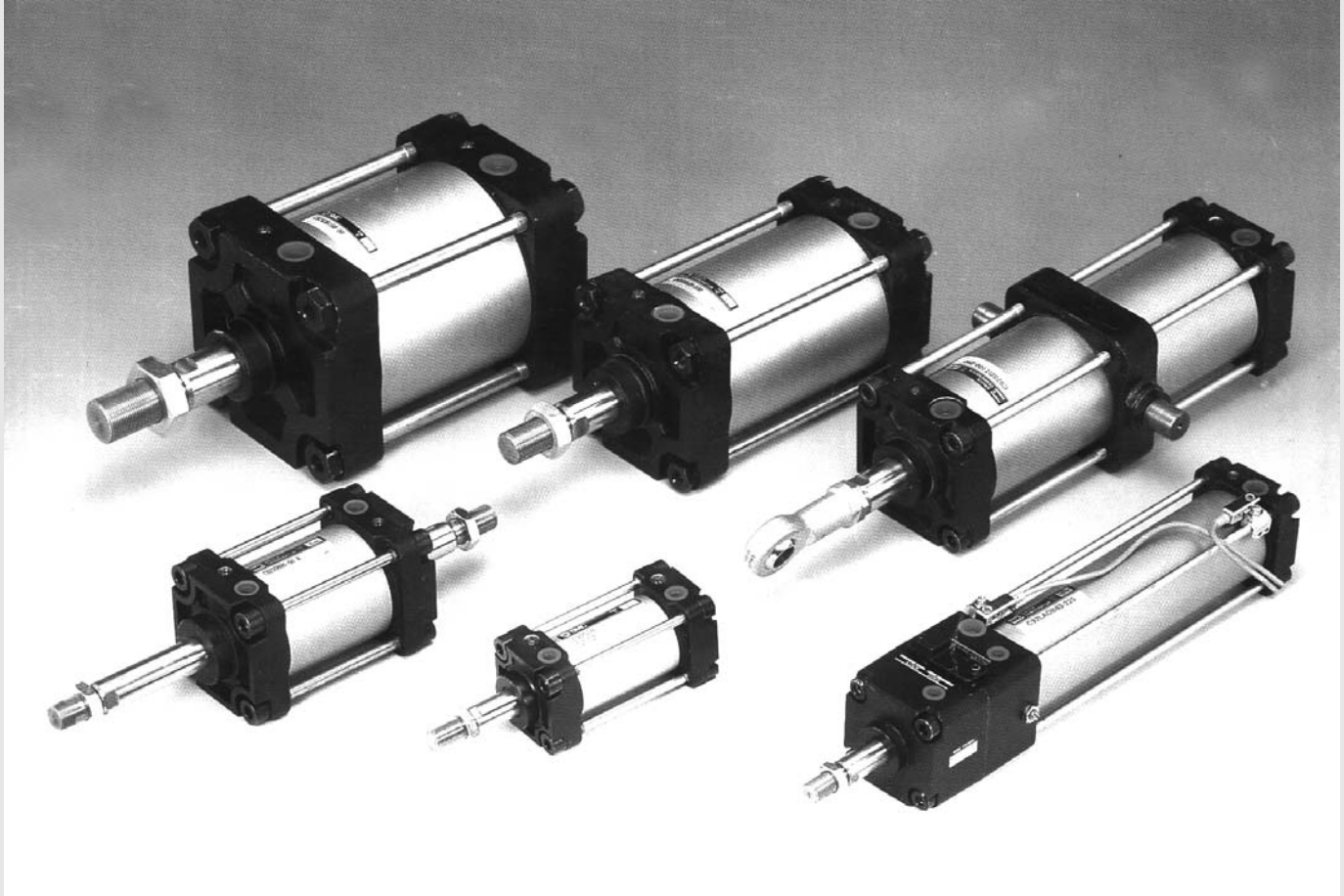




ISO Cylinder Series C92



ø32, ø40, ø50, ø63, ø80, ø100, ø125, ø160

Dimensions conform to ISO 6431, CETOP RP43P up to ø100,
CETOP RP53P for ø125 and ø160



CJ1
CJP
CJ2
CM2
C85
C76
CG1
MB
MB1
CP95
C95
C92
CA1
CS1

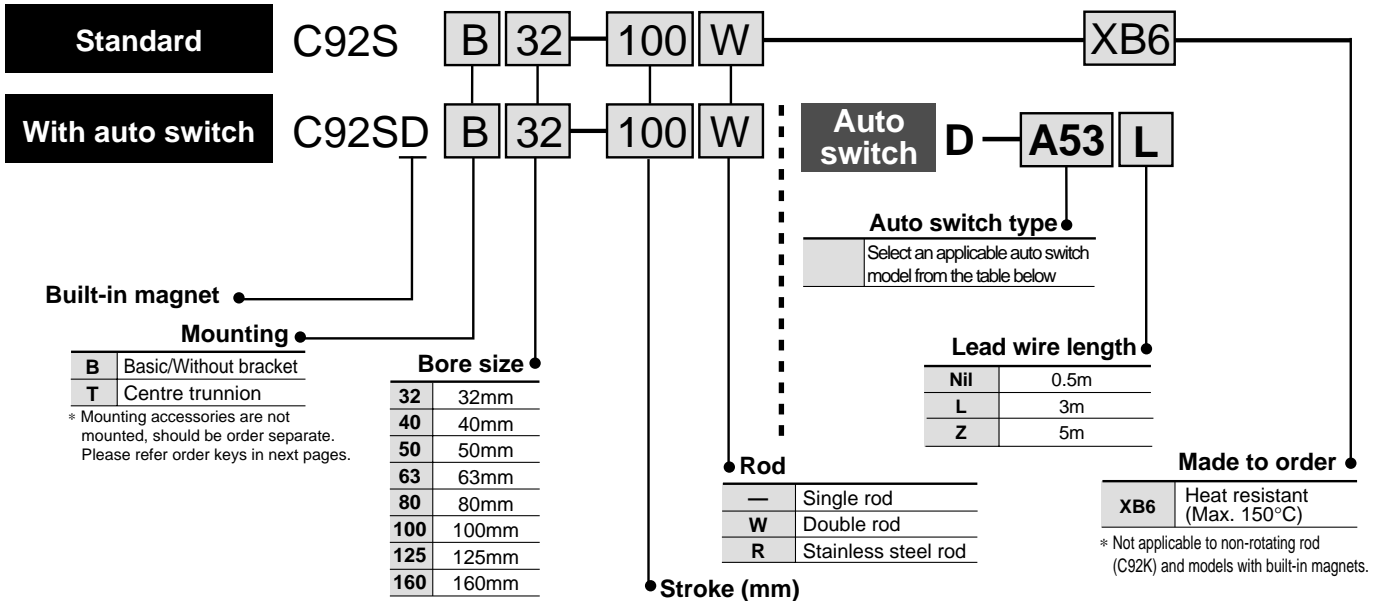
Variations

Series	Action	Style		Basic	Standard variations		Made to Order Heat resist.	Bore (mm)	Page
					Built-in magnet	Stainless steel rod			
Standard Series C92 	Double acting	Single rod	Non-lube	•	•	•	32, 40 50, 63 80, 100, 125, 160	1.12-2	
		Double rod	Non-lube	•	•	•			
	Double acting	Single rod	Non-lube	•	•	•			
		Double rod	Non-lube	•	•	•			
Non-rotating rod Series C92K 	Double acting	Single rod	Non-lube	•	•	•	32, 40 50, 63	1.12-10	
		Double rod	Non-lube	•	•	•			
	Double acting	Single rod	Non-lube	•	•	•			
		Double rod	Non-lube	•	•	•			

ISO Cylinder/Standard: Double Acting Series C92

ø32, ø40, ø50, ø63, ø80, ø100, ø125, ø160

How to Order



Applicable Auto Switches/Tie rod mounting

Refer to standard stroke table on p.1.12-3.

Auto Switch Mounting Bracket Part No.

Bore size	Mounting bracket
ø32	BT-03
ø40	BT-03
ø50	BT-04
ø63	BT-04
ø80	BT-06
ø100	BT-06
ø125	BT-08
ø160	BT-16

Style	Special function	Electrical entry	Indicator	Load voltage			Auto switch model	Lead wire (m)*			Applicable load	
				Wiring (Output)	DC	AC		0.5 (-)	3 (L)	5 (Z)		
Reed switch	—	Grommet	Yes	3 wire (Equiv. to NPN)	—	5V	—	A56	●	●	—	IC
				2 wire	12V	—	A53	●	●	●	—	Relay PLC
					5V, 12V	100V, 200V	A54	●	●	●	—	
					5V, 12V	—	A67	●	●	—	—	
Solid state switch	Diagnosis indication (2 colour)	Grommet	Yes	3 wire (NPN)	24V	5V, 12V	—	F59	●	●	○	IC
								3 wire (PNP)	F5P	●	●	○
				2 wire	—	100V, 200V	J51	●	●	○	—	
							12V	J59	●	●	○	—
				3 wire (NPN)	5V, 12V	—	F59W	●	●	○	IC	
							F5PW	●	●	○	—	
				3 wire (PNP)	5V, 12V	—	J59W	●	●	○	—	
							F59W	●	●	○	IC	
				2 wire	24V	12V	—	F5BA	—	●	○	—
								F5NT	—	●	○	IC
3 wire (NPN)	5V, 12V	—	—	F59F	●	●	○	—				
				F5LF	●	●	○	—				
4 wire (NPN)	—	—	—	F59F	●	●	○	IC				
				F5LF	●	●	○	—				

* Lead wire length 0.5m..... — (Example: A53)
3m..... L (Example: A53L)
5m..... Z (Example: A53Z)

○: Manufactured upon receipt of order.

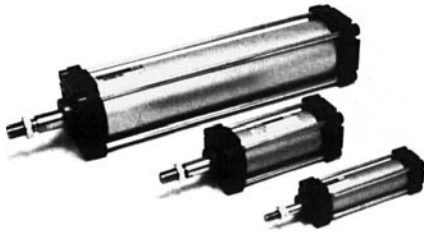
Mounting Bracket Part No.

Bore size	ø32	ø40	ø50	ø63	ø80	ø100	ø125	ø160
Foot⁽¹⁾	L32	L40	L50	L63	L80	L100	L125	L160
Flange	F32	F40	F50	F63	F80	F100	F125	F160
Single rear clevis	C32	C40	C50	C63	C80	C100	C125	C160
Double rear clevis	D32	D40	D50	D63	D80	D100	D125	D160

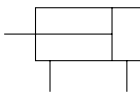
Note 1) Two foot brackets required for one cylinder.

ISO Cylinder/Standard: Double Acting **Series C92**

Specifications



JIS Symbol
Double acting



Minimum Strokes for Auto Switch Mounting

Refer to p.1.12-12 for "Minimum Strokes for Auto Switch Mounting".

Bore size	ø32	ø40	ø50	ø63	ø80	ø100	ø125	ø160
Action	Double acting							
Fluid	Air							
Proof pressure	1.5MPa							
Max. operating pressure	1.0MPa							
Min. operating pressure	0.05MPa							
Ambient and fluid temperature	Without magnet -10 to 70°C (No freezing)							
	With magnet -10 to 60°C (No freezing)							
Lubrication	Not required (Non-lube)							
Operating piston speed	50 to 500 mm/s							
Allowable stroke tolerance	to 250: $^{+1.0}_0$, 251 to 1000: $^{+1.4}_0$, 1001 to 1500: $^{+1.8}_0$							
Cushion	Both ends (Air cushion)							
Thread tolerance	JIS class 2							
Port size	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2	G1/2	G3/4
Mounting	Basic, axial foot, front flange, rear flange, single rear clevis, double rear clevis, centre trunnion							

Standard Stroke

Bore size (mm)	Standard stroke (mm)	Max. * stroke
32	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500	1900
40	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500	1900
50	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500	1900
63	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500	1900
80	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500	1900
100	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500	1900
125	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500	2900
160	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500	2900

Intermediate strokes are available.
* Consult SMC for longer strokes.

Applicable Auto Switches

Style	Auto switch model	Electrical entry (function)
Reed switch	D-A5□/A6□	Grommet
	D-A59W	Grommet (2 colour indication)
Solid state switch	D-F5□/J5□	Grommet
	D-F5□W/J59W□	Grommet (2 colour indication)
	D-F5BA	Grommet (2 colour, Water resistant)
	D-F5□F	Grommet (2 colour, diagnosis output)
	D-F5NT	Grommet (Timer)

Accessories

Mounting		Basic	Foot	Front flange	Rear flange	Single rear clevis	Double rear clevis	Center trunnion
Standard	Rod end nut	●	●	●	●	●	●	●
	Clevis pin	—	—	—	—	—	●	—
Option	Single rod clevis	●	●	●	●	●	●	●
	Double rod clevis (with pin)	●	●	●	●	●	●	●
	Rod boot	●	●	●	●	●	●	●

Series C92

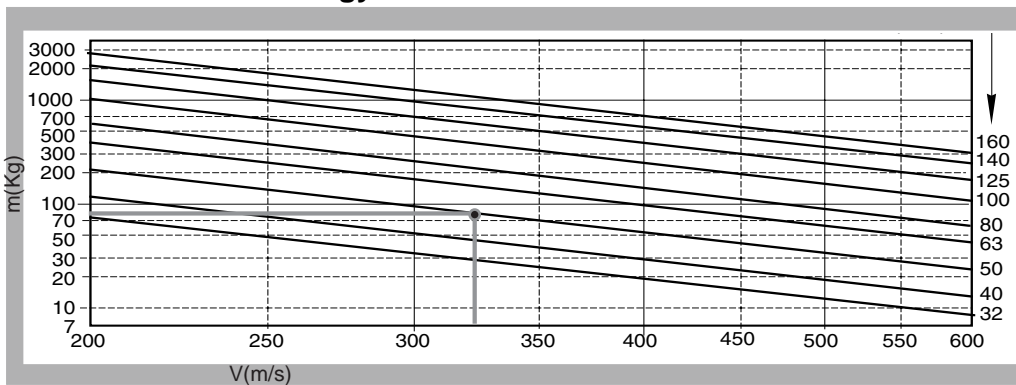
Theoretical Force

(Unit : N) 

Bore size (mm)	Rod diameter (mm)	Operating direction	Piston area (mm ²)	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	483	563	643	724	804
		IN	691	138	207	276	346	415	484	553	622	691
40	16	OUT	1257	251	377	503	628	754	880	1005	1131	1257
		IN	1056	211	317	422	528	633	739	844	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	30	OUT	7853	1571	2356	3142	3927	4712	5498	6283	7068	7854
		IN	7147	1429	2144	2859	3574	4288	5003	5718	6432	7147
125	32	OUT	12270	2450	3680	4910	6150	7360	8590	9820	11040	12270
		IN	11250	2250	3380	4500	5630	6750	7880	9000	10130	11250
160	40	OUT	20100	4020	6030	8040	10050	12060	14070	16080	18100	20110
		IN	18850	3770	5650	7540	9420	11310	13190	15080	16960	18850

Note) Theoretical force(N) = Pressure (MPa) X Piston area (mm²)

Allowable Kinetic Energy



Example: Load limit at rod end when air cylinder ø50 is actuated with max. actuating speed 325mm/s. See the intersection of lateral axis 325mm/s and ø50 line, and extend the intersection to left. Thus the allowable load is 85kg.

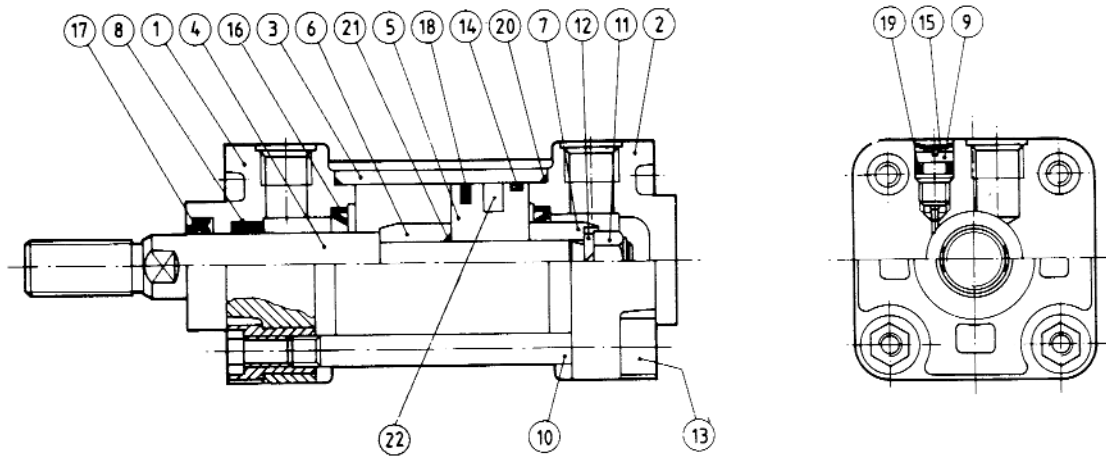
Weight Table

Bore size (mm)		32	40	50	63	80	100	125	160
Basic weight	Basic	0.47	0.90	1.32	2.07	3.52	5.09	9.06	16.83
	Foot	0.15	0.17	0.20	0.30	0.80	0.94	2.30	5.10
	Flange	0.24	0.40	0.60	0.96	1.84	2.32	4.10	6.90
	Single clevis	0.25	0.27	0.45	0.76	0.93	2.31	3.40	5.90
	Double clevis	0.24	0.26	0.43	0.78	1.38	2.33	4.18	7.30
	Trunnion	0.62	1.50	2.07	3.42	5.86	8.62	12.46	22.43
Additional weight per 50 stroke	All mounting brackets	0.14	0.22	0.28	0.36	0.52	0.64	0.71	0.95

Calculation example: C92SD40-100

- Basic weight 0.90 (Basic, ø40) ● Mounting 0.26 (Double clevis)
 - Additional weight ... 0.22/50 stroke
 - Cylinder stroke 100 stroke
- 0.90+0.22 X 100/50+0.26=1.6kg

Construction



- CJ1
- CJP
- CJ2
- CM2
- C85
- C76
- CG1
- MB
- MB1
- CP95
- C95
- C92**
- CA1
- CS1

Component Parts

No.	Description	Material	Note
①	Rod cover	Aluminum alloy	
②	Head cover	Aluminum alloy	
③	Cylinder tube	Aluminum alloy	
④	Piston rod	C45 hard chrome	
⑤	Piston	Aluminum alloy	
⑥	Cushion ring	Rolled steel	
⑦	Cushion ring	Rolled steel	
⑧	Bushing	Lead bronze casting	
⑨	Cushion adjustment screw	Steel	(Zinc chromate plated)
⑩	Tie rod	Steel	(Zinc chromate plated)
⑪	Piston nut	Rolled steel	
⑫	Spring seat	Steel wire	(Zinc chromate plated)
⑬	Tie rod nut	Steel	(Zinc chromate plated)

No.	Description	Material	Note
⑭	Wearing	PRC compound	
⑮	Serrated washer	Steel	(Zinc chromate plated)
⑯	Cushion seal	NBR	
⑰	Rod seal/Gasket	NBR	
⑱	Piston seal	NBR	
⑲	Cushion screw seal	NBR	
⑳	Cylinder tube gasket	NBR	
㉑	Piston gasket	NBR	
㉒	Magnet ring		

Seal Kits

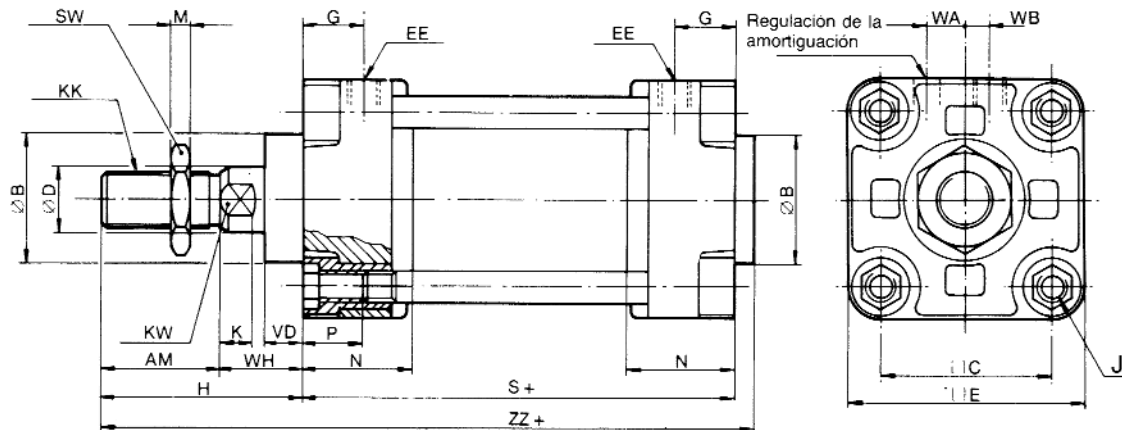
Bore size (mm)	Kit No.	Contents
32	CS92-32	Kits include items 16 to 21
40	CS92-40	
50	CS92-50	
63	CS92-63	
80	CS92-80	
100	CS92-100	
125	CS92-125	
160	CS92-160	

* Seal kits consist of items 16 to 21

Series C92

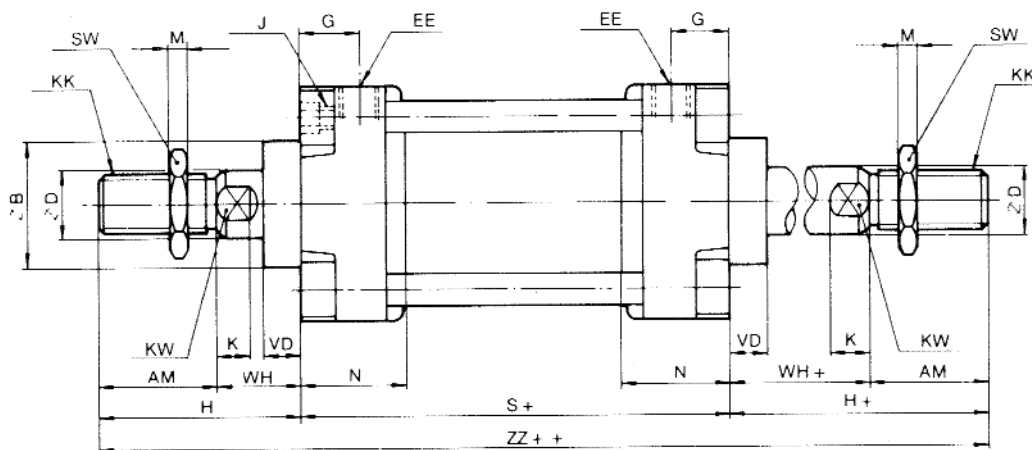
Without Mounting Bracket

C92S□Bø-Stroke



Bore (mm)	AM	øB	C	ØD	E	EE	G	KK	H	J	K	KW	M	N	P	S	SW	VD	WA	WB	WH	ZZ
32	22	30	33	12	46	G1/8	13,5	M10 X 1.25	58	M6	6	10	5	23	11	74	17	10	7	6	36	136
40	24	32	44	16	60	G1/4	15,5	M12 X 1.25	64,5	M6	6	14	7	27	11	84	19	10	10	6	40,5	153,5
50	32	40	52	20	70	G1/4	17	M16 X 1.5	77	M8	7	18	8	30	14	90	24	10	11	10	45	173
63	32	40	64	20	85	G3/8	17	M16 X 1.5	80,5	M8	7	18	8	31	14	98	24	10	11	10	48,5	184,5
80	40	52	78	25	103	G3/8	22	M20 X 1.5	92	M10	11	22	10	37	19	116	30	14	11	16	52	215
100	40	52	92	30	116	G1/2	19,5	M20 X 1.5	97	M10	11	26	10	40	19	126	30	14	12	20	57	231
125	54	60	110	32	140	G1/2	25	M27 X 2	119	M12	15	27	13	45	42	160	41	26	20	15	65	287
160	72	65	140	40	180	G3/4	30	M36 X 2	152	M16	17	36	16	55	52	180	55	31	25	15	80	340

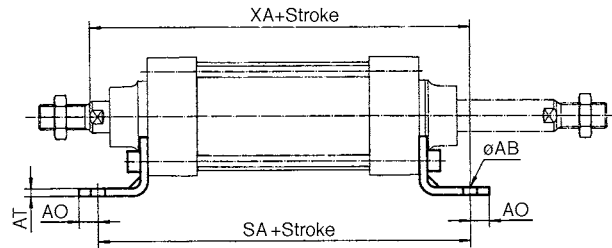
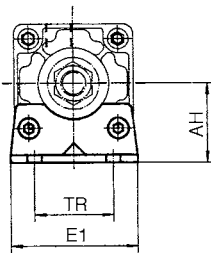
C92S□Bø-Stroke W



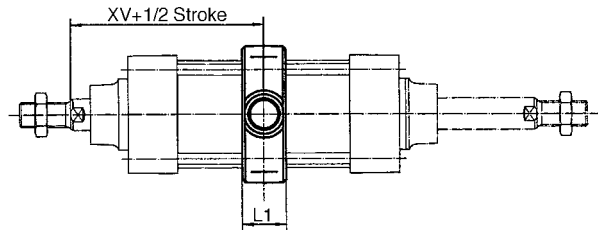
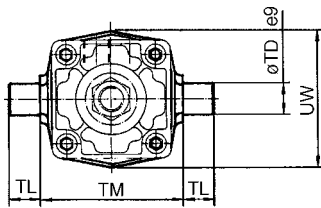
Bore (mm)	AM	øB	øD	EE	G	H	J	KK	K	KW	M	N	S	SW	VD	WH	ZZ
32	22	30	12	G1/8	13,5	58	M6	M10 X 1.25	6	10	5	23	74	17	10	36	190
40	24	32	16	G1/4	15,5	64,5	M6	M12 X 1.25	6	14	7	27	84	19	10	40,5	213
50	32	40	20	G1/4	17	77	M8	M16 X 1.5	7	18	8	30	90	24	10	45	244
63	32	40	20	G3/8	17	80,5	M8	M16 X 1.5	7	18	8	31	98	24	10	48,5	259
80	40	52	25	G3/8	22	92	M10	M20 X 1.5	11	22	10	37	116	30	14	52	300
100	40	52	30	G1/2	19,5	97	M10	M20 X 1.5	11	26	10	40	126	30	14	57	320
125	54	60	32	G1/2	25	119	M12	M27 X 2	15	27	13	45	160	41	26	65	398
160	72	65	40	G3/4	30	152	M16	M36 X 2	17	36	16	55	180	55	31	80	484

With Mounting Bracket

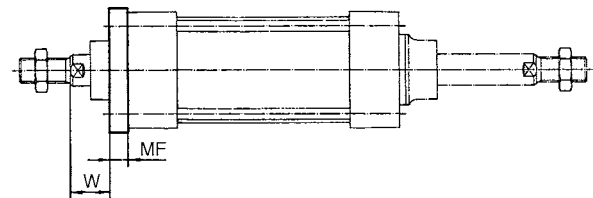
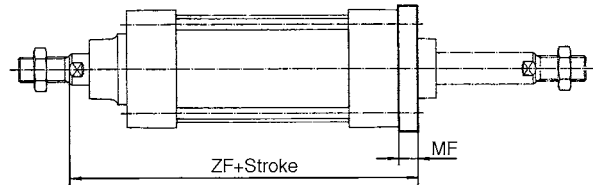
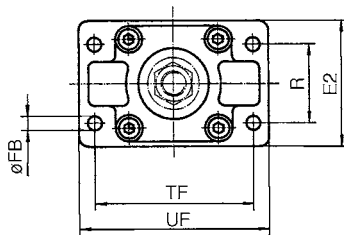
Foot L



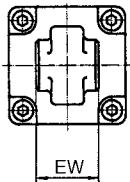
Centre trunnion T



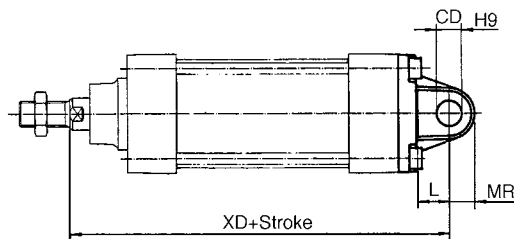
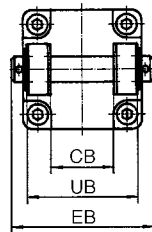
Flange F



Rear single clevis C



Rear double clevis D



CJ1

CJP

CJ2

CM2

C85

C76

CG1

MB

MB1

CP95

C95

C92

CA1

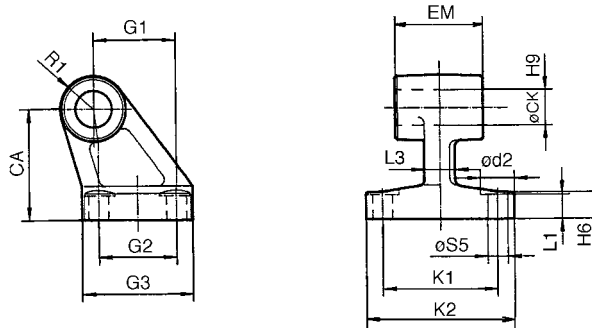
CS1

Bore (mm)	E1	R	W	MF	ZF	øFB	CD	EB	L	XD	UB	CB	EW	MR	TR	AO	AT	XA	SA	AH	øAB	L1	XV	TL	øTD	TM	UW	TF	UF	E2
32	46	32	16	12,5	130	7	10	65	15	142	45	26	26	9	32	10	3,2	144	142	32	7	18	73	12	12	50	47	64	78	46
40	60	36	20	12	145	9	12	75	18	160	52	28	28	12	36	11	3,2	163	161	36	9	22	82,5	16	15	85	62	72	90	58
50	70	45	25	15	155	9	12	80	18	170	60	32	32	12	45	12	3,2	175	170	45	9	22	90	16	15	95	74	90	110	68
63	85	50	25	16	170	9	16	90	23	190	70	40	40	16	50	13	3,2	190	185	50	9	28	97,5	19	18	110	90	100	120	89
80	102	63	30	20,5	190	12	16	110	23	210	90	50	50	16	63	15	4,5	215	210	63	12	34	110	26	25	140	110	126	154	100
100	116	75	35	20,5	205	14	20	140	28	230	110	60	60	20	75	18	6	230	220	71	14	40	120	26	25	162	130	150	180	114
125	140	90	45	20	245	16	25	164	30	275	130	70	69,5	25	90	15	9	270	250	90	16	44	145	25	25	160	154	180	210	140
160	180	115	60	20	280	18	30	204	35	315	170	90	89,5	30	115	20	11	320	300	115	18	49	170	32	32	200	194	230	265	180

Series C92

Accessories

Counter pivot E

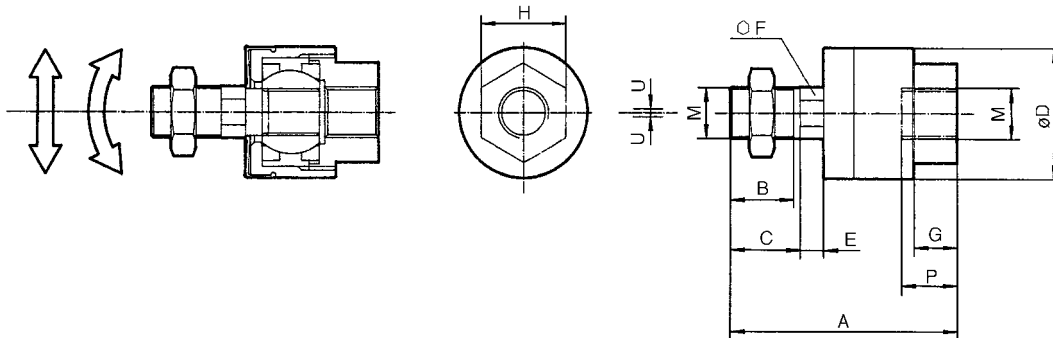


Bore (mm)	ød2	øCK	øS5	K1	K2	L3	G1	L1	G2	EM	G3	CA	H6	R1
32	10	10	5,5	38	51	10	21	4	18	26	31	32	8	10
40	10	12	5,5	41	54	10	24	4	22	28	35	36	10	11
50	11	12	6,6	50	65	14	33	6	30	32	45	45	12	13
63	11	16	6,6	52	67	14	37	6	35	40	50	50	12	15
80	15	16	9	66	86	18	47	6	40	50	60	63	14	15
100	15	20	9	76	96	20	55	6	50	60	70	71	15	18
125	18	25	11	94	124	28	70	18	60	70	90	90	20	22,5
160	20	32	14	118	156	34	97	23	88	90	126	115	25	31

Accessories

Floating joint JA

Steel, zinc chromate plated

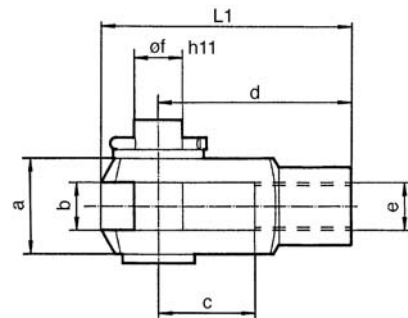


Bore (mm)	Ref.	M	A	B	C	øD	E	F	G	H	P	U	Load (kn)	Weight (g)
32	JA30-10-125	M10 X 1.25	49.5	19.5	22	24	5	8	8	17	9	0.5	2.5	70
40	JA40-12-125	M12 X 1.25	60	20	24	31	6	11	11	22	13	0.75	4.4	160
50/63	JA50-16-150	M16 X 1.5	71.5	22	25	41	7.5	14	13.5	27	15	1.0	11	300
80/100	JAH50-20-150	M20 X 1.5	101	28	30	59.5	11.5	24	16	32	18	2.0	18	1080
125	JA125-27-200	M27 X 2	123	34	38	66	13	27	20	41	24	2.0	28	1500
160	JA160-36-200	M36 X 2	178	51	55	96	16	36	24	55	42	3.0	71	4700

Piston rod clevis GKM (DIN 71752)

Steel, zinc chromate plated

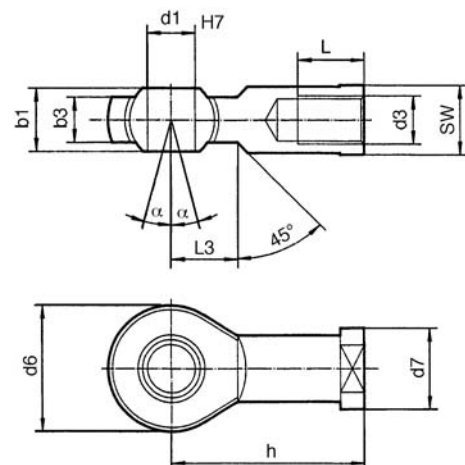
Bore (mm)	Ref.	e	b	d	øf	L1	c	a
32	GKM10-20	M10 X 1.25	10	40	10	52	20	20
40	GKM12-24	M12 X 1.25	12	48	12	62	24	24
50/63	GKM16-32	M16 X 1.5	16	64	16	83	32	32
80/100	GKM20-40	M20 X 1.5	20	80	20	105	40	40
125	GKM30-54	M27 X 2	30	112	30	156	56	55
160	GKM35-54	M36 X 2	36	144	35	182	72	70



Piston rod ball joint KJ (DIN 648)

Steel, zinc chromate plated

Bore (mm)	Ref.	d3	d1	h	d6	b3	b1	L	d7	α	L3
32	KJ10D	M10 X 1.25	10	43	28	10.5	14	20	19	13°	14
40	KJ12D	M12 X 1.25	12	50	32	12	16	22	22	13°	16
50/63	KJ16D	M16 X 1.5	16	64	42	15	21	28	27	15°	26
80/100	KJ20D	M20 X 1.5	20	77	50	18	25	33	34	15°	26
125	KJ27D	M27 X 2	30	110	70	25	37	51	50	15°	35
160	KJ36D	M36 X 2	35	125	80	28	43	56	58	16°	41

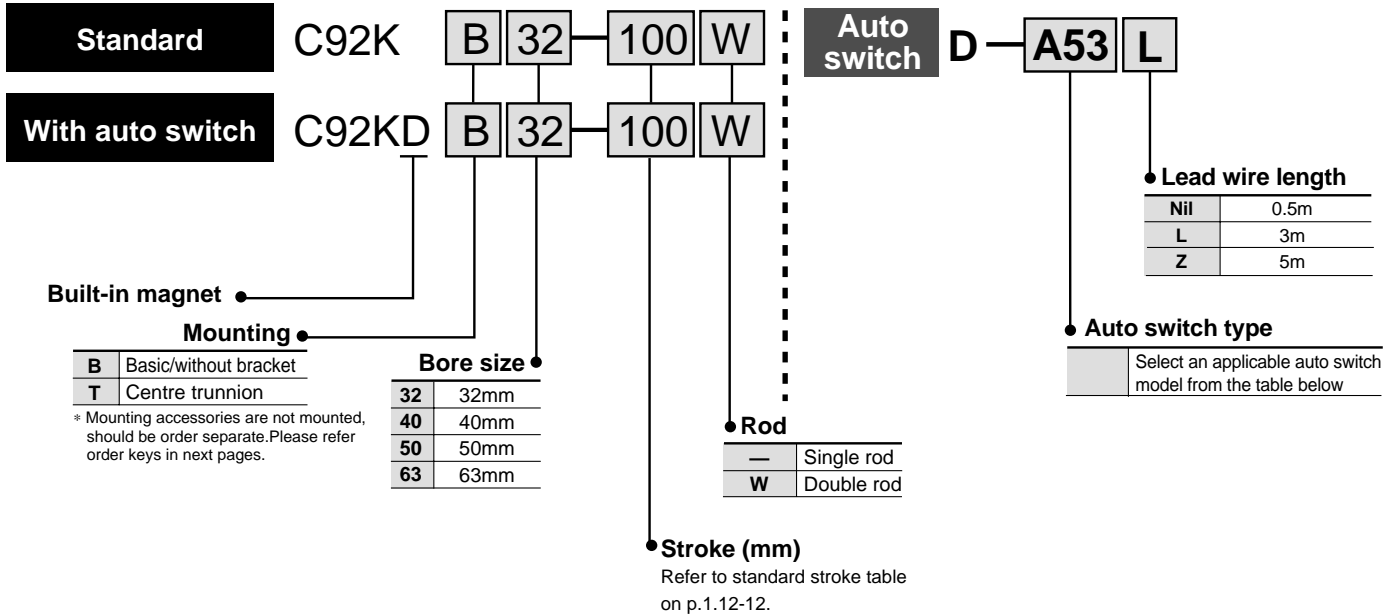


- CJ1
- CJP
- CJ2
- CM2
- C85
- C76
- CG1
- MB
- MB1
- CP95
- C95
- C92**
- CA1
- CS1

ISO Cylinder/Non-rotating Rod: Double Acting Series C92K

ø32, ø40, ø50, ø63

How to Order



Applicable Auto Switches/Tie rod mounting

Style	Special function	Electrical entry	Indicator	Load voltage			Auto switch model	Lead wire (m)*			Applicable load					
				Wiring (Output)	DC	AC		0.5 (—)	3 (L)	5 (Z)						
Reed switch	—	Grommet	Yes	3 wire (NPN) (Equiv. to NPN)	—	5V	—	A56	●	●	—	IC	—			
					24V	12V	—	A53	●	●	●	—	—			
						5V, 12V	100V, 200V	A54	●	●	●	—	—			
							5V, 12V	—	A67	●	●	—	—	IC		
							12V	200V or less	A64	●	●	—	—	—		
Diagnosis indication (2 colour)	Grommet	Yes	—	—	—	—	A59W	●	●	—	—	—				
				—	—	—	—	—	—	—	—	—				
Solid state switch	—	Grommet	Yes	3 wire (NPN)	24V	5V, 12V	—	F59	●	●	○	IC	Relay PLC			
								F5P	●	●	○	—				
				3 wire (PNP)	—	100V, 200V	J51	●	●	○	—					
							J59	●	●	○	—					
				2 wire	24V	12V	—	F59W	●	●	○	IC				
								F5PW	●	●	○	—				
				Diagnosis indication (2 colour)	Grommet	Yes	3 wire (NPN)	5V, 12V	—	—	J59W	●		●	○	—
											F5BA	—		●	○	—
				Water resistant (2 colour)	Grommet	Yes	3 wire (PNP)	5V, 12V	—	—	F5NT	—		●	○	IC
											F59F	●		●	○	—
With timer	Grommet	Yes	2 wire	24V	12V	—	—	F5LF	●	●	○	—				
								—	—	—	—	—				
Diagnosis output (2 colour)	Grommet	Yes	4 wire (NPN)	—	—	—	—	—	—	—	—	—				
								—	—	—	—	—				
Latch diagnosis output (2 colour)	Grommet	Yes	—	—	—	—	—	—	—	—	—	—				
								—	—	—	—	—				

* Lead wire length 0.5m..... — (Example: A53)
3m..... L (Example: A53L)
5m..... Z (Example: A53Z)

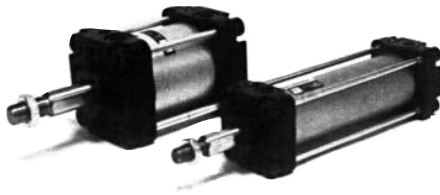
○: Manufactured upon receipt of order.

Mounting Bracket Part No.

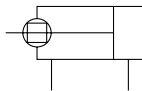
Bore size	ø32	ø40	ø50	ø63
Foot ⁽¹⁾	L32	L40	L50	L63
Flange	F32	F40	F50	F63
Single rear clevis	C32	C40	C50	C63
Double rear clevis	D32	D40	D50	D63

Note 1) Two foot brackets required for one cylinder.

ISO Cylinder/Non-rotating Rod: Double Acting **Series C92K**



JIS Symbol
Double acting



Specifications

Bore size	ø32	ø40	ø50	ø63
Action	Double acting			
Fluid	Air			
Proof pressure	1.5MPa			
Max. operating pressure	1.0MPa			
Min. operating pressure	0.05MPa			
Ambient and fluid temperature	Without magnet -10 to 70°C (No freezing)			
	With magnet -10 to 60°C (No freezing)			
Lubrication	Not required (Non-lube)			
Operating piston speed	50 to 500 mm/s			
Allowable stroke tolerance	to 250: $+1.0_0$, 251 to 1000: $+1.4_0$, 1001 to 1500: $+1.8_0$			
Cushion	Both ends (Air cushion) ⁽¹⁾			
Thread tolerance	JIS class 2			
Port size	G1/8	G1/4	G1/4	G3/8
Mounting	Basic, axial direction foot, front flange, rear flange, single rear clevis, double rear clevis, centre trunnion			
Non-rotating accuracy	±0.8°	±0.5°	±0.5°	±0.5°

CJ1

CJP

CJ2

CM2

C85

C76

CG1

MB

MB1

CP95

C95

C92

CA1

CS1

Accessories

Mounting		Basic	Foot	Front flange	Rear flange	Single rear clevis	Double rear clevis	Centre trunnion
Standard	Rod end nut	●	●	●	●	●	●	●
	Clevis pin	—	—	—	—	—	●	—
Option	Single rod clevis	●	●	●	●	●	●	●
	Double rod clevis (with pin)	●	●	●	●	●	●	●
	Rod boot	●	●	●	●	●	●	●

Weight

Bore size (mm)		32	40	50	63
Basic weight	Basic	0.47	0.90	1.32	2.07
	Axial foot	0.15	0.17	0.20	0.30
	Flange	0.24	0.40	0.60	0.96
	Single clevis	0.25	0.27	0.45	0.76
	Double clevis	0.24	0.26	0.43	0.78
	Centre trunnion	0.62	1.50	2.07	3.42
Additional weight per 50 stroke	All mounting brackets	0.14	0.22	0.28	0.36

Calculation example: C92KD40-100

- Basic weight 0.90 (Basic)
- Additional weight ... 0.22/50 stroke
- Cylinder stroke 100 stroke

$$0.90 + 0.22 \times 100 / 50 + 0.26 = 1.6 \text{ kg}$$

- Mounting 0.26 (Double clevis)

Series C92K

Standard Stroke

Bore size (mm)	Standard stroke (mm)
32	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500
40	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500
50	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500, 600
63	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500, 600

Intermediate strokes are available.

Minimum Strokes for Auto Switch Mounting

Refer to p.1.12-14 on "Minimum Strokes for Auto Switch Mounting".

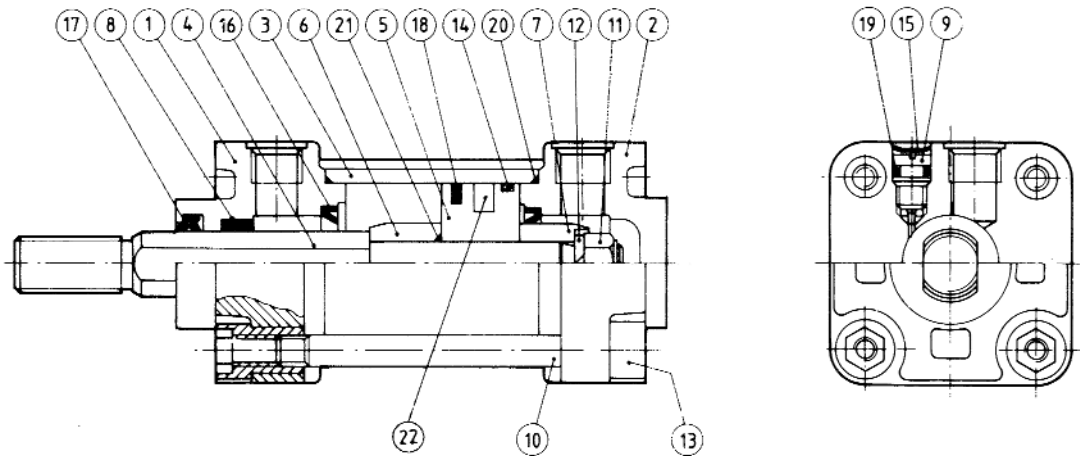
Theoretical Force

OUT side is identical to double acting single rod. Refer to table below for IN side.

Bore size (mm)	Rod diameter (mm ²)
32	675
40	1082
50	1651
63	2804

Theoretical force (N) =
Pressure (MPa) X Piston area (mm²)

Construction



Component Parts

No.	Description	Material	Note
①	Rod cover	Aluminum alloy	
②	Head cover	Aluminum alloy	
③	Cylinder tube	Aluminum alloy	
④	Piston rod	1.4301stainless steel	
⑤	Piston	Aluminum alloy	
⑥	Cushion ring	Rolled steel	
⑦	Cushion ring	Rolled steel	
⑧	Bushing	Lead bronze casting	
⑨	Cushion adjustment screw	Steel	(Zinc chromate plated)
⑩	Tie rod	Steel	(Zinc chromate plated)
⑪	Piston nut	Steel	(Zinc chromate plated)
⑫	Spring seat	Steel wire	(Zinc chromate plated)
⑬	Tie rod nut	Steel	(Zinc chromate plated)

No.	Description	Material	Note
⑭	Wearing	PRC compound	
⑮	Serrated washer	Steel	(Zinc chromate plated)
⑯	Cushion seal	NBR	
⑰	Rod seal/Gasket	NBR	
⑱	Piston seal	NBR	
⑲	Cushion screw seal	NBR	
⑳	Cylinder tube gasket	NBR	
㉑	Piston gasket	NBR	
㉒	Magnet ring		

Seal Kits

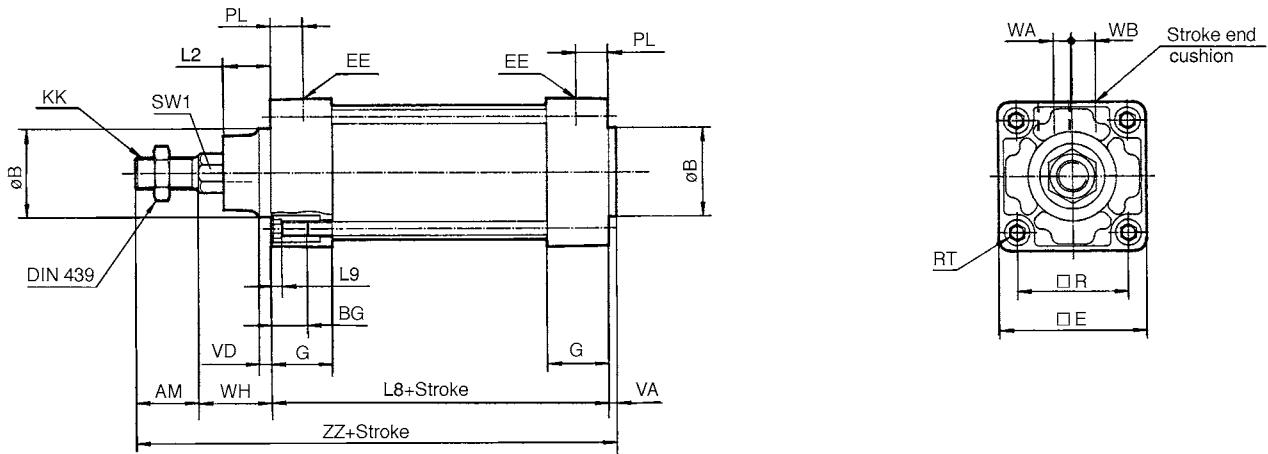
Bore size (mm)	Kit No.	Contents
32	CK92-32	Kits include items 16 to 21
40	CK92-40	
50	CK92-50	
63	CK92-63	

* Seal kits consist of items 16 to 21

ISO Cylinder/Non-rotating Rod: Double Acting **Series C92K**

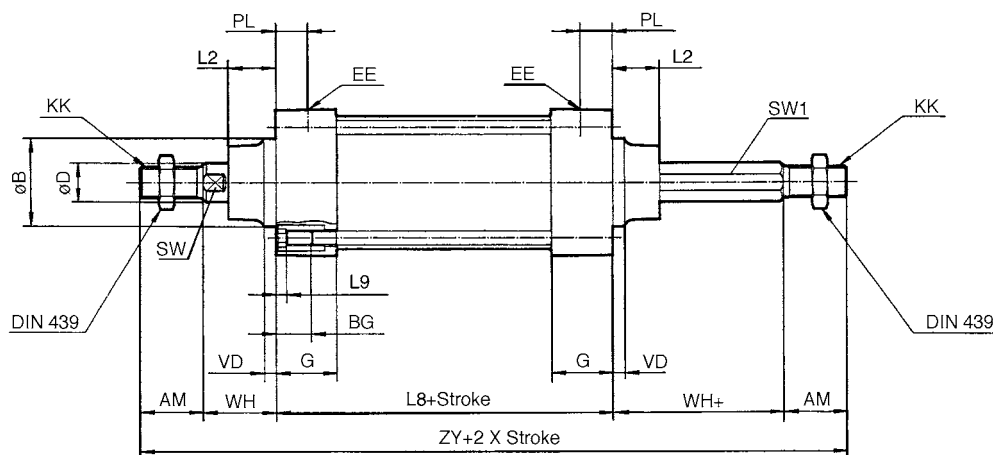
Without Mounting Bracket

C92KB \emptyset -Stroke



Bore size (mm)	AM	$\emptyset B$	$\square C$	$\emptyset D$	$\square E$	EE	KK	G	H	J	K	M	N	P	S	SW	VD	WA	WB	WH	ZZ
32	22	30	33	12	46	G1/8	M10 X 1.25	13,5	58	M6	10	5	23	11	74	17	10	7	6	36	136
40	24	32	44	16	60	G1/4	M12 X 1.25	15,5	64,5	M6	14	7	27	11	84	19	10	10	6	40,5	153,5
50	32	40	52	20	70	G1/4	M16 X 1.5	17	77	M8	18	8	30	14	90	24	10	11	10	45	173
63	32	40	64	20	85	G3/8	M16 X 1.5	17	80,5	M8	18	8	31	14	98	24	10	11	10	48,5	184,5

C92KB \emptyset -Stroke W



Bore size (mm)	AM	$\emptyset B$	$\emptyset D$	EE	G	H	KK	J	K	KW	M	N	S	SW	VD	WH	ZZ
32	22	30	12	G1/8	13.5	58	M10 X 1.25	M6	6	10	5	23	74	17	10	36	190
40	24	32	16	G1/4	15.5	64.5	M12 X 1.25	M6	6	14	7	27	84	19	10	40.5	213
50	32	40	20	G1/4	17	77	M16 X 1.5	M8	7	18	8	30	90	24	10	45	244
63	32	40	20	G3/8	17	80.5	M16 X 1.5	M8	7	18	8	31	98	24	10	48.5	259

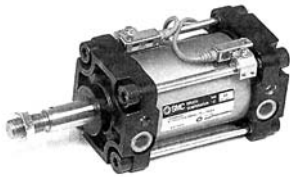
* Refer to p.1.12-7 through 1.12-9 for dimensions with mounting bracket and accessories.

- CJ1
- CJP
- CJ2
- CM2
- C85
- C76
- CG1
- MB
- MB1
- CP95
- C95
- C92**
- CA1
- CS1



Refer to P.5.3-17, 27, 37, 46, 54, 58 and 61 for details on auto switches.

Applicable Auto Switch



Style	Auto switch model	Electrical entry (function)
Reed switch	D-A5□/A6□	Grommet
	D-A59W	Grommet (2 colour indication)
Solid state switch	D-F5□/J5□	Grommet
	D-F5□W/J59W	Grommet (2 colour indication)
	D-F5BAL	Grommet (2 colour indication, Water resistant)
	D-F5□F	Grommet (2 colour indication, diagnostic output)
	D-F5NTL	Grommet (Timer)



Minimum Strokes for Auto Switch Mounting

Style	Auto switch model	No. of auto switches	Support bracket except centre trunnion						Centre trunnion					
			ø32	ø40	ø50	ø63	ø80	ø100	ø32	ø40	ø50	ø63	ø80	ø100
Reed switch	D-A5, D-A6	2 (On different faces or same face)	15						20					
		1	20						60					
Reed switch	D-A59W	2 (On different faces or same face)	20						25					
		1	15						60					
Solid state switch	D-F5/J5	2 (On different faces or same face)	15						25					
		1	10						60					
	D-F5NTL	2 (On different faces or same face)	15						25					
		1	10						70					
	D-F5□W D-J59W D-F5BAL D-F5□F D-F5LF	2 (On different faces or same face)	15						25					
1	10						70							