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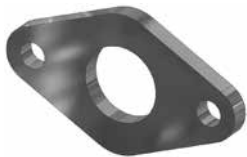
Mountings

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Cylinder mountings

Type	Description	Cyl. bore Ø mm	Weight kg	Order code
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Flange-MF8



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

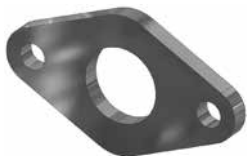
Material:
Surface-treated steel

10
12-16
20-25

0,012
0,025
0,045

P1A-4CMB
P1A-4DMB
P1A-4HMB

Stainless Flange-MF8



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

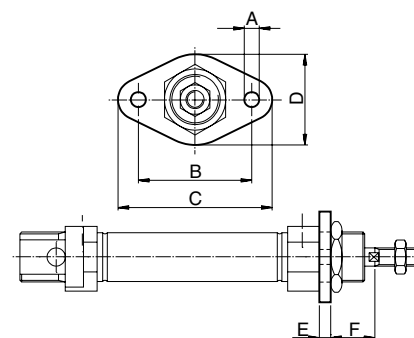
Material:
Stainless steel, DIN X 10 CrNiS 18 9

10
12-16
20-25

0,012
0,025
0,045

P1S-4CMB
P1S-4DMB
P1S-4HMB

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



Foot-MS3



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

Material:
Surface-treated steel

10
12-16
20-25

0,020
0,040
0,080

P1A-4CMF
P1A-4DMF
P1A-4HMF

Stainless Foot-MS3



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

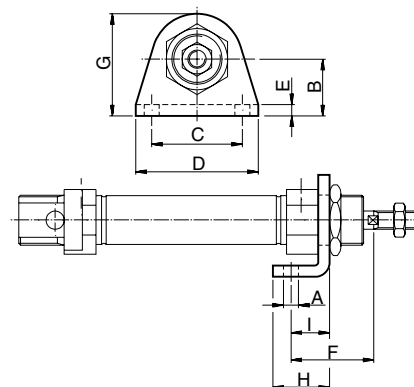
Material:
Stainless steel, DIN X 10 CrNiS 18 9

10
12-16
20-25

0,020
0,040
0,080

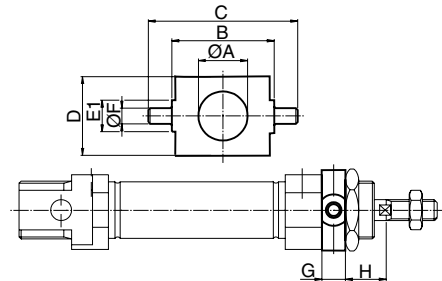
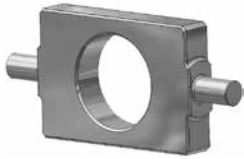
P1S-4CMF
P1S-4DMF
P1S-4HMF

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



Cylinder mountings

Type	Description	Cyl. bore Ø mm	Weight kg	Order code
Cover trunnion	Intended for articulated mounting of the cylinder. The flange is designed for mounting on the front or rear end covers. Material: Surface-treated steel	10 12-16 20-25	0,014 0,033 0,037	P1A-4CMJZ P1A-4DMJZ P1A-4HMJZ



Cylinder Ø mm	A mm	B h14 mm	C mm	D mm	E1 mm	F e9 mm	G mm	H mm
10	12,5	26	38	20	9	4	6	10
12-16	16,5	38	58	25	13	6	8	14
20	22,5	46	66	30	13	6	8	16
25	22,5	46	66	30	13	6	8	20

Stainless Cover trunnion

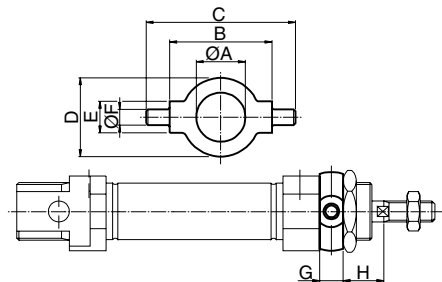
Intended for articulated mounting of the cylinder. The flange is designed for mounting on the front or rear end covers.

10
12-16
20-25

0,014
0,033
0,037

P1A-4CMJ
P1A-4DMJ
P1A-4HMJ

Material:
Stainless steel, DIN X 10 CrNiS 18 9



Cylinder Ø mm	A mm	B h14 mm	C mm	D mm	E mm	F e9 mm	G mm	H mm
10	12,5	26	38	20	8	4	6	10
12-16	16,5	38	58	25	10	6	8	14
20	22,5	46	66	30	10	6	8	16
25	22,5	46	66	30	10	6	8	20

Stainless Neck nut MR3

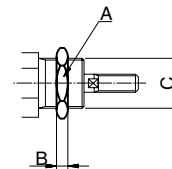
Intended for fixed mounting of the cylinder.
Cylinders are supplied complete with one mounting nut.

10
12-16
20-25

0,009
0,018
0,042

9126725405
9126725406
9126725407

Material:
Stainless steel, DIN X 5 CrNi 18 10



Cylinder Ø mm	A mm	B mm	C
10	17	5	M12x1,25
12-16	24	8	M16x1,50
20-25	27	5	M22x1,50

Cylinder mountings

Type	Description	Cyl. bore Ø mm	Weight kg	Order code
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Clevis bracket AB3



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

10	0,020
12-16	0,040
20-25	0,080

P1A-4CMT
P1A-4DMT
P1A-4HMT

Material:
Bracket: surface-treated steel, black
Pin: surface hardened steel
Circlips: according to DIN 471: Stainless steel

Stainless Clevis bracket AB3



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

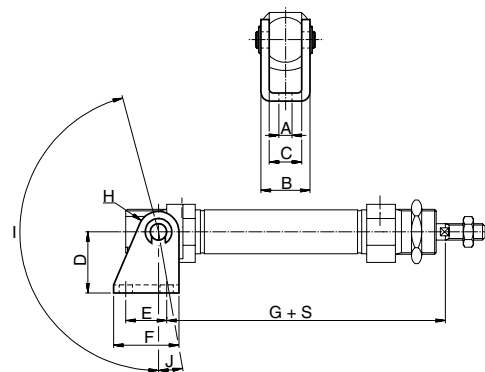
10	0,020
12-16	0,040
20-25	0,080

P1S-4CMT
P1S-4DMT
P1S-4HMT

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 °	J °
10	4,5	13	8	24	12,5	20	65,3	5	160	17
12	5,5	18	12	27	15,0	25	73,0	7	170	15
16	5,5	18	12	27	15,0	25	80,0	7	170	15
20	6,5	24	16	30	20,0	32	91,0	10	165	10
25	6,5	24	16	30	20,0	32	100,0	10	165	10

S=stroke



Clevis AP2



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

10	0,007
12-16	0,022
20	0,045
25	0,095

P1A-4CRC
P1A-4DRC
P1A-4HRC
P1A-4JRC

Material:
Galvanized steel

Stainless Clevis AP2



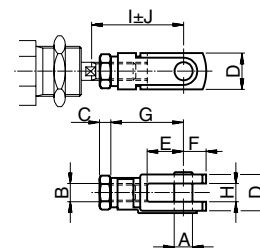
According to ISO 8140
Intended for articulated mounting of the cylinder. This mounting is adjustable in the axial direction. Supplied complete with pin.

10	0,007
12-16	0,022
20	0,045
25	0,095



P1S-4CRD
P1S-4DRD
P1S-4HRD
P1S-4JRD

Material:
Stainless steel, DIN X 5 CrNi 18 10

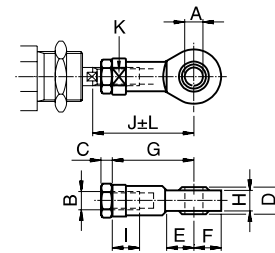
Cylinder Ø mm	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm
10	4	M4	2,2	8	8	5	16	4	22,0	2,0
12-16	6	M6	3,2	12	12	7	24	6	31,0	3,0
20	8	M8	4,0	16	16	10	32	8	40,5	3,5
25	10	M10x1,25	5,0	20	20	12	40	10	49,0	3,0




Cylinder mountings

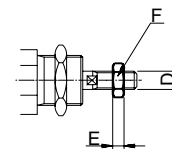
Type	Description	Cyl. bore Ø mm	Weight kg	Order code
 <p>Swivel rod eye AP6</p>	According to ISO 8139 Intended for articulated mounting of the cylinder. This mounting is adjustable in the axial direction. Material: Swivel rod eye: Galvanized steel Ball: hardened steel	10	0,017	P1A-4CRS P1A-4DRS P1A-4HRS P1A-4JRS
		12-16	0,025	
		20	0,045	
		25	0,085	
 <p>Stainless Swivel rod eye AP6</p>	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	10	0,017	P1S-4CRT P1S-4DRT P1S-4HRT P1S-4JRT
		12-16	0,025	
		20	0,045	
		25	0,085	

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
10	5	M4	2,2	8	10	9	27	6,0	8	33,0	9	2,0
12-16	6	M6	3,2	9	10	10	30	6,8	9	38,5	11	1,5
20	8	M8	4,0	12	12	12	36	9,0	12	46,0	14	2,0
25	10	M10x1,25	5,0	14	14	14	43	10,5	15	52,5	17	2,5



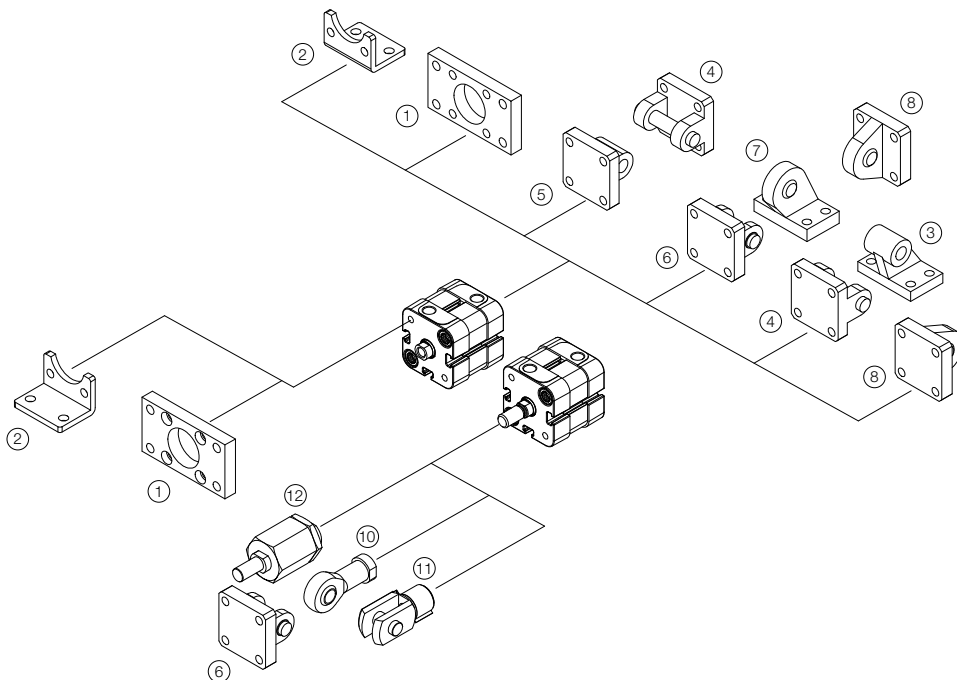
 <p>Stainless Rod nut MR9</p>	Intended for fixed mounting on the piston rod. Cylinders are supplied complete with one rod nut. (cylinders with through piston rod are supplied with two rod nuts.) Material: Stainless steel, DIN X 5 CrNi 18 10	10	0,001	9127385121 9127385122 9127385123 9126725404
		12-16	0,002	
		20	0,005	
		25	0,007	

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



Compact ISO Cylinders - P1P Series

	Flange MF1 / MF2 ¹	Foot brackets MS1 ²	Pivot bracket with rigid bearing AB7 ³	Clevis bracket MP2 ⁴	Clevis bracket MP4 ⁵
Ø 20	P1P-4HMB	P1P-4HMF			P1P-4HME
Ø 25	P1P-4JMB	P1P-4JMF			P1P-4JME
Ø 32	P1C-4KMB	P1C-4KMF	P1C-4KMD	P1C-4KMT	P1C-4KME
Ø 40	P1C-4LMB	P1C-4LMF	P1C-4LMD	P1C-4LMT	P1C-4LME
Ø 50	P1C-4MMB	P1C-4MMF	P1C-4MMD	P1C-4MMT	P1C-4MME
Ø 63	P1C-4NMB	P1C-4NMF	P1C-4NMD	P1C-4NMT	P1C-4NME
Ø 80	P1C-4PMB	P1C-4PMF	P1C-4PMD	P1C-4PMT	P1C-4PME
Ø 100	P1C-4QMB	P1C-4QMF	P1C-4QMD	P1C-4QMT	P1C-4QME
	Clevis bracket AB6 ⁶	Pivot bracket with swivel bearing AB5 ⁷	Swivel eye bracket MP6 ⁸	3 and 4 positions flange	Swivel rod eye AP6 ¹⁰
Ø 20					P1A-4HRS
Ø 25					P1A-4HRS
Ø 32	P1C-4KMCA	P1C-4KMA	P1C-4KMSA	P1E-6KB0	P1C-4KRS
Ø 40	P1C-4LMCA	P1C-4LMA	P1C-4LMSA	P1E-6LB0	P1C-4KRS
Ø 50	P1C-4MMCA	P1C-4MMA	P1C-4MMSA	P1E-6MB0	P1C-4LRS
Ø 63	P1C-4NMCA	P1C-4NMA	P1C-4NMSA	P1E-6NB0	P1C-4LRS
Ø 80	P1C-4PMCA	P1C-4PMA	P1C-4PMSA	P1E-6PB0	P1C-4MRS
Ø 100	P1C-4QMCA	P1C-4QMA	P1C-4QMSA	P1E-6QB0	P1C-4MRS
	Clevis ¹¹ AP2	Flexo coupling ¹² PM5	Nut MR9 (Pack of 10 off)		
Ø 20	P1A-4HRC	P1C-4HRF	P14-4HRPZ		
Ø 25	P1A-4HRC	P1C-4HRF	P14-4HRPZ		
Ø 32	P1C-4KRC	P1C-4KRF	P14-4KRPZ		
Ø 40	P1C-4KRC	P1C-4KRF	P14-4KRPZ		
Ø 50	P1C-4LRC	P1C-4LRF	P14-4LRPZ		
Ø 63	P1C-4LRC	P1C-4LRF	P14-4LRPZ		
Ø 80	P1C-4MRC	P1C-4MRF	P14-4MRPZ		
Ø 100	P1C-4MRC	P1C-4MRF	P14-4MRPZ		



Cylinder mountings

Flange MF1/MF2



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

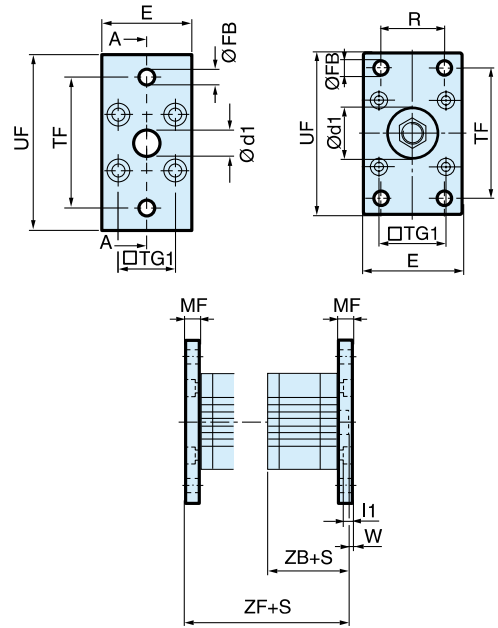
Materials
 Flange: Surface-treated steel
 Mounting screws according to DIN 6912: Zinc-plated steel 8.8

Supplied complete with mounting screws for attachment to cylinder.

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
20	12,0	6,6	22,0	36	-	10,0	55,0	70	5,4	4,0	53,0	43,0
25	12,0	6,6	26,0	40	-	10,0	60,0	76	5,4	4,0	55,0	45,0
32	30,0	7,0	32,5	45	32	10,0	64,0	80	5,0	3,0	61,0	41,0
40	35,0	9,0	38,0	52	36	10,0	72,0	90	5,0	3,0	52,0	52,0
50	40,0	9,0	46,5	65	45	12,0	90,0	110	6,5	4,0	65,0	53,0
63	45,0	9,0	56,5	75	50	12,0	100,0	120	6,5	4,0	69,0	57,0
80	45,0	12,0	72,0	95	63	16,0	126,0	150	8,0	6,0	80,0	64,0
100	55,0	14,0	89,0	115	75	16,0	150,0	170	8,0	6,0	93,0	77,0

S = Stroke length

Cyl. bore Ø mm	Weight kg	Order code
20	0,17	P1P-4HMB
25	0,20	P1P-4JMB
32	0,23	P1C-4KMB
40	0,28	P1C-4LMB
50	0,53	P1C-4MMB
63	0,71	P1C-4NMB
80	1,59	P1C-4PMB
100	2,19	P1C-4QMB



Foot brackets MS1



Intended for fixed mounting of cylinder. Angle bracket can be fitted to front- and rear end-plates of cylinder.

Materials
 Foot bracket: Surface-treated steel
 Mounting screws according to DIN 912: Zinc-plated steel 8.8

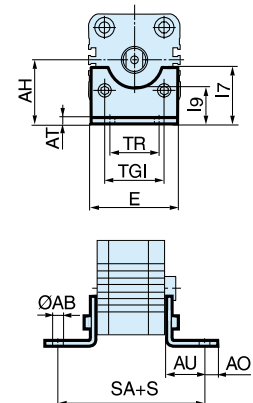
Supplied in pairs with mounting screws for attachment to cylinder.

Cyl. bore Ø mm	Weight kg	Order code
20	0,04**	P1P-4HMF
25	0,05**	P1P-4JMF
32	0,06**	P1C-4KMF
40	0,08**	P1C-4LMF
50	0,16**	P1C-4MMF
63	0,25**	P1C-4NMF*
80	0,50**	P1C-4PMF
100	0,85**	P1C-4QMF*

** Weight per item

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
20	6,6	22,0	36	26	6,0	16,0	27	22,0	4,0	17,0	69,0
25	6,6	26,0	40	26	6,0	16,0	30	23,0	4,0	19,0	71,0
32	7,0	32,5	45	32	10,0	24,0	32	30,0	4,5	17,5	92,0
40	9,0	38,0	52	36	8,0	28,0	36	30,0	4,5	18,5	101,0
50	9,0	46,5	65	45	13,0	32,0	45	36,0	5,5	25,0	109,0
63	9,0	56,5	75	50	13,0	32,0	50	35,0	5,5	27,5	113,0
80	12,0	72,0	95	63	14,0	41,0	63	49,0	6,5	40,5	136,0
100	14,0	89,0	115	75	15,0	41,0	71	54,0	6,5	43,5	149,0

S = Stroke length



Cylinder mountings

Pivot bracket with rigid bearing AB7

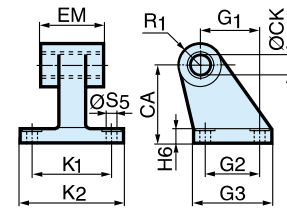


Intended for flexible mounting of cylinder. The pivot bracket can be combined with clevis bracket MP2.

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

Cyl. bore Ø mm	Weight kg	Order code
32	0,06	P1C-4KMD
40	0,08	P1C-4LMD
50	0,15	P1C-4MMD
63	0,20	P1C-4NMD
80	0,33	P1C-4PMD
100	0,49	P1C-4QMD

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



Clevis bracket MP2



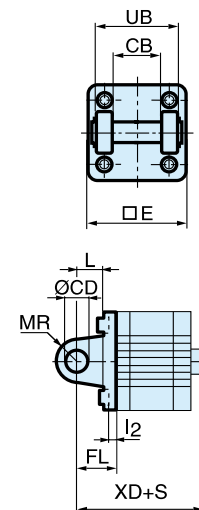
Intended for flexible mounting of cylinder. Clevis bracket MP2 can be combined with clevis bracket MP4.

Materials
 Clevis bracket: Surface-treated aluminium, black
 Mounting screws according to DIN 912:
 Zinc-plated steel 8.8
 Pin: surface treated steel

Supplied complete with mounting screws for attachment to cylinder.

Cyl. bore Ø mm	Weight kg	Order code
32	0,08	P1C-4KMT
40	0,11	P1C-4LMT
50	0,14	P1C-4MMT
63	0,29	P1C-4NMT
80	0,36	P1C-4PMT
100	0,64	P1C-4QMT

Cyl. bore mm	E mm	UB h14 mm	CB H14 mm	FL ±0,2 mm	L mm	l2 mm	CD H9 mm	MR mm	XD* mm
32	45,0	45	26,0	22	13	5,5	10	10	73,0
40	52,0	52	28,0	25	16	5,5	12	12	77,0
50	65,0	60	32,0	27	16	6,5	12	12	80,0
63	75,0	70	40,0	32	21	6,5	16	16	89,0
80	95,0	90	50,0	36	22	10,0	16	16	100,0
100	115,0	110	60,0	41	27	10,0	20	20	118,0



S = Stroke length

Cylinder mountings

Clevis bracket MP4

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



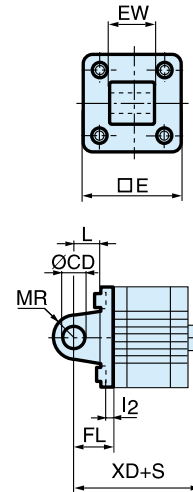
Materials
 Clevis bracket: Surface-treated aluminium, black
 Mounting screws according to DIN 912: Zinc-plated steel 8.8

Supplied complete with mounting screws for attachment to cylinder.

Cyl. bore mm	E mm	EW mm	FL mm	L mm	I2 mm	CD mm	MR mm	XD* mm
20	34,0	16,0	±0,2 20	14	2,6	8	8	63,0
25	38,0	16,0	20	14	2,6	8	8	65,0
32	45,0	26,0	22	13	5,5	10	10	73,0
40	52,0	28,0	25	16	5,5	12	12	77,0
50	65,0	32,0	27	16	6,5	12	12	80,0
63	75,0	40,0	32	21	6,5	16	16	89,0
80	95,0	50,0	36	22	10,0	16	16	100,0
100	115,0	60,0	41	27	10,0	20	20	118,0

S = Stroke length

Cyl. bore Ø mm	Weight kg	Order code
20	0,04	P1P-4HME
25	0,05	P1P-4JME
32	0,09	P1C-4KME
40	0,13	P1C-4LME
50	0,17	P1C-4MME
63	0,36	P1C-4NME
80	0,46	P1C-4PME
100	0,83	P1C-4QME



Clevis bracket AB6

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.



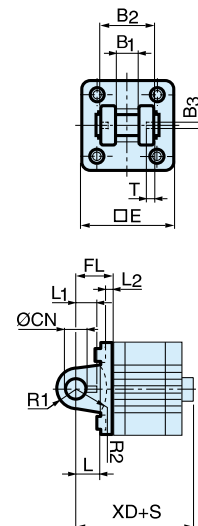
Materials
 Clevis bracket: Surface-treated aluminium, black
 Pin: Surface hardened steel
 Locking pin: Spring steel
 Circlips according to DIN 471: Spring steel
 Mounting screws acc. to DIN 912: Zinc-plated steel 8.8

Supplied complete with mounting screws for attachment to cylinder.

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
32	45	34	14	3	3,3	17	11,5	±0,2 22	5,5	12	10	11	73,0
40	52	40	16	4	4,3	20	12,0	25	5,5	15	12	13	77,0
50	65	45	21	4	4,3	22	14,0	27	6,5	17	16	18	80,0
63	75	51	21	4	4,3	25	14,0	32	6,5	20	16	18	89,0
80	95	65	25	4	4,3	30	16,0	36	10,0	20	20	22	100,0
100	115	75	25	4	4,3	32	16,0	41	10,0	25	20	22	118,0

S = Stroke length

Cyl. bore Ø mm	Weight kg	Order code
32	0,09	P1C-4KMCA
40	0,13	P1C-4LMCA
50	0,17	P1C-4MMCA
63	0,36	P1C-4NMCA
80	0,58	P1C-4PMCA
100	0,89	P1C-4QMCA



Stainless steel Pin Set AB6

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

Cyl. bore Ø mm	Weight kg	Order code
32	0,05	9301054311
40	0,06	9301054312
50	0,07	9301054313
63	0,07	9301054314
80	0,17	9301054315
100	0,31	9301054316

Cylinder mountings

Pivot bracket with swivel bearing AB5

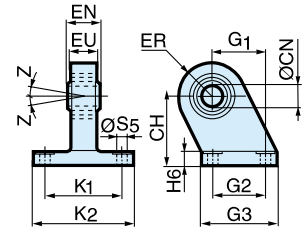
Intended for use together with clevis bracket GA.

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



Cyl. bore Ø mm	Weight kg	Order code
32	0,18	P1C-4KMA
40	0,25	P1C-4LMA
50	0,47	P1C-4MMA
63	0,57	P1C-4NMA
80	1,05	P1C-4PMA
100	1,42	P1C-4QMA

Cyl. bore mm	CN mm	S5 mm	K1 mm	K2 mm	EU mm	G1 mm	G2 mm	EN mm	G3 mm	CH mm	H6 mm	ER mm	Z °
32	10	6,6	38	51	10,5	21	18	14	31	32	10	16	4°
40	12	6,6	41	54	12,0	24	22	16	35	36	10	18	4°
50	16	9,0	50	65	15,0	33	30	21	45	45	12	21	4°
63	16	9,0	52	67	15,0	37	35	21	50	50	12	23	4°
80	20	11,0	66	86	18,0	47	40	25	60	63	14	28	4°
100	20	11,0	76	96	18,0	55	50	25	70	71	15	30	4°



Swivel eye bracket MP6

Intended for use together with clevis bracket GA

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

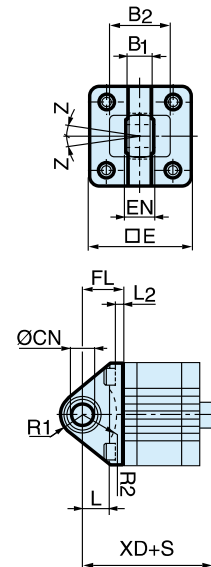


Supplied complete with mounting screws for attachment to cylinder.

Cyl. bore Ø mm	Weight kg	Order code
32	0,08	P1C-4KMSA
40	0,11	P1C-4LMSA
50	0,20	P1C-4MMSA
63	0,27	P1C-4NMSA
80	0,52	P1C-4PMSA
100	0,72	P1C-4QMSA

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 °
32	45	10,5	38	14	16	14	22	5,5	12	10	73,0	4°
40	52	12,0	44	16	18	16	25	5,5	15	12	77,0	4°
50	65	15,0	51	21	21	19	27	6,5	15	16	80,0	4°
63	75	15,0	56	21	23	22	32	6,5	20	16	89,0	4°
80	95	18,0	-	25	29	-	36	10,0	20	20	100,0	4°
100	115	18,0	-	25	31	-	41	10,0	25	20	118,0	4°

S=Stroke length



Cylinder mountings

3 and 4 positions flange

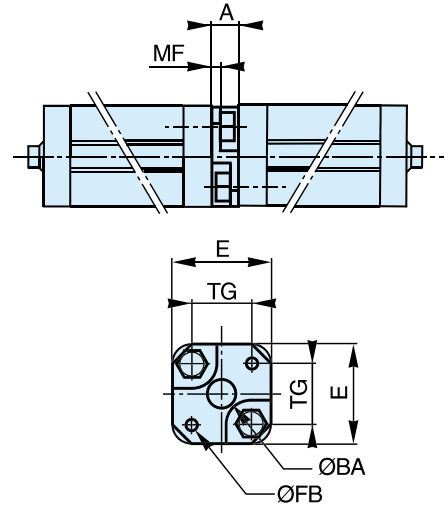


Mounting kit for back to back mounted cylinders, 3 and 4 position cylinders.

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

Cyl. bore Ø mm	Weight kg	Order code
32	0,060	P1E-6KB0
40	0,078	P1E-6LB0
50	0,162	P1E-6MB0
63	0,194	P1E-6NB0
80	0,450	P1E-6PB0
100	0,672	P1E-6QB0

Cyl. bore mm	E mm	TG mm	ØFB mm	MF mm	A mm	ØBA mm
32	50	32,5	6,5	5	16	30
40	60	38,0	6,5	5	16	35
50	66	46,5	8,5	6	20	40
63	80	56,5	8,5	6	20	45
80	100	72,0	10,5	8	25	45
100	118	89,0	10,5	8	25	55



Piston rod mountings

Swivel rod eye AP6



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

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

Stainless steel swivel rod eye AP6



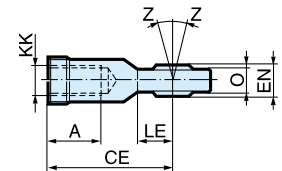
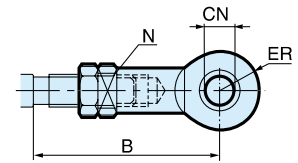
Stainless-steel swivel rod eye for articulated mounting of cylinder. Swivel rod eye can be combined with clevis bracket GA. Maintenance-free.

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

Use stainless steel nut with stainless steel swivel rod eye.

Cyl. bore Ø mm	Weight kg	Order code
20 / 25	0,045	P1A-4HRS
32 / 40	0,08	P1C-4KRS
50 / 63	0,12	P1C-4LRS
80 / 100	0,25	P1C-4MRS

Cyl. bore Ø mm	Weight kg	Order code
20 / 25	0,045	P1S-4HRT
32 / 40	0,08	P1S-4JRT
50 / 63	0,12	P1S-4LRT
80 / 100	0,25	P1S-4MRT



According to ISO 8139

Cyl. bore 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
20 / 25	12	40,0	45	36	8	12	12	M8x1,25	12	13	9,0	12°
32 / 40	20	48,0	55	43	10	14	14	M10x1,25	15	17	10,5	12°
50 / 63	22	56,0	62	50	12	16	16	M12x1,25	17	19	12,0	12°
80 / 100	28	72,0	80	64	16	21	21	M16x1,5	22	22	15,0	15°

Clevis AP2



Clevis for articulated mounting of cylinder.

Material
 Clevis, clip: Galvanized steel
 Pin: Hardened steel

Cyl. bore Ø mm	Weight kg	Order code
20 / 25	0,045	P1A-4HRC
32 / 40	0,09	P1C-4KRC
50 / 63	0,15	P1C-4LRC
80 / 100	0,35	P1C-4MRC

Stainless steel clevis AP2

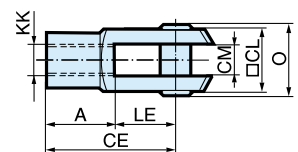
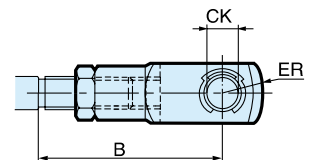


Stainless-steel clevis for articulated mounting of cylinder.

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

Use stainless steel nut with stainless steel swivel rod eye.

Cyl. bore Ø mm	Weight kg	Order code
20 / 25	0,045	P1S-4HRD
32 / 40	0,09	P1S-4JRD
50 / 63	0,15	P1S-4LRD
80 / 100	0,35	P1S-4MRD



According to ISO 8140

Cyl. bore 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
20 / 25	16	36,0	41	32	8	16	8	-	M8x1,25	16	24,0
32 / 40	20	45,0	52	40	10	20	10	16	M10x1,25	20	28,0
50 / 63	24	54,0	60	48	12	24	12	19	M12x1,25	24	32,0
80 / 100	32	72,0	80	64	16	32	16	25	M16x1,5	32	41,5

Piston rod mountings

Flexo coupling PM5



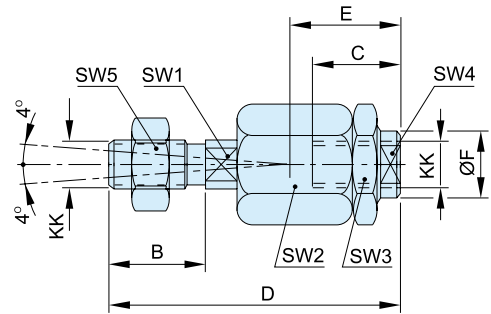
Flexo coupling for articulated mounting of piston rod. Flexo fitting is intended to take up axial angle errors within a range of $\pm 4^\circ$.

Material
Flexo coupling, nut: Zinc-plated steel

Supplied complete with galvanized adjustment nut.

Cyl. bore Ø mm	Weight kg	Order code
20 / 25	0,06	P1C-4JRF
32 / 40	0,23	P1C-4KRF
50 / 63	0,23	P1C-4LRF
80 / 100	0,65	P1C-4MRF

Cyl. bore mm	KK mm	B mm	C mm	D mm	E mm	ØF mm	SW1 mm	SW2 mm	SW3 mm	SW4 mm	SW5 mm
20 / 25	M8x1.25	16	14	55	20	12.4	7	17	17	10	13
32 / 40	M10x1.25	20	23	73	31	21	12	30	30	19	17
50 / 63	M12x1.5	24	23	77	31	21	12	30	30	19	19
80 / 100	M16x1.5	32	32	108	45	33.5	19	41	41	30	24



Nut MR9



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.

Supplied as pack of 10 off

Cyl. bore Ø mm	Weight * kg	Order code
20 / 25	0,005	P14-4HRPZ
32 / 40	0,007	P14-4KRPZ
50 / 63	0,021	P14-4LRPZ
80 / 100	0,040	P14-4MRPZ

* Weight per item

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.

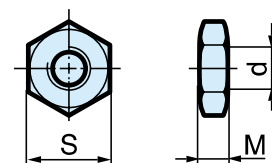
Supplied as pack of 10 off

Cyl. bore Ø mm	Weight * kg	Order code
20 / 25	0,005	P14-4HRPS
32 / 40	0,007	P14-4KRPS
50 / 63	0,021	P14-4LRPS
80 / 100	0,040	P14-4MRPS

* Weight per item

According to DIN 439 B

Cyl. bore mm	d mm	M mm	S mm
20 / 25	M8x1,25		
32 / 40	M10x1,25	5,0	17
50 / 63	M12x1,25	6,0	19
80 / 100	M16x1,5	10,0	30



Mountings

Flange MF1/MF2 * ①



Foot brackets MS1** ②



Pivot bracket with rigid bearing AB7 ③



Swivel eye bracket MP6 ④



Clevis bracket MP2 ⑤



Ø32	P1C-4KMB	P1F-4KMHF	P1C-4KMDB	P1C-4KMSB	P1C-4KMTB
Ø40	P1C-4LMB	P1F-4LMHF	P1C-4LMDB	P1C-4LMSB	P1C-4LMTB
Ø50	P1C-4MMB	P1F-4MMHF	P1C-4MMDB	P1C-4MMSB	P1C-4MMTB
Ø63	P1C-4NMB	P1F-4NMHF	P1C-4NMDB	P1C-4NMSB	P1C-4NMTB
Ø80	P1C-4PMB	P1F-4PMHF	P1C-4PMDB	P1C-4PMSB	P1C-4PMTB
Ø100	P1C-4QMB	P1F-4QMHF	P1C-4QMDB	P1C-4QMSB	P1C-4QMTB

Clevis bracket MP4 ⑥



Clevis bracket AB6 ⑦



Pivot bracket with swivel bearing CS7 ⑧



3 and 4 position flange JP1 ⑨



Pivot brackets AT4 ⑩



Ø32	P1C-4KMEB	P1C-4KMxCB	P1C-4KMAF	P1E-6KB0	9301054261
Ø40	P1C-4LMEB	P1C-4LMxCB	P1C-4LMAF	P1E-6LB0	9301054262
Ø50	P1C-4MMEB	P1C-4MMxCB	P1C-4MMAF	P1E-6MB0	9301054262
Ø63	P1C-4NMEB	P1C-4NMxCB	P1C-4NMAF	P1E-6NB0	9301054264
Ø80	P1C-4PMEB	P1C-4PMxCB	P1C-4PMAF	P1E-6PB0	9301054264
Ø100	P1C-4QMEB	P1C-4QMxCB	P1C-4QMAF	P1E-6QB0	9301054266

Flange trunnion MT5/MT6 * ⑪



Intermediate trunnion MT4 ⑫



Ø32	P1D-4KMYF	refer to page 34
Ø40	P1D-4LMYF	refer to page 34
Ø50	P1D-4MMYF	refer to page 34
Ø63	P1D-4NMYF	refer to page 34
Ø80	P1D-4PMYF	refer to page 34
Ø100	P1D-4QMYF	refer to page 34

* only on rear end cap, ** specific to Twin Rods cylinders

Seal Kits


Complete seal kits consisting of:

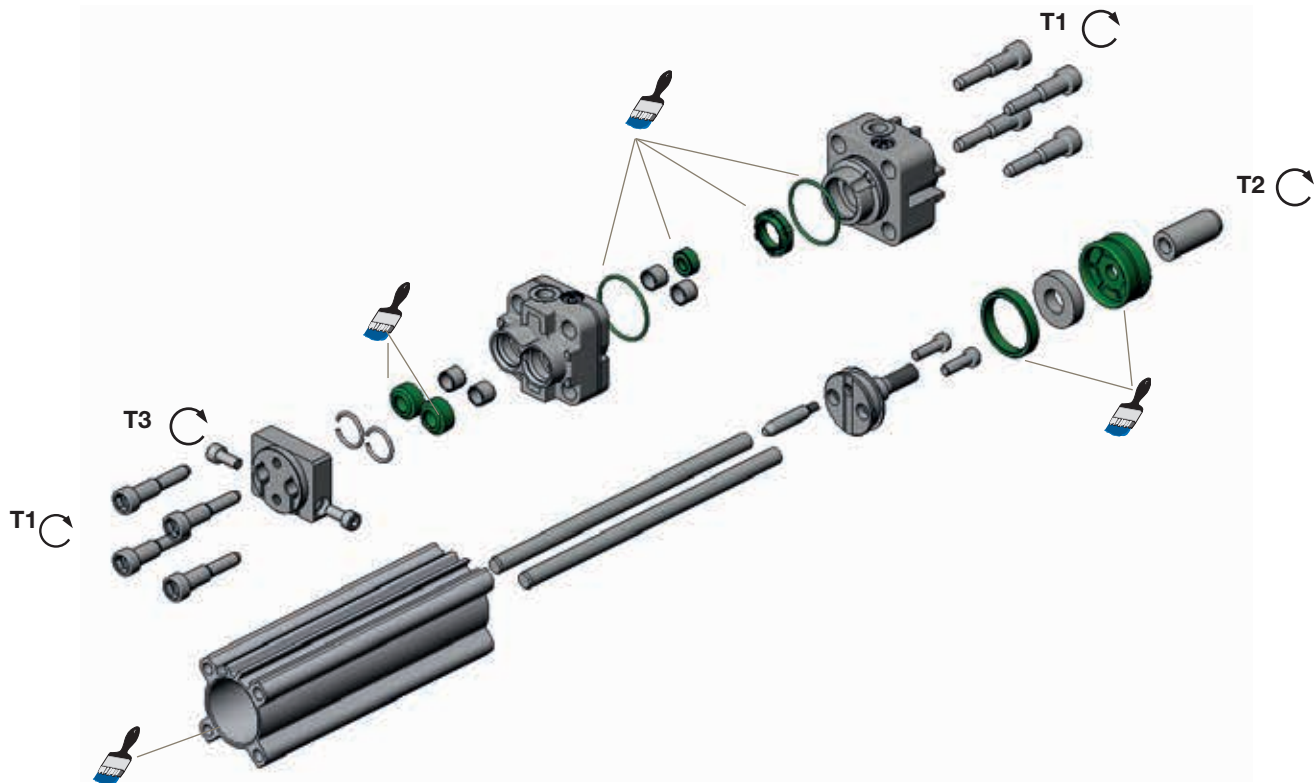
- 1 piston seal.
- 2 cushioning seals.
- 2 wiper / piston rod seals.
- 2 O-Rings.
- 1 piston bearing ring.

Cyl.-bore [mm]	Standard temperature ¹⁾	High temperature ¹⁾
Ø32	P1F-6032RNR	P1F-6032RFR
Ø40	P1F-6040RNR	P1F-6040RFR
Ø50	P1F-6050RNR	P1F-6050RFR
Ø63	P1F-6063RNR	P1F-6063RFR
Ø80	P1F-6080RNR	P1F-6080RFR
Ø100	P1F-6100RNR	P1F-6100RFR

¹⁾ for through piston Twin Rods, add K at the end, ie P1F-6032RNRK

Grease

	Standard temperature
	High temperature
	4 g
	KL8220



Cyl.-bore [mm]	Piston T1 [Nm]	AF [mm]	T2 [Nm]	AF [mm]	T3 [Nm]	AF [mm]
Ø32	10 - 12	8	5-6	5	5.5 ± 0.8	4
Ø40	10 - 12	8	12-14	6	5.5 ± 0.8	4
Ø50	16 - 20	10	16-18	10	10 ± 1.5	5
Ø63	16 - 20	10	16-18	10	20 ± 3	6
Ø80	26 - 32	12	20-23	12	20 ± 3	6
Ø100	26 - 32	12	20-23	12	20 ± 3	6



= Included in seal kit



= Socket head across flats



= Tightening torque



Lubricated with grease



Locking fluid
 Loctite 638 locking fluid must be used

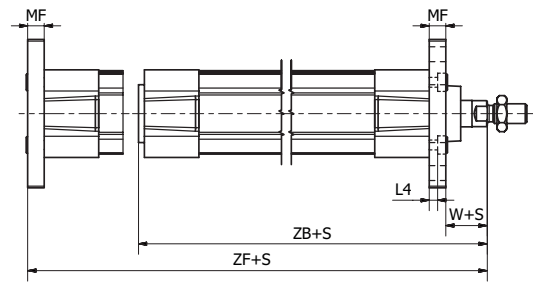
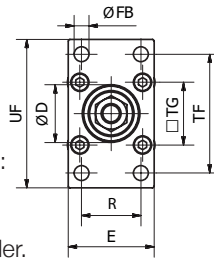
Flange - MF1 / MF2**



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

Materials:

Flange: Surface-treated steel
 Mounting screws acc. to DIN 6912:
 Zinc-plated steel 8.8
 Supplied complete with mounting screws for attachment to the cylinder.



According to ISO 15552

Cyl.-bore	D _(H11)	E	ØFB _(H13)	L4	MF	R	TF	TG	UF	W*	ZB*	ZF*	Weight	Order code
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	
Ø32	30	45	7	5.0	10	32	64	32.5	80	16	123.5	130	0.21	P1C-4KMB
Ø40	35	52	9	5.0	10	36	72	38.0	90	20	138.5	145	0.27	P1C-4LMB
Ø50	40	65	9	6.5	12	45	90	46.5	110	25	146.5	155	0.53	P1C-4MMB
Ø63	45	75	9	6.5	12	50	100	56.5	120	25	161.5	170	0.66	P1C-4NMB
Ø80	45	95	12	9.0	16	63	126	72.0	150	30	177.5	190	1.45	P1C-4PMB
Ø100	55	115	14	9.0	16	75	150	89.0	170	35	192.5	205	1.60	P1C-4QMB
Ø125	60	140	16	10.5	20	90	180	110.0	205	45	230.5	245	3.34	P1C-4RMB

*Does not apply to cylinders with piston rod extension, lock units and Twin Rods, see page 38.

** only on rear end cap Twin Rods cylinders.

Foot Bracket - MS1

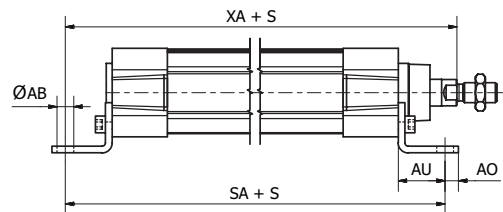
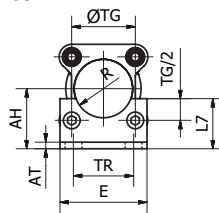


Intended for fixed mounting of cylinder. Foot bracket can be fitted to front or rear end cover of the cylinder.

Materials:

Flange: Surface-treated steel
 Mounting screws acc. to DIN 6912:
 Zinc-plated steel 8.8:

Supplied complete with mounting screws for attachment to the cylinder.



According to ISO 15552

Cyl.-bore	ØAB _(H14)	AH _(JS15)	AO	AT	AU	E	L7	R	SA*	TG _(JS14)	TR	XA*	Weight **	Order code
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	P1F-R/Q
Ø32	7	32	11/8	4	24	45/47	30/27	15	142	32.5	32	144	0.077	P1C-4KMF P1F-4KMHF
Ø40	10	36	8/10	4	28	52/53	30	17.5	161	38.0	36	163	0.084	P1C-4LMF P1F-4LMHF
Ø50	10	45	15/10	5	32	65	36/38	20	170	46.5	45	175/172	0.181	P1C-4MMF P1F-4MMHF
Ø63	10	50	13/10	5	32	75	35/40	22.5	185	56.5	50	190/189	0.204	P1C-4NMF P1F-4NMHF
Ø80	12	63	14/10	6	41	95	47/51	22.5	210	72.0	63	215/207	0.400	P1C-4PMF P1F-4PMHF
Ø100	14.5	71	16/15	6	41	115	53/51	27.5	220	89.0	75	230/217	0.539	P1C-4QMF P1F-4QMHF
Ø125	16.5	90	25	8	45	140	70	30	250	110.0	90	270	1.103	P1C-4RMF -

*Does not apply to cylinders with piston rod extension, lock units and Twin Rods, see page 38.

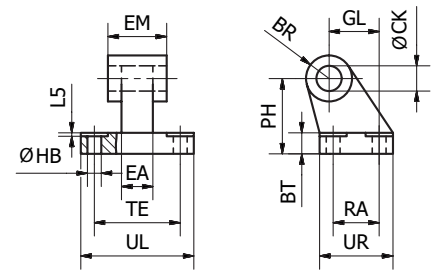
** per bracket

Pivot Bracket with Rigid Bearing - AB7



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

Materials:
Pivot bracket: Aluminium (no surface treatment)
Bush: Steel and PTFE



According to ISO 15552

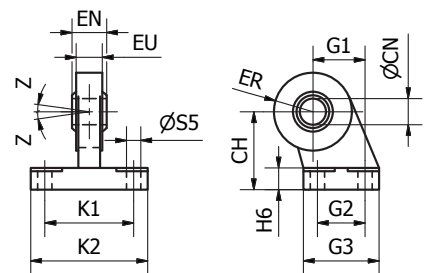
Cyl.-bore	CK	HB	L5	TE	UL	GL	RA	EA	EM	UR	PH	BT	BR	Weight	Order code
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	
Ø32	10	6.6	1.6	38	51	21	18	10	26	31	32	8	10.0	0.05	P1C-4KMDB
Ø40	12	6.6	1.6	41	54	24	22	15	28	35	36	10	11.0	0.09	P1C-4LMDB
Ø50	12	9.0	1.6	50	65	33	30	16	32	45	45	12	13.0	0.16	P1C-4MMDB
Ø63	16	9.0	1.6	52	67	37	35	16	40	50	50	14	15.0	0.20	P1C-4NMDB
Ø80	16	11.0	2.5	66	86	47	40	20	50	60	63	14	15.0	0.32	P1C-4PMDB
Ø100	20	11.0	2.5	76	96	55	50	20	60	70	71	17	19.0	0.53	P1C-4QMDB
Ø125	25	14.0	3.2	94	124	70	60	30	70	90	90	20	22.5	1.01	P1C-4RMDB

Pivot Bracket with Swivel Bearing - CS7



Intended for use together with clevis bracket AB6.

Materials:
Pivot bracket: Steel
(Surface-treated steel)
Swivel bearing acc. to DIN 648K:
Hardened steel



According to ISO 15552

Cyl.-bore	CN	S5	K1	K2	EU	G1	G2	EN	G3	CH	H6	ER	Z	Weight	Order code
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	
Ø32	10	6.6	38	51	10.5	21	18	14	31	32	10	15	4°	0.18	P1C-4KMAF
Ø40	12	6.6	41	54	12.0	24	22	16	35	36	10	18	4°	0.27	P1C-4LMAF
Ø50	16	9.0	50	65	15.0	33	30	21	45	45	12	20	4°	0.46	P1C-4MMAF
Ø63	16	9.0	52	67	15.0	37	35	21	50	50	12	23	4°	0.55	P1C-4NMAF
Ø80	20	11.0	66	86	18.0	47	40	25	60	63	14	27	4°	0.97	P1C-4PMAF
Ø100	20	11.0	76	96	18.0	55	50	25	70	71	15	30	4°	1.33	P1C-4QMAF
Ø125	30	13.5	94	124	25.0	70	60	37	90	90	20	40	4°	3.00	P1C-4RMAF

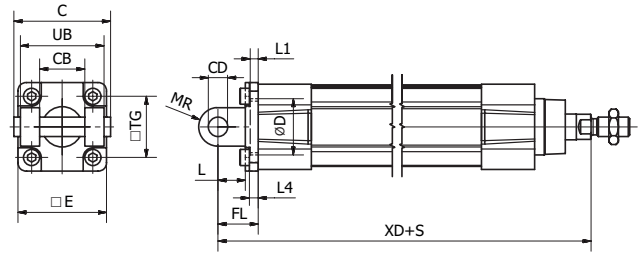
Clevis Bracket - MP2



Intended for flexible mounting of cylinder.
Can be combined with clevis bracket MP4 and pivot bracket with rigid bearing AB7.

Materials:

Clevis bracket: Aluminium (no surface treatment)
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 the cylinder.

According to ISO 15552

Cyl.-bore	C	E	UB	CB	TG	FL	L1	L	L4	D	CD	MR	XD*	Weight	Order code
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	
Ø32	53	45	45	26	32.5	22	5	13	5.5	30	10	10	142	0.08	P1C-4KMTB
Ø40	60	52	52	28	38	25	5	16	5.5	35	12	12	160	0.10	P1C-4LMTB
Ø50	68	65	60	32	46.5	27	5	16	6.5	40	12	12	170	0.18	P1C-4MMTB
Ø63	78	75	70	40	56.5	32	5	21	6.5	45	16	16	190	0.24	P1C-4NMTB
Ø80	98	95	90	50	72	36	5	22	10	45	16	16	210	0.49	P1C-4PMTB
Ø100	118	115	110	60	89	41	5	27	10	55	20	20	230	0.73	P1C-4QMTB
Ø125	139	140	130	70	110	50	7	30	10	60	25	25	275	1.37	P1C-4RMTB

*Does not apply to cylinders with piston rod extension, lock units and Twin Rods, see page 38.

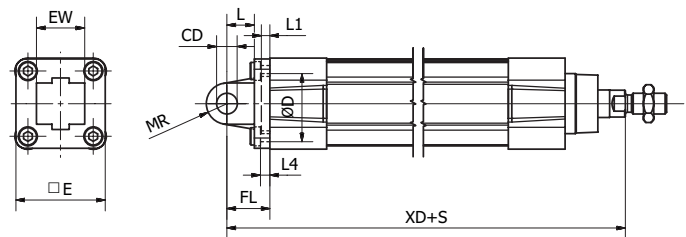
Clevis Bracket - MP4



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

Materials:

Clevis bracket: Aluminium (no surface treatment)
Bush: Steel and PTFE
Mounting screws acc. to DIN 912: Zinc-plated steel 8.8



Supplied complete with mounting screws for attachment to the cylinder.

According to ISO 15552

Cyl.-bore	CD	D	E	EW	FL	L	L1	L4	MR	TG	XD*	Weight	Order code
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	
Ø32	10	30	47	26	22	12	6.5	6	10.5	32.5	142	0.08	P1C-4KMEB
Ø40	12	35	52	28	25	16	5	5.5	12	38	160	0.11	P1C-4LMEB
Ø50	12	40	65	32	27	16	5	6.5	12	46.5	170	0.18	P1C-4MMEB
Ø63	16	45	78	40	32	21	5	6.5	16	56.5	190	0.28	P1C-4NMEB
Ø80	16	45	95	50	36	22	5	10	16	72	210	0.52	P1C-4PMEB
Ø100	20	55	115	60	41	27	5	10	20	89	230	0.79	P1C-4QMEB
Ø125	25	60	140	70	50	30	7	10	25	110	275	1.46	P1C-4RMEB

*Does not apply to cylinders with piston rod extension, lock units and Twin Rods, see page 38.

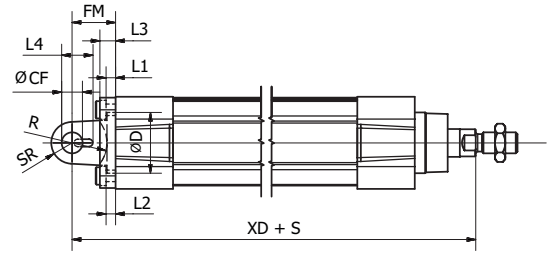
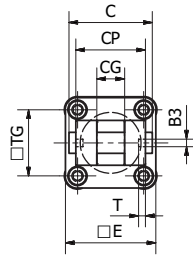
Clevis Bracket - AB6



Intended for flexible mounting of cylinder. Clevis bracket AB6 can be combined with pivot brackets MP6 and CS7 or swivel rod eye AP6.

Materials:

- Clevis bracket: Aluminium (no surface treatment)
- 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 the cylinder.



According to ISO 15552

Cyl-bore	B3	C	CF	CG	CP	D	E	FM	I2	T	R	L1	L4	L3	SR	TG	XD*	Weight	Order code
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	
Ø32	3.3	41	10	14	34	30	45	22	5.5	3	17	5	16.5	9	10	32.5	142	0.04	P1C-4KMCB
Ø40	4.3	48	12	16	40	35	52	25	5.5	4	20	5	18	9	12	38	160	0.07	P1C-4LMCB
Ø50	4.3	54	16	21	45	40	65	27	6.5	4	22	5	22	11	14	46.5	170	0.11	P1C-4MMCB
Ø63	4.3	60	16	21	51	45	75	32	6.5	4	25	5	22	11	18	56.5	190	0.19	P1C-4NMCB
Ø80	4.3	75	20	25	65	45	95	36	10.0	4	30	5	26	14	20	72	210	0.38	P1C-4PMCB
Ø100	6.3	85	20	25	75	55	115	41	10.0	4	32	5	26	14	22	89	230	0.61	P1C-4QMCB
Ø125	6.3	110	30	37	97	60	140	50	10.0	6	42	7	39	20	25	110	275	1.10	P1C-4RMCB

*Does not apply to cylinders with piston rod extension, lock units and Twin Rods, see page 38.

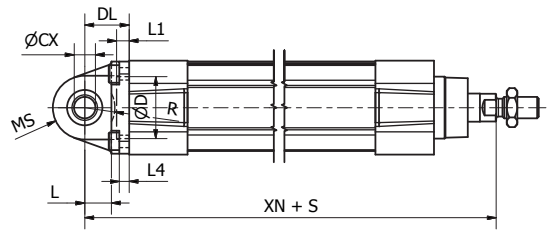
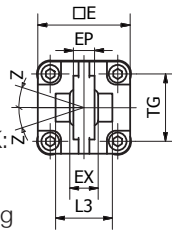
Swivel Eye Bracket - MP6



Intended for use together with clevis bracket AB6.

Materials:

- Bracket: Aluminium (no surface treatment)
- Swivel bearing acc. to DIN 648K: Hardened steel
- Supplied complete with mounting screws for attachment to cylinder.

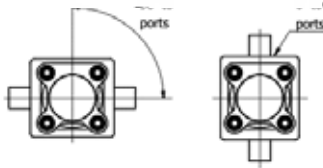
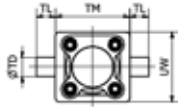


According to ISO 15552

Cyl.-bore	CX	D	DL	E	EP	EX	L	L1	L3	L4	MS	R	TG	XN*	Z	Weight	Order code
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[kg]	
Ø32	10	30	22	45	10.5	14	12	7	-	5.5	16	-	32.5	142	4°	0.09	P1C-4KMSB
Ø40	12	35	25	52	12	16	15	7	-	5.5	18	-	38	160	4°	0.13	P1C-4LMSB
Ø50	16	40	27	65	15	21	15	7	51	6.5	21	19	46.5	170	4°	0.24	P1C-4MMSB
Ø63	16	45	32	75	15	21	20	7	-	6.5	23	-	56.5	190	4°	0.29	P1C-4NMSB
Ø80	20	45	36	95	18	25	20	9	74	10	28	24	72	210	4°	0.59	P1C-4PMSB
Ø100	20	55	41	115	18	25	25	9	140	10	30	32	89	230	4°	0.78	P1C-4QMSB
Ø125	30	60	50	140	25	37	30	9	-	10	40	-	110	275	4°	1.38	P1C-4RMSB

*Does not apply to cylinders with piston rod extension, lock units and Twin Rods, see page 38.

Intermediate Trunnion - MT4

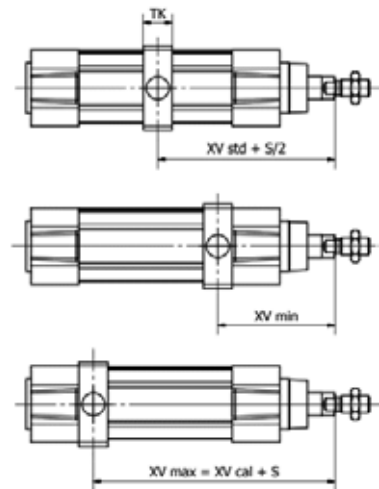


Available for P1F Profile and Tie-Rods versions the MT4 centre trunnion when combined with AT4 pivot brackets is intended for articulated mounting of the cylinder. The trunnion is free so that it can be fixed afterward when the cylinder is at the right place on the machine.

Material: Zinc plated steel

Refer to the model code page 16 for ordering cylinder with trunnion.

Important note: the rear end cylinder cover needs to be removed for adding the trunnion when ordered as a single kit.



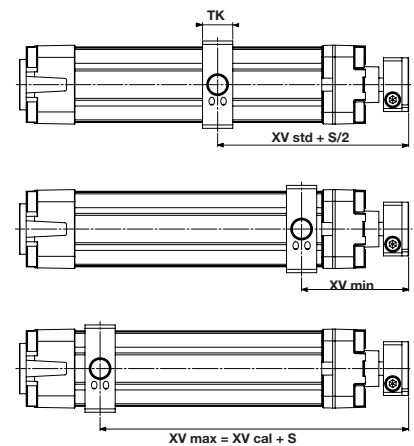
According to ISO 15552					P1F-S/K				P1F-T/N				P1F-L	P1F-H	T1	Order Code		
Cyl. bore	TL _{h14}	TM _{h14}	ØTD _{e9}	XV* _{std}	TK	UW	XV* _{min}	XV* _{cal}	TK	UW	XV* _{min}	XV* _{cal}	Adder to XV		max.	3	Smooth Profile	Tie-Rods
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]				
Ø32	12	50	12	73	18	52	65	81	15	46	63	83	32	48	1,5	3	P1F-4KMY	P1F-4KMYT
Ø40	16	63	16	83	20	60	74	91	20	59	74	91	30	55			P1F-4LMY	P1F-4LMYT
Ø50	16	75	16	90	20	71	82	98	20	69	82	98	29	70			P1F-4MMY	P1F-4MMYT
Ø63	20	90	20	98	26	84	91	104	25	84	90	105	39	70			P1F-4NMY	P1F-4NMYT
Ø80	20	110	20	110	26	105	100	120	25	102	99	121	45	90			P1F-4PMY	P1F-4PMYT
Ø100	25	132	25	120	32	129	113	127	30	125	112	128	57	92	8	3	P1F-4QMY	P1F-4QMYT
Ø125	25	160	25	145	33	154	134	156	33	155	134	156	56	122			P1F-4RMY	P1F-4RMYT

*Does not apply to cylinders with piston rod extension, lock units and Twin Rods.
Add to XV_{std}, XV_{min}, XV_{cal} the „adder to XV“.

Twin Rods Cylinders

According to ISO 15552					P1F-R/Q				Order Code
Cyl. bore	TL _{h14}	TM _{h14}	ØTD _{e9}	XV* _{std}	TK	UW	XV* _{min}	XV* _{cal}	
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
Ø32	12	50	12	73	18	52	62	81	P1F-4KMY
Ø40	16	63	16	83	20	60	71	97	P1F-4LMY
Ø50	16	75	16	87	20	71	79	100	P1F-4MMY
Ø63	20	90	20	97	26	84	84	113	P1F-4NMY
Ø80	20	110	20	102	26	105	91	118	P1F-4PMY
Ø100	25	132	25	107	32	129	95	124	P1F-4QMY

*Does not apply to cylinders with piston rod extension.



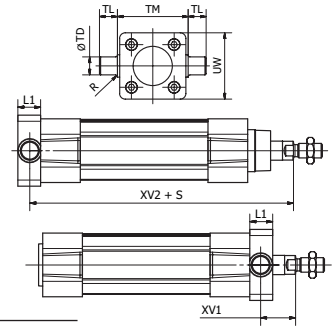
Flange Trunnion - MT5 / MT6**



Intended for articulated mounting of cylinder. This trunnion can be flange mounted on the front or rear end cover of the cylinder.

Materials:

Trunnion: Zinc-plated steel
 Screws: Zinc-plated steel 8.8
 Delivered complete with mounting screws for attachment to the cylinder.



According to ISO 15552

Cyl.-bore	L1	R	TD _(e9)	TL _(h14)	TM _(h14)	UW	XV1*	XV2*	Weight	Order code
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	
Ø32	14	1.0	12	12	50	46	19.5	127.0	0.14	P1D-4KMYF
Ø40	19	1.6	16	16	63	59	21.0	144.5	0.39	P1D-4LMYF
Ø50	19	1.6	16	16	75	69	28.0	152.5	0.51	P1D-4MMYF
Ø63	24	1.6	20	20	90	84	25.5	170.0	1.04	P1D-4NMYF
Ø80	24	1.6	20	20	110	102	34.5	186.0	1.57	P1D-4PMYF
Ø100	29	2.0	25	25	132	125	37.0	203.5	3.00	P1D-4QMYF

*Does not apply to cylinders with piston rod extension, lock units and Twin Rods.
 To fit a flange mounted trunnion at the front end cover of a cylinder with lock unit, the piston rod must be extended by L1 length. This is in order to provide the same WH dimensions as for the P1F base cylinder.
 **only on rear end cap for Twin Rods cylinders.

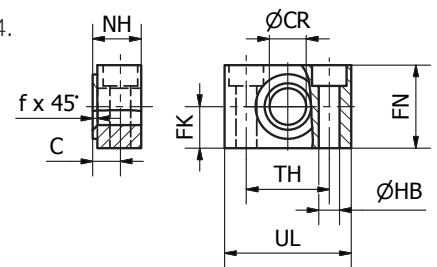
Pivot Brackets for MT Trunnion - AT4



Intended for use together with trunnion MT4.

Materials:

Pivot bracket: Surface-treated aluminium
 Bush: Bronze
 Supplied in pairs



According to ISO 15552

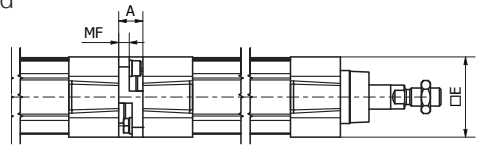
Cyl.-bore	UL	NH	TH	C	CR	HB	FN	FK	fx45°	Weight	Order code
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	
Ø32	46	18	32	10.5	12	6.6	30	15	1.0	0.08	9301054261
Ø40	55	21	36	12.0	16	9	36	18	1.6	0.14	9301054262
Ø50	55	21	36	12.0	16	9	36	18	1.6	0.14	9301054262
Ø63	65	23	42	13.0	20	11	40	20	1.6	0.21	9301054264
Ø80	65	23	42	13.0	20	11	40	20	1.6	0.21	9301054264
Ø100	75	28.5	50	16.0	25	14	50	25	2.0	0.36	9301054266
Ø125	75	28.5	50	16.0	25	14	50	25	2.0	0.36	9301054266

3 and 4 Position Flange - JP1

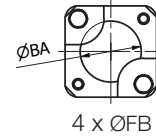


Mounting kit for back to back mounted cylinders, 3 and 4 position cylinders.

Materials:
Mounting: Aluminium
(no surface treatment)
Mounting screws: Zinc-plated steel 8.8



Cyl.-bore	A	ØBA	E	ØFB	MF	Weight	Order code
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	
Ø32	16	30	47	6.5	7	0.04	P1E-6KB0
Ø40	16	35.5	53	6.5	7	0.07	P1E-6LB0
Ø50	20	40.5	64.5	8.5	6	0.08	P1E-6MB0
Ø63	20	45.5	75	8.5	6	0.16	P1E-6NB0
Ø80	25	45.5	94	10.5	8	0.30	P1E-6PB0
Ø100	25	55.5	111	10.5	8	0.54	P1E-6QB0

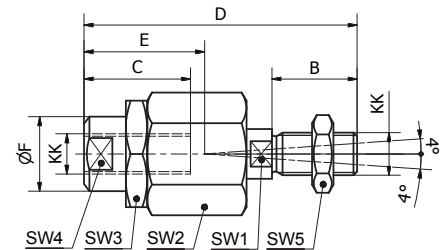


Flexo Coupling - PM5



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

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



Cyl. bore	KK	B	C	D	E	ØF	SW1	SW2	SW3	SW4	SW5	Weight	Order code
[mm]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	
Ø32	M10x1.25	20	23	70	31	21	12	30	30	19	17	0.23	P1C-4KRF
Ø40	M12x1.25	24	30	77	31	21	12	30	30	19	19	0.23	P1C-4LRF
Ø50	M16x1.5	32	32	108	45	33.5	19	41	41	30	24	0.65	P1C-4MRF
Ø63	M16x1.5	32	32	108	45	33.5	19	41	41	30	24	0.65	P1C-4MRF
Ø80	M20x1.5	40	42	122	56	33.5	19	41	41	30	30	0.71	P1C-4PRF
Ø100	M20x1.5	40	42	122	56	33.5	19	41	41	30	30	0.71	P1C-4PRF
Ø125	M27x2	54	48	147	51	39	24	55	55	32	41	1.60	P1C-4RRF

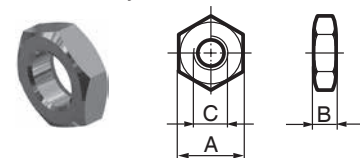
Piston Rod Nuts - MR9

P1F cylinders are delivered with a zinc plated steel piston rod nut, in stainless steel for options V & D only.

According to DIN 439 B

Cyl.-bore	A	B	C	Weight	Order code	
					Zinc plated steel	Stainless steel
[mm]	[mm]	[mm]	[mm]	[kg]		
Ø32	17	5.0	M10 x 1.25	0.007	P14-4KRPZ	P14-4KRPS
Ø40	19	6.0	M12 x 1.25	0.010	P14-4LRPZ	P14-4LRPS
Ø50	24	8.0	M16 x 1.5	0.021	P14-4MRPZ	P14-4MRPS
Ø63	24	8.0	M16 x 1.5	0.021	P14-4MRPZ	P14-4MRPS
Ø80	30	10.0	M20 x 1.5	0.040	P14-4PRPZ	P14-4PRPS
Ø100	30	10.0	M20 x 1.5	0.040	P14-4PRPZ	P14-4PRPS
Ø125	41	13.5	M27 x 2.0	0.100	P14-4RRPZ	P14-4RRPS

*Weight per item



Material: Zinc-plated steel
Material: Stainless steel A2

Swivel Rod Eye - AP6

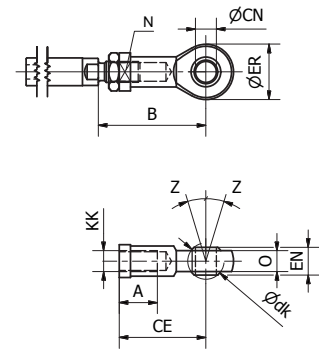


Swivel rod eye for articulated mounting of the cylinder. Swivel rod eye can be combined with clevis bracket AB6.

Materials:

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

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



According to DIN ISO 8139

Cyl.-bore [mm]	A [mm]	B _{min} [mm]	B _{max} [mm]	CE [mm]	CN [mm]	EN [mm]	ER [mm]	KK	LE dk	N [mm]	O [mm]	Z	Weight	Order Code	
														Galvanised steel	Stainless steel
Ø32	15	48.0	55	43	10	14	29	M10x1.25	19.0	17	10.5	13°	0.07	P1C-4KRS	P1S-4JRT
Ø40	18	56.0	62	50	12	16	33	M12x1.25	22.2	19	12.0	13°	0.11	P1C-4LRS	P1S-4LRT
Ø50	24	72.0	80	64	16	21	43	M16x1.5	28.5	22	15.0	15°	0.21	P1C-4MRS	P1S-4MRT
Ø63	24	72.0	80	64	16	21	43	M16x1.5	28.5	22	15.0	15°	0.21	P1C-4MRS	P1S-4MRT
Ø80	30	87.0	97	77	20	25	51	M20x1.5	34.9	30	18.0	15°	0.38	P1C-4PRS	P1S-4PRT
Ø100	30	87.0	97	77	20	25	51	M20x1.5	34.9	30	18.0	15°	0.38	P1C-4PRS	P1S-4PRT
Ø125	45	123.5	137	110	30	37	70	M27x2	50.8	41	25.0	15°	1.15	P1C-4RRS	P1S-4RRT

Clevis - AP2

Galvanised Steel



Stainless Steel

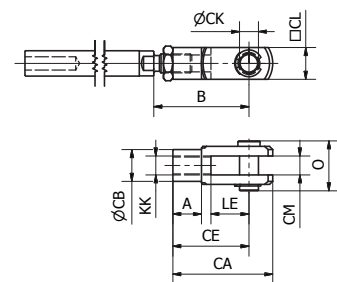


Clevis for articulated mounting of the cylinder.

Materials:

Clevis, clip: Zinc-plated steel
Pin: Hardened steel

Clevis, clip: Stainless steel
Pin: Stainless steel

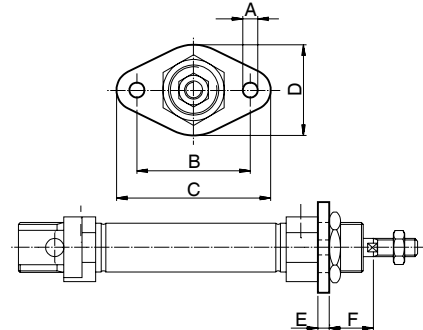


According to DIN ISO 8140

Cyl.-bore [mm]	A [mm]	B _{min} [mm]	B _{max} [mm]	CA [mm]	CB [mm]	CE [mm]	CK [mm]	CL [mm]	CM [mm]	KK	LE [mm]	O [mm]	Weight [kg]	Order code	
														Galvanised steel	Stainless steel
Ø32	15	45	52	52	18	40	10	20	10	M10x1.25	20	25	0.09	P1C-4KRC	P1S-4JRD
Ø40	18	54	60	62	20	48	12	24	12	M12x1.25	24	31	0.15	P1C-4LRC	P1S-4LRD
Ø50	24	72	80	83	26	64	16	32	16	M16x1.5	32	40	0.34	P1C-4MRC	P1S-4MRD
Ø63	24	72	80	83	26	64	16	32	16	M16x1.5	32	40	0.34	P1C-4MRC	P1S-4MRD
Ø80	30	90	100	105	34	80	20	40	20	M20x1.5	40	50	0.67	P1C-4PRC	P1S-4PRD
Ø100	30	90	100	105	34	80	20	40	20	M20x1.5	40	50	0.67	P1C-4PRC	P1S-4PRD
Ø125	40	123.5	137	148	48	110	30	55	30	M27x2.0	54	65	1.80	P1C-4RRC	P1S-4RRD

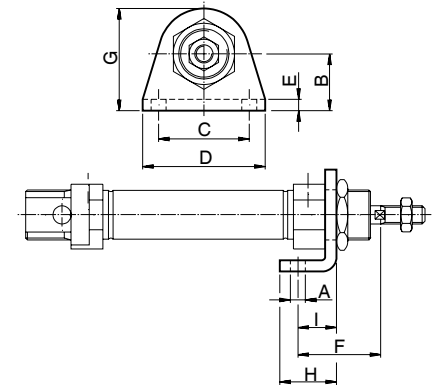
Cylinder mountings

Type	Description	Cyl. bore Ø mm	Weight kg	Order code
Stainless 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	10	0,012	P1S-4CMB P1S-4DMB P1S-4HMB
		12-16	0,025	
		20-25	0,045	



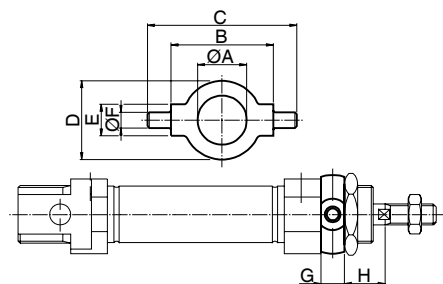
Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm
10	4,5	30	40	22	3	13
12-16	5,5	40	52	30	4	18
20	6,6	50	66	40	5	19
25	6,6	50	66	40	5	23

Stainless 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	10	0,020	P1S-4CMF P1S-4DMF P1S-4HMF
		12-16	0,040	
		20-25	0,080	



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

Stainless 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	10	0,014	P1A-4CMJ P1A-4DMJ P1A-4HMJ
		12-16	0,033	
		20-25	0,037	



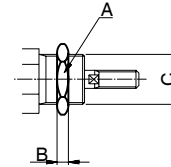
Cylinder Ø mm	A mm	B h14 mm	C mm	D mm	E e9 mm	F mm	G mm	H mm
10	12,5	26	38	20	8	4	6	10
12-16	16,5	38	58	25	10	6	8	14
20	22,5	46	66	30	10	6	8	16
25	22,5	46	66	30	10	6	8	20

Cylinder mountings

Type	Description	Cyl. bore Ø mm	Weight kg	Order code
Stainless Neck nut MR3	Intended for fixed mounting of the cylinder. Cylinders are supplied complete with one mounting nut. Material: Stainless steel, DIN X 5 CrNi 18 10	10	0,009	9126725405
		12-16	0,018	9126725406
		20-25	0,042	9126725407



Cylinder Ø mm	A mm	B mm	C
10	19	6	M12x1,25
12-16	24	8	M16x1,50
20-25	27	5	M22x1,50



Stainless Clevis bracket AB3

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

10	0,020
12-16	0,040
20-25	0,080

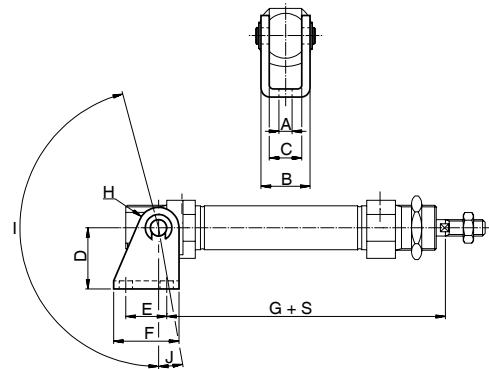
**P1S-4CMT
P1S-4DMT
P1S-4HMT**

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 °	J °
10	4,5	13	8	24	12,5	20	65,3	5	160	17
12	5,5	18	12	27	15	25	73	7	170	15
16	5,5	18	12	27	15	25	80	7	170	15
20	6,5	24	16	30	20	32	91	10	165	10
25	6,5	24	16	30	20	32	100	10	165	10

S=stroke



Stainless Clevis AP2

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

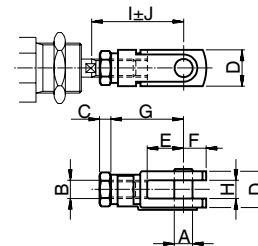
10	0,007
12-16	0,022
20	0,045
25	0,095

**P1S-4CRD
P1S-4DRD
P1S-4HRD
P1S-4JRD**

Material:
Stainless steel, DIN X 5 CrNi 18 10



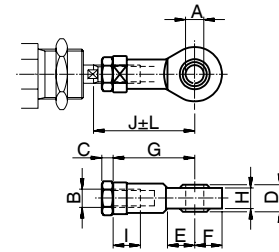
Cylinder Ø mm	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm
10	4	M4	2,2	8	8	5	16	4	22	2
12-16	6	M6	3,2	12	12	7	24	6	31	3
20	8	M8	4	16	16	10	32	8	40,5	3,5
25	10	M10x1,25	5	20	20	12	40	10	49	3



P1S Series Stainless Steel Pneumatic Cylinders

Cylinder mountings

Type	Description	Cyl. bore Ø mm	Weight kg	Order code
Stainless Swivel rod eye AP6	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	10	0,017	P1S-4CRT P1S-4DRT P1S-4HRT P1S-4JRT
		12-16	0,025	
		20	0,045	
		25	0,085	



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
10	5	M4	2,2	8	10	9	27	6	8	33	9	2
12-16	6	M6	3,2	9	10	10	30	6,8	9	38,5	11	1,5
20	8	M8	4	12	12	12	36	9	12	46	14	2
25	10	M10x1,25	5	14	14	14	43	10,5	15	52,5	17	2,5

Stainless Rod nut MR9

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.)

10	0,001	9127385121 9127385122 9127385123 9126725404
12-16	0,002	
20	0,005	
25	0,007	



Material:
Stainless steel, DIN X 5 CrNi 18 10

Cylinder Ø mm	D	F mm	E mm
10	M4	7	2,2
12-16	M6	10	3,2
20	M8	13	4
25	M10x1,25	17	5

