Linear Drive-Accessories (Mountings and Magnetic Switches) Series OSP-P

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Linear Drive Acccessories for Series OSP-P

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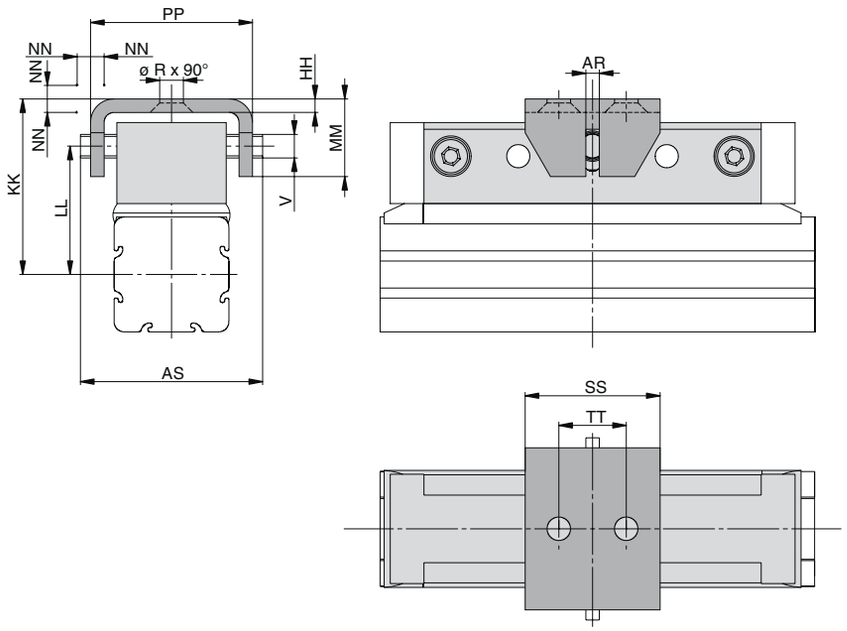
A3P111E00HAA00X

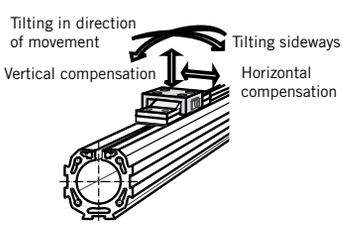
Linear Drive Accessories

ø 10 mm

Clevis Mounting

Series OSP-P10





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**

Dimension Table (mm)

Series	øR	V	AR	AS	HH	KK	LL	MM	NN*	PP	SS	TT	Order No. Standard	Order No. 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.

For **rodless pneumatic cylinder OSP-P** see 1.10.002E

Linear Drive Accessories

ø 16-80 mm

Clevis Mounting

OSP
ORIGA SYSTEM PLUS

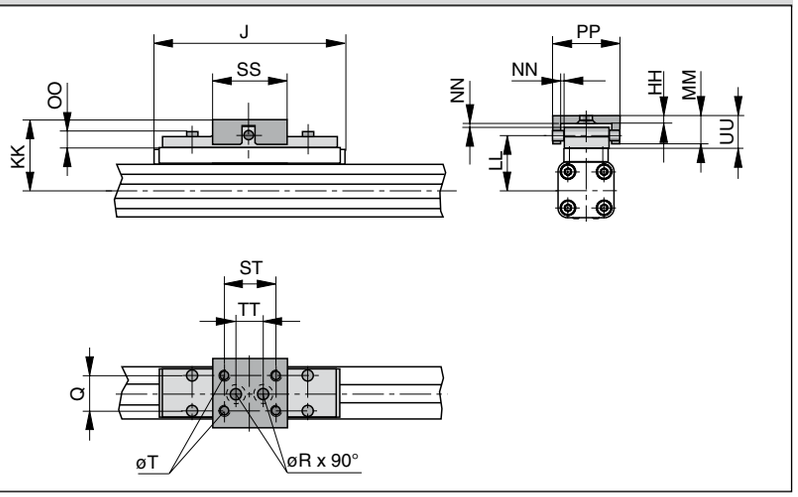
For Linear-drive
- **Series OSP-P**

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:

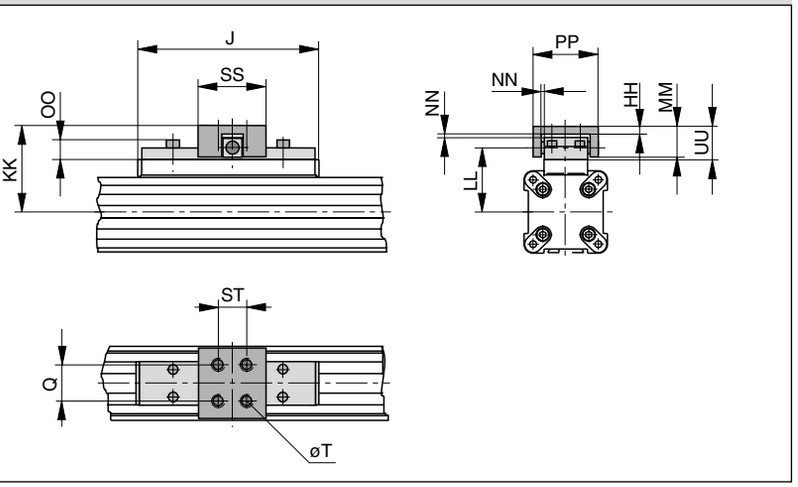
- **Tilting in direction of movement**
- **Vertical compensation**
- **Tilting sideways**
- **Horizontal compensation**

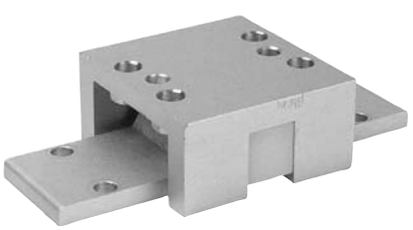
A stainless steel version is also available.

Series OSP-P16 to 32

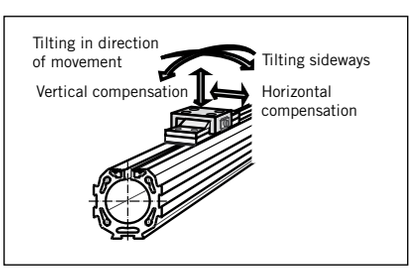


Series OSP-P40 to 80





Please note:
When using additional inversion mountings, take into account the dimensions in data sheet P1-.45.006E.



Dimension Table (mm)

Series	J	Q	T	øR	HH	KK	LL	MM	NN*	OO	PP	SS	ST	TT	UU	Order No. Standard	Order No. 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.

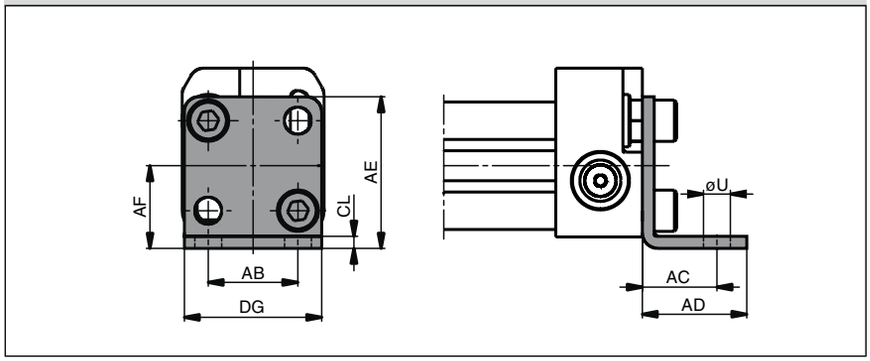
For **rodless pneumatic cylinder OSP-P** see 1.10.002E

Linear Drive Accessories

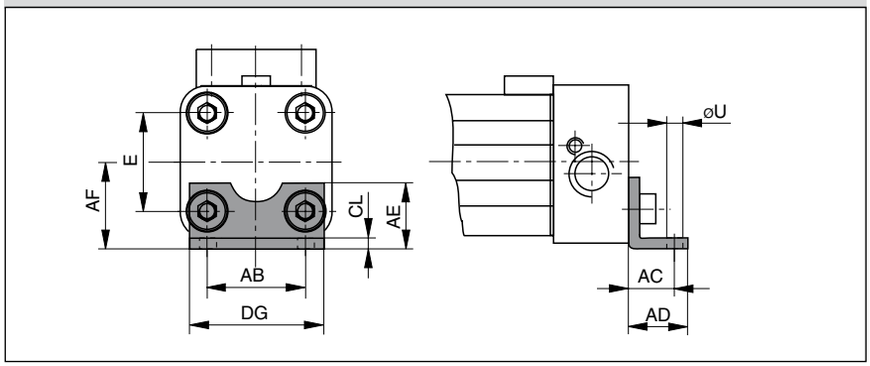
ø 10-80 mm

End Cap Mountings

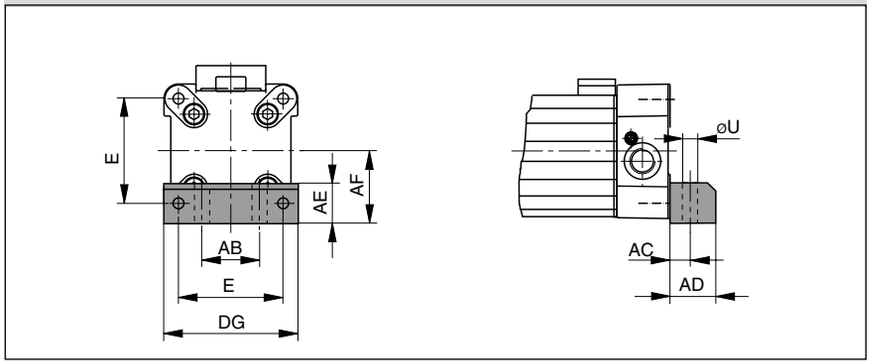
Series OSP-P10 : Type A1



Series OSP-P16 to 32: Type A1



Series OSP-P40 to 80: Type C1

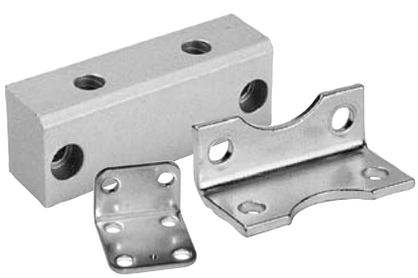


For Linear-drive
• Series OSP-P

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:
Galvanised steel.
Series OSP-P40 – P80:
Anodized aluminium.

The mountings are supplied in pairs.



Dimension Table (mm)

Series	E	ØU	AB	AC	AD	AE	AF	CL	DG	Order No. (* Type A1	Order No. (* Type C1
OSP-P10	-	3.6	12	10	14	20.2	11	1.6	18.4	**0 240**	–
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

For **rodless pneumatic cylinder OSP-P** see 1.10.002E

Linear Drive Accessories

ø 10-80 mm

Mid-Section Support

OSP
ORIGA SYSTEM PLUS

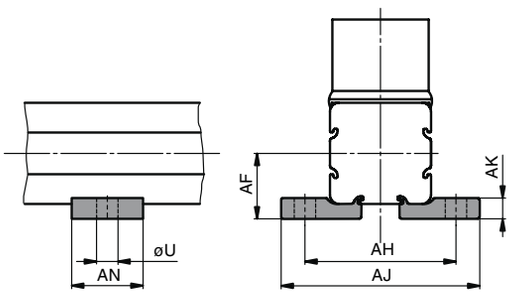
For Linear-drive
• Series OSP-P

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 centre of the actuator is different.

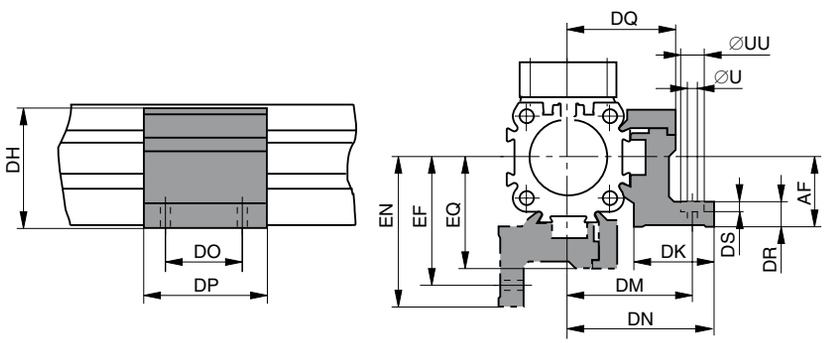
For design notes, see data sheet 1.10.002E-2

Stainless steel version on demand.

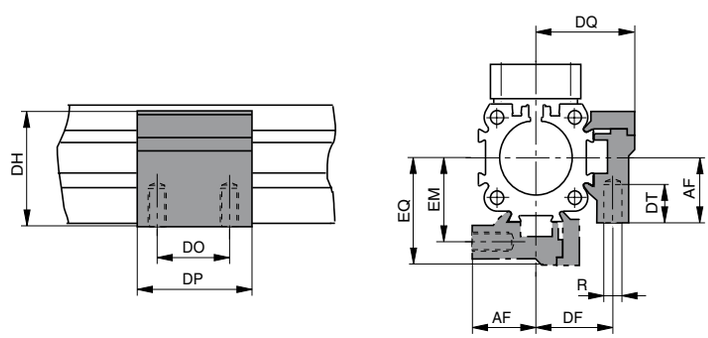
Series OSP-10, Type E1
(Mounting from above / below using a cap screw)



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)



Dimension Table (mm) Series OSP-P10

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

Dimension Table (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	Order No. 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**

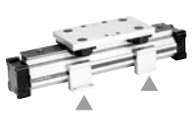
For **rodless pneumatic cylinder OSP-P** see 1.10.002E

P-A1P580E00HAA00X

Linear Drive Accessories

Mountings for Linear Drives fitted with OSP-Guides

Overview

Mounting Type	Type	Type – OSP Guides																
		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	Type D1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Mid section support, wide 	Type E1	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

For Linear-drives
- **Series OSP-P**

Note:
For mountings and mid-section supports for linear drives with recirculating ball bearing guide STARLINE see data sheet P-1.45.005E-6 to P-1.45.005E-9, for recirculating ball bearing guide KF see data sheet P-1.45.005E-4 to P-1.45.005E-9.

For **rodless pneumatic cylinder OSP-P** see 1.10.002E

End cap mountings*

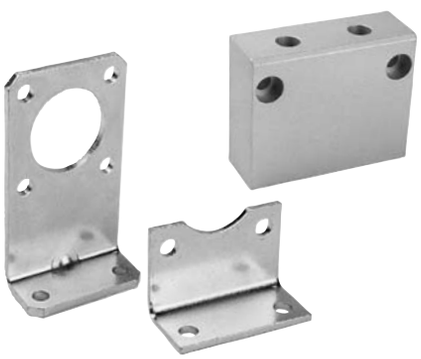
Four internal screw threads are located in the end faces of all OSP actuators for mounting the drive unit. End cap mountings may be secured across any two adjacent screws.

Material:

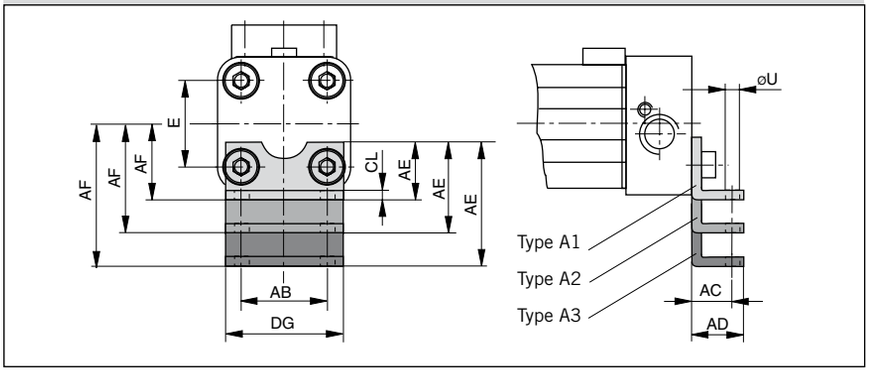
Series OSP-16, 25, 32:
Galvanised steel

Series OSP-40,50, 63, 80:
Anodized aluminium

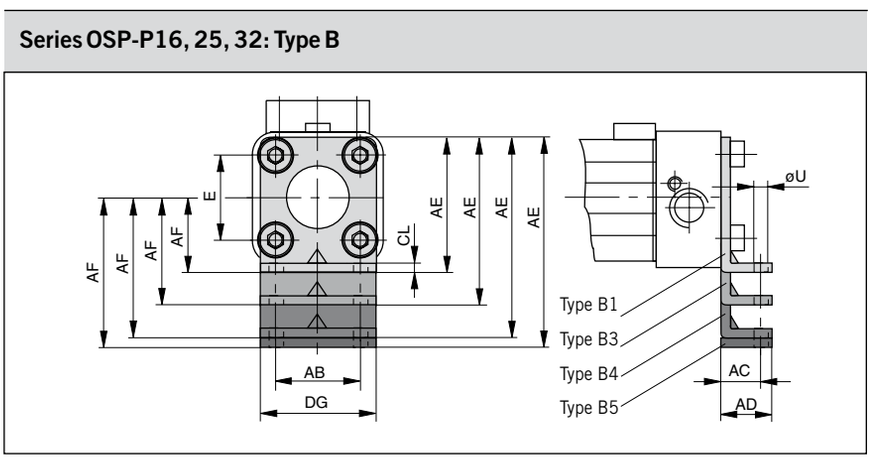
The mountings are supplied in pairs.



Series OSP-P16, 25, 32: Type A



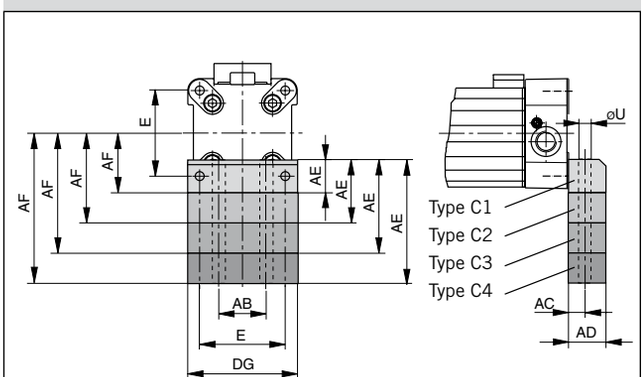
Series OSP-P16, 25, 32: Type B



Dimension Table (mm)
– Dimensions AE and AF (Dependant 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	–	–

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



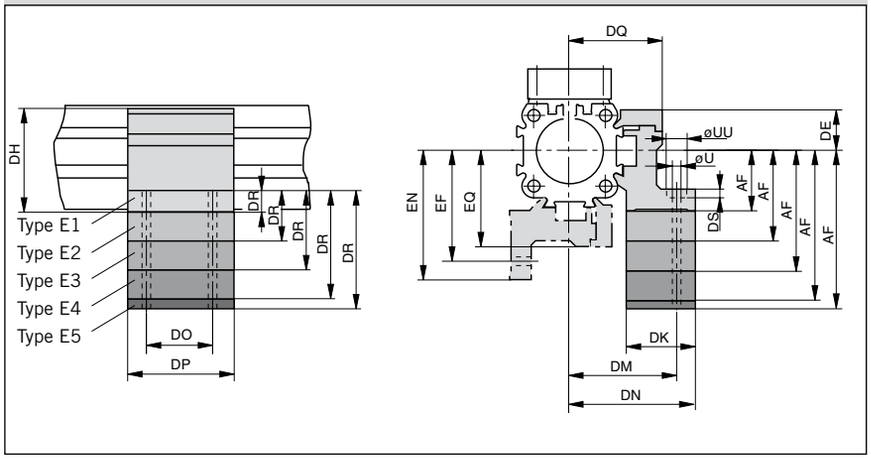
Dimension Table (mm)

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

* see mounting instructions on page P-1.45.005E-1

Mid-Section Support

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



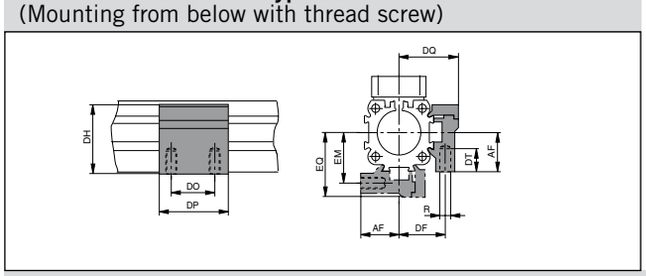
Information regarding type E1 and D1:

Mounting of the mid section supports is also possible on the lower side of the drive. In this case, please note the new centre line dimensions.

See layout information on data sheet no. P-1.40.002E-2, P1-.40.003E-3, P-1.40.005E-3, P1-.42.003E-3 and P-1.42.004E-3

Stainless steel version on request.

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



Dimension Table (mm)
– Dimensions AF and DR (Dependant 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

Linear Drive Accessories

Ø 25-50 mm

End Cap Mounting

correspond to FESTO dimensions HP25 – 50

for Linear Drives with Recirculating Ball Bearing Guide

- **Series OSP-P KF**

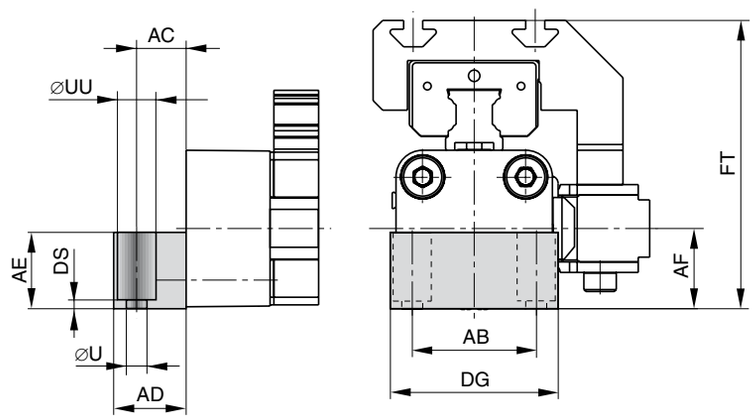
On the end-face of each end cap there are four threaded holes for mounting the actuator.

Material:

Series OSP-P KF25 – 50:
Anodized aluminium.

The mountings are supplied in pairs.

Series OSP-P KF25 to KF50: Type HP (Correspond to FESTO dimensions)

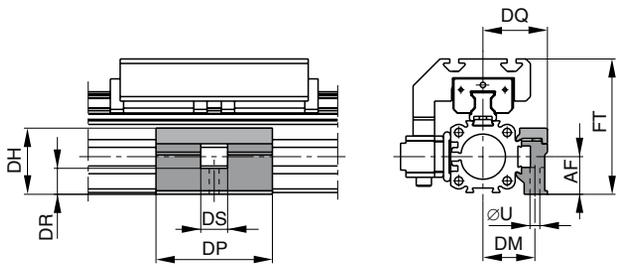


Note:
Correspond to FESTO DGPL-KF,
when the End Cap Mountings HP are mounted on the opposite side to the carriage (see drawing)

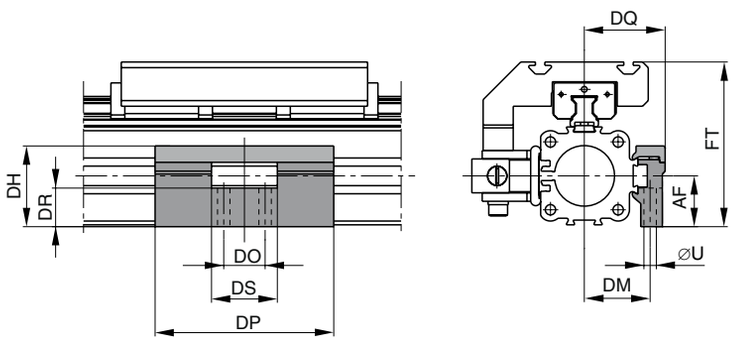
Dimension Table (mm)

Series	ØU	AB	AC	AD	AE	AF	DG	DS	FT	ØUU	Order No.
HP25	5.5	32.5	13	19	20	21	44	2	75.5	10	**21107**
HP32	6.6	38	17	24	24	27	52	3	87.5	11	**21108**
HP40	6.6	45	17.5	24	24	35	68	2	104.5	11	**21109**
HP50	9	65	25	35	35	48	86	6	138.5	15	**21110**

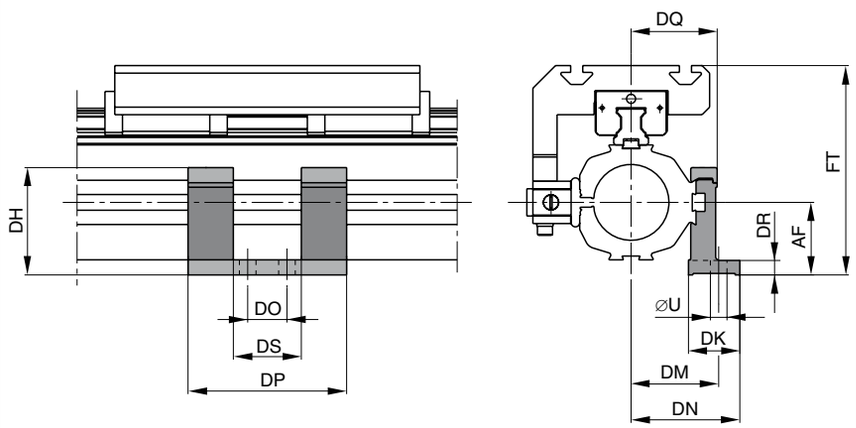
Series OSP-P KF25: Type MUP
(Mounting over through holes)



Series OSP-P KF32 to KF40: Type MUP
(Mounting over through holes)



Series OSP-P KF50: Type MUP
(Mounting over through holes)



Linear Drive Accessories

Ø 25-50 mm

Mid-Section Support

correspond to FESTO dimensions MUP25 – 50

for Linear Drives with Recirculating Ball Bearing Guide

- **Series OSP-P KF**

For design notes, see data sheet P-1.40.007E-3

Note:
Correspond to FESTO DGPL-KF, when the Mid-Section Support MUP are mounted on the 90° side to the carriage (see drawings).

Dimension Table (mm)

Series	ØU	AF	DH	DK	DM	DN	DO	DP	DQ	DR	DS	FT	Order No.
MUP25	5.5	21	36.9	–	29	–	–	65	36	14.5	15	75.5	**21119**
MUP32	6.6	27	42.9	–	35	–	22	95	43	20.5	35	87.5	**21120**
MUP40	6.6	35	58	–	40	–	22	95	48	28.5	35	104.5	**21121**
MUP50	11	48	71	34	58	72	26	105	57	10	45	138.5	**21122**

Linear Drive Accessories

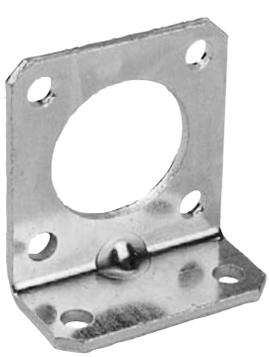
Ø 16 to 32 mm
End Cap Mounting
Type: B

for Linear Drives with Recirculating Ball Bearing Guide

- **Series OSP-P STL**
- **Series OSP-P KF**

Material:
Galvanised steel
Anodized aluminium

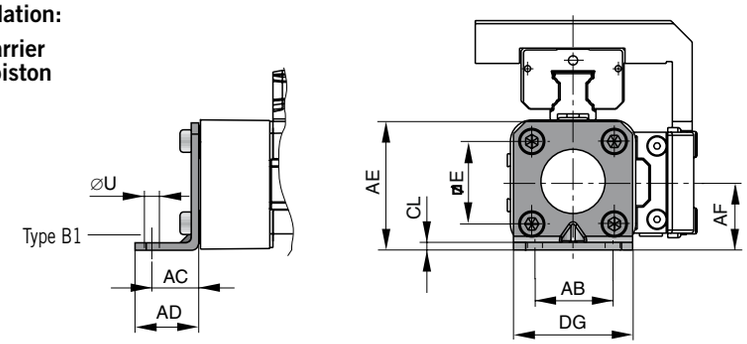
The mountings are supplied in pairs.



Series OSP-P STL16, STL25, STL32 : Type B1
Series OSP-P KF16, KF25, KF32 : Type B1

Installation:

Top carrier
Side piston

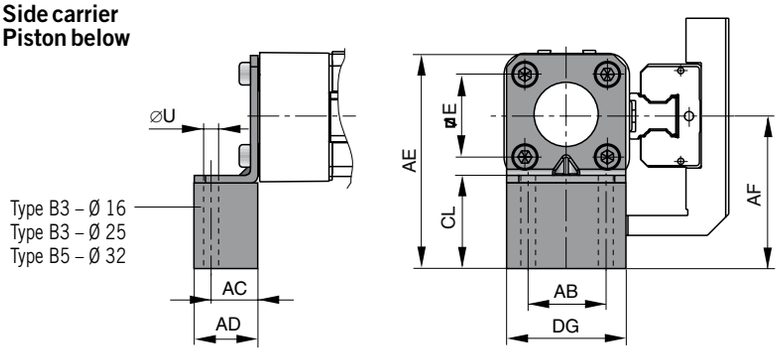


Drawing showes: Mounting with Guide Type STL

Series OSP-P STL16, STL25, STL32: Type B3 (Ø 32:B5)
Series OSP-P KF16, KF25, KF32: Type B3 (Ø 32:B5)

Installation:

Side carrier
Piston below

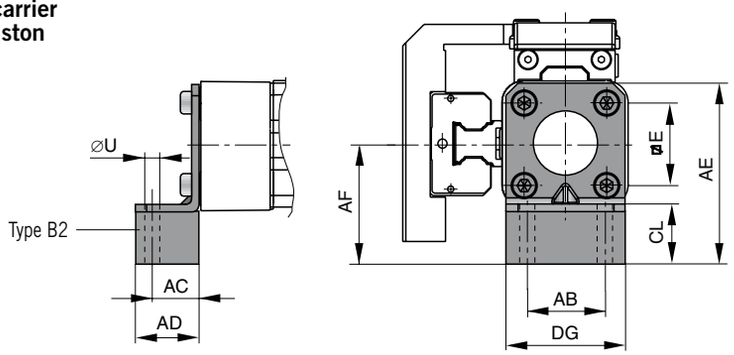


Drawing showes: Mounting with Guide Type STL

Series OSP-P STL16, STL25, STL32: Type B2
Series OSP-P KF16, KF25, KF32: Type B2

Installation:

Side carrier
Top piston



Drawing showes: Mounting with Guide Type STL

Dimension Table (mm) for End Cap Mounting Type: B1 to B5

Series Type	Mounting	E	ØU	AB	AC	AD	AE	AF	CL	DG	Order No. (pair)
OSP-P STL16	**B1**	18	3.6	18	10	14	28	15	2	26	**21135**
OSP-P KF16	**B2**	18	3.6	18	10	14	43	30	17	26	**21136**
	B3	18	3.6	18	10	14	55	42	29	26	**21137**
OSP-P STL25	**B1**	27	5.8	27	16	22	42	22	2.5	39	**20311**
OSP-P KF25	**B2**	27	5.8	27	16	22	57	37	17.5	39	**21138**
	B3	27	5.8	27	16	22	69	49	29.5	39	**21139**
OSP-P STL32	**B1**	36	6.6	36	18	26	55	30	3	50	**20313**
OSP-P KF32	**B2**	36	6.6	36	18	26	69	44	17	50	**21140**
	B5	36	6.6	36	18	26	90	65	9	50	**21141**

Ø 40 to 50 mm End Cap Mounting Type: C

for Linear Drives with Recirculating Ball Bearing Guide

- **Series OSP-P STL**
- **Series OSP-P KF**

Material:

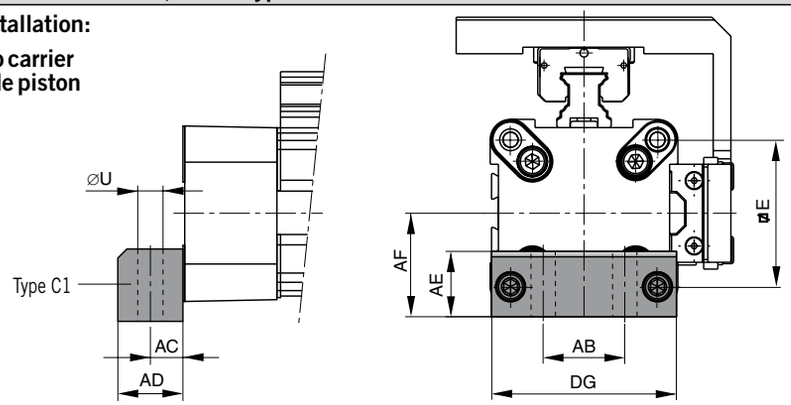
Anodized aluminium

The mountings are supplied in pairs.

Series OSP-P STL40, STL50: Type C1
Series OSP-P KF40, KF50: Type C1

Installation:

Top carrier
Side piston

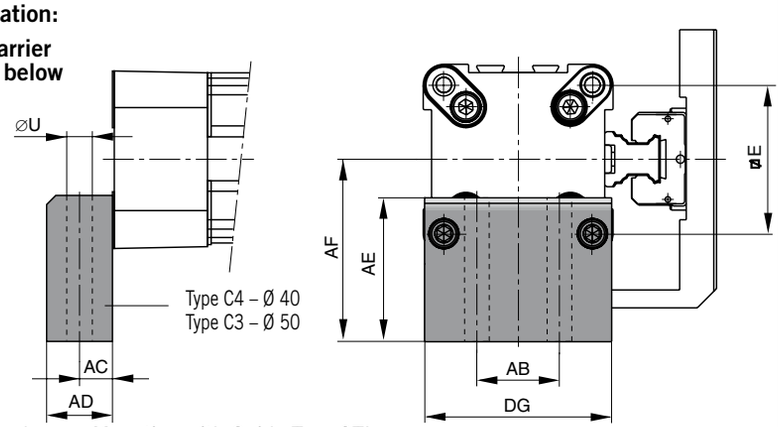


Drawing showes: Mounting with Guide Type STL

Series OSP-P STL40, STL50: Type C4 (Ø 50: C3)
Series OSP-P KF40, KF50: Type C4 (Ø 50: C3)

Installation:

Side carrier
Piston below

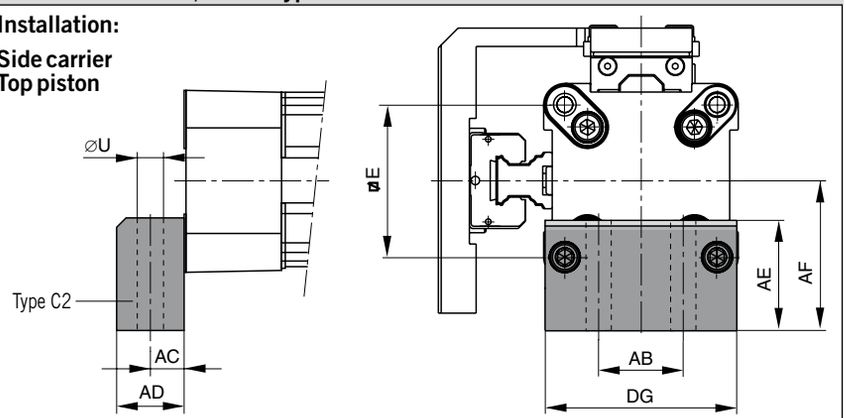


Drawing showes: Mounting with Guide Type STL

Series OSP-P STL40, STL50: Type C2
Series OSP-P KF40, KF50: Type C2

Installation:

Side carrier
Top piston



Drawing showes: Mounting with Guide Type STL

Dimension Table (mm) for End Cap Mounting Type: C1 to C4

Series Type	Mounting	E	ØU	AB	AC	AD	AE	AF	DG	Order No. (pair)
OSP-P STL40	**C1**	54	9	30	12.5	24	24	38	68	**4010**
OSP-P KF40	**C2**	54	9	30	12.5	24	37	51	68	**20338**
	C4	54	9	30	12.5	24	56	70	68	**20340**
OSP-P STL50	**C1**	70	9	40	12.5	24	30	48	86	**5010**
OSP-P KF50	**C2**	70	9	40	12.5	24	39	57	86	**20349**
	C3	70	9	40	12.5	24	54	72	86	**20350**

Linear Drive Accessories

Ø 16 to 50

Mid-Section Support Type: D1ST

for Linear Drives with Recirculating Ball Bearing Guide

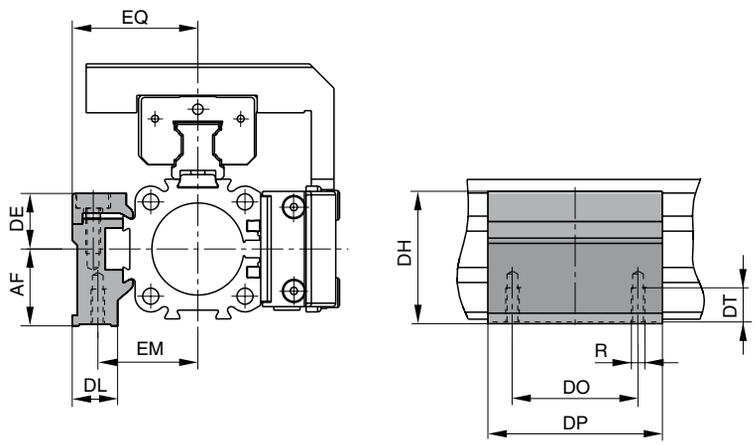
- **Series OSP-P STL**
- **Series OSP-P KF**

Note on Types D1ST
The mid-section support can also be mounted on the underside of the actuator, in which case its distance from the centre of the actuator is different.

For design notes, see page
P-1.40.006E-3 (Serie OSP-P STL)
P-1.40.007E-3 (Serie OSP-P KF)

Series OSP-P STL16 to STL50: Type D1ST
Series OSP-P KF16 to KF50: Type D1ST

Mountings from below with 2 screws



Drawing showes: Mounting with Guide Type STL

Dimension Table (mm) Mid-Section Support D1ST

Series OSP-P	Mounting Type	R	AF	DE	DH	DL	DO	DP	DT	EM	EQ	Order No.
STL/KF16	**D1ST**	M3	15	14.2	29.2	14.6	18	30	6.5	20	27	**21125**
STL/KF25	**D1ST**	M5	22	16	38	13	36	50	10	28.5	36	**21126**
STL/KF32	**D1ST**	M5	30	16	46	13	36	60	10	35.5	43	**21127**
STL/KF40	**D1ST**	M6	38	23	61	19	45	60	11	38	48	**21128**
STL/KF50	**D1ST**	M6	48	23	71	19	45	60	11	45	57	**21129**

Order example: Type D1ST16 Order No. 21125

Mid-Section Support Type: E1ST bis E5ST

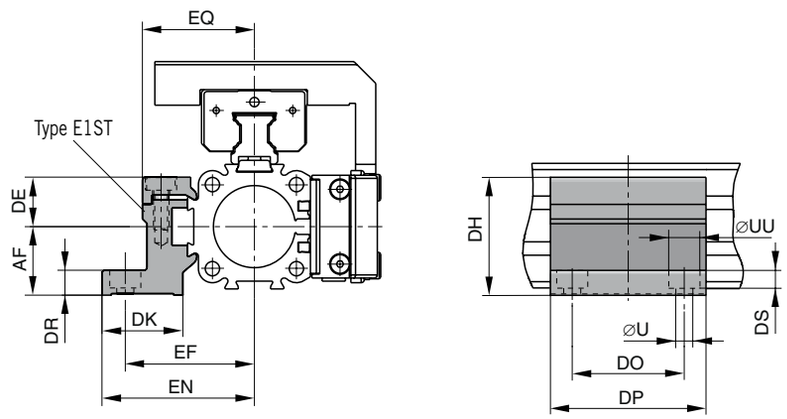
for Linear Drives with Recirculating Ball Bearing Guide

- **Series OSP-P STL**
- **Series OSP-P KF**

Series OSP-P STL16 to STL50: Type E1ST
Series OSP-P KF16 to KF50: Type E1ST

Installation:
Top carrier
Side position

Mounting from above / below using a cap screw



Drawing showes: Mounting with Guide Type STL

Mid-Section Support Type: E1ST to E5ST

for Linear Drives with Recirculating Ball Bearing Guide

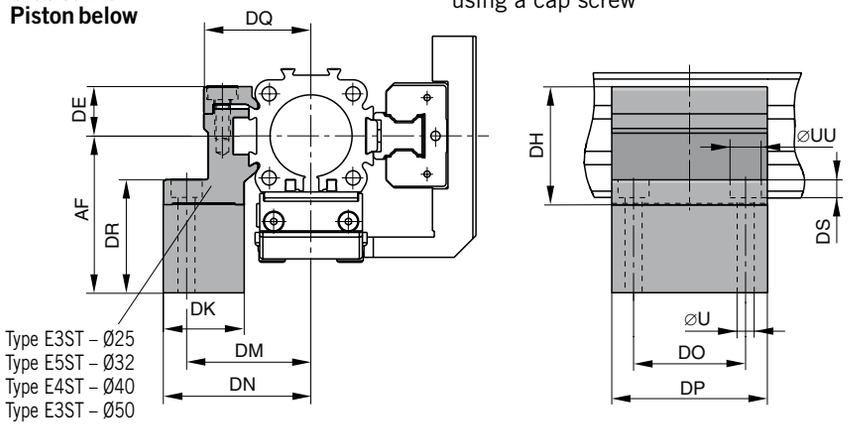
- **Series OSP-P STL**
- **Series OSP-P KF**

Series OSP-P STL25 to STL50: Type E3ST, E4ST, E5ST
Series OSP-P STL25 to STL50: Type E3ST, E4ST, E5ST

Installation:

Side carrier
Piston below

Mounting from above / below using a cap screw



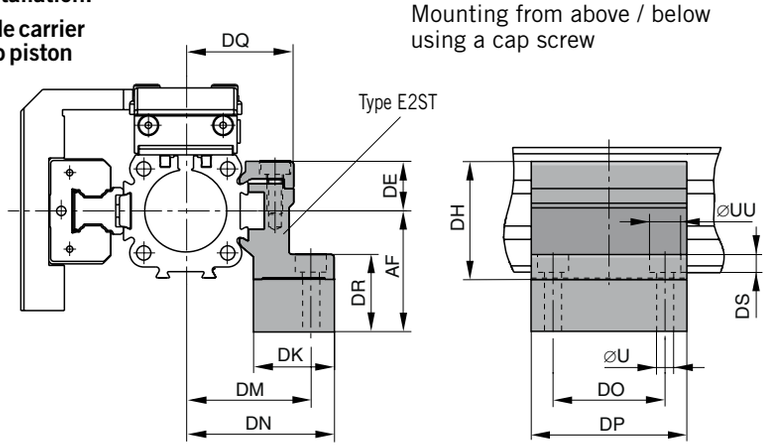
Drawing showes: Mounting with Guide Type STL

Series OSP-P STL16 to STL50: Type E2ST
Series OSP-P KF16 to KFL50: Type E2ST

Installation:

Side carrier
Top piston

Mounting from above / below using a cap screw



Drawing showes: Mounting with Guide Type STL

Dimension Table (mm) for Mid-Section Support E1ST to E5ST

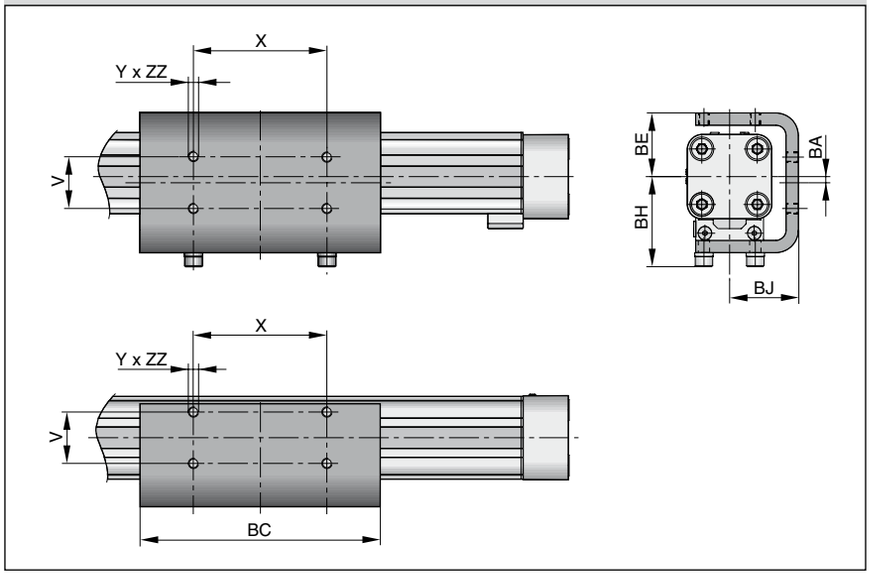
Series OSP-P	Mounting Type	ØU	ØUU	AF	DE	DH	DK	DM	DN	DO	DP	DR	DQ	DS	EF	EN	EQ	Order No.
STL/KF16	**E1ST**	3.4	6	15	14.2	29.2	24	32	36.4	18	30	6	27	3.4	32	36.4	27	**21130**
STL/KF16	**E2ST**	3.4	6	30	14.2	29.2	24	32	36.4	18	30	21	27	3.4	32	36.4	27	**21142**
STL/KF25	**E1ST**	5.5	10	22	16	38	26	40	47.5	36	50	8	34.5	5.7	41.5	49	36	**21131**
STL/KF25	**E2ST**	5.5	10	37	16	38	26	40	47.5	36	50	23	34.5	5.7	41.5	49	36	**21143**
STL/KF25	**E3ST**	5.5	10	49	16	38	26	40	47.5	36	50	35	34.5	5.7	41.5	49	36	**21148**
STL/KF32	**E1ST**	5.5	10	30	16	46	27	46	54.5	36	60	10	40.5	5.7	48.5	57	43	**21132**
STL/KF32	**E2ST**	5.5	10	44	16	46	27	46	54.5	36	60	24	40.5	5.7	48.5	57	43	**21144**
STL/KF32	**E5ST**	5.5	10	65	16	46	27	46	54.5	36	60	45	40.5	5.7	48.5	57	43	**21151**
STL/KF40	**E1ST**	7	-	38	23	61	34	53	60	45	60	10	45	-	56	63	48	**21133**
STL/KF40	**E2ST**	7	-	51	23	61	34	53	60	45	60	23	45	-	56	63	48	**21145**
STL/KF40	**E4ST**	7	-	70	23	61	34	53	60	45	60	42	45	-	56	63	48	**21150**
STL/KF50	**E1ST**	7	-	48	23	71	34	59	67	45	60	10	52	-	64	72	57	**21134**
STL/KF50	**E2ST**	7	-	57	23	71	34	59	67	45	60	19	52	-	64	72	57	**21146**
STL/KF50	**E3ST**	7	-	72	23	71	34	59	67	45	60	34	52	-	64	72	57	**21149**

Order example: Type E1ST16 Order No. 21130

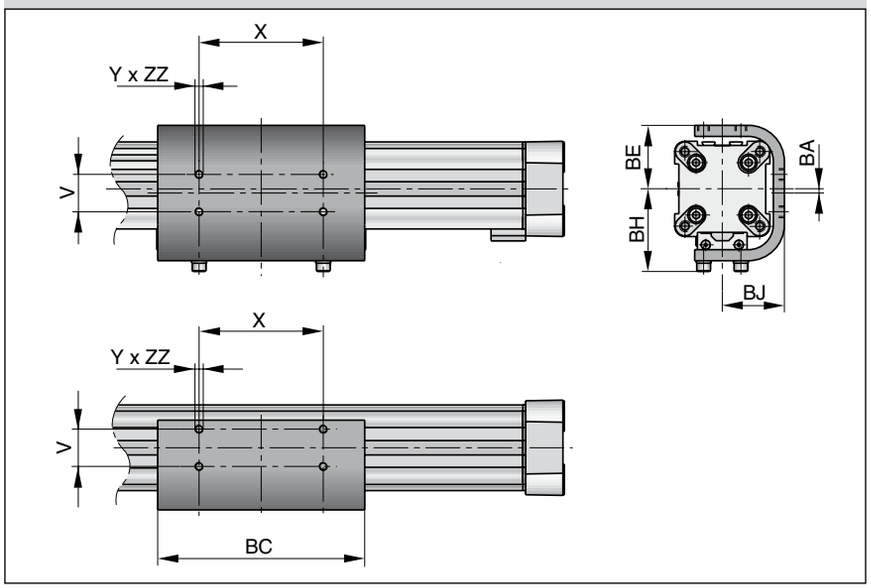
Linear Drive Accessories

ø 16-80 mm
Inversion Mounting

Series OSP-P16 to 32



Series OSP-P40 to 80



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 data sheet P-1.45.002E

Dimension Table (mm)

Series	V	X	Y	BA	BC	BE	BH	BJ	ZZ	Order No.
OSP-P16	16,5	36	M4	2	69	23	33	25	4	**20446**
OSP-P25	25	65	M5	3	117	31	44	33,5	6	**20037**
OSP-P32	27	90	M6	3	150	38	52	39,5	6	**20161**
OSP-P40	27	90	M6	3	150	46	60	45	8	**20039**
OSP-P50	27	110	M6	1	200	55	65	52	8	**20166**
OSP-P63	34	140	M8	2,5	255	68	83,5	64	10	**20459**
OSP-P80	36	190	M10	3,5	347	88	107,5	82	15	**20490**

For **rodless pneumatic cylinder OSP-P** see 1.10.002E

Linear Drive Accessories

ø 16-50 mm

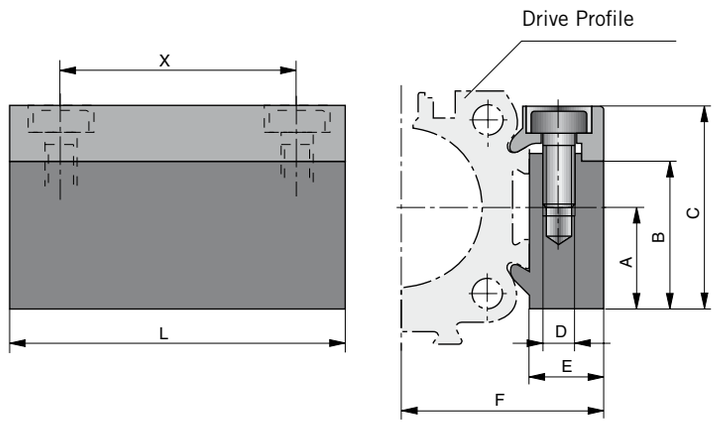
Adaptor Profile

OSP
ORIGA SYSTEM PLUS

For Linear-drive
- **Series OSP-P**

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

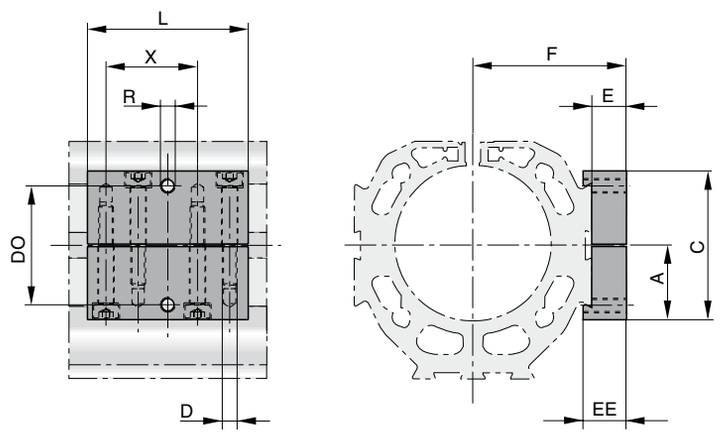
Series OSP-P16 to 50



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**

Series OSP-P63 to 80



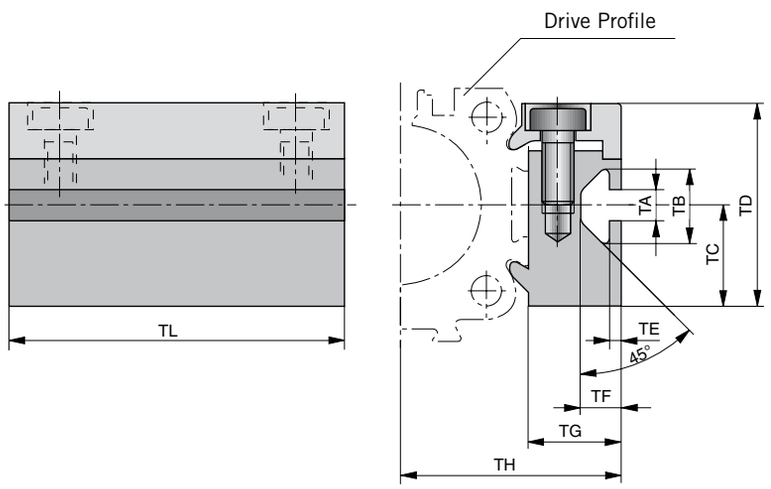
Dimension Table (mm)

Series	A	C	D	E	F	L	R	X	EE	DO	Order No.*
OSP-P63	30	60	M6	14	62	65	M6	37	17,5	48	**20792Z**
OSP-P80	30	60	M6	14	75	65	M6	37	17,5	48	**20792Z**

* Stainless version

For **rodless pneumatic cylinder OSP-P** see 1.10.002E

Dimensions



Linear Drive Accessories

ø 16-50 mm
T-Slot Profile

OSP
ORIGA SYSTEM PLUS

For Linear-drive
- **Series OSP-P**

T-Slot Profile OSP
- A universal attachment for mounting with standard T-Nuts

Dimension Table (mm)

Series	TA	TB	TC	TD	TE	TF	TG	TH	TL	Order No. Standard	Order No. 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**

Following T-nuts from the company ITEM could be used:

Cyl.-Series	T-nut St 5	T-nut St 8
OSP-P16-32	●	
OSP-P40-50		●

For **rodless pneumatic cylinder OSP-P** see 1.10.002E

Linear Drive Accessories

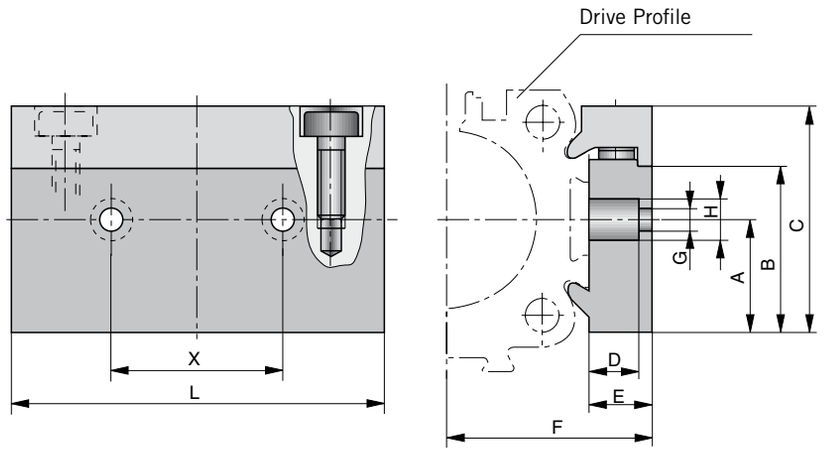
ø 16-50 mm

Connection Profile

OSP
ORIGA SYSTEM PLUS

For combining
- **Series OSP-P with system profiles**
- **Series OSP-P with Series OSP-P**

Dimensions

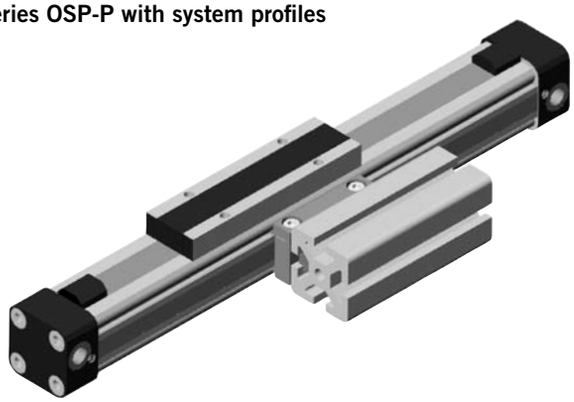


Dimension Table (mm)

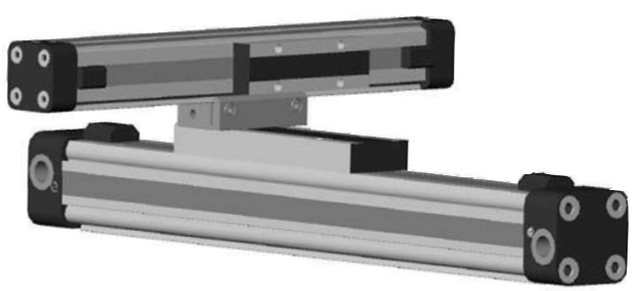
Cyinder Series	for mounting on the carrier of	A	B	C	D	E	F	G	H	L	X	Order No.
OSP-P16	OSP25	14	20.5	28	8.5	12	27	5.5	10	50	25	**20849**
OSP-P25	OSP32-50	16	23	32	8.5	10.5	30.5	6.6	11	60	27	**20850**
OSP-P32	OSP32-50	16	23	32	8.5	10.5	36.5	6.6	11	60	27	**20850**
OSP-P40	OSP32-50	20	33	43	8	14	45	6.6	11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



For **rodless pneumatic cylinder OSP-P** see 1.10.002E

Linear Drive Accessories

ø 25-50 mm

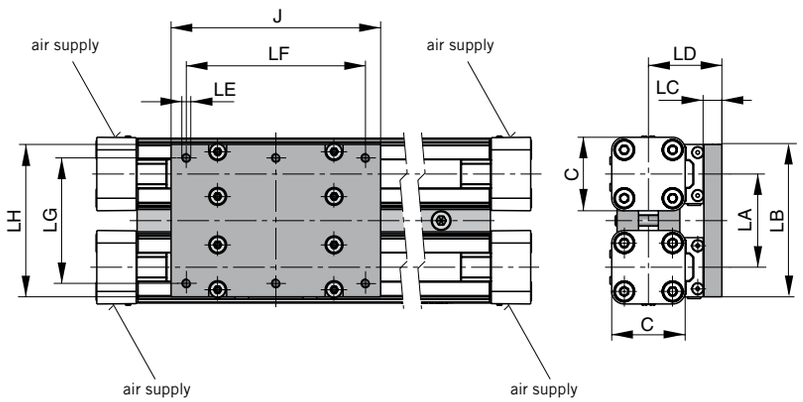
Duplex Connection

OSP
ORIGA SYSTEM PLUS

For connection of cylinders of the Series OSP-P

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

Dimensions

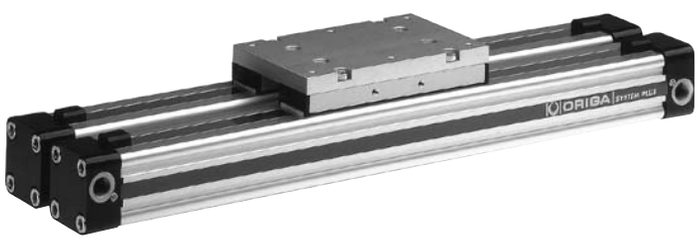


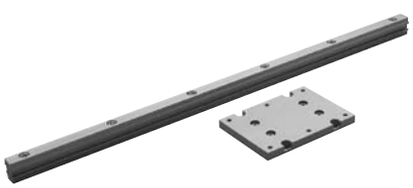
Dimension Table (mm)

Cylinder Series	C	J	LA	LB	LC	LD	LE	LF	LG	LH	Order No. Standard	Order No. Stainless
OSP-P25	41	117	52	86	10	41	M5	100	70	85	**20153**	**20194**
OSP-P32	52	152	64	101	12	50	M6	130	80	100	**20290**	**20291**
OSP-P40	69	152	74	111	12	56	M6	130	90	110	**20156**	**20276**
OSP-P50	87	200	88	125	12	61	M6	180	100	124	**20292**	**20293**

Features
- increased load and torque capacity
- higher driving forces

Included in delivery:
2 clamping profiles with screws
1 mounting plate with fixings





For **rodless cylinders OSP-P** see 1.10.002E

Linear Drive Accessories

ø 25-50 mm

Multiplex Connection

OSP
ORIGA SYSTEM PLUS

For connection of cylinders of the Series OSP-P

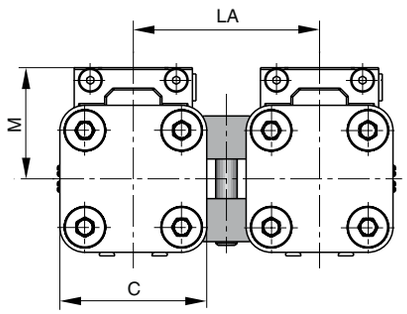
The multiplex connection combines two or more OSP-P cylinders of the same size into on unit.

Features
- The orientation of the carriers can be freely selected

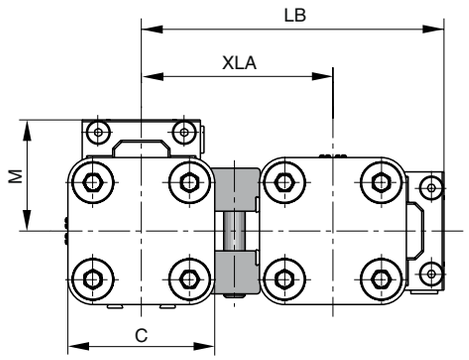
Included in delivery:
2 clamping profiles with clamping screws

Dimensions

Installation:
Top carrier/Top carrier



Installation:
Top carrier/Side carrier



Dimension Table (mm)

Cylinder Series	C	M	LA	LB	XLA	Order No. Standard	Order No. 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**

For **rodless cylinders OSP-P** see 1.10.002E

Linear Drive Accessories

ø 10-80 mm Magnetic Switches

OSP
ORIGA SYSTEM PLUS

Characteristics

Characteristics	Unit	Description	
Electrical Characteristics		**Type RS**	**Type ES**
Switching ouput		Reed	PNP, NPN
Operating voltage	V	10-240 AC/DC (NO) 10-150 AC/DC (NC)	10-30 DC
Residual voltage	V	< 3	< 3
Connection		Two wire	Three wire
Output function		normally open normally closed	normally open
Permanent current	mA	200	200
Max. switching capacity	VA (W)	10 VA	—
Power consumption without load	mA	—	< 20
Function indicator		LED, yellow	
Typical switching time	ms	On: < 2	On: < 2
Switch-off delay	ms	—	ca. 25
Pole reversal does not work		LED	—
Pole reversal protection		—	Built in
Short-circuit protection		—	Built in
Switchable capacity load	µF	0.1 at 100 Ω, 24 VDC	
Switching point accuracy	mm	± 0,2	
Switching distance	mm	ca. 15	ca. 15
Hysteresis for OSP	mm	ca. 8	ca. 3
Lifetime		3 x 10^6, up to 6 x 10^6 cycles	Theoretically unlimited
Mechanical Characteristics			
Housing		Makrolon, smoke color	
Cable cross section	mm^2	2 x 0.14	3 x 0.14
Cable type *)		PVC	PUR, black
Bending radius fixed	mm	≥ 20	
moving	mm	≥ 70	
Weight (Mass)	kg	0.012	
Degree of protection	IP	67 to DIN EN 60529	
Ambient temperature range *)[1)]	°C °C	-25 other temperature ranges +80 on request	
Shock resistance	m/s^2	100 (contact switches)	500

*) other versions on request
1) for the magnetic switch temperature range, please take into account the surface temperature and the self-heating properties of the linear drive.

For electrical sensing of the carrier position, e.g. at the end positions, magnetic switches may be fitted. Position sensing is contactless and is based on magnets fitted as standard to the carrier. A yellow LED indicates operating status.

The universal magnetic switches are suitable for all Parker Origa OSP-Actuators and aluminum profile rod type cylinders.

Piston, speed and switching distance affect signal duration and should be considered in conjunction with the minimum reaction time of ancillary control equipment.

$$\text{Min. reaction time} = \frac{\text{Switching distance}}{\text{Piston speed}}$$

For **linear drives** see 1.10.002E

Type RS
In the type RS contact is made by a mechanical **reed switch** encapsulated in glass.
Direct connection with 2-pole cable, 5 m long, open ended **(Type RS-K).**

Type ES
In the type ES contact is made by an **electronic switch** – without bounce or wear and protected from pole reversal. The output is short circuit proof and insensitive to shocks and vibrations. Connection is by 3-pole connector for easy disconnection. Fitted with connection cable 100 mm long with connector.
A 5 m cable with connector and open end can be ordered separatly, or use the Order No. for the complete Type ES with 5 m cable.

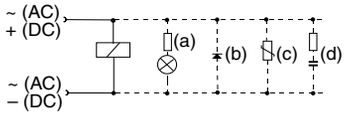
Magnetic Switches RS and ES

Electrical Service Life
Protective Measures
Magnetic switches are sensitive to excessive currents and inductions. With high switching frequencies and inductive loads such as relays, solenoid valves or lifting magnets, service life will be greatly reduced.

With **resistive and capacitative loads** with high switch-on current, such as light bulbs, a protective resistor should be fitted. This also applies to long cable lengths and voltages over 100 V.

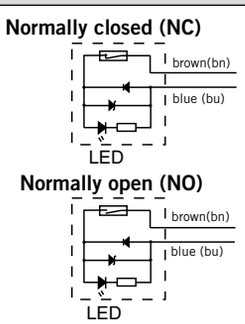
In the switching of inductive loads such as relays, solenoid valves and lifting magnets, voltage peaks (transients) are generated which must be suppressed by protective diodes, RC loops or varistors.

Connection Examples
Load with protective circuits
(a) Protective resistor for light bulb
(b) Freewheel diode on inductivity
(c) Varistor on inductivity
(d) RC element on inductivity

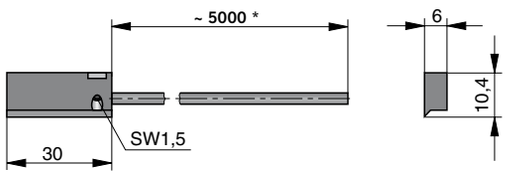


For the type ES, external protective circuits are not normally needed.

Electrical Connection, Type RS

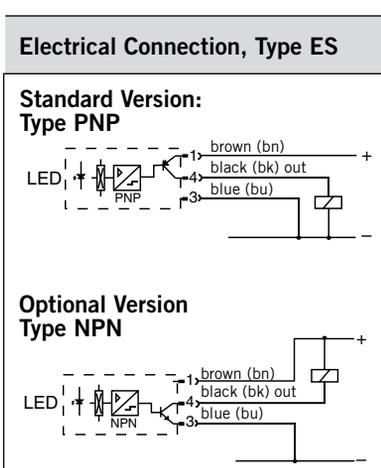


Dimensions (mm) – Type RS-K

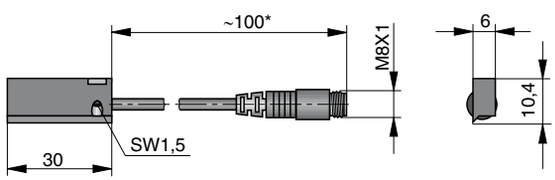


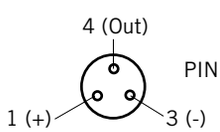
* Length with possible minus tolerance, see chart below

Electrical Connection, Type ES



Dimensions (mm) – Type ES-S





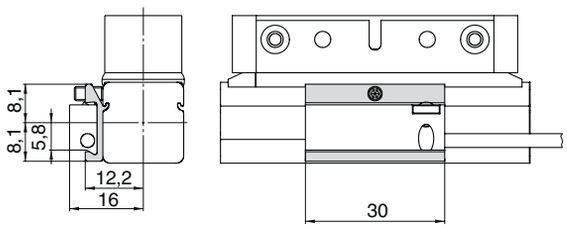
PIN assignment (view of pins) according to DIN EN 50044

* Length with possible minus tolerance, see chart below

Length of connection cable with length tolerance

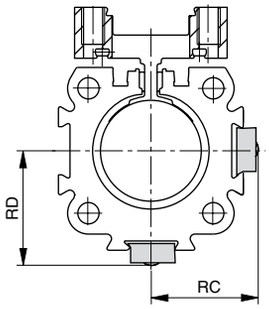
Magnetic Switch Order No.	Nominal cable length	Length tolerance
KL3045	5000 mm	– 50 mm
KL3048	5000 mm	– 50 mm
KL3054	100 mm	– 20 mm
KL3060	145 mm	± 5 mm

Dimensions Series OSP-P10



Note:
Sensors can not be mounted directly opposite of the carrier

Dimensions Series OSP-P16 to 80



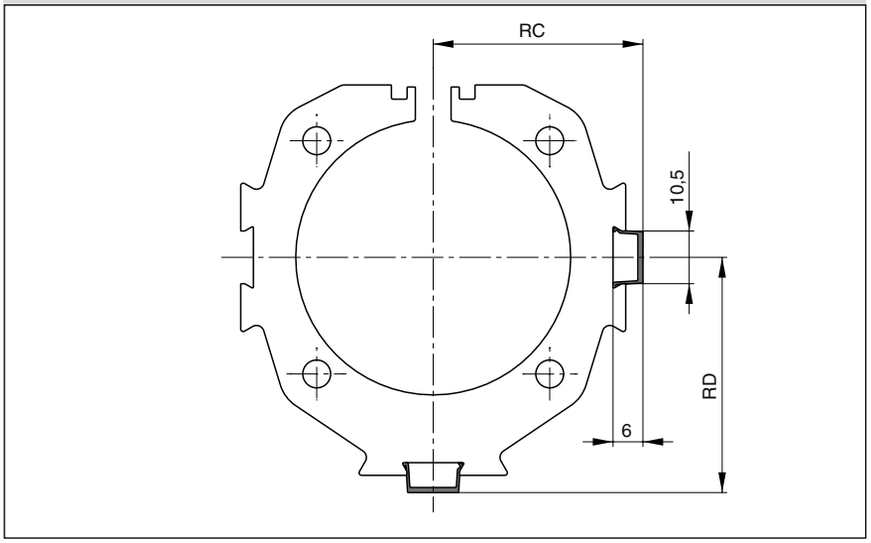
Dimension Table (mm) and Order Instructions

Series	Dimensions		Order No.						
	RC	RD	**RS** closer Normally open	**RS** opener Normaly closed	**ES** PNP	NPN	**ES** compl. with 5 m cable PNP	NPN	**Adapter** only for OSP-P10)
OSP-P10	–	–	**Type:**	**Type:**	**Type:**	**Type:**	**Type:**	**Type:**	**20968**
OSP-P16	20	20.5	**RS-K**	**RS-K**	**ES-S**	**ES-S**	**ES-S**	**ES-S**	**please order separately**
OSP-P25	25	27	**KL3045**	**KL 3048**	**KL 3054**	**KL 3060**	**10750**	**10751**	
OSP-P32	31	34							
OSP-P40	36	39							
OSP-P50	43	48							
OSP-P63	53	59							
OSP-P80	66	72							
Cable 5 m with connector and with open end for magnetic switches Type ES-S					**4041**				

Linear Drive Accessories

ø 16-80 mm
Cable Cover

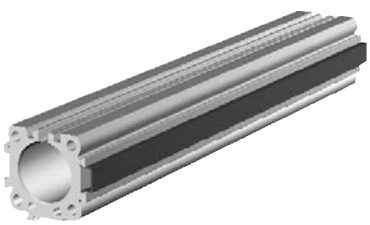
Dimensions (mm)



For clean guidance of magnetic switch cables along the cylinder body.
Contains a maximum of 3 cables with diameter 3 mm.
Material: Plastic
Colour: Red
Temperature Range: –10 to +80°C

Dimension Table (mm) and Order Instructions

Series	Dimensions (mm) RC	RD	Order No.
OSP-P16	18.5	19	**13039**
OSP-P25	23.5	25.5	Minimal length: 1m Max. profile length: 2m Multiple profiles can be used.
OSP-P32	29.5	32	
OSP-P40	34.5	37.5	
OSP-P50	41.5	46.5	
OSP-P63	51.5	57.5	
OSP-P80	64.5	70.5	



Linear Drive Accessories

ø 10-80 mm Magnetic Switches

OSP
ORIGA SYSTEM PLUS

Series RST
EST

Magnetic switches are used for electrical sensing of the position of the piston, e.g. at its end positions. They can also be used for sensing of intermediate positions.

Sensing is contactless, based on magnets which are built-in as standard. A yellow LED indicates operating status.

The universal magn etic switches are suitable for all Parker Origa OSP-Actuators and aluminum profile rod type cylinders.

Characteristics

Characteristics	Unit	Description	
Electrical Characteristics		**Type RST**	**Type EST**
Switching output		Reed	PNP
Operating voltage	V	10-30 AC/DC	10-30 DC
Ripple		-	≤10%
Voltage drop	V	≤3	≤2
Electrical configuration		2 wire	3 wire
Output function		normally open normally closed	normally open
Permanent current	mA	≤ 100	≤ 100
Breaking capacity	W	≤ 6 peak	-
Power consumption, at U_B=24V, switched on, without load	mA	-	≤ 10
Function indicator		LED, yellow (not for normally closed)	
Response time	ms	≤2	≤0.5
Sensitivity	mT	2 – 4	2 – 4
Time delay before availability	ms	-	≤2
Reverse polarity prot.		yes	yes
Short-circuit protection		no	yes (pulsed)
Switchable capacity load	µF	0.1 at 100 Ω, 24 VDC	
Switching frequency	Hz	≤400	≤5 k
Repeatability	mm	≤0.2	≤0.2
Hysteresis	mm	≤1.5	≤1.5
EMC	EN	60947-5-2	
Lifetime		≥35 Mio. cycles with PLC load	unlimited
Power-up pulse suppression		-	yes
Protection for inductive load		-	yes
Mechanical Characteristics			
Housing		Plastic / PA66 + PA6I red	
Cable cross section	mm^2	2 x 0.14	3 x 0.14
Cable type		PUR, black	PUR, black
Bending radius	mm	≥36	≥30
Weight	kg	ca. 0.030 RST-K ca. 0.010 RST-S	ca. 0.030 EST-K ca. 0.010 EST-S
Degree of protection	IP	67 to EN 60529	
Ambient temperature range [1]	°C	-25 to +80	-25 to +75 at U_B=10 – 30 V -25 to +80 at U_B=10 – 28 V
– with adapter	°C	-25 to +60	
Adapter tightening torque	Nm	0.15 (tightening torque of screwing adapter on to magnetic switch)	
Shock resistance			
Vibration to EN 60068-2-6	G	15, 11 ms, 10 to 55 Hz, 1 mm	
Shock to EN 60068-2-27	G	50, 11 ms	
Bump to EN 60068-2-29	G	30, 11 ms, 1000 bumps each axis	

For linear drives see P-1.10.002E

[1] for the magnetic switch temperature range, please take into account the surface temperature and the self-heating properties of the linear drive.

Type RST

In the type RST contact is made by a mechanical **reed switch** encapsulated in glass.

Type EST

In the type EST contact is made by an **electronic switch** – without bounce or wear and protected from pole reversal. The output is short circuit proof and insensitive to shocks and vibrations. Connection is by 3-pole connector for easy disconnection. Fitted with connection cable 100 mm long with connector.
A 5 m cable with connector and open end can be ordered separately, or use the Order No. for the complete Type ES with 5 m cable.

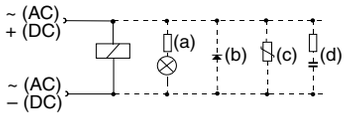
Magnetic Switches RST and EST

Electrical Service Life
Protective Measures
Magnetic switches are sensitive to excessive currents and inductions. With high switching frequencies and inductive loads such as relays, solenoid valves or lifting magnets, service life will be greatly reduced.

With **resistive and capacitative loads** with high switch-on current, such as light bulbs, a protective resistor should be fitted. This also applies to long cable lengths and voltages over 100 V.

In the switching of inductive loads such as relays, solenoid valves and lifting magnets, voltage peaks (transients) are generated which must be suppressed by protective diodes, RC loops or varistors.

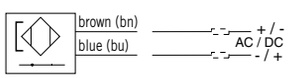
Connection Examples
Load with protective circuits
(a) Protective resistor for light bulb
(b) Freewheel diode on inductivity
(c) Varistor on inductivity
(d) RC element on inductivity



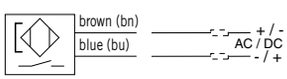
For the type EST, external protective circuits are not normally needed.

Electrical Connection Type RST-K

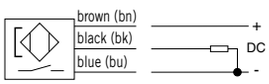
Normally closed



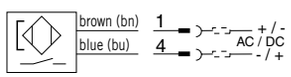
Normally open



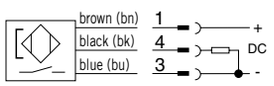
Electrical Connection Type EST-K



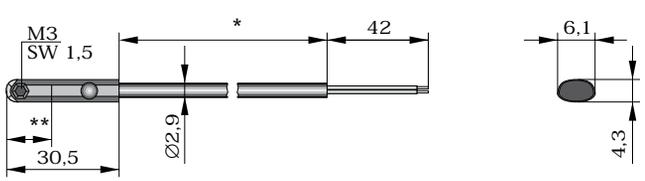
Electrical Connection Type RST-S



Electrical Connection Type EST-S



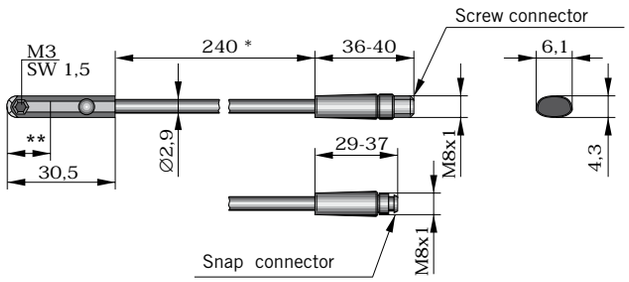
Dimensions (mm) – Type RST-K, EST-K

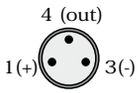


* Cable lengths available: 5000 mm ± 75 mm
2000 mm ± 40 mm

** Switching point: Type RST-K Normally closed 14 mm
Type RST-K Normally open 12.3 mm
Type EST-K Normally open 8.1 mm

Dimensions (mm) – Type RST-S, EST-S

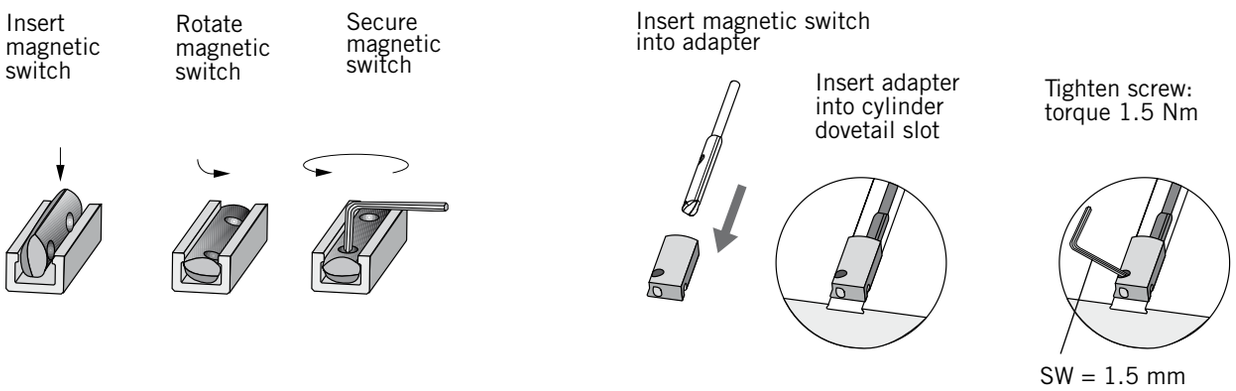




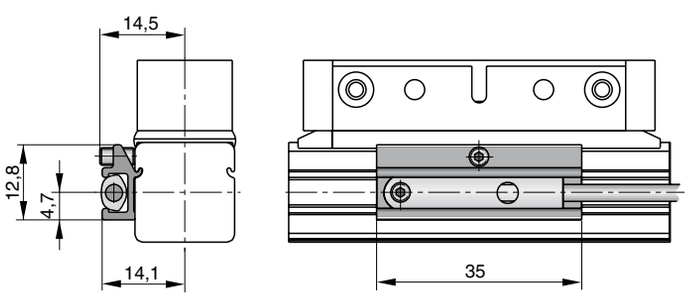
PIN assignment
(view of pins)
to DIN EN 50044

* ± 6 mm
** Switching point: Type RST-K Normally closed 14 mm
Type RST-K Normally open 12.3 mm
Type EST-K Normally open 8.1 mm

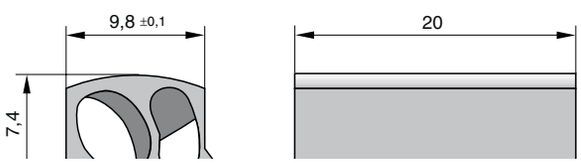
Installation



Dimensions adapters for RST/EST magnetic switch – for type OSP-P10



Dimensions adapters for RST/EST magnetic switch – for type OSP-P16 – 80



Order Instructions

Version	Voltage	Type	Order No.
Magnetic switch, reed contact, normally open, LED indicator, cable 2 m	10-30 V AC / DC	**RST-K**	**KL 3301**
Magnetic switch, reed contact, normally open, LED indicator, cable 5 m	10-30 V AC / DC	**RST-K**	**KL 3300**
Magnetic switch, reed contact, normally open, snap connector M8, LED indicator, cable 0.24 m	10-30 V AC / DC	**RST-S**	**KL 3302**
Magnetic switch, reed contact, normally open, screw connector M8, LED indicator, cable 0.24 m	10-30 V AC / DC	**RST-S**	**KL 3303**
Magnetic switch, reed contact, normally closed, cable 5 m	10-30 V AC / DC	**RST-K**	**KL 3305**
Magnetic switch, electronic, PNP LED indicator, cable 2 m	10-30 V DC	**EST-K**	**KL 3308**
Magnetic switch, electronic, PNP LED indicator, cable 5 m	10-30 V DC	**EST-K**	**KL 3309**
Magnetic switch, electronic, PNP snap connector M8, LED indicator	10-30 V DC	**EST-S**	**KL 3312**
Magnetic switch, electronic, PNP screw connector M8, LED indicator	10-30 V DC	**EST-S**	**KL 3306**

Included in delivery: 1 magnetic switch, 1 adapter for T-slot magnetic switch for type OSP-P16 – 80.
Note: When using T-nut magnetic switches with the OSP-P10, please order the adapter Order No. 8872 separately.

Accessories

Description	Type	Order No.
Cable M8, 2.5 m without lock nut	**KS 25**	**KY 3240**
Cable M8, 5.0 m without lock nut	**KS 50**	**KY 3241**
Cable M8, 10.0 m without lock nut	**KS 100**	**KC 3140**
Cable M8, 2.5 m with lock nut	**KSG 25**	**KC 3102**
Cable M8, 5.0 m with lock nut	**KSG 50**	**KC 3104**
Adapter for RST/EST magnetic switch – for type OSP-P10	**HMTP010**	**8872**
Adapter for RST/EST magnetic switch – for type OSP-P16 – 80 (pack of 10)		**KL 3333**

ORIGA-SENSOFLEX
Displacement Measuring System for Cylinder Series OSP-P

Contents

ORIGA-Sensoflex

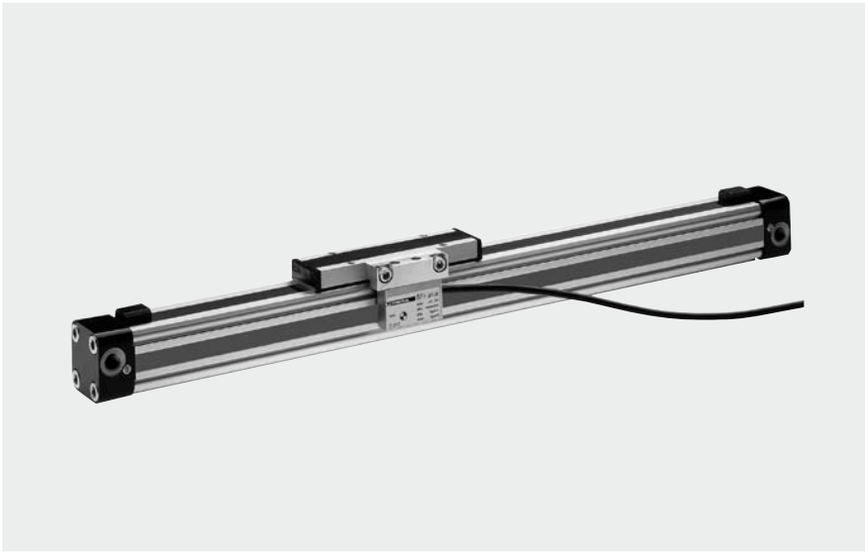
Displacement measuring system for automated movement

Series SFI-plus (incremental measuring system)

for cylinder series
- **OSP-P...**

Characteristics
- Contactless magnetic displacement measurement system
- Displacement length up to 32 m
- Resolution 0.1 mm (option: 1 mm)
- Displacement speed up to 10 m/s
- For linear and non-linear rotary motion
- Suitable for almost any control or display unit with a counter input

For further specifications, see P-1.50.002E



The SFI-plus magnetic displacement measuring system consists of 2 main components.

- **Measuring Scale**
  Self-adhesive magnetic measuring scale
- **Sensing Head**
  Converts the magnetic poles into electrical signals which are then processed by counter inputs downstream
  (e.g. PLC, PC, digital counter)

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