

Miniature Shock Absorbers

Material: Shock absorber and accessories: Steel, black oxide finish. Button: hardened. Piston rod: hardened, stainless steel.

Miniature shock absorbers are maintenance-free, self-contained hydraulic elements. The adjustable miniature shock absorbers can be perfectly set up for the respective application. They include an integrated mechanical stop. Due to the long stroke length, the unit offers smooth deceleration and low reaction forces.

These shock absorbers are ideal for absorbing fast movements in small linear units, handling modules, robotics systems and other applications.

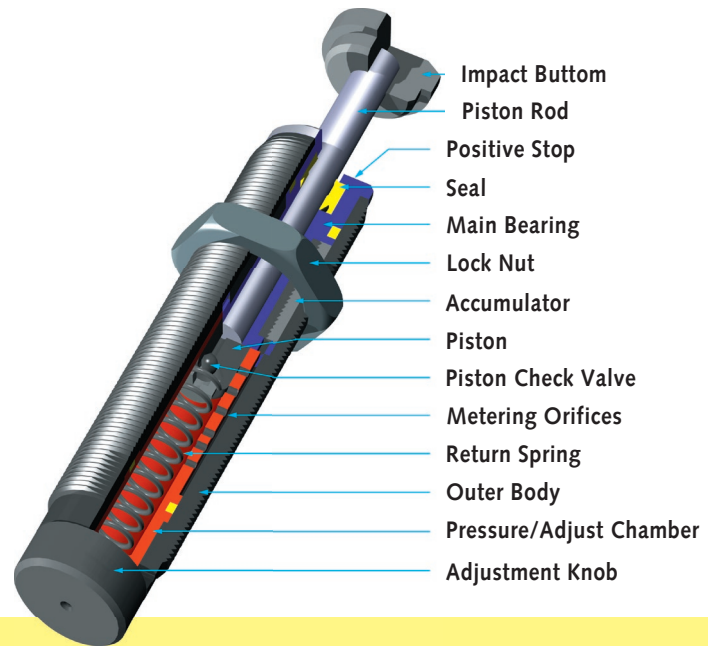
Adjustment: by turning the adjustment screw. After installation, cycle the machine a few times, turning the adjustment screw until optimum deceleration is achieved.

Impact velocity range: 0.3 to 3.6 m/s.

Exceeding W_4 (max. energy absorption per hour) is possible, if the unit is turned off from time to time or the shock absorber is cooled with the cylinder exhaust air.

Mounting position: optional.

Permissible temperature range: 0°C to 66°C.

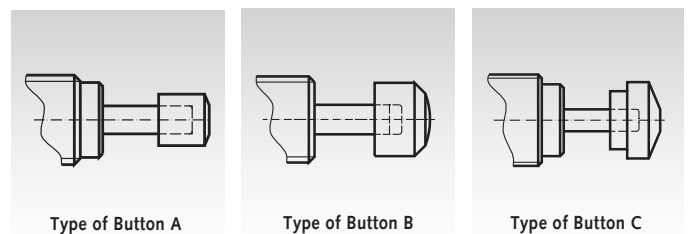
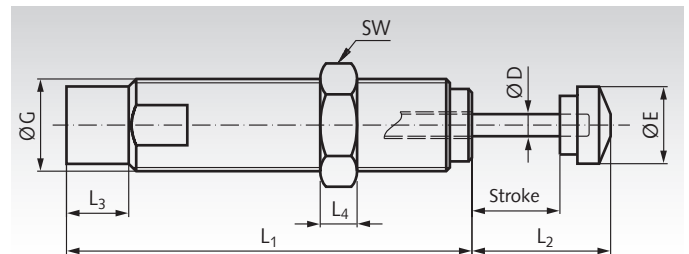


Capacity Chart

Product No.	Max. Energy Capacity		Effective Weight me adjustable		Return Force N	Rod Reset Time s	Max. Side Load Angle Degrees
	per Cycle W_3 Nm	per hour W_4 Nm	min. kg	max. kg			
690 030 00	3,5	5650	0,23	15	1 - 5	0,3	2
690 050 00	5,5	5100	4,5	20	3 - 6	0,3	2
690 035 00	4	6000	5,9	57	5 - 11	0,2	2
690 150 00	22	35000	1,0	109	3 - 5	0,4	5*
690 225 00	25	45000	2,3	226	5 - 10	0,1	2*
690 600 00	68	68000	9,0	1360	10 - 30	0,2	2*
690 900 00	100	90000	14	2040	10 - 35	0,4	1

* For higher side load angles consider using the Side Load Adaptor (on request).

Dimensions



Ordering Details: e.g.: Product No. 690 030 00, Miniature Shock Absorbers, Stroke 8 mm

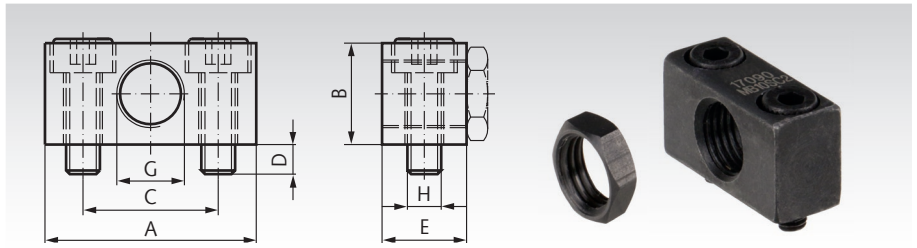
Product No. Miniature Shock Absorber	L_1 mm	L_2 mm	L_3 mm	L_4 mm	stroke mm	D mm	E mm	G Thread	Width Across Flats SW mm	Type of Button	Weight g	Product No. additional lock nut	Weight Lock nut g
690 030 00	48	13,1	4,1	3	8	3,2	6,4	M8x1	10	A	25	690 030 04	0,8
690 050 00	50	14,9	5,1	4	7	3,2	7,7	M10x1	12	A	30	690 050 04	1,4
690 035 00	66	18	5	5	10	3,2	7,7	M12x1	14	A	43	690 035 04	2,4
690 150 00	70	22,5	7,5	6	12,5	4,8	12	M14x1,5	17	B	60	690 150 04	4,8
690 225 00	88	30	13,5	8	19	4,8	17	M20x1,5	23	C	130	690 225 04	8
690 600 00	106,6	36,4	16,5	10	25,4	6,3	23	M25x1,5	30	C	310	690 600 04	18
690 900 00	138	51	16,5	10	40	6,3	23	M25x1,5	30	C	400	690 900 04	18

Accessories Miniature Shock Absorbers

Mounting Blocks

Material: Steel, black oxide finish.

When mounting blocks are used, the shock absorber has to be secured with a lock nut. 2 socket-head screws DIN 912 are included.



Ordering Details: e.g.:

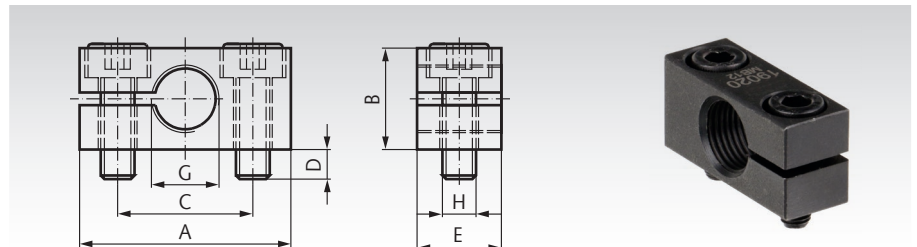
Product No. 690 030 01, Mounting Block M8x1

Product No.	for Product No.	A	B	C	D	E	G	H	Tighten. Torque	Weight	Product No.	Weight
Mounting Block	Shock absorbers	mm	mm	mm	mm	mm	Thread	Thread	Nm	g	Lock Nut	g
690 030 01	690 030 00	25	12	16	3,5	10	M8x1	M4x12	4	15	690 030 04	0,8
690 050 01	690 050 00	25	14	16	3,5	10	M10x1	M4x16	4	20	690 050 04	1,4

Clamp Mounts

Material: Steel, black oxide finish.

When using the clamp mount, no lock nut is required. Fine adjustment can be carried out before the clamping. 2 socket-head screws DIN 912 are included.



Ordering Details: e.g.:

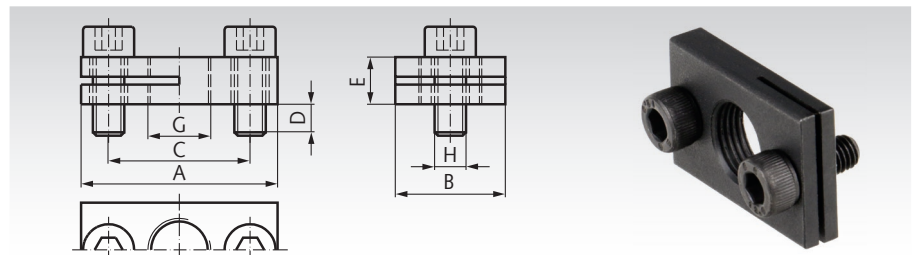
Product No. 690 035 02, Clamp Mount M12x1

Product No.	for Product No.	A	B	C	D	E	G	H	Tighten. Torque	Weight
Clamp Mount	Shock absorbers	mm	mm	mm	mm	mm	Thread	Thread	Nm	g
690 035 02	690 035 00	32	16	20	4,5	12	M12x1	M5x16	6	35
690 150 02	690 150 00	32	20	20	4,5	12	M14x1,5	M5x2a0	6	40
690 225 02	690 225 00	40	25	28	6	20	M20x1,5	M6x25	11	89
690 600 02	690 600 00 / 690 900 00	46	32	34	6	25	M25x1,5	M6x30	11	185

Rectangular Flanges

Material: Steel, black oxide finish.

The rectangular flange allows front-end mounting without using an additional lock nut. The low and compact design allows space-saving constructions. 2 socket-head screws DIN 912 are included.



Ordering Details: e.g.:

Product No. 690 030 03, Rectangular Flange M8x1

Product No.	for Product No.	A	B	C	E	G	H	Tighten. Torque	Weight
Rectangular Flange	Shock absorbers	mm	mm	mm	mm	Thread	Thread	Nm	g
690 030 03	690 030 00	25	14	18	6	M8x1	M4x10	4	15
690 050 03	690 050 00	28	14	20	6	M10x1	M4x10	4	15
690 035 03	690 035 00	32	20	24	6	M12x1	M5x12	6	25
690 150 03	690 150 00	34	20	26	6	M14x1,5	M5x12	6	25
690 225 03	690 225 00	46	32	36	8	M20x1,5	M6x14	11	89
690 600 03	690 600 00 / 690 900 00	52	32	42	8	M25x1,5	M6x14	11	185