

Characteristics			Pressures quoted as gauge pressure		
Characteristics		Symbol	Unit	Description	
General Features					
Type				Rodless cylinder	
Series				OSP-P	
System				Double-acting, with cushioning, position sensing capability	
Mounting				See drawings	
Air Connection				Threaded	
Ambient temperature range		T _{min} T _{max}	°C °C	-10 +80	Other temperature ranges on request
Weight (mass)			kg	See table below	
Installation				In any position	
Medium				Filtered, unlubricated compressed air (other media on request)	
Lubrication				Permanent grease lubrication (additional oil mist lubrication not required) Option: special slow speed grease	
Material	Cylinder Profile				Anodized aluminum
	Carrier (piston)				Anodized aluminum
	End caps				Aluminum, lacquered / Plastic (P10)
	Sealing bands				Corrosion resistant steel
	Seals				NBR (Option: Viton®)
	Screws				Galvanized steel Option: stainless steel
	Dust covers, wipers				Plastic
Max. operating pressure		p _{max}	bar	8	

Weight (mass) kg		
Cylinder series (Basic cylinder)	Weight (Mass) kg	
	At 0 mm stroke	per 100 mm stroke
OSP-P10	0.087	0.052
OSP-P16	0.22	0.1
OSP-P25	0.65	0.197
OSP-P32	1.44	0.354
OSP-P40	1.95	0.415
OSP-P50	3.53	0.566
OSP-P63	6.41	0.925
OSP-P80	12.46	1.262

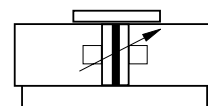
Size Comparison							
P10	P16	P25	P32	P40	P50	P63	P80

Rodless Pneumatic Cylinder

ø 10-80 mm



Series OSP-P..



Standard Versions:

- Double-acting with adjustable end cushioning
- With magnetic piston for position sensing
- Long-Stroke Cylinders for stroke lengths up to 41m (consult factory)

Special Versions:

- With special pneumatic cushioning system (on request)
- Clean room cylinders (see page B31-B34)
- Stainless steel screws
- Slow speed lubrication
- Viton® seals
- Both air connections on one end
- Air connection on the end-face
- Integrated Valves

- End cap can be rotated 4 x 90° to position air connection as desired
- Free choice of stroke length up to 6000 mm, Long-Stroke version (Ø50-80mm) for stroke lengths up to 41m



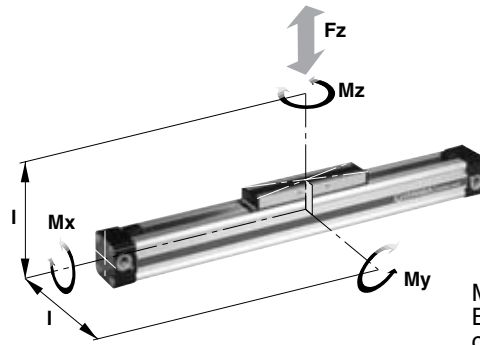
Loads, Forces and Moments

Choice of cylinder is decided by:

- Permissible loads, forces and moments
- Performance of the pneumatic end cushions. The main factors here are the mass to be cushioned and the piston speed at start of cushioning (unless external cushioning is used, e. g. hydraulic shock absorbers).

The adjacent 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 $v \leq 0.5$ m/s.**

When working out the action force required, it is essential to take into account the friction forces generated by the specific application or load.



$M = F \cdot l$
 Bending moments are calculated from the center of the linear actuator

Cylinder Series (mm Ø)	Theoretical Action Force at 6 bar (N)	Effective Action Force F_A at 6 bar (N)	max. Moments			max. Load F (N)	Cushion Length (mm)
			M_x (Nm)	M_y (Nm)	M_z (Nm)		
OSP-P10	47	32	0.2	1	0.3	20	2.5 *
OSP-P16	120	78	0.45	4	0.5	120	11
OSP-P25	295	250	1.5	15	3	300	17
OSP-P32	483	420	3	30	5	450	20
OSP-P40	754	640	6	60	8	750	27
OSP-P50	1178	1000	10	115	15	1200	30
OSP-P63	1870	1550	12	200	24	1650	32
OSP-P80	3016	2600	24	360	48	2400	39

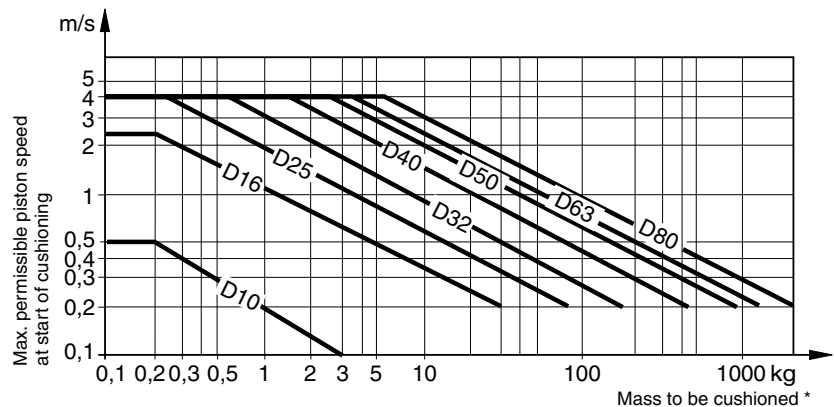
* A rubber element (non-adjustable) is used for end cushioning.
 To deform the rubber element enough to reach the absolute end position would require a Δp of 4 bar!

Cushioning Diagram

Work out your expected moving mass and read off the maximum permissible speed at start of cushioning.

Alternatively, take your desired speed and expected mass and find the cylinder size required.

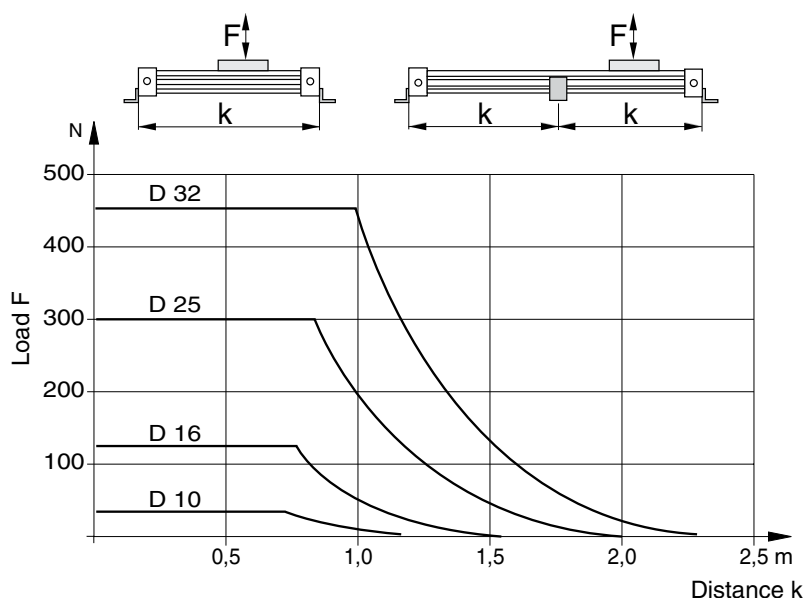
Please note that piston speed at start of cushioning is typically ca. 50% higher than the average speed, and that it is this higher speed which determines the choice of cylinder. If these maximum permissible values are exceeded, additional shock absorbers must be used.



* For cylinders with linear guides or brakes, please be sure to take the mass of the carriage or the brake housing into account.

If the permitted limit values are exceeded, either additional shock absorbers should be fitted in the area of the center of gravity or you can consult us about our special cushioning system – we shall be happy to advise you on your specific application.

Permissible Support Spacings: OSP - P10 - P32



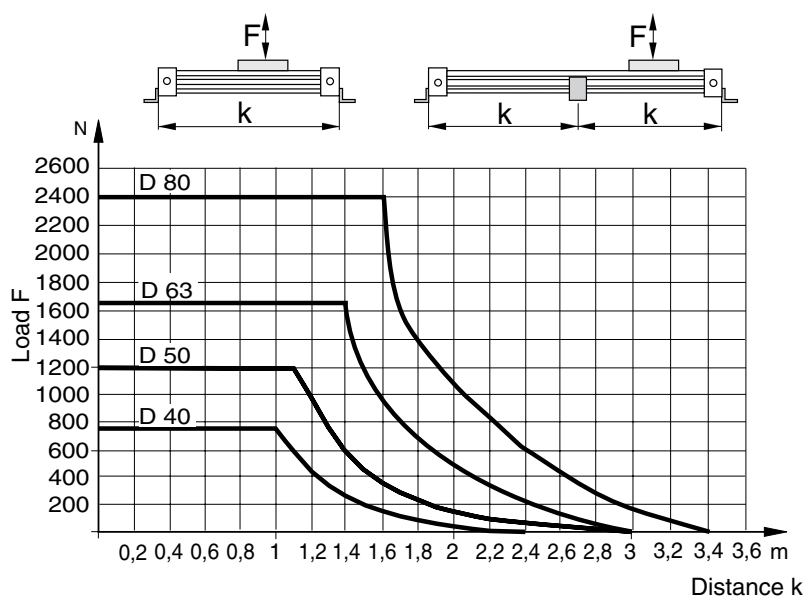
Mid-Section Supports

To avoid excessive bending and oscillation of the cylinder, mid-section supports are required dependent on specified stroke lengths and applied loads. The diagrams show the maximum possible support spacings depending on the load.

Bending up to max. 0.5 mm is permissible between supports. The mid-section supports are clamped on to the dovetail profile of the cylinder tube. They are also able to take the axial forces.

B

Permissible Support Spacings: OSP - P40 - P80



Cylinder Stroke and Dead Length A

- Free choice of stroke length up to 6000 mm in 1 mm steps.
- Longer strokes on request.

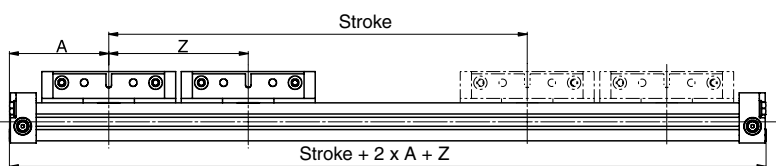
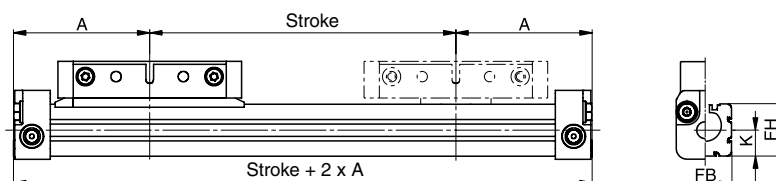
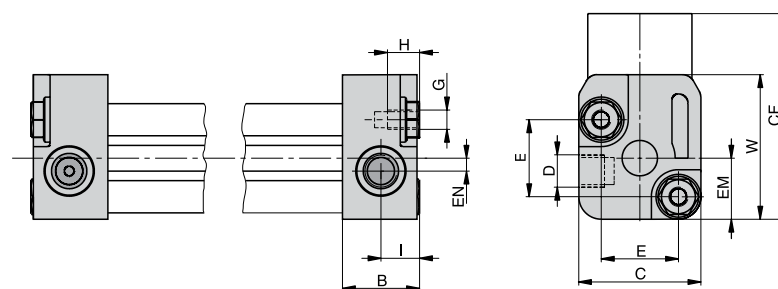
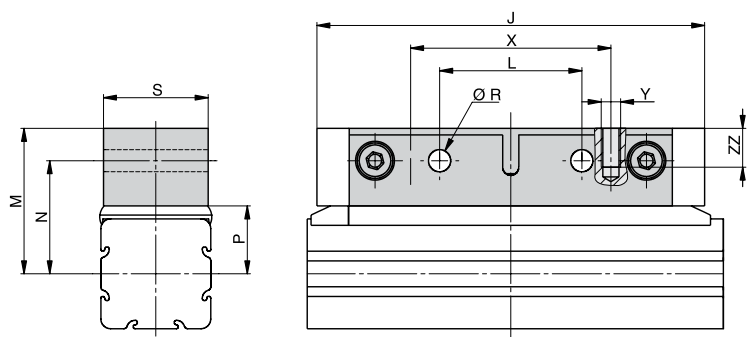
Tandem Cylinder

Two pistons are fitted: dimension "Z" is optional. (Please note minimum distance "Zmin").

- Free choice of stroke length up to 6000 mm in 1 mm steps.
- Longer strokes on request.
- **Stroke length to order is stroke + dimension "Z"**

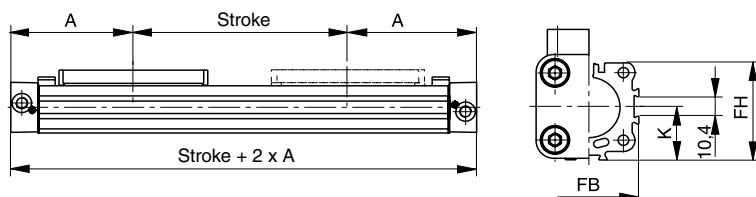
Please note:

To avoid multiple actuation of magnetic switches, the second piston is not equipped with magnets.

Dimensions of Basic Cylinder OSP-P10**End Cap/Air Connection Series OSP-P10****Carrier Series OSP-P10****Dimension Table (mm)**

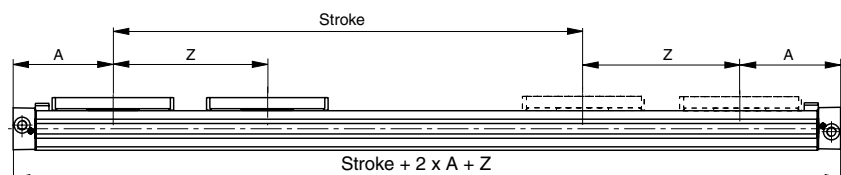
Cylinder Series	A	B	C	D	E	G	H	I	J	K	L	M	N	P	R	S	W	X	Y	Z _{min}	CF	EM	EN	FB	FH	ZZ
OSP-P10	44.5	12	19	M5	12	M3	5	6	60	8.5	22	22.5	17.5	10.5	3.4	16	22.5	31	M3	64	32	9.5	2	17	17	6

Dimensions of Basic Cylinder OSP - P16-P80



Cylinder Stroke and Dead Length A

- Free choice of stroke length up to 6000 mm in 1 mm steps.
- Longer strokes on request.

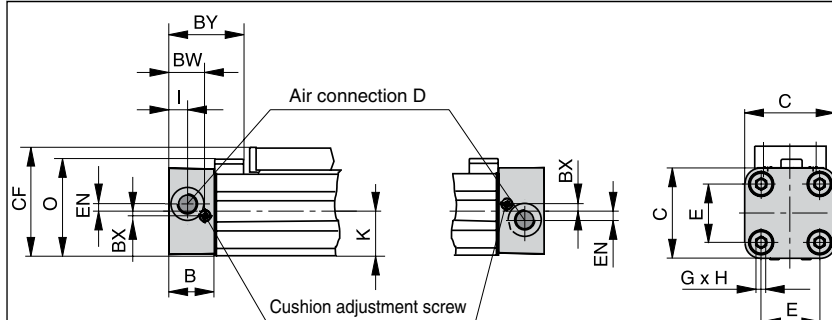


Tandem Cylinder

Two pistons are fitted: dimension "Z" is optional. (Please note minimum distance "Zmin").

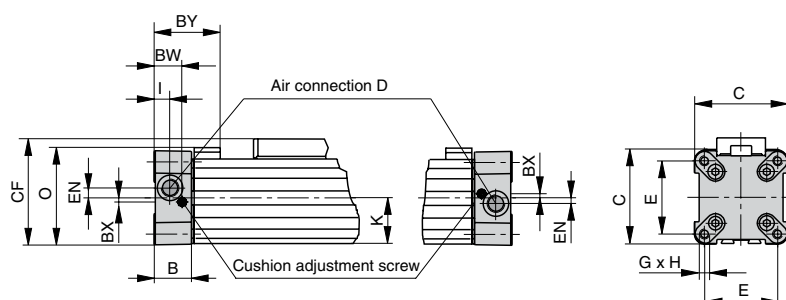
- Free choice of stroke length up to 6000 mm in 1 mm steps.
- Longer strokes on request.
- **Stroke length to order is stroke + dimension "Z"**

**End Cap/Air Connection can be rotated 4 x 90°
 Series OSP-P16 to P32**

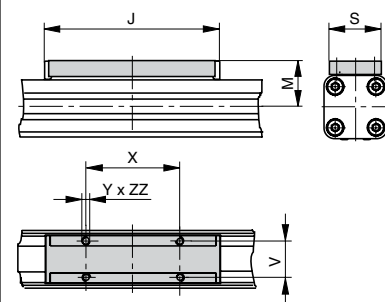


Please note:
 To avoid multiple actuation of magnetic switches, the second piston is not equipped with magnets.

**End Cap/Air Connection can be rotated 4 x 90°
 Series OSP-P40 to P80**



**Carrier
 Series OSP-P16 to P80**



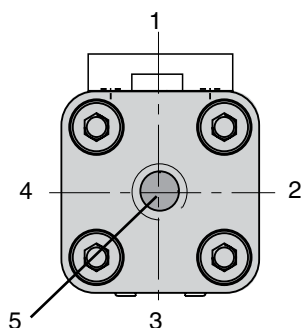
Dimension Table (mm)

Cylinder Series	A	B	C	D	E	G	H	I	J	K	M	O	S	V	X	Y	Z	BW	BX	BY	CF	EN	FB	FH	ZZ
OSP-P16	65	14	30	M5	18	M3	9	5.5	69	15	23	33.2	22	16.5	36	M4	81	10.8	1.8	28.4	38	3	30	27.2	7
OSP-P25	100	22	41	G1/8	27	M5	15	9	117	21.5	31	47	33	25	65	M5	128	17.5	2.2	40	52.5	3.6	40	39.5	8
OSP-P32	125	25.5	52	G1/4	36	M6	15	11.5	152	28.5	38	59	36	27	90	M6	170	20.5	2.5	44	66.5	5.5	52	51.7	1
OSP-P40	150	28	69	G1/4	54	M6	15	12	152	34	44	72	36	27	90	M6	212	21	3	54	78.5	7.5	62	63	10
OSP-P50	175	33	87	G1/4	70	M6	15	14.5	200	43	49	86	36	27	110	M6	251	27	—	59	92.5	11	76	77	10
OSP-P63	215	38	106	G3/8	78	M8	21	14.5	256	54	63	107	50	34	140	M8	313	30	—	64	117	12	96	96	16
OSP-P80	260	47	132	G1/2	96	M10	25	22	348	67	80	133	52	36	190	M10	384	37.5	—	73	147	16.5	122	122	20

Air Connection on the End-Face #5

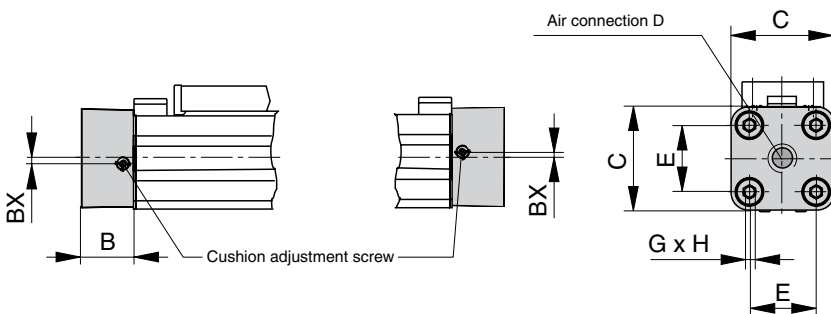
In some situations it is necessary or desirable to fit a special end cap with the air connection on the end-face instead of the standard end cap with the air connection on the side. The special end cap can also be rotated $4 \times 90^\circ$ to locate the cushion adjustment screw as desired. Supplied in pairs.

B

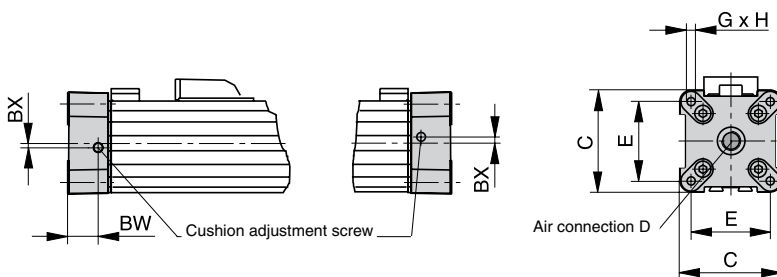


Note: Position #2 is the standard location.

Series OSP-P16 to P32



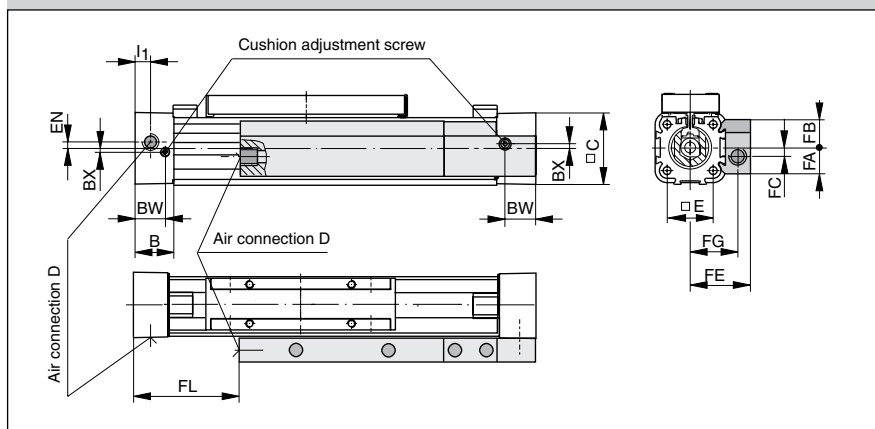
Series OSP-P40 to P80



Dimension Table (mm)

Cylinder Series	B	C	D	E	G	H	BX	BW
OSP-P16	14	30	M5	18	M3	9	1.8	10.8
OSP-P25	22	41	G1/8	27	M5	15	2.2	17.5
OSP-P32	25.5	52	G1/4	36	M6	15	2.5	20.5
OSP-P40	28	69	G1/4	54	M6	15	3	21
OSP-P50	33	87	G1/4	70	M6	15	—	27
OSP-P63	38	106	G3/8	78	M8	21	—	30
OSP-P80	47	132	G1/2	96	M10	25	—	37.5

Series OSP-P16

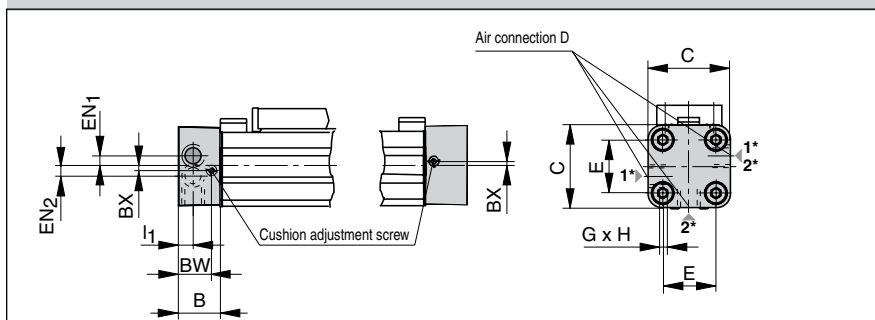


Single End Porting

A special end cap with both air connections on one side is available for situations where shortage of space, simplicity of installation or the nature of the process make it desirable. Air supply to the other end is via internal air passages (OSP-P25 to P80) or via a hollow aluminum profile fitted externally (OSP-P16). **In this case the end caps cannot be rotated.**

B

Series OSP-P25

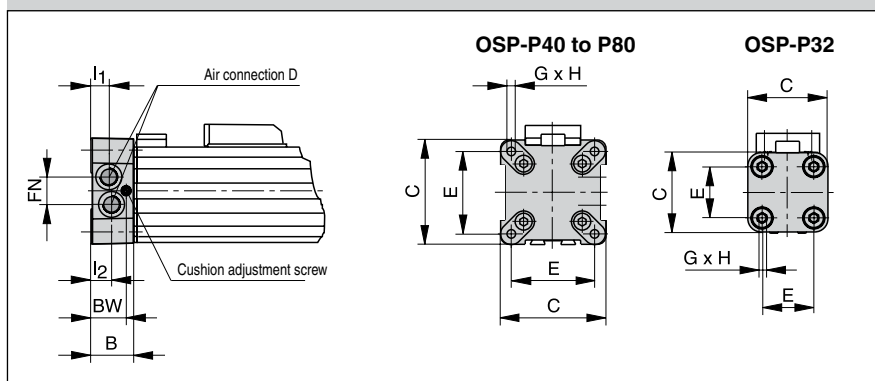


* Versions of Air Connection Positions: 1 → 1 or 2 → 2



Please note:
 When combining the OSP-P16 single end porting with inversion mountings, RS magnetic switches can only be mounted directly opposite to the external air-supply profile.

Series OSP-P32 to P80



Dimension Table (mm)

Cylinder Series	B	C	D	E	G	H	I ₁	I ₂	BX	BW	EN	EN ₁	EN ₂	FA	FB	FC	FE	FG	FL	FN
OSP-P16	14	30	M5	18	M3	9	5.5	—	1.8	10.8	3	—	—	12.6	12.6	4	27	21	36	—
OSP-P25	22	41	G1/8	27	M5	15	9	—	2.2	17.5	—	3.6	3.9	—	—	—	—	—	—	—
OSP-P32	25.5	52	G1/8	36	M6	15	12.2	10.5	—	20.5	—	—	—	—	—	—	—	—	—	15.2
OSP-P40	28	69	G1/8	54	M6	15	12	12	—	21	—	—	—	—	—	—	—	—	—	17
OSP-P50	33	87	G1/4	70	M6	15	14.5	14.5	—	27	—	—	—	—	—	—	—	—	—	22
OSP-P63	38	106	G3/8	78	M8	21	16.5	13.5	—	30	—	—	—	—	—	—	—	—	—	25
OSP-P80	47	132	G1/2	96	M10	25	22	17	—	37.5	—	—	—	—	—	—	—	—	—	34.5

Integrated 3/2 Way Valves VOE

For optimal control of the OSP-P cylinder, 3/2 way valves integrated into the cylinder's end caps can be used as a compact and complete solution. They allow for easy positioning of the cylinder, smooth operation at the lowest speeds and fast response, making them ideally suited for the direct control of production and automation processes.

Integrated 3/2 Way Valves VOE Series OSP-P25, P32, P40 and P50



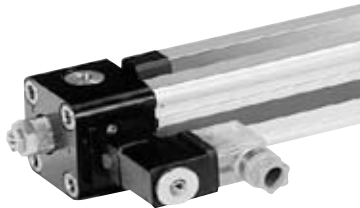
Characteristics:

- Complete compact solution
- Various connection possibilities:
Free choice of air connection with rotating end caps with VOE valves,
Air connection can be rotated 4 x 90°,
Solenoid can be rotated 4 x 90°,
Pilot Valve can be rotated 180°
- High piston velocities can be achieved with max. 3 exhaust ports
- Minimal installation requirements
- Requires just one air connection per valve
- Optimal control of the OSP-P cylinder
- Excellent positioning characteristics
- Integrated operation indicator
- Integrated exhaust throttle valve
- Manual override - indexed
- Adjustable end cushioning
- Easily retrofitted – please note the increase in the overall length of the cylinder!

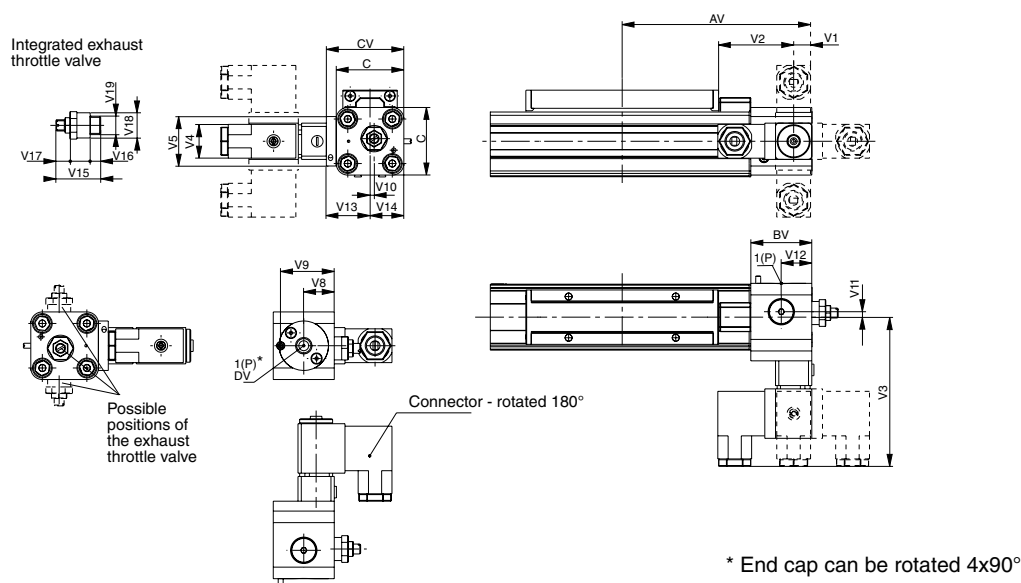
Characteristics 3/2WayValvesVOE

Characteristics	3/2 Way Valves with spring return			
Pneumatic diagram				
Type	VOE-25	VOE-32	VOE-40	VOE-50
Actuation	electrical			
Basic position	P → A open, R closed			
Type	Poppet valve, non overlapping			
Mounting	integrated in end cap			
Installation	in any position			
Port size	G 1/8	G 1/4	G 3/8	G 3/8
Temperature	-10°C to +50°C *			
Operating pressure	2-8 bar			
Nominal voltage	24 V DC / 230 V AC, 50 Hz			
Power consumption	2,5 W / 6 VA			
Duty cycle	100%			
Electrical Protection	IP 65 DIN 40050			

* other temperature ranges on request



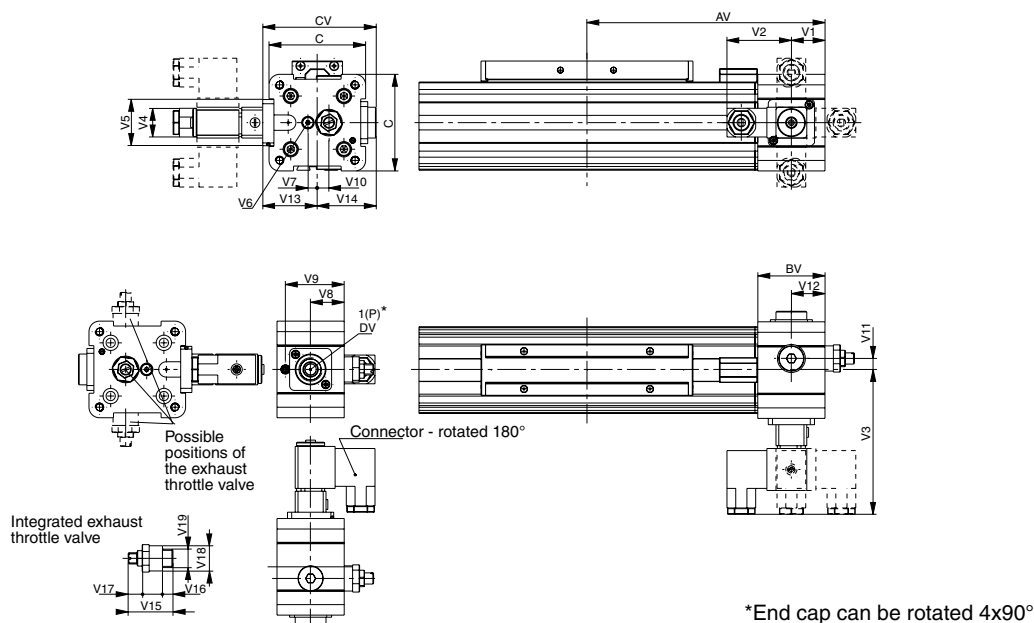
Dimensions VOE Valves OSP-P25 and P32



Dimension Table (mm)

Cylinder Series	AV	BV	C	CV	DV	V1	V2	V3	V4	V5	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19
OSP-P25	115	37	41	47	G1/8	11	46	90.5	22	30	18.5	32.5	2.5	3.3	18.5	26.5	20.5	24	5	4	14	G1/8
OSP-P32	139	39.5	52	58	G1/4	20.5	46	96	22	32	20.5	34.7	6	5	20.5	32	26	32	7.5	6	18	G1/4

Dimensions VOE Valves OSP-P40 and P50



Dimension Table (mm)

Cylinder Series	AV	BV	C	CV	DV	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19
OSP-P40	170	48	69	81	G3/8	24	46	103	22	33	M5	6.7	24	42	8.3	8.3	24	39	42	32	7.5	6	18	G1/4
OSP-P50	190	48	87	82	G3/8	24	46	102	22	33	M5	4.5	24	42	12.2	12.2	24	38	44	32	7.5	6	18	G1/4

Active Brake



**Series AB 25 to 80
for linear drive
• Series OSP-P**

B

Features:

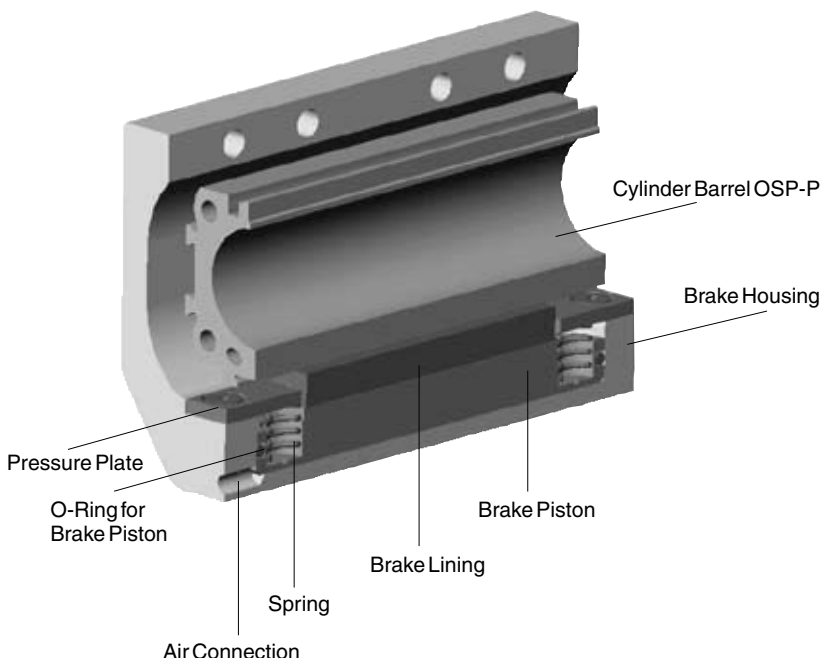
- Actuated by pressurization
- Released by spring actuation
- Completely stainless version
- Holds position, even under changing load conditions

For further technical data, please refer to the data sheets for linear drives OSP-P (page B7)

Note:

For combinations Active Brake AB + SFI-plus + Magnetic Switch contact our technical department please.

Function



Forces and Weights

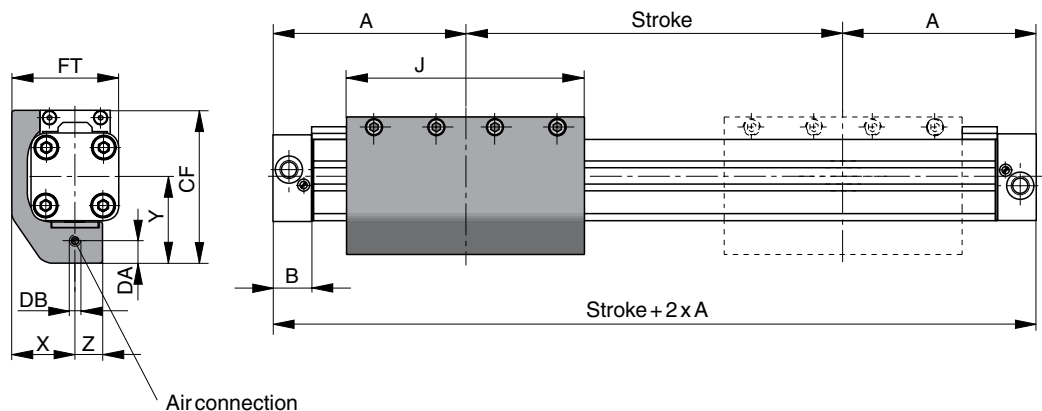
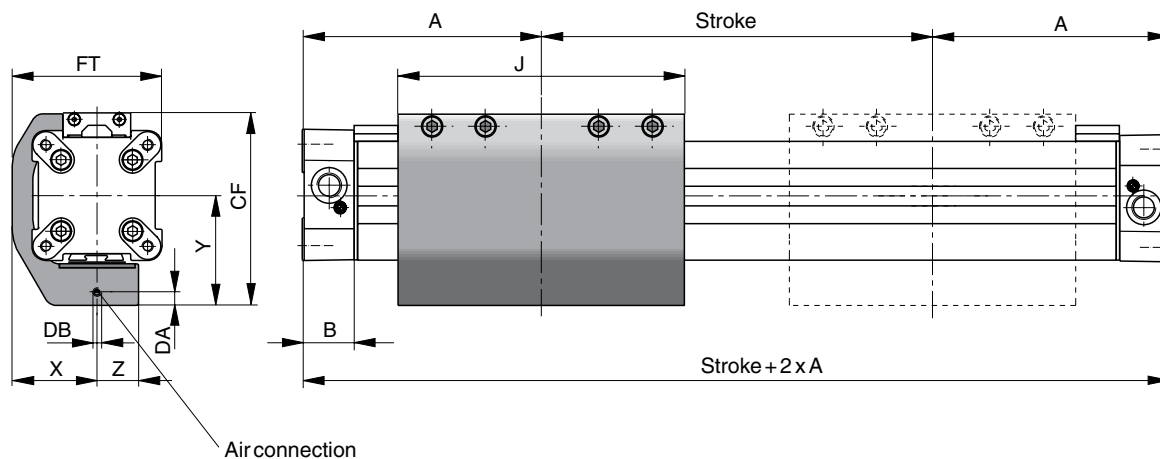
Series	For linear drive	Max. braking force (N) ⁽¹⁾	Brake pad way (mm)	Linear drive with brake 0 mm stroke	Mass (kg) increase per 100mm stroke	brake*	Order No. Active brake
AB 25	OSP-P25	350	2.5	1.0	0.197	0.35	20806
AB 32	OSP-P32	590	2.5	2.02	0.354	0.58	20807
AB 40	OSP-P40	900	2.5	2.83	0.415	0.88	20808
AB 50	OSP-P50	1400	2.5	5.03	0.566	1.50	20809
AB 63	OSP-P63	2170	3.0	9.45	0.925	3.04	20810
AB 80	OSP-P80	4000	3.0	18.28	1.262	5.82	20811

⁽¹⁾ – at 6 bar
both chambers pressurized with 6 bar
Braking surface dry
– oil on the braking surface will reduce the braking force

* Please Note:

The mass of the brake has to be added to the total moving mass when using the cushioning diagram.



Series OSP-P25 and P32 with Active Brake AB**Series OSP-P40, P50, P63, P80 with Active Brake AB****Dimension Table (mm)**

Series	A	B	J	X	Y	Z	CF	DA	DB	FT
AB 25	100	22	117	29.5	43	13	74	4	M5	50
AB 32	125	25.5	151.4	36	50	15	88	4	M5	62
AB 40	150	28	151.4	45	58	22	102	7	M5	79.5
AB 50	175	33	200	54	69.5	23	118.5	7.5	M5	97.5
AB 63	215	38	256	67	88	28	151	9	G1/8	120
AB 80	260	47	348	83	105	32	185	10	G1/8	149

End Cap Mountings

On the end-face of each cylinder end cap there are four threaded holes for mounting the cylinder. The hole layout is square, so that the mounting can be fitted to the bottom, top or either side.

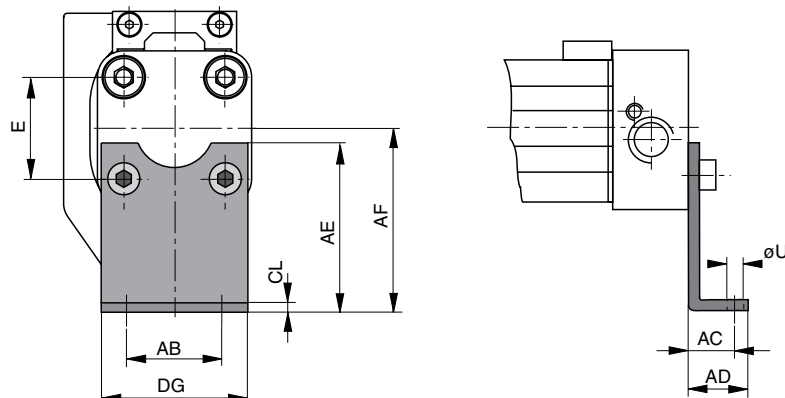
Material:

Series OSP-P25, P32:
Galvanized steel

The mountings are supplied in pairs.



Series OSP – P25 and P32 with Active Brake AB:Type A3



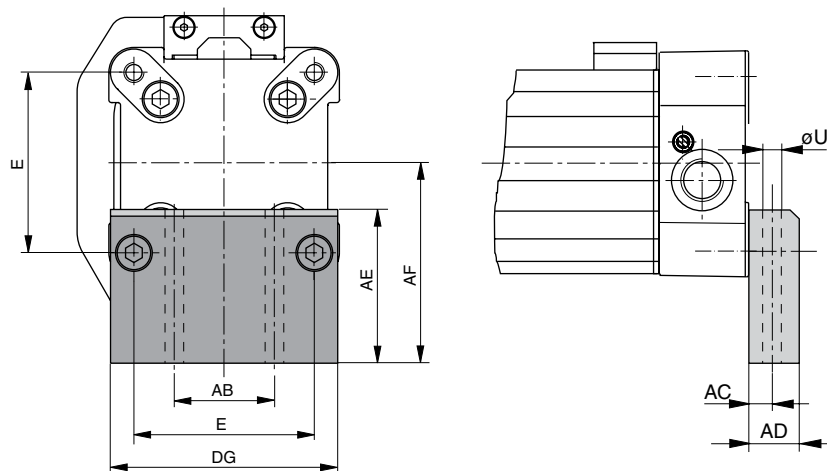
Material:

Series OSP-P40, P50, P63, P80:
Anodized aluminum

The mountings are supplied in pairs.
Stainless steel version on request.

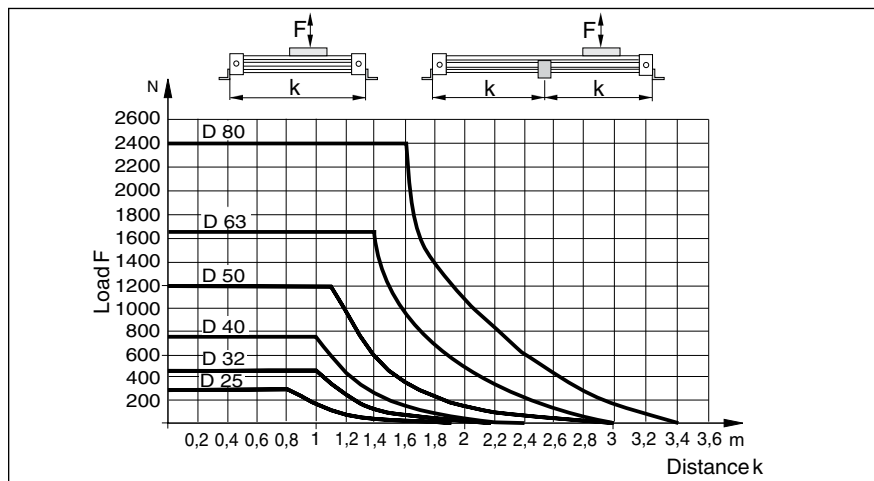


Series OSP – P40, P50, P63, P80 with Active Brake AB:Type C3



Dimension Table (mm)

Series	E	øU	AB	AC	AD	AE	AF	CL	DG	Order No. Type A3	Type C3
AB 25	27	5.8	27	16	22	45	49	2.5	39	2060	–
AB 32	36	6.6	36	18	26	42	52	3	50	3060	–
AB 40	54	9	30	12.5	24	46	60	–	68	–	20339
AB 50	70	9	40	12.5	24	54	72	–	86	–	20350
AB 63	78	11	48	15	30	76	93	–	104	–	20821
AB 80	96	14	60	17.5	35	88	110	–	130	–	20822



Mid-Section Support

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. Deflection of 0.5 mm max. between supports is permissible.

The Mid-Section supports are attached to the dovetail rails, and can take axial loads.

B

Mid-Section Supports

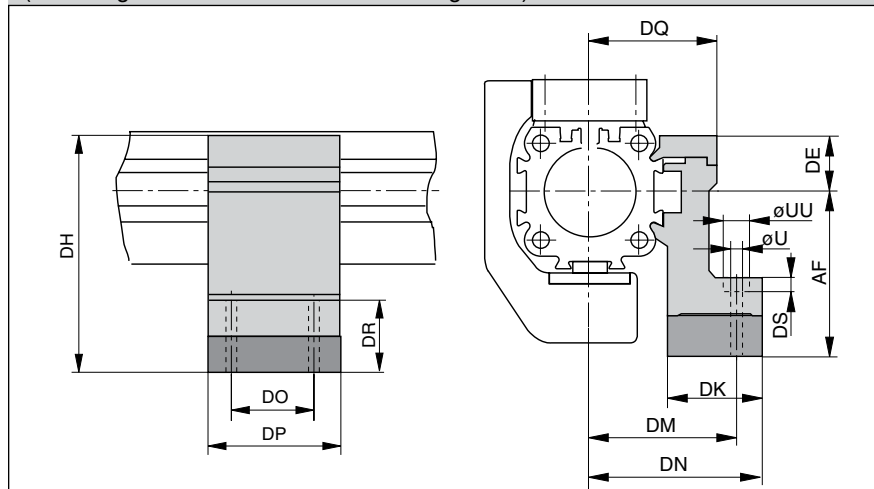
Note to Type E3:

Mid-Section supports can only be mounted opposite of the brake housing.

Stainless steel version available on request.



Series OSP-P25 to P80 with Active Brake AB: Type E3
(Mounting from above / below with through-bolt)



Dimension Table (mm)

Series	U	UU	AF	DE	DH	DK	DM	DN	DO	DP	DQ	DR	DS	Order No. Type E3
AB 25	5.5	10	49	16	65	26	40	47.5	36	50	34.5	35	5.7	20353
AB 32	5.5	10	52	16	68	27	46	54.5	36	50	40.5	32	5.7	20356
AB 40	7	—	60	23	83	34	53	60	45	60	45	32	—	20359
AB 50	7	—	72	23	95	34	59	67	45	60	52	31	—	20362
AB 63	9	—	93	34	127	44	73	83	45	65	63	48	—	20453
AB 80	11	—	110	39.5	149.5	63	97	112	55	80	81	53	—	20819

Accessories for linear drives with Active Brakes – please order separately

Description	For detailed information, see page no.
Clevis mounting	B21
Adaptor profile	B25
T-groove profile	B26
Connection profile	B27
Magnetic switch (can only be mounted opposite of the brake housing)	B102-B108
Incremental displacement measuring system SFI-plus	B113-B115

Linear Drive Accessories

ø 10 mm

Clevis Mounting

B

OSP
— ORIGA
— SYSTEM
— PLUS

For Linear-drive
• Series OSP-P

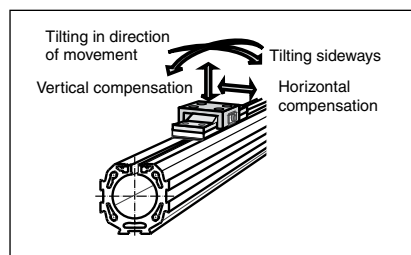
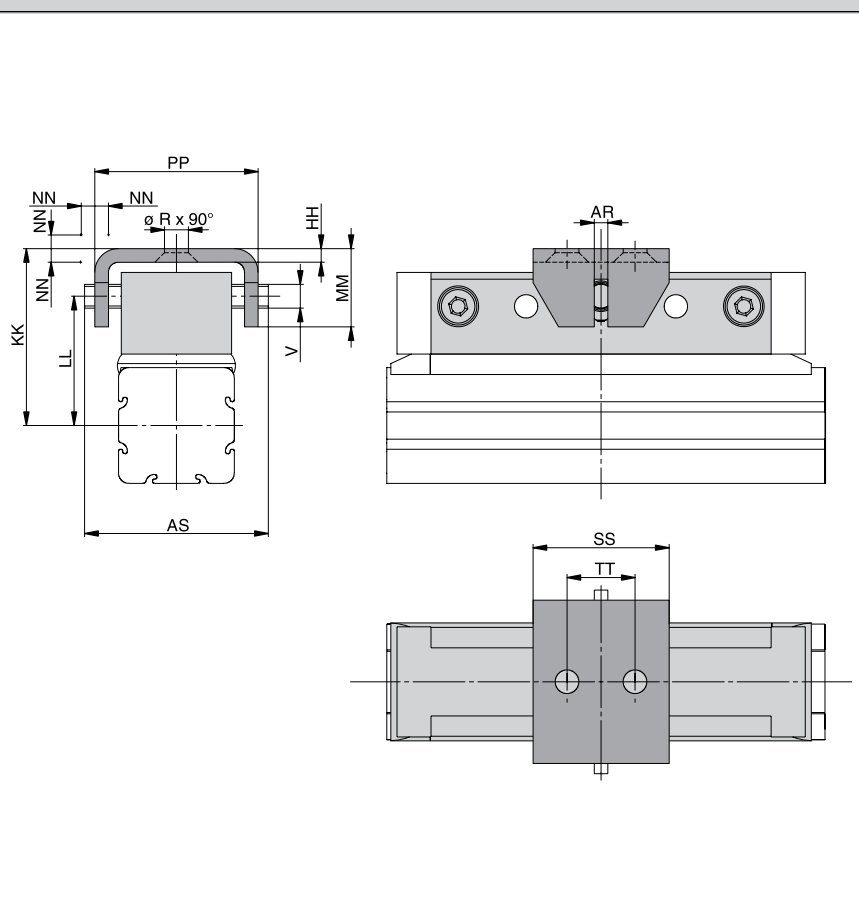
When external guides are used, parallelism deviations can lead to mechanical strain on the piston. This can be avoided by the use of a clevis mounting.

In the drive direction, the mounting has very little play.

Freedom of movement is provided as follows:

- Tilting in direction of movement
- Vertical compensation
- Tilting sideways
- Horizontal compensation

Series OSP-P10



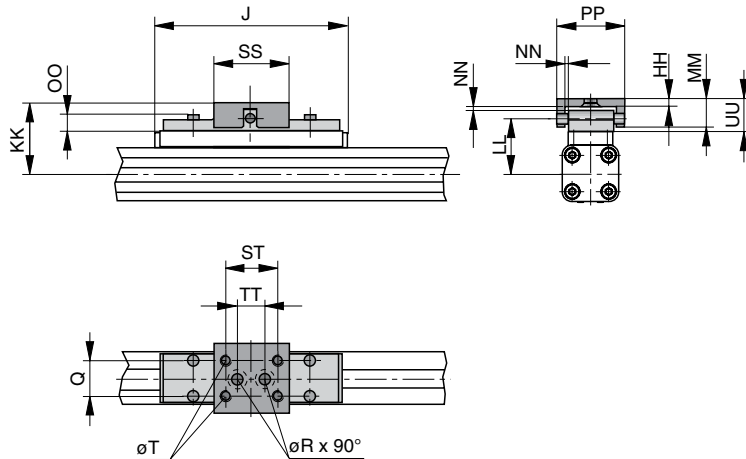
DimensionTable (mm)

Series	ø R	V	AR	AS	HH	KK	LL	MM	NN*	PP	SS	TT	Order No.	
													Standard	Stainless
OSP-P10	3.4	3.5	2	27	2	26	19	11.5	1	24	20	10	20971	—

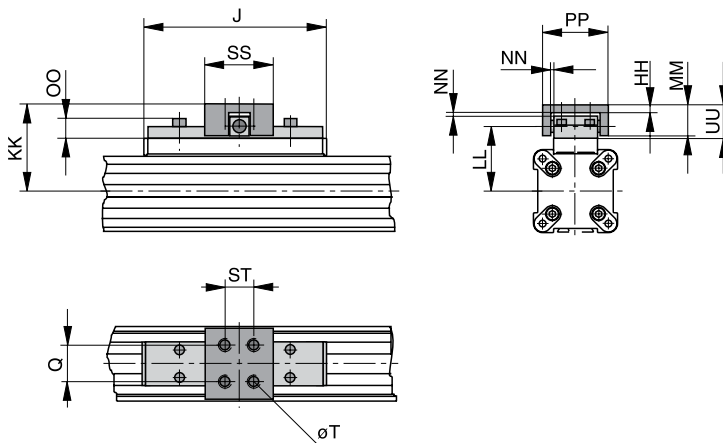
* Dimension NN gives the possible plus and minus play in horizontal and vertical movement, which also makes tilting sideways possible.



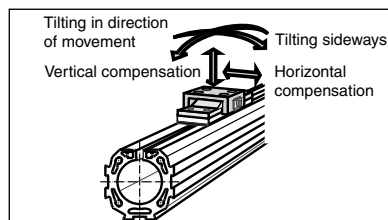
Series OSP-P16 to 32



Series OSP-P40 to 80



Please note:
When using additional inversion mountings, take into account the dimensions in page B22.



Linear Drive Accessories

ø 16-80 mm

Clevis Mounting

OSP
— ORIGA
— SYSTEM
— PLUS

For Linear-drive
• **Series OSP-P**

When external guides are used, parallelism deviations can lead to mechanical strain on the piston. This can be avoided by the use of a clevis mounting.

In the drive direction, the mounting has very little play.

Freedom of movement is provided as follows:

- **Tilting in direction of movement**
- **Vertical compensation**
- **Tilting sideways**
- **Horizontal compensation**

A stainless steel version is also available.



Dimension Table (mm)

Series	J	Q	T	ø R	HH	KK	LL	MM	NN*	OO	PP	SS	ST	TT	UU	Order No.	
																Standard	Stainless
OSP-P16	69	10	M4	4.5	3	34	26.6	10	1	8.5	26	28	20	10	11	20462	20463
OSP-P25	117	16	M5	5.5	3.5	52	39	19	2	9	38	40	30	16	21	20005	20092
OSP-P32	152	25	M6	6.6	6	68	50	28	2	13	62	60	46	40	30	20096	20094
OSP-P40	152	25	M6	—	6	74	56	28	2	13	62	60	46	—	30	20024	20093
OSP-P50	200	25	M6	—	6	79	61	28	2	13	62	60	46	—	30	20097	20095
OSP-P63	256	37	M8	—	8	100	76	34	3	17	80	80	65	—	37	20466	20467
OSP-P80	348	38	M10	—	8	122	96	42	3	16	88	90	70	—	42	20477	20478

* Dimension NN gives the possible plus and minus play in horizontal and vertical movement, which also makes tilting sideways possible.

Linear Drive Accessories

ø 16-80 mm
Inversion Mounting



For Linear-drive
• Series OSP-P

In dirty environments, or where there are special space problems, inversion of the cylinder is recommended.

The inversion bracket transfers the driving force to the opposite side of the cylinder. The size and position of the mounting holes are the same as on the standard cylinder.

Stainless steel version on demand.

Please note:

Other components of the OSP system such as **mid-section supports**, **magnetic switches** and **the external air passage for the P16**, can still be mounted on the free side of the cylinder.

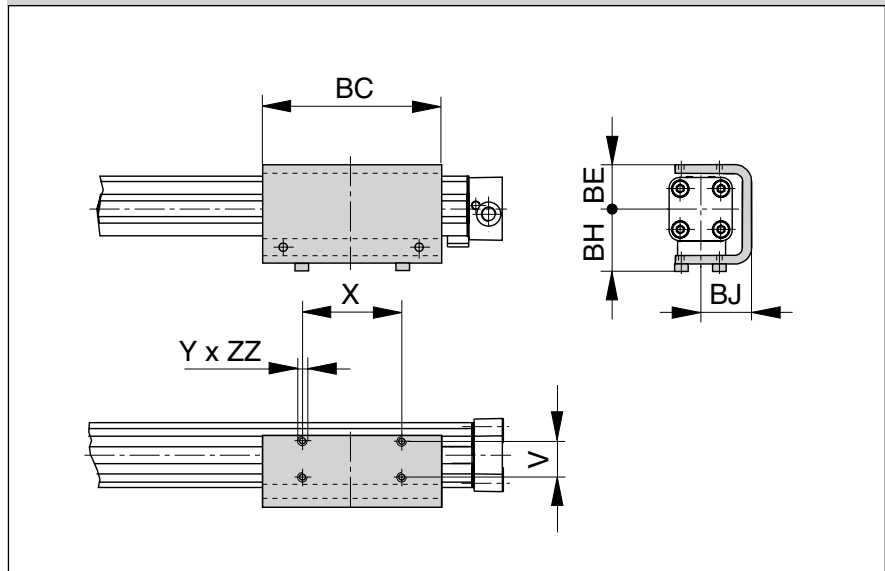
When combining single end porting with inversion mountings, RS magnetic switches can only be mounted directly opposite to the external air-supply profile.

Important Note:

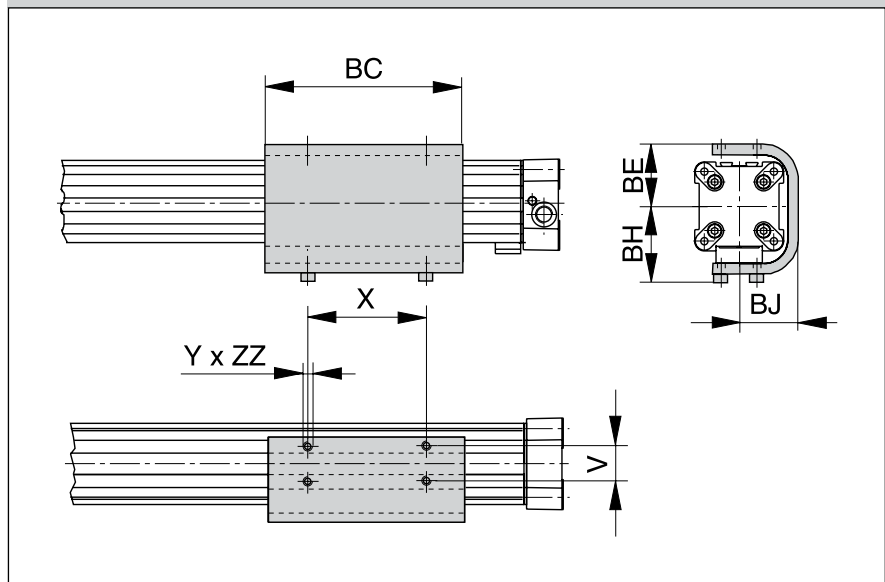
May be used in combination with **Clevis Mounting**, ref. dimensions in pages B20-B21.



Series OSP-P16 to 32



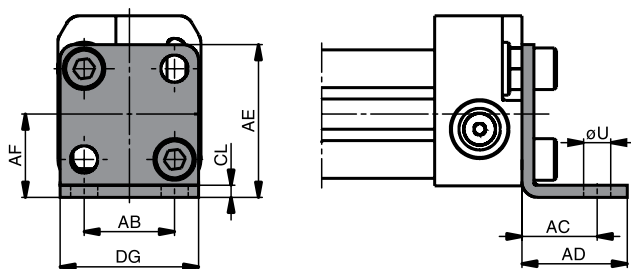
Series OSP-P40 to 80



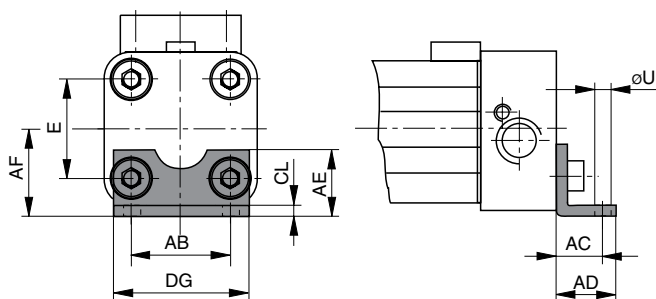
Dimension Table (mm)

Series	V	X	Y	BC	BE	BH	BJ	ZZ	Order No.
OSP-P16	16.5	36	M4	69	23	33	25	4	20446
OSP-P25	25	65	M5	117	31	44	33.5	6	20037
OSP-P32	27	90	M6	150	38	52	39.5	6	20161
OSP-P40	27	90	M6	150	46	60	45	8	20039
OSP-P50	27	110	M6	200	55	65	52	8	20166
OSP-P63	34	140	M8	255	68	83.5	64	10	20459
OSP-P80	36	190	M10	347	88	107.5	82	15	20490

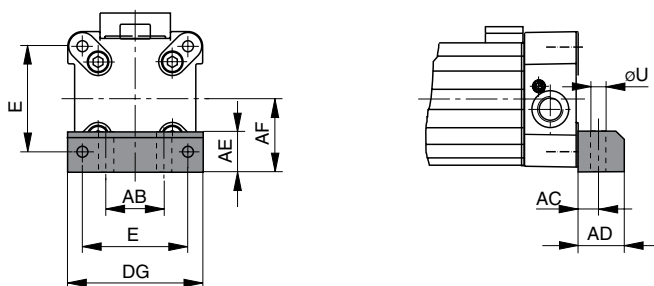
Series OSP-P10: Type A1



Series OSP-P16 to 32: Type A1



Series OSP-P40 to 80: Type C1



Linear Drive Accessories

ø 10-80 mm
End Cap Mountings

OSP
— ORIGA
— SYSTEM
— PLUS

For Linear-drive
• Series OSP-P

On the end-face of each end cap there are four threaded holes for mounting the actuator.

The hole layout is square, so that the mounting can be fitted to the bottom, top or either side, regardless of the position chosen for the air connection.

Material:

Series OSP-P10 – P32:

Galvanized steel.

Series OSP-P40 – P80:

Anodized aluminum.

The mountings are supplied in pairs.



Dimension Table (mm)

Series	E	ØU	AB	AC	AD	AE	AF	CL	DG	Order No. (* Type A1 Type C1)	
OSP-P10	-	3.6	12	10	14	20.2	11	1.6	18.4	0240	—
OSP-P16	18	3.6	18	10	14	12.5	15	1.6	26	20408	—
OSP-P25	27	5.8	27	16	22	18	22	2.5	39	2010	—
OSP-P32	36	6.6	36	18	26	20	30	3	50	3010	—
OSP-P40	54	9	30	12.5	24	24	38	—	68	—	4010
OSP-P50	70	9	40	12.5	24	30	48	—	86	—	5010
OSP-P63	78	11	48	15	30	40	57	—	104	—	6010
OSP-P80	96	14	60	17.5	35	50	72	—	130	—	8010

(* = Pair)

Linear Drive Accessories

Ø 10-80 mm

Mid-Section Support



For Linear-drive
• Series OSP-P

Note on Types E1 and D1

(P16 – P80):

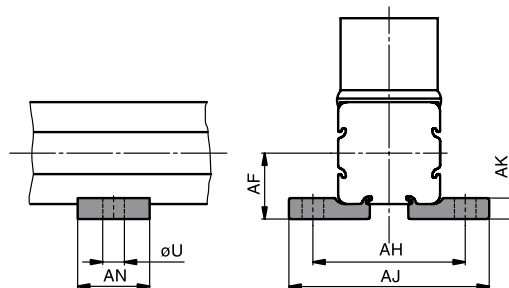
The mid-section support can also be mounted on the underside of the actuator, in which case its distance from the center of the actuator is different.

Stainless steel version on demand.



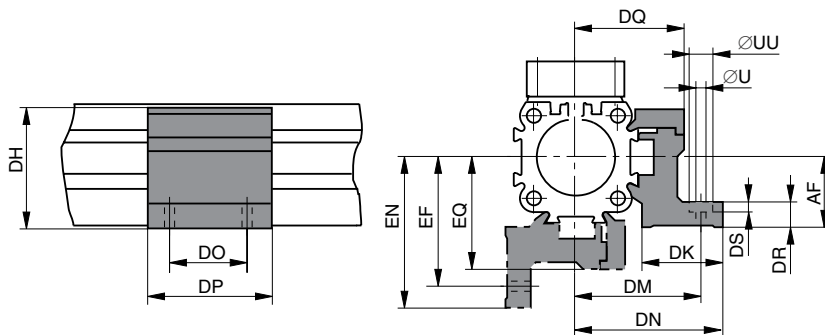
Series OSP-10, Type E1

(Mounting from above / below using a cap screw)



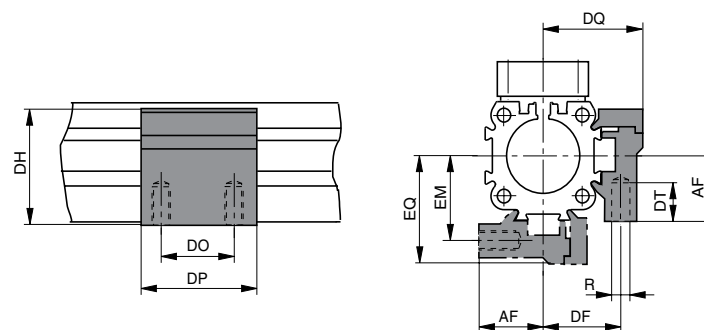
Series OSP-P16 to P80: Type E1

(Mounting from above / below using a cap screw)



Series OSP-16 to 80, Type D1

(Mountings from below with 2 screws)



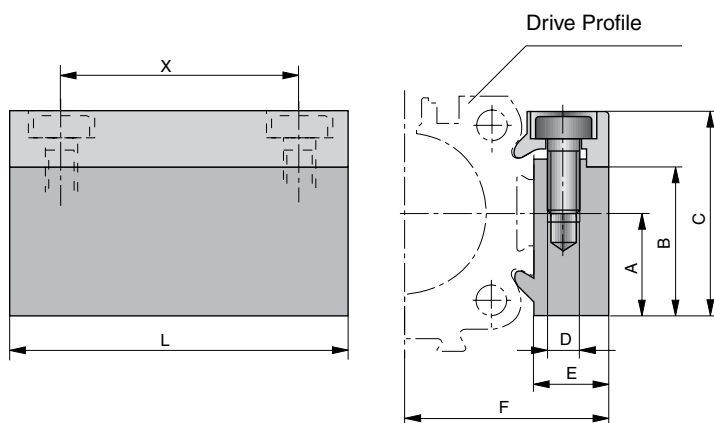
DimensionTable (mm) Series OSP-P10

Series	U	AF	AH	AJ	AK	AN	Order No.	
							Type E1	Type D1
OSP-P10	3.6	11	25.4	33.4	3.5	12	0250	-

DimensionTable (mm) – Series OSP-P16 to P80

Series	R	U	UU	AF	DF	DH	DK	DM	DN	DO	DP	DQ	DR	DS	DT	EF	EM	EN	EQ	Order No.	
																				Type E1	Type D1
OSP-P16	M3	3.4	6	15	20	29.2	24	32	36.4	18	30	27	6	3.4	6.5	32	20	36.4	27	20435	20434
OSP-P25	M5	5.5	10	22	27	38	26	40	47.5	36	50	34.5	8	5.7	10	41.5	28.5	49	36	20009	20008
OSP-P32	M5	5.5	10	30	33	46	27	46	54.5	36	50	40.5	10	5.7	10	48.5	35.5	57	43	20158	20157
OSP-P40	M6	7	–	38	35	61	34	53	60	45	60	45	10	–	11	56	38	63	48	20028	20027
OSP-P50	M6	7	–	48	40	71	34	59	67	45	60	52	10	–	11	64	45	72	57	20163	20162
OSP-P63	M8	9	–	57	47.5	91	44	73	83	45	65	63	12	–	16	79	53.5	89	69	20452	20451
OSP-P80	M10	11	–	72	60	111.5	63	97	112	55	80	81	15	–	25	103	66	118	87	20482	20480

Dimensions



Linear Drive Accessories

ø 16-50 mm
Adaptor Profile

OSP
— ORIGA
— SYSTEM
— PLUS

For Linear-drive
• Series OSP-P

Adaptor Profile OSP

- A universal attachment for mounting of valves etc.
- Solid material

B

Dimension Table (mm)

Series	A	B	C	D	E	F	L	X	Order No.	
									Standard	Stainless
OSP-P16	14	20.5	28	M3	12	27	50	38	20432	20438
OSP-P25	16	23	32	M5	10.5	30.5	50	36	20006	20186
OSP-P32	16	23	32	M5	10.5	36.5	50	36	20006	20186
OSP-P40	20	33	43	M6	14	45	80	65	20025	20267
OSP-P50	20	33	43	M6	14	52	80	65	20025	20267



Linear Drive Accessories

ø 16-50 mm
T-Slot Profile

B

OSP
ORIGA
SYSTEM
PLUS

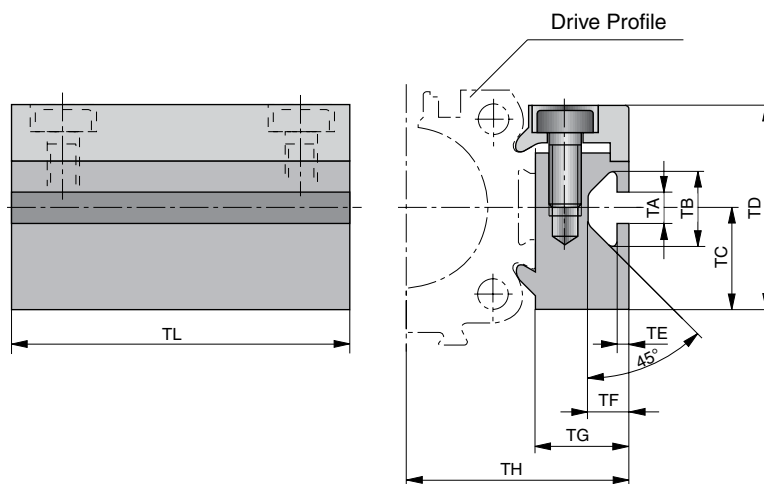
For Linear-drive

- Series OSP-P

T-Slot Profile OSP

- A universal attachment for mounting with standard T-Nuts

Dimensions

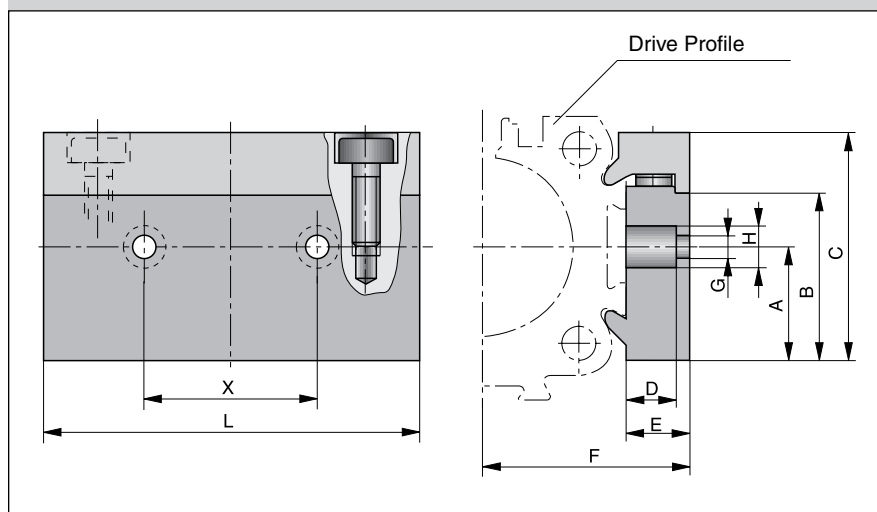


Dimension Table (mm)

Series	TA	TB	TC	TD	TE	TF	TG	TH	TL	Order No.	
										Standard	Stainless
OSP-P16	5	11.5	14	28	1.8	6.4	12	27	50	20433	20439
OSP-P25	5	11.5	16	32	1.8	6.4	14.5	34.5	50	20007	20187
OSP-P32	5	11.5	16	32	1.8	6.4	14.5	40.5	50	20007	20187
OSP-P40	8.2	20	20	43	4.5	12.3	20	51	80	20026	20268
OSP-P50	8.2	20	20	43	4.5	12.3	20	58	80	20026	20268



Dimensions



Linear Drive Accessories

ø 16-50 mm
Connection Profile

OSP
— ORIGA
— SYSTEM
— PLUS

For combining

- Series OSP-P with system profiles
- Series OSP-P with Series OSP-P

B

Dimension Table (mm)

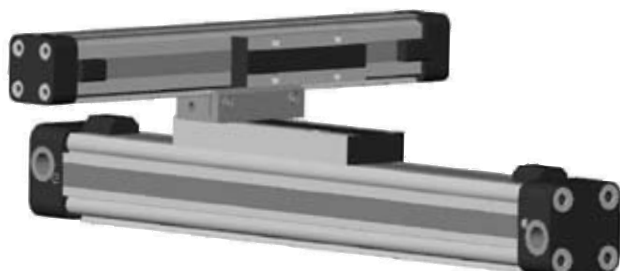
Cylinder Series	for mounting on the carrier of	A	B	C	D	E	F	G	H	L	X	Order No.
OSP-P16	OSP25	14	20.5	28	8.5	12	27	5.5	10	50	25	20849
OSP-P25	OSP32-50	16	23	32	8.5	10.5	30.5	6.6	11	60	27	20850
OSP-P32	OSP32-50	16	23	32	8.5	10.5	36.5	6.6	11	60	27	20850
OSP-P40	OSP32-50	20	33	43	8	14	45	6.6	11	60	27	20851
OSP-P50	OSP32-50	20	33	43	8	14	52	6.6	11	60	27	20851

Possible Combinations

Combination of Series OSP-P with system profiles



Combination of Series OSP-P with Series OSP-P



Linear Drive Accessories

Ø 25-50 mm
Joint Clamp Connection

B



For connection of cylinders of the Series OSP-P

The joint clamp connection combines two OSP-P cylinders of the same size into a compact unit with high performance.

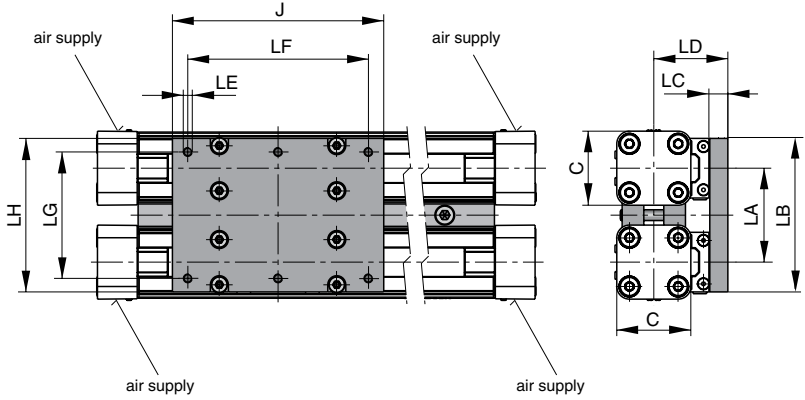
Features

- Increased load and torque capacity
- Higher driving forces

Included in delivery:

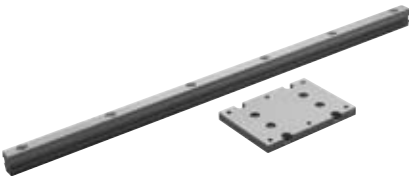
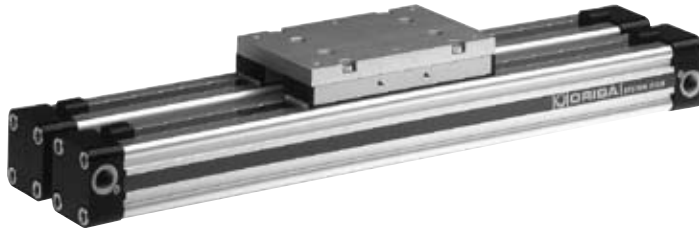
- 2 clamping profiles with screws
- 1 mounting plate with fixings

Dimensions



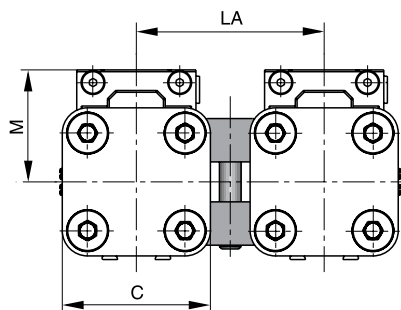
Dimension Table (mm)

Cylinder Series	C	J	LA	LB	LC	LD	LE	LF	LG	LH
OSP-P25	41	117	52	86	10	41	M5	100	70	85
OSP-P32	52	152	64	101	12	50	M6	130	80	100
OSP-P40	69	152	74	111	12	56	M6	130	90	110
OSP-P50	87	200	88	125	12	61	M6	180	100	124

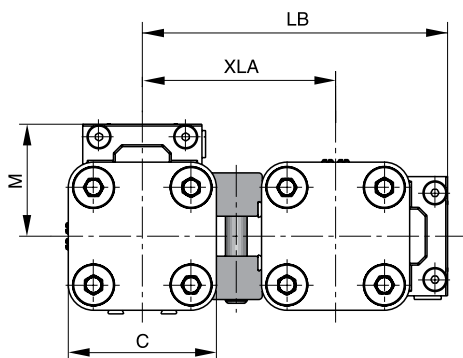


Dimensions

Installation:
Top carrier/Top carrier



Installation:
Top carrier/Side carrier



Dimension Table (mm)

Cylinder Series	C	M	LA	LE	XLA	Order No.	
						Standard	Stainless
OSP-P25	41	31	52	84.5	53.5	20035	20193
OSP-P32	52	38	64	104.5	66.5	20167	20265
OSP-P40	69	44	74	121.5	77.5	20036	20275
OSP-P50	87	49	88	142.5	93.5	20168	20283

Linear Drive Accessories

ø 25-50 mm Multiplex Connection

OSP
 — ORIGA
 — SYSTEM
 — PLUS

For connection of cylinders of the Series OSP-P

The multiplex connection combines two or more OSP-P cylinders of the same size into one unit.

Features

- The orientation of the carriers can be freely selected

Included in delivery:

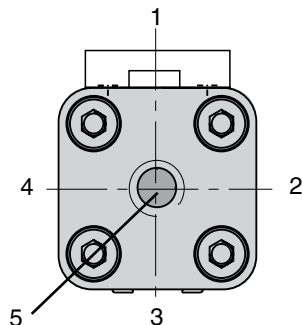
2 clamping profiles with clamping screws



Ordering Instructions / Part Numbering System for OSP-P Rodless Basic Pneumatic Series

6	7	8	9	10	11	12-16	17	18	19	20	21	22	23	24	25
OSPP	25	0	0	1	0	0	01100	0	0	1	0	0	0	0	0
Bore		Seals		Lubrication		Stroke	Piston Mountings		Dovetail Cover		add. Carriage		Version		
10 16 25 32 40 50 63 80		0 Standard 1 Viton S Special		0 Standard 1 Slow Speed 4 Food 5 Clean Room S Special		xxxxx	0 None Floating 1 Mount (NR25) Joint 8 Clamp Plate (NR24) S Special		0 Standard X Without Cover Rail S Special		0 Without S Special				
Piston Style		Corrosion Resist. Hardware		Guides / Brakes / Inversion Mounts		Cushioning / Stops		End Cap Mounts		Switches / Measuring System					
0 Standard 1 Tandem S Special		0 Standard 1 Stainless S Special		0 Non e A AB Activebrake M Inversion (NR30) N Joint Clamp (25,32,40,50) S Special		0 Standard S Special		0 Without 1 A1 (10,16,25,32) 2 A2 (16,25,32) 3 A3 (25,32) 4 B1 (25,32) 6 B3 (16) 7 B4 (25,32) 8 B5 (32) 9 C1 (40,50,63,80) A C2 (40,50) B C3 (40,50,63,80) C C4 (40,50) Note: Comes in pairs		0 none 1 NO Reed-KL3045 (All except 10mm) Qty. 2 2 NC Reed-KL3048 (All except 10mm) Qty. 2 3 PNP KL3054+4041 (All except 10mm) Qty. 2 4 NPN KL3060+4041 (All except 10mm) Qty. 2 5 NO Reed-KL3045 (10mm only) 6 PNP 3049+4041 (10mm only) Qty. 2 7 PNP 3753+4041 (10mm only) Qty. 2 X 21240 SFI 0,1mm Y 21241 SFI 1mm Z 4650 SFA S Special Note: 2 switches will be supplied. For different quantity, please order as a separate line item.					
Air Connections / Porting		End Cap Position													
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		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													

Notes: 10mm bore can only have standard port locations.
Single End Porting on 16mm bore, then end caps cannot be rotated.



Note: Position #2 is the standard location.