

# ISO Cylinder: Standard Double Acting, Single/Double Rod Series **CP96** ø32, ø40, ø50, ø63, ø80, ø100, ø125

## How to Order

**With auto switch** CP96SD B 32 - 100 J W - M9BW S -

**Built-in magnet**

**Mounting**

B	Basic/Without bracket
L	Axial foot
F	Rod end flange
G	Head end flange
C	Single rear clevis
D	Double rear clevis

**Bore size**

32	32 mm
40	40 mm
50	50 mm
63	63 mm
80	80 mm
100	100 mm
125	125 mm

**Stroke (mm)**  
(Refer to "Standard Stroke" on page 6.)

**Rod boot**

—	Without boot
J	Nylon tarpaulin (one end)
JJ	Nylon tarpaulin (both ends)
K	Heat resistant tarpaulin (one end)
KK	Heat resistant tarpaulin (both ends)

**Rod**

—	Single rod
W	Double rod

**Made to Order**  
Refer to the page 6 for details.

**Number of auto switches**

—	2 pcs.
S	1 pc.
3	3 pcs.
n	"n" pcs.

**Auto switch**

—	Without auto switch
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\* For applicable auto switch model, refer to the below table.

## Applicable Auto Switches

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model	Lead wire length (m)				Pre-wired connector	Applicable load			
					DC	AC		0.5	1 (M)	3 (L)	5 (Z)		IC	Relay, PLC		
Solid state switch	—	Grommet	—	3-wire (NPN)	24 V	5 V, 12 V	—	M9N	●	●	●	○	○	IC	Relay, PLC	
				3-wire (PNP)				M9P	●	●	●	○	○			
				2-wire				M9B	●	●	●	○	○			
	Diagnosis indication (2-colour)	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NW	●	●	●	○	○	IC		
				3-wire (PNP)				M9PW	●	●	●	○	○			
				2-wire				M9BW	●	●	●	○	○			
	Water resistant (2-colour)	Grommet	—	3-wire (NPN)	24 V	5 V, 12 V	—	M9NA**	○	○	●	○	○	IC		
				3-wire (PNP)				M9PA**	○	○	●	○	○			
				2-wire				M9BA**	○	○	●	○	○			
Reed switch	—	Grommet	Yes	3-wire (Equiv. to NPN)	24 V	12 V	100 V or less	A96	●	—	●	—	—	IC	—	
				2-wire				A93	●	—	●	—	—	—		Relay, PLC
								A90	●	—	●	—	—	—		IC

\* Lead wire length symbols: 0.5 m ..... — (Example) M9NW  
 1 m ..... M (Example) M9NWM  
 3 m ..... L (Example) M9NWL  
 5 m ..... Z (Example) M9NWZ

\* Solid state switches marked with "○" are produced upon receipt of order.

\* Since there are other applicable auto switches than listed, refer to the auto switch guide.

\* For details about auto switches with pre-wired connector, refer to the auto switch guide.

\* D-A9□, M9□, M9□W, M9□AL are shipped together, (but not assembled).

(Switch mounting bracket is only assembled at the time of shipment.)

\*\* Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.

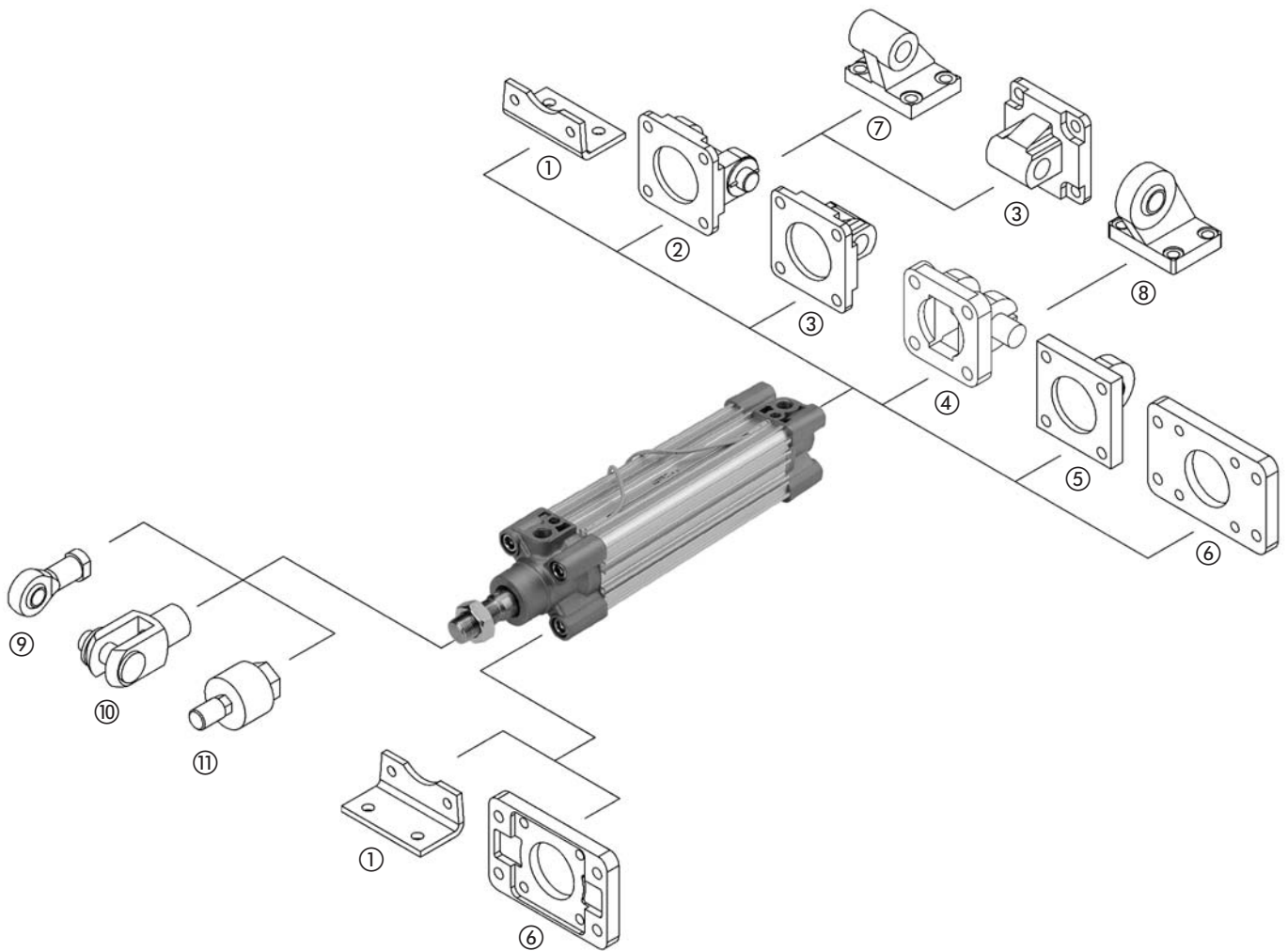
Consult with SMC regarding water resistant types with the above model numbers.

Note) D-Y59A, Y69A, Y7P, Y7□W, Z7□, Z80 type cannot be mounted on the CP96 series.

Moreover, D-M9□□ and A9□ type cannot be mounted on square groove of the CP96 series.

**Accessories**

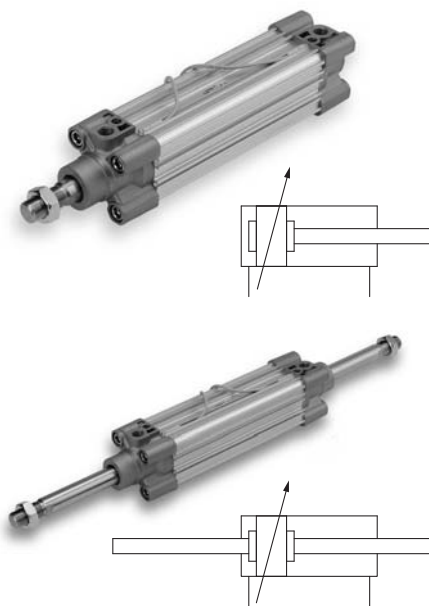
**Cylinder Mounting Accessories**



Bore size (mm)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
	Foot (Supplied with two pieces and 4 screws)	Female head end clevis (Corresponds to E accessory) (Supplied with bolt, safety device and 4 screws)	Male head end clevis (Supplied with 4 screws)	Female head end clevis (for ES accessory) (Supplied with bolt, safety device and 4 screws)	Male head end clevis with ball joint (Supplied with 4 screws)	Rod/Head end flange (Supplied with 4 screws)	Angled head end clevis	Angled head end clevis with ball joint	Piston rod ball joint (ISO 8139)	Rod clevis (ISO 8140) (Supplied with bolt and safety device)	Floating joint
<b>32</b>	L5032	D5032	C5032	DS5032	CS5032	F5032	E5032	ES5032	KJ10D	GKM10-20	JA30-10-125
<b>40</b>	L5040	D5040	C5040	DS5040	CS5040	F5040	E5040	ES5040	KJ12D	GKM12-24	JA40-12-125
<b>50</b>	L5050	D5050	C5050	DS5050	CS5050	F5050	E5050	ES5050	KJ16D	GKM16-32	JA50-16-150
<b>63</b>	L5063	D5063	C5063	DS5063	CS5063	F5063	E5063	ES5063	KJ16D	GKM16-32	JA50-16-150
<b>80</b>	L5080	D5080	C5080	DS5080	CS5080	F5080	E5080	ES5080	KJ20D	GKM20-40	JAH50-20-150
<b>100</b>	L5100	D5100	C5100	DS5100	CS5100	F5100	E5100	ES5100	KJ20D	GKM20-40	JAH50-20-150
<b>125</b>	L5125	D5125	C5125	DS5125	CS5125	F5125	E5125	ES5125	KJ27D	GKM30-54	JA125-27-200

CP96  
CP96K  
55-CP96  
C96  
C96K  
C96Y  
55-C96  
Auto Switch  
Simple Specials Made to Order  
Precautions

# Series CP96



## Minimum Stroke for Auto Switch Mounting

Refer to page 19 for "Minimum Stroke for Auto Switch Mounting".



## Made to Order Specifications (For details, refer to pages 57 to 64.)

Symbol	Specifications
-XA□	Change of rod end shape
-XB6	Heat resistant cylinder (150°C)
-XC4	With heavy duty scraper
-XC7	Tie rod, cushion valve, tie rod nut, etc. made of stainless steel
-XC10	Dual stroke cylinder/Double rod
-XC11	Dual stroke cylinder/Single rod
-XC22	Fluororubber seals
-XC35	With coil scraper
-XC68	Made of stainless steel. (With hard chromium plated piston rod)

## Specifications

Bore size (mm)	32	40	50	63	80	100	125
Action	Double acting						
Fluid	Air						
Proof pressure	1.5 MPa						
Max. operating pressure	1.0 MPa						
Min. operating pressure	0.05 MPa						
Ambient and fluid temperature	Without auto switch: -20 to 70°C* With auto switch: -10 to 60°C*						
Lubrication	Not required (Non-lube)						
Operating piston speed	50 to 1000 mm/s					50 to 700 mm/s	
Allowable stroke tolerance	Up to 250 st: $^{+1.0}_0$ ; 251 to 1000 st: $^{+1.4}_0$ ; 1001 to 1500 st: $^{+1.8}_0$ ; 1501 to 2000 st: $^{+2.2}_0$						
Cushion	Both ends (Air cushion)						
Port size	G 1/8	G 1/4	G 1/4	G 3/8	G 3/8	G 1/2	G 1/2
Mounting	Basic, Axial foot, Rod end flange, Head end flange, Single clevis, Double clevis, Centre trunnion						

\* No freezing

## Standard Stroke

Bore size (mm)	Standard stroke (mm)	Max. stroke*	
		Single rod	Double rod
32	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500	2000	1000
40	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500	2000	
50	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500, 600	2000	
63	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500, 600	2000	
80	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500, 600, 700, 800	2000	
100	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500, 600, 700, 800	2000	
125	—	2000	

Intermediate strokes are available.

\* Please consult with SMC for longer strokes.

\* ø125 and Double rod are produced upon receipt of order.

## Accessories

Mounting		Basic	Foot	Rod end flange	Head end flange	Single clevis	Double clevis	Centre trunnion
Standard	Rod end nut	●	●	●	●	●	●	—
	Clevis pin	—	—	—	—	—	●	—
Option	Piston rod ball joint	●	●	●	●	●	●	—
	Rod clevis	●	●	●	●	●	●	—
	Rod boot	●	●	●	●	●	●	—

\* Please do not use a piston rod ball joint (or floating joint) together with a head end clevis with a ball joint (or angled head end clevis with a ball joint).

## X option combinations available to order

Symbol	-XA□	-XB6 <sup>Note 1)</sup>	-XC7	-XC22
-XA□	●	—	—	—
-XB6 <sup>Note 1)</sup>	●	●	—	—
-XC7	●	●	●	—
-XC22	●	—	●	●
-XC68	●	●	●	●

●: Combination possible to produce.

—: Combination not produced.

Note 1) Only for without magnet type.

If you want to order a combination of non Simple Special options, just add the X options by alphabetical order at the end of the part number, for example: XC7C22.

## Theoretical Output



## Allowable Kinetic Energy

Bore size (mm)	Rod diameter (mm)	Operating direction	Piston area (mm <sup>2</sup> )	Operating pressure (MPa)								
				0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
32	12	OUT	804	161	241	322	402	482	563	643	724	804
		IN	691	138	207	276	346	415	484	553	622	691
40	16	OUT	1257	251	377	503	629	754	880	1006	1131	1257
		IN	1056	211	317	422	528	634	739	845	950	1056
50	20	OUT	1963	393	589	785	982	1178	1374	1570	1767	1963
		IN	1649	330	495	660	825	989	1154	1319	1484	1649
63	20	OUT	3117	623	935	1247	1559	1870	2182	2494	2805	3117
		IN	2803	561	841	1121	1402	1682	1962	2242	2523	2803
80	25	OUT	5027	1005	1508	2011	2514	3016	3519	4022	4524	5027
		IN	4536	907	1361	1814	2268	2722	3175	3629	4082	4536
100	25	OUT	7854	1571	2356	3142	3927	4712	5498	6283	7068	7854
		IN	7363	1473	2209	2945	3682	4418	5154	5890	6627	7363
125	32	OUT	12272	2454	3682	4909	6136	7363	8590	9817	11045	12272
		IN	11468	2294	3440	4587	5734	6881	8027	9174	10321	11468

(Note) Theoretical out put (N) = Pressure (MPa) x Piston area (mm<sup>2</sup>)

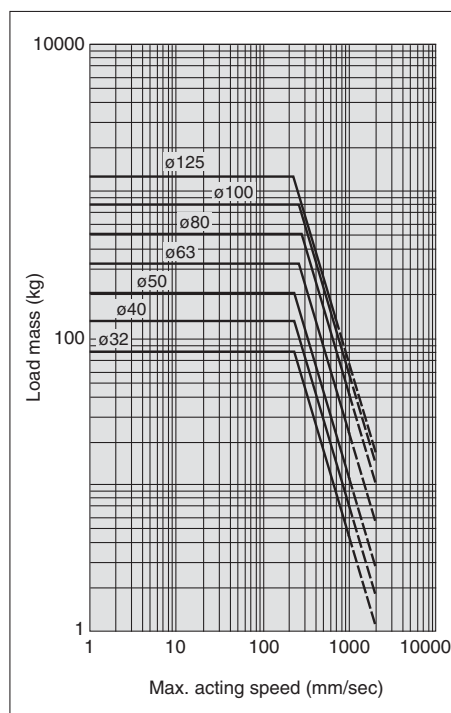
## Weight (Single rod)

Bore size (mm)		32	40	50	63	80	100	125
Basic Weight	Basic	0.55	0.84	1.36	1.77	2.84	3.77	6.82
	Foot	0.16	0.20	0.38	0.46	0.89	1.09	2.60
	Flange	0.20	0.23	0.47	0.58	1.30	1.81	4.10
	Single clevis	0.16	0.23	0.37	0.60	1.07	1.73	4.15
	Double clevis	0.20	0.32	0.45	0.71	1.28	2.11	4.25
	Trunnion	0.71	1.10	1.73	2.48	4.25	5.95	2.98
Additional Weight per each 50 mm stroke	All mounting brackets	0.14	0.18	0.30	0.32	0.49	0.54	0.84
	Accessory							
Accessory	Single rod clevis	0.07	0.11	0.22		0.40		1.20
	Double rod clevis	0.09	0.15	0.34		0.69		1.84

Calculation: (Example) CP96SD40-100

- Basic Weight ..... 0.84 (kg) (Basic, ø40) • Mounting ..... 0.32 (kg) (Double clevis)
- Additional Weight .... 0.18 (kg/50 st)
- Cylinder stroke ..... 100 (st)

$$0.84 + 0.18 \times 100 + 0.32 = 1.52 \text{ kg}$$



Example: Load limit at rod end when air cylinder ø63 is actuated with max. actuating speed 500 mm/s. See the intersection of lateral axis 500 mm/s and ø63 line, and extend the intersection to left. Thus, the allowable load is 80 kg.

CP96

CP96K

55-CP96

C96

C96K

C96Y

55-C96

Auto Switch

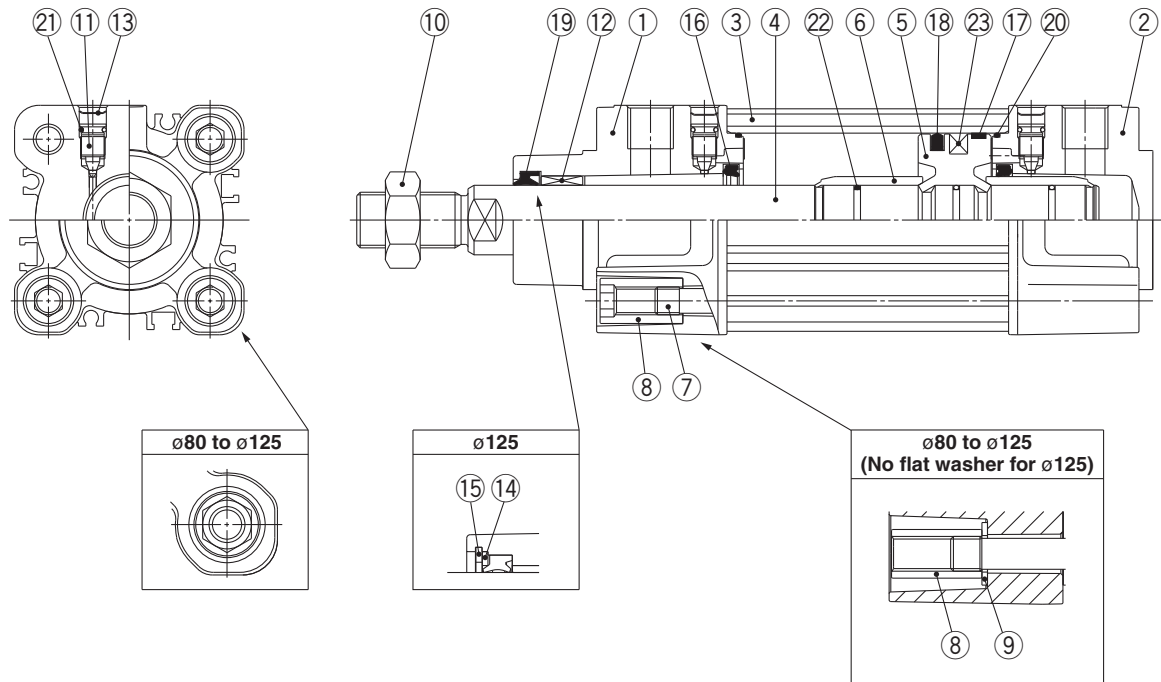
Simple Specials Made to Order

Precautions

# Series CP96

## Construction

[First angle projection]



### Component Parts

No.	Description	Material	Note
1	Rod cover	Aluminium die-casted	
2	Head cover	Aluminium die-casted	
3	Cylinder tube	Aluminium alloy	
4	Piston rod	Carbon steel	
5	Piston	Aluminium alloy	
6	Cushion ring	Aluminium alloy	
7	Tie-rod	Carbon steel	
8	Tie-rod nut	Steel	
9	Flat washer	Steel	ø80 and ø100
10	Rod end nut	Steel	
11	Cushion valve	Steel wire	
12	Bushing	Bearing alloy	
13	Snap ring	Steel for spring	ø40 to ø125
14	Rod seal holder	Stainless steel	ø125
15	Snap ring	Steel for spring	ø125
16	Cushion seal	Urethane rubber	
17	Wearing	Resin	
18	Piston seal	NBR	
19	Rod seal	NBR	
20	Cylinder tube gasket	NBR	
21	Cushion valve seal	NBR	
22	Piston gasket	NBR	
23	Magnet		

### Replacement Parts: Seal Kit/Single rod

Bore size (mm)	Kit no.	Contents
32	CS95-32	Kits include items ⑯ to ⑳.
40	CS95-40	
50	CS95-50	
63	CS95-63	
80	CS95-80	
100	CS96-100	
125	CS96-125	

\* Seal kits consist of items ⑯ to ⑳ contained in one kit, and can be ordered using the number for each respective tube bore size.

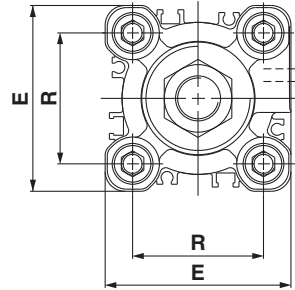
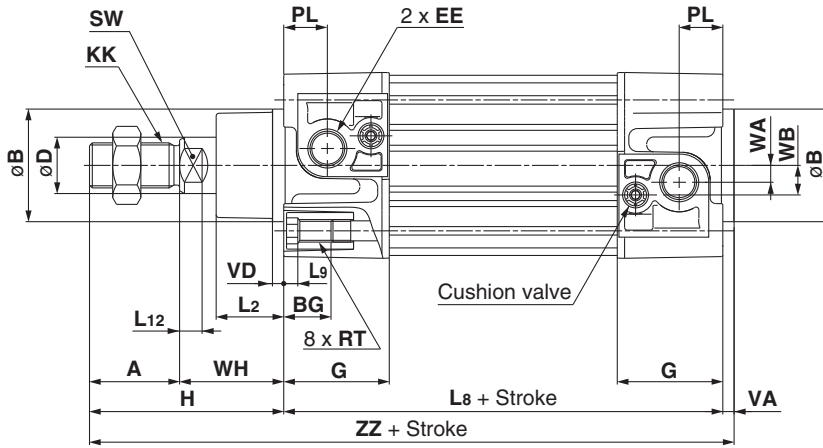
### Seal Kit/Double rod

Bore size (mm)	Kit no.	Contents
32	CS95W-32	Kits include items ⑯ and ⑱ to ㉑.
40	CS95W-40	
50	CS95W-50	
63	CS95W-63	
80	CS95W-80	
100	CS96W-100	
125	CS96W-125	

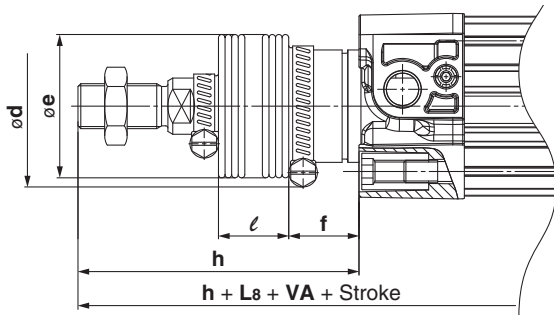
**Dimensions: Without Mounting Bracket**

[First angle projection]

CP96S(D)B Bore size – Stroke



**With rod boot**



Bore size (mm)	Stroke Range (mm)		A	øB d11	øD	EE	PL	RT	L12	KK	SW	G	BG	L8	VD	VA	WA	WB	WH	ZZ	E	R
	Without rod boot	With rod boot																				
32	to 2000	to 1000	22	30	12	G 1/8	13	M6 x 1	6	M10 x 1.25	10	32	16	94	4	4	4	7	26	146	47	32.5
40	to 2000	to 1000	24	35	16	G 1/4	14	M6 x 1	6.5	M12 x 1.25	13	37.5	16	105	4	4	5	9	30	163	54	38
50	to 2000	to 1000	32	40	20	G 1/4	15.5	M8 x 1.25	8	M16 x 1.5	17	37.5	16	106	4	4	6	10.5	37	179	66	46.5
63	to 2000	to 1000	32	45	20	G 3/8	16.5	M8 x 1.25	8	M16 x 1.5	17	45	16	121	4	4	9	12	37	194	77	56.5
80	to 2000	to 1000	40	45	25	G 3/8	19	M10 x 1.5	10	M20 x 1.5	22	45	17	128	4	4	11.5	14	46	218	99	72
100	to 2000	to 1000	40	55	25	G 1/2	19	M10 x 1.5	10	M20 x 1.5	22	50	17	138	4	4	17	15	51	233	118	89
125	to 2000	to 1000	54	60	32	G 1/2	19	M12 x 1.75	13	M27 x 2	27	58	20	160	6	6	17	15	65	285	144	110

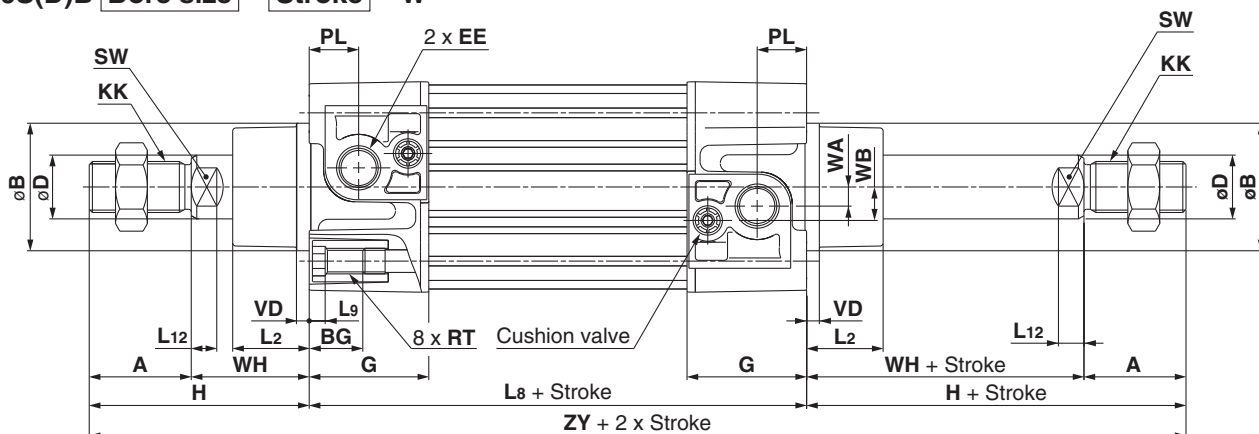
Bore size (mm)	L2	L9	H	ød	øe	f	l														h													
							1 to 50	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	501 to 600	601 to 700	701 to 800	801 to 900	901 to 1000	1 to 50	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	501 to 600	601 to 700	701 to 800	801 to 900	901 to 1000				
32	15	4	48	54	36	23	12.5	25	37.5	50	75	100	125	150	175	200	225	250	75	88	100	113	138	163	188	213	238	263	288	313				
40	17	4	54	54	36	23	12.5	25	37.5	50	75	100	125	150	175	200	225	250	75	88	100	113	138	163	188	213	238	263	288	313				
50	24	5	69	64	51	25	12.5	25	37.5	50	75	100	125	150	175	200	225	250	87	100	112	125	150	175	200	225	250	275	300	325				
63	24	5	69	64	51	25	12.5	25	37.5	50	75	100	125	150	175	200	225	250	87	100	112	125	150	175	200	225	250	275	300	325				
80	30	—	86	68	56	30	12.5	25	37.5	50	75	100	125	150	175	200	225	250	103	116	128	141	166	191	216	241	266	291	316	341				
100	32	—	91	76	56	32	12.5	25	37.5	50	75	100	125	150	175	200	225	250	103	116	128	141	166	191	216	241	266	291	316	341				
125	40	—	119	82	75	40	10	20	30	40	60	80	100	120	140	160	180	200	130	140	150	160	180	200	220	240	260	280	300	320				

# Series CP96

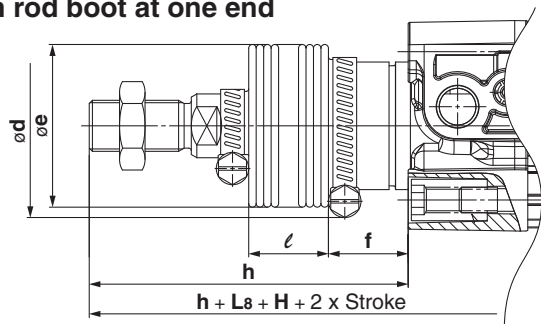
## Dimensions: Without Mounting Bracket

[First angle projection]

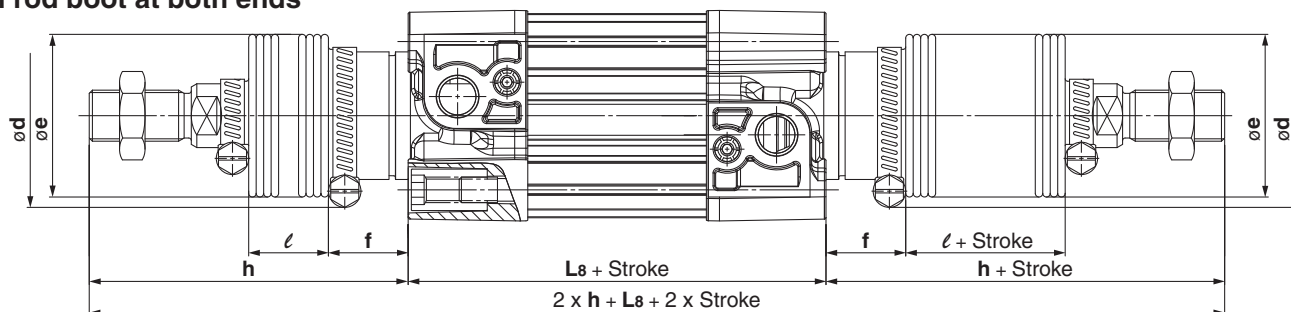
CP96S(D)B Bore size – Stroke W



### With rod boot at one end



### With rod boot at both ends



Bore size (mm)	Stroke Range (mm)	A	øB d11	øD	EE	PL	RT	L12	KK	SW	G	BG	L8	VD	WA	WB	WH	ZY	L2	L9
32	to 1000	22	30	12	G 1/8	13	M6 x 1	6	M10 x 1.25	10	32	16	94	4	4	7	26	190	15	4
40	to 1000	24	35	16	G 1/4	14	M6 x 1	6.5	M12 x 1.25	13	37.5	16	105	4	5	9	30	213	17	4
50	to 1000	32	40	20	G 1/4	15.5	M8 x 1.25	8	M16 x 1.5	17	37.5	16	106	4	6	10.5	37	244	24	5
63	to 1000	32	45	20	G 3/8	16.5	M8 x 1.25	8	M16 x 1.5	17	45	16	121	4	9	12	37	259	24	5
80	to 1000	40	45	25	G 3/8	19	M10 x 1.5	10	M20 x 1.5	22	45	17	128	4	11.5	14	46	300	30	—
100	to 1000	40	55	25	G 1/2	19	M10 x 1.5	10	M20 x 1.5	22	50	17	138	4	17	15	51	320	32	—
125	to 1000	54	60	32	G 1/2	19	M12 x 1.75	13	M27 x 2	27	58	20	160	6	17	15	65	398	40	—

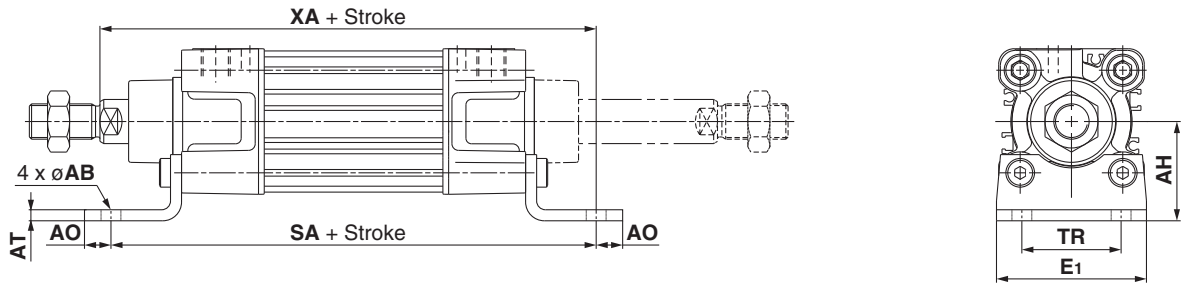
Bore size (mm)	H	ød	øe	f	l																h															
					1 to 50	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	501 to 600	601 to 700	701 to 800	801 to 900	901 to 1000	1 to 50	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	501 to 600	601 to 700	701 to 800	801 to 900	901 to 1000								
32	48	54	36	23	12.5	25	37.5	50	75	100	125	150	175	200	225	250	75	88	100	113	138	163	188	213	238	263	288	313								
40	54	54	36	23	12.5	25	37.5	50	75	100	125	150	175	200	225	250	75	88	100	113	138	163	188	213	238	263	288	313								
50	69	64	51	25	12.5	25	37.5	50	75	100	125	150	175	200	225	250	87	100	112	125	150	175	200	225	250	275	300	325								
63	69	64	51	25	12.5	25	37.5	50	75	100	125	150	175	200	225	250	87	100	112	125	150	175	200	225	250	275	300	325								
80	86	68	56	30	12.5	25	37.5	50	75	100	125	150	175	200	225	250	103	116	128	141	166	191	216	241	266	291	316	341								
100	91	76	56	32	12.5	25	37.5	50	75	100	125	150	175	200	225	250	103	116	128	141	166	191	216	241	266	291	316	341								
125	119	82	75	40	10	20	30	40	60	80	100	120	140	160	180	200	130	140	150	160	180	200	220	240	260	280	300	320								



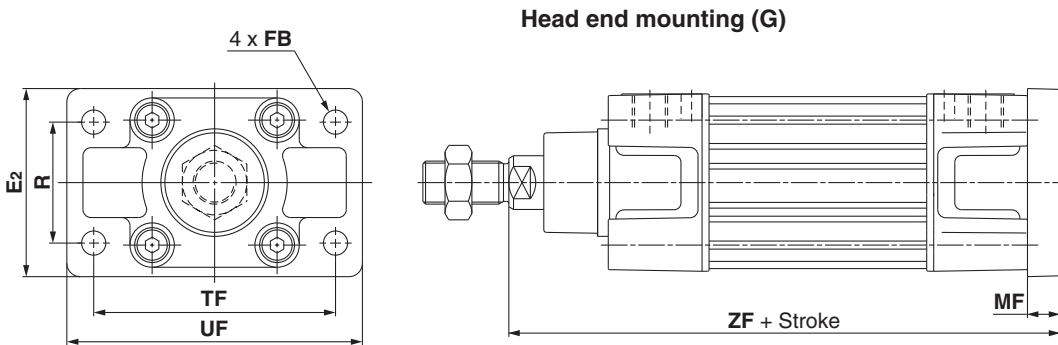
**Dimensions: Cylinder Mounting Accessories (L/F/G/C/D)**

[First angle projection]

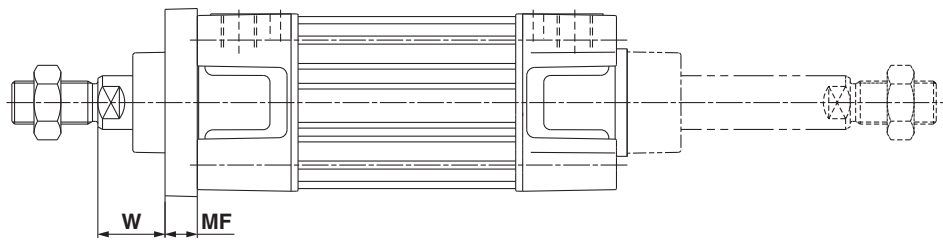
**Mounting (L)**



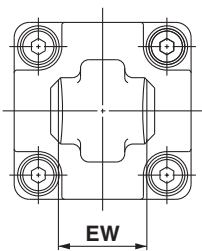
**Mounting (F/G)**



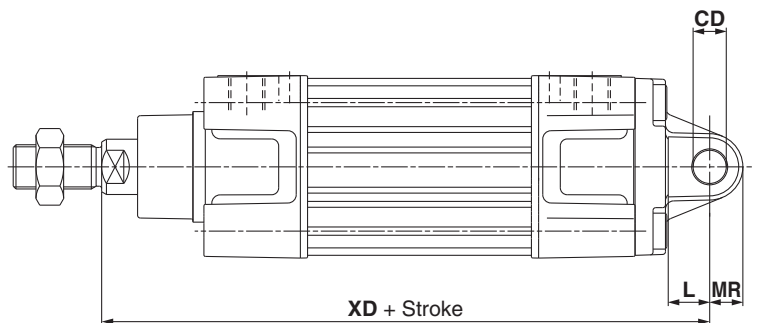
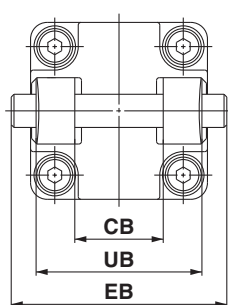
**Rod end mounting (F)**



**Mounting (C)**



**Mounting (D)**



Bore size (mm)	E1	TR	AH	AO	AT	øAB	SA	XA	R	TF	øFB	E2	UF	W	MF	ZF	UB h14	CB H14	EW	øCD H9	L	MR	XD	EB
32	48	32	32	10	4.5	7	142	144	32	64	7	50	79	16	10	130	45	26	26-0.2/-0.6	10	12	9.5	142	65
40	55	36	36	11	4.5	10	161	163	36	72	9	55	90	20	10	145	52	28	28-0.2/-0.6	12	15	12	160	75
50	68	45	45	12	5.5	10	170	175	45	90	9	70	110	25	12	155	60	32	32-0.2/-0.6	12	15	12	170	80
63	80	50	50	12	5.5	10	185	190	50	100	9	80	120	25	12	170	70	40	40-0.2/-0.6	16	20	16	190	90
80	100	63	63	14	6.5	12	210	215	63	126	12	100	153	30	16	190	90	50	50-0.2/-0.6	16	20	16	210	110
100	120	75	71	16	6.5	14.5	220	230	75	150	14	120	178	35	16	205	110	60	60-0.2/-0.6	20	25	20	230	140
125	Max. 157	90	90	Max. 25	8	16	250	270	90	180	16	Max. 157	Max. 224	45	20	245	130	70	70-0.5/-1.2	25	Min. 30	Max. 26	275	Max. 157

CP96

CP96K

55-CP96

C96

C96K

C96Y

55-C96

Auto Switch

Simple Specials  
Made to Order

Precautions

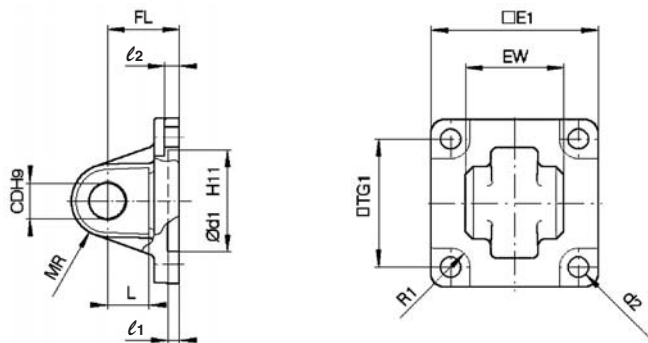


# Series CP96

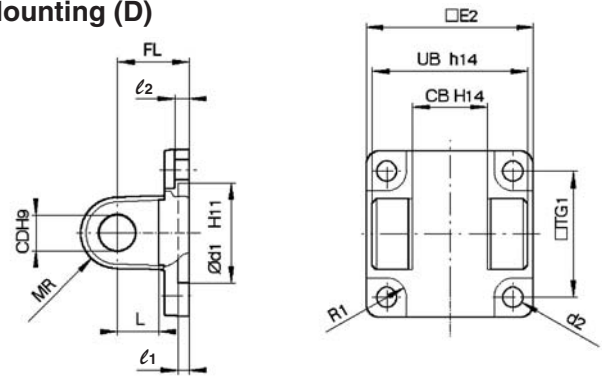
## Dimensions: Cylinder Mounting Accessories (C/D/E/CS)

[First angle projection]

### Mounting (C)

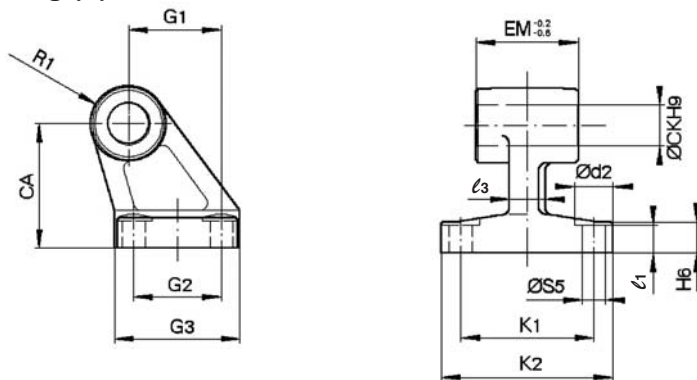


### Mounting (D)



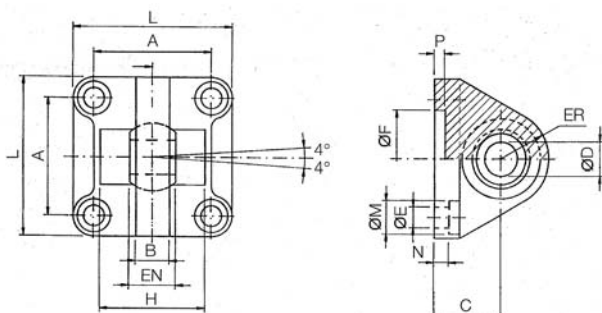
Bore size (mm)	E1	EW	TG1	FL	l1	L	l2	Ød1	ØCD	MR	Ød2	R1	E2	UB	CB
32	45	26 <sup>-0.2</sup> <sub>-0.6</sub>	32.5	22	5	12	5.5	30	10	9.5	6.6	6.5	48	45	26
40	51	28 <sup>-0.2</sup> <sub>-0.6</sub>	38	25	5	15	5.5	35	12	12	6.6	6.5	56	52	28
50	64	32 <sup>-0.2</sup> <sub>-0.6</sub>	46.5	27	5	15	6.5	40	12	12	9	8.5	64	60	32
63	74	40 <sup>-0.2</sup> <sub>-0.6</sub>	56.5	32	5	20	6.5	45	16	16	9	8.5	75	70	40
80	94	50 <sup>-0.2</sup> <sub>-0.6</sub>	72	36	5	20	10	45	16	16	11	11	95	90	50
100	113	60 <sup>-0.2</sup> <sub>-0.6</sub>	89	41	5	25	10	55	20	20	11	12	115	110	60
125	Max. 157	70 <sup>-0.5</sup> <sub>-1.2</sub>	110	50	7	30	10	60	25	26	13.5	10	Max. 157	130	70

### Mounting (E)



Bore size (mm)	Ød2	ØCK	ØS5	K1	K2 max.	l3 max.	G1	l1	G2	EM	G3 max.	CA	H6	R1
32	11	10	6.6	38	51	10	21	7	18	26 <sup>-0.2</sup> <sub>-0.6</sub>	31	32	8	10
40	11	12	6.6	41	54	10	24	9	22	28 <sup>-0.2</sup> <sub>-0.6</sub>	35	36	10	11
50	15	12	9	50	65	12	33	11	30	32 <sup>-0.2</sup> <sub>-0.6</sub>	45	45	12	12
63	15	16	9	52	67	14	37	11	35	40 <sup>-0.2</sup> <sub>-0.6</sub>	50	50	12	15
80	18	16	11	66	86	18	47	12.5	40	50 <sup>-0.2</sup> <sub>-0.6</sub>	60	63	14	15
100	18	20	11	76	96	20	55	13.5	50	60 <sup>-0.2</sup> <sub>-0.6</sub>	70	71	15	19
125	20	25	14	94	124	30	70	17	60	70 <sup>-0.5</sup> <sub>-1.5</sub>	90	90	20	22.5

### Mounting (CS): Head end clevis with ball joint



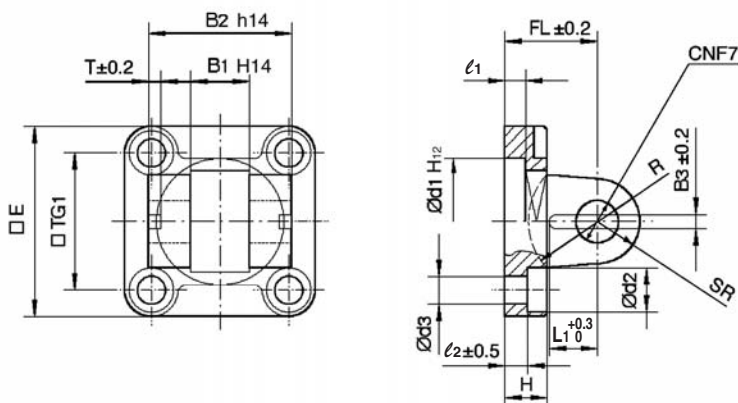
Bore size (mm)	A	B max.	C	ØD H7	EN 0-0.1	ER max.	ØF H11	ØE	L	ØM	N	P	H ±0.5
32	32.5	10.5	22	10	14	15	30	6.6	45	10.5	5.5	5	—
40	38	12	25	12	16	18	35	6.6	55	11	5.5	5	—
50	46.5	15	27	16	21	20	40	9	65	15	6.5	5	51
63	56.5	15	32	16	21	23	45	9	75	15	6.5	5	—
80	72	18	36	20	25	27	45	11	95	18	10	5	70
100	89	18	41	20	25	30	55	11	115	18	10	5	—
125	110	25	50	30	37	40	60	13.5	140	20	10	7	100

\* Black colour

**Dimensions: Cylinder Mounting Accessories (DS/ES)**

[First angle projection]

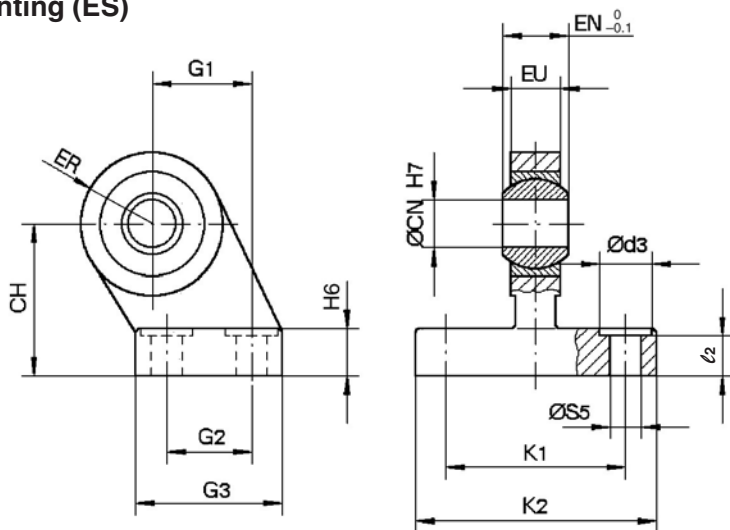
**Mounting (DS)**



Bore size (mm)	E	B1	B2	B3	L1	TG1	T	l1 min.	l2	FL	H max.	Ød1	Ød2	Ød3	ØCN	SR max.	R
32	45	14	34	3.3	11.5	32.5	3	5	5.5	22	10	30	10.5	6.6	10	11	17
40	55	16	40	4.3	12	38	4	5	5.5	25	10	35	11	6.6	12	13	20
50	65	21	45	4.3	14	46.5	4	5	6.5	27	12	40	15	9	16	18	22
63	75	21	51	4.3	14	56.5	4	5	6.5	32	12	45	15	9	16	18	25
80	95	25	65	4.3	16	72	4	5	10	36	16	45	18	11	20	22	30
100	115	25	75	6.3	16	89	4	5	10	41	16	55	18	11	20	22	32
125	140	37	97	6.3	24	110	6	7	10	50	20	60	20	13.5	30	30	42

\* Black colour

**Mounting (ES)**



Bore size (mm)	Ød3	ØCN	ØS5	K1	K2 max.	l2	G1	G2	G3 max.	EN	EU	CH	H6	ER max.
32	11	10	6.6	38	51	8.5	21	18	31	14	10.5	32	10	15
40	11	12	6.6	41	54	8.5	24	22	35	16	12	36	10	18
50	15	16	9	50	65	10.5	33	30	45	21	15	45	12	20
63	15	16	9	52	67	10.5	37	35	50	21	15	50	12	23
80	18	20	11	66	86	11.5	47	40	60	25	18	63	14	27
100	18	20	11	76	96	12.5	55	50	70	25	18	71	15	30
125	20	30	13.5	94	124	17	70	60	90	37	25	90	20	40

\* Black colour

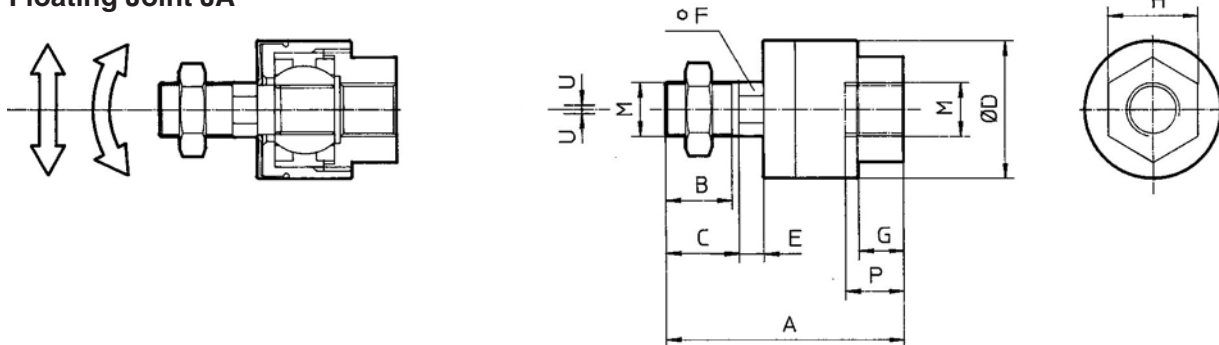
CP96  
CP96K  
55-CP96  
C96  
C96K  
C96Y  
55-C96  
Auto Switch  
Simple Specials Made to Order  
Precautions

# Series CP96

## Dimensions: Piston Rod Mounting Accessories

[First angle projection]

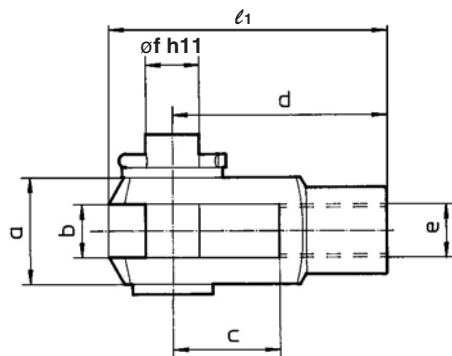
### Floating Joint JA



Bore size (mm)	M	Part no.	A	B	C	$\varnothing D$	E	F	G	H	P	U	Load (kN)	Weight (g)	Angle
32	M10 x 1.25	JA30-10-125	49.5	19.5	—	24	5	8	8	17	9	0.5	2.5	70	±5°
40	M12 x 1.25	JA40-12-125	60	20	—	31	6	11	11	22	13	0.75	4.4	160	
50, 63	M16 x 1.5	JA50-16-150	71.5	22	—	41	7.5	14	13.5	27	15	1	11	300	
80, 100	M20 x 1.5	JAH50-20-150	101	28	31	59.5	11.5	24	16	32	18	2	18	1080	
125	M27 x 2	JA125-27-200	123	34	38	66	13	27	20	41	24	2	28	1500	

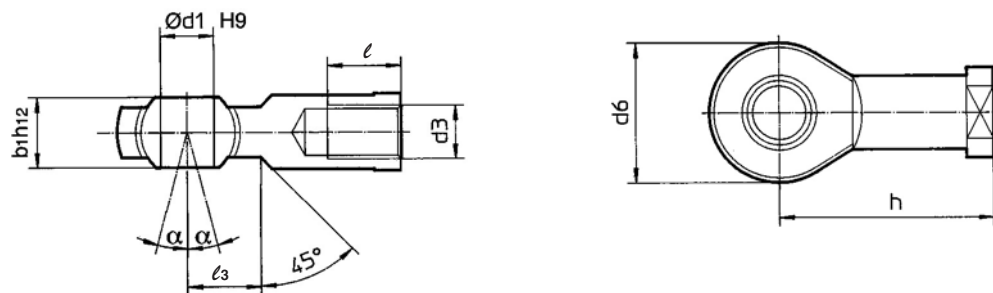
\* Black colour

### Rod Clevis GKM (ISO 8140), Supplied with Bolt and Safety Device



Bore size (mm)	e	Part no.	b	d	$\varnothing f$ h11 (Shaft)	$\varnothing f$ H9 (Hole)	$l_1$	c min.	a max.
32	M10 x 1.25	GKM10-20	10 <sup>+0.5</sup> / <sub>+0.15</sub>	40	10	10	52	20	20
40	M12 x 1.25	GKM12-24	12 <sup>+0.5</sup> / <sub>+0.15</sub>	48	12	12	62	24	24
50, 63	M16 x 1.5	GKM16-32	16 <sup>+0.5</sup> / <sub>+0.15</sub>	64	16	16	83	32	32
80, 100	M20 x 1.5	GKM20-40	20 <sup>+0.5</sup> / <sub>+0.15</sub>	80	20	20	105	40	40
125	M27 x 2	GKM30-54	30 <sup>+0.5</sup> / <sub>+0.15</sub>	110	30	30	148	54	55

### Piston Rod Ball Joint KJ (ISO 8139)



Bore size (mm)	d3	Part no.	$\varnothing d_1$ H9	h	d6 max.	b1 h12	$l_{min.}$	$\alpha$	$l_3$
32	M10 x 1.25	KJ10D	10	43	28	14	20	4°	15
40	M12 x 1.25	KJ12D	12	50	32	16	22	4°	17
50, 63	M16 x 1.5	KJ16D	16	64	42	21	28	4°	23
80, 100	M20 x 1.5	KJ20D	20	77	50	25	33	4°	27
125	M27 x 2	KJ27D	30	110	70	37	51	4°	36