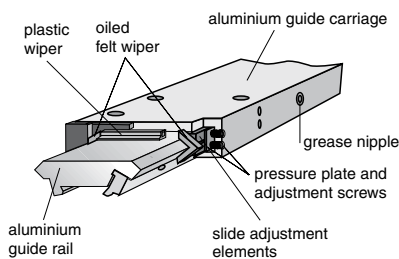
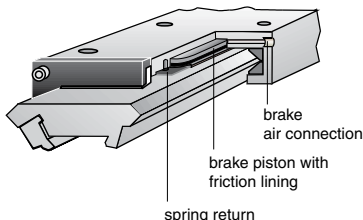


Versions

**for pneumatic linear drive:
 Series OSP-P**



Option – Integrated Brake

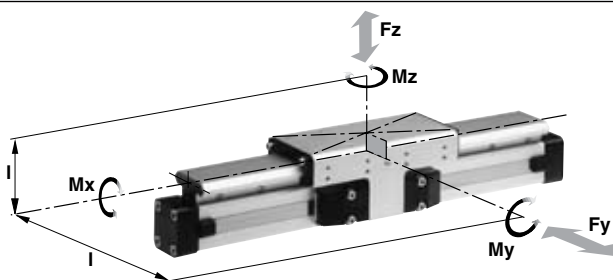


**Integrated Brake (optional)
 for series OSP-P25 to OSP-P50:**

- Actuated by pressure
- Released by exhausting and spring return

For further technical data see also linear drives OSP-P (page B7)

Loads, Forces and Moments



Technical Data

The table shows the maximum permissible values for smooth operation, which should not be exceeded even under dynamic conditions.

The load and moment figures apply to speeds $v < 0.2$ m/s.

*** Please note:**

In the cushioning diagram, add the mass of the guide carriage to the mass to be cushioned.

Plain Bearing Guide SLIDELINE



**Series SL 16 to 80
 for Linear-drive
 • Series OSP-P**

Features:

- Adjustable plastic slide elements – optional with integral brake
- Composite sealing system with plastic and felt wiper elements to remove dirt and lubricate the slideways.
- Corrosion resistant version available on request.
- Any length of stroke up to 5500 mm (longer strokes on request)

- 1) Only with integrated brake:
 Braking force on dry oil-free surface
 Values are decreased for lubricated slideways
- 2) Corrosion resistant fixtures available on request

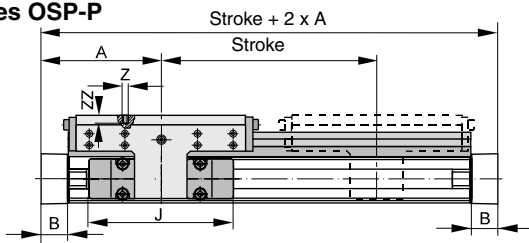
Series	For linear drive	Max. moments (Nm)			Max. loads (N)	Maximum braking force at 6 bar (N) ¹⁾	Mass of linear drive with guide (kg)		Mass* of guide carriage (kg)
		Mx	My	Mz			Fy, Fz	with 0 mm stroke	
SL16	OSP-P16	6	11	11	325	–	0.57	0.22	0.23
SL25	OSP-P25	14	34	34	675	325	1.55	0.39	0.61
SL32	OSP-P32	29	60	60	925	545	2.98	0.65	0.95
SL40	OSP-P40	50	110	110	1500	835	4.05	0.78	1.22
SL50	OSP-P50	77	180	180	2000	1200	6.72	0.97	2.06
SL63	OSP-P63	120	260	260	2500	–	11.66	1.47	3.32
SL80	OSP-P80	120	260	260	2500	–	15.71	1.81	3.32



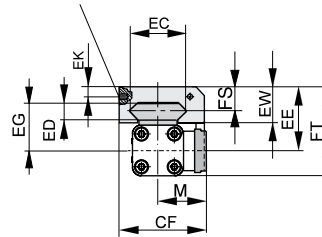
B

Dimensions

Series OSP-P



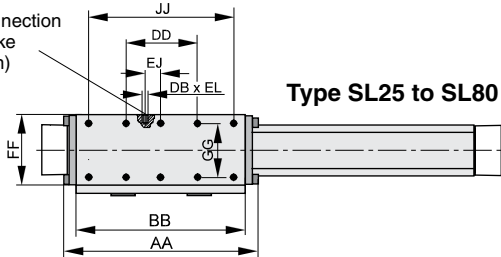
Air connection for brake (Option)



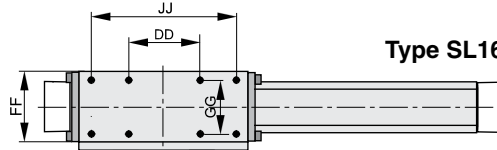
For further mounting elements and options see accessories.

For further information and technical data see data sheets for linear drives OSP-P (page B7)

Air connection for brake (Option)



Type SL25 to SL80



Type SL16

Dimension Table (mm)

Series	A	B	J	M	Z	AA	BB	DB	DD	CF	EC	ED	EE	EG	EJ	EK	EL	EW	FF	FT	FS	GG	JJ	ZZ
SL 16	65	14	69	31	M4	106	88	-	30	55	36	8	40	30	-	-	-	22	48	55	14	36	70	8
SL 25	100	22	117	40.5	M6	162	142	M5	60	72.5	47	12	53	39	22	6	6	30	64	73.5	20	50	120	12
SL 32	125	25.5	152	49	M6	205	185	M5	80	91	67	14	62	48	32	6	6	33	84	88	21	64	160	12
SL 40	150	28	152	55	M6	240	220	M5	100	102	77	14	64	50	58	6	6	34	94	98.5	21.5	78	200	12
SL 50	175	33	200	62	M6	284	264	M5	120	117	94	14	75	56	81	6	6	39	110	118.5	26	90	240	16
SL 63	215	38	256	79	M8	312	292	-	130	152	116	18	86	66	-	-	-	46	152	139	29	120	260	14
SL 80	260	47	348	96	M8	312	292	-	130	169	116	18	99	79	-	-	-	46	152	165	29	120	260	14

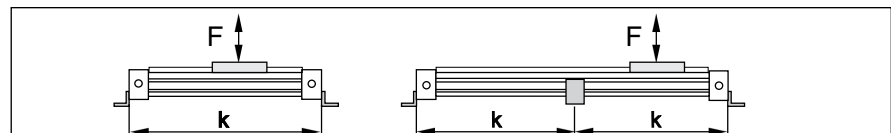
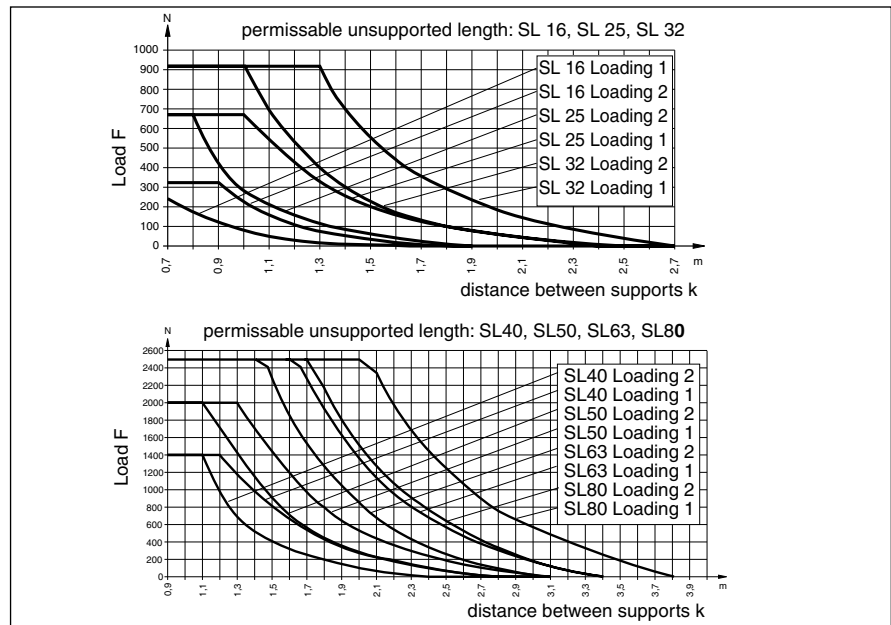
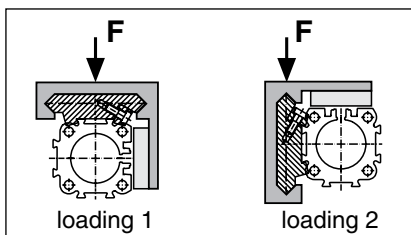
Mid-Section Support

(for versions see pages B47)

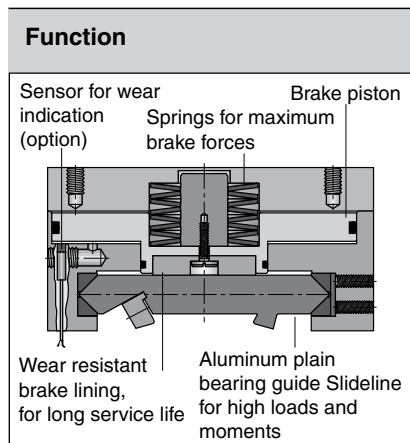
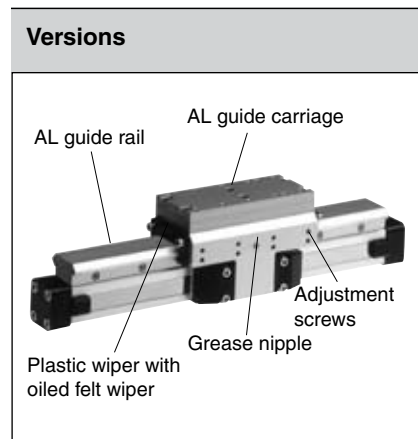
Mid-section supports are required from a certain stroke length to prevent excessive deflection and vibration of the linear drive. The diagrams show the maximum permissible unsupported length in relation to loading. A distinction must be drawn between loading 1 and loading 2. Deflection of 0.5 mm max. between supports is permissible.

Note:

For speeds $v > 0.5$ m/s the distance between supports should not exceed 1 m.



Features & Ordering Information



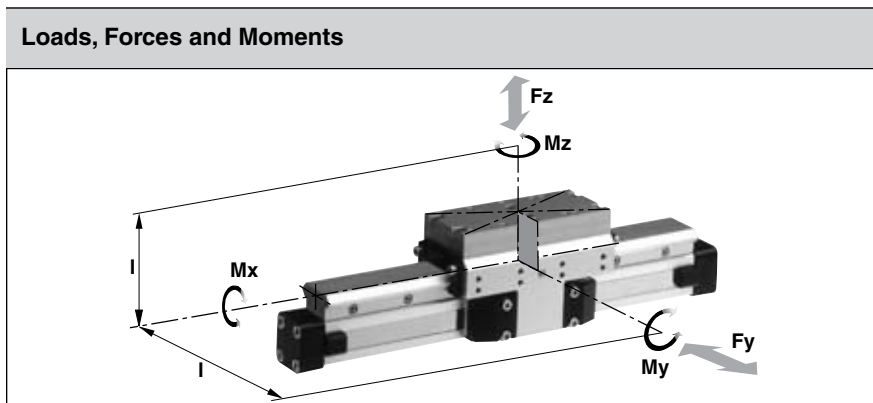
Multi-Brake Passive Brake with plain bearing guide Slideline SL



Function:

The Multi-Brake is a passive device. When the air pressure is removed the brake is actuated and movement of the cylinder is blocked. The brake is released by pressurization.

The high friction, wear resistant brake linings allow the Multi-Brake to be used as a dynamic brake to stop cylinder movement in the shortest possible time. The powerful springs also allow the Multi-Brake to be used effectively in positioning applications.



Technical Data:

The table shows the maximum values for light, shock-free operation, which must not be exceeded even in dynamic operation. Load and moment data are based on speeds $v < 0.2$ m/s.

Operating pressure 4.5 - 8 bar
 A pressure of 4.5 bar is required to release the brake.
 For further technical information, please refer to the data sheets for linear drives OSP-P (page B7)

Series MB-SL 25 to 80 for Linear-drive

- Series OSP-P

Features:

- Brake operated by spring actuation
- Brake release by pressurization
- Optional sensor to indicate brake lining wear
- Anodized aluminum rail, with prism shaped slide elements
- Adjustable plastic slide elements
- Composite sealing system with plastic and felt wiper elements to remove dirt and lubricate the slideway
- Replenishable guide lubrication by integrated grease nipples
- Blocking function in case of pressure loss
- Intermediate stops possible

¹⁾ Braking surface dry – oil on the braking surface will reduce the braking force

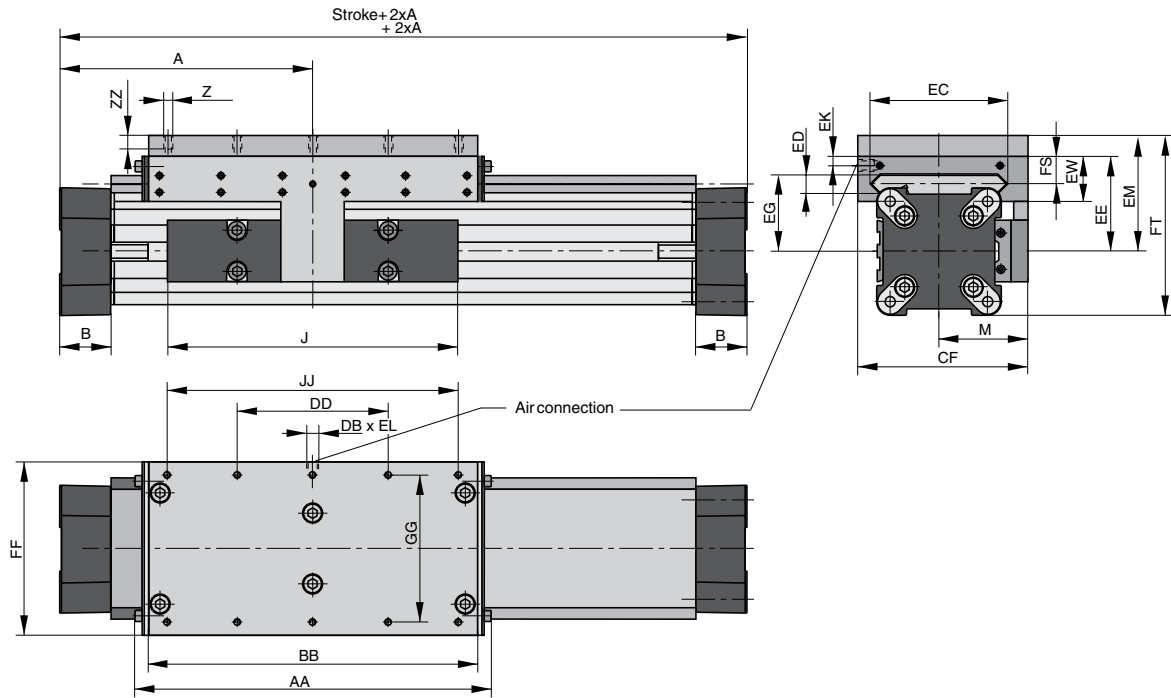
*** Please note:**

in the cushioning diagram, the mass of the guide carriage has to be added to the total moving mass.

Series	For linear drive	Max. moments (Nm)			Max. loads (N) Ly, Lz	Max. brake force (N) ¹⁾	Mass of linear drive with guide (kg)		Mass* guide carriage (kg)
		Mx	My	Mz			with 0 mm stroke	increase per 100 mm stroke	
MB-SL 25	OSP-P25	14	34	34	675	470	2.04	0.39	1.10
MB-SL 32	OSP-P32	29	60	60	925	790	3.82	0.65	1.79
MB-SL 40	OSP-P40	50	110	110	1500	1200	5.16	0.78	2.34
MB-SL 50	OSP-P50	77	180	180	2000	1870	8.29	0.97	3.63
MB-SL 63	OSP-P63	120	260	260	2500	2900	13.31	1.47	4.97
MB-SL 80	OSP-P80	120	260	260	2500	2900	17.36	1.81	4.97



Series OSP-P with Passive Brake MB-SL

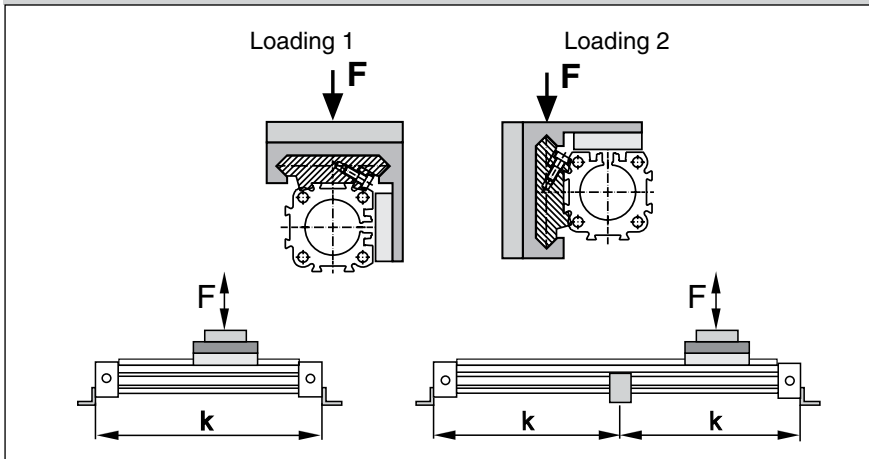


B

Dimension Table (mm)

Series	A	B	J	M	Z	AA	BB	DB	DD	CF	EC	ED	EE	EG	EK	EL	EM	EW	FF	FT	FS	GG	JJ	ZZ
MB-SL25	100	22	117	40,5	M6	162	142	M5	60	72.5	47	12	53	39	9	5	73	30	64	93.5	20	50	120	12
MB-SL32	125	25.5	152	49	M6	205	185	G1/8	80	91	67	14	62	48	7	10	82	33	84	108	21	64	160	12
MB-SL40	150	28	152	55	M6	240	220	G1/8	100	102	77	14	64	50	6.5	10	84	34	94	118.5	21.5	78	200	12
MB-SL50	175	33	200	62	M6	284	264	G1/8	120	117	94	14	75	56	10	12	95	39	110	138.5	26	90	240	12
MB-SL63	215	38	256	79	M8	312	292	G1/8	130	152	116	18	86	66	11	12	106	46	152	159	29	120	260	13
MB-SL80	260	47	348	96	M8	312	292	G1/8	130	169	116	18	99	79	11	12	119	46	152	185	29	120	260	13

Loading



Mid Section Support

(for versions see page B47)

Mid-Section supports are required from a certain stroke length to prevent excessive deflection and vibration of the linear drive.

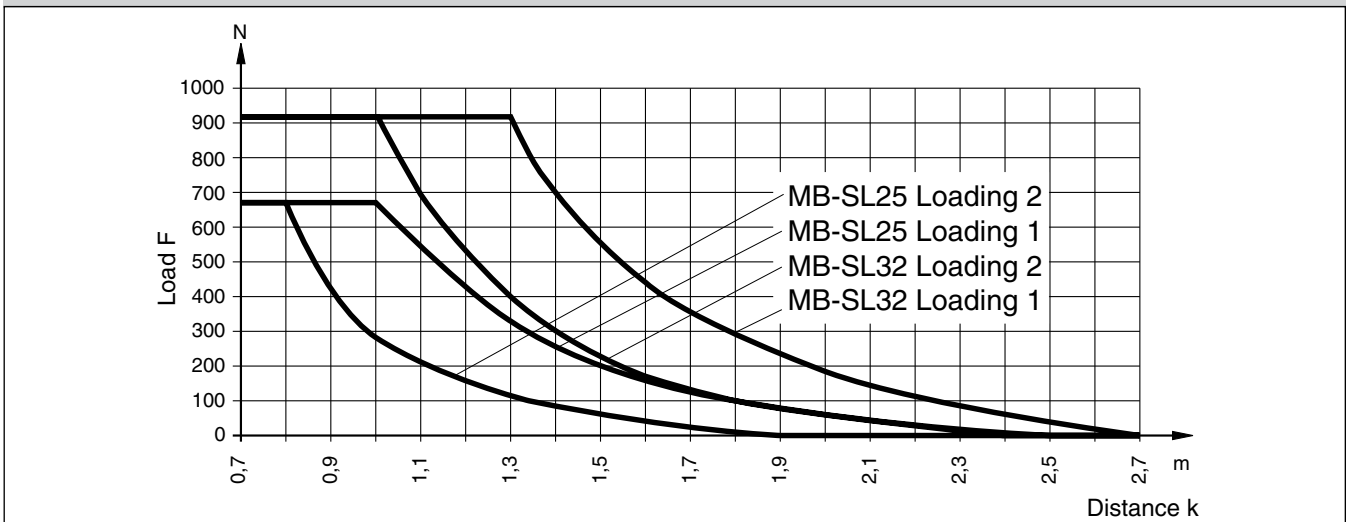
The diagrams show the maximum permissible unsupported length in relation to loading. A distinction must be drawn between loading 1 and loading 2. Deflection of 0.5 mm max. between supports is permissible.

Note:

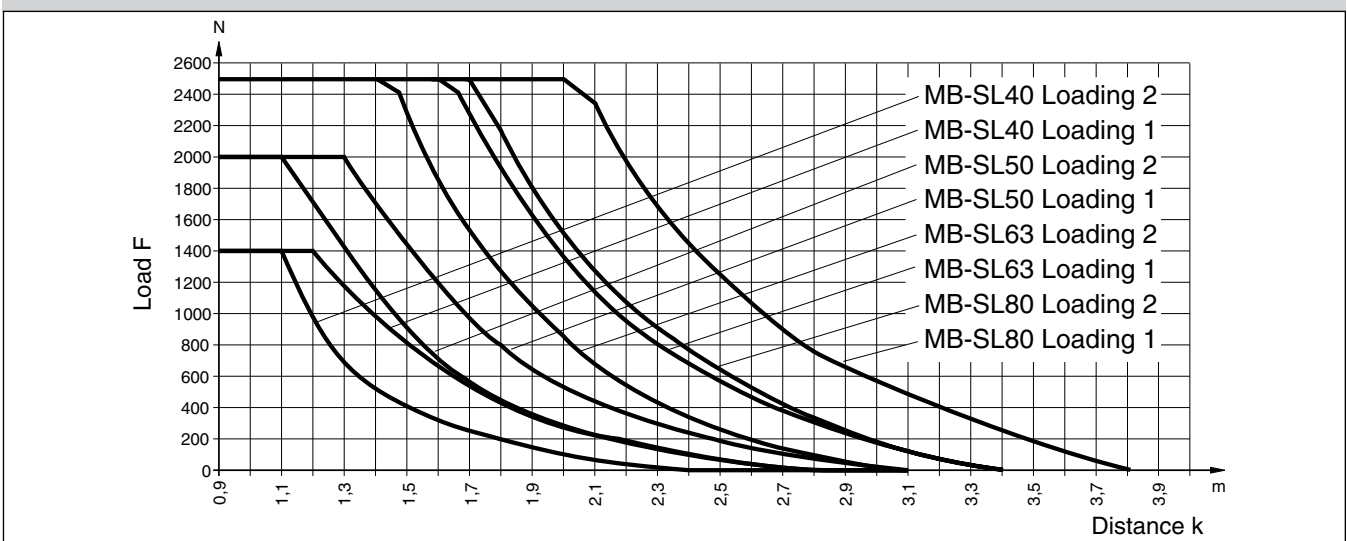
For speeds $v > 0.5$ m/s the distance between supports should not exceed 1 m.

B

Permissible Unsupported Length MB-SL25, MB-SL32



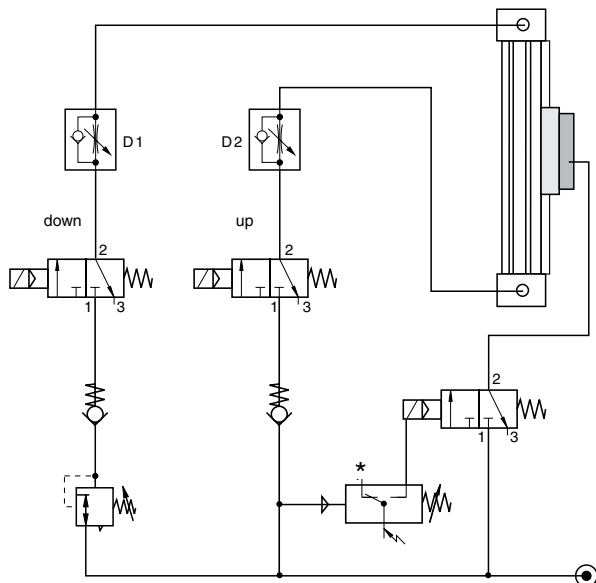
Permissible Unsupported Length MB-SL40, MB-SL50, MB-SL63 and MB-SL80



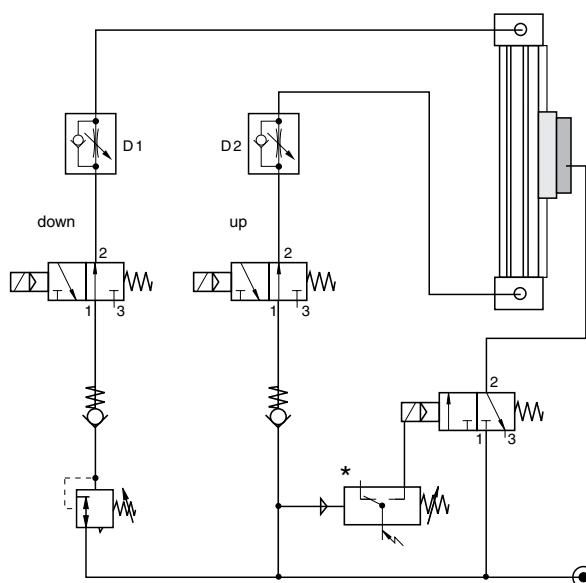
Application Example - Vertical Application

B

Control of a cylinder with 3/2 way valves. Basic position – **exhausted**



Control of a cylinder with 3/2 way valves. Basic position – **pressurized**



Control Examples

Under normal operating circumstances the pressure switch is closed and the air flows through the 3/2 way solenoid valves from port 1 to 2, thus lifting the brake from the rail (operating condition).

The brake is pressurized by means of a 3/2 way valve in combination with a pressure switch. When there is a pressure loss, the brake is actuated by the pressure switch.

When the air pressure is restored to both cylinder chambers, the brake is lifted and the linear drive can be moved again.

The speed regulating valves D1 and D2 control the speed of the linear drive, and have no influence on the brake. The two non-return valves give the system a higher stability.

The pressure regulating valve is used to compensate for the downward force in this vertical application.

Please note:



Before the brake is lifted, make sure that both air chambers of the linear drive are pressurized.

Small diameter tubing, fittings and valves with a nominal diameter, and tubing that is too long all change the reaction time of the brake!

***Tip:**




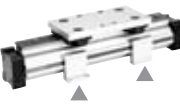
The pressure switch actuates the brake when the pressure drops below the set value.

For accessories, such as tubing and fittings, please refer to our separate catalogue.

Required Components

Way Valves
Port size
M5, G1/8
G1/4, G1/2
Pressure Regulating Valves
G1/8 - G3/8
Pneumatic Accessories
P/E-Switch
Non-Return Valves
G1/8 - G3/8
Screw-in Speed Regulating Valves
M5 - G1/4

Contact factory for literature on the above valves/accessories

Overview		Type – OSP Guides																	
Mounting Type	Type	SLIDELINE PROLINE MULTIBRAKE						POWERSLIDE											
		16 ¹⁾	25	32	40	50	63 ¹⁾	80 ¹⁾	16/25	25/25	25/35	25/44	32/35	32/44	40/44	40/60	50/60	50/76	
End cap mounting 	Type A1	X							X										
	Type A2	O	O	O															
	Type A3										O	O		O					
End cap mounting, reinforced 	Type B1		X	X						X	X	X	X	X					
	Type B3								O										
	Type B4											O		O					
	Type B5																		
End cap mounting 	Type C1				X	X	X	X								X	X	X	X
	Type C2				O	O													
	Type C3						O	O								O		O	
	Type C4																O		O
Mid-Section support, small Mid-Section support, wide 	Type D1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Type E1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Type E2	O	O	O	O	O													
	Type E3						O	O	O	O	O		O		O		O		
	Type E4											O		O		O		O	
	Type E5																		

- X = carriage mounted in top (12 o'clock position)
- O = carriage mounted in lateral (3 or 9 o'clock position)
- = available components

1) = not available for all sizes

Linear Drive Accessories

Mountings for Linear Drives fitted with OSP-Guides



For Linear-drives
• Series OSP-P

B



End Cap Mountings

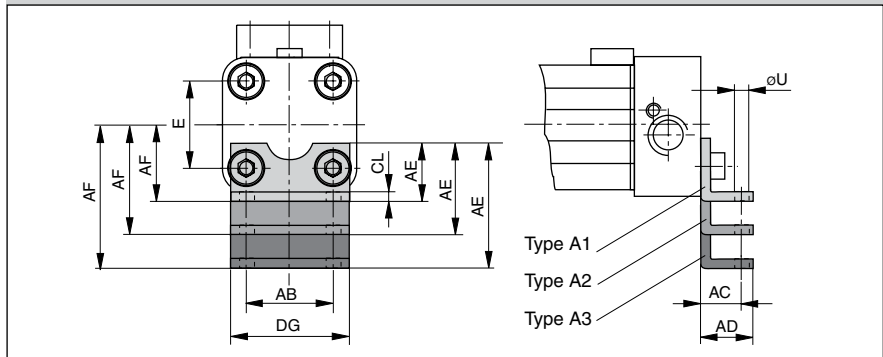
End Cap Mountings

Four internal screw threads are located in the end faces of all OSP actuators for mounting the drive unit. End cap mountings may be secured across any two adjacent screws.

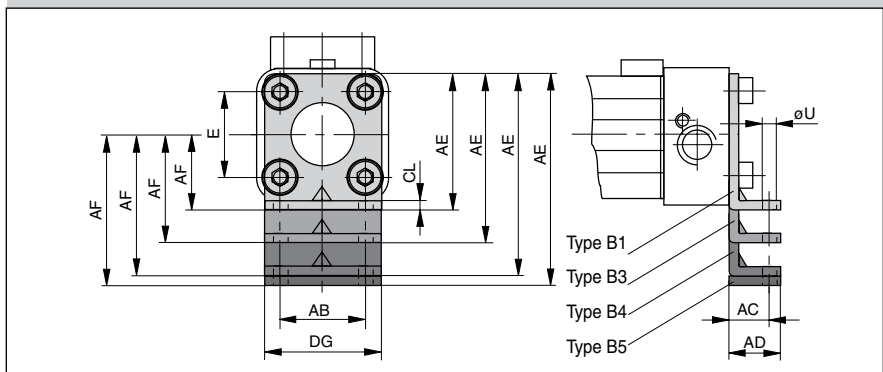
Material: Series OSP-16, 25, 32:
Galvanized steel
Series OSP-40,50, 63, 80:
Anodized aluminum

The mountings are supplied in pairs.

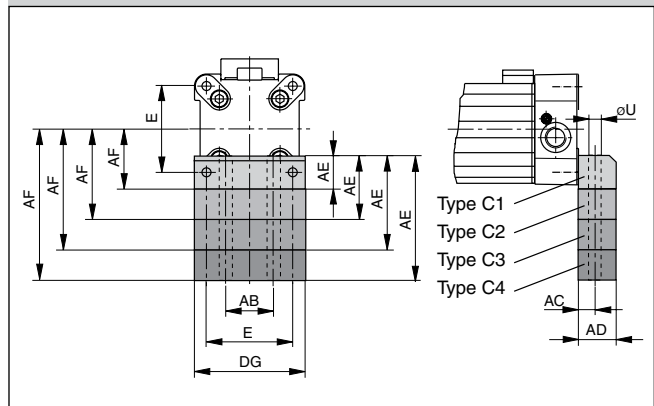
Series OSP-P16,25,32:Type A



Series OSP-P16,25,32:Type B



Series OSP-P40,50,63,80:Type C



Dimension Table (mm)
– Dimensions AE and AF (Dependent on the mounting type)

Mount. type	Dimensions AE for size								AF for size							
	16	25	32	40	50	63	80	16	25	32	40	50	63	80		
A1	12.5	18	20	-	-	-	-	15	22	30	-	-	-	-		
A2	27.5	33	34	-	-	-	-	30	37	44	-	-	-	-		
A3	-	45	42	-	-	-	-	-	49	52	-	-	-	-		
B1	-	42	55	-	-	-	-	-	22	30	-	-	-	-		
B3	55	-	-	-	-	-	-	42	-	-	-	-	-	-		
B4	-	80	85	-	-	-	-	-	60	60	-	-	-	-		
B5	-	90	-	-	-	-	-	-	65	-	-	-	-	-		
C1	-	-	-	24	30	40	50	-	-	-	38	48	57	72		
C2	-	-	-	37	39	-	-	-	-	-	51	57	-	-		
C3	-	-	-	46	54	76	88	-	-	-	60	72	93	110		
C4	-	-	-	56	77	-	-	-	-	-	70	95	-	-		

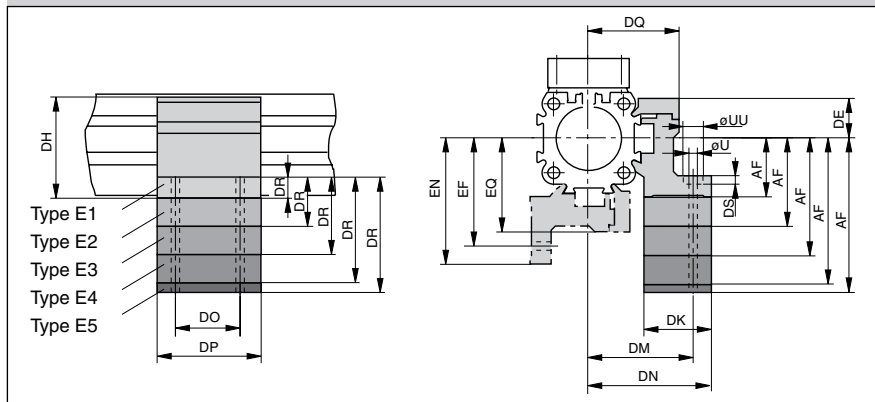
Dimension Table (mm)

Series	E	øU	AB	AC	AD	CL	DG
OSP-P16	18	3.6	18	10	14	1.6	26
OSP-P25	27	5.8	27	16	22	2.5	39
OSP-P32	36	6.6	36	18	26	3	50
OSP-P40	54	9	30	12.5	24	-	68
OSP-P50	70	9	40	12.5	24	-	86
OSP-P63	78	11	48	15	30	-	104
OSP-P80	96	14	60	17.5	35	-	130

B



Series OSP-P16 to 80: Type E
(Mounting from above / below using a cap screw)



Mid-Section Support

Information regarding type E1 and D1:

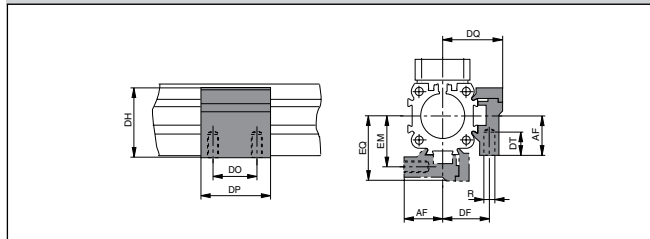
Mounting of the Mid-Section supports is also possible on the lower side of the drive. In this case, please note the new center line dimensions.

Stainless steel version on request.



B

Series OSP-P16 to 80: Type D1
(Mounting from below with thread screw)



Dimension Table (mm)
– Dimensions AF and DR (Dependent on the mounting type)

Mount. type	Dimensions DR for size							Dimensions AF for size						
	16	25	32	40	50	63	80	16	25	32	40	50	63	80
D1	-	-	-	-	-	-	-	15	22	30	38	48	57	72
E1	6	8	10	10	10	12	15	15	22	30	38	48	57	72
E2	21	23	24	23	19	-	-	30	37	44	51	57	-	-
E3	33	35	32	32	34	48	53	42	49	52	60	72	93	110
E4	-	46	40	42	57	-	-	60	60	70	95	-	-	-
E5	-	-	45	-	-	-	-	-	65	-	-	-	-	-

Dimension Table (mm)

Series	R	U	UU	DE	DF	DH	DK	DM	DN	DO	DP	DQ	DS	DT	EF	EM	EN	EQ
OSP-P16	M3	3.4	6	14.2	20	29.2	24	32	36.4	18	30	27	3.4	6.5	32	20	36.4	27
OSP-P25	M5	5.5	10	16	27	38	26	40	47.5	36	50	34.5	5.7	10	41.5	28.5	49	36
OSP-P32	M5	5.5	10	16	33	46	27	46	54.5	36	50	40.5	5.7	10	48.5	35.5	57	43
OSP-P40	M6	7	-	23	35	61	34	53	60	45	60	45	-	11	56	38	63	48
OSP-P50	M6	7	-	23	40	71	34	59	67	45	60	52	-	11	64	45	72	57
OSP-P63	M8	9	-	34	47.5	91	44	73	83	45	65	63	-	16	79	53.5	89	69
OSP-P80	M10	11	-	39.5	60	111.5	63	97	112	55	80	81	-	25	103	66	118	87

Ordering information for mountings Type A – Type B – Type C – Type D – Type E

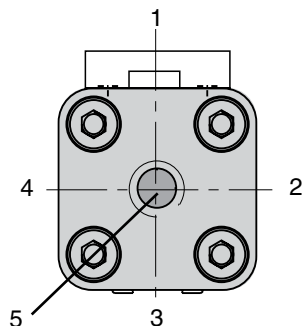
Mounting type (versions)	Order No.						
	size						
	16	25	32	40	50	63	80
A1 *)	20408	2010	3010	-	-	-	-
A2 *)	20464	2040	3040	-	-	-	-
A3 *)	-	2060	3060	-	-	-	-
B1 *)	-	20311	20313	-	-	-	-
B3 *)	20465	-	-	-	-	-	-
B4 *)	-	20312	20314	-	-	-	-
B5 *)	-	-	20976	-	-	-	-
C1 *)	-	-	-	4010	5010	6010	8010
C2 *)	-	-	-	20338	20349	-	-
C3 *)	-	-	-	20339	20350	20821	20822
C4 *)	-	-	-	20340	20351	-	-
D1	20434	20008	20157	20027	20162	20451	20480
E1	20435	20009	20158	20028	20163	20452	20482
E2	20436	20352	20355	20358	20361	-	-
E3	20437	20353	20356	20359	20362	20453	20819
E4	-	20354	20357	20360	20363	-	-
E5	-	-	20977	-	-	-	-

(* Pair)

Ordering Instructions / Part Numbering System for OSP-P SLIDELINE Series

B

6	7	8	9	10	11	12-16	17	18	19	20	21	22	23	24	25	
OSPP	25	0	2	0	0	01500	0	0	0	2	0	0	0	0	0	
	Bore 16 25 32 40 50 63 80		Seals 0 Standard 1 Viton S Special			Stroke x x x x x		Piston Mountings 0 none				Dovetail Cover 0 Standard X Without Cover Rail S Special		Version		
		Piston Style 0 Standard 1 Tandem S Special		Lubrication 0 Standard 1 Slow Speed 4 Food 5 Clean Room S Special			Cushioning / Stops 0 Standard S Special									
					Corrosion Resist, Hardware 0 Standard 1 Stainless S Special		Guides / Brakes 2 SL Slideline 3 SL Slideline with Activebrake 4 SL Slideline with Multibrake (without sensors)					End Cap Mounts 0 without 1 A1 (16,25,32) 2 A2 (16,25,32) 3 A3 (25,32) 4 B1 (25,32) 6 B3 (16) 7 B4 (25,32) 8 B5 (32) A C2 (40,50) B C3 (40,50,63,80) C C4 (40,50)				
		Air Connections / Porting 0 Standard (position #2) 1 end face (position #5) 2 single end porting 3 left stand (pos #2), right end face (pos#5) 4 right stand (pos #2), left end face (pos #5) 6 single end porting end face A 3/2 Way valve VOE 24V = (25,32,40,50) B 3/2 Way valve VOE 220V~/110V= (25,32,40,50) C 3/2 Way valve VOE 48V=(25,32,40,50) E 3/2 Way valve VOE 110V~ (25,32,40,50) S Special				End Cap Position 0 l+r 0° = in front (pos #2) 1 l+r 90° = underneath (pos #3) 2 l+r 180° = at the back (pos # 4) 3 l+r 270° = same face as outerband (pos #2,1) 4 l 90° = underneath; r 0° = in front (pos #3,2) 5 l 180° = at the back; r 0° = in front (pos #4,2) 6 l 270° = same face as outerband; r 0° = in front (pos #1,2) 7 l 0° = in front; r 90° = underneath (pos #2, 3) 8 l 180° = at the back; r 90° = underneath (pos #4,3) 9 l 270° = same face as outerband; r 90° = underneath (pos #1,3) A l 0° = in front; r 180° = at the back (pos #2,4) B l 90° = underneath; r 180° = at the back (pos #3,4) C l 270° = same face as outerband; r 180° = at the back (pos #1,4) D l 0° = in front; r 270° = same face as outerband (pos #2,1) E l 90° = underneath; r 270° = same face as outerband (pos #3,1) F l 180° = at the back; r 270° = same face as outerband (pos #4,1) S Special				add. Carriage 0 without 2 Guide Carriage Slideline SL 3 Guide Carriage SL-AB 4 Guide Carriage SL-MB M Guide Carriage SL-MB without Brake Function		Switches / Measuring System 0 none 1 NO Reed-KL3045 Qty. 2 2 NC Reed-KL3048 Qty. 2 3 PNP KL3054+4041 Qty. 2 4 NPN KL3060+4041 Qty. 2 X 21240 SFI 0,1mm Y 21241 SFI 1mm Z 4650 SFA S Special		Note: Comes in pairs	Note: 2 switches will be supplied. For different quantity, please order as a separate line item.	



Note: Position #2 is the standard location.

