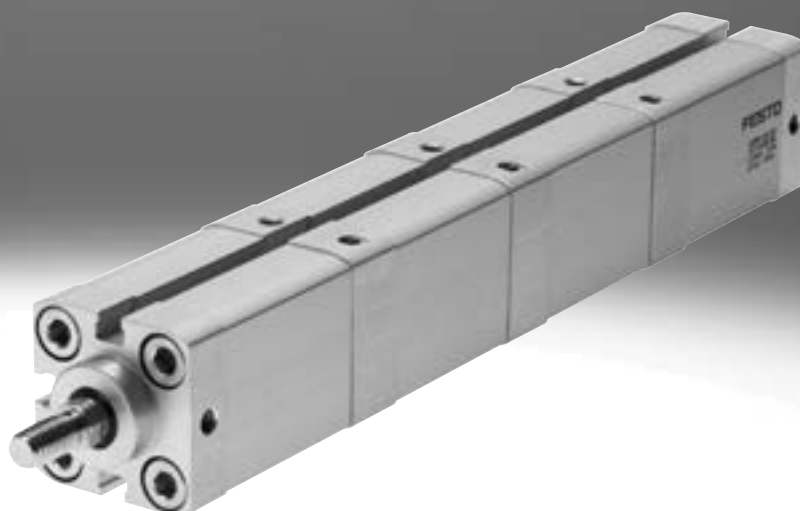
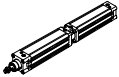
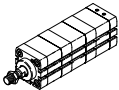


Tandem/high-force cylinders

FESTO



Product range overview

Function	Design	Type	Piston \varnothing [mm]	Stroke [mm]	Position sensing A	Piston rod	
						With male thread	With female thread
Double-acting	Tandem cylinder						
		DNCT	32, 40, 50	2 ... 500	■	■	-
			63, 80, 100, 125	3 ... 500			
	High-force cylinder						
		ADNH	2x 25, 3x 25, 4x 25	1 ... 150	■	■	■
			2x 40, 3x 40, 4x 40	1 ... 150			
			2x 63, 3x 63, 4x 63	1 ... 150			
2x 100, 3x 100, 4x 100			1 ... 150				

Functional principle

General

By arranging 2, 3 or 4 cylinders with the same piston diameter and stroke in series, the force in the advance stroke (thrust) can be doubled, tripled or quadrupled in comparison to a conventional cylinder.

DNCT

- A maximum of 2 cylinders can be combined
- As with the thrust, the force of the return stroke is double that of a single cylinder with corresponding piston diameter.

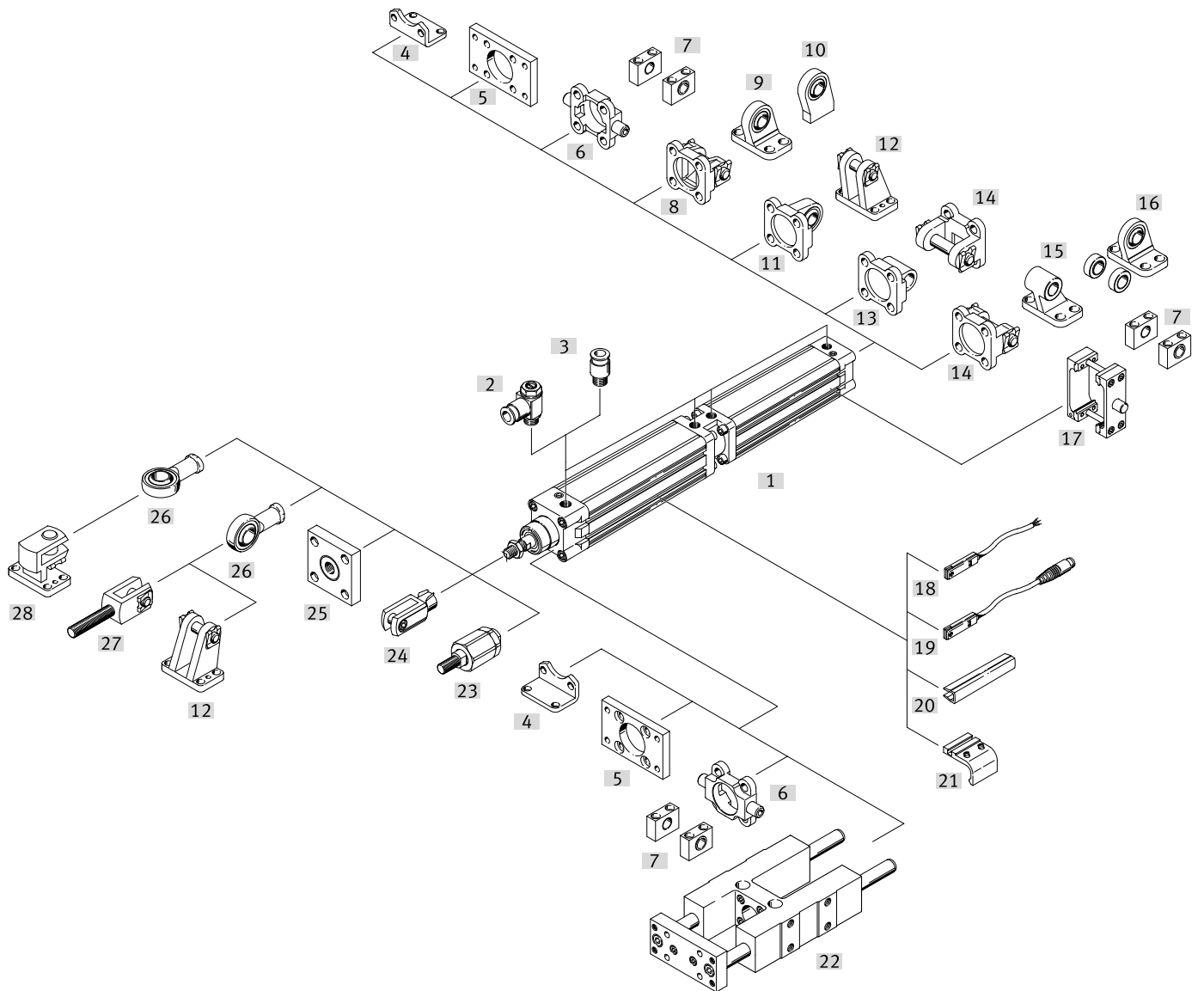
ADNH

- A maximum of 4 cylinders can be combined
- Owing to the internal compressed air distribution, a total of just 2 connections is required to pressurise all cylinders.
- The force of the return stroke corresponds to that of a single cylinder with corresponding piston diameter.
- Operation with external limit stop only. The cylinder should not advance to the forward end position.

Product range overview

Type	Cushioning		Male thread extended K2	Special thread on the piston rod K5	Extended piston rod K8	Heat-resistant up to 120°C S6	→ Page/Internet
	Non-adjustable P	Adjustable PPV					
Tandem cylinder							
DNCT	–	■	–	–	–	■	4
High-force cylinder							
ADNH	■	–	■	■	■	■	20

Peripherals overview



Peripherals overview

Mounting components and accessories		Description	→ Page/Internet
[1]	Tandem cylinder DNCT		7
[2]	One-way flow control valve GRLA	For regulating speed	17
[3]	Push-in fitting QS	For connecting tubing with standard O.D.	qs
[4]	Foot mounting HNC	For bearing and end caps	10
[5]	Flange mounting FNC	For bearing or end caps	10
[6]	Trunnion flange ZNCF	For bearing or end caps	11
[7]	Trunnion support LNZG	For trunnion flange ZNCF	13
[8]	Swivel flange SNC	For end caps	13
[9]	Clevis foot LSNG	With spherical bearing	16
[10]	Clevis foot LSNSG	Weld-on, with spherical bearing	16
[11]	Swivel flange SNCS	With spherical bearing for end caps	15
[12]	Clevis foot LBG	For swivel flange SNCS	16
[13]	Swivel flange SNCL	For end caps	14
[14]	Swivel flange SNCB	For end caps	14
[15]	Clevis foot LNG	For swivel flange SNCB	16
[16]	Clevis foot LSN	With spherical bearing	16
[17]	Trunnion flange kit DAMT	For mounting anywhere along the cylinder profile barrel	12
[18]	Proximity switch SME/SMT-8	Can be integrated in the cylinder profile barrel	19
[19]			
[20]	Slot cover ABP-5-S	For protecting the sensor cables and the sensor slots from contamination	19
[21]	Mounting kit SMB-8-FENG	For attaching proximity switch SMT-8 to cylinders in combination with guide unit FENG	18
[22]	Guide unit FENG	For protecting standards-based cylinders against rotation at high torques	18
[23]	Self-aligning rod coupler FK	To compensate for radial and angular deviations	17
[24]	Rod clevis SG	Permits a swivelling movement of the cylinder in one plane	17
[25]	Coupling piece KSG	To compensate for radial deviations	20
[26]	Rod eye SGS	With spherical bearing	17
[27]	Rod clevis SGA	With male thread	17
[28]	Right-angle clevis foot LQG	For rod eye SGS	16

Tandem cylinders DNCT, standard hole pattern

Type codes

001	Series	
DNCT	Tandem cylinder, double-acting, standard hole pattern	

002	Piston diameter	
32	32	
40	40	
50	50	
63	63	
80	80	
100	100	
125	125	

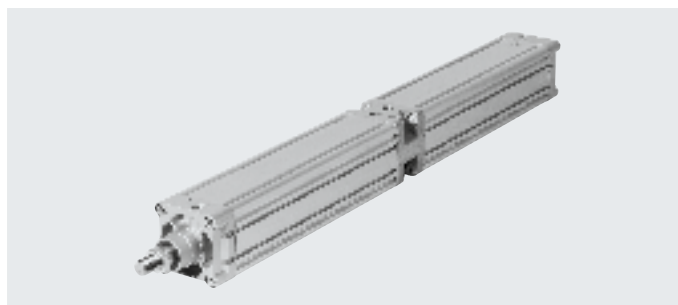
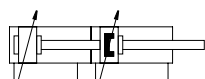
003	Stroke	
...	2 ... 500	

004	Cushioning	
PPV	Pneumatic cushioning, adjustable at both ends	

005	Position sensing	
A	For proximity sensor	

006	Temperature resistance	
	Standard	
S6	Heat-resistant seals max. 120 °C	

Data sheet



- \varnothing - Diameter
32 ... 125 mm
- l - Stroke length
 - \varnothing 32 ... 50:
2 ... 500 mm
 - \varnothing 63 ... 125:
3 ... 500 mm

Based on standard

- DIN ISO 6431
- VDMA 24562

www.festo.com

General technical data							
Piston \varnothing	32	40	50	63	80	100	125
Pneumatic connection	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2	G1/2
Piston rod thread	M10x1.25	M12x1.25	M16x1.5	M16x1.5	M20x1.5	M20x1.5	M27x2
Design	Piston						
	Piston rod						
	Cylinder barrel						
Cushioning	Pneumatic cushioning, adjustable at both ends						
Cushioning length [mm]	20	20	22	22	32	32	42
Position sensing	Via proximity switch						
Type of mounting	With female thread						
	Via accessories						
Mounting position	Any						

Operating conditions							
Piston \varnothing	32	40	50	63	80	100	125
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]						
Note on operating/ pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)						
Operating pressure	[MPa]	0.06 ... 1					
	[bar]	0.6 ... 10					

Environmental conditions		
Tandem cylinder	Basic version	S6
Ambient temperature ¹⁾ [°C]	-20 ... +80	0 ... +120
Corrosion resistance class CRC ²⁾	2	2

1) Note operating range of proximity switches

2) Corrosion resistance class CRC 2 to Festo standard FN 940070

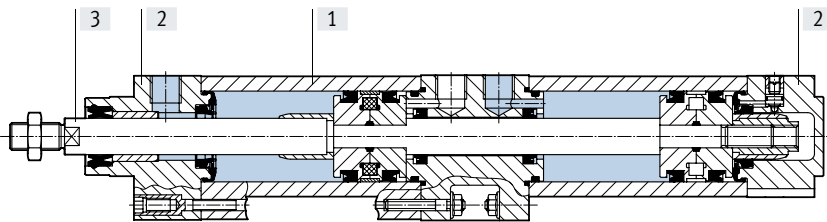
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Forces [N] and impact energy [J]							
Piston \varnothing	32	40	50	63	80	100	125
Theoretical force at 6 bar, advancing	898	1387	2168	3552	5737	9130	14244
Theoretical force at 6 bar, retracting	830	1266	1980	3364	5442	8836	13762
Max. impact energy at the end positions	0.1	0.2	0.2	0.5	0.9	1.2	5

Data sheet

Materials

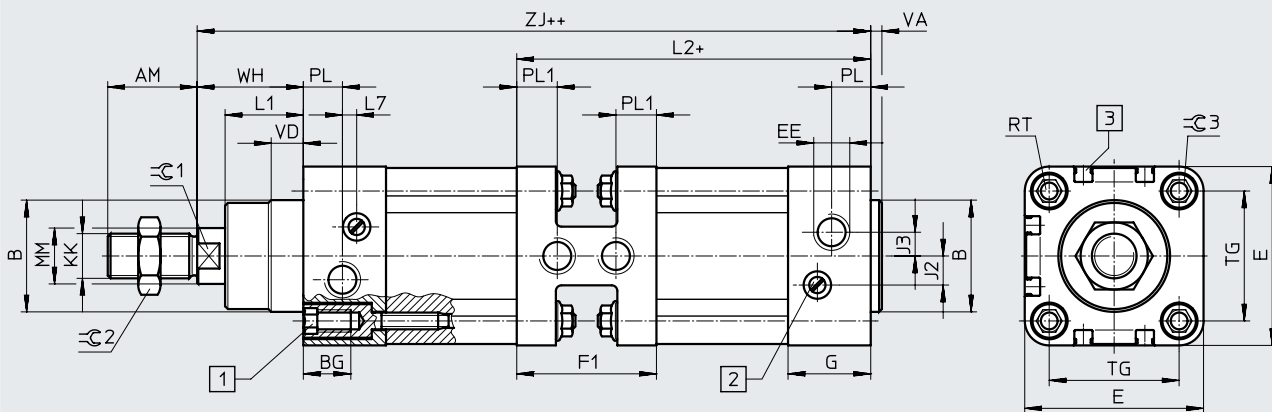
Sectional view



Tandem cylinder	Basic version	S6
[1] Cylinder barrel	Smooth-anodised wrought aluminium alloy	Smooth-anodised wrought aluminium alloy
[2] Bearing and end cap	Die-cast aluminium	Die-cast aluminium
[3] Piston rod	High-alloy steel	High-alloy steel
- Seals	Polyurethane, nitrile rubber	Fluoro rubber
Note on materials		RoHS-compliant

Dimensions

Download CAD data → www.festo.com



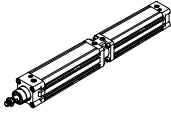
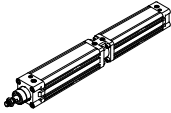
- [1] Socket head screw with female thread for mounting components
- [2] Adjusting screw for adjustable end-position cushioning
- [3] Sensor slot for proximity switch

+ = plus stroke length
 ++ = plus 2x stroke length

∅	AM	B ∅ d11	BG	E	EE	F1	G	J2	J3	KK	L1	L2	L7
32	22	30	16	45.5	G1/8	35	25.1	6	5.2	M10x1.25	18	104.2	3.3
40	24	35	16	54	G1/4	47.6	29.6	8	6	M12x1.25	21.5	123.5	3.6
50	32	40	17	64	G1/4	50	29.6	10.4	8.5	M16x1.5	28	126.7	5.1
63	32	45	17	75	G3/8	64.4	35.6	12.4	10	M16x1.5	28.5	150	6.6
80	40	45	17	93	G3/8	68	35.9	12.5	8	M20x1.5	34.7	161.7	10.5
100	40	55	17	110	G1/2	75	38.8	12	10	M20x1.5	38.2	178.1	8
125	54	60	20	134	G1/2	70	44.7	13	8	M27x2	46	188.5	14

∅	MM ∅	PL	PL1	RT	TG	VA	VD	WH	ZJ	∅C1	∅C2	∅C3
32	12	15.1	9	M6	32.5	4	10	26.2 _{+0.7}	199.6 _{+0.7}	10	16	6
40	16	14	13.3	M6	38	4	10.5	30 _{+0.7/-0.9}	229.4 _{+0.7/-0.9}	13	18	6
50	20	14	14.5	M8	46.5	4	11.5	37.7 _{+0.7/-0.9}	241.1 _{+0.7/-0.9}	17	24	8
63	20	17	17.2	M8	56.5	4	15	38.2 _{+0.7/-0.9}	273.9 _{+0.7/-0.9}	17	24	8
80	25	16.4	19	M10	72	4	15.7	46.2 _{+0.7/-1.4}	301.6 _{+0.7/-1.4}	22	30	6
100	25	18.8	21	M10	89	4	19.2	50.1 _{+0.7/-1.4}	331.3 _{+0.7/-1.4}	22	30	6
125	32	18	18.5	M12	110	6	20.5	65.3 _{+0.7/-1.4}	372.3 _{+0.7/-1.4}	27	36	8

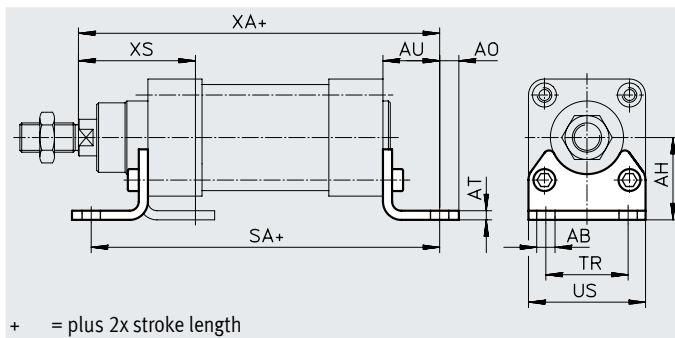
Data sheet

Ordering data				
Type	Piston \varnothing [mm]	Stroke [mm]	Part no.	Type
Basic version				
	32	2 ... 500	191106	DNCT-32-...-PPV-A
	40	2 ... 500	191107	DNCT-40-...-PPV-A
	50	2 ... 500	191108	DNCT-50-...-PPV-A
	63	3 ... 500	191109	DNCT-63-...-PPV-A
	80	3 ... 500	191110	DNCT-80-...-PPV-A
	100	3 ... 500	191111	DNCT-100-...-PPV-A
	125	3 ... 500	191112	DNCT-125-...-PPV-A
S6 – Heat-resistant up to 120°C				
	32	2 ... 500	191210	DNCT-32-...-PPV-A-S6
	40	2 ... 500	191211	DNCT-40-...-PPV-A-S6
	50	2 ... 500	191212	DNCT-50-...-PPV-A-S6
	63	3 ... 500	191213	DNCT-63-...-PPV-A-S6
	80	3 ... 500	191214	DNCT-80-...-PPV-A-S6
	100	3 ... 500	191215	DNCT-100-...-PPV-A-S6
	125	3 ... 500	191216	DNCT-125-...-PPV-A-S6

Accessories

Foot mounting HNC

Material:
Galvanised steel

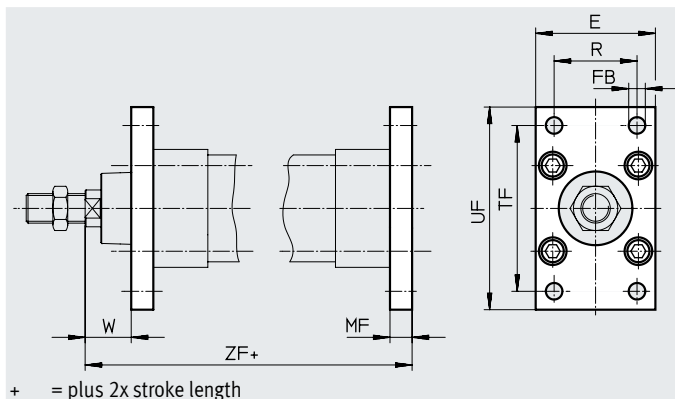


Dimensions and ordering data														
For \varnothing	AB \varnothing	AH	AO	AT	AU	SA	TR	US	XA	XS	CRC ¹⁾	Weight	Part no.	Type
[mm]												[g]		
32	7	32	6.5	4	24	221.4	32	45	223.6	45	2	144	174369	HNC-32
40	10	36	9	4	28	255.4	36	54	257.4	53	2	193	174370	HNC-40
50	10	45	9.5	5	32	267.4	45	64	273.1	62	2	353	174371	HNC-50
63	10	50	12.5	5	32	299.7	50	75	305.9	63	2	436	174372	HNC-63
80	12	63	15	6	41	337.4	63	93	342.6	81	2	829	174373	HNC-80
100	14.5	71	17.5	6	41	363.2	75	110	372.3	86	2	1009	174374	HNC-100
125	16.5	90	22	8	45	397	90	131	417.3	102	2	1902	174375	HNC-125

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Flange mounting FNC

Material:
Galvanised steel
RoHS-compliant



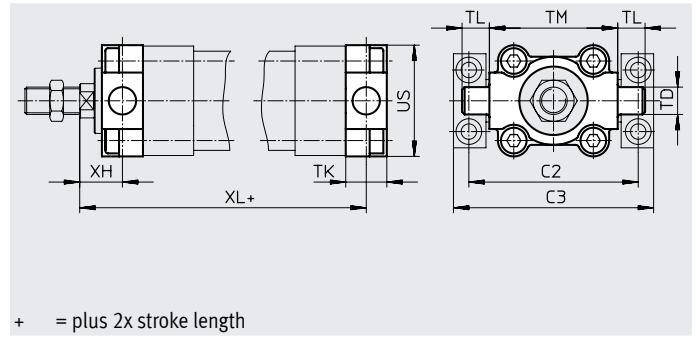
Dimensions and ordering data													
For \varnothing	E	FB \varnothing H13	MF	R	TF	UF	W	ZF	CRC ¹⁾	Weight	Part no.	Type	
[mm]										[g]			
32	45	7	10	32	64	80	16	209.6	1	221	174376	FNC-32	
40	54	9	10	36	72	90	20	239.4	1	291	174377	FNC-40	
50	65	9	12	45	90	110	25	253.1	1	536	174378	FNC-50	
63	75	9	12	50	100	120	25	285.9	1	679	174379	FNC-63	
80	93	12	16	63	126	150	30	317.6	1	1495	174380	FNC-80	
100	110	14	16	75	150	175	35	347.3	1	2041	174381	FNC-100	
125	132	16	20	90	180	210	45	392.3	1	3775	174382	FNC-125	

1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Accessories

Trunnion flange ZNCF

Material:
Stainless steel casting
RoHS-compliant



Dimensions and ordering data

For \varnothing [mm]	C2	C3	TD \varnothing e9	TK	TL	TM	US	XH	XL	CRC ¹⁾	Weight [g]	Part no.	Type
32	71	86	12	16	12	50	45	18	207.6	2	150	174411	ZNCF-32
40	87	105	16	20	16	63	54	20	239.4	2	285	174412	ZNCF-40
50	99	117	16	24	16	75	64	25	253.1	2	473	174413	ZNCF-50
63	116	136	20	24	20	90	75	25	285.9	2	687	174414	ZNCF-63
80	136	156	20	28	20	110	93	32	315.6	2	1296	174415	ZNCF-80
100	164	189	25	38	25	132	110	32	350.3	2	2254	174416	ZNCF-100
125	192	217	25	50	25	160	131	40	397.3	2	3484	174417	ZNCF-125

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

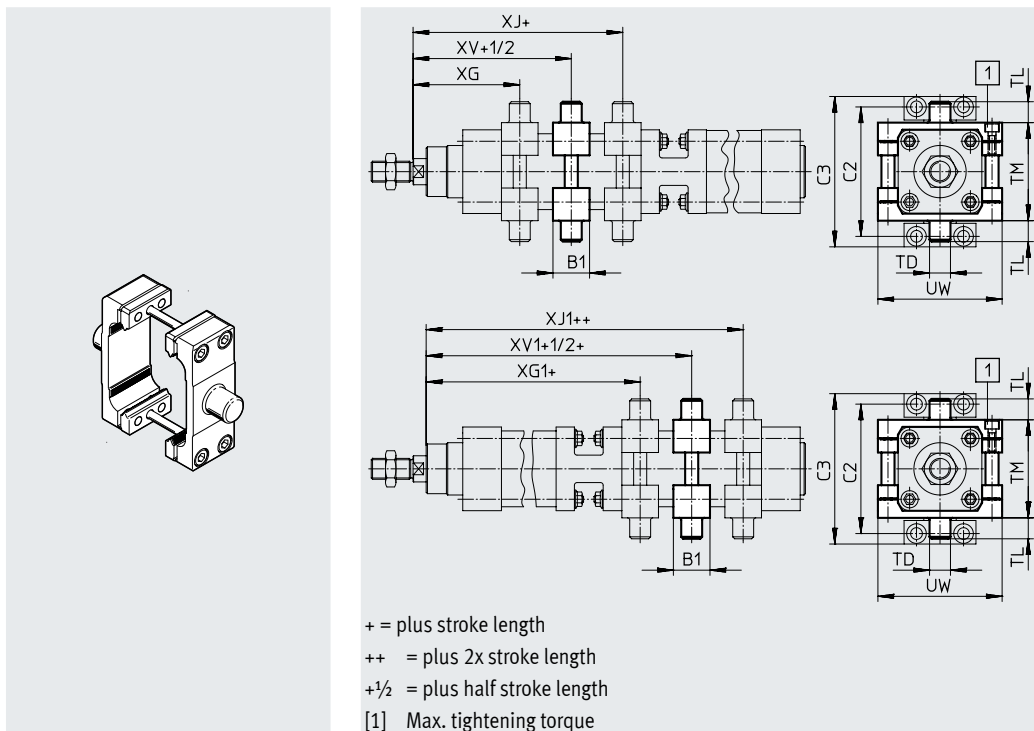
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Accessories

Trunnion flange kit DAMT

The kit can be attached at any position along the profile barrel of the cylinder.

Material:
Galvanised steel
RoHS-compliant



Dimensions and ordering data

For \varnothing [mm]	B1	C2	C3	\varnothing e9	TL	TM	UW	XG	XG1
32	30	71	86	12	12	50	65	66.3	145.4
40	32	87	105	16	16	63	75	75.6	169.5
50	34	99	117	16	16	75	95	84.3	181.4
63	41	116	136	20	20	90	105	94.3	208.8
80	44	136	156	20	20	110	130	104.1	229.9
100	48	164	189	25	25	132	145	112.9	252.2
125	50	192	217	25	25	160	175	135	278.8

For \varnothing [mm]	XJ	XJ1	XV	XV1	Max. tightening torque [Nm]	CRC ¹⁾	Weight [g]	Part no.	Type
32	80.4	159.5	73.4	152.5	4+1	1	213	2213233	DAMT-V1-32-A
40	89.9	183.8	82.8	176.7	8+1	1	388	2214899	DAMT-V1-40-A
50	97.4	194.5	90.9	188	8+2	1	608	2214909	DAMT-V1-50-A
63	103.4	217.8	98.9	213.3	18+2	1	911	2214971	DAMT-V1-63-A
80	117.9	243.7	111	236.8	28+2	1	1494	163529	DAMT-V1-80-A
100	129.2	268.5	121.1	260.4	28+2	1	2095	163530	DAMT-V1-100-A
125	158.8	302.6	146.9	290.7	40+2	1	3013	163531	DAMT-V7-125-A

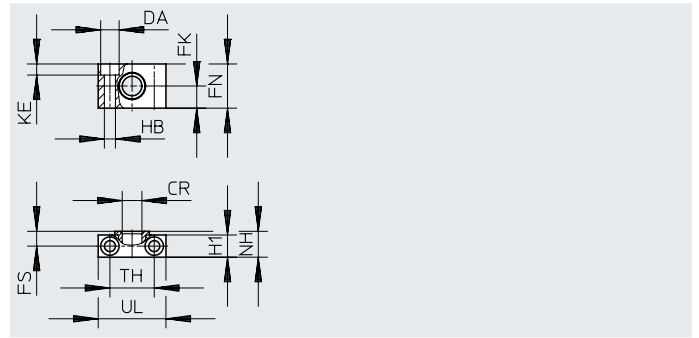
1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Accessories

Trunnion support LNZZ

Material:
Trunnion support: Anodised aluminium
Plain bearing: Plastic
RoHS-compliant

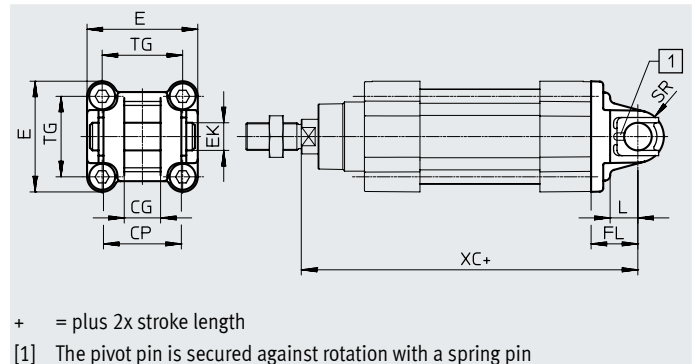


Dimensions and ordering data														Weight	Part no.	Type
For \varnothing	CR \varnothing	DA \varnothing	FK \varnothing	FN	FS	H1	HB \varnothing	KE	NH	TH	UL	CRC ¹⁾				
[mm]	D11	H13	± 0.1				H13			± 0.2				[g]		
32	12	11	15	30	10.5	15	6.6	6.8	18	32	46	2		83	32959	LNZZ-32
40, 50	16	15	18	36	12	18	9	9	21	36	55	2		129	32960	LNZZ-40/50
63, 80	20	18	20	40	13	20	11	11	23	42	65	2		178	32961	LNZZ-63/80
100, 125	25	20	25	50	16	24.5	14	13	28.5	50	75	2		306	32962	LNZZ-100/125

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Swivel flange SNC

Material:
Die-cast aluminium
RoHS-compliant



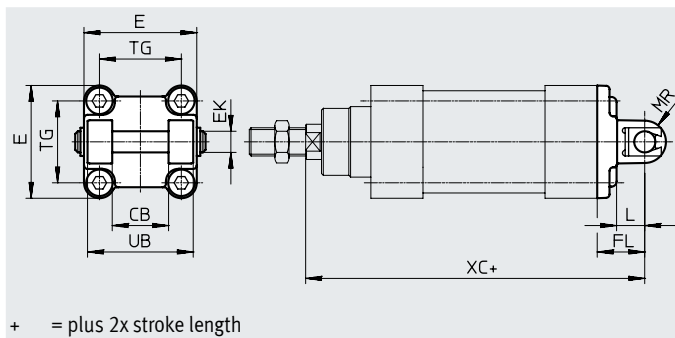
Dimensions and ordering data														Weight	Part no.	Type
For \varnothing	CG	CP	E	EK \varnothing	FL	L	SR	TG	XC	CRC ¹⁾						
[mm]	H14	h14		H9	± 0.2									[g]		
32	14	34	45 $\pm 0.2/-0.5$	10	22	13	10	32.5	221.6	1				93	174383	SNC-32
40	16	40	54-0.5	12	25	16	12	38	254.4	1				140	174384	SNC-40
50	21	45	64-0.6	16	27	16	12	46.5	268.1	1				234	174385	SNC-50
63	21	51	75-0.6	16	32	21	16	56.5	305.9	1				331	174386	SNC-63
80	25	65	93-0.8	20	36	22	16	72	337.6	1				618	174387	SNC-80
100	25	75	110 $\pm 0.3/-0.8$	20	41	27	20	89	372.3	1				865	174388	SNC-100
125	37	97	131-0.8	30	50	30	25	110	422.3	1				1728	174389	SNC-125

1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Accessories

Swivel flange SNCB

Material:
Die-cast aluminium
RoHS-compliant



Dimensions and ordering data

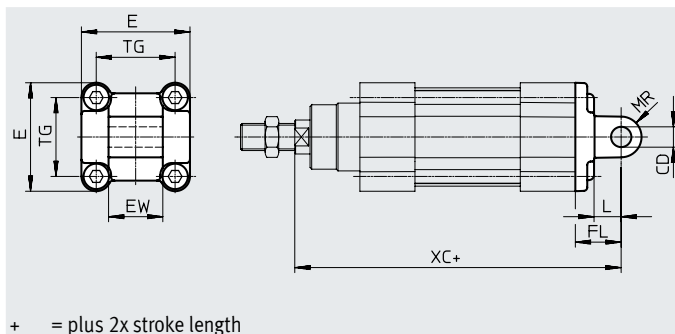
For \varnothing	CB	E	EK \varnothing e8	FL ± 0.2	L	MR -0.5	TG	UB h14	XC	CRC ¹⁾	Weight [g]	Part no.	Type
[mm]	H14												
32	26	45 $\pm 0.2/-0.5$	10	22	13	8.5	32.5	45	221.6	1	103	174390	SNCB-32
40	28	54 -0.5	12	25	16	12	38	52	254.4	1	155	174391	SNCB-40
50	32	64 -0.6	12	27	16	12	46.5	60	268.1	1	232	174392	SNCB-50
63	40	75 -0.6	16	32	21	16	56.5	70	305.9	1	375	174393	SNCB-63
80	50	93 -0.8	16	36	22	16	72	90	337.6	1	636	174394	SNCB-80
100	60	110 $\pm 0.3/-0.8$	20	41	27	20	89	110	372.3	1	1035	174395	SNCB-100
125	70	131 -0.8	25	50	30	25	110	130	422.3	1	1860	174396	SNCB-125

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Swivel flange SNCL

Material:
Die-cast aluminium
RoHS-compliant



Dimensions and ordering data

For \varnothing	CD \varnothing	E	EW $-0.2/-0.6$	FL ± 0.2	L	MR	TG	XC	CRC ¹⁾	Weight [g]	Part no.	Type
[mm]	H10											
32	10	45 $\pm 0.2/-0.5$	26	22	13	10	32.5	221.6	1	71	174404	SNCL-32
40	12	54 -0.5	28	25	16	12	38	254.4	1	95	174405	SNCL-40
50	12	64 -0.6	32	27	16	12	46.5	268.1	1	158	174406	SNCL-50
63	16	75 -0.6	40	32	21	16	56.5	305.9	1	225	174407	SNCL-63
80	16	93 -0.8	50	36	22	16	72	337.6	1	436	174408	SNCL-80
100	20	110 $\pm 0.3/-0.8$	60	41	27	20	89	372.3	1	606	174409	SNCL-100
125	25	131 -0.8	70	50	30	25	110	422.3	1	1135	174410	SNCL-125

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Accessories

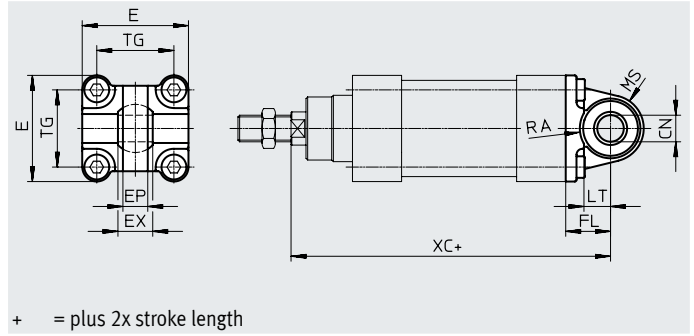
Swivel flange SNCS

Material:

SNCS 32 ... 50:
Die-cast aluminium

SNCS 63 ... 125:
Wrought aluminium alloy

RoHS-compliant



Dimensions and ordering data

For \varnothing	CN \varnothing	E	EP	EX	FL	LT	MS
[mm]			± 0.2		± 0.2		
32	$10^{+0.013}$	$45^{+0.2/-0.5}$	10.5	14	22	13	$15^{+0.5}$
40	$12^{+0.015}$	$54-0.5$	12	16	25	16	$17^{+0.5}$
50	$16^{+0.015}$	$64-0.6$	15	21	27	16	$20^{+0.5}$
63	$16^{+0.015}$	74.5 ± 0.5	15	21	32	21	$23_{-0.5}$
80	$20^{+0.018}$	92.2 ± 0.8	18	25	36	22	$28_{-0.5}$
100	$20^{+0.018}$	$109^{+1/-0.7}$	18	25	41	27	30 ± 0.5
125	$30^{+0.018}$	$132^{+1/-0.7}$	25	37	50	30	39 ± 0.5

For \varnothing	RA	TG	XC	CRC ¹⁾	Weight	Part no.	Type
[mm]	+1				[g]		
32	14.5	32.5	221.6	1	86	174397	SNCS-32
40	17.5	38	254.4	1	122	174398	SNCS-40
50	18.5	46.5	268.1	1	216	174399	SNCS-50
63	23	56.5	305.9	2	281	174400	SNCS-63
80	25	72	337.6	2	557	174401	SNCS-80
100	95	89	372.3	2	690	174402	SNCS-100
125	100	110	422.3	2	1375	174403	SNCS-125

1) Corrosion resistance class CRC 1 to Festo standard FN 940070



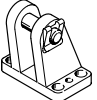
Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Corrosion resistance class CRC 2 to Festo standard FN 940070



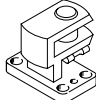
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Accessories

Ordering data – Mounting components




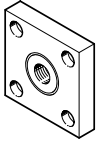
Designation	For \varnothing	Part no.	Type
Clevis foot LNG			
	32	33890	LNG-32
	40	33891	LNG-40
	50	33892	LNG-50
	63	33893	LNG-63
	80	33894	LNG-80
	100	33895	LNG-100
	125	33896	LNG-125
Clevis foot LSNG			
	32	31740	LSNG-32
	40	31741	LSNG-40
	50	31742	LSNG-50
	63	31743	LSNG-63
	80	31744	LSNG-80
	100	31745	LSNG-100
	125	31746	LSNG-125
Clevis foot LBG			
	32	31761	LBG-32
	40	31762	LBG-40
	50	31763	LBG-50
	63	31764	LBG-63
	80	31765	LBG-80
	100	31766	LBG-100
	125	31767	LBG-125

Data sheets → Internet: clevis foot




Designation	For \varnothing	Part no.	Type
Clevis foot LSN			
	32	5561	LSN-32
	40	5562	LSN-40
	50	5563	LSN-50
	63	5564	LSN-63
	80	5565	LSN-80
	100	5566	LSN-100
	125	6987	LSN-125
Clevis foot LSNSG			
	32	31747	LSNSG-32
	40	31748	LSNSG-40
	50	31749	LSNSG-50
	63	31750	LSNSG-63
	80	31751	LSNSG-80
	100	31752	LSNSG-100
	125	31753	LSNSG-125
Right angle clevis foot LQG			
	32	31768	LQG-32
	40	31769	LQG-40
	50	31770	LQG-50
	63	31771	LQG-63
	80	31772	LQG-80
	100	31773	LQG-100
	125	31774	LQG-125

Accessories

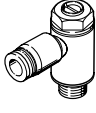
Ordering data – Piston rod attachments

Designation	For ø	Part no.	Type
Rod eye SGS			
	32	9261	SGS-M10x1.25
	40	9262	SGS-M12x1.25
	50	9263	SGS-M16x1.5
	63		
	80		
	100	9264	SGS-M20x1.5
	125	10774	SGS-M27x2
Rod clevis SG			
	32	6144	SG-M10x1.25
	40	6145	SG-M12x1.25
	50	6146	SG-M16x1.5
	63		
	80	6147	SG-M20x1.5
	100		
	125	14987	SG-M27x2-B
Coupling piece KSG			
	32	32963	KSG-M10x1.25
	40	32964	KSG-M12x1.25
	50	32965	KSG-M16x1.5
	63		
	80		
	100	32966	KSG-M20x1.5
	125	32967	KSG-M27x2

Data sheets → Internet: piston rod attachment

Designation	For ø	Part no.	Type
Rod clevis SGA			
	32	32954	SGA-M10x1.25
	40	10767	SGA-M12x1.25
	50	10768	SGA-M16x1.5
	63		
	80		
	100	10769	SGA-M20x1.5
	125	10770	SGA-M27x2
Self-aligning rod coupler FK			
	32	6140	FK-M10x1.25
	40	6141	FK-M12x1.25
	50	6142	FK-M16x1.5
	63		
	80	6143	FK-M20x1.5 ¹⁾
	100		
	125	10485	FK-M27x2
<p> Note</p> <p>1) The maximum force of 10 000 N must not be exceeded when using these piston rod attachments.</p>			

Ordering data – One-way flow control valves

Connection	Thread	For tubing O.D.	Material	Data sheets → Internet: grla	
				Part no.	Type
	G1/8	3	Metal design	193142	GRLA-1/8-QS-3-D
		4		193143	GRLA-1/8-QS-4-D
		6		193144	GRLA-1/8-QS-6-D
		8		193145	GRLA-1/8-QS-8-D
	G1/4	6		193146	GRLA-1/4-QS-6-D
		8		193147	GRLA-1/4-QS-8-D
		10		193148	GRLA-1/4-QS-10-D
	G3/8	6		193149	GRLA-3/8-QS-6-D
		8		193150	GRLA-3/8-QS-8-D
		10		193151	GRLA-3/8-QS-10-D
	G1/2	12		193152	GRLA-1/2-QS-12-D

Accessories

Ordering data – Guide units for fixed strokes (recirculating ball bearing guide only)

Data sheets → Internet: feng

Stroke [mm]	Part no.	Type	Stroke [mm]	Part no.	Type
For \varnothing 32 mm			For \varnothing 40 mm		
10 ... 50	34493	FENG-32-50-KF	10 ... 50	34499	FENG-40-50-KF
10 ... 100	34494	FENG-32-100-KF	10 ... 100	34500	FENG-40-100-KF
10 ... 160	34495	FENG-32-160-KF	10 ... 160	34501	FENG-40-160-KF
10 ... 200	34496	FENG-32-200-KF	10 ... 200	34502	FENG-40-200-KF
10 ... 250	150289	FENG-32-250-KF	10 ... 250	34503	FENG-40-250-KF
10 ... 320	34497	FENG-32-320-KF	10 ... 320	34504	FENG-40-320-KF
10 ... 400	150290	FENG-32-400-KF	10 ... 400	150291	FENG-40-400-KF
10 ... 500	34498	FENG-32-500-KF	10 ... 500	34505	FENG-40-500-KF
For \varnothing 50 mm			For \varnothing 63 mm		
10 ... 50	34506	FENG-50-50-KF	10 ... 50	34513	FENG-63-50-KF
10 ... 100	34507	FENG-50-100-KF	10 ... 100	34514	FENG-63-100-KF
10 ... 160	34508	FENG-50-160-KF	10 ... 160	34515	FENG-63-160-KF
10 ... 200	34509	FENG-50-200-KF	10 ... 200	34516	FENG-63-200-KF
10 ... 250	34510	FENG-50-250-KF	10 ... 250	34517	FENG-63-250-KF
10 ... 320	34511	FENG-50-320-KF	10 ... 320	34518	FENG-63-320-KF
10 ... 400	150292	FENG-50-400-KF	10 ... 400	34519	FENG-63-400-KF
10 ... 500	34512	FENG-50-500-KF	10 ... 500	34520	FENG-63-500-KF
For \varnothing 80 mm			For \varnothing 100 mm		
10 ... 50	34521	FENG-80-50-KF	10 ... 50	34529	FENG-100-50-KF
10 ... 100	34522	FENG-80-100-KF	10 ... 100	34530	FENG-100-100-KF
10 ... 160	34523	FENG-80-160-KF	10 ... 160	34531	FENG-100-160-KF
10 ... 200	34524	FENG-80-200-KF	10 ... 200	34532	FENG-100-200-KF
10 ... 250	34525	FENG-80-250-KF	10 ... 250	34533	FENG-100-250-KF
10 ... 320	34526	FENG-80-320-KF	10 ... 320	34534	FENG-100-320-KF
10 ... 400	34527	FENG-80-400-KF	10 ... 400	34535	FENG-100-400-KF
10 ... 500	34528	FENG-80-500-KF	10 ... 500	34536	FENG-100-500-KF

Ordering data – Guide units for variable strokes

Data sheets → Internet: feng







For \varnothing [mm]	Stroke [mm]	With recirculating ball bearing guide		With plain-bearing guide	
		Part no.	Type	Part no.	Type
32	10 ... 500	34487	FENG-32-...-KF	34481	FENG-32-...-GF
40	10 ... 500	34488	FENG-40-...-KF	34482	FENG-40-...-GF
50	10 ... 500	34489	FENG-50-...-KF	34483	FENG-50-...-GF
63	10 ... 500	34490	FENG-63-...-KF	34484	FENG-63-...-GF
80	10 ... 500	34491	FENG-80-...-KF	34485	FENG-80-...-GF
100	10 ... 500	34492	FENG-100-...-KF	34486	FENG-100-...-GF

Ordering data – Mounting kits for proximity switch SMT-8

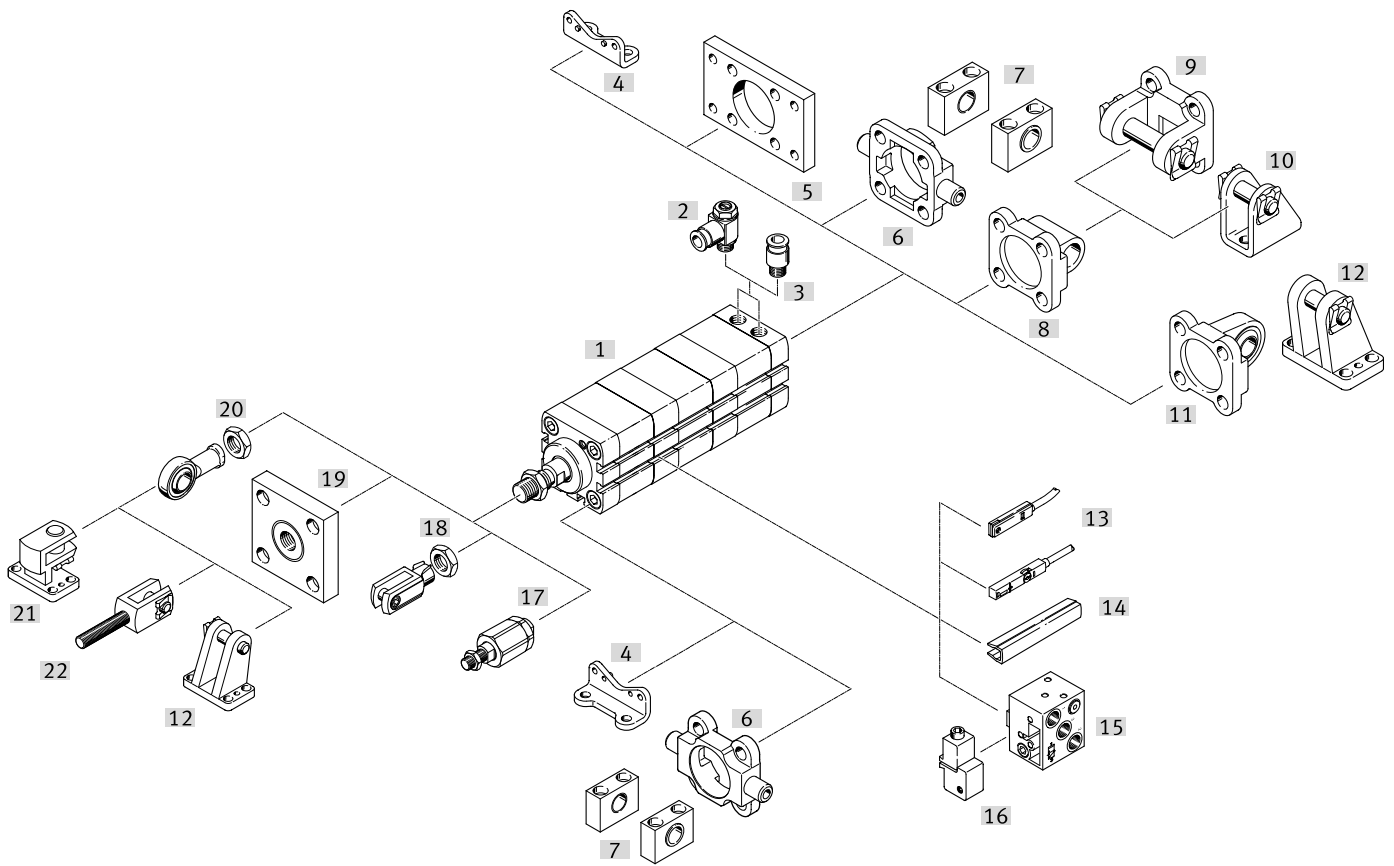
Data sheets → Internet: smb

For \varnothing [mm]	Part no.	Type
32	175705	SMB-8-FENG-32/40
40		
50	175706	SMB-8-FENG-50/63
63		
80	175707	SMB-8-FENG-80/100
100		

Accessories

Ordering data – Proximity switch for T-slot, magneto-resistive							Data sheets → Internet: smt
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part no.	Type	
N/O contact							
	Inserted in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-wire	2.5	574335	SMT-8M-A-PS-24V-E-2.5-OE	
			Plug M8x1, 3-pin	0.3	574334	SMT-8M-A-PS-24V-E-0.3-M8D	
			Plug M12x1, 3-pin	0.3	574337	SMT-8M-A-PS-24V-E-0.3-M12	
		NPN	Cable, 3-wire	2.5	574338	SMT-8M-A-NS-24V-E-2.5-OE	
			Plug M8x1, 3-pin	0.3	574339	SMT-8M-A-NS-24V-E-0.3-M8D	
N/C contact							
	Inserted in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-wire	7.5	574340	SMT-8M-A-PO-24V-E-7.5-OE	
Ordering data – Proximity switch for T-slot, magnetic reed							Data sheets → Internet: sme
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part no.	Type	
N/O contact							
	Inserted in the slot from above, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	543862	SME-8M-DS-24V-K-2.5-OE	
				5.0	543863	SME-8M-DS-24V-K-5.0-OE	
			Cable, 2-wire	2.5	543872	SME-8M-ZS-24V-K-2.5-OE	
			Plug M8x1, 3-pin	0.3	543861	SME-8M-DS-24V-K-0.3-M8D	
Ordering data – Connecting cables							Data sheets → Internet: nebu
	Electrical connection, left	Electrical connection, right	Cable length [m]	Part no.	Type		
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541333	NEBU-M8G3-K-2.5-LE3		
			5	541334	NEBU-M8G3-K-5-LE3		
	Straight socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541363	NEBU-M12G5-K-2.5-LE3		
			5	541364	NEBU-M12G5-K-5-LE3		
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541338	NEBU-M8W3-K-2.5-LE3		
			5	541341	NEBU-M8W3-K-5-LE3		
	Angled socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541367	NEBU-M12W5-K-2.5-LE3		
			5	541370	NEBU-M12W5-K-5-LE3		
Ordering data – Slot cover for T-slot							
	Mounting	Length	Part no.	Type			
	Insertable	2x 0.5 m	151680	ABP-5-S			

Peripherals overview



Peripherals overview

Mounting components and accessories		Description	∅ 25	∅ 40, 63, 100	→ Page/Internet
[1]	High-force cylinder ADNH				23
[2]	One-way flow control valve GRLA	For regulating speed	■	■	38
[3]	Push-in fitting QS	For connecting tubing with standard O.D.	■	■	qs
[4]	Foot mounting HNA/HNA-...-R3	For bearing and end caps	■	■	30
[5]	Flange mounting FNC	For end caps	■	■	31
[6]	Trunnion flange ZNCF/CRZNG	For end caps	–	■	36
[7]	Trunnion support LNZG	For trunnion flange ZNCF/CRZNG	–	■	36
[8]	Swivel flange SNCL/SNCL-...-R3	For end caps	■	■	32
[9]	Swivel flange SNCB/SNCB-...-R3	For swivel flange SNCL	–	■	35
[10]	Clevis foot LBN/CRLBN	For swivel flange SNCL	■	–	34
[11]	Swivel flange SNCS/CRSNCS/SNCS-...-R3	For end caps	–	■	33
[12]	Clevis foot LBG/LBG-...-R3	For swivel flange SNCS	–	■	34
[13]	Proximity switch SME/SMT-8M	Can be integrated in the cylinder profile barrel	■	■	38
[14]	Slot cover ABP-5-S	For protecting the sensor cables and the sensor slots from contamination	■	■	39
[15]	Proximity switch SMPO-8E	Pneumatic output signal	■	■	39
[16]	Mounting kit SMB-8E	For proximity switch SMPO-8E	■	■	39
[17]	Self-aligning rod coupler FK/CRFK	To compensate for radial and angular deviations	■	■	37
[18]	Rod clevis SG/CRSG	Permits a swivelling movement of the cylinder in one plane	■	■	37
[19]	Coupling piece KSG	To compensate for radial deviations	■	■	37
[20]	Rod eye SGS/CRSGS	With spherical bearing	■	■	37
[21]	Right-angle clevis foot LQG	For rod eye SGS	–	■	34
[22]	Rod clevis SGA	With male thread	–	■	37

High-force cylinders ADNH, standard hole pattern

Type codes

001	Series	
ADNH	High-force cylinder, double-acting, based on ISO 21287	

002	Piston diameter [mm]	
25	25	
40	40	
63	63	
100	100	

003	Stroke range [mm]	
...	5 ... 150	

004	Thread type	
I	Female thread	
A	Male thread	

005	Cushioning	
P	Elastic cushioning rings/plates on both sides	

006	Position sensing	
A	For proximity sensor	

007	Number of cylinders	
2N	2 cylinders for twice the force	
3N	3 cylinders for three times the force	
4N	4 cylinders for four times the force	

008	Piston rod thread extension	
	None	
...K2	1 ... 30 mm	

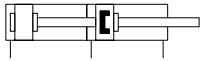
009	Custom thread	
"M5"K5	M5	
"M8"K5	M8	
"M10"K5	M10	
"M10x1,25"K5	M10x1.25	
"M12"K5	M12	
"M12 x1,25"K5	M12 x1.25	
"M16"K5	M16	
"M16x1,5"K5	M16x1.5	
"M20"K5	M20	

010	Piston rod extension	
	None	
...K8	1 ... 150 mm	

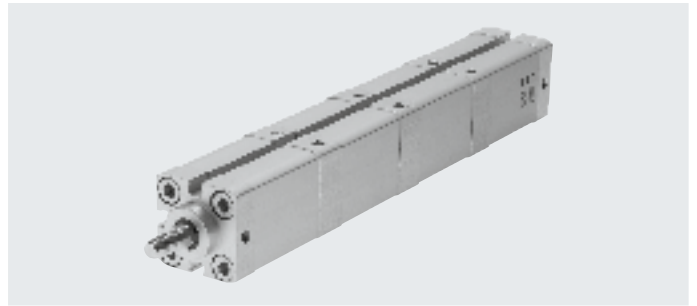
011	Temperature resistance	
	Standard	
S6	Heat-resistant seals max. 120 °C	

012	Captive rating plate	
	Rating plate, glued	
TL	Laser etched rating plate	

Data sheet



- \varnothing - Diameter
25 ... 100 mm
- l - Stroke length
5 ... 150 mm



General technical data		25	40	63	100
Piston \varnothing		25	40	63	100
Pneumatic connection		M5	M5	G1/8	G1/8
Piston rod thread	Female	M6	M10	M12	M16
	Male	M8	M12x1.25	M16x1.5	M20x1.5
Design	Piston				
	Piston rod				
	Cylinder barrel				
Cushioning		Elastic cushioning rings/pads at both ends			
Position sensing		Via proximity switch			
Type of mounting		With female thread			
		Via accessories			
Mounting position		Any			

Operating and environmental conditions		25	40	63	100
Piston \varnothing		25	40	63	100
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]			
Note on operating/ pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)			
Operating pressure					
in [MPa]	2 cylinders	0.08 ... 1		0.06 ... 1	
	3 cylinders	0.11 ... 1		0.09 ... 1	
	4 cylinders	0.14 ... 1		0.12 ... 1	
in [bar]	2 cylinders	0.8 ... 10		0.6 ... 10	
	3 cylinders	1.1 ... 10		0.9 ... 10	
	4 cylinders	1.4 ... 10		1.2 ... 10	
Ambient temperature ¹⁾ [°C]		-20 ... +80			
	S6	0 ... +120			
Corrosion resistance class CRC ²⁾		2			

1) Note operating range of proximity switches

2) Corrosion resistance class CRC 2 to Festo standard FN 940070

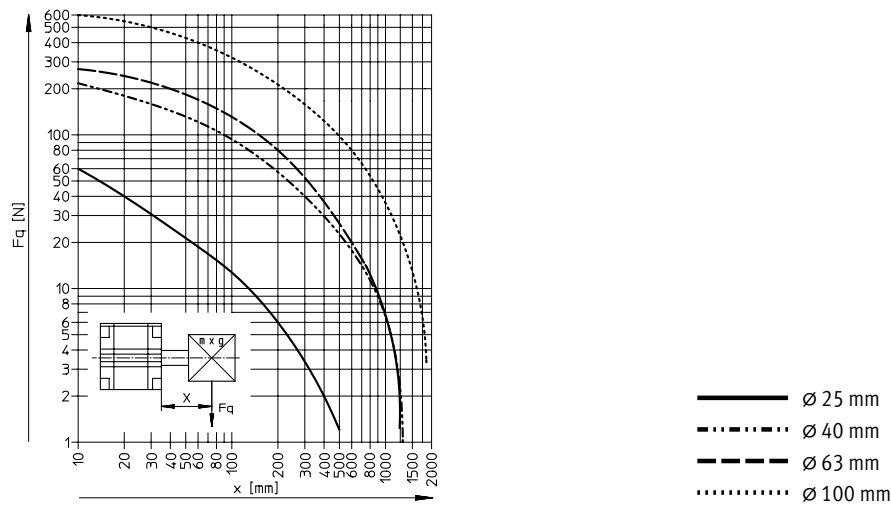
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Data sheet

Forces [N] and impact energy [J]					
Piston \varnothing		25	40	63	100
Theoretical force at 6 bar, advancing	2 cylinders	542	1440	3619	9235
	3 cylinders	789	2126	5369	13758
	4 cylinders	1036	2812	7120	18281
Theoretical force at 6 bar, retracting ¹⁾		247	633	1681	4417
Force range		≥ 5 mm before the end position is reached			
Max. impact energy at the end positions		0.3	0.7	1.3	2.5
	S6	0.15	0.35	0.65	1.25

1) Only the single force is available during retracting

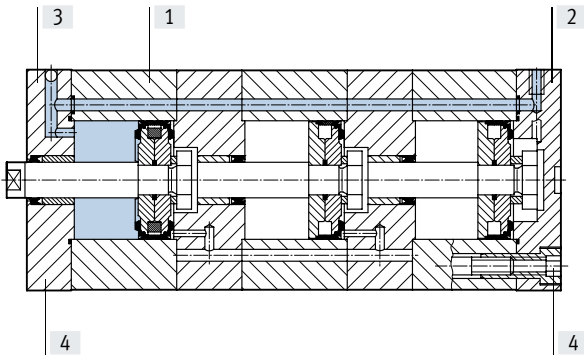
Max. lateral force F_q as a function of the projection x



Data sheet

Materials

Sectional view



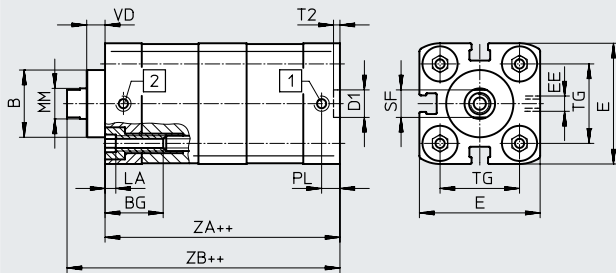
High-force cylinder	Basic version	S6
[1] Cylinder barrel	Anodised aluminium	Anodised aluminium
[2] Cover	Anodised aluminium	Anodised aluminium
[3] Piston rod	High-alloy steel	High-alloy steel
[4] Flange screws	Galvanised steel	Galvanised steel
- Seals	Polyurethane, nitrile rubber	Fluoro rubber
- PWIS conformity	VDMA24364-B1/B2-L	
- Note on materials	RoHS-compliant	

Data sheet

Dimensions – Basic version

Download CAD data → www.festo.com

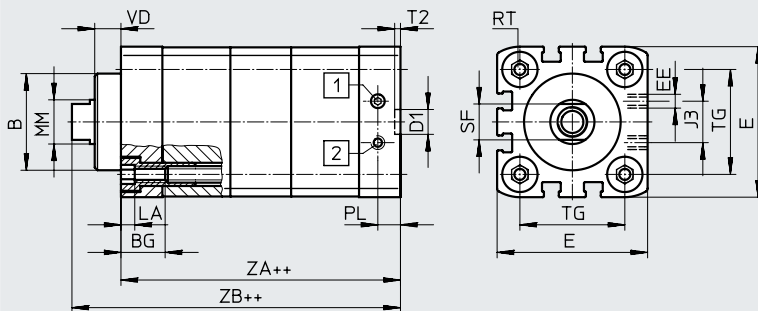
∅ 25/2N – 2 cylinders



- [1] Cylinder advancing
- [2] Cylinder retracting

++ = plus 2x stroke length

∅ 40 ... 100/2N – 2 cylinders



- [1] Cylinder advancing
- [2] Cylinder retracting

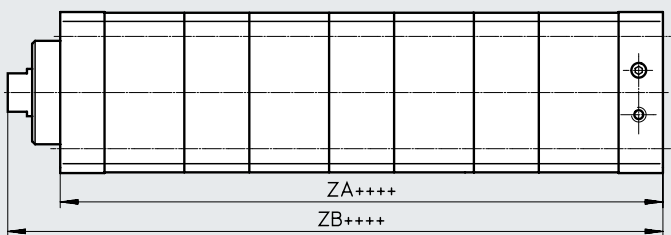
++ = plus 2x stroke length

3N – 3 cylinders



+++ = plus 3x stroke length

4N – 4 cylinders



++++ = plus 4x stroke length

∅	B	BG	D1	E	EE	J3	LA	MM	PL	RT
[mm]	∅	min.	∅	+0.3			+0.2	∅	+0.2	
25	22	15	9	39.5	M5	–	5	10	6	M5
40	35	16	12	54.5	G1/8	15	5	16	8.2	M6
63	42	75.5		23		20		M8		
100	55	17		113.5		40		25	10.5	M10

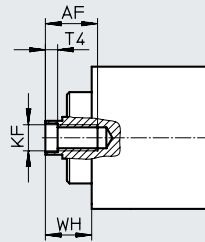
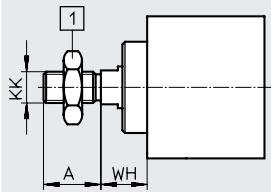
∅	SF	T2	TG	VD	ZA			ZB			
					No. of cylinders			No. of cylinders			
					2	3	4	2	3	4	
[mm]		+0.1	±0.2								
25	9	2.1	26	6	76.3 ^{+1.2}	110.5 ^{+1.8}	144.7 ^{+2.4}	88.5 ^{+1.6}	122.7 ^{+2.2}	156.9 ^{+2.8}	
40	13		38	9.5	86.2 ^{+1.2}	125.5 ^{+1.8}	164.8 ^{+2.4}	104.6 ^{+1.6}	143.9 ^{+2.2}	183.2 ^{+2.8}	
63	17	2.6	56.5	12	93.3 ^{+1.2}	135.7 ^{+1.8}	178.1 ^{+2.4}	114.6 ^{+1.6}	157 ^{+2.2}	199.4 ^{+2.8}	
100	21		89	15.5	120.9 ^{+1.2}	172.8 ^{+1.8}	224.7 ^{+2.4}	147.9 ^{+1.6}	199.8 ^{+2.2}	251.7 ^{+2.8}	

Data sheet

Dimensions – Variants

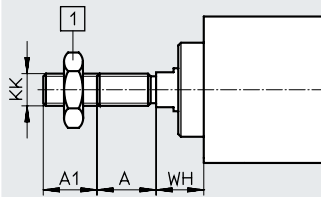
Download CAD data → www.festo.com

Basic version



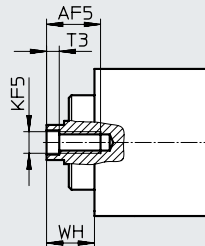
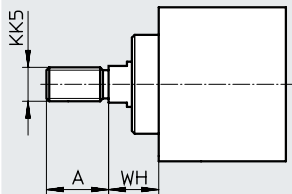
[1] Hex nut DIN 439-B
for \varnothing 40 ... 100 only

K2 – Reinforced piston rod with extended male piston rod thread

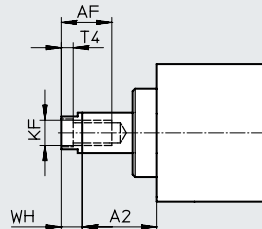
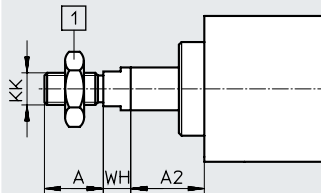


[1] Hex nut DIN 439-B
for \varnothing 40 ... 100 only

K5 – Reinforced piston rod with special piston rod thread



K8 – Reinforced piston rod with extended piston rod



[1] Hex nut DIN 439-B
for \varnothing 40 ... 100 only

\varnothing	A	A1	A2	AF	AF5	KF	KF5	KK	KK5	T3	T4	WH
[mm]	-0.5			min.	min.							+1.3
25	16	1 ... 20	1 ... 150	14	12	M6	M5	M8	M10x1.25 M10	2	2.6	11.8
40	22			20	16	M10	M8	M12x1.25	M10x1.25 M12	3.3	4.7	18
63	28			20	20	M12	M10	M16x1.5	M12x1.25 M16	4.7	6.1	21
100	40	1 ... 30		25	-	M16	-	M20x1.5	M16x1.5 M20	-	7	26.5

Ordering data – Modular product system

Ordering table							
Size	25	40	63	100	Conditions	Code	Enter code
Module no.	539691	539692	539693	539694			
Function	Compact tandem cylinder, based on DIN ISO 21287					ADNH	ADNH
Size [mm]	25	40	63	100		-...	
Stroke [mm]	5 ... 150					-...	
Thread type	Male thread					-A	
	Female thread					-I	
Cushioning	Elastic cushioning rings/pads at both ends					-P	-P
Position sensing	Via proximity switch					-A	-A
Number of cylinders	2 cylinders for twice the force					-2N	- ... N
	3 cylinders for three times the force					-3N	
	4 cylinders for four times the force					-4N	

Ordering data – Modular product system

Ordering table							
Size	25	40	63	100	Conditions	Code	Enter code
Extended male thread	Extended male piston rod thread						
[mm]	1 ... 20	1 ... 20	1 ... 20	1 ... 30		-...K2	
Special thread on the piston rod	M10x1.25	M10x1.25	M12x1.25	M16x1.5	[1]	-“...”K5	
	M10	M12	M16	M20			
	M5	M8	M10	-	[2]		
Extended piston rod	Extended piston rod						
[mm]	1 ... 150	1 ... 150	1 ... 150	1 ... 150	[3]	-...K8	
Temperature resistance	Heat-resistant seals max. 120°C					-S6	
Captive rating plate	Laser-etched rating plate					-TL	

[1] K5 Only with piston rod thread A (male thread)

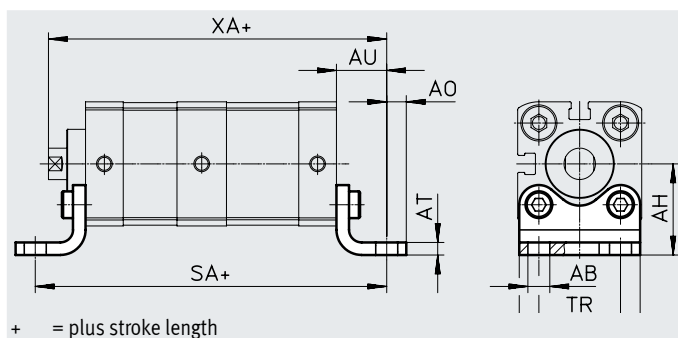
[2] K5 Only with piston rod thread I (female thread)

[3] K8 The sum of the stroke length and piston rod extension must not exceed the maximum permissible stroke length

Accessories

Foot mounting HNA

Material:
 HNA: Galvanised steel
 HNA-...-R3: Steel with protective coating
 RoHS-compliant



Dimensions and ordering data

For \varnothing [mm]	AB \varnothing H14	AH	AO	AT	AU	SA ¹⁾			
						2	3	4	5
25	7	29	6.3	4	16	108.3	142.5	176.7	210.9
40	10	38	9		18	122.2	161.5	202.9	245.9
63	14.5	50	8	5	21	135.3	177.7	222.2	268.3
100		74	12.5	6	27	174.9	226.8	281	336.8

For \varnothing [mm]	TR	US -0.5	XA ¹⁾			
			2	3	4	5
25	26	38.5	104.5	138.7	172.9	207.1
40	36	54	122.6	161.9	203.2	246.2
63	50	75	135.6	178.0	222.4	268.5
100	75	110	174.9	226.8	280.9	336.7

For \varnothing [mm]	Basic version				R3 – High corrosion protection			
	CRC ²⁾	Weight [g]	Part no.	Type	CRC ²⁾	Weight [g]	Part no.	Type
25	1	90	537240	HNA-25	3	90	537255	HNA-25-R3
40	1	157	537242	HNA-40	3	157	537257	HNA-40-R3
63	1	328	537244	HNA-63	3	328	537259	HNA-63-R3
100	1	814	537250	HNA-100	3	814	537261	HNA-100-R3

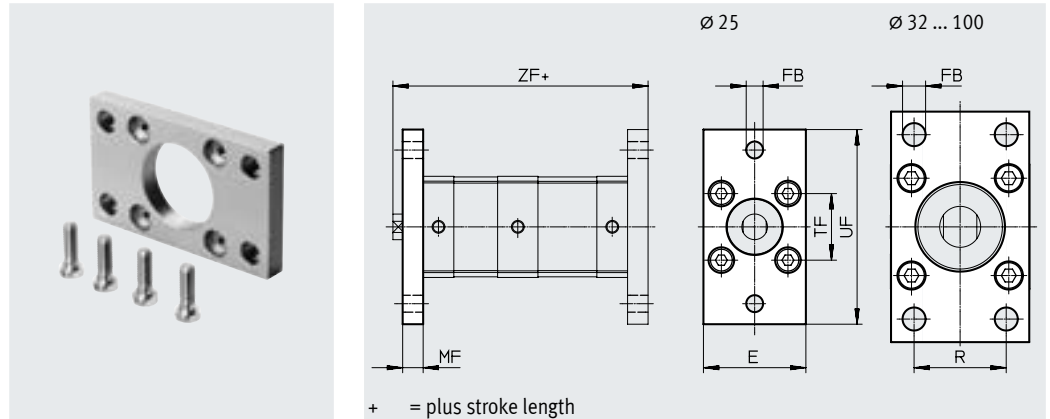
- 1) Number of stroke lengths
 2 = 2x stroke length
 3 = 3x stroke length
 4 = 4x stroke length

- 2) Corrosion resistance class CRC 1 to Festo standard FN 940070
 Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).
 Corrosion resistance class CRC 3 to Festo standard FN 940070
 High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

Accessories

Flange mounting FNC

Material:
Galvanised steel
RoHS-compliant



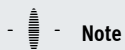
Dimensions and ordering data						
For \varnothing	E	FB \varnothing	MF	R	TF	UF
[mm]						
25	40	6.6	8	–	60	76
40	54	9	10	36	72	90
63	75		12	50	100	120
100	110	14	16	75	150	175

For \varnothing	ZF ¹⁾				CRC ²⁾	Weight [g]	Part no.	Type
	2	3	4	5				
[mm]								
25	96.5	130.7	164.9	199.1	1	165	537248	FNC-25
40	114.6	153.9	195.2	238.2	1	291	174377	FNC-40
63	126.6	169.0	213.4	259.4	1	679	174379	FNC-63
100	163.9	215.8	269.9	325.7	1	2041	174381	FNC-100

- 1) Number of stroke lengths
 2 = 2x stroke length
 3 = 3x stroke length
 4 = 4x stroke length
 5 = 5x stroke length

- 2) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).



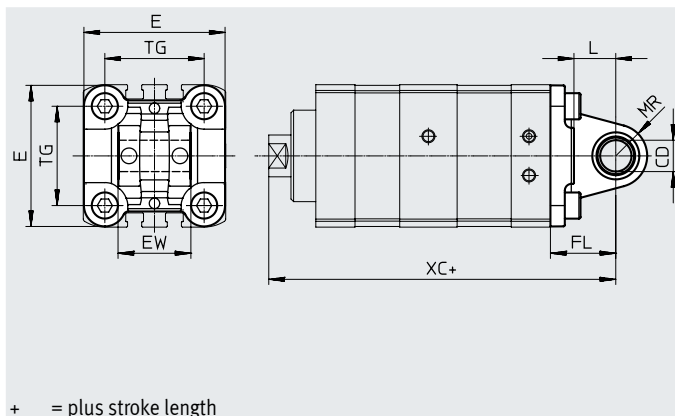
Note

Screws with a special length are required to mount diameter 100 mm.
 \varnothing 100: M10x25

Accessories

Swivel flange SNCL/SNCL-...-R3

Material:
 SNCL 25:
 Wrought aluminium alloy
 SNCL 40 ... 63:
 Die-cast aluminium
 SNCL-...-R3:
 Wrought aluminium alloy with
 protective coating
 RoHS-compliant



Dimensions and ordering data

For \varnothing [mm]	CD \varnothing H9	E	EW	FL ± 0.2	L	MR	TG	XC ¹⁾			
								2	3	4	5
25	8	38.5 ^{-0.6}	16 h12	20	14	8	26	108.5	142.7	176.9	211.1
40	12	54 ^{-0.5}	28 ^{-0.2/-0.6}	25	16	12	38	129.6	168.9	210.2	253.2
63	16	75 ^{-0.6}	40 ^{-0.2/-0.6}	32	21	16	56.5	146.6	189.0	231.4	279.5
100	20	110 ^{+0.3/-0.8}	60 ^{-0.2/-0.6}	41	27	20	89	188.9	240.8	294.9	350.7

For \varnothing [mm]	Basic version				R3 – High corrosion protection			
	CRC ²⁾	Weight [g]	Part no.	Type	CRC ²⁾	Weight [g]	Part no.	Type
25	2	41	537793	SNCL-25	3	41	537797	SNCL-25-R3
40	1	95	174405	SNCL-40	–	–	–	–
63	1	225	174407	SNCL-63	–	–	–	–
100	1	606	174409	SNCL-100	–	–	–	–

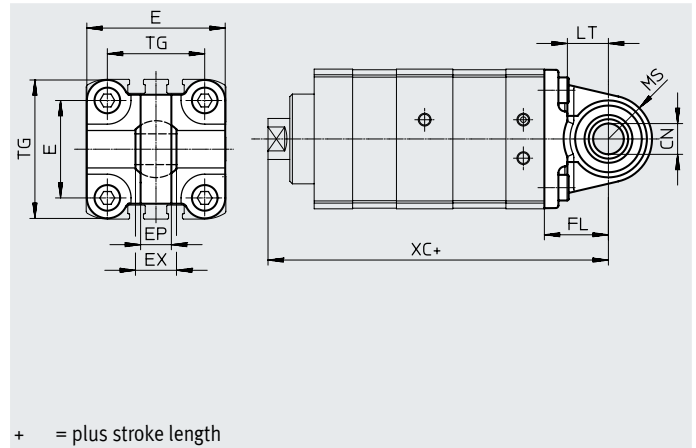
- 1) Number of stroke lengths
 2 = 2x stroke length
 3 = 3x stroke length
 4 = 4x stroke length
 5 = 5x stroke length

- 2) Corrosion resistance class CRC 1 to Festo standard FN 940070
 Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).
 Corrosion resistance class CRC 2 to Festo standard FN 940070
 Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.
 Corrosion resistance class CRC 3 to Festo standard FN 940070
 High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

Accessories

Swivel flange SNCS/CRSNCS/SNCS-...-R3

Material:
 SNCS 40:
 Die-cast aluminium
 SNCS 63 ... 100:
 Wrought aluminium alloy
 CRSNCS 40 ... 63:
 High-alloy stainless steel
 SNCS-...-R3 100:
 Wrought aluminium alloy with
 protective coating
 RoHS-compliant



Dimensions and ordering data								
For \varnothing [mm]	CN \varnothing		E		EP ± 0.2	EX	FL ± 0.2	LT
	ADNH-...	ADNH-...-R3	ADNH-...	ADNH-...-R3				
40	12 ^{+0.015}	12+0.018/-0.04	54 _{-0.5}	54 _{-0.5}	12	16	25	16
63	16 ^{+0.015}	16+0.018/-0.04	74.5 _{-0.5}	75 _{-0.6}	15	21	32	21
100	20 ^{+0.018}	20+0.021/-0.04	109+1/-0.7	109+1/-0.7	18	25	41	27

For \varnothing [mm]	MS		TG	XC ¹⁾			
	ADNH-...	ADNH-...-R3		2	3	4	5
40	17 ^{+0.5}	17 ^{+0.5}	38	129.6	168.9	210.2	253.2
63	23 _{-0.5}	22 ^{+0.5}	56.5	146.6	189.0	233.4	279.5
100	30 ± 0.5	30 ± 0.5	89	188.9	240.8	294.9	350.7

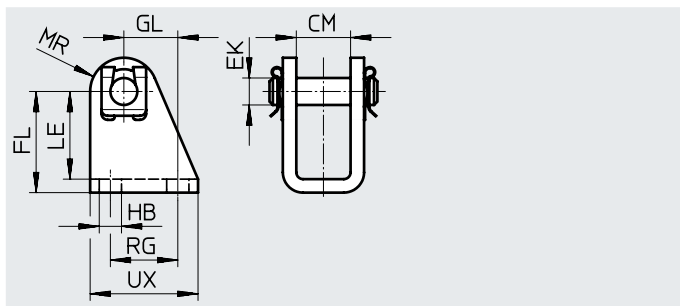
For \varnothing [mm]	Basic version				High corrosion protection			
	CRC ²⁾	Weight [g]	Part no.	Type	CRC ²⁾	Weight [g]	Part no.	Type
40	1	122	174398	SNCS-40	4	239	2895921	CRSNCS-40
63	2	281	174400	SNCS-63	4	576	2895923	CRSNCS-63
100	2	683	174402	SNCS-100	3	684	2895925	SNCS-100-R3

- Number of stroke lengths
 - 2 = 2x stroke length
 - 3 = 3x stroke length
 - 4 = 4x stroke length
 - 5 = 5x stroke length
- Corrosion resistance class CRC 1 to Festo standard FN 940070
 Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).
 Corrosion resistance class CRC 2 to Festo standard FN 940070
 Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.
 Corrosion resistance class CRC 3 to Festo standard FN 940070
 High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.
 Corrosion resistance class CRC 4 to Festo standard FN 940070
 Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by means of special testing (→ also FN 940082), using appropriate media.

Accessories

Clevis foot LBN

Material:
Galvanised steel
RoHS-compliant



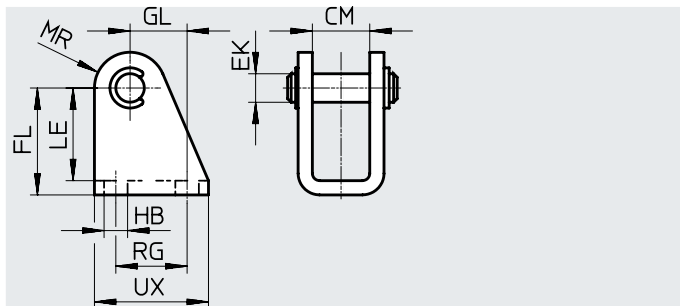
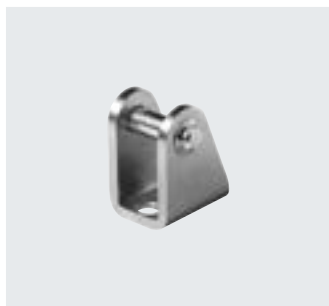
Dimensions and ordering data

For \varnothing	CM	EK \varnothing	FL	GL	HB \varnothing	LE	MR	RG	UX	CRC ¹⁾	Weight [g]	Part no.	Type
25	16.1	8	30 +0.4/-0.2	16	6.6	26	10	20	32	1	84	6059	LBN-20/25

1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Clevis foot CRLBN, stainless steel

Material:
High-alloy steel
RoHS-compliant



Dimensions and ordering data

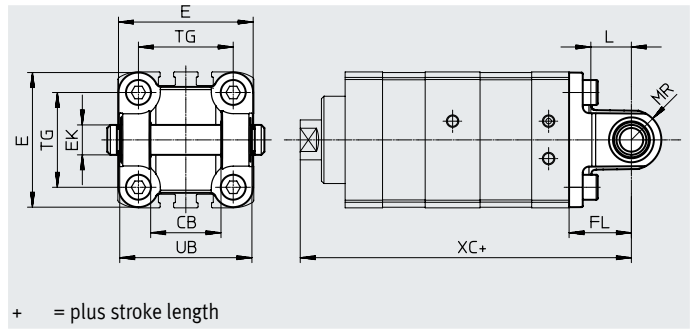
For \varnothing	CM	EK \varnothing	FL	GL	HB	LE	MR	RG	UX	CRC ¹⁾	Weight [g]	Part no.	Type
25	16.1	8	30 +0.4/-0.2	16	6.6	26	10	20	32	4	82	161863	CRLBN-20/25

1) Corrosion resistance class CRC 4 to Festo standard FN 940070
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by means of special testing (→ also FN 940082), using appropriate media.

Accessories

Swivel flange SNCB/SNCB-...-R3

Material:
 SNCB: Die-cast aluminium
 SNCB-...-R3: Die-cast aluminium with
 protective coating
 RoHS-compliant



Dimensions and ordering data												
For \varnothing	CB	E	EK	FL	L	MR	TG	UB	XC ¹⁾			
[mm]	H14		\varnothing H9/e8	± 0.2		-0.5		h14	2	3	4	5
40	28	54	12	25	16	12	38	52	129.6	168.9	210.2	253.2
63	40	75	16	32	21	16	56.5	70	146.6	189.0	233.4	279.5
100	60	110	20	41	27	20	89	110	188.9	240.8	294.9	350.7

For \varnothing	Basic version				R3 – High corrosion protection			
	CRC ²⁾	Weight [g]	Part no.	Type	CRC ²⁾	Weight [g]	Part no.	Type
40	1	155	174391	SNCB-40	3	151	176945	SNCB-40-R3
63	1	375	174393	SNCB-63	3	371	176947	SNCB-63-R3
100	1	1035	174395	SNCB-100	3	986	176949	SNCB-100-R3

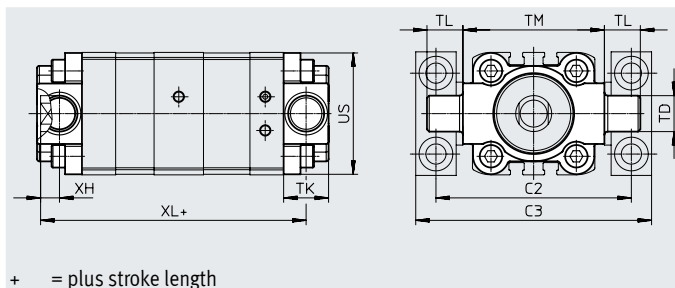
- 1) Number of stroke lengths
 2 = 2x stroke length
 3 = 3x stroke length
 4 = 4x stroke length
 5 = 5x stroke length

- 2) Corrosion resistance class CRC 1 to Festo standard FN 940070
 Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).
 Corrosion resistance class CRC 2 to Festo standard FN 940070
 Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Accessories

Trunnion flange ZNCF/CRZNG

Material:
 ZNCF: Stainless steel casting
 CRZNG: Electropolished stainless steel casting
 RoHS-compliant



Dimensions and ordering data

For \varnothing [mm]	C2	C3	TD \varnothing e9	TK max.	TL	TM	US	XH	XL ¹⁾			
									2	3	4	5
40	87	105	16	20	16 h14	63	54	8.4±1	114.6	153.9	195.2	238.2
63	116	136	20	24	20 h14	90	75	9.3±1.2	126.6	169.0	213.4	259.5
100	164	189	25	38	24.5 +0.5/-0.7	132	110	8±1.2	166.9	218.8	272.9	328.7

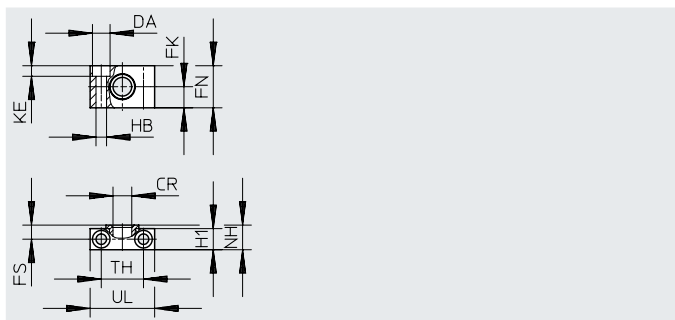
For \varnothing [mm]	Basic version				Corrosion-resistant			
	CRC ²⁾	Weight [g]	Part no.	Type	CRC ²⁾	Weight [g]	Part no.	Type
40	2	285	174412	ZNCF-40	4	285	161853	CRZNG-40
63	2	687	174414	ZNCF-63	4	687	161855	CRZNG-63
100	2	2254	174416	ZNCF-100	4	2254	161857	CRZNG-100

- 1) Number of stroke lengths
 2 = 2x stroke length
 3 = 3x stroke length
 4 = 4x stroke length
 5 = 5x stroke length

- 2) Corrosion resistance class CRC 2 to Festo standard FN 940070
 Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.
 Corrosion resistance class CRC 4 to Festo standard FN 940070
 Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by means of special testing (→ also FN 940082), using appropriate media.

Trunnion support LNZG

Material:
 Trunnion support: Anodised aluminium
 Plain bearing: Polymer
 Free of copper and PTFE
 RoHS-compliant





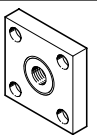
Dimensions and ordering data

For \varnothing [mm]	CR	DA	FK	FN	FS	H1	HB	KE	NH	TH	UL	CRC ¹⁾	Weight [g]	Part no.	Type
	\varnothing D11	\varnothing H13	\varnothing ±0.1				\varnothing H13			± 0.2					
40	16	15	18	36	12	18	9	9	21	36	55	2	129	32960	LNZG-40/50
63	20	18	20	40	13	20	11	11	23	42	65	2	178	32961	LNZG-63/80
100	25	20	25	50	16	24.5	14	13	28.5	50	75	2	306	32962	LNZG-100/125


- 1) Corrosion resistance class CRC 2 to Festo standard FN 940070
 Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.


Accessories


Ordering data – Piston rod attachments

Designation	For ø	Part no.	Type
Rod eye SGS			
	25	9255	SGS-M8
	40	9262	SGS-M12x1.25
	63	9263	SGS-M16x1.5
	100	9264	SGS-M20x1.5
Rod clevis SG			
	25	3111	SG-M8
	40	6145	SG-M12x1.25
	63	6146	SG-M16x1.5
	100	6147	SG-M20x1.5
Coupling piece KSG			
	25	–	
	40	32964	KSG-M12x1.25
	63	32965	KSG-M16x1.5
	100	32966	KSG-M20x1.5



Data sheets → Internet: piston rod attachment

Designation	For ø	Part no.	Type
Rod clevis SGA for rod eye SGS			
	25	–	
	40	10767	SGA-M12x1.25
	63	10768	SGA-M16x1.5
	100	10769	SGA-M20x1.5


Designation	For ø	Part no.	Type
Self-aligning rod coupler FK			
	25	2062	FK-M8
	40	6141	FK-M12x1.25
	63	6142	FK-M16x1.5 ¹⁾
	100	6143	FK-M20x1.5 ¹⁾


 **Note**
1) The maximum force of 10 000 N must not be exceeded when using these piston rod attachments

Ordering data – Piston rod attachments, corrosion-resistant


Designation	For ø	Part no.	Type
Rod eye CRSGS			
	25	195581	CRSGS-M8
	40	195583	CRSGS-M12x1.25
	63	195584	CRSGS-M16x1.5
	100	195585	CRSGS-M20x1.5
Self-aligning rod coupler CRFK			
	40	2305779	CRFK-M12x1.25
	63	2490673	CRFK-M16x1.5
	100	2545677	CRFK-M20x1.5

Data sheets → Internet: piston rod attachment


Designation	For ø	Part no.	Type
Rod clevis CRSG			
	25	13568	CRSG-M8
	40	13570	CRSG-M12x1.25
	63	13571	CRSG-M16x1.5
	100	13572	CRSG-M20x1.5

 **Note**
Piston rod attachments for cylinders with special piston rod thread (variant K5) → www.festo.com


Ordering data – Mounting components

Designation	For ø	Part no.	Type
Clevis foot LBG for rod eye SGS			
	25	–	
	40	31762	LBG-40
	63	31764	LBG-63
	100	31766	LBG-100

Data sheets → Internet: clevis foot

Designation	For ø	Part no.	Type
Right-angle clevis foot LQG for rod eye SGS			
	25	–	
	40	31769	LQG-40
	63	31771	LQG-63
	100	31773	LQG-100


Ordering data – Mounting components, high corrosion protection



Designation	For ø	Part no.	Type
Clevis foot LBG-R3 for rod eye SGS			
	40		
	63		
	100		



Data sheets → Internet: clevis foot



Designation	For ø	Part no.	Type
		2078792	LBG-40-R3
		2078795	LBG-63-R3
		2078799	LBG-100-R3

Accessories

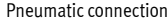



Ordering data – One-way flow control valves					Data sheets → Internet: grla	
Connection For Ø	For tubing O.D.	Material	Part no.	Type		
				For exhaust air		
	25, 40	3	Metal design	193137	GRLA-M5-QS-3-D	
		4		193138	GRLA-M5-QS-4-D	
	63, 100	4		193143	GRLA-1/8-QS-4-D	
		6		193144	GRLA-1/8-QS-6-D	
		8		193145	GRLA-1/8-QS-8-D	

Ordering data – Proximity switch for T-slot, magneto-resistive					Data sheets → Internet: smt	
Type of mounting	Switching output	Electrical connection	Cable length [m]	Part no.	Type	
N/O contact						
	Inserted in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-wire	2.5	574335	SMT-8M-A-PS-24V-E-2.5-OE
			Plug M8x1, 3-pin	0.3	574334	SMT-8M-A-PS-24V-E-0.3-M8D
			Plug M12x1, 3-pin	0.3	574337	SMT-8M-A-PS-24V-E-0.3-M12
		NPN	Cable, 3-wire	2.5	574338	SMT-8M-A-NS-24V-E-2.5-OE
			Plug M8x1, 3-pin	0.3	574339	SMT-8M-A-NS-24V-E-0.3-M8D
N/C contact						
	Inserted in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-wire	7.5	574340	SMT-8M-A-PO-24V-E-7.5-OE

Ordering data – Proximity switch for T-slot, magnetic reed					Data sheets → Internet: sme	
Type of mounting	Switching output	Electrical connection	Cable length [m]	Part no.	Type	
N/O contact						
	Inserted in the slot from above, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	543862	SME-8M-DS-24V-K-2.5-OE
			5.0	543863	SME-8M-DS-24V-K-5.0-OE	
			Cable, 2-wire	2.5	543872	SME-8M-ZS-24V-K-2.5-OE
			Plug M8x1, 3-pin	0.3	543861	SME-8M-DS-24V-K-0.3-M8D
	Inserted in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	150855	SME-8-K-LED-24
Plug M8x1, 3-pin			0.3	150857	SME-8-S-LED-24	
N/C contact						
	Inserted in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	7.5	160251	SME-8-O-K-LED-24

Ordering data – Connecting cables					Data sheets → Internet: nebu	
Electrical connection, left	Electrical connection, right	Cable length [m]	Part no.	Type		
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541333	NEBU-M8G3-K-2.5-LE3	
		5	541334	NEBU-M8G3-K-5-LE3		
	Straight socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541363	NEBU-M12G5-K-2.5-LE3	
		5	541364	NEBU-M12G5-K-5-LE3		
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541338	NEBU-M8W3-K-2.5-LE3	
		5	541341	NEBU-M8W3-K-5-LE3		
	Angled socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541367	NEBU-M12W5-K-2.5-LE3	
		5	541370	NEBU-M12W5-K-5-LE3		

Accessories

Ordering data – Proximity switch, cuboid shape, pneumatic			Data sheets → Internet: smpo	
	Pneumatic connection		Part no.	Type
3/2-way valve, normally closed				
	Female thread M5		178563	SMPO-8E
Ordering data – Mounting kit for proximity switch SMPO-8E			Data sheets → Internet: smb	
	Mounting		Part no.	Type
	Clamped in T-slot		178230	SMB-8E
Ordering data – Slot cover for T-slot				
	Mounting	Length	Part no.	Type
	Insertable	2x 0.5 m	151680	ABP-5-S