	0,46	P1C-4PRS	P1S-4PRT
125	51	123,5	137	110	30	37	35	M27x2	36	41	25,0	15°	1,28	P1C-4RRS	P1S-4RRT

*key grip

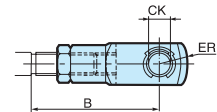
Clevis



Intended for articulated mounting of the cylinder.

Material:
Clevis and clip galvanized steel.
Pin: Hardened steel

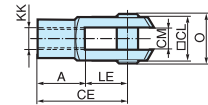
Supplied complete with axle.



Stainless steel clevis

Stainless-steel clevis for articulated mounting of cylinder.

Material
Clevis: Stainless steel
Pin: Stainless steel
Circlips according to DIN 471: Stainless steel
Use stainless steel nut with stainless steel swivel rod eye.



ISO 8140

Cyl.-dia. 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	Order code Galvanised Steel	Order code Stainless Steel
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	M27x254	72,0		2,10	P1C-4RRC	P1S-4RRD

Piston rod mountings

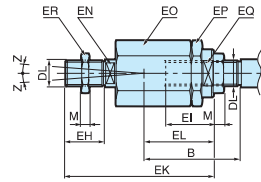
Flexo coupling



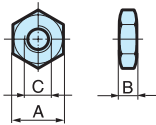
Flexo coupling for articulated mounting of piston rod.
Flexo fitting is intended to take up axial angle errors within a range of $\pm 4^\circ$.

Material
Flexo coupling, nut: Zinc-plated steel
Socket: Hardened steel

Supplied complete with galvanized adjustment nut.



Cyl. bore mm	B min mm	B max mm	DL mm	EH mm	EI mm	EK mm	EL mm	EN mm	EO mm	EP mm	EQ mm	ER mm	M mm	Z	Weight mm	Order code
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-4MRF
80	57,0	67	M20x1,5	39	42	122	56	19	41	41	30	41	10,0	4°	0,72	P1C-4PRF
100	57,0	67	M20x1,5	39	42	122	56	19	41	41	30	41	10,0	4°	0,72	P1C-4PRF
125	75,5	89	M27x2	48	48	145	60	24	55	55	32	55	13,5	4°	0,72	P1C-4RRF



According to DIN 439 B

Nut



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.

Cyl. bore mm	A mm	B mm	C	Weight Kg	Order code
32	17	5,0	M10x1,25	0,007	9128985601
40	19	6,0	M12x1,25	0,010	0261109910
50	24	8,0	M16x1,5	0,021	9128985603
63	24	8,0	M16x1,5	0,021	9128985603
80	30	10,0	M20x1,5	0,040	0261109911
100	30	10,0	M20x1,5	0,040	0261109911
125	30	10,0	M20x1,5	0,100	0261109912

Stainless steel nut



Intended for fixed mounting of accessories to the piston rod.

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.

32	17	5,0	M10x1,25	0,007	9126725404
40	19	6,0	M12x1,25	0,010	9126725405
50	24	8,0	M16x1,5	0,021	9126725406
63	24	8,0	M16x1,5	0,021	9126725406
80	30	10,0	M20x1,5	0,040	0261109921
100	30	10,0	M20x1,5	0,040	0261109921
125	30	10,0	M20x1,5	0,100	0261109922

Acid-proof nut



Intended for fixed mounting of accessories to the piston rod.

Material: Acid-proof steel A4

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

32	17	5,0	M10x1,25	0,007	0261109919
40	19	6,0	M12x1,25	0,010	0261109920
50	24	8,0	M16x1,5	0,021	0261109917
63	24	8,0	M16x1,5	0,021	0261109917
80	30	10,0	M20x1,5	0,040	0261109916
100	30	10,0	M20x1,5	0,040	0261109916
125	30	10,0	M20x1,5	0,100	0261109918

Sealing plugs

Four plastic sealing plugs are supplied with every P1D Clean cylinder. These are installed in the end cover screws which are not used for the cylinder installation. To ensure the sealing function, the plugs can be used only once i.e. they cannot be re-used. When installed in the end cover screws, they should be tapped lightly with a hammer to securely fix.



Cyl.	Order code
32	9121742201
40	9121742201
50	9121742202
63	9121742202
80	9121742203
100	9121742203
125	9121742204

P1E Cylinders are equipped as standard with magnetic pistons for proximity position sensing. A full range of sensors enables the cylinders to be integrated into the most advanced automation systems. The sensors can be fitted at any position along the cylinder stroke.

In development of P1E cylinders, great emphasis was placed on the importance of long service life and operation with unlubricated air characteristics essential for applications in demanding environments.



- Cylinder for heavy duty operation to VDMA 24562
- Bore sizes Ø160 - Ø200mm
- Tie rod design
- Hard anodised cylinder tube as standard
- Stainless steel piston rod
- Non-lube operation

Operating information

Working pressure: Max 10 bar

Seal / Temperature options:

Standard: -20°C to +70°C

High temperature: -10°C to +180°C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

Piston rod type

Male threaded

Stainless steel as standard

Chrome plated steel

Rod gaiter versions

For technical information see CD

Tie rod cylinders - Double acting, magnetic piston, male piston rod thread

Ø160mm - (G^{3/4})

Stroke mm	Order code
25	P1E-T160MS-0025
50	P1E-T160MS-0050
80	P1E-T160MS-0080
100	P1E-T160MS-0100
125	P1E-T160MS-0125
160	P1E-T160MS-0160
200	P1E-T160MS-0200
250	P1E-T160MS-0250
320	P1E-T160MS-0320

Ø200mm - (G^{3/4})

Stroke mm	Order code
25	P1E-T200MS-0025
50	P1E-T200MS-0050
80	P1E-T200MS-0080
100	P1E-T200MS-0100
125	P1E-T200MS-0125
160	P1E-T200MS-0160
200	P1E-T200MS-0200
250	P1E-T200MS-0250
320	P1E-T200MS-0320

Cylinder mountings

Swivel rod eye Zinc plated steel

Cyl.Ø	Order code
160	P1C-4SRS
200	P1C-4SRS

Flange MF1 and MF2 Surface treated steel

Cyl.Ø	Order code
160	P1C-4SMB
200	P1C-4TMB

Clevis Galvanised steel

Cyl.Ø	Order code
160	P1C-4SRC
200	P1C-4SRC

Foot bracket Surface treated steel

Cyl.Ø	Order code
160	P1C-4SMF
200	P1C-4TMF

Clevis bracket MP2 Aluminium/Cast iron

Cyl.Ø	Order code
160	P1C-4SMT
200	P1C-4TMT

Piston rod nut Zinc plated steel

Cyl.Ø	Order code
160	9128985606
200	9128985606

Clevis bracket MP4 Aluminium/Cast iron

Cyl.Ø	Order code
160	P1C-4SME
200	P1C-4TME


Pivot bracket for MT4

Cyl.Ø	Order code
160	9301054268
200	9301054268

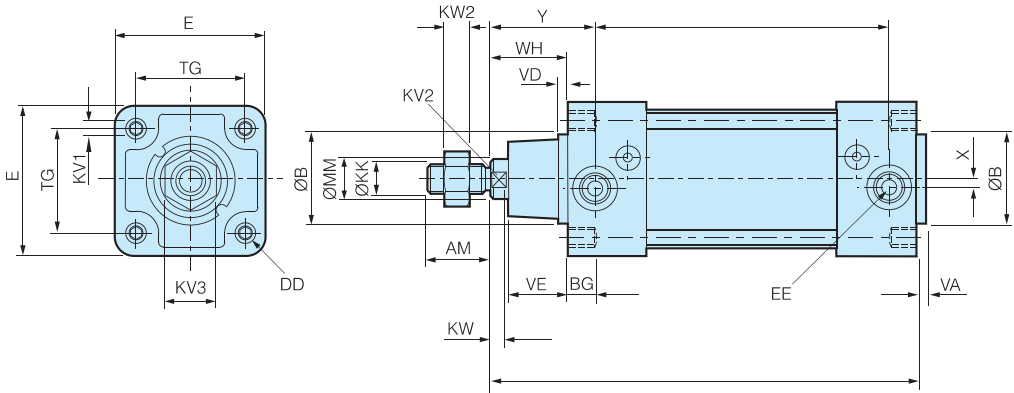
Sensors



For sensors see page 96.

 Indicates stocked product.

Basic Tie Rod and Profile cylinders



Dimensions (mm)

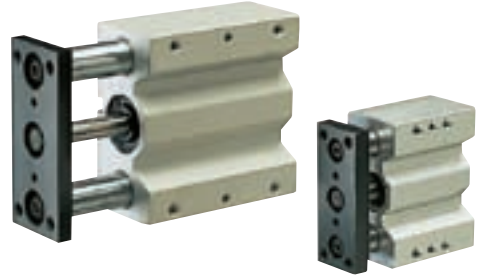
Bore Size	MM Ø	KK*	AM* +0/-2	ØB e11	WH	VD	VE	ZJ	VA	PJ	X	Y	KV3 A/F	KW2
160	40	M36x2	72	65	80	7	52	260	5	132	0	104	55	14
200	40	M36x2	72	75	95	7	60	275	5	132	0	119	55	14

Bore Size	EE	DD	KV1 A/F	BG min	KV2 A/F	KW	E	TG
160	G ³ / ₄	M16	30	24	36	16	179	140
200	G ³ / ₄	M16	30	24	36	16	216	175

Bore Size	Weight (kg)	
	0mm stroke	5mm stroke
160	11,71	0,114
200	15,45	0,126

* To ISO 6431

P5T cylinders are a modern and versatile range of cylinders with integral guides. The cylinders are double-acting, with end stop cushioning for quiet and vibration free operation. The strong guide shafts make it possible to adsorb considerable thrust forces and torque.



- Complete cylinder function with integral guidance
- Stainless steel guide rods
- Wide range of standard strokes, diameter 16-100 mm
- Flexible porting as standard
- Magnetic piston as standard with drop-in sensor technology
- End stop cushions as standard

Operating information

Working pressure Max 10 bar
 Working temperature -20 °C to +80 °C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For technical information see CD

Double acting - Plain bearing and top & rear connections

Ø16mm - (M5)

Stroke.mm	Order code
10	P5T-C016DGSN010
25	P5T-C016DGSN025
40	P5T-C016DGSN040
50	P5T-C016DGSN050
75	P5T-C016DGSN075
100	P5T-C016DGSN100

Ø20mm - (G1/8)

Stroke.mm	Order code
25	P5T-C020DGSN025
40	P5T-C020DGSN040
50	P5T-C020DGSN050
75	P5T-C020DGSN075
100	P5T-C020DGSN100
125	P5T-C020DGSN125
150	P5T-C020DGSN150

Ø25mm - (G1/8)

Stroke.mm	Order code
25	P5T-C025DGSN025
50	P5T-C025DGSN050
75	P5T-C025DGSN075
100	P5T-C025DGSN100
125	P5T-C025DGSN125
150	P5T-C025DGSN150

Ø32mm - (G1/8)

Stroke.mm	Order code
25	P5T-C032DGSN025
50	P5T-C032DGSN050
75	P5T-C032DGSN075
100	P5T-C032DGSN100
125	P5T-C032DGSN125
150	P5T-C032DGSN150
175	P5T-C032DGSN175
200	P5T-C032DGSN200

Ø40mm - (G1/8)

Stroke.mm	Order code
25	P5T-C040DGSN025
50	P5T-C040DGSN050
75	P5T-C040DGSN075
100	P5T-C040DGSN100
125	P5T-C040DGSN125
150	P5T-C040DGSN150
175	P5T-C040DGSN175
200	P5T-C040DGSN200

Ø50mm - (G1/4)

Stroke.mm	Order code
25	P5T-C050DGSN025
50	P5T-C050DGSN050
75	P5T-C050DGSN075
100	P5T-C050DGSN100
125	P5T-C050DGSN125
150	P5T-C050DGSN150
175	P5T-C050DGSN175
200	P5T-C050DGSN200

Ø63mm - (G1/4)

Stroke.mm	Order code
25	P5T-C063DGSN025
50	P5T-C063DGSN050
75	P5T-C063DGSN075
100	P5T-C063DGSN100
125	P5T-C063DGSN125
150	P5T-C063DGSN150
175	P5T-C063DGSN175
200	P5T-C063DGSN200

Ø80mm - (G3/8)

Stroke.mm	Order code
25	P5T-C080DGSN025
50	P5T-C080DGSN050
75	P5T-C080DGSN075
100	P5T-C080DGSN100
125	P5T-C080DGSN125
150	P5T-C080DGSN150
175	P5T-C080DGSN175
200	P5T-C080DGSN200

Ø100mm - (G3/8)

Stroke.mm	Order code
25	P5T-C100DGSN025
50	P5T-C100DGSN050
75	P5T-C100DGSN075
100	P5T-C100DGSN100
125	P5T-C100DGSN125
150	P5T-C100DGSN150
175	P5T-C100DGSN175
200	P5T-C100DGSN200

Sensors



For sensors see page 96.

Indicates stocked product.

Design Variants

In addition to the standard designs, a number of variants of the P5T range are available to special order, to provide effective solutions in a large number of applications.

- Cylinders with special strokes
- Cylinders with two fixing plates
- Cylinders with adjustable stops, with cushioning
- High-temperature cylinders for the temperature range of -10°C to +150°C (not magnetic piston).

Special design for food industry applications

There is a special version of the P5T for food industry applications and other installation cases where high corrosion resistance and hygiene are required. This version has steel parts and other components in either stainless steel or special treated aluminium. Please contact Customer Service for more information.

Plain bearing or recirculating ball bearings

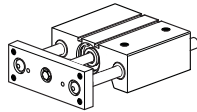
The P5T is supplied with plain bearings as standard. This type of bearing has guide rods of greater diameter, providing excellent support for heavy loads, especially static loads. Plain bearings are highly tolerant of vibration and dirt, and are suitable for regular cleaning.

Recirculating ball bearings are used for applications which require high precision and low friction.

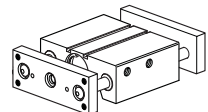
The choice should be based on the following factors:

Application requirements	Plain bearing	Recirculating ball bearings
Precision	Good	Excellent
Friction	Higher	Low
Coefficient of friction	Variable	Constant
Precision during service life	Variable	Constant
Static load capacity	Excellent	Good
Dynamic load capacity	Good, but with friction losses	Good
Vibration tolerance	Excellent	Average
Dirt tolerance	Excellent	Poor
Washing tolerance	Excellent	Poor

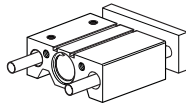
Double acting, connections on top.



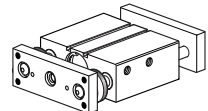
Double acting with two fixing plates, side connections are recommended.



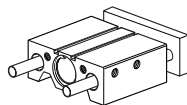
Double acting, connections at rear.



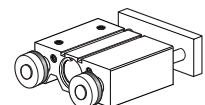
Double acting with two fixing plates and adjustable end stops with cushioning, side connections are recommended.



Double acting, connections on side.



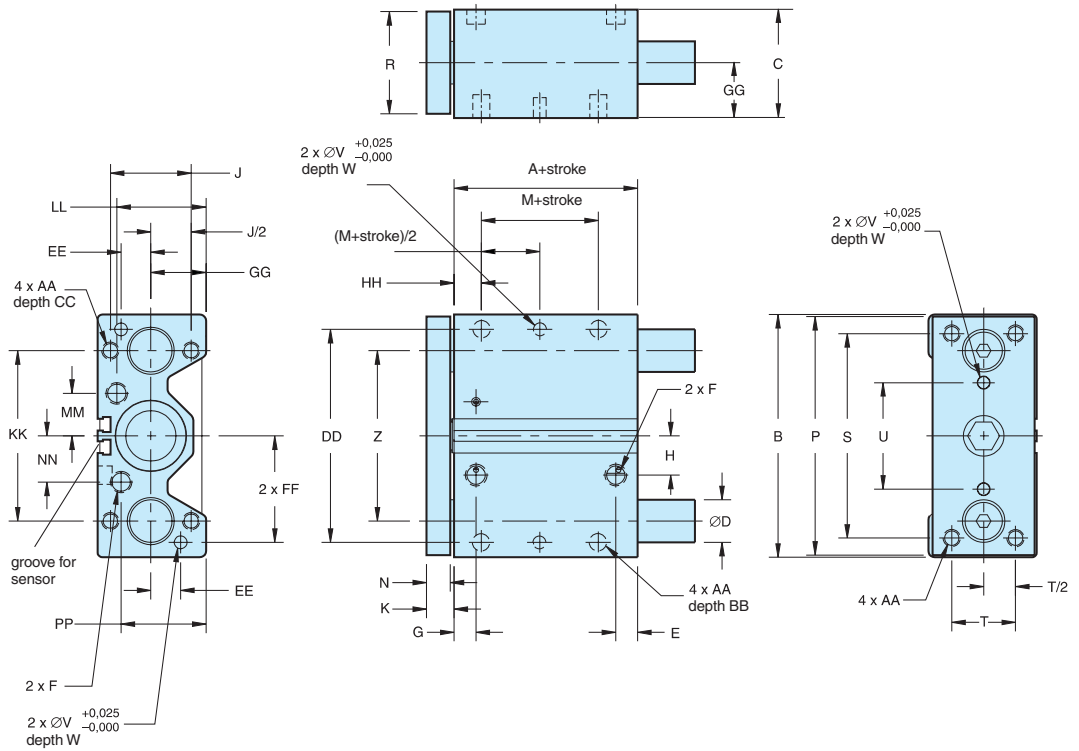
Double acting with one fixing plate adjustable end stops with cushioning, connections on side, on top or at rear.



Dimensions, P5T basic cylinder

Connection option **D**

(connection from above or rear)



Cylinder diam. mm	A mm	B mm	C mm	D1*) mm	D2*) mm	E mm	F mm	G mm	H mm	J mm	K mm	M mm	N mm	P mm	R mm	S mm	T mm	U mm	V mm
16	37,8	64	31	8	10	10,1	M5	10,1	7	22	9,9	7	7,9	62	25,4	52	16	20	3
20	35	74	36	10	12	19	G1/8	10	15,8	26	9,9	10	7,9	72	31,8	60	18	30	4
25	38	88	42	12	16	21	G1/8	11,4	15,5	32	9,9	10	7,9	86	38	70	26	34	4
32	36	114	51	16	20	10,3	G1/8	10,4	18,4	38	13,1	5	11,1	112	44,5	96	30	50	6
40	44	124	51	16	20	12,1	G1/8	14,9	22,5	38	13,1	10	11,1	122	44	106	30	60	6
50	44,9	140	62	20	25	14,5	G1/4	16,1	27	44	14,7	10	12,7	138	57	120	40	60	8
63	50,1	150	75	20	25	16,4	G1/4	14,5	33	44	14,7	10	12,7	148	70	130	50	72	8
80	59,5	188	95	25	30	17,5	G3/8	19	37	56	18	15	16	185	88,9	160	60	92	10
100	66**)	224	115	30	35	21,9**)	G3/8	23	40	62	18	15	16	221	108	190	80	114	10

Cylinder diam. mm	W mm	Z mm	AA	BB mm	CC mm	DD mm	EE mm	FF mm	GG mm	HH mm	KK mm	LL mm	MM mm	NN mm	PP mm	Piston rod ∅ mm
16	6	42	M5x0,8	7,5	10	54	8	27	15	13,1	42	22,5	11,3	9,7	23	8
20	6	52	M5x0,8	7,5	10	64	10	32	17	13,1	52	26	15,4	15,4	26	10
25	6	62	M6x1,0	10	12	76	11	38	21	14,1	62	33,4	17	17	33,4	10
32	6	80	M8x1,25	11	16	100	14	50	26	12,9	80	42	20	21,7	38	16
40	6	90	M8x1,25	11	16	110	14	55	26	13,9	90	41	24	26,4	37,9	16
50	8	100	M10x1,5	12	20	124	16	62	30	14,3	100	51	29	33	44	20
63	8	110	M10x1,5	15	20	132	18	66	36,5	16,3	110	62	36	37,8	57,8	20
80	10	140	M12x1,75	18	24	166	22	83	46,5	21	140	78	45	48	75,5	25
100	10	170	M14x2,0	21	28	200	24	100	56,5	25	170	91,5	53	51	95,5	25

Length tolerance ± 1 mm

Stroke tolerance $+ 1.5/0$ mm

**) Stroke 25 mm, A=75 mm, E=28 mm

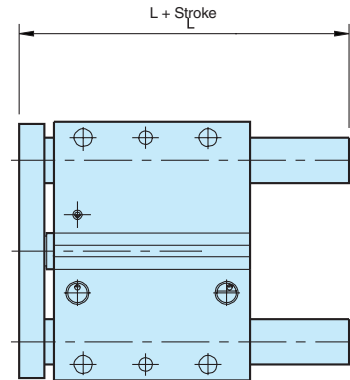
*) D1 = bearing rod diameter for recirculating ball bearing

*) D2 = bearing rod diameter for plain bearing

Dimensions, P5T basic cylinder

Standard lengths

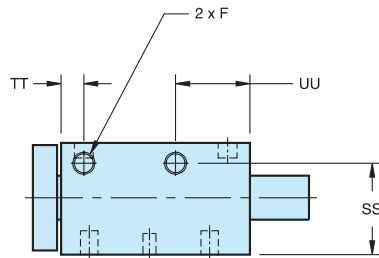
Cylinder diam mm	Stroke mm	L mm
16	10	36,2
	25, 40, 50, 75	60,2
	100	75,2
20	25, 40, 50, 75	66,9
	100, 125	91,9
25	25, 50, 75, 100	69,9
	125, 150	91,9
32	25, 50, 75, 100	77,9
	125, 150, 175, 200	116,0
40	25, 50, 75, 100	77,9
	125, 150, 175, 200	116,0
50	25, 50, 75, 100	84,0
	125, 150, 175, 200	124,1
63	25, 50, 75, 100	84,0
	125, 150, 175, 200	124,1
80	25, 50, 75, 100	101,8
	125, 150, 175, 200	140,0
100	25	122,8
	50, 75, 100	120,3
	125, 150, 175, 200	158,4



Dimensions, P5T basic cylinder

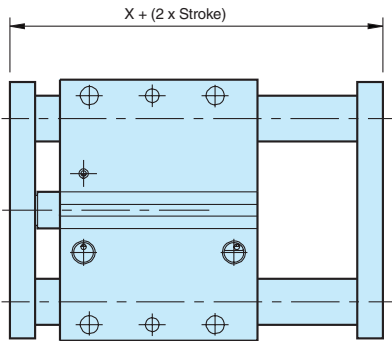
Connection option **S** (side connections)

Cylinder diam. mm	SS mm	TT mm	UU mm	F
16	24,1	10	20	M5
20	29,2	10	20	M5
25	35,2	11,4	25	M5
32	41,7	10,4	34	G1/8
40	41,7	14,9	34	G1/8
50	51,3	16,1	38	G1/4
63	60,7	15,6	41,8	G1/4
80	75,5	19	47	G3/8
100	83,7	23	53,3	G3/8



Dimensions, P5T basic cylinder

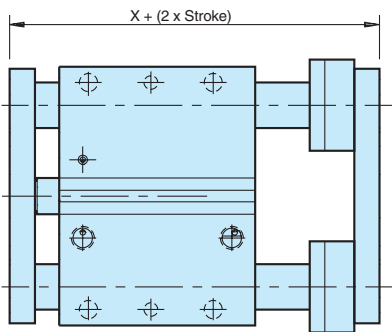
Option D



Please note that load capacity increases with two fixing plates, due to greater bearing distance.

Dimensions, P5T with two fixing plates and adjustable end stop with cushioning

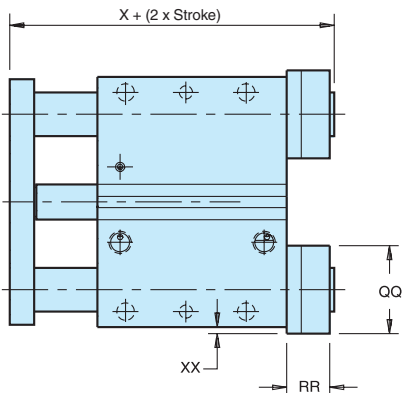
Option A



Cylinder diam. mm	Guide rod dia. mm	X for option			QQ mm	RR mm	XX mm
		D mm	A mm	E mm			
16	8	57,6	70,6	62,7	18,0	13,0	0
	10	57,6	70,6	62,7	24,0	13,0	1
20	10	54,9	67,9	59,9	24,0	13,0	1
	12	54,9	72,6	64,6	28,0	17,7	3
25	12	57,8	75,5	67,6	28,0	17,7	1
	16	57,8	77,5	69,6	34,0	19,7	4
32	16	62,2	81,9	70,8	34,0	19,7	0
	20	62,2	83,9	72,8	41,4	21,7	3,7
40	16	70,2	89,9	78,8	34,0	19,7	0
	20	70,2	91,9	80,8	41,4	21,7	3,7
50	20	74,3	96,0	83,3	41,4	21,7	0,7
	25	74,3	96,0	83,3	50,8	21,7	5,4
63	20	79,5	101,2	88,5	41,4	21,7	0,7
	25	79,5	101,2	88,5	50,8	21,7	5,4
80	25	95,5	117,2	101,2	50,8	21,7	1,4
	30	95,5	117,2	101,2	60,5	21,7	6,3
100	30	102,0	123,7	107,7	60,5	21,7	3,3
	35	102,0	123,7	107,7	65,0	21,7	5,5

Dimensions, P5T with adjustable end stop with cushioning

Option E



Global Sensors

Drop-in sensors

The completely new "drop-in" P1D sensors can easily be installed from the side in the sensor groove, at any position along the piston stroke. The sensors are completely recessed and thus mechanically protected. Choose between electronic or reed sensors and several cable lengths and 8 mm and M12 connectors.

The same standard sensors are used for all P1D versions, i.e. even for P1D Clean with the patent applied system of integrated sensors. Please note that the sensors with 8 mm and M12 connector should have cable lengths 1 m for P1D Clean to allow flexible positioning of the sensors, including longer stroke lengths. There is a double jointed adapter for the tie-rod version, which offers simple and flexible use of standard sensors.





Electronic sensors

The new electronic sensors are "Solid State", i.e. they have no moving parts at all. They are provided with short-circuit protection and transient protection as standard. The built-in electronics make the sensors suitable for applications with high on and off switching frequency, and where very long service life is required.

Reed sensors

The sensors are based on proven reed switches, which offer reliable function in many applications. Simple installation, a protected position on the cylinder and clear LED indication are important advantages of this range of sensors.

Ordering data

Output/function	Cable/connector	Weight kg	Order code
Electronic sensors , 10-30 V AC/DC			
PNP type, normally open	0,27 m PUR-cable and 8 mm snap-in male connector ¹⁾	0,007	P8S-GPSHX
PNP type, normally open	1,0 m PUR-cable and 8 mm snap-in male connector	0,013	P8S-GPSCX
PNP type, normally open	1,0 m PUR-cable and M8 screw male connector	0,013	P8S-GPCCX
PNP type, normally open	0,27 m PUR-cable and M12 screw male connector ¹⁾	0,015	P8S-GPMHX
PNP type, normally open	3 m PVC-cable without connector	0,030	P8S-GPFLX
PNP type, normally open	10 m PVC-cable without connector	0,110	P8S-GPFTX
Electronic sensors , 18-30 V DC			
ATEX Certified	CE Ex II3G EEx nA II T4X CE Ex II3D 135°C IP67	 	
PNP type, normally open	3 m PVC-cable without connector	0,030	P8S-GPFLX/EX
Reed sensors , 10-30 V AC/DC			
Normally open	0,27 m PUR-cable and 8 mm snap-in male connector ¹⁾	0,007	P8S-GSSHX
Normally open	1,0 m PUR-cable and 8 mm snap-in male connector	0,013	P8S-GSSCX
Normally open	1,0 m PUR-cable and M8 male connector	0,013	P8S-GSCCX
Normally open	0,27 m PUR-cable and M12 screw male connector ¹⁾	0,015	P8S-GSMHX
Normally open	1,0 m PUR-cable and M12 screw male connector	0,023	P8S-GSMCX
Normally open	3 m PVC-cable without connector	0,030	P8S-GSFLX
Normally open	10 m PVC-cable without connector	0,110	P8S-GSFTX
Normally closed	5m PVC-cable without connector ²⁾	0,050	P8S-GCFPX
Reed sensors, 10-120 V AC/DC			
Normally open	3 m PVC-cable without connector	0,030	P8S-GRFLX
Reed sensors, 24-230 V AC/DC			
Normally open	3 m PVC-cable without connector ²⁾	0,030	P8S-GRFLX2

1) Not in combination with P1D Clean (too short cable)

2) Without LED


Adapter for Tie-Rod cylinders

Description	Weight kg	Order code
Double jointed adapter for cylinder P1D-T cylinder bore Ø32 to Ø125 mm and P1E-T diameter 160 – 200 mm	0,07	P8S-TMA0X



Sensor mounting

Description	Weight kg	Order code
Suitable for P1A and P1S diameter 10 - 25 mm	0,07	P8S-TMC01
Suitable for P1S diameter 32 - 63 mm	0,07	P8S-TMC02
Suitable for P1S diameter 80 - 125 mm	0,07	P8S-TMC03

 Indicates stocked product.

Global Sensors

Connecting cables with one connector

The cables have an integral snap-in female connector.



Type of cable	Cable length/connector	Weight kg	Order code
Cables for sensors, complete with female connector			
Cable, Flex PVC	3 m, 8 mm round connector	0,07	9126344341
Cable, Flex PVC	10 m, 8 mm round connector	0,21	9126344342
Cable, Super Flex PVC	3 m, 8 mm round connector	0,07	9126344343
Cable, Super Flex PVC	10 m, 8 mm round connector	0,21	9126344344
Cable, Polyuretan	3 m, 8 mm round connector	0,01	9126344345
Cable, Polyuretan	10 m, 8 mm round connector	0,20	9126344346
Cable, Polyuretan	3 m, M12 connector	0,07	9126344348
Cable, Polyuretan	10 m, M12 connector	0,20	9126344349

Cable connectors



Connector	Weight kg	Order code
M8 connector	0,017	P8CS0803J
M12 connector	0,022	P8CS1204J

Ready to use connecting cables with connectors at each end

As accessories the system comprises a large number of different cables in order to meet all requirements that may arise and to make the installation simple, fast and reliable.

Cables with moulded 8 mm snap-in round contacts in both ends. The cables are available in two types, one with a straight male and female connectors respectively, and one with a straight 3-pole male connector in one end and an angled 3-pole female connector in the other end.



Technical data

Contacts

Moulded 8 mm snap-in male/female contacts.

Enclosure IP67

Cable

Conductor 3x0,25 mm² (32x0,10 mm²)

Sheath PVC/PUR

Colour Black

Cables with straight 3-pole male and female connectors respectively.

Cables with a straight 3-pole male connector in one end and an angled 3-pole female connector in the other end.

Designation	Weight kg	Order code	Designation	Weight kg	Order code
Cable with straight contacts, 0,2 m	0,02	9121717014	Cable + straight and angled connectors, 0,2 m	0,02	9121717022
Cable with straight contacts, 0,3 m	0,02	9121717015	Cable + straight and angled connectors, 0,3 m	0,02	9121717023
Cable with straight contacts, 0,5 m	0,03	9121717016	Cable + straight and angled connectors, 0,5 m	0,03	9121717024
Cable with straight contacts, 1,0 m	0,03	9121717017	Cable + straight and angled connectors, 1,0 m	0,03	9121717025
Cable with straight contacts, 2,0 m	0,05	9121717018	Cable + straight and angled connectors, 2,0 m	0,05	9121717026
Cable with straight contacts, 3,0 m	0,07	9121717019	Cable + straight and angled connectors, 3,0 m	0,07	9121717027
Cable with straight contacts, 5,0 m	0,12	9121717020	Cable + straight and angled connectors, 5,0 m	0,12	9121717028
Cable with straight contacts, 10 m	0,23	9121717021	Cable + straight and angled connectors, 10 m	0,23	9121717029

 Indicates stocked product.