

SHORT STROKE CYLINDERS $\varnothing 12 \div 100$ mm

Series W

Operating pressure: 1,5 ÷ 10 bar
 Room temperature: - 20 ÷ 80°C
 Medium: Filtered air, with or without lubrication

Available with mechanical shock absorbers

Construction details

Barrel profile from extruded aluminium alloy, internally and externally anodized (15 - 18 μ).

Removable aluminium end-caps for easy inspection.

Piston fitted with permanent plastroferrite magnetic ring (upon request; bore sizes 16 ÷ 100)

Piston seals produced from a special nitrile compound self-compensate against wear.

Rolled stainless steel rod (AISI 303) with female thread (male thread upon request).

Self-lubricating guide bearings.

Upon request

- Rear trunnion
- Nipple
- Non-rotating piston rod (bore sizes $\varnothing 16 \div 100$)
- Hollow through piston rod (bore sizes $\varnothing 20 \div 100$)
- Magnetic option (bore sizes $\varnothing 16 \div 100$)
- Magnetic sensors, see page 2.27
- Tandem cylinders
- Cylinders with slide unit, bore sizes $\varnothing 20 \div 80$

Developed forces

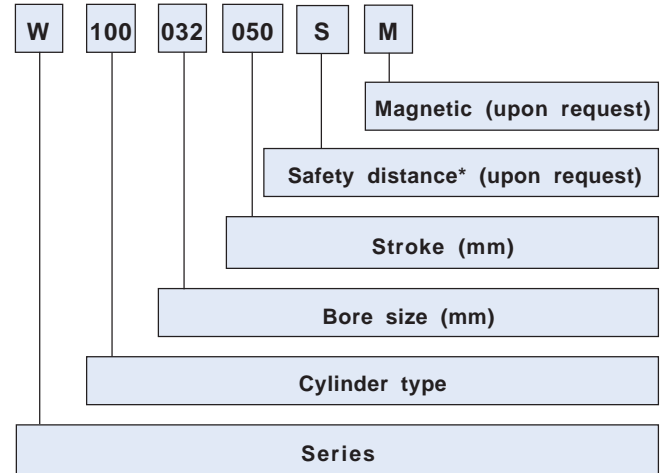
Such forces are obtained by applying the following formula:

Thrust force	Traction force
$Thf = S \cdot p - a$	$Tf = s \cdot p - a$

Where: p = supply pressure
 S = piston push surface (cm²)
 s = piston pull surface (cm²)
 a = friction (10%)

Cyl. \varnothing	\varnothing Piston rod (mm)	S (cm ²)	s (cm ²)	Max. reaction of the springs (N) (for SA-version)
12	6	1,1	0,8	6,8
16	6	2	1,7	7,8
20	10	3,1	2,3	13,2
25	10	4,9	4,1	19,6
32	12	8	6,9	35,3
40	16	12,6	10,6	45
50	16	19,6	17,6	70,5
63	20	31,1	28	96
80	25	50,3	54,3	119,5
100	25	78,5	73,6	237,2

Codification key



CYLINDER TYPE

- 100 D.A. Double acting cylinder
- 101 D.A. Double acting cylinder - through piston rod
- 110 D.A. Double acting cylinder - non-rotating piston rod*
- 111 D.A. Double acting cylinder - through, non-rotating piston rod*
- 131 D.A. Double acting cylinder - hollow through piston rod
- 160 S.A. Single acting cylinder - retracted piston rod
- 170 S.A. Single acting cylinder - extended piston rod

VERSION WITH REAR MALE HINGE

- (except bore size $\varnothing 12$)
- 700 D.A. Double acting cylinder
 - 760 S.A. Single acting cylinder - retracted piston rod
 - 770 S.A. Single acting cylinder - extended piston rod

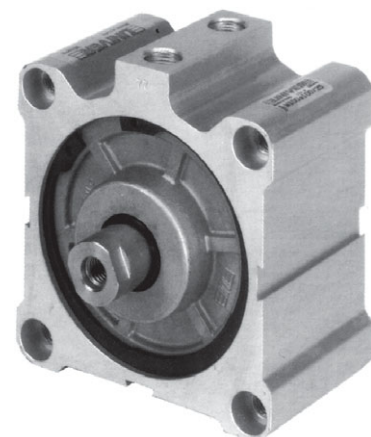
BORE

$\varnothing 12 - 16 - 20 - 25 - 32 - 40 - 50 - 63 - 80 - 100$ mm

STANDARD STROKE

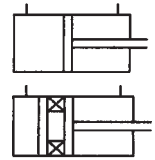
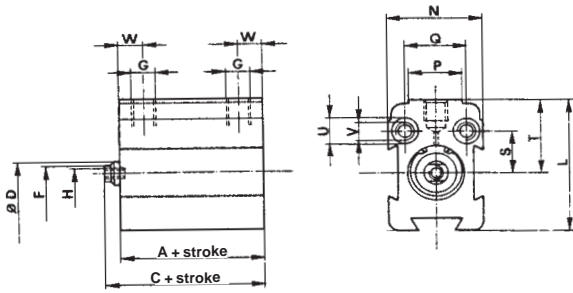
$\varnothing 12 - 25$ SA: 5-10 mm
 $\varnothing 32 - 100$ SA: 5-10-25 mm
 $\varnothing 12 - 16$ DA: 5-10-20-25-30-40-50 mm
 $\varnothing 20 - 100$ DA: 5-10-20-25-30-40-50-75 mm

* Cylinders with non rotating piston rod are available (upon request) with safety distance for accident prevention, according to EEC rules EN 349.

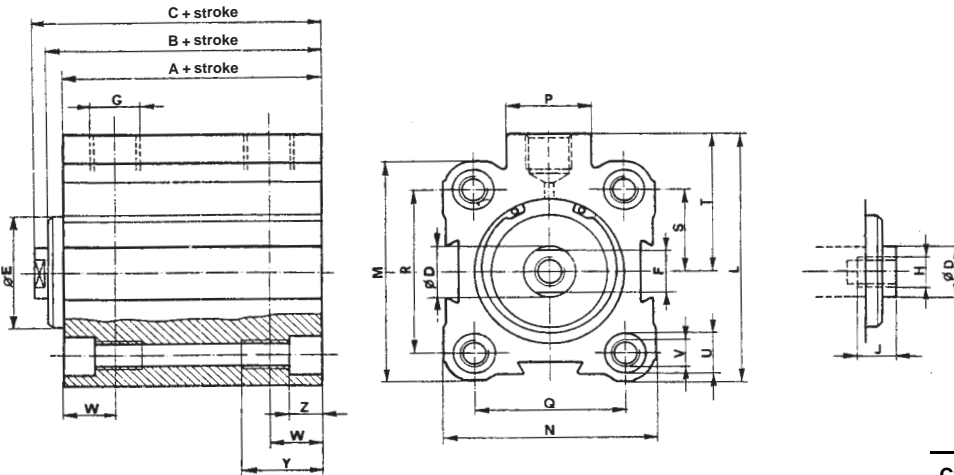


Double-acting cylinder W 100 . . / W 100 . . M Series

Ø 12 mm cylinder



Ø 16 ÷ 100 cylinder



Mass at 0 (g) stroke

Cyl. Ø	Non-magnetic	Magnetic	Increase per mm
12	45	-	1,2
16	74	102	1,4
20	95	120	2
25	135,5	155,5	2,85
32	233	292	4,06
40	394	430	5,47
50	390	446	6,4
63	640	772	9,7
80	1190	1275	14,85
100	1720	1920	19,7

Cyl. Ø	A	B	C + STROKE			D	E	F	G	H	J	L	M	N	P	Q	R	S	T	U	V		W	Y	Z	
			A*	B*	C*																hole	thread				
12	32	-	35,5	-	-	6	-	5	M5	M3	6,5	28,5	-	20	11	13	-	9	16	6	3,7	M4	8,2	9	3,4	
16	32	-	35,5	42	-	45,5	6	-	5	M5	M3	6,5	31	28	28	11	20	20	10	17	5,8	3,7	M4	6,5	9	3,4
20	35	-	42	45	-	52	10	-	8	M5	M5	10	35	32	32	11	22	22	11	19	7,5	4,6	M5	7	10	4,6
25	35	-	42	45	-	52	10	-	8	G 1/8	M5	10	44,5	39	37	18	26	28	14	25	7,5	4,6	M5	7,5	10	4,6
32	37	42	49	47	52	59	12	23	10	G 1/8	M6	12	54	48	45	18	32	36	18	30	8,5	5,55	M6	9	16	5,7
40	40	47	55	45	52	60	16	29,5	13	G 1/8	M8	14	60	54,5	54,5	18	40	40	20	33	8,5	5,55	M6	9,5	16	5,7
50	40	46,5	55	45	51,5	60	16	35,5	13	G 1/4	M8	14	72	64	64	22	50	50	25	40	10,5	7,4	M8	10	16	6,8
63	42	50,5	59	47	55,5	64	20	43	17	G 1/4	M10	15	88	80	80	22	62	62	31	48	13,5	9,3	M10	10	20	9
80	52	60	71,5	57	65	76,5	25	50	22	G 3/8	M12	20	110	100	100	26	82	82	41	60	13,5	9,3	M10	15	20	9
100	52	60	71,5	57	65	76,5	25	56	22	G 3/8	M12	20	134	124	124	26	103	103	51,5	72	16,5	11,2	M12	15	25	11

* Magnetic option

Technical modifications keep in reserve !

(98/05)