

Tandem/high-force cylinders

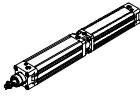
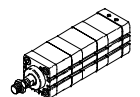
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Tandem/high-force cylinders

Product range overview

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Function	Version	Type	Piston Ø	Stroke	Position sensing	Piston rod	
			[mm]	[mm]		A	With male thread
Double-acting	Tandem cylinders						
		DNCT	32, 40, 50	2 ... 500	■	■	—
			63, 80, 100, 125	3 ... 500			
	High-force cylinders						
		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			

Special features

General

By connecting 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 single cylinder.

DNCT

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

ADNH

- A maximum of 4 cylinders can be combined.
- The internal distribution of compressed air means that only 2 connections are required to pressurise all cylinders.
- The force in the return stroke corresponds to that of a single cylinder with corresponding piston diameter.

Tandem/high-force cylinders

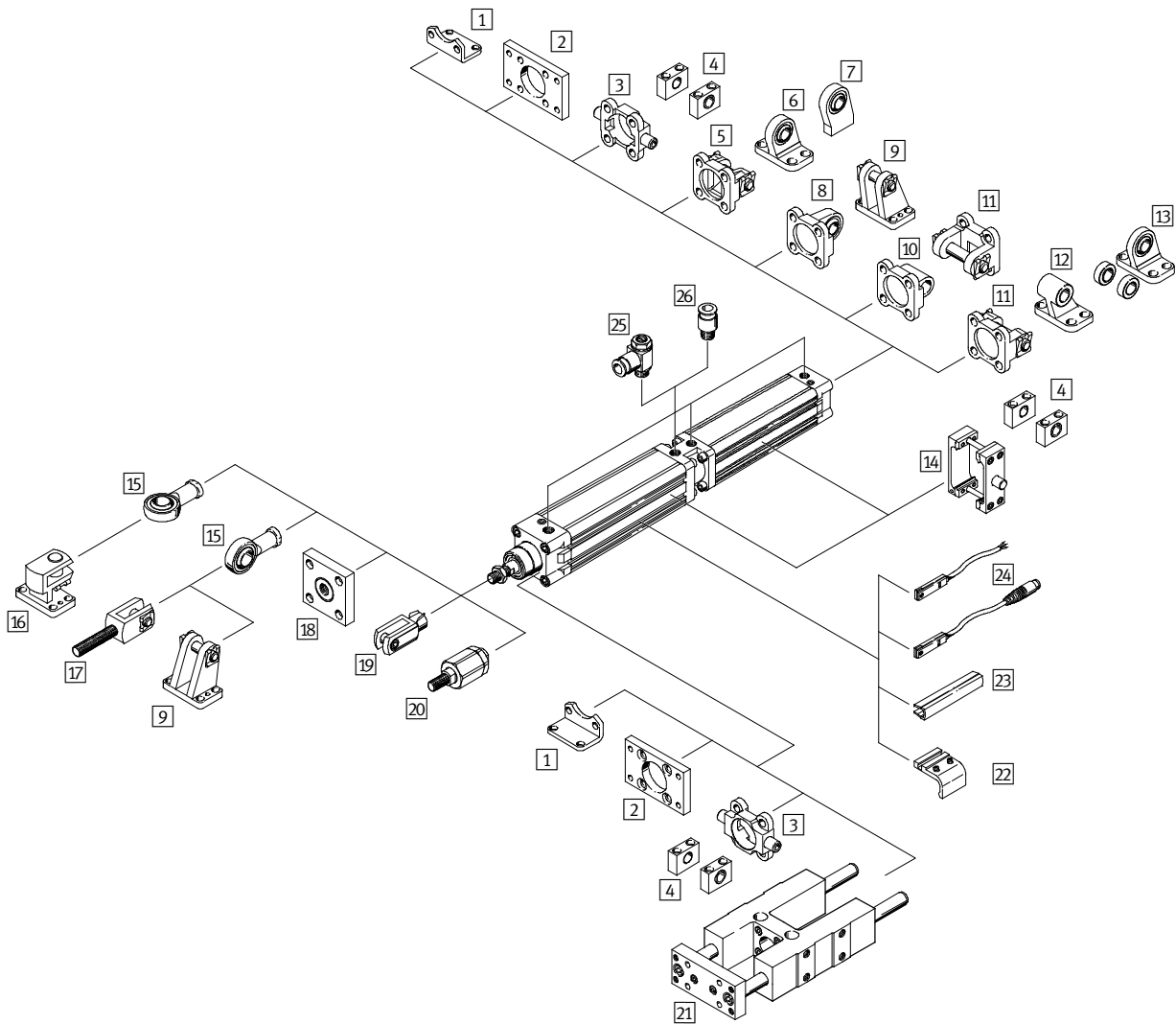
Product range overview

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

Tandem cylinders DNCT, standard port pattern

Peripherals overview

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Tandem cylinders DNCT, standard port pattern

Peripherals overview

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Mounting attachments and accessories		
	Brief description	→ Page/Internet
1	Foot mounting HNC	For bearing and end caps
2	Flange mounting FNC	For bearing or end caps
3	Trunnion flange ZNCF	For bearing or end caps
4	Trunnion support LNZG	–
5	Swivel flange SNC	For end caps
6	Clevis foot LSNG	With spherical bearing
7	Clevis foot LSNSG	Weld-on, with spherical bearing
8	Swivel flange SNCS	With spherical bearing for end caps
9	Clevis foot LBG	–
10	Swivel flange SNCL	For end caps
11	Swivel flange SNCB	For end caps
12	Clevis foot LNG	–
13	Clevis foot LSN	With spherical bearing
14	Trunnion mounting kit ZNCM	For mounting anywhere on the cylinder profile barrel
15	Rod eye SGS	With spherical bearing
16	Right-angle clevis foot LQG	–
17	Rod clevis SGA	With male thread
18	Coupling piece KSG	For compensating radial deviations
19	Rod clevis SG	Permits a swivelling movement of the cylinder in one plane
20	Self-aligning rod coupler FK	For compensating radial and angular deviations
21	Guide unit FENG	For protecting standard cylinders from torsion at high torque loads
22	Mounting kit SMB-8-FENG	For proximity sensor SMT-8 when attaching to cylinders in combination with guide unit FENG
23	Slot cover ABP-5-S	To protect the sensor cable and keep dirt out of the sensor slots
24	Proximity sensor SME/SMT-8	Can be integrated in the cylinder profile barrel
25	One-way flow control valve GRLA	To regulate speed
26	Push-in fitting QS	For connecting compressed air tubing with standard external diameters
		quick star

Tandem cylinders DNCT, standard port pattern

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Type codes

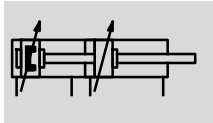
		DNCT	-	40	-	80	-	PPV	-	A	-	S6
Type												
Double-acting												
DNCT	Tandem cylinder											
Piston Ø [mm]												
Stroke [mm]												
Cushioning												
PPV	Pneumatic cushioning adjustable at both ends											
Position sensing												
A	For proximity sensing											
Variant												
S6	Heat-resistant up to 120 °C											

Tandem cylinders DNCT, standard port pattern

Technical data

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Function



Diameter
 32 ... 125 mm

Stroke length
 Ø 32 ... 50:
 2 ... 500 mm

Ø 63 ... 125:
 3 ... 500 mm

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Variants



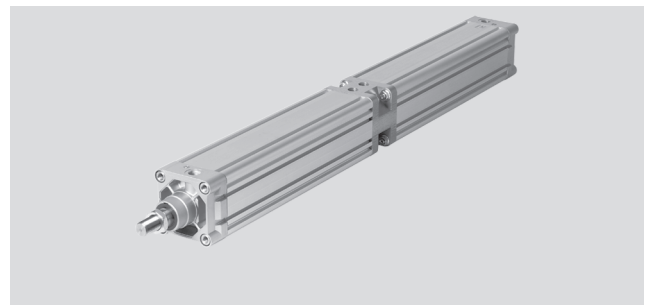
S6

Based on standard

- DIN ISO 6431
- VDMA 24562



DIN



General technical data							
Piston Ø	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
Constructional 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	For proximity sensing						
Type of mounting	With female thread						
	Via accessories						
Mounting position	Any						

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

Ambient 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 sensors

2) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents

Forces [N] and impact energy [J]							
Piston Ø	32	40	50	63	80	100	125
Theoretical force at 6 bar, advancing	898	1,387	2,168	3,552	5,737	9,130	14,244
Theoretical force at 6 bar, retracting	830	1,266	1,980	3,364	5,442	8,836	13,762
Max. impact energy at end positions	0.1	0.2	0.2	0.5	0.9	1.2	5

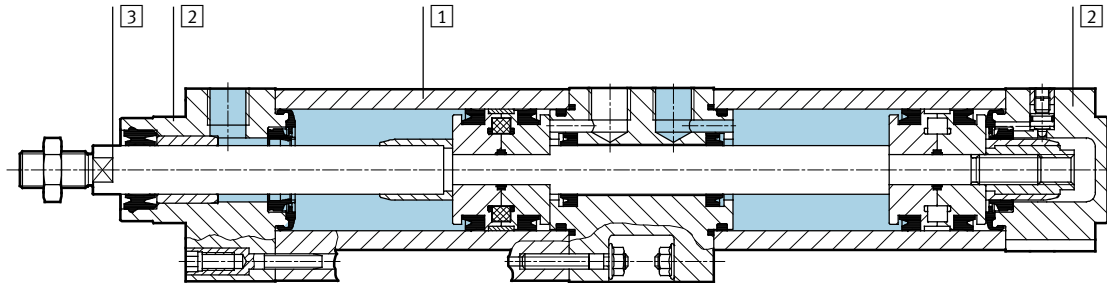
Tandem cylinders DNCT, standard port pattern

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Technical data

Materials

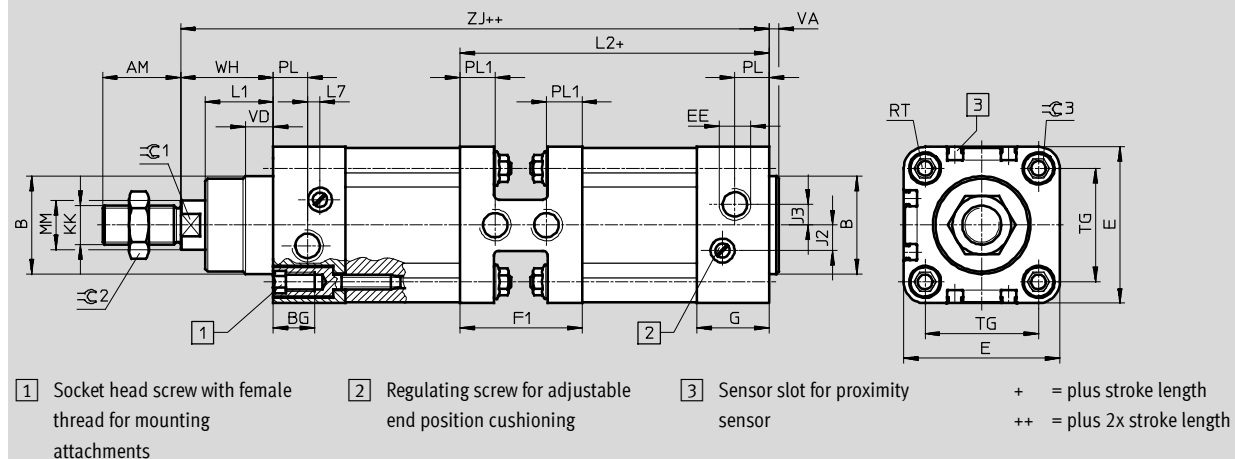
Sectional view



Tandem cylinder	Basic version	S6
1 Cylinder barrel	Wrought aluminium alloy, smooth anodised	Wrought aluminium alloy, smooth anodised
2 Bearing and end cap	Die-cast aluminium	Die-cast aluminium
3 Piston rod	High-alloy steel	High-alloy steel
– Seals	Polyurethane, nitrile rubber	Fluorocarbon rubber
Note on materials	RoHS compliant	

Dimensions

Download CAD data → www.festo.com



Ø	AM	B Ø d11	BG	E	EE	F1	G	J2	J3	KK	L1	L2	L7
[mm]													
32	22	30	16	45.5	G $\frac{1}{8}$	35	25.1	6	5.2	M10x1.25	18	104.2	3.3
40	24	35	16	54	G $\frac{1}{4}$	47.6	29.6	8	6	M12x1.25	21.5	123.5	3.6
50	32	40	17	64	G $\frac{1}{4}$	50	29.6	10.4	8.5	M16x1.5	28	126.7	5.1
63	32	45	17	75	G $\frac{3}{8}$	64.4	35.6	12.4	10	M16x1.5	28.5	150	6.6
80	40	45	17	93	G $\frac{3}{8}$	68	35.9	12.5	8	M20x1.5	34.7	161.7	10.5
100	40	55	17	110	G $\frac{1}{2}$	75	38.8	12	10	M20x1.5	38.2	178.1	8
125	54	60	22	134	G $\frac{1}{2}$	70	44.7	13	8	M27x2	46	188.5	14

Ø	MM Ø	PL	PL1	RT	TG	VA	VD	WH	ZJ	⌀C1	⌀C2	⌀C3
[mm]												
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

Tandem cylinders DNCT, standard port pattern

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Technical data

Ordering data				
Type	Piston Ø [mm]	Stroke [mm]	Part No.	Type
Basic version				
	32	2 ... 500	191 106	DNCT-32-...-PPV-A
	40	2 ... 500	191 107	DNCT-40-...-PPV-A
	50	2 ... 500	191 108	DNCT-50-...-PPV-A
	63	3 ... 500	191 109	DNCT-63-...-PPV-A
	80	3 ... 500	191 110	DNCT-80-...-PPV-A
	100	3 ... 500	191 111	DNCT-100-...-PPV-A
	125	3 ... 500	191 112	DNCT-125-...-PPV-A
S6 – Heat-resistant seals up to 120 °C				
	32	2 ... 500	191 210	DNCT-32-...-PPV-A-S6
	40	2 ... 500	191 211	DNCT-40-...-PPV-A-S6
	50	2 ... 500	191 212	DNCT-50-...-PPV-A-S6
	63	3 ... 500	191 213	DNCT-63-...-PPV-A-S6
	80	3 ... 500	191 214	DNCT-80-...-PPV-A-S6
	100	3 ... 500	191 215	DNCT-100-...-PPV-A-S6
	125	3 ... 500	191 216	DNCT-125-...-PPV-A-S6

Tandem cylinders DNCT, standard port pattern

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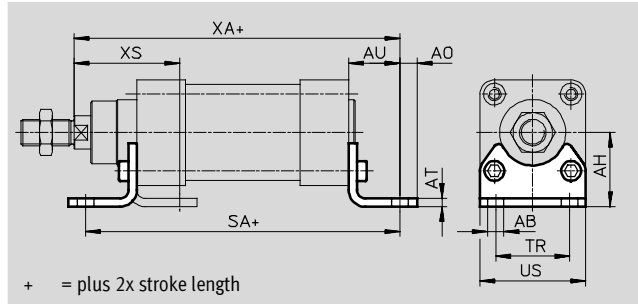
Accessories

Foot mounting HNC

Material:

Galvanised steel

Free of copper and PTFE



Dimensions and ordering data													
For Ø	AB Ø	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	174 369 HNC-32
40	10	36	9	4	28	255.4	36	54	257.4	53	2	193	174 370 HNC-40
50	10	45	9.5	5	32	267.4	45	64	273.1	62	2	353	174 371 HNC-50
63	10	50	12.5	5	32	299.7	50	75	305.9	63	2	436	174 372 HNC-63
80	12	63	15	6	41	337.4	63	93	342.6	81	2	829	174 373 HNC-80
100	14.5	71	17.5	6	41	363.2	75	110	372.3	86	2	1 009	174 374 HNC-100
125	16.5	90	22	8	45	397	90	131	417.3	102	2	1 902	174 375 HNC-125

1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents

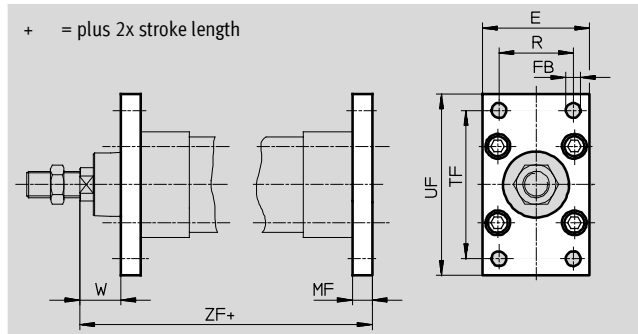
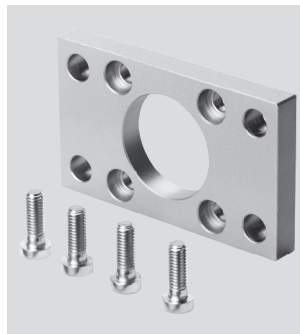
Flange mounting FNC

Material:

Galvanised steel

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data												
For Ø	E	FB Ø	MF	R	TF	UF	W	ZF	CRC ¹⁾	Weight	Part No.	Type
[mm]		H13								[g]		
32	45	7	10	32	64	80	16	209.6	1	221	174 376	FNC-32
40	54	9	10	36	72	90	20	239.4	1	291	174 377	FNC-40
50	65	9	12	45	90	110	25	253.1	1	536	174 378	FNC-50
63	75	9	12	50	100	120	25	285.9	1	679	174 379	FNC-63
80	93	12	16	63	126	150	30	317.6	1	1 495	174 380	FNC-80
100	110	14	16	75	150	175	35	347.3	1	2 041	174 381	FNC-100
125	132	16	20	90	180	210	45	392.3	1	3 775	174 382	FNC-125

1) Corrosion resistance class 1 according to Festo standard 940 070

Components with light corrosion exposure. Protection for transport and storage. Components without significant decorative function or surface, e.g. installed out of sight internally or behind covers.

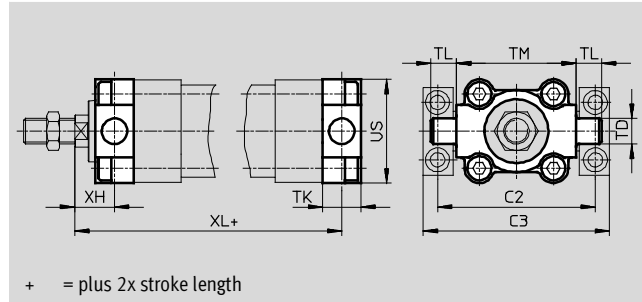
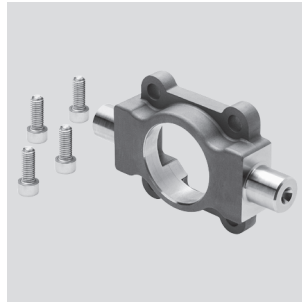
Tandem cylinders DNCT, standard port pattern

Accessories

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Trunnion flange ZNCF

Material:
Corrosion resistant cast steel
Free of copper and PTFE
RoHS-compliant



Dimensions and ordering data												
For Ø	C2	C3	TD Ø e9	TK	TL	TM	US	XH	XL	CRC ¹⁾	Weight [g]	Part No. Type
[mm]												
32	71	86	12	16	12	50	45	18	207.6	2	150	174 411 ZNCF-32
40	87	105	16	20	16	63	54	20	239.4	2	285	174 412 ZNCF-40
50	99	117	16	24	16	75	64	25	253.1	2	473	174 413 ZNCF-50
63	116	136	20	24	20	90	75	25	285.9	2	687	174 414 ZNCF-63
80	136	156	20	28	20	110	93	32	315.6	2	1 296	174 415 ZNCF-80
100	164	189	25	38	25	132	110	32	350.3	2	2 254	174 416 ZNCF-100
125	192	217	25	50	25	160	131	40	397.3	2	3 484	174 417 ZNCF-125

1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents

Tandem cylinders DNCT, standard port pattern

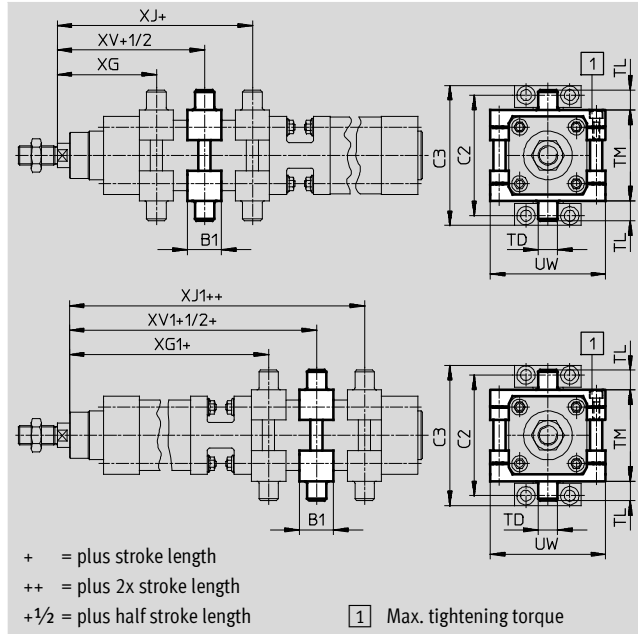
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Accessories

Trunnion mounting kit ZNCM

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

Material:
Tempered steel
Free of copper and PTFE



Dimensions and ordering data									
For Ø	B1	C2	C3	TD	TL	TM	UW	XG	XG1
[mm]				Ø e9					
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 Ø	XJ	XJ1	XV	XV1	Max. tightening torque	CRC ¹⁾	Weight	Part No.	Type
[mm]					[Nm]		[g]		
32	80.4	159.5	73.4	152.5	4+1	2	224	163 525	ZNCM-32
40	89.9	183.8	82.8	176.7	8+1	2	396	163 526	ZNCM-40
50	97.4	194.5	90.9	188	8+2	2	616	163 527	ZNCM-50
63	103.4	217.8	98.9	213.3	18+2	2	931	163 528	ZNCM-63
80	117.9	243.7	111	236.8	28+2	2	1 494	163 529	ZNCM-80
100	129.2	268.5	121.1	260.4	28+2	2	2 095	163 530	ZNCM-100
125	158.8	302.6	146.9	290.7	40+2	2	3 013	163 531	ZNCM-125

1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents

Tandem cylinders DNCT, standard port pattern

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Accessories

Trunnion support LN2G

Material:

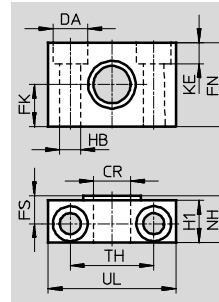
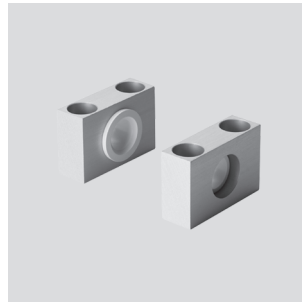
Trunnion support:

Anodised aluminium

Plain bearing: Plastic

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data															
For Ø	CR Ø	DA Ø	FK Ø	FN	FS	H1	HB Ø	KE	NH	TH	UL	CRC ¹⁾	Weight	Part No.	Type
[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	90	32 959	LNZG-32
40, 50	16	15	18	36	12	18	9	9	21	36	55	2	140	32 960	LNZG-40/50
63, 80	20	18	20	40	13	20	11	11	23	42	65	2	190	32 961	LNZG-63/80
100, 125	25	20	25	50	16	24.5	14	13	28.5	50	75	2	320	32 962	LNZG-100/125

1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents

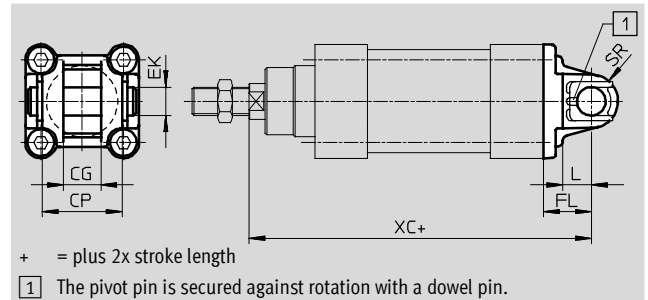
Swivel flange SNC

Material:

Die-cast aluminium

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data											
For Ø	CG	CP	EK Ø	FL	L	SR	XC	CRC ¹⁾	Weight	Part No.	Type
[mm]	H14	h14	h9	±0.2					[g]		
32	14	34	10	22	13	10	221.6	2	90	174 383	SNC-32
40	16	40	12	25	16	12	254.4	2	120	174 384	SNC-40
50	21	45	16	27	16	12	268.1	2	240	174 385	SNC-50
63	21	51	16	32	21	16	305.9	2	320	174 386	SNC-63
80	25	65	20	36	22	16	337.6	2	625	174 387	SNC-80
100	25	75	20	41	27	20	372.3	2	830	174 388	SNC-100
125	37	97	30	50	30	25	422.3	2	1 785	174 389	SNC-125

1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents

Tandem cylinders DNCT, standard port pattern

Accessories

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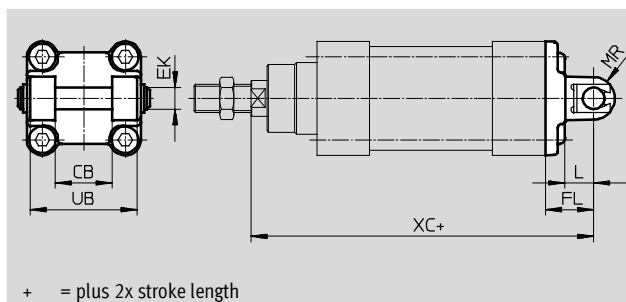
Swivel flange SNCB

Material:

Die-cast aluminium

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data											
For Ø	CB	EK Ø	FL	L	ML	MR	UB	XC	CRC ¹⁾	Weight	Part No. Type
[mm]	H14	e8	±0.2				h14			[g]	
32	26	10	22	13	55	8.5	45	221.6	2	103	174 390 SNCB-32
40	28	12	25	16	63	12	52	254.4	2	155	174 391 SNCB-40
50	32	12	27	16	71	12	60	268.1	2	232	174 392 SNCB-50
63	40	16	32	21	83	16	70	305.9	2	375	174 393 SNCB-63
80	50	16	36	22	103	16	90	337.6	2	636	174 394 SNCB-80
100	60	20	41	27	127	20	110	372.3	2	1 035	174 395 SNCB-100
125	70	25	50	30	148	25	130	422.3	2	1 860	174 396 SNCB-125

1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents

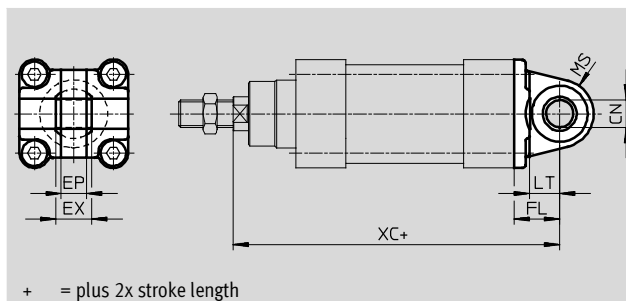
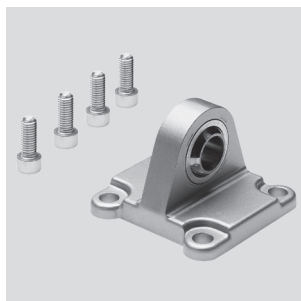
Swivel flange SNCS

Material:

Die-cast aluminium

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data											
For Ø	CN Ø	EP	EX	FL	LT	MS	XC	CRC ¹⁾	Weight	Part No.	Type
[mm]	H7	±0.2		±0.2					[g]		
32	10	10.5	14	22	13	15	221.6	2	85	174 397	SNCS-32
40	12	12	16	25	16	17	254.4	2	125	174 398	SNCS-40
50	16	15	21	27	16	20	268.1	2	210	174 399	SNCS-50
63	16	15	21	32	21	22	305.9	2	280	174 400	SNCS-63
80	20	18	25	36	22	27	337.6	2	540	174 401	SNCS-80
100	20	18	25	41	27	29	372.3	2	700	174 402	SNCS-100
125	30	25	37	50	30	39	422.3	2	1 410	174 403	SNCS-125

1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents

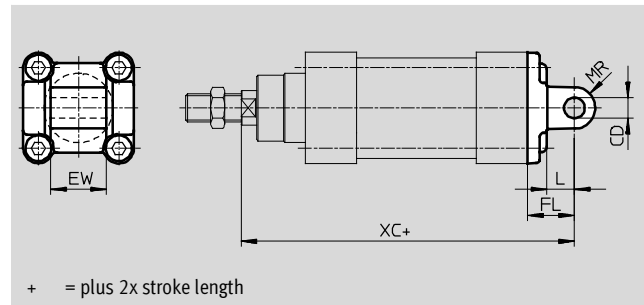
Tandem cylinders DNCT, standard port pattern

Accessories

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Swivel flange SNCL

Material:
Die-cast aluminium
Free of copper and PTFE
RoHS-compliant



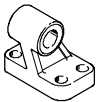
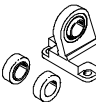
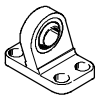
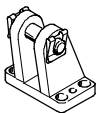
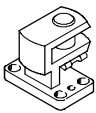
Dimensions and ordering data										
For Ø	CD	EW	FL	L	MR	XC	CRC ¹⁾	Weight	Part No.	Type
[mm]	Ø H9	-0.2/-0.6	±0.2					[g]		
32	10	26	22	13	10	221.6	2	75	174 404	SNCL-32
40	12	28	25	16	12	254.4	2	100	174 405	SNCL-40
50	12	32	27	16	12	268.1	2	160	174 406	SNCL-50
63	16	40	32	21	16	305.9	2	250	174 407	SNCL-63
80	16	50	36	22	16	337.6	2	405	174 408	SNCL-80
100	20	60	41	27	20	372.3	2	655	174 409	SNCL-100
125	25	70	50	30	25	422.3	2	1 245	174 410	SNCL-125

- 1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents

Tandem cylinders DNCT, standard port pattern

Accessories

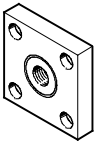
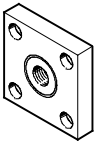
FESTO

Ordering data – Mounting attachments				Technical data → Internet: mounting attachment			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Clevis foot LNG				Clevis foot LSN			
	32	33 890	LNG-32		32	5 561	LSN-32
	40	33 891	LNG-40		40	5 562	LSN-40
	50	33 892	LNG-50		50	5 563	LSN-50
	63	33 893	LNG-63		63	5 564	LSN-63
	80	33 894	LNG-80		80	5 565	LSN-80
	100	33 895	LNG-100		100	5 566	LSN-100
	125	33 896	LNG-125		125	6 987	LSN-125
Clevis foot LSNG				Clevis foot LSNSG			
	32	31 740	LSNG-32		32	31 747	LSNSG-32
	40	31 741	LSNG-40		40	31 748	LSNSG-40
	50	31 742	LSNG-50		50	31 749	LSNSG-50
	63	31 743	LSNG-63		63	31 750	LSNSG-63
	80	31 744	LSNG-80		80	31 751	LSNSG-80
	100	31 745	LSNG-100		100	31 752	LSNSG-100
	125	31 746	LSNG-125		125	31 753	LSNSG-125
Clevis foot LBG				Right-angle clevis foot LQG			
	32	31 761	LBG-32		32	31 768	LQG-32
	40	31 762	LBG-40		40	31 769	LQG-40
	50	31 763	LBG-50		50	31 770	LQG-50
	63	31 764	LBG-63		63	31 771	LQG-63
	80	31 765	LBG-80		80	31 772	LQG-80
	100	31 766	LBG-100		100	31 773	LQG-100
	125	31 767	LBG-125		125	31 774	LQG-125

Tandem cylinders DNCT, standard port pattern

Accessories

FESTO

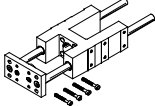
Ordering data – Piston rod attachments				Technical data → Internet: piston rod attachment			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Rod eye SGS				Rod clevis SGA			
	32	9 261	SGS-M10x1,25		32	32 954	SGA-M10x1,25
	40	9 262	SGS-M12x1,25		40	10 767	SGA-M12x1,25
	50	9 263	SGS-M16x1,5		50	10 768	SGA-M16x1,5
	63				63		
	80	9 264	SGS-M20x1,5		80	10 769	SGA-M20x1,5
	100				100		
	125	10 774	SGS-M27x2		125	10 770	SGA-M27x2
Rod clevis SG				Self-aligning rod coupler FK			
	32	6 144	SG-M10x1,25		32	6 140	FK-M10x1,25
	40	6 145	SG-M12x1,25		40	6 141	FK-M12x1,25
	50	6 146	SG-M16x1,5		50	6 142	FK-M16x1,5
	63				63		
	80	6 147	SG-M20x1,5		80	6 143	FK-M20x1,5 ¹⁾
	100				100		
	125	14 987	SG-M27x2-B		125	10 485	FK-M27x2
Coupling piece KSG				 Note ¹⁾ If these piston-rod attachments are used, the maximum force of 10,000 N must not be exceeded.			
	32	32 963	KSG-M10x1,25				
	40	32 964	KSG-M12x1,25				
	50	32 965	KSG-M16x1,5				
	63						
	80	32 966	KSG-M20x1,5				
	100						
	125	32 967	KSG-M27x2				

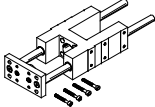
Ordering data – One-way flow control valves				Technical data → Internet: grla	
	Connection		Material	Part No.	Type
	Thread	For tubing O.D.			
	G ¹ / ₈	3	Metal design	193 142	GRLA- ¹ / ₈ -QS-3-D
		4		193 143	GRLA- ¹ / ₈ -QS-4-D
		6		193 144	GRLA- ¹ / ₈ -QS-6-D
		8		193 145	GRLA- ¹ / ₈ -QS-8-D
	G ¹ / ₄	6		193 146	GRLA- ¹ / ₄ -QS-6-D
		8		193 147	GRLA- ¹ / ₄ -QS-8-D
		10		193 148	GRLA- ¹ / ₄ -QS-10-D
	G ³ / ₈	6		193 149	GRLA- ³ / ₈ -QS-6-D
		8		193 150	GRLA- ³ / ₈ -QS-8-D
		10		193 151	GRLA- ³ / ₈ -QS-10-D
	G ¹ / ₂	12		193 152	GRLA- ¹ / ₂ -QS-12-D

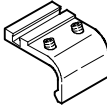
Tandem cylinders DNCT, standard port pattern

Accessories

FESTO

Ordering data – Guide units for fixed strokes (recirculating ball bearing guide only)				Technical data → Internet: feng		
	Stroke [mm]	Part No.	Type	Stroke [mm]	Part No.	Type
	For Ø 32 mm			For Ø 40 mm		
	10 ... 50	34 493	FENG-32-50-KF	10 ... 50	34 499	FENG-40-50-KF
	10 ... 100	34 494	FENG-32-100-KF	10 ... 100	34 500	FENG-40-100-KF
	10 ... 160	34 495	FENG-32-160-KF	10 ... 160	34 501	FENG-40-160-KF
	10 ... 200	34 496	FENG-32-200-KF	10 ... 200	34 502	FENG-40-200-KF
	10 ... 250	150 289	FENG-32-250-KF	10 ... 250	34 503	FENG-40-250-KF
	10 ... 320	34 497	FENG-32-320-KF	10 ... 320	34 504	FENG-40-320-KF
	10 ... 400	150 290	FENG-32-400-KF	10 ... 400	150 291	FENG-40-400-KF
	10 ... 500	34 498	FENG-32-500-KF	10 ... 500	34 505	FENG-40-500-KF
	For Ø 50 mm			For Ø 63 mm		
	10 ... 50	34 506	FENG-50-50-KF	10 ... 50	34 513	FENG-63-50-KF
	10 ... 100	34 507	FENG-50-100-KF	10 ... 100	34 514	FENG-63-100-KF
	10 ... 160	34 508	FENG-50-160-KF	10 ... 160	34 515	FENG-63-160-KF
	10 ... 200	34 509	FENG-50-200-KF	10 ... 200	34 516	FENG-63-200-KF
	10 ... 250	34 510	FENG-50-250-KF	10 ... 250	34 517	FENG-63-250-KF
	10 ... 320	34 511	FENG-50-320-KF	10 ... 320	34 518	FENG-63-320-KF
	10 ... 400	150 292	FENG-50-400-KF	10 ... 400	34 519	FENG-63-400-KF
	10 ... 500	34 512	FENG-50-500-KF	10 ... 500	34 520	FENG-63-500-KF
	For Ø 80 mm			For Ø 100 mm		
	10 ... 50	34 521	FENG-80-50-KF	10 ... 50	34 529	FENG-100-50-KF
	10 ... 100	34 522	FENG-80-100-KF	10 ... 100	34 530	FENG-100-100-KF
	10 ... 160	34 523	FENG-80-160-KF	10 ... 160	34 531	FENG-100-160-KF
	10 ... 200	34 524	FENG-80-200-KF	10 ... 200	34 532	FENG-100-200-KF
	10 ... 250	34 525	FENG-80-250-KF	10 ... 250	34 533	FENG-100-250-KF
	10 ... 320	34 526	FENG-80-320-KF	10 ... 320	34 534	FENG-100-320-KF
	10 ... 400	34 527	FENG-80-400-KF	10 ... 400	34 535	FENG-100-400-KF
	10 ... 500	34 528	FENG-80-500-KF	10 ... 500	34 536	FENG-100-500-KF

Ordering data – Guide units for variable strokes				Technical data → Internet: feng	
	For Ø [mm]	Stroke [mm]	With recirculating ball bearing guide Part No. Type	With plain bearing guide Part No. Type	
	32	10 ... 500	34 487 FENG-32-...-KF	34 481	FENG-32-...
	40	10 ... 500	34 488 FENG-40-...-KF	34 482	FENG-40-...
	50	10 ... 500	34 489 FENG-50-...-KF	34 483	FENG-50-...
	63	10 ... 500	34 490 FENG-63-...-KF	34 484	FENG-63-...
	80	10 ... 500	34 491 FENG-80-...-KF	34 485	FENG-80-...
	100	10 ... 500	34 492 FENG-100-...-KF	34 486	FENG-100-...

Ordering data – Mounting kits for proximity sensors SMT-8			Technical data → Internet: smb	
	For Ø [mm]	Part No.	Type	
	32	175 705	SMB-8-FENG-32/40	
	40			
	50	175 706	SMB-8-FENG-50/63	
	63			
	80	175 707	SMB-8-FENG-80/100	
	100			

Tandem cylinders DNCT, standard port pattern

Accessories

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Ordering data – Proximity sensors for T-slot, magneto-resistive					Technical data → Internet: smt	
	Type of mounting	Switch output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in the slot from above, flush with cylinder profile	PNP	Cable, 3-wire	2.5	543 867	SMT-8M-PS-24V-K-2,5-OE
			Plug M8x1, 3-pin	0.3	543 866	SMT-8M-PS-24V-K-0,3-M8D
			Plug M12x1, 3-pin	0.3	543 869	SMT-8M-PS-24V-K-0,3-M12
		NPN	Cable, 3-wire	2.5	543 870	SMT-8M-NS-24V-K-2,5-OE
Plug M8x1, 3-pin	0.3		543 871	SMT-8M-NS-24V-K-0,3-M8D		
	Insertable in the slot lengthwise, flush with the cylinder profile	PNP	Cable, 3-wire	2.5	175 436	SMT-8-PS-K-LED-24-B
			Plug M8x1, 3-pin	0.3	175 484	SMT-8-PS-S-LED-24-B
N/C contact						
	Insertable in the slot from above, flush with cylinder profile	PNP	Cable, 3-wire	7.5	543 873	SMT-8M-PO-24V-K7,5-OE

Ordering data – Proximity sensors for T-slot, magnetic reed					Technical data → Internet: sme	
	Type of mounting	Switch output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in the slot from above, flush with cylinder profile	Contacting	Cable, 3-wire	2.5	543 862	SME-8M-DS-24V-K-2,5-OE
				5.0	543 863	SME-8M-DS-24V-K-5,0-OE
			Cable, 2-wire	2.5	543 872	SME-8M-ZS-24V-K-2,5-OE
			Plug M8x1, 3-pin	0.3	543 861	SME-8M-DS-24V-K-0,3-M8D
	Insertable in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	150 855	SME-8-K-LED-24
			Plug M8x1, 3-pin	0.3	150 857	SME-8-S-LED-24
N/C contact						
	Insertable in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	7.5	160 251	SME-8-O-K-LED-24

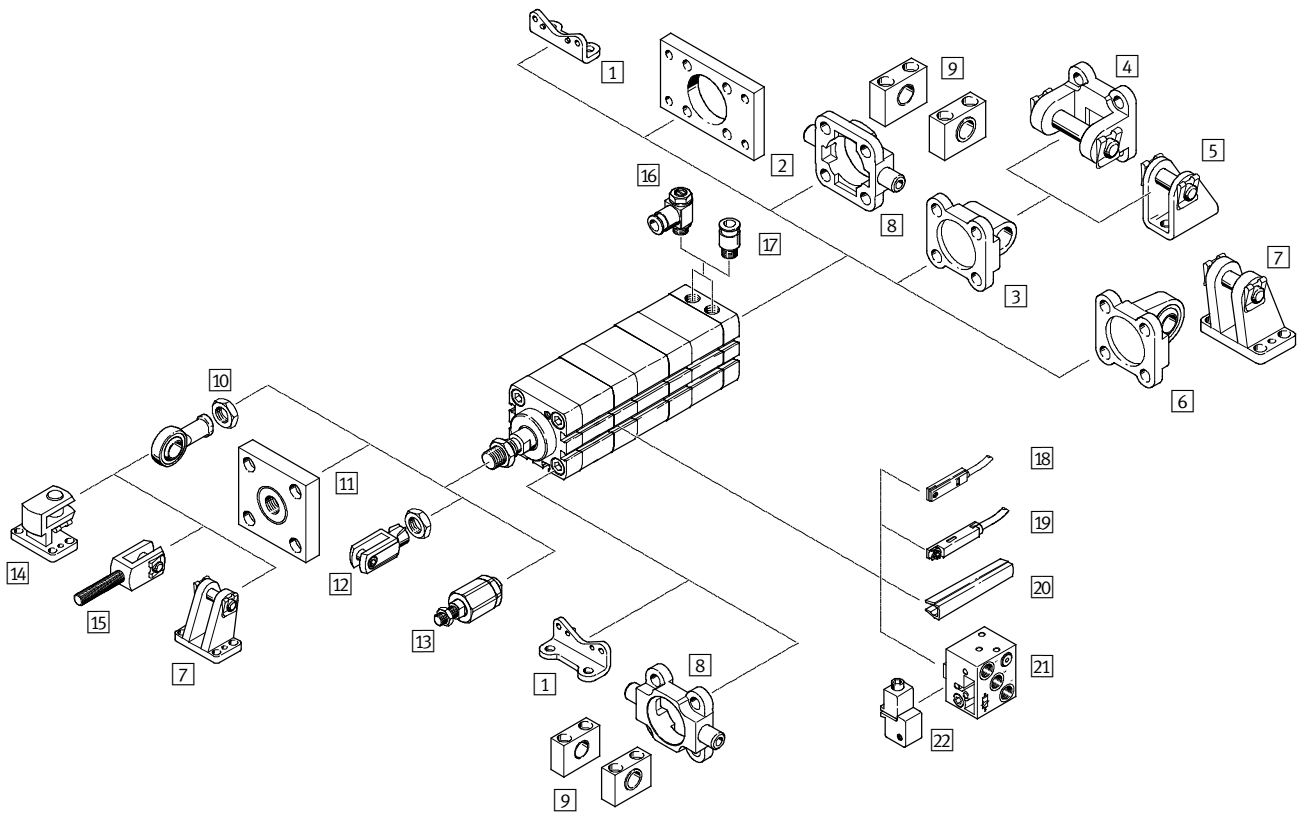
Ordering data – Connecting cables				Technical data → Internet: nebu	
	Electrical connection, left	Electrical connection, right	Cable length [m]	Part No.	Type
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541 333	NEBU-M8G3-K-2.5-LE3
			5	541 334	NEBU-M8G3-K-5-LE3
	Straight socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541 363	NEBU-M12G5-K-2.5-LE3
			5	541 364	NEBU-M12G5-K-5-LE3
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541 338	NEBU-M8W3-K-2.5-LE3
			5	541 341	NEBU-M8W3-K-5-LE3
	Angled socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541 367	NEBU-M12W5-K-2.5-LE3
			5	541 370	NEBU-M12W5-K-5-LE3

Ordering data – Slot cover for T-slot			Part No.	Type
Mounting	Length			
	Insertable from above	2x 0.5 m	151 680	ABP-5-S

High-force cylinders ADNH, standard port pattern

Peripherals overview

FESTO



High-force cylinders ADNH, standard port pattern

Peripherals overview

Mounting attachments and accessories				
	Brief description	Ø 25	Ø 40, 63, 100	→ Page/Internet
1	Foot mounting HNA	■	■	30
2	Flange mounting FNC	■	■	31
3	Swivel flange SNCL	■	■	32
4	Swivel flange SNCB	–	■	35
5	Clevis foot LBN/CRLBN	■	–	34
6	Swivel flange SNCS	–	■	32
7	Clevis foot LBG	–	■	37
8	Trunnion flange ZNCF/CRZNG	–	■	36
9	Trunnion support LNZG	–	■	36
10	Rod eye SGS/CRSGS	■	■	37
11	Coupling piece KSG	■	■	37
12	Rod clevis SG/CRSG	■	■	37
13	Self-aligning rod coupler FK	■	■	37
14	Right-angle clevis foot LQG	–	■	37
15	Rod clevis SGA	–	■	37
16	One-way flow control valve GRLA	■	■	37
17	Push-in fitting QS	■	■	quick star
18	Proximity sensor SME/SMT-8	■	■	38
19	Proximity sensor SME/SMT-8M	■	■	38
20	Slot cover ABP-5-S	■	■	39
21	Proximity sensor SMPO-8E	■	■	39
22	Mounting kit SMB-8E	■	■	39

High-force cylinders ADNH, standard port pattern

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Type codes

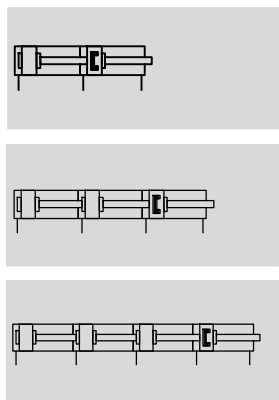
		ADNH	-	40	-	80	-	A	-	P	-	A	-	2N	-	K2
Type																
Double-acting																
ADNH	High-force cylinder															
Piston Ø [mm]																
Stroke [mm]																
Piston rod thread																
A	Male thread															
I	Female thread															
Cushioning																
P	Flexible cushioning rings/pads at both ends															
Position sensing																
A	Via proximity sensor															
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															
Variant																
K2	Extended male piston rod thread															
K5	Special piston rod thread															
K8	Extended piston rod															
S6	Heat-resistant seals up to max. 120 °C															
TL	Captive rating plate (laser etched)															

High-force cylinders ADNH, standard port pattern

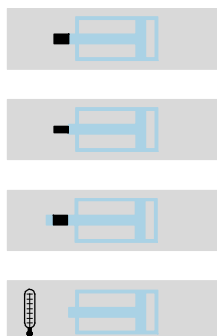
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Technical data

Function



Variants

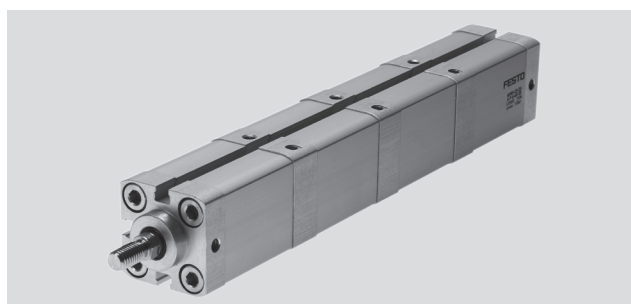


K2

K5

K8

S6



-  - Diameter
25 ... 100 mm
-  - Stroke length
1 ... 150 mm

General technical data				
Piston Ø	25	40	63	100
Pneumatic connection	M5	M5	G1/8	G1/8
Piston rod thread	Female	M6	M10	M12
	Male	M8	M12x1,25	M16x1,5
Constructional design	Piston			
	Piston rod			
	Cylinder barrel			
Cushioning	Flexible cushioning rings/pads at both ends			
Position sensing	Via proximity sensor			
Type of mounting	Via female threads			
	Via accessories			
Mounting position	Any			

Operating and environmental conditions				
Piston Ø	25	40	63	100
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:4:4]			
Note on operating/pilot medium	Operation with lubricated medium possible (in which case lubricated operation will always be required)			
Operating pressure [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 sensors

2) Corrosion resistance class 2 to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents

High-force cylinders ADN, standard port pattern

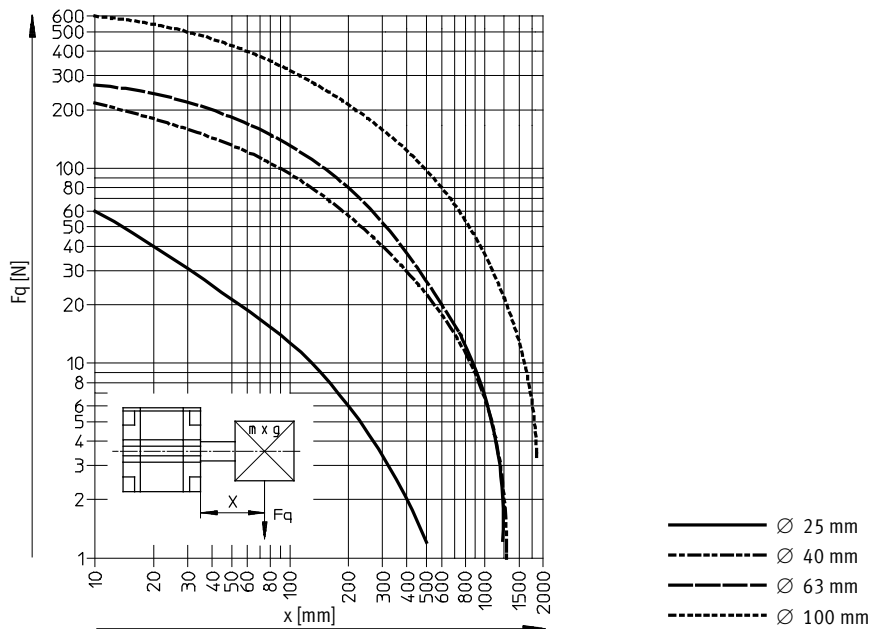
FESTO

Technical data

Forces [N] and impact energy [J]					
Piston Ø		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
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) During retraction only the force of one cylinder is available

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



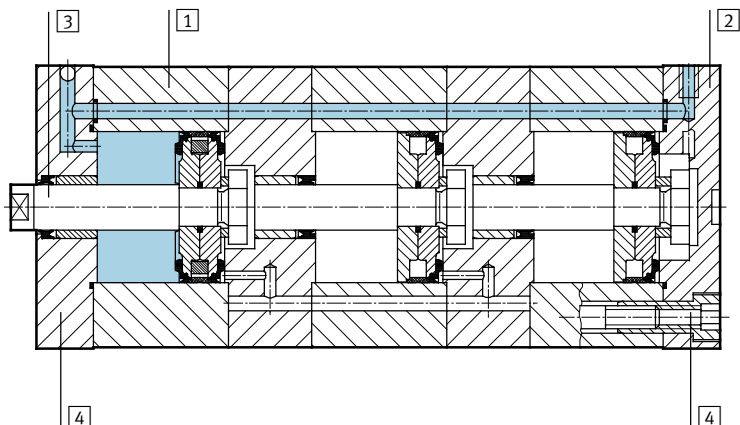
High-force cylinders ADNH, standard port pattern

Technical data

FESTO

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 elastomer
Notes on materials	RoHS compliant	

High-force cylinders ADNH, standard port pattern

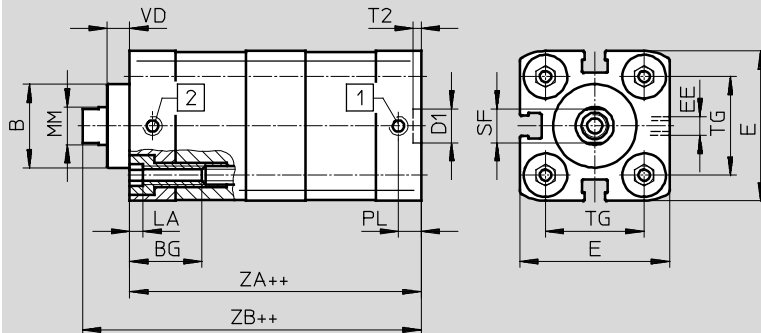
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Technical data

Dimensions – Basic version

Download CAD data → www.festo.com

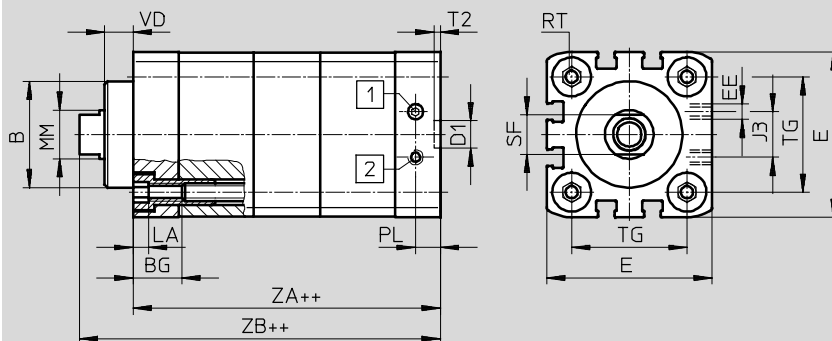
Ø 25/2N – 2 cylinders



- 1 Cylinder advancing
- 2 Cylinder retracting

++ = plus 2x stroke length

Ø 40 ... 100/2N – 2 cylinders

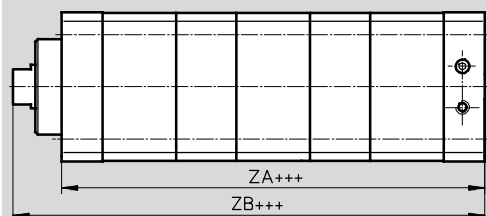


- 1 Cylinder advancing
- 2 Cylinder retracting

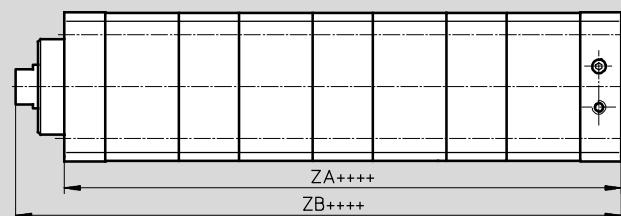
++ = plus 2x stroke length

3N – 3 cylinders

4N – 4 cylinders



+++ = plus 3x stroke lengths



++++ = plus 4x stroke lengths

Ø	B	BG	D1	E	EE	J3	LA	MM	PL	RT
[mm]	Ø f8	min.	Ø H9	+0.3			+0.2	Ø h9	+0.2	
25	22	15	9	39.5	M5	–		10	6	M5
40	35	16		54.5		15	5	16	8.2	M6
63	42		12	75.5		23		20		M8
100	55	17		113.5	G1/8	40		25	10.5	M10

Ø	SF	T2	TG	VD	ZA			ZB		
[mm]		+0.1	±0.2		Number of cylinders			Number of cylinders		
					2	3	4	2	3	4
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}

High-force cylinders ADN_H, standard port pattern

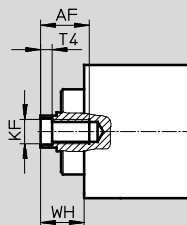
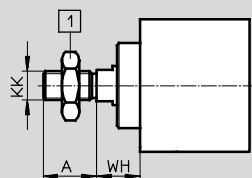
FESTO

Technical data

Dimensions – Variants

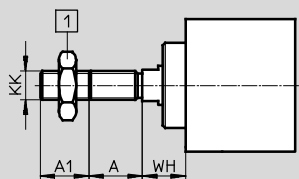
Download CAD data → www.festo.com

Basic version



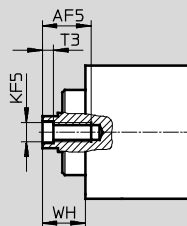
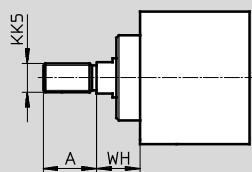
1 Hex nut to DIN 439-B
only with Ø 40 ... 100

K2 – Extended male piston rod thread

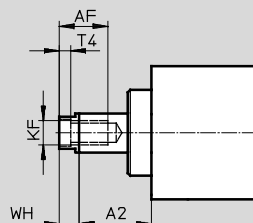
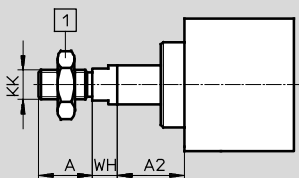


1 Hex nut to DIN 439-B
only with Ø 40 ... 100

K5 – Special piston rod thread



K8 – Extended piston rod



1 Hex nut to DIN 439-B
only with Ø 40 ... 100

Ø	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	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

High-force cylinders ADNH, standard port pattern

FESTO

Ordering data – Modular products

M Mandatory data →							
Module No.	Function	Size	Stroke	Type of thread	Cushioning	Position sensing	Number of cylinders
539 691	ADNH	25	1 ... 150	A	P	A	2N
539 692		40		I			3N
539 693		63					4N
539 694		100					
Order example							
539 694	ADNH	- 100	- 120	- A	- P	- A	- 4N

Ordering table							
Size	25	40	63	100	Condi- tions	Code	Enter code
M Module No.	539 691	539 692	539 693	539 694			
Function	Compact tandem cylinder, based on ISO 21287					ADNH	ADNH
Size [mm]	25	40	63	100		-...	
Stroke [mm]	1 ... 150					-...	
Type of thread	Male thread					-A	
	Female thread					-I	
Cushioning	Flexible cushioning rings/pads at both ends					-P	-P
Position sensing	Via proximity sensor					-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	

Transfer order code

	ADNH	-		-		-	P	-	A	-	...N
--	------	---	--	---	--	---	---	---	---	---	------

High-force cylinders ADNH, standard port pattern

FESTO

Ordering data – Modular products

→ **Options**

Male thread extended	Special thread	Piston rod extended	Temperature resistance	Captive rating plate
...K2	"..."K5	...K8	S6	TL
- 25K2	- "M16x1.5"K5	-	- S6	-

Ordering table							
Size	25	40	63	100	Condi- tions	Code	Enter code
Male thread extended	Extended male piston rod thread					-...K2	
[mm]	1 ... 20	1 ... 20	1 ... 20	1 ... 30			
Special piston rod thread	M10x1.25	M10x1.25	M12x1.25	M16x1.5	[1]	-..."K5	
	M10	M12	M16	M20			
	M5	M8	M10	-	[2]		
Piston rod extended	Extended piston rod					-...K8	
[mm]	1 ... 150	1 ... 150	1 ... 150	1 ... 150	[3]		
Temperature resistance	Heat-resistant seals up to 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

Transfer order code

- - - - -

High-force cylinders ADN, standard hole pattern

FESTO

Accessories

Foot mounting HNA

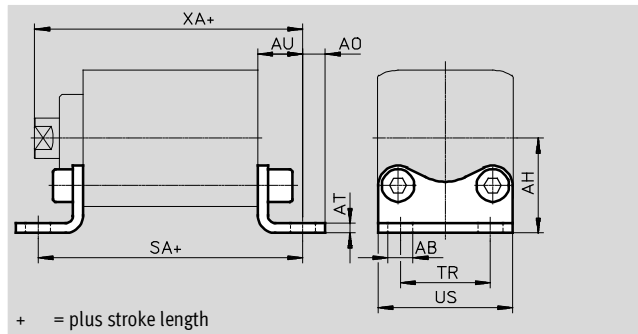
Material:

HNA: Galvanised steel

HNA-...-R3: Steel with protective coating

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data								
For Ø	AB	AH	AO	AT	AU	SA ¹⁾		
Ø	Ø					2	3	4
[mm]	H14	JS14		±0.5	±0.2			
25	7	29	6.25	4	16	108.3	142.5	176.7
40	10	38	9		18	122.2	161.5	200.8
63		50	8	5	21	135.6	177.7	220.1
100	14.5	74	12.5	6	27	174.9	226.8	278.7

For Ø	TR	US	XA ¹⁾		
Ø			2	3	4
[mm]	±0.2	-0.5			
25	26	38.5	104.5	138.7	172.9
40	36	54	122.6	161.9	201.2
63	50	75	135.6	178.0	220.4
100	75	110	174.9	226.8	272.7

For Ø	Basic version				R3 – High corrosion protection			
	CRC ²⁾	Weight [g]	Part No.	Type	CRC ²⁾	Weight [g]	Part No.	Type
[mm]								
25	2	55	537 240	HNA-25	3	55	537 255	HNA-25-R3
40	2	90	537 242	HNA-40	3	90	537 257	HNA-40-R3
63	2	180	537 244	HNA-63	3	180	537 259	HNA-63-R3
100	2	470	537 250	HNA-100	3	470	537 261	HNA-100-R3

- 1) Number of stroke lengths
 2 = 2x stroke length
 3 = 3x stroke length
 4 = 4x stroke length
- 2) Corrosion resistance class 2 according to Festo standard 940 070
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
 Corrosion resistance class 3 according to Festo standard 940 070
 Components subject to high corrosion stress. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment or media such as solvents and cleaning agents.

High-force cylinders ADNH, standard hole pattern

FESTO

Accessories

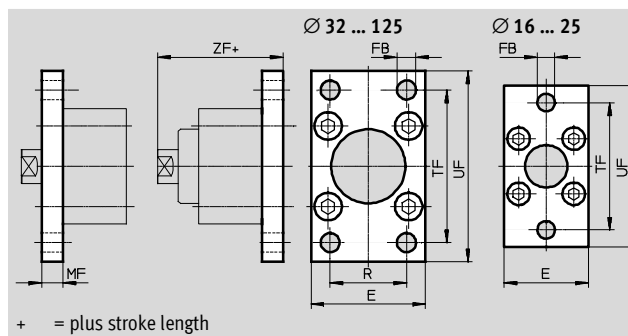
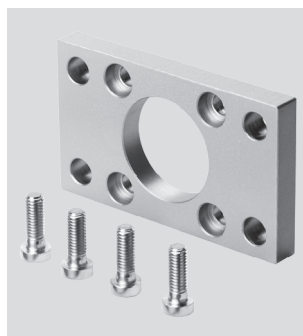
Flange mounting FNC

Material:

Galvanised steel

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data						
For Ø	E	FB Ø	MF	R	TF	UF
[mm]						±1
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 Ø	ZF ¹⁾			CRC ²⁾	Weight [g]	Part No.	Type
	2	3	4				
[mm]							
25	96.5	130.7	164.9	1	165	537 248	FNC-25
40	114.6	153.9	193.2	1	291	174 377	FNC-40
63	126.6	169.0	211.4	1	679	174 379	FNC-63
100	163.9	215.8	267.7	1	2 041	174 381	FNC-100

1) Number of stroke lengths

2 = 2x stroke length

3 = 3x stroke length

4 = 4x stroke length

2) Corrosion resistance class 1 according to Festo standard 940 070

Components subject to low corrosion stress. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.

High-force cylinders ADNH, standard hole pattern

FESTO

Accessories

Swivel flange SNCL

Material:

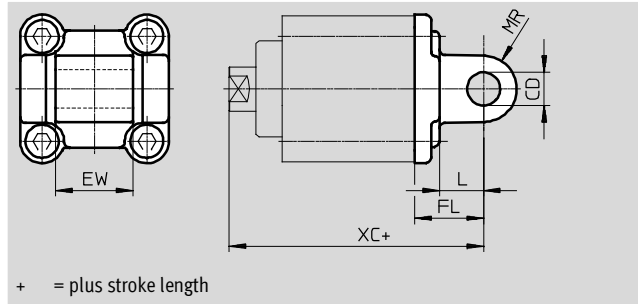
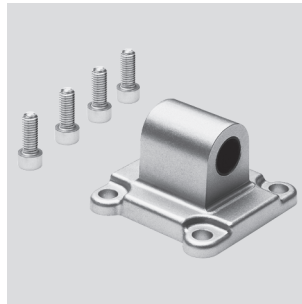
SNCL: Die-cast aluminium

SNCL-...-R3: Die-cast aluminium with

protective coating

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data								
For Ø	CD	EW	FL	L	MR	XC ¹⁾		
Ø	H9	h12	±0.2			2	3	4
[mm]								
25	8	16	20	14	8	108.5	142.7	176.9
40	12	28	25	16	12	129.6	168.9	208.2
63	16	40	32	21	16	146.6	189.0	231.4
100	20	60	41	27	20	188.9	240.8	292.7

For Ø	Basic version				R3 – High corrosion protection			
	CRC ²⁾	Weight	Part No.	Type	CRC ²⁾	Weight	Part No.	Type
[mm]		[g]				[g]		
25	2	45	537 793	SNCL-25	3	45	537 797	SNCL-25-R3
40	2	115	174 405	SNCL-40	–	–	–	–
63	2	270	174 407	SNCL-63	–	–	–	–
100	2	700	174 409	SNCL-100	–	–	–	–

1) Number of stroke lengths

2 = 2x stroke length

3 = 3x stroke length

4 = 4x stroke length

2) Corrosion resistance class 2 according to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Corrosion resistance class 3 according to Festo standard 940 070

Components subject to high corrosion stress. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment or media such as solvents and cleaning agents.

High-force cylinders ADNH, standard hole pattern

FESTO

Accessories

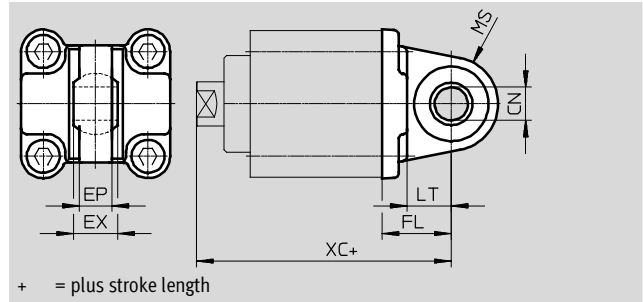
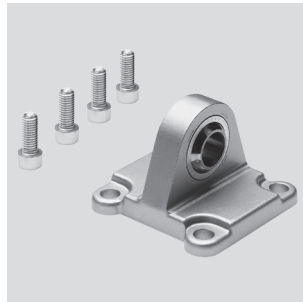
Swivel flange SNCS

Material:

Die-cast aluminium

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data						
For Ø	CN	EP	EX	FL	LT	MS
Ø						
[mm]	H7	±0.2	±0.2			
40	12	12	16	25	16	17
63	16	15	21	32	21	22
100	20	18	25	41	27	29

For Ø	XC ¹⁾			CRC ²⁾	Weight	Part No.	Type
	2	3	4				
[mm]					[g]		
40	129.6	168.9	208.2	2	125	174 398	SNCS-40
63	146.6	189.0	231.4	2	280	174 400	SNCS-63
100	188.9	240.8	292.7	2	700	174 402	SNCS-100

1) Number of stroke lengths

2 = 2x stroke length

3 = 3x stroke length

4 = 4x stroke length

2) Corrosion resistance class 2 according to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

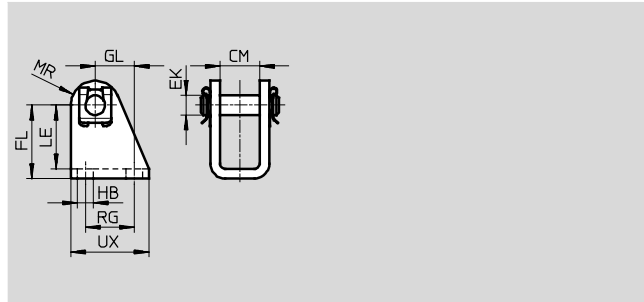
High-force cylinders ADNH, standard hole pattern

FESTO

Accessories

Clevis foot LBN

Material:
Galvanised steel
Free of copper and PTFE
RoHS-compliant

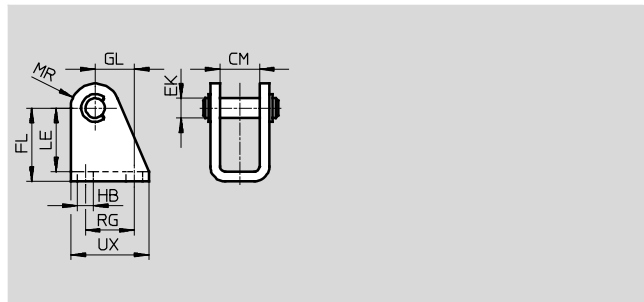


Dimensions and ordering data												
For Ø	CM	EK Ø	FL	GL	HB Ø	LE	MR	RG	UX	CRC ¹⁾	Weight [g]	Part No. Type
[mm]												
25	16.1	8	30 +0.4/-0.2	16	6.6	26	10	20	32	2	81	6 059 LBN-20/25

- 1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Clevis foot CRLBN, stainless steel

Material:
High-alloy steel
Free of copper and PTFE
RoHS-compliant



Dimensions and ordering data												
For Ø	CM	EK Ø	FL	GL	HB Ø	LE	MR	RG	UX	CRC ¹⁾	Weight [g]	Part No. Type
[mm]												
25	16.1	8	30 +0.4/-0.2	16	6.6	26	10	20	32	4	62	161 863 CRLBN-20/25

- 1) Corrosion resistance class 4 according to Festo standard 940 070
Components subject to particularly high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

High-force cylinders ADNH, standard hole pattern

FESTO

Accessories

Swivel flange

SNCB/SNCB-...-R3

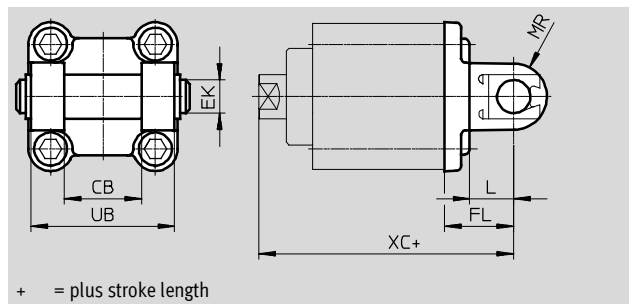
Material:

SNCB: Die-cast aluminium

SNCB-...-R3: Die-cast aluminium with protective coating, high corrosion protection

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data									
For Ø	CB	EK	FL	L	MR	UB	XC ¹⁾		
[mm]	H14	Ø e8	±0.2			h14	2	3	4
40	28	12	25	16	12	52	129.6	168.9	208.2
63	40	16	32	21	16	70	146.6	189.0	231.4
100	60	20	41	27	20	110	188.9	240.8	292.7

For Ø	Basic version				R3 – High corrosion protection			
	CRC ²⁾	Weight [g]	Part No.	Type	CRC ²⁾	Weight [g]	Part No.	Type
[mm]								
40	2	155	174 391	SNCB-40	3	151	176 945	SNCB-40-R3
63	2	375	174 393	SNCB-63	3	371	176 947	SNCB-63-R3
100	2	1 035	174 395	SNCB-100	3	986	176 949	SNCB-100-R3

1) Number of stroke lengths

2 = 2x stroke length

3 = 3x stroke length

4 = 4x stroke length

2) Corrosion resistance class 2 according to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Corrosion resistance class 3 according to Festo standard 940 070

Components subject to high corrosion stress. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment or media such as solvents and cleaning agents.

High-force cylinders ADN, standard hole pattern

Accessories

FESTO

Trunnion flange ZNCF/CRZNG

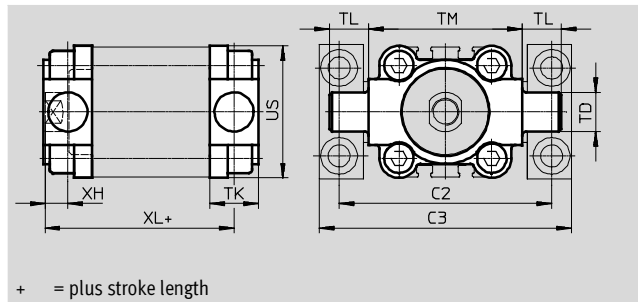
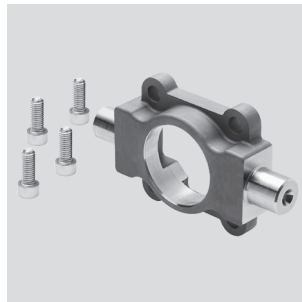
Material:

ZNCF: Stainless steel casting

CRZNG: Electropolished stainless steel casting

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data

For Ø	C2	C3	TD	TK	TL	TM	US	XH	XL ¹⁾		
[mm]			Ø e9						2	3	4
40	87	105	16	20	16	63	54	8.4±1	114.6	153.9	193.2
63	116	136	20	24	20	90	75	9.3±1.2	126.6	169.0	211.4
100	164	189	25	38	25	132	110	8±1.2	166.9	218.8	270.7

For Ø	Basic version				R3 – High corrosion protection			
	CRC ²⁾	Weight [g]	Part No.	Type	CRC ²⁾	Weight [g]	Part No.	Type
[mm]								
40	2	285	174 412	ZNCF-40	4	285	161 853	CRZNG-40
63	2	687	174 414	ZNCF-63	4	687	161 855	CRZNG-63
100	2	2 254	174 416	ZNCF-100	4	2 254	161 857	CRZNG-100

- 1) Number of stroke lengths
 2 = 2x stroke length
 3 = 3x stroke length
 4 = 4x stroke length
- 2) Corrosion resistance class 2 according to Festo standard 940 070
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
 Corrosion resistance class 4 according to Festo standard 940 070
 Components subject to particularly high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

Trunnion support LN2G

Material:

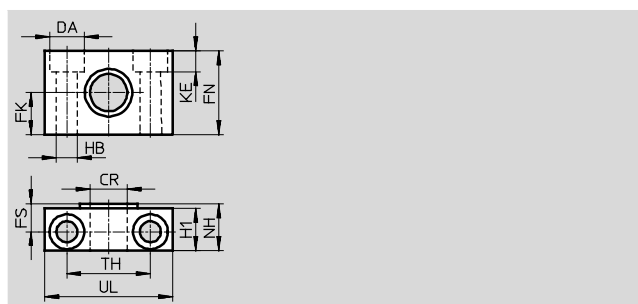
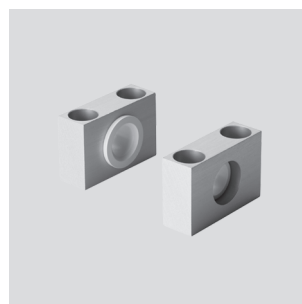
Trunnion support:

Anodised aluminium

Plain bearing: Plastic

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data

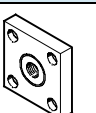
For Ø	CR	DA	FK	FN	FS	H1	HB	KE	NH	TH	UL	CRC ¹⁾	Weight	Part No.	Type
[mm]	Ø D11	Ø H13	Ø ±0.1				Ø H13			±0.2			[g]		
40	16	15	18	36	12	18	9	9	21	36	55	2	129	32 960	LN2G-40/50
63	20	18	20	40	13	20	11	11	23	42	65	2	178	32 961	LN2G-63/80
100	25	20	25	50	16	24.5	14	13	28.5	50	75	2	306	32 962	LN2G-100/125

- 1) Corrosion resistance class 2 according to Festo standard 940 070
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

High-force cylinders ADN, standard hole pattern

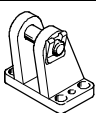
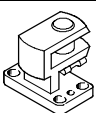
FESTO

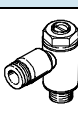
Accessories

Ordering data – Piston rod attachments				Technical data → Internet: piston rod attachment			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Rod eye SGS				Rod clevis SGA for rod eye SGS			
	25	9 255	SGS-M8		25	–	
	40	9 262	SGS-M12x1,25		40	10 767	SGA-M12x1,25
	63	9 263	SGS-M16x1,5		63	10 768	SGA-M16x1,5
	100	9 264	SGS-M20x1,5		100	10 769	SGA-M20x1,5
Rod clevis SG				Self-aligning rod coupler FK			
	25	3 111	SG-M8		25	2 062	FK-M8
	40	6 145	SG-M12x1,25		40	6 141	FK-M12x1,25
	63	6 146	SG-M16x1,5		63	6 142	FK-M16x1,5 ¹⁾
	100	6 147	SG-M20x1,5		100	6 143	FK-M20x1,5 ¹⁾
Coupling piece KSG				 Note ¹⁾ The max. force of 10,000 N must not be exceeded when using these piston rod attachments.			
	25	–					
	40	32 964	KSG-M12x1,25				
	63	32 965	KSG-M16x1,5				
	100	32 966	KSG-M20x1,5				

Ordering data – Corrosion and acid-resistant piston rod attachments				Technical data → Internet: piston rod attachment			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Rod eye CRSGS				Rod clevis CRSG			
	25	195 581	CRSGS-M8		25	13 568	CRSG-M8
	40	195 583	CRSGS-M12x1,25		40	13 570	CRSG-M12x1,25
	63	195 584	CRSGS-M16x1,5		63	13 571	CRSG-M16x1,5
	100	195 585	CRSGS-M20x1,5		100	13 572	CRSG-M20x1,5

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

Ordering data – Mounting attachments				Technical data → Internet: clevis foot			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Clevis foot LBG for rod eye SGS				Right-angle clevis foot LQG for rod eye SGS			
	25	–			25	–	
	40	31 762	LBG-40		40	31 769	LQG-40
	63	31 764	LBG-63		63	31 771	LQG-63
	100	31 766	LBG-100		100	31 773	LQG-100

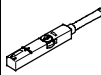
Ordering data – One-way flow control valves				Technical data → Internet: grla	
	Connection		Material	Part No.	Type
	For Ø	For tubing O.D.			
For exhaust air					
	25, 40	3	Metal design	193 137	GRLA-M5-QS-3-D
		4		193 138	GRLA-M5-QS-4-D
	63, 100	4		193 143	GRLA-1/8-QS-4-D
		6		193 144	GRLA-1/8-QS-6-D
		8		193 145	GRLA-1/8-QS-8-D

High-force cylinders ADNH, standard hole pattern

Accessories

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Ordering data – Proximity sensors for T-slot, magneto-resistive					Technical data → Internet: smt	
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in the slot from above, flush with the cylinder profile	PNP	Cable, 3-wire	2.5	543 867	SMT-8M-PS-24V-K-2,5-OE
			Plug M8x1, 3-pin	0.3	543 866	SMT-8M-PS-24V-K-0,3-M8D
			Plug M12x1, 3-pin	0.3	543 869	SMT-8M-PS-24V-K-0,3-M12
		NPN	Cable, 3-wire	2.5	543 870	SMT-8M-NS-24V-K-2,5-OE
			Plug M8x1, 3-pin	0.3	543 871	SMT-8M-NS-24V-K-0,3-M8D
	Insertable in the slot lengthwise, flush with the cylinder profile	PNP	Cable, 3-wire	2.5	175 436	SMT-8-PS-K-LED-24-B
			Plug M8x1, 3-pin	0.3	175 484	SMT-8-PS-S-LED-24-B
N/C contact						
	Insertable in the slot from above, flush with the cylinder profile	PNP	Cable, 3-wire	7.5	543 873	SMT-8M-PO-24V-K7,5-OE

Ordering data – Proximity sensors for T-slot, magnetic reed					Technical data → Internet: sme	
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in the slot from above, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	543 862	SME-8M-DS-24V-K-2,5-OE
				5.0	543 863	SME-8M-DS-24V-K-5,0-OE
			Cable, 2-wire	2.5	543 872	SME-8M-ZS-24V-K-2,5-OE
			Plug M8x1, 3-pin	0.3	543 861	SME-8M-DS-24V-K-0,3-M8D
	Insertable in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	150 855	SME-8-K-LED-24
			Plug M8x1, 3-pin	0.3	150 857	SME-8-S-LED-24
N/C contact						
	Insertable in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	7.5	160 251	SME-8-O-K-LED-24

Ordering data – Connecting cables				Technical data → 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	541 333	NEBU-M8G3-K-2.5-LE3
			5	541 334	NEBU-M8G3-K-5-LE3
	Straight socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541 363	NEBU-M12G5-K-2.5-LE3
			5	541 364	NEBU-M12G5-K-5-LE3
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541 338	NEBU-M8W3-K-2.5-LE3
			5	541 341	NEBU-M8W3-K-5-LE3
	Angled socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541 367	NEBU-M12W5-K-2.5-LE3
			5	541 370	NEBU-M12W5-K-5-LE3

High-force cylinders ADNH, standard hole pattern

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Accessories

Ordering data – Block-shaped proximity sensors, pneumatic			Technical data → Internet: smpo	
	Pneumatic connection	Part No.	Type	
3/2-way valve, normally closed				
	Female thread M5	178 563	SMPO-8E	

Ordering data – Mounting kit for proximity sensors SMPO-8E			Technical data → Internet: smb	
	Mounting	Part No.	Type	
	Clamped in T-slot	178 230	SMB-8E	

Ordering data – Slot cover for T-slot				
	Mounting	Length	Part No.	Type
	Insertable	2x 0.5 m	151 680	ABP-5-S