

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

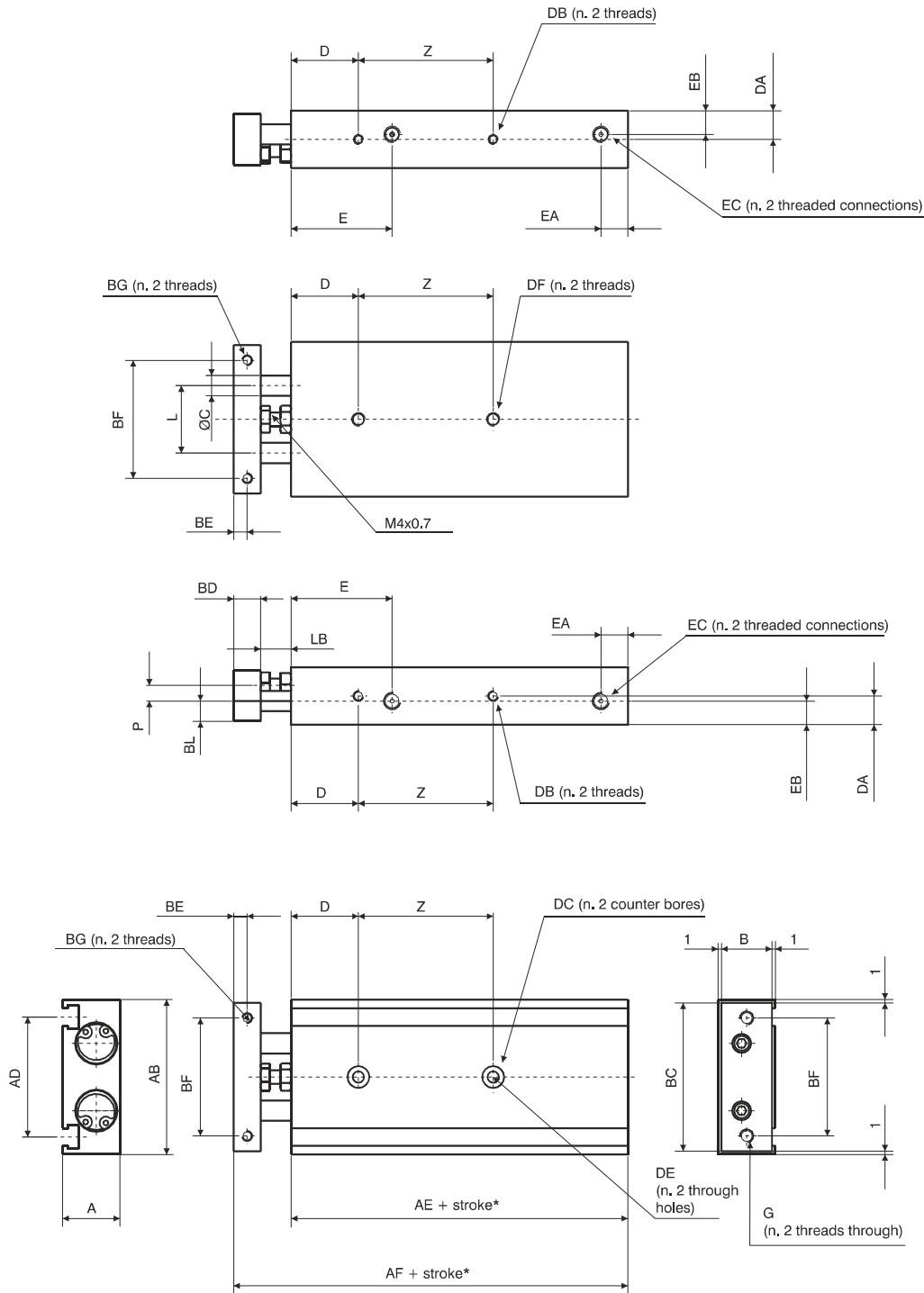
Body	oxidised aluminium
Rods	C43 chromed steel (control unit with bronze bush) tempered and chromed steel (control unit with bearing bush)
Piston	aluminium
Rod bushing	brass
End plate	oxidised aluminium
Piston seal	oil resistant NBR rubber
Piston rod seal	PUR
Plate	oxidised aluminium

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

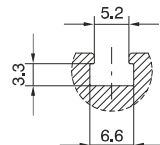
Bore	Stroke														
	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100
Ø10	●	●	●	●	●	●	●	●	●	●	●	●			
Ø15	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ø20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ø25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ø32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

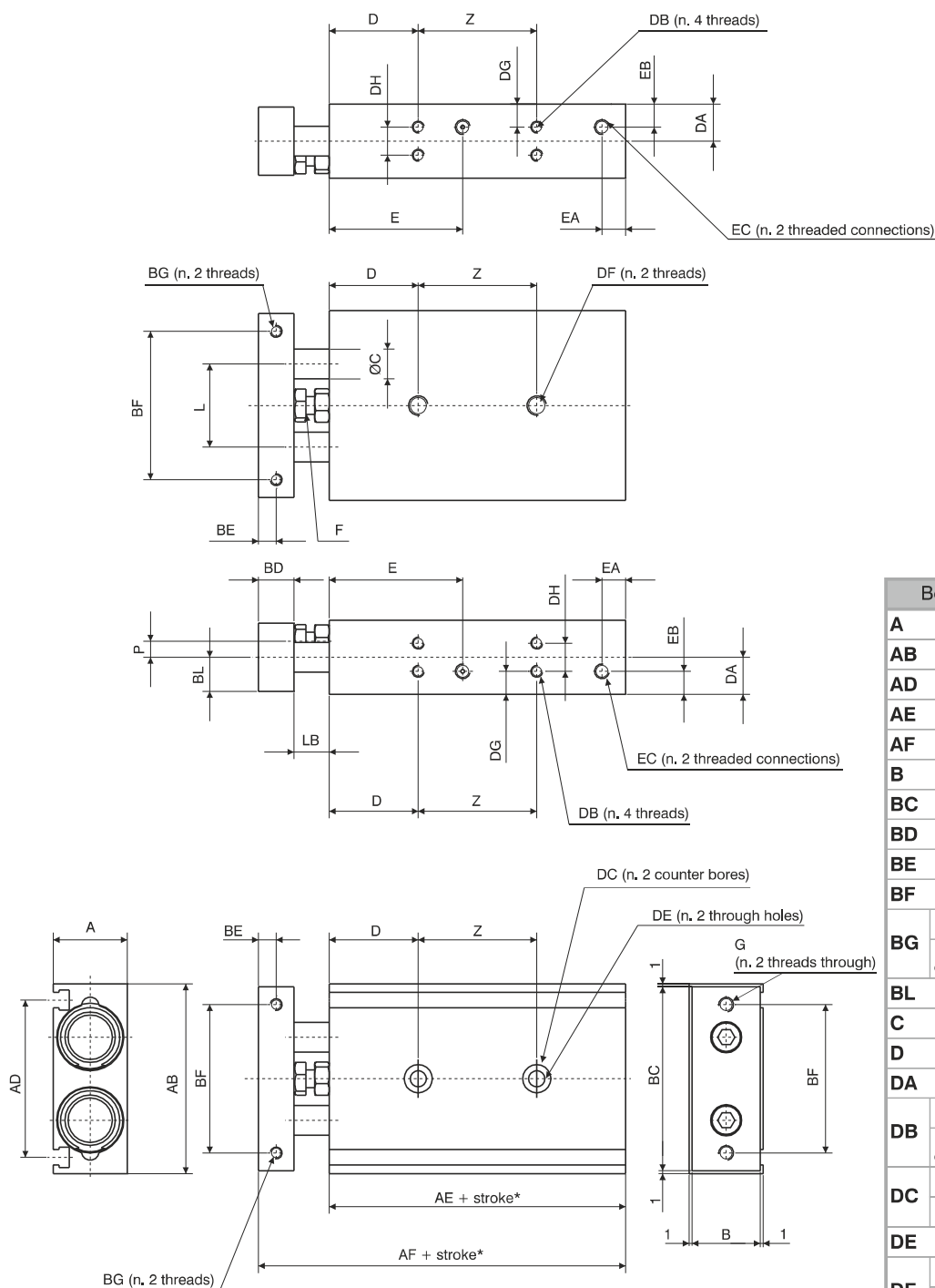


*Dimensions only refer to the "standard stroke"

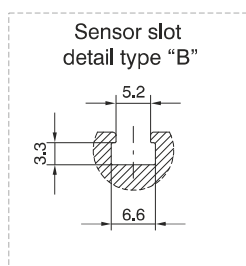
Bore	Ø10	Ø15
A	17	20
AB	46	58
AD	35.6	48
AE	55	60
AF	72	79
B	15	18
BC	44	56
BD	8	10
BE	4	5
BF	35	45
BG	M3x0.5	M4x0.7
Useful depth	5	6
BL	6	9
C	6	8
D	20	30
DA	8,5	10
DB	M3x0.5	M4x0.7
Useful depth	4.5	5
DC	6.5	8
depth	3.3	4.4
DE	3.4	4,3
DF	M4x0.7	M5x0.8
Useful depth	7	8
E	30	38.5
EA	8	8
EB	7	10
EC	M5x0.8	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	25
30 - 50	40	35
60 - 75	50	45
80	-	45
90 - 100	-	55

Sensor slot
detail type "B"





*Dimensions only refer to the "standard stroke"

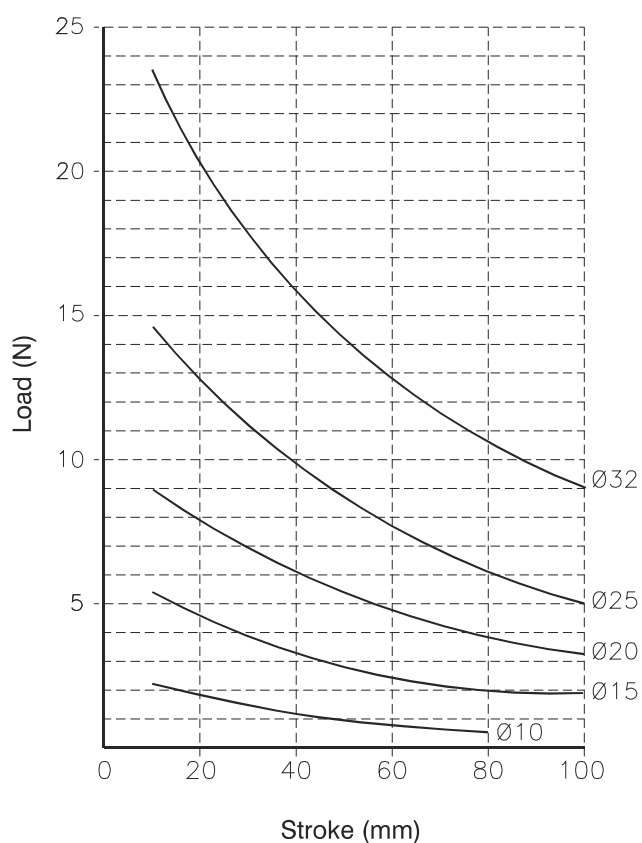


Bore		Ø20	Ø25	Ø32
A		25	30	38
AB		64	80	98
AD		53	64	76
AE		70	72	82
AF		94	96	112
B		23	28	36
BC		62	78	96
BD		12	12	16
BE		6	6	8
BF		50	60	75
BG		M4x0.7	M5x0.8	M5x0.8
	Useful depth	6	7.5	8
BL		11.5	14	18
C		10	12	16
D		30	30	30
DA		12.5	15	19
DB		M4x0.7	M5x0.8	M5x0.8
	Useful depth	6	7.5	7.5
DC		9.5	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

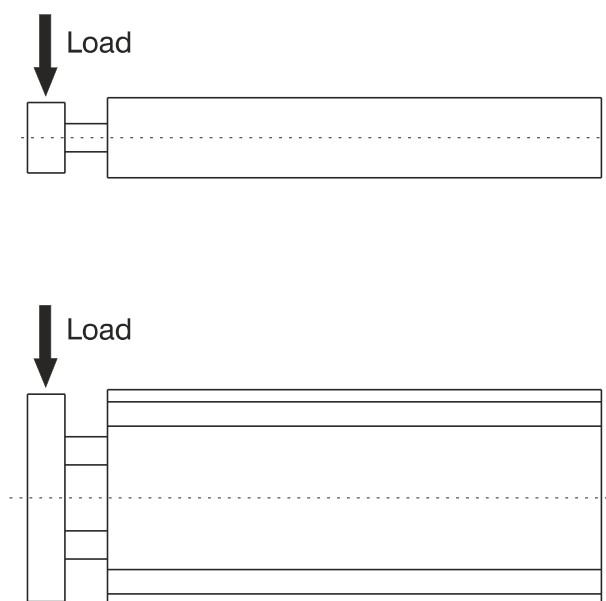
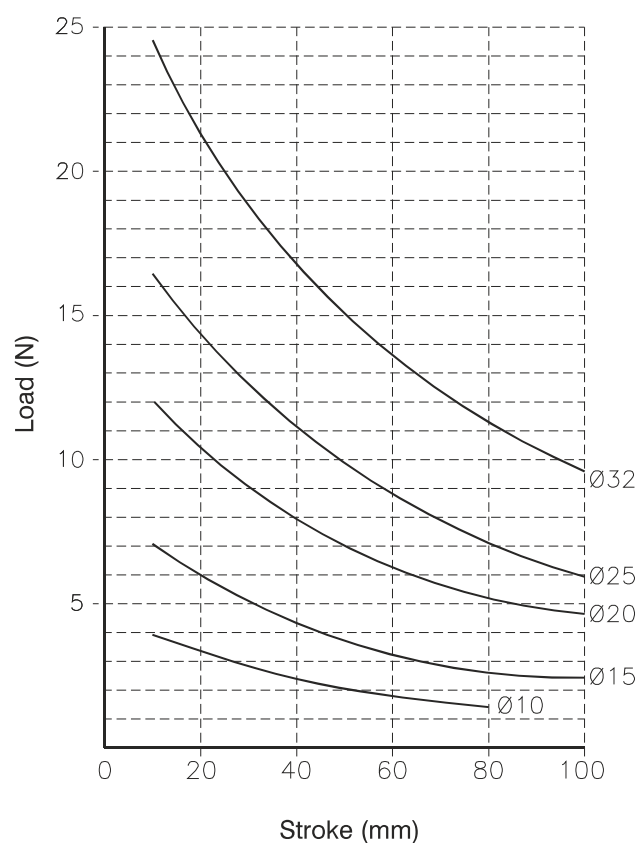
	Bore									
	Ø10		Ø15		Ø20		Ø25		Ø32	
Stroke	Control unit with bronze bush								Weight (gr)	
10	150		250		400		610		1150	
15	160		265		420		635		1190	
20	170		280		440		660		1230	
25	180		290		460		690		1275	
30	190		300		480		720		1320	
35	200		315		495		745		1360	
40	210		330		510		770		1400	
45	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

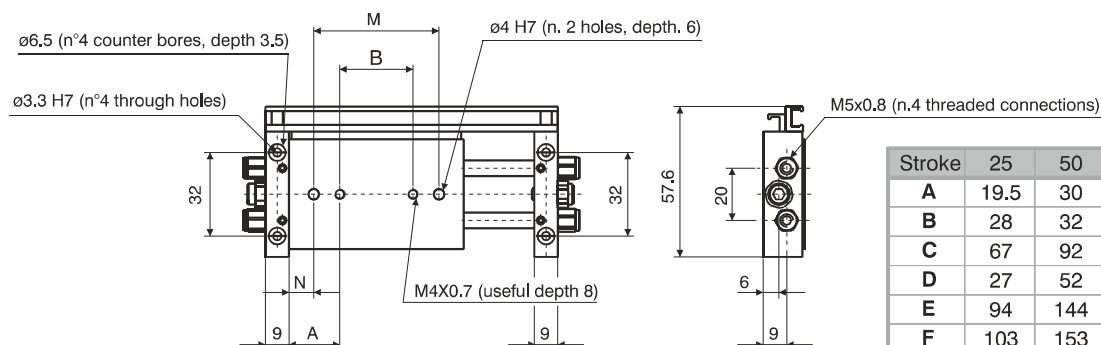
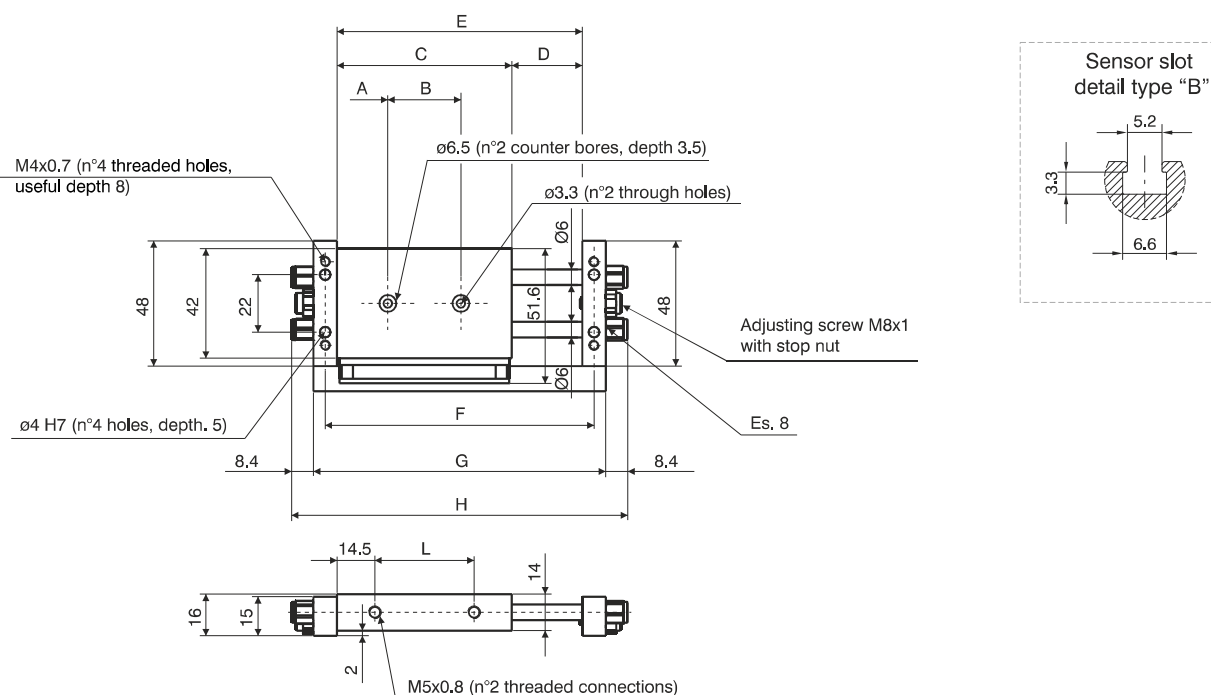
Body	oxidised aluminium alloy
Rods	stainless steel
Piston	aluminium
Piston rod bushing	brass
Piston seal	oil resistant NBR rubber
Piston rod seal	PUR
Plate	oxidised aluminium

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)

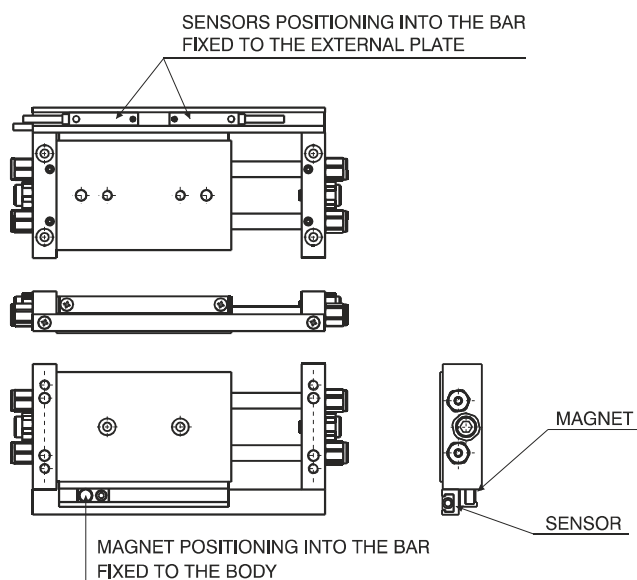
Standard strokes

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

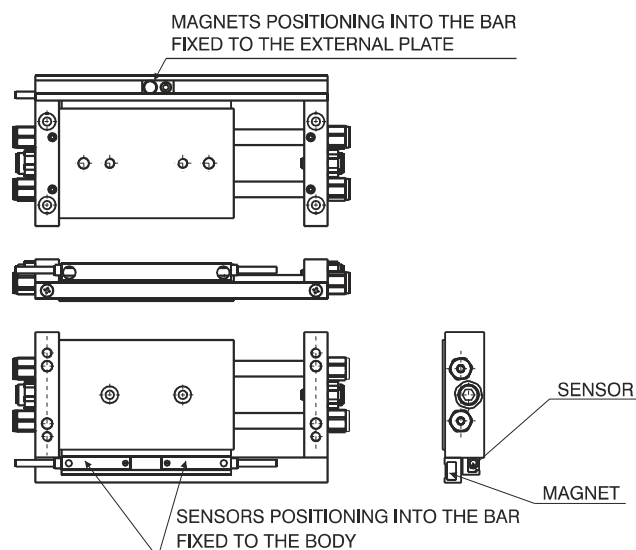


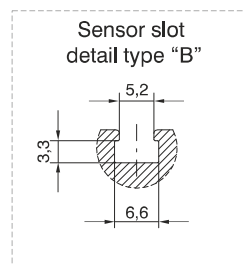
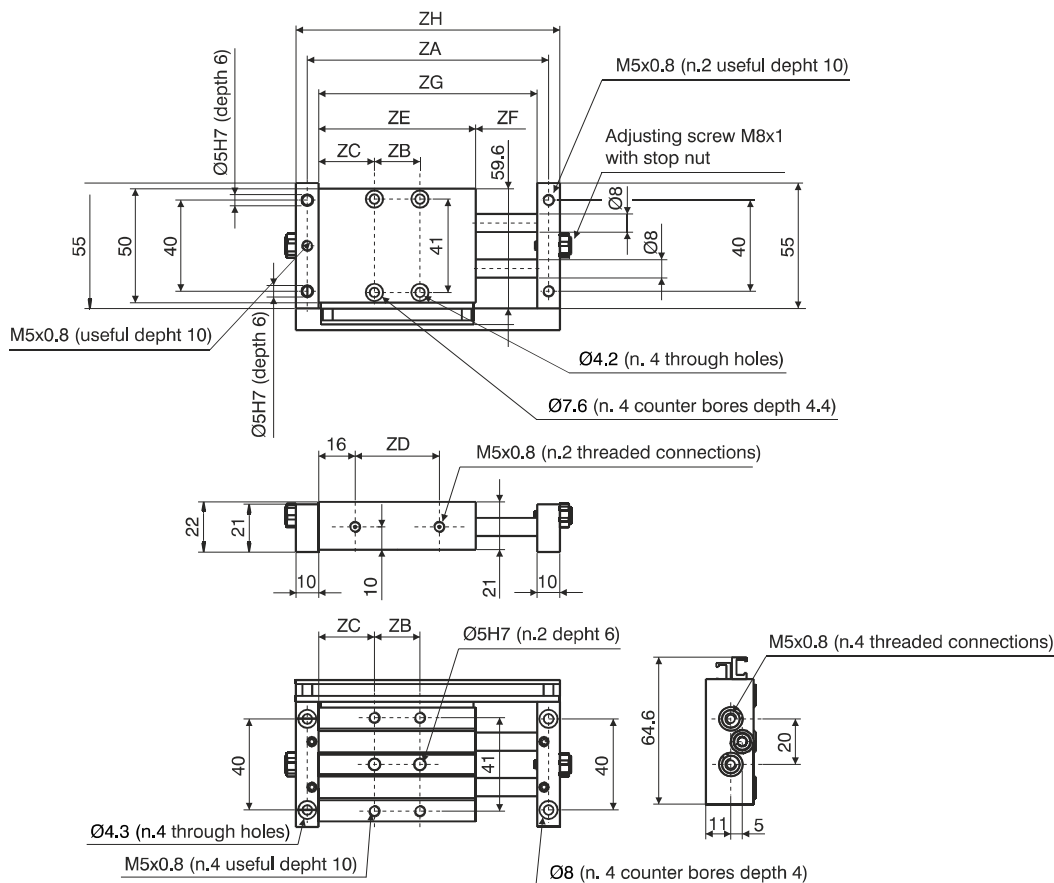
Stroke	25	50	75	100
A	19.5	30	35	35
B	28	32	47	72
C	67	92	117	142
D	27	52	77	102
E	94	144	194	244
F	103	153	203	253
G	112	162	212	262
H	129	179	229	279
L	38	63	88	113
M	48	52	67	92
N	9,5	20	25	25
Weight				
gr	160	230	280	310

MOUNTING WITH FIXED PLATE



MOUNTING WITH A FIXED BODY

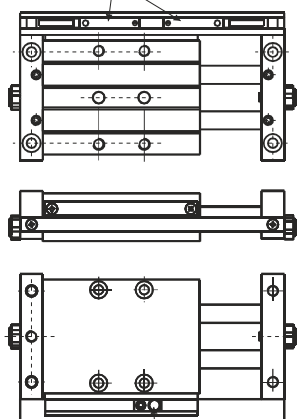




Stroke	25	50	75	100	125	150	175	200
ZA	106	156	206	256	306	356	406	456
ZB	20	45	65	90	90	90	90	90
ZC	24.5	24.5	27	27	39.5	52	64.5	77
ZD	37	62	87	112	137	162	187	212
ZE	69	94	119	144	169	194	219	244
ZF	27	52	77	102	127	152	177	202
ZG	96	146	196	246	296	346	396	446
ZH	116	166	216	266	316	366	416	466
Weight								
gr	240	350	450	550	670	750	900	1000

MOUNTING WITH FIXED PLATE

SENSORS POSITIONING INTO THE BAR FIXED TO THE EXTERNAL PLATE

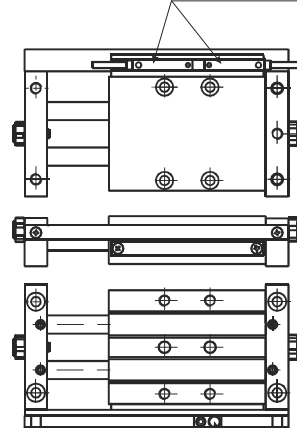


SENSOR MAGNET

MAGNET POSITIONING INTO THE BAR FIXED TO THE BODY

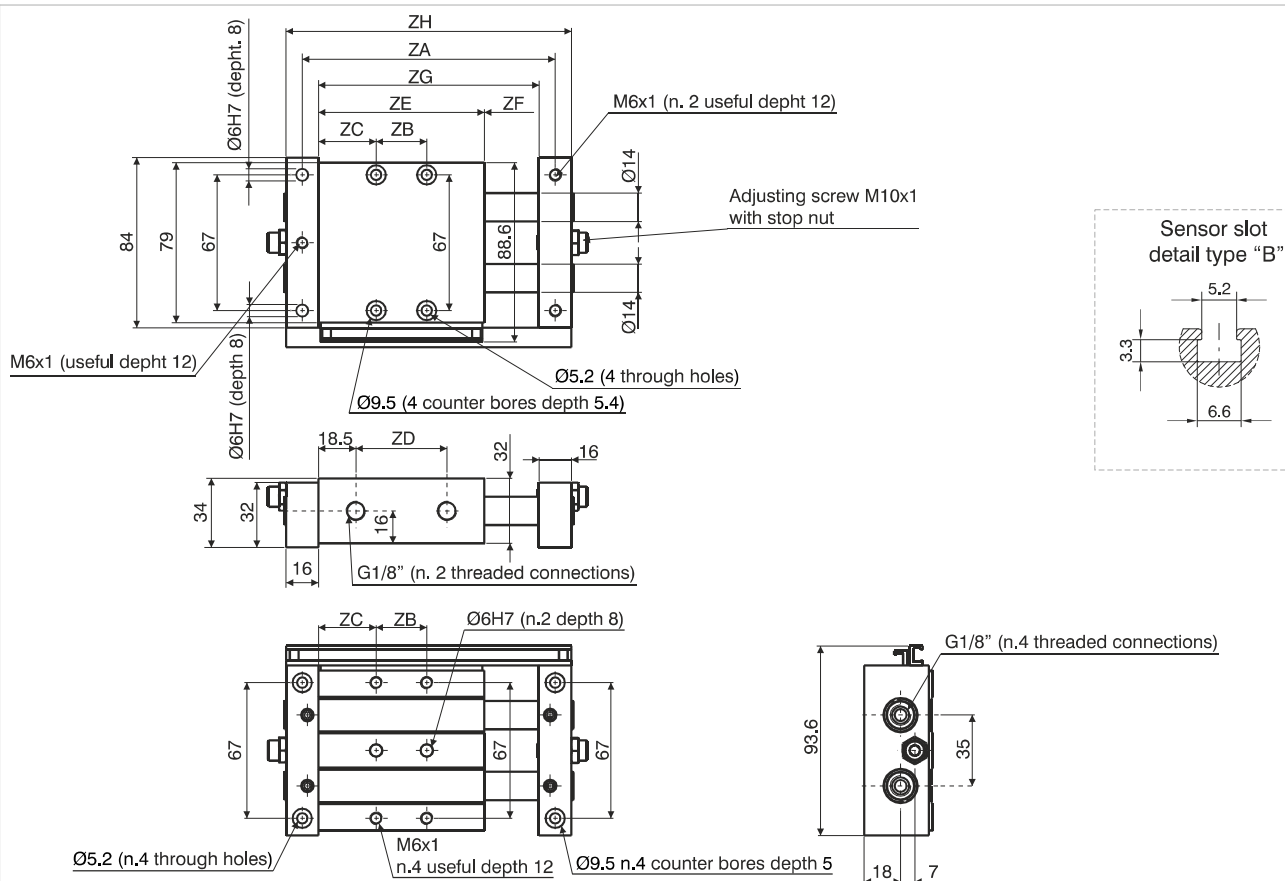
MOUNTING WITH FIXED BODY

SENSORS POSITIONING INTO THE BAR FIXED TO THE BODY



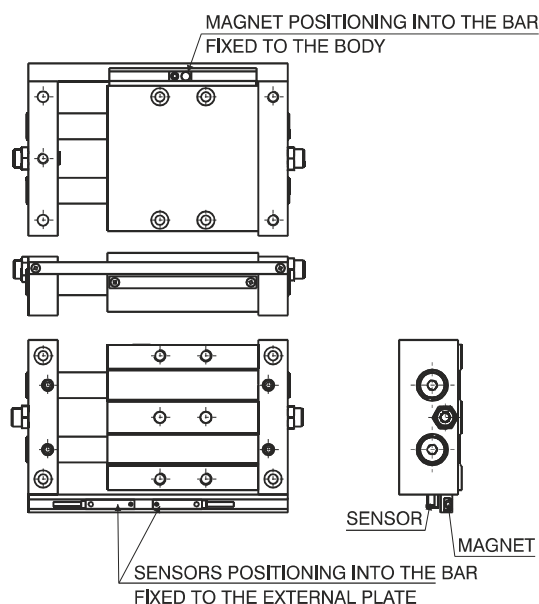
SENSOR
MAGNET

MAGNET POSITIONING INTO THE BAR
FIXED TO THE EXTERNAL PLATE

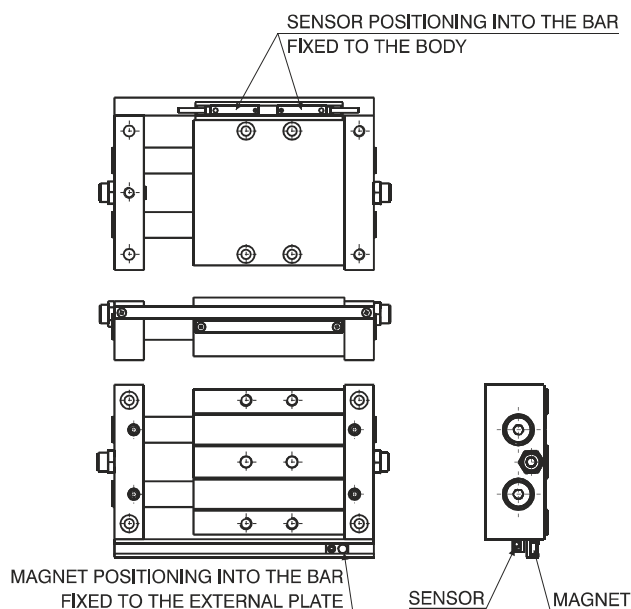


Stroke	25	50	75	100	125	150	175	200
ZA	125	175	225	275	325	375	425	475
ZB	25	45	65	90	90	90	90	90
ZC	28.5	31	33.5	33.5	46	58.5	71	83.5
ZD	45	70	95	120	145	170	195	220
ZE	82	107	132	157	182	207	232	257
ZF	27	52	77	102	127	152	177	202
ZG	109	159	209	259	309	359	409	459
ZH	141	191	241	291	341	391	441	491
Weight								
qr	950	1140	1350	1600	1800	2000	2300	2500

MOUNTING WITH FIXED PLATE



MOUNTING WITH FIXED BODY



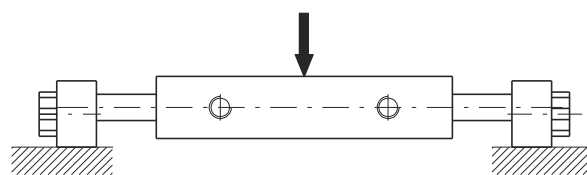
Theoretical force (N)

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

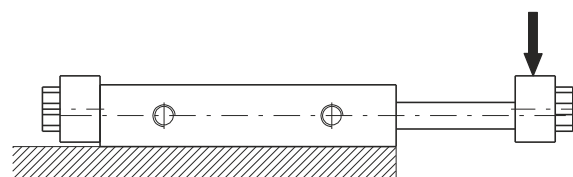
Applied load to body centre

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

