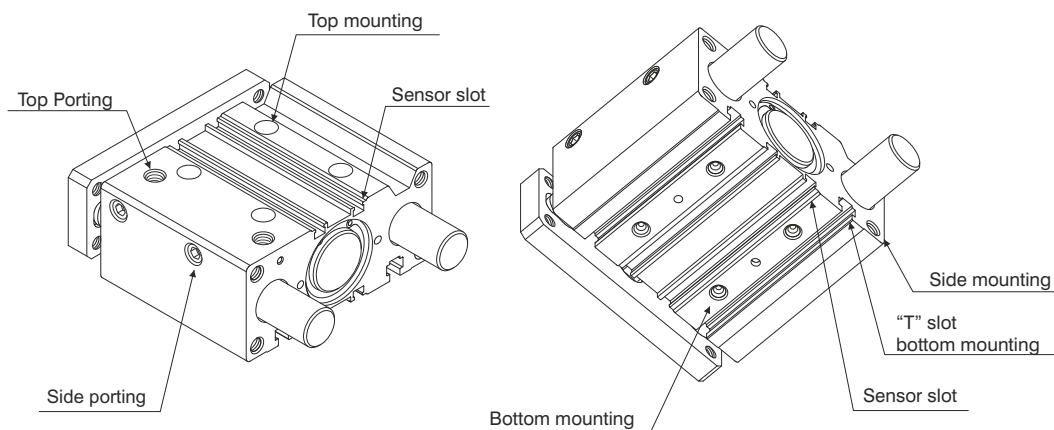




These guided compact cylinders, characterised by reduced overall dimensions, can be used for the compression, conveyance and manipulation of objects in many industrial sectors; similarly they can also be used in pushing, lifting and stopping applications.

These cylinders are available in sizes 32mm to 63 mm diameter, and comprise a single compact cylinder with integral guide rods, making it a true guide cylinder designed with installation flexibility and space saving in mind.

The rod guide is available in two styles:

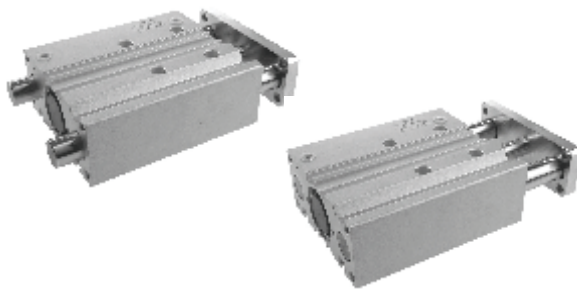
Self-lubricating bronze bushes - useful for absorbing lateral loads and forces, especially as a stopper.

Bearing bushes - guaranteeing high precision and uniform movement with low friction characteristics, useful with mis-aligned loads.

Guided compact cylinders are ideal for use in applications requiring a combination of reduced dimensions and anti-rotation features. Mounting can be achieved on three sides through holes or "T" slots.

Adjustable mounting holes in the front plate ensure safe and accurate assembly. Pneumatic connections can be made to either lateral or top ports (lateral ports plugged on standard units).

When sensors are required, there are special slots in the barrel extrusion where 1580 series miniaturised sensors are easily fitted.



Ordering code

6100.Ø.stroke.	
12	Side supply ports closed L = Top supply ports closed
16	
20	
25	
32	
40	B = Control unit with bronze bush C = Control unit with bearing bush
50	
63	

Construction characteristics

Body	anodised aluminium
Guide rods	C43 chromed steel (control unit with bronze bush) tempered and chromed steel (control unit with bearing bush)
Piston	aluminium
Piston rod	stainless steel (for bores Ø12, Ø16, Ø20, Ø25) C43 chromed steel (for bores Ø32, Ø40, Ø50, Ø63)
Rods bushing	bronze or bearing bushing
End plate	anodised aluminium
Piston seal	oil resistant NBR rubber
Piston rod seal	PUR (NBR 12-16)
Wipers	PUR
Plate	nickel plated steel

Technical characteristics

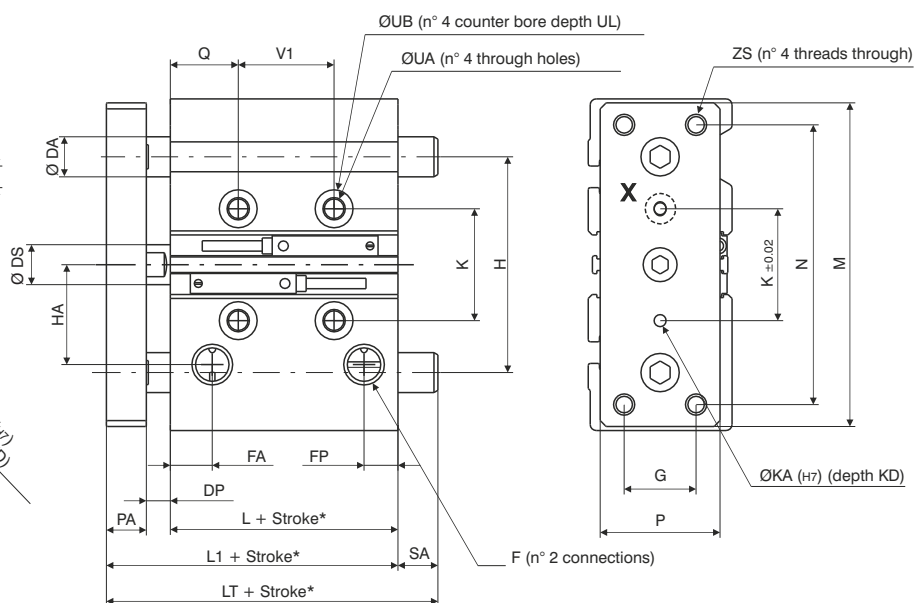
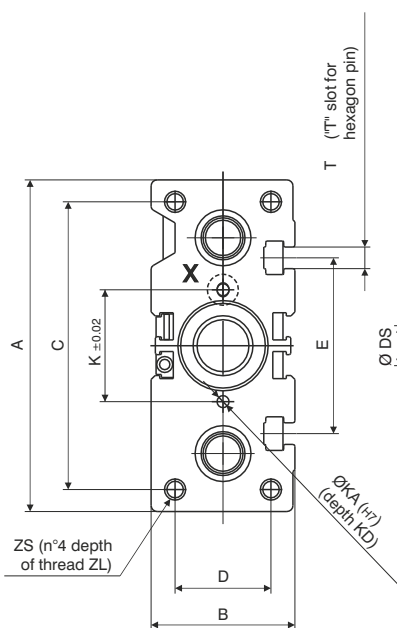
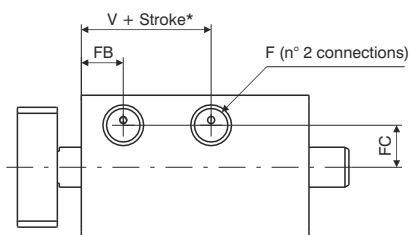
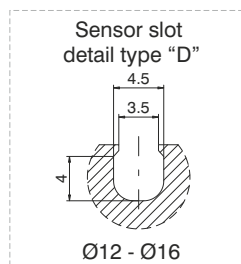
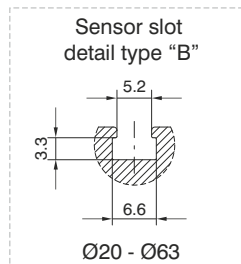
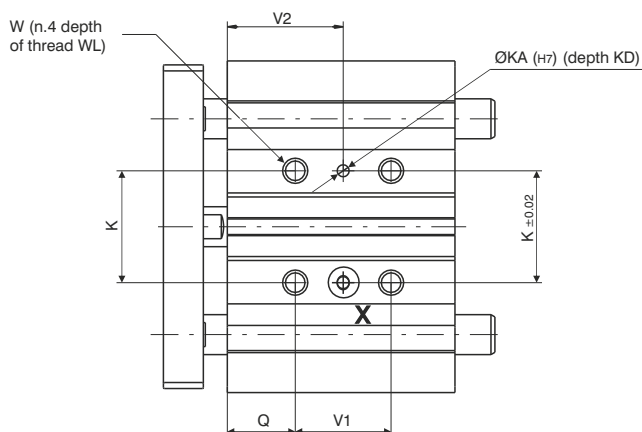
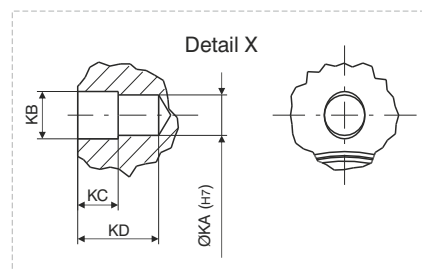
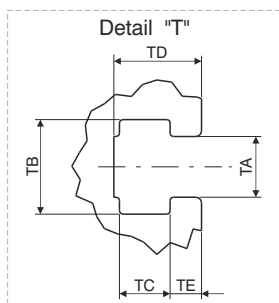
Function	double acting
Fluid	filtered and preferably lubricated air or not (If lubricated the lubrication must be continuous)
Working pressure	max. 10 bar
Working temperature	-5°C - +70°C
Cushioning	elastic bumper on both ends

Standard strokes

Bore	Stroke											
	10	20	25	30	40	50	75	100	125	150	175	200
Ø12	●	●		●	●	●	●	●				
Ø16	●	●		●	●	●	●	●				
Ø20		●		●	●	●	●	●	●	●	●	●
Ø25		●		●	●	●	●	●	●	●	●	●
Ø32			●			●	●	●	●	●	●	●
Ø40			●			●	●	●	●	●	●	●
Ø50			●			●	●	●	●	●	●	●
Ø63			●			●	●	●	●	●	●	●

Intermediate strokes can be obtained using spacers with defined length (5, 10, 15, 20 mm).

Example: It is possible to obtain a **6100.32.45.B** cylinder from a **6100.32.50.B** cylinder by inserting a spacer with length of 5 mm. The intermediate strokes manufactured without the use of spacers are considered special executions.



*Dimensions only refer to the "standard stroke"

				Bore	Ø12	Ø16	Ø20	Ø25	Ø32	Ø40	Ø50	Ø63	
				Table of dimensions									
Control unit with bronze bushes Control unit with bearing bushes				A	58	64	83	93	112	120	148	162	
				B	26	30	36	42	48	54	64	78	
				C	40	42	72	82	98	106	130	142	
				D	18	22	24	30	34	40	46	58	
				DA	8	10	12	16	20	20	25	25	
					6	8	10	14	16	16	20	20	
				DP	2	2	5,5	5,5	9,5	10	13	13	
				DS	6	8	10	12	16	16	20	20	
				E	/	/	44	50	63	72	92	110	
				F	M5	M5	G1/8"	G1/8"	G1/8"	G1/8"	G1/4"	G1/4"	
				FA	11	11	11	12	13	13	13	14	
				FB	11	11	11	12	13	13	13	14	
				FC	8,5	10	10,5	13,5	15	18	21,5	28	
				FP	15	17	9	10,5	9,5	11	11	12,5	
				G	14	16	18	26	30	30	40	50	
				H	41,5	46	54	64	78	86	110	124	
				HA	19,5	23	25	28,5	34	38	47	55	
				K	23	24	28	34	42	50	66	80	
				KA	/	/	3	4	4	4	5	5	
				KB	/	/	3,5	4,5	4,5	4,5	6	6	
KC	/	/	3	3	3	3	4	4					
KD	/	/	6	6	6	6	8	8					
L	29	31	38	38,5	38,5	44	44	49					
L1	39	43	53,5	54	60	66	72	77					
Control unit with bronze bushes	50 <	stroke	≤50	LT	39	43	53,5	54	97	97	106,5	106,5	
		stroke	≤200		57	64	84,5	85	102	102	118	118	
Control unit with bearing bushes				See table 1									
Control unit with bronze bushes	50 <	stroke	≤50	M	56	62	81	91	110	118	146	158	
		stroke	≤200	N	48	52	70	78	96	104	130	130	
		stroke	≤200	PA	8	10	10	10	12	12	15	15	
		stroke	≤200	P	22	25	30	38	44	44	60	70	
		stroke	≤200	Q	5	5	17,5	17,5	21,5	22	24	24	
		stroke	≤200	SA	/	/	/	/	37	31	34,5	29,5	
stroke	≤200	18	21		31	31	42	36	46	41			
Control unit with bearing bushes				See table 1									
Control unit with bearing bushes	50 <	stroke	≤50	T	/	/	M5	M5	M6	M6	M8	M10	
		stroke	≤200	TA	/	/	5,4	5,4	6,5	6,5	8,5	11	
		stroke	≤200	TB	/	/	8,4	8,4	10,5	10,5	13,5	17,8	
		stroke	≤200	TC	/	/	4,5	4,5	5,5	5,5	7,5	10	
		stroke	≤200	TD	/	/	7,8	8,2	9,5	11	13,5	18,5	
		stroke	≤200	TE	/	/	2,8	3	3,5	4	4,5	7	
		stroke	≤200	UA	4,3	4,3	5,6	5,6	6,6	6,6	8,6	8,6	
		stroke	≤200	UB	8	8	9,5	9,5	11	11	14	14	
		stroke	≤200	UL	4,5	4,5	5,5	5,5	7,5	7,5	9	9	
		stroke	≤200	V	14	14	13	13	7,5	13	9	14	
		stroke	≤200	V1	See table 2								
		stroke	≤200	V2									
		stroke	≤200	W	M5	M5	M6x1	M6x1	M8x1,25	M8x1,25	M10x1,5	M10x1,5	
		stroke	≤200	WL	10	10	12	12	16	16	20	20	
stroke	≤200	Z	M4	M5	M5x0,8	M6x1	M8x1,25	M8x1,25	M10x1,5	M10x1,5			
stroke	≤200	ZL	9	11	13	15	20	20	22	22			
stroke	≤200	ZS	M4	M5x0,8	M5x0,8	M6x1	M8x1,25	M8x1,25	M10x1,5	M10x1,5			

Control unit with bearing bushes	Table 1		LT			SA		
	Bore		stroke ≤30	30 < stroke ≤ 100	100 < stroke ≤ 200	stroke ≤30	30 < stroke ≤ 100	100 < stroke ≤ 200
	Ø12		39	53	53	/	14	/
	Ø16		43	64	64	/	21	/
	Ø20		47	72	72	/	18,5	49
	Ø25		49	77	77	/	23	48
			stroke ≤50	50 ≤ stroke ≤ 100	100 < stroke ≤ 200	stroke ≤50	50 ≤ stroke ≤ 100	100 < stroke ≤ 200
	Ø32		/	87	117	/	27	57
	Ø40		/			/	21	51
	Ø50		/	92	127	/	20	55
	Ø63		/			/	15	50

Table 2		V1			V2		
Bore		stroke ≤30	30 < stroke ≤ 100	100 < stroke ≤ 200	stroke ≤30	30 < stroke ≤ 100	100 < stroke ≤ 200
Ø12		4 + stroke			/	/	/
Ø16					/	/	/
Ø20		24	44	120	29,5	39,5	77,5
Ø25		stroke ≤25	25 < stroke ≤ 100	100 < stroke ≤ 200	stroke ≤25	25 < stroke ≤ 100	100 < stroke ≤ 200
Ø32		24	48	124	33,5	45,5	83,5
Ø40					34	46	84
Ø50					36	48	86
Ø63					38	50	88

	Bore															
	Ø12		Ø16		Ø20		Ø25		Ø32		Ø40		Ø50		Ø63	
Stroke	Control unit with bronze bushes															Weight (gr.)
10	240		330		/		/		/		/		/		/	
20	280		380		670		950		/		/		/		/	
25	/		/		/		/		1690		1950		3360		4180	
30	310		430		750		1050		/		/		/		/	
40	350		480		830		1160		/		/		/		/	
50	390		530		910		1270		2070		2370		4000		4940	
75	500		680		1170		1650		2470		2830		4730		5780	
100	5903		800		1370		1920		2850		3250		5370		6540	
125	/		/		1570		2190		3240		3680		6010		7290	
150	/		/		1760		2470		3620		4100		6650		8050	
175	/		/		1960		2740		4000		4530		7290		8800	
200	/		/		2160		3010		4380		4950		7930		9560	
Stroke	Moving parts															
10	100		155		/		/		/		/		/		/	
20	108		170		330		520		/		/		/		/	
25	/		/		/		/		1070		1140		2150		2500	
30	116		185		350		560		/		/		/		/	
40	124		200		380		600		/		/		/		/	
50	132		215		400		640		1230		1300		2400		2750	
75	152		250		520		840		1420		1490		2750		3090	
100	172		285		580		950		1580		1650		3000		3350	
125	/		/		640		1050		1740		1810		3260		3600	
150	/		/		700		1150		1910		1980		3510		3860	
175	/		/		760		1250		2070		2140		3760		4110	
200	/		/		820		1350		2230		2300		4020		4360	
Stroke	Control unit with bearing bushes															
10	240		340		/		/		/		/		/		/	
20	270		390		700		980		/		/		/		/	
25	/		/		/		/		1540		1790		3110		3930	
30	300		430		770		1070		/		/		/		/	
40	350		510		890		1250		/		/		/		/	
50	390		560		970		1340		1850		2150		3660		4590	
75	470		670		1140		1570		2300		2640		4410		5460	
100	560		790		1310		1810		2620		3000		4960		6120	
125	/		/		1520		2080		2990		3420		5600		6880	
150	/		/		1690		2310		3310		3780		6150		7540	
175	/		/		1870		2540		3620		4140		6700		8210	
200	/		/		2040		2770		3940		4500		7250		8870	
Stroke	Moving parts															
10	95		145		/		/		/		/		/		/	
20	100		153		310		490		/		/		/		/	
25	/		/		/		/		820		890		1770		2110	
30	105		161		330		520		/		/		/		/	
40	110		169		370		580		/		/		/		/	
50	120		177		390		610		940		1010		1950		2300	
75	145		197		440		690		1110		1180		2240		2590	
100	170		217		480		760		1230		1300		2430		2770	
125	/		/		560		880		1410		1480		2710		3050	
150	/		/		600		950		1530		1600		2890		3240	
175	/		/		650		1020		1650		1720		3080		3420	
200	/		/		700		1100		1770		1830		3270		3610	
Working pressure	Cylinder theoretic force (N)															
2 bar	23	17	40	30	63	47	98	76	161	121	251	211	393	330	623	561
3 bar	34	26	60	45	94	71	147	113	241	181	377	317	589	495	935	841
4 bar	45	34	80	60	126	94	196	151	322	241	503	422	785	660	1247	1121
5 bar	57	43	101	76	157	118	246	189	402	302	629	528	982	825	1559	1402
6 bar	68	51	121	91	188	142	295	227	482	362	754	634	1178	989	1870	1682
7 bar	79	60	141	106	220	165	344	265	563	422	880	739	1374	1154	2182	1962
8 bar	90	68	161	121	251	189	393	302	643	482	1006	845	1570	1319	2494	2242
9 bar	102	77	181	136	283	212	442	340	724	543	1131	950	1767	1484	2805	2523
10 bar	113	85	201	151	314	236	491	378	804	603	1257	1056	1963	1649	3117	2803
Piston area (mm ²)	out	in	out	in	out	in	out	in	out	in	out	in	out	in	out	in
	113	85	201	151	314	236	491	378	804	603	1257	1056	1963	1649	3117	2803
	Maximum permissible Momentum															
J	0,08		0,09		0,11		0,18		0,29		0,52		0,91		1,54	

How to calculate the Momentum: $E_c = \frac{1}{2} m V^2$ (J)

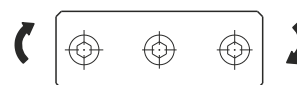
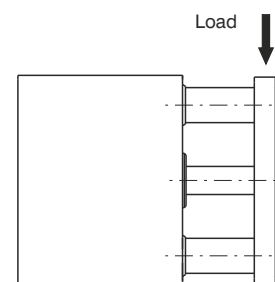
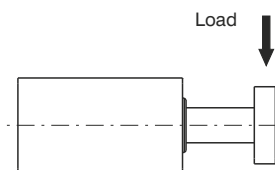
m = Total moving mass: weight of driven object added to weight of cylinder moving parts (kg)

V = max. speed: equal to average speed + 40% (m/sec)

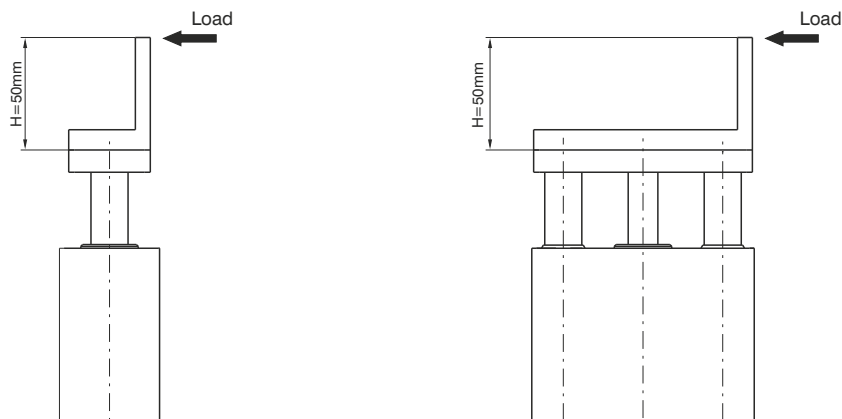
Permissible lateral load (applied on overall plate)

		Bore							
		Ø12	Ø16	Ø20	Ø25	Ø32	Ø40	Ø50	Ø63
Version	Stroke	Permissible lateral load (N)*							
Control unit with bronze bushes	10	30	48						
	20	23	37	49	69				
	25					203	203	296	296
	30	19	30	43	60				
	40	16	25	38	54				
	50	14	20	35	49	164	164	245	245
	75	12	18	87	116	182	182	273	273
	100	10	15	75	100	159	159	241	241
	125			66	88	142	142	216	216
	150			59	79	127	127	195	195
	175			54	71	116	116	179	179
	200			49	65	106	106	164	164
Control unit with bearing bushes	10	20	35			191	190	208	206
	20	15	28	58	69				
	25					191	190	208	206
	30	13	22	48	68				
	40	11	18	101	132				
	50	10	16	90	118	157	157	173	171
	75	8	14	70	93	164	163	223	221
	100	6	11	58	77	144	144	199	196
	125			62	80	203	203	264	262
	150			54	70	186	185	242	240
	175			48	62	171	171	224	221
	200			43	55	158	158	207	205
Version	Stroke	Recommended torque moments (Nm)							
Control unit with bronze bushes	10	0,40	0,70						
	20	0,35	0,65	1,1	1,8				
	25					6,4	7,0	13,0	14,7
	30	0,28	0,48	0,9	1,6				
	40	0,25	0,45	0,8	1,4				
	50	0,21	0,39	0,8	1,3	5,1	5,7	10,8	12,1
	75	0,42	0,68	1,9	3,0	5,7	6,3	12,0	13,5
	100	0,40	0,60	1,6	2,6	5,0	5,5	10,6	11,9
	125			1,4	2,3	4,4	4,9	9,5	10,7
	150			1,3	2,0	4,0	4,4	8,6	9,7
	175			1,2	1,8	3,6	4,0	7,9	8,9
	200			1,1	1,7	3,3	3,7	7,2	8,2
Control unit with bearing bushes	10	0,62	0,70						
	20	0,41	0,65	1,3	2,1				
	25					6,0	6,6	9,2	10,2
	30	0,33	0,48	1,0	1,8				
	40	0,30	0,45	2,2	3,4				
	50	0,48	0,39	1,9	3,0	4,9	5,4	7,6	8,5
	75	0,38	0,68	1,5	2,4	5,1	5,6	9,8	11,0
	100	0,32	0,60	1,3	2,0	4,5	5,0	8,7	9,7
	125			1,3	2,1	6,3	7,0	11,6	13,0
	150			1,2	1,8	5,8	6,4	10,7	11,9
	175			1,0	1,6	5,3	5,9	9,8	11,0
	200			0,9	1,4	4,9	5,4	9,1	10,2

*(Applied on overall plate)

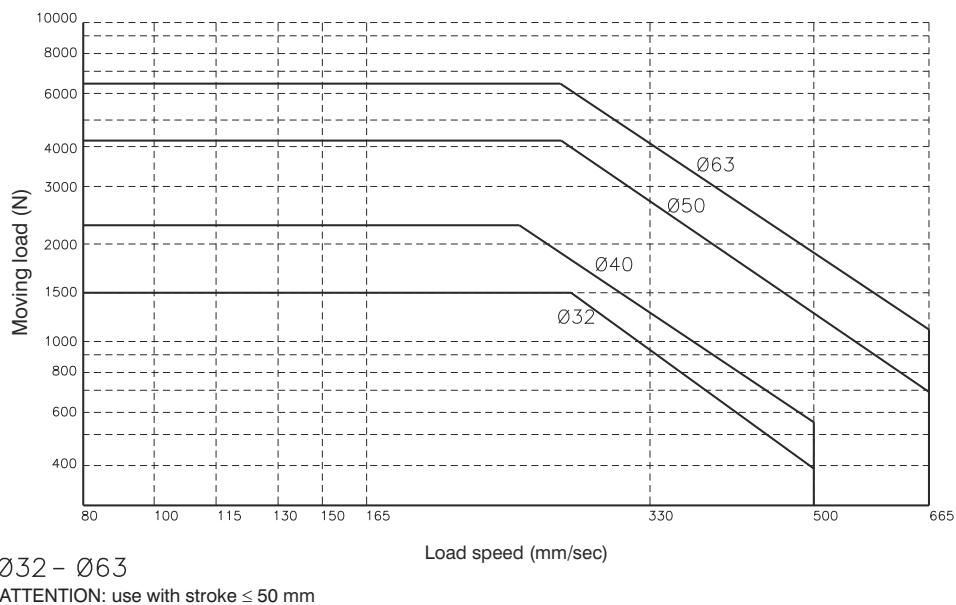
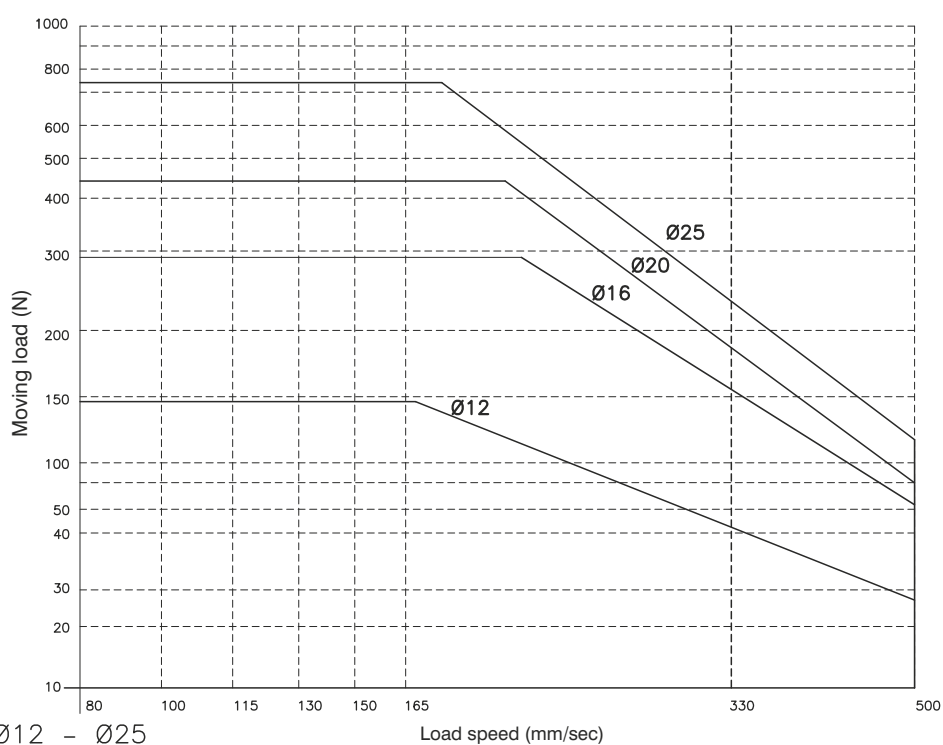


Stopper device applications

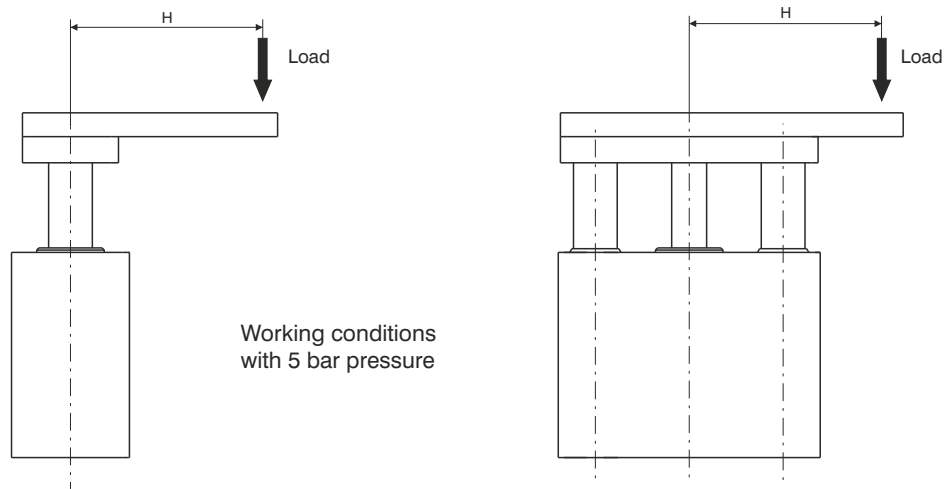


ATTENTION: if $H > 50$ mm use larger bore

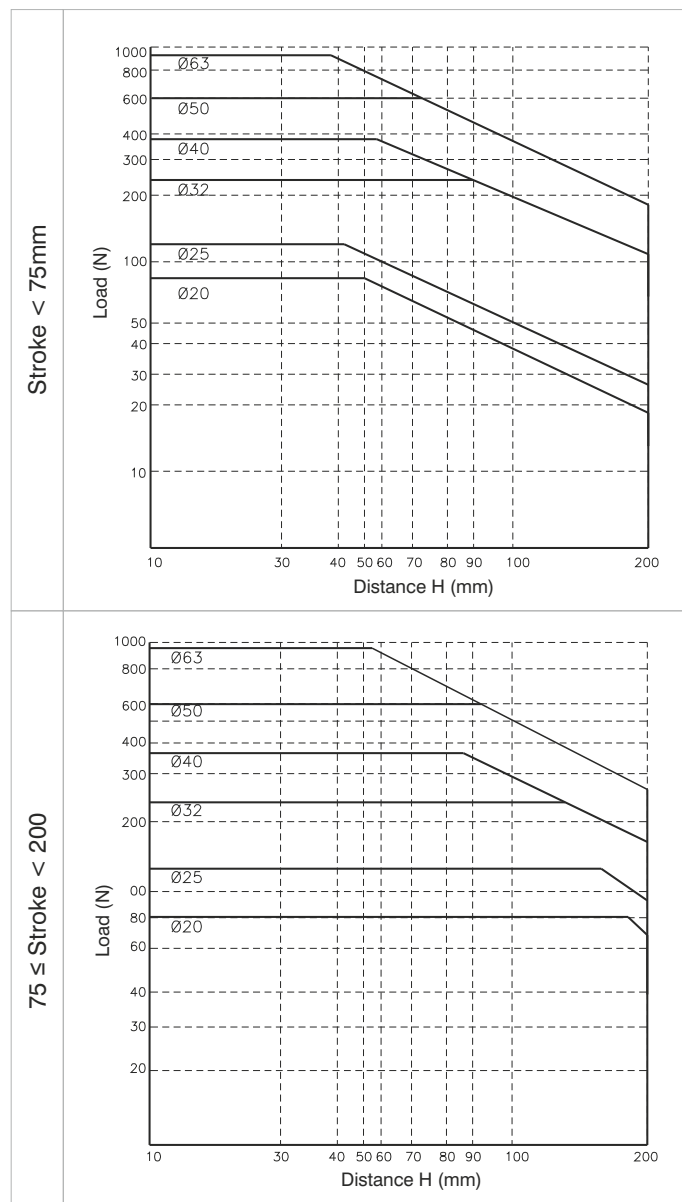
Control unit with bronze bushes



Handling applications



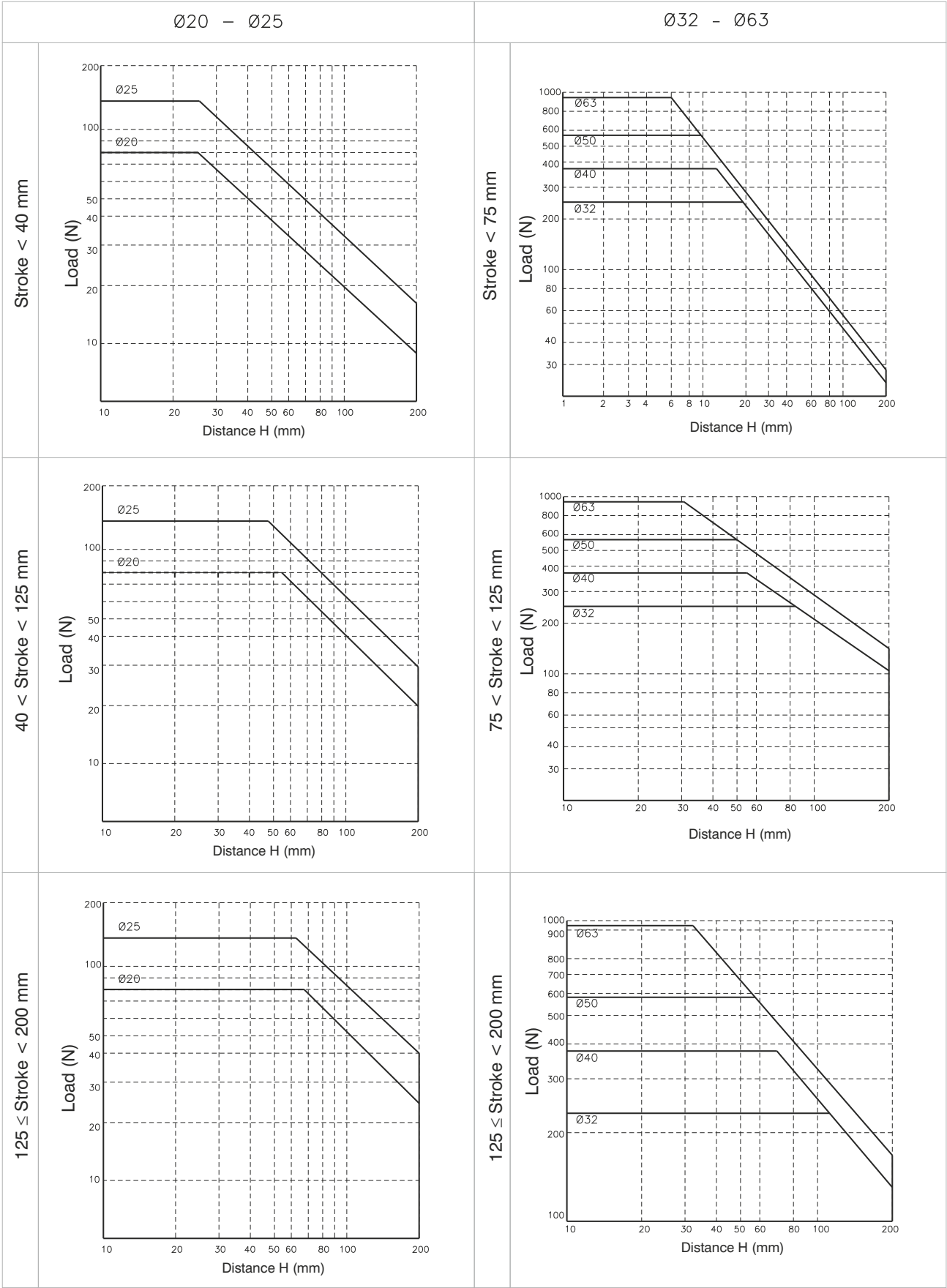
Control unit with bronze bushes

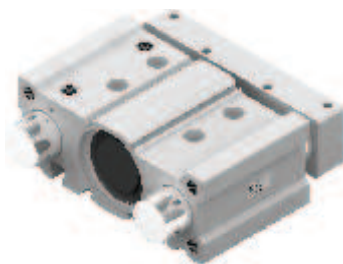




Handling applications

Control unit with bearing bushes





Ordering code

6101.80.stroke. B .

└ Side supply ports closed
└ L = Top supply ports closed

Construction characteristics

Body	anodised aluminium
Rods	C43 chromed steel
Piston	aluminium
Piston rod	C43 chromed steel
Piston rod bushing	sintered bronze
Rod bushing	teflon coated bush
End cover / End plate	aluminium
Piston seal	NBR oil-resistant rubber
Piston rod seal	PUR
Plate	anodised aluminium

Technical characteristics

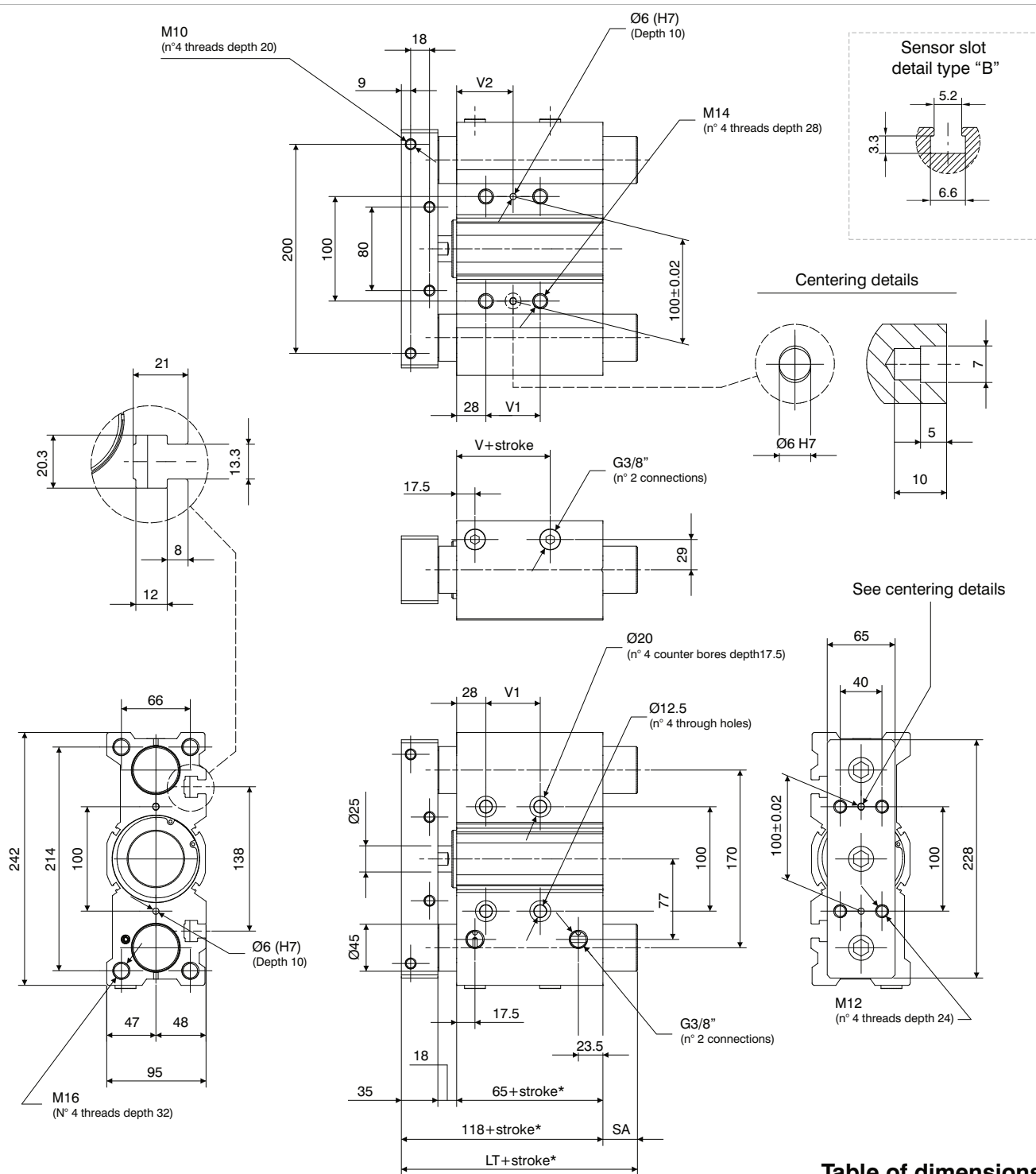
Function	double acting
Fluid	filtered and preferably lubricated air or not (If lubricated the lubrication must be continuous)
Max. pressure	max. 10 bar
Working temperature	-5°C - +70°C
Cushioning	elastic bumper on both ends

Standard strokes

Bore	Stroke							
	25	50	75	100	125	150	175	200
Ø80	●	●	●	●	●	●	●	●

Intermediate strokes can be obtained by adding specific spacers (5, 10, 15, 20mm)

Example: It is possible to obtain a **6101.80.45.B** cylinder from a **6101.80.50.B** cylinder by adding a 5mm spacer (the overall dimension will remain as per the 50mm stroke). The Intermediate strokes manufactured without the use of spacers are considered special executions.



*Dimensions only refer to the "standard stroke"

Table of dimensions

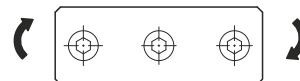
	25	LT	118
stroke	50		118
	> 50		151
		V	14.5
	25	V1	28
	50		52
stroke	75		52
	100		52
	>100		128
	25	V2	42
	50		54
stroke	75		54
	100		54
	>100		92
	25	SA	0
stroke	50		0
	> 50		33

Cylinder theoretic force (N)

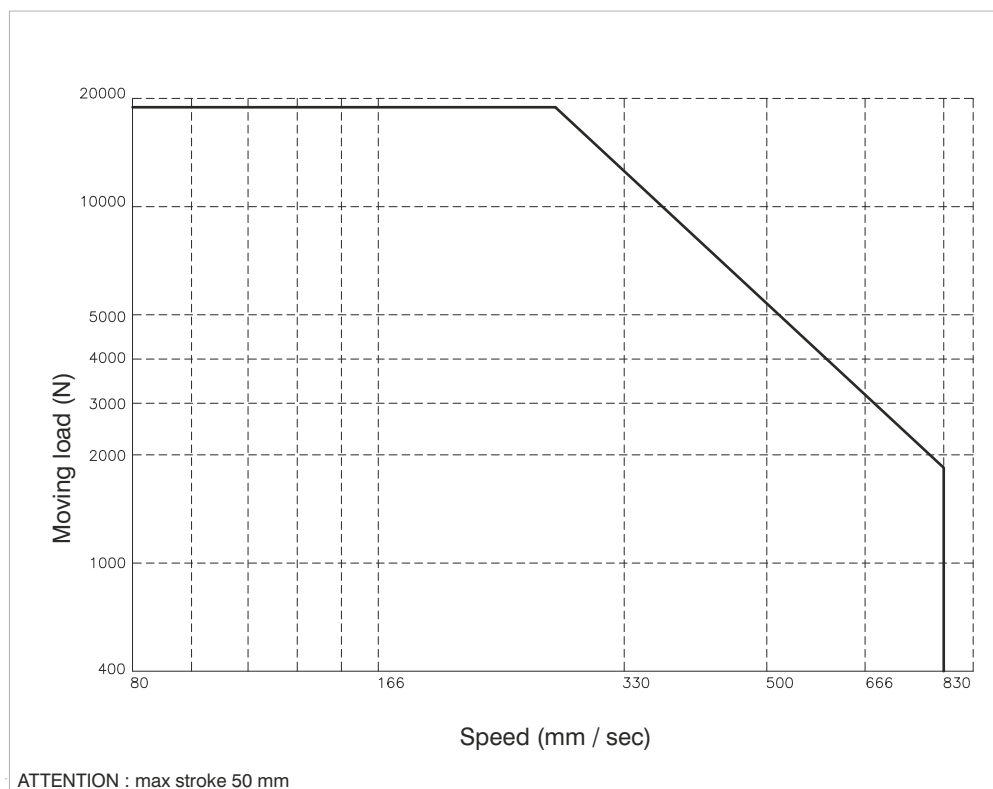
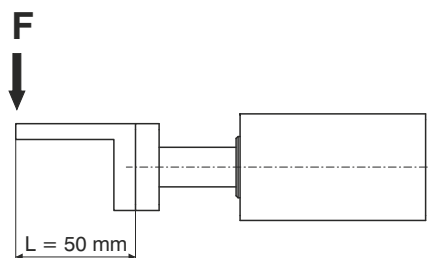
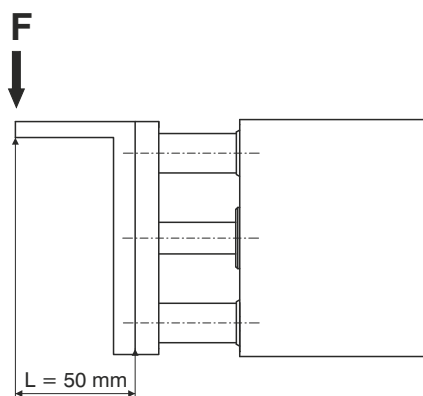
Working pressure		
2 bar	1005	907
3 bar	1508	1361
4 bar	2011	1814
5 bar	2513	2268
6 bar	3016	2721
7 bar	3519	3175
8 bar	4021	3629
9 bar	4524	4082
10 bar	5027	4536
Effective area (mm ²)	uscita	rientro
	5027	4536

Recommended torque moments

Stroke	N/m
25	49
50	41
75	51
100	45
125	41
150	38
175	35
200	32



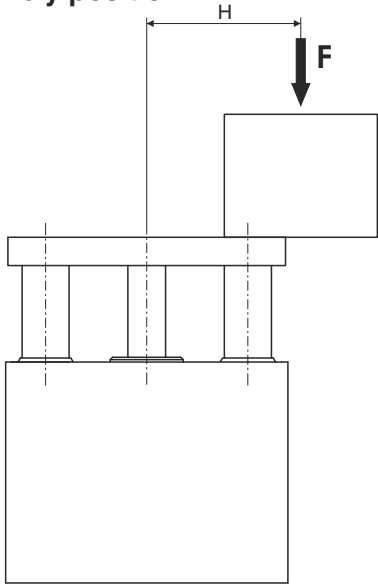
“Stopper” device applications



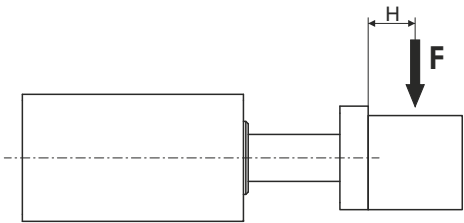


Handling applications

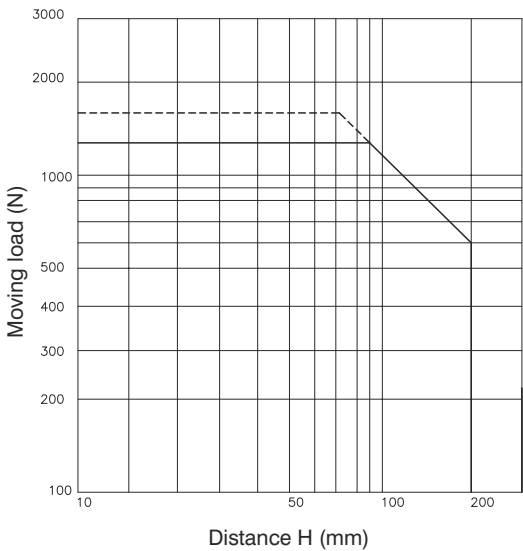
VERTICAL assembly position



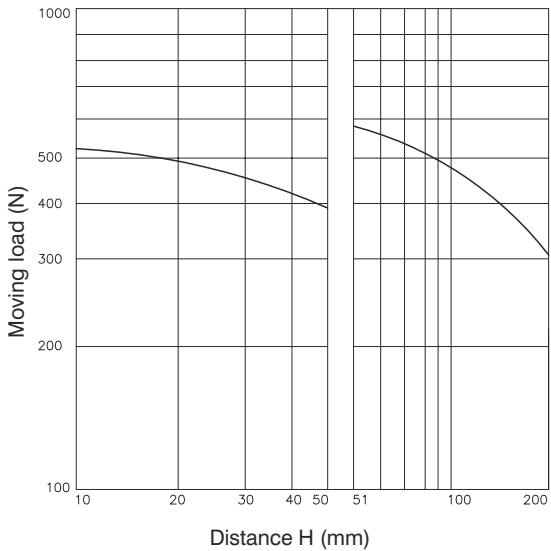
HORIZONTAL assembly position



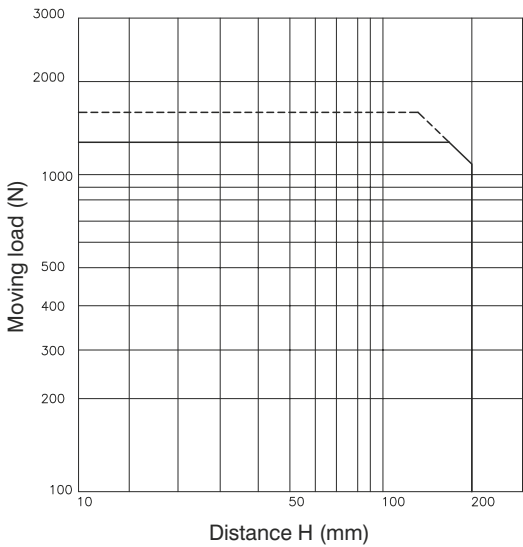
STROKE ≤ 50 mm / V = 200 mm/s



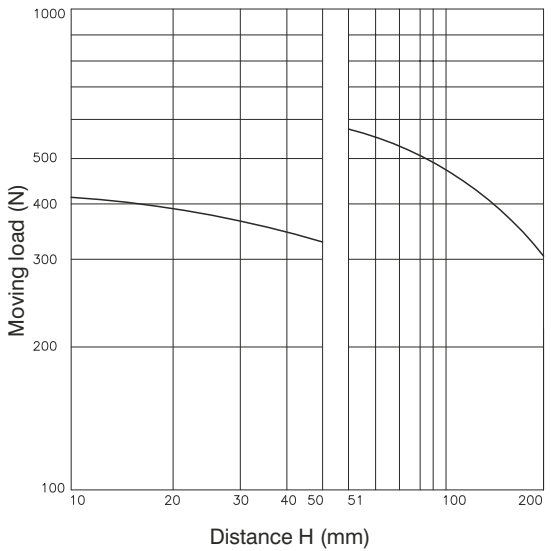
H = 50 mm / V = 200 mm/s



STROKE > 50 mm / V = 200 mm/s



H = 100 mm / V = 200 mm/s



———— Working pressure : 4 bar
----- Working pressure : 5 bar

General

TWIN-ROD SLIDE UNITS SERIES 6200 AND 6210

The 6200 series twin-rod linear guide units are wide cylinders used in manipulation applications and are characterised by their high force output thanks to their double piston design.

Bores range from 10mm to 32mm diameter, with sintered bronze bearings for standard applications and linear ball bearings for more rugged applications.

One major characteristic of these cylinders is the precision of their anti-rotational design, with the possibility of regulating the stroke to within 0.5mm.

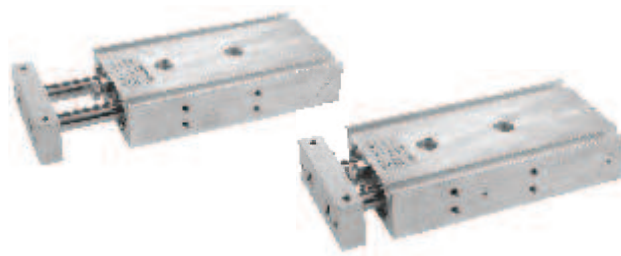
When using magnetic sensors, the 1580 series sensor sits entirely within the extrusion, resulting in a smooth profile.

The liner guided units range includes , alongside the conventional two rod version with flange series 6200 , also the through rod version with twin flanges series 6210

Thanks to the twin-rod, double yoke design of the 6210 series it is possible to either fix the body and use the ends of the rods, or alternatively to fix the rod ends and use the body as the moving part. The cylinder can be piped through the body or through the rods depending on the application.

Stroke limiting screws are fitted at either end of the stroke. The substitution of these screws with shock absorbers makes it possible to use the cylinder on higher velocity applications (up to 500mm/sec.)

Slots are provided along the edge of these units to accommodate 1580 series miniature sensors.



Ordering code

6200.Ø.stroke.

10

15

20

25

32

B = Control unit with bronze bush

C = Control unit with bearing bush

Construction characteristics

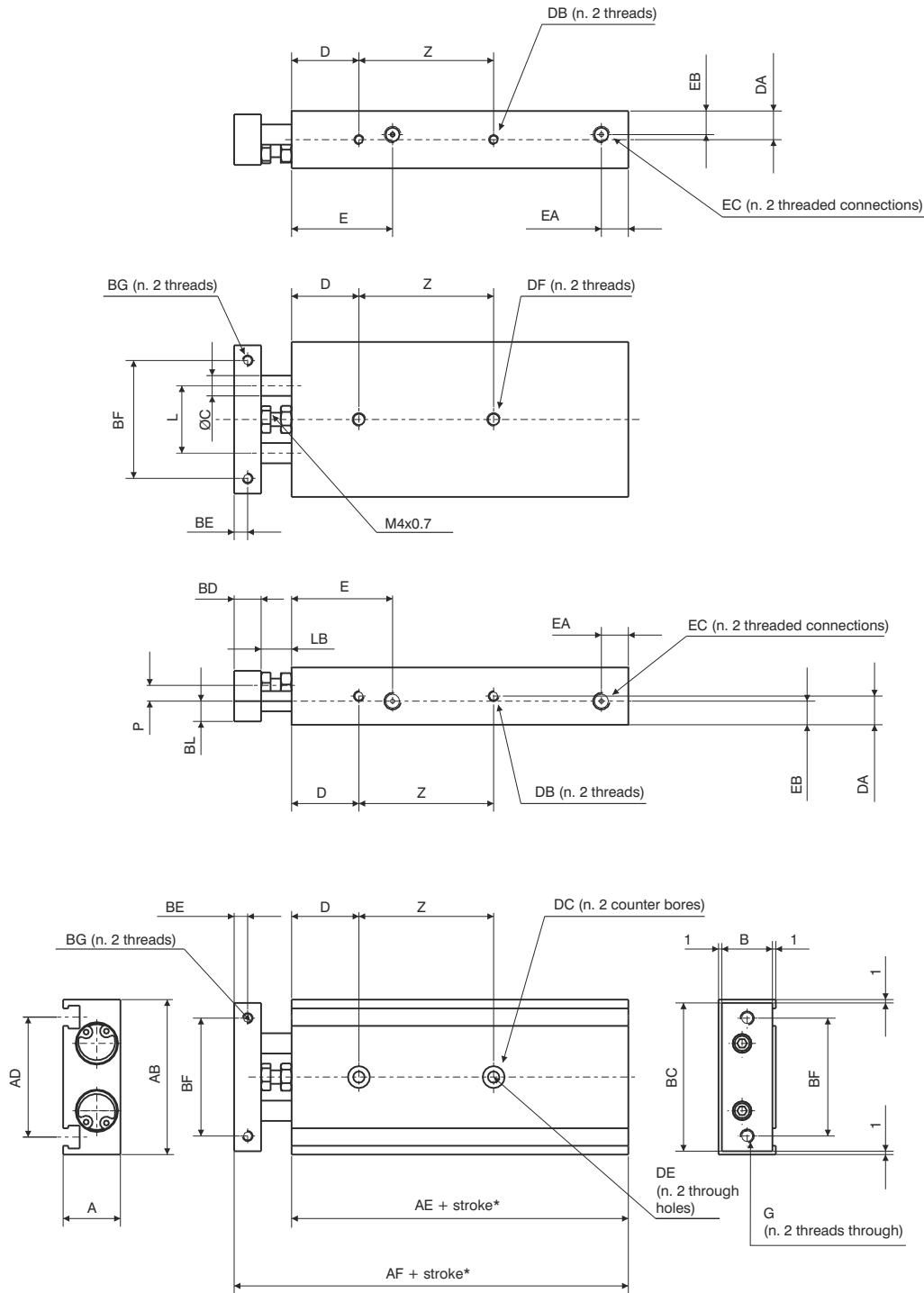
Body	anodised aluminium
Rods	C43 chromed steel (control unit with bronze bush) tempered and chromed steel (control unit with bearing bush)
Piston	aluminium
Rod bushing	brass
End plate	anodised aluminium
Piston seal	oil resistant NBR rubber
Piston rod seal	PUR
Plate	anodised aluminium

Technical characteristics

Function	double acting
Fluid	filtered and preferably lubricated air or not (If lubricated the lubrication must be continuous)
Max. pressure	7 bar
Working temperature	-5°C - +70°C
Cushioning	elastic bumper

Standard strokes

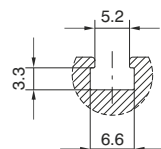
Bore	Stroke														
	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100
Ø10	●	●	●	●	●	●	●	●	●	●	●	●			
Ø15	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ø20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ø25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ø32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

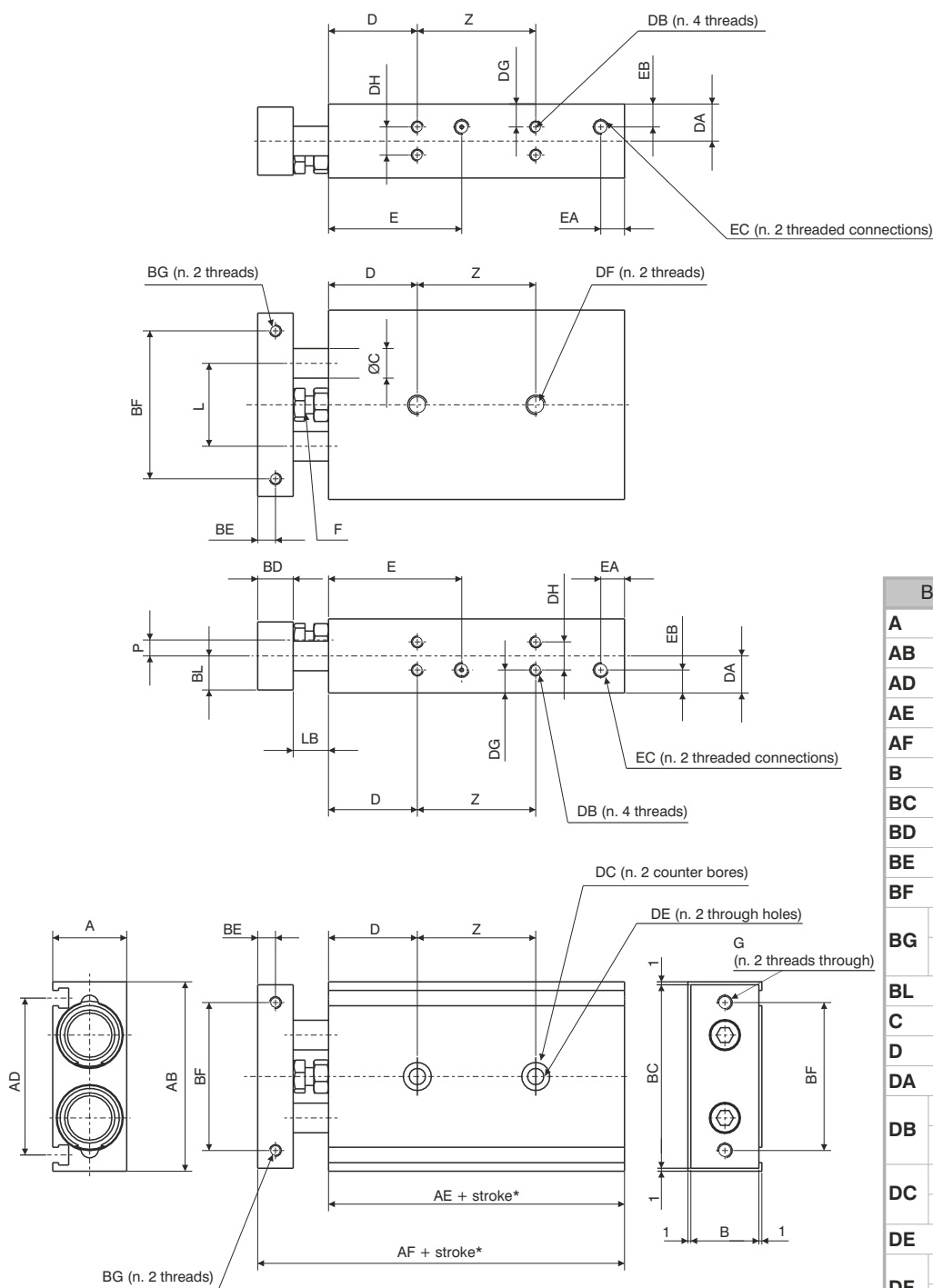


*Dimensions only refer to the "standard stroke"

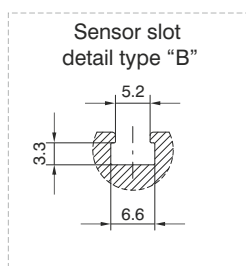
Bore		Ø10	Ø15
A		17	20
AB		46	58
AD		35,6	48
AE		55	60
AF		72	79
B		15	18
BC		44	56
BD		8	10
BE		4	5
BF		35	45
BG		M3x0,5	M4x0,7
	Useful depth	5	6
BL		6	9
C		6	8
D		20	30
DA		8,5	10
DB		M3x0,5	M4x0,7
	Useful depth	4,5	5
DC		6,5	8
	depth	3,3	4,4
DE		3,4	4,3
DF		M4x0,7	M5x0,8
	Useful depth	7	8
E		30	38,5
EA		8	8
EB		7	10
EC		M5x0,8	M5x0,8
	Useful depth	4,5	4,5
F		M4x0,7	M4x0,7
G		M4x0,7	M5x0,8
L		20	25
LB		9	9
P		4,7	4,5
Z	stroke	10 - 25	30
		30 - 50	40
		60 - 75	50
		80	-
		90-100	-

Sensor slot
detail type "B"





*Dimensions only refer to the "standard stroke"

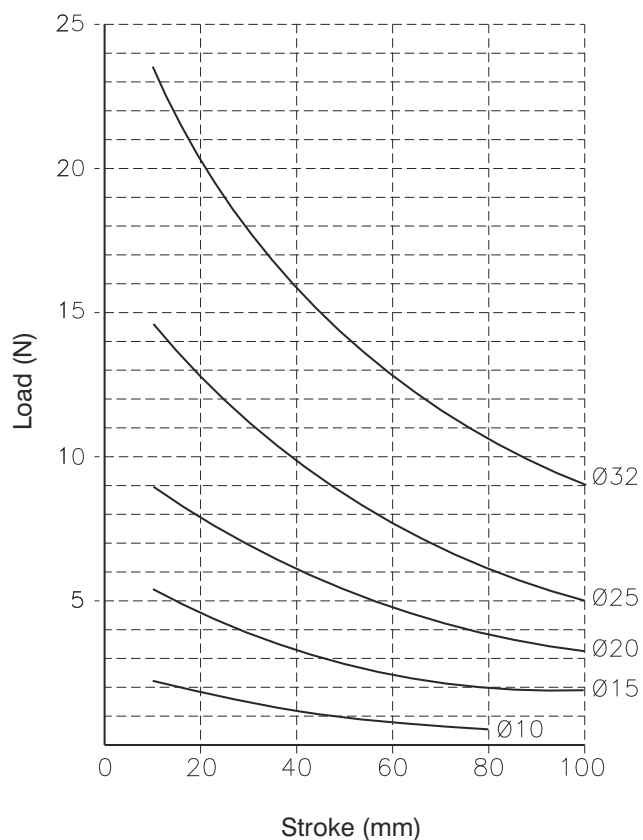


Bore		Ø20	Ø25	Ø32
A		25	30	38
AB		64	80	98
AD		53	64	76
AE		70	72	82
AF		94	96	112
B		23	28	36
BC		62	78	96
BD		12	12	16
BE		6	6	8
BF		50	60	75
BG		M4x0,7	M5x0,8	M5x0,8
	Useful depth	6	7,5	8
BL		11,5	14	18
C		10	12	16
D		30	30	30
DA		12,5	15	19
DB		M4x0,7	M5x0,8	M5x0,8
	Useful depth	6	7,5	7,5
DC		9,5	11	11
	depth	5,3	6,3	6,3
DE		5,5	6,9	6,9
DF		M6x1	M8x1,25	M8x1,25
	Useful depth	10	12	12
DG		7,75	8,5	9
DH		9,5	13	20
E		45	46	56
EA		8	9	10
EB		7,75	15	19
EC		M5x0,8	G1/8	G1/8
	Useful depth	4,5	6,5	6,5
F		M6x1	M6x1	M8x1,25
G		M5x0,8	M6x1	M6x1
L		28	35	44
LB		12	12	14
P		5,4	7,8	12
Z	stroke	10 - 25	30	40
		30 - 50	40	50
		60 - 100	60	70

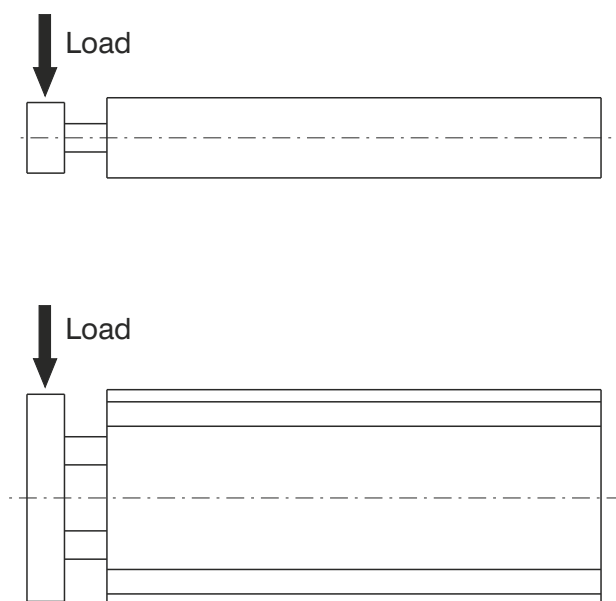
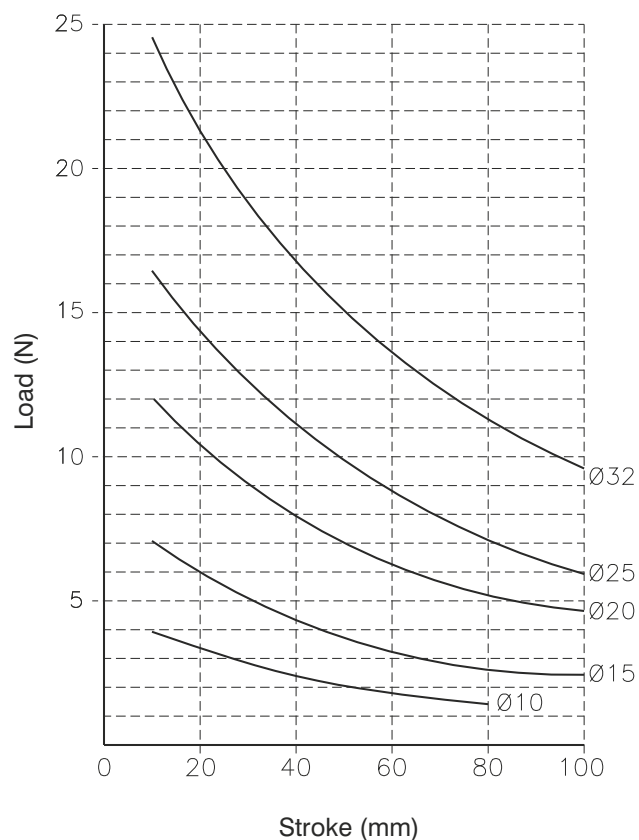
	Bore									
	Ø10		Ø15		Ø20		Ø25		Ø32	
Stroke	Control unit with bronze bush							Weight (gr)		
10	150		250		400		610		1150	
15	160		265		420		635		1190	
20	170		280		440		660		1230	
25	180		290		460		690		1275	
30	190		300		480		720		1320	
35	200		315		495		745		1360	
40	210		330		510		770		1400	
45	220		345		530		800		1450	
50	230		360		550		830		1490	
60	250		390		585		890		1580	
70	270		420		620		950		1665	
75	280		435		640		970		1710	
80			450		660		995		1755	
90			480		700		1060		1840	
100			510		740		1000		1930	
Stroke	Control unit with bearing bush									
10	160		270		430		620		1160	
15	165		285		445		645		1205	
20	170		300		460		670		1250	
25	180		310		480		700		1295	
30	190		320		500		730		1340	
35	200		335		515		755		1380	
40	210		350		530		780		1420	
45	220		365		550		810		1465	
50	230		380		570		840		1510	
60	250		410		605		895		1595	
70	270		440		640		955		1680	
75	280		455		660		980		1720	
80			470		680		1005		1765	
90			500		715		1065		1855	
100			530		750		1110		1940	
Working pressure	Theoretical slide force									
1 bar	16	10	35.5	25	63	47	98	75.5	161	120.5
1.5 bar	23.5	15	53	38	94	62.5	147.5	113.5	241	181
2 bar	31.5	20.0	70.5	50.5	125.5	94	196.5	151	321.5	241
3 bar	47	30	106	75.5	188.5	141	294.5	227	482.5	362
4 bar	63	40	141	101	251	188	393	302.5	643	482.5
5 bar	78.5	50	176.5	126	314	236	491	378	804	603
6 bar	94	60	212	151	377	283	589	453.5	965	723.5
7 bar	110	70	247	176.5	440	330	687.5	529	1125.6	844
	Out	In	Out	In	Out	In	Out	In	Out	In

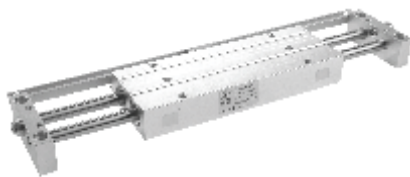
Possible loads

Control unit with bronze bush



Control unit with bearing bush





Ordering code

6210.Ø.stroke.

10

15

25

C = Fixed body

P = Fixed end plates

Construction characteristics

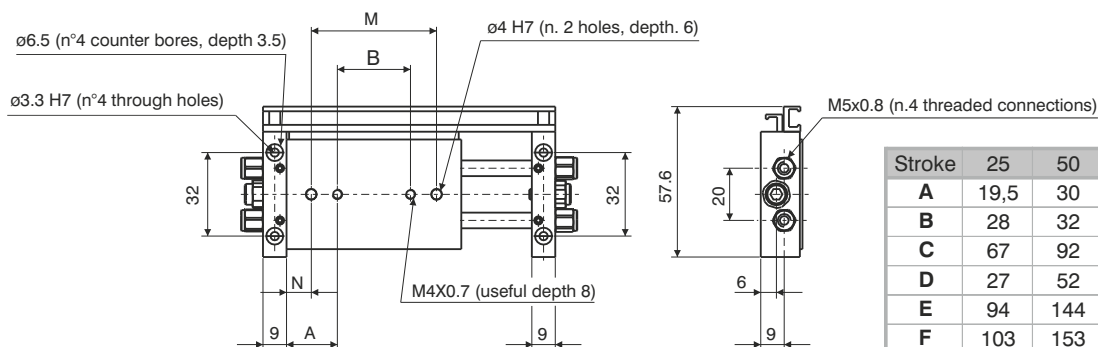
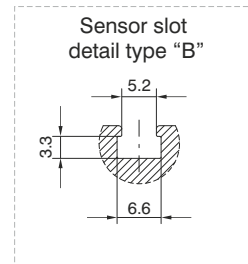
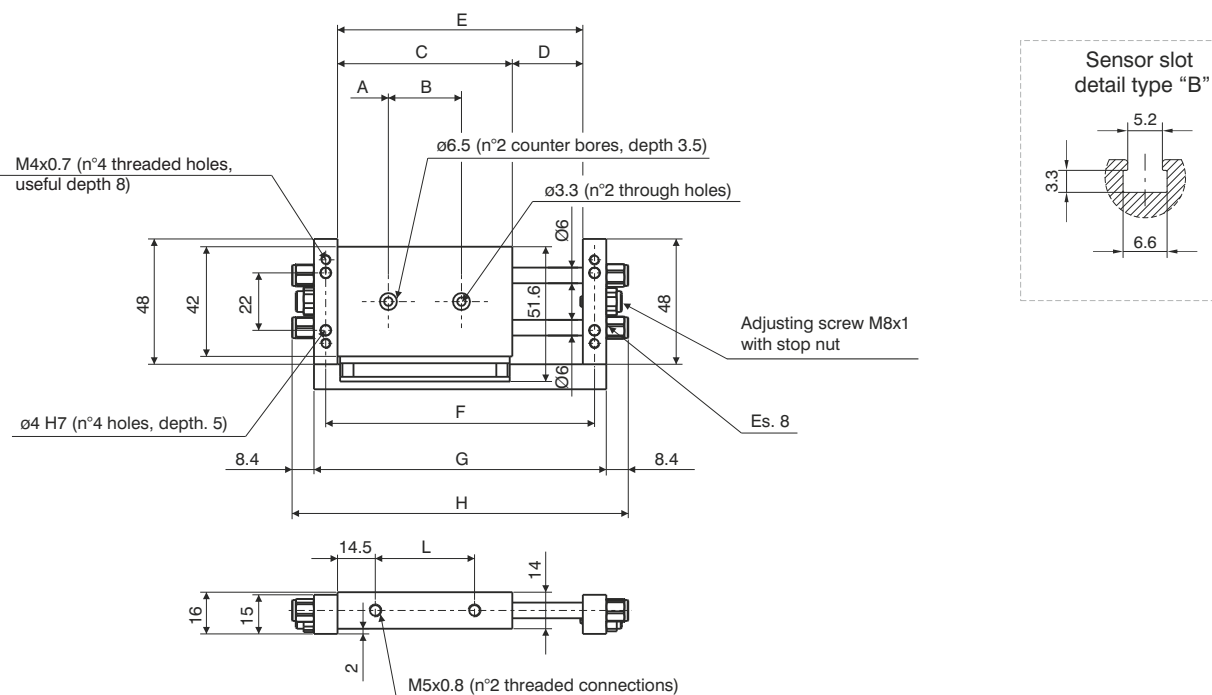
Body	anodised aluminium
Rods	stainless steel
Piston	aluminium
Piston rod bushing	brass
Piston seal	oil resistant NBR rubber
Piston rod seal	PUR
Plate	anodised aluminium

Technical characteristics

Function	double acting
Fluid	filtered and preferably lubricated air or not (If lubricated the lubrication must be continuous)
Max pressure	10 bar
Operating temperature	-5°C - +70°C
Cushioning	with decelerator (available on request)

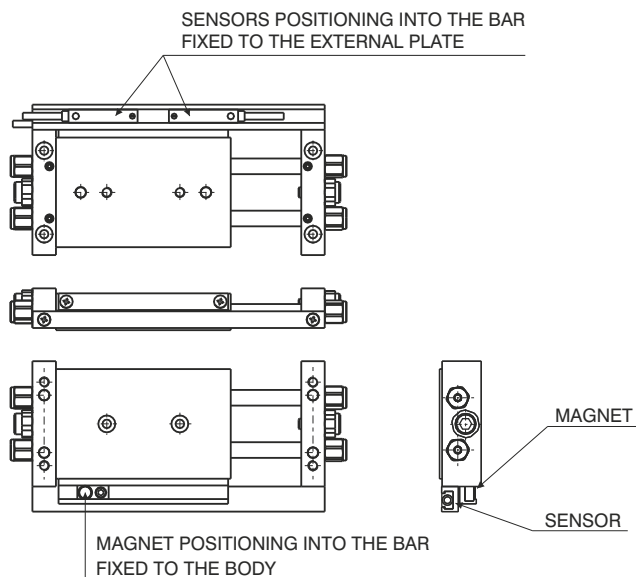
Standard strokes

Bore	Stroke							
	25	50	75	100	125	150	175	200
Ø10	●	●	●	●				
Ø15	●	●	●	●	●	●	●	●
Ø25	●	●	●	●	●	●	●	●

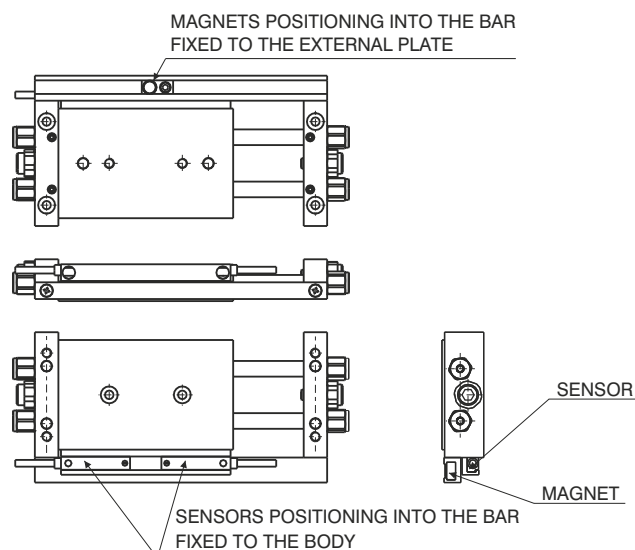


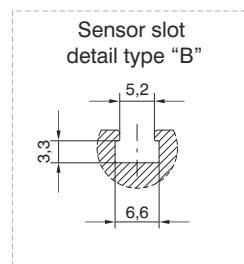
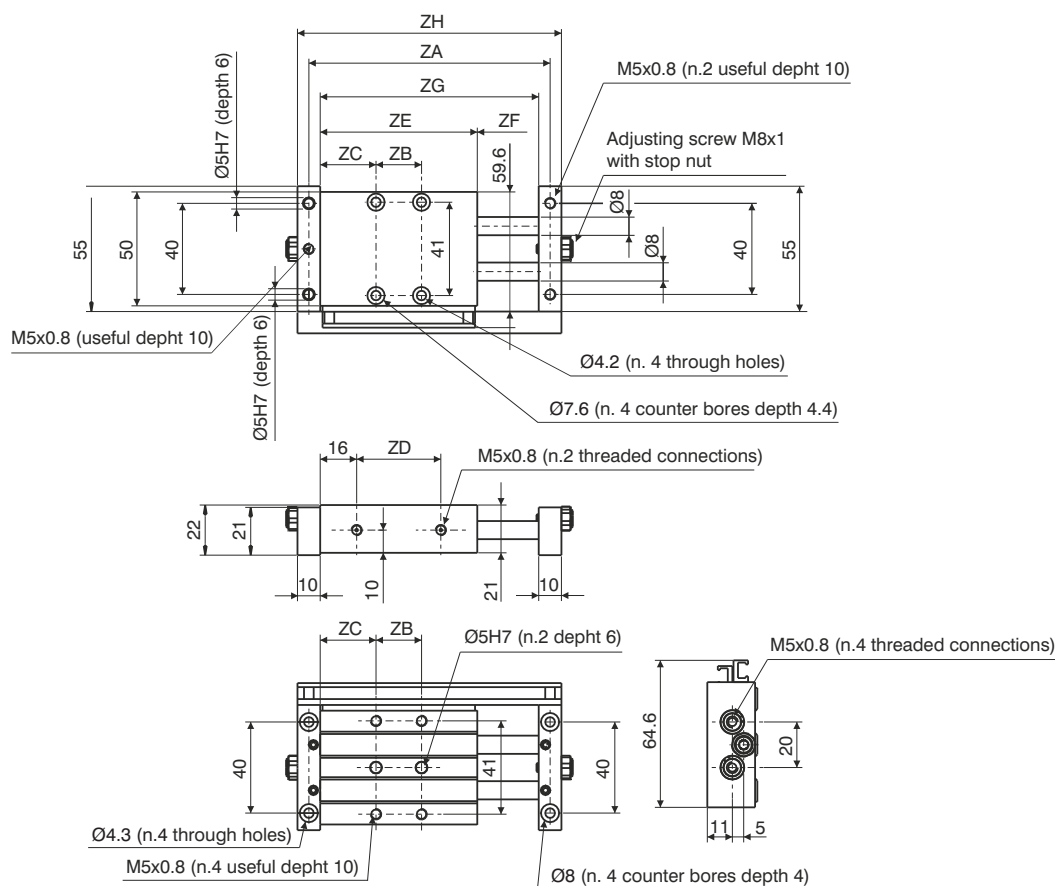
Stroke	25	50	75	100
A	19,5	30	35	35
B	28	32	47	72
C	67	92	117	142
D	27	52	77	102
E	94	144	194	244
F	103	153	203	253
G	112	162	212	262
H	129	179	229	279
L	38	63	88	113
M	48	52	67	92
N	9,5	20	25	25
Weight				
gr.	160	230	280	310

MOUNTING WITH FIXED PLATE



MOUNTING WITH A FIXED BODY

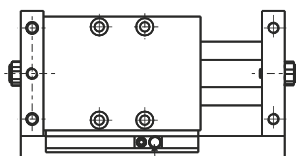
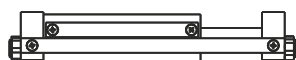
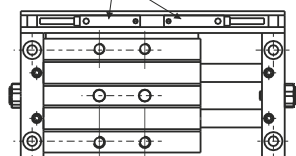




Stroke	25	50	75	100	125	150	175	200
ZA	106	156	206	256	306	356	406	456
ZB	20	45	65	90	90	90	90	90
ZC	24,5	24,5	27	27	39,5	52	64,5	77
ZD	37	62	87	112	137	162	187	212
ZE	69	94	119	144	169	194	219	244
ZF	27	52	77	102	127	152	177	202
ZG	96	146	196	246	296	346	396	446
ZH	116	166	216	266	316	366	416	466
Weight								
gr.	240	350	450	550	670	750	900	1000

MOUNTING WITH FIXED PLATE

SENSORS POSITIONING INTO THE BAR FIXED TO THE EXTERNAL PLATE

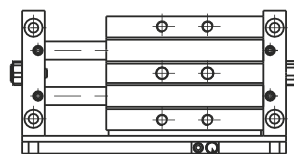
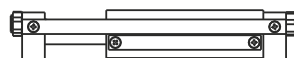
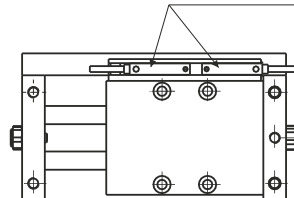


SENSOR MAGNET

MAGNET POSITIONING INTO THE BAR FIXED TO THE BODY

MOUNTING WITH FIXED BODY

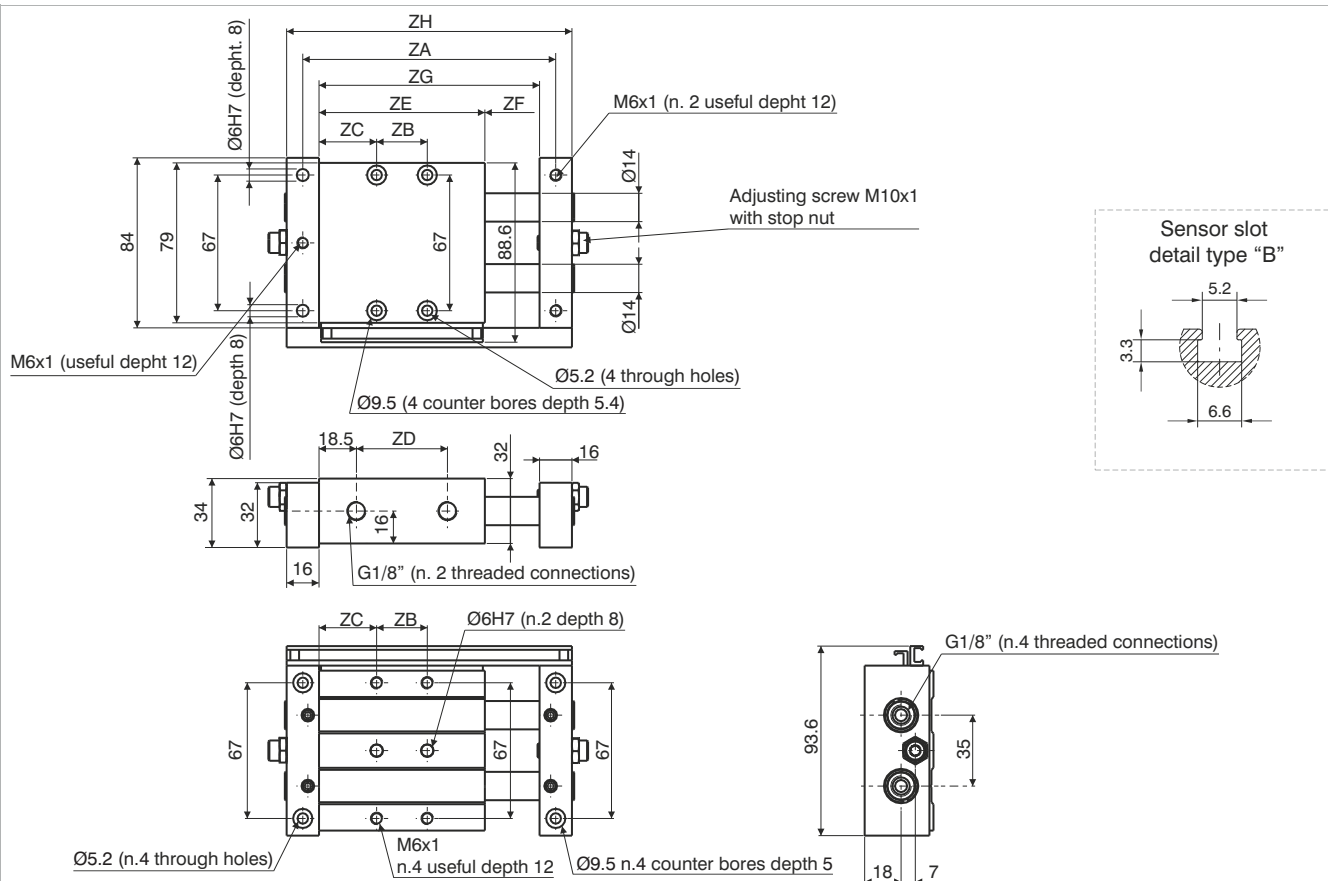
SENSORS POSITIONING INTO THE BAR FIXED TO THE BODY



SENSOR

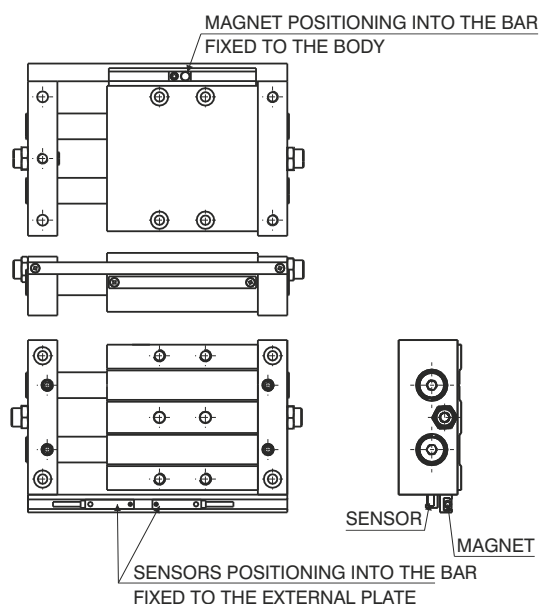
MAGNET

MAGNET POSITIONING INTO THE BAR
FIXED TO THE EXTERNAL PLATE

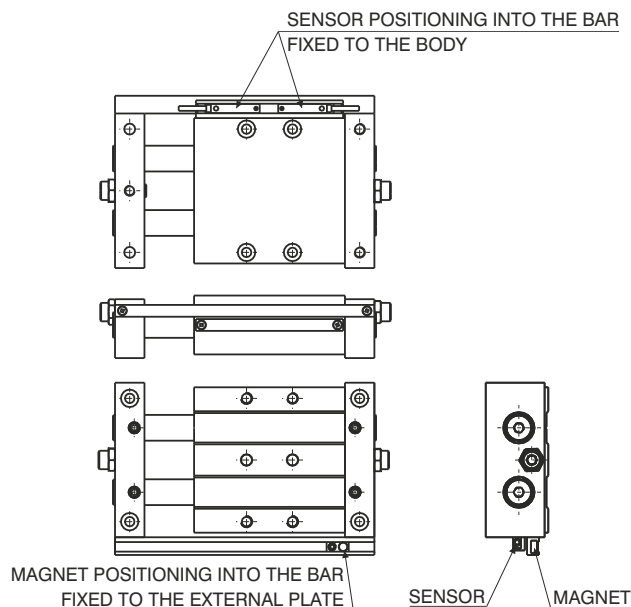


Stroke	25	50	75	100	125	150	175	200
ZA	125	175	225	275	325	375	425	475
ZB	25	45	65	90	90	90	90	90
ZC	28,5	31	33,5	33,5	46	58,5	71	83,5
ZD	45	70	95	120	145	170	195	220
ZE	82	107	132	157	182	207	232	257
ZF	27	52	77	102	127	152	177	202
ZG	109	159	209	259	309	359	409	459
ZH	141	191	241	291	341	391	441	491
Weight								
gr.	950	1140	1350	1600	1800	2000	2300	2500

MOUNTING WITH FIXED PLATE



MOUNTING WITH FIXED BODY



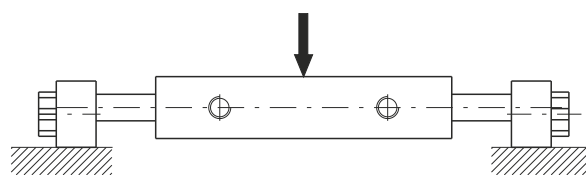
Theoretical force (N)

Working pressure	Bore		
	Ø10	Ø15	Ø25
2 bar	20	41	119
3 bar	30	62	179
4 bar	40	83	239
5 bar	51	104	299
6 bar	61	124	358
7 bar	71	145	418
8 bar	81	166	478
9 bar	91	186	537
	101	207	597
	Effective area (mm ²)		

Deflection of piston rods

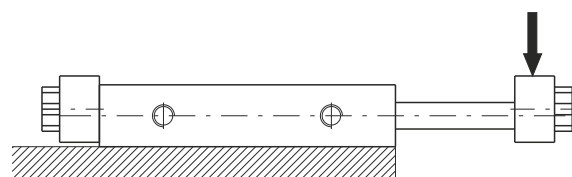
Applied load to body centre

Bore	Load	Deflection (mm)	
Ø10	10 N	0,07	/
Ø15	30 N	0,08	0,28
Ø25	60 N	0,02	0,08
		100	200
		Stroke	



Applied load to body centre

Bore	Load	Deflection (mm)			
Ø10	3 N	0,06	0,3	/	/
Ø15	5 N	0,1	0,2	0,5	1
Ø25	10 N	0,03	0,1	0,15	0,25
		50	100	150	200
		Stroke			



Control unit with bronze bushes

