

Multi-position cylinders/Adapter kits

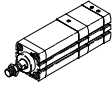
FESTO



Multi-position cylinders ADN

Product range overview

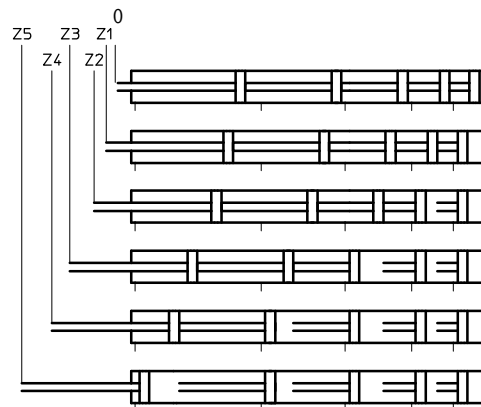
FESTO

Function	Version	Type	Piston Ø [mm]	Max. stroke [mm]	Piston rod	
					With female thread	With male thread
Double-acting		ADNM Single-ended piston rod	25	300	■	■
			40, 63, 100	1000	■	■

Functional principle

Up to five positions Z1 ... Z5 can be approached by connecting two to five cylinders with the same piston diameter and different stroke lengths in series.

Example: ADN-..., with 5 positions



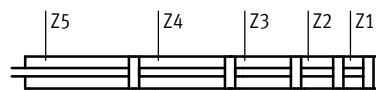
- 0 Initial position
- Z1 Position 1
- Z2 Position 2
- Z3 Position 3
- Z4 Position 4
- Z5 Position 5

The following rules must be observed to ensure the functionality of the cylinder:

Rules

Example: ADN-25-...-50Z1-100Z2-150Z3-200Z4-300Z5, with 5 positions

- The subsequent position (e.g. Z4) must be greater than the sum of the preceding position (Z3) plus the positional tolerance T (→ 3)

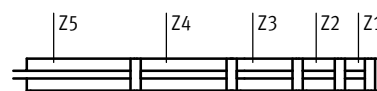


$$Z5 > Z4 > Z3 > Z2 > Z1$$

- Pos. Z2 (100 mm) > pos. Z1 (50 mm) + 6.3 mm
- Pos. Z3 (150 mm) > pos. Z2: (100 mm) + 4.8 mm
- Pos. Z4 (200 mm) > pos. Z3: (150 mm) + 3.3 mm
- Pos. Z5 (300 mm) > pos. Z4: (200 mm) + 1.8 mm

$$Z_n > Z_{n-1} + T_{n-1}$$

- The sum of all the positions must not exceed the following values:
 Ø 25: 1000 mm
 Ø 40, 63, 100: 2000 mm



$$Z5 + Z4 + Z3 + Z2 + Z1 \leq 1000$$

- Pos. Z1: 50 mm
- Pos. Z2: 100 mm
- Pos. Z3: 150 mm
- Pos. Z4: 200 mm
- Pos. Z5: 300 mm
- Sum: 800 mm ≤ 1000 mm

- The positions of the internal cylinders must not exceed the following values:
 Ø 25: 200 mm
 Ø 40, 63: 300 mm
 Ø 100: 400 mm



- Pos. Z1: 50 mm ≤ 200 mm
- Pos. Z2: 100 mm ≤ 200 mm
- Pos. Z3: 150 mm ≤ 200 mm
- Pos. Z4: 200 mm ≤ 200 mm

- The position of the last cylinder must not exceed the following values:
 Ø 25: 300 mm
 Ø 40, 63, 100: 1000 mm



- Pos. Z5: 300 mm ≤ 300 mm

Multi-position cylinders ADN

Product range overview



Positional tolerance T [mm]

The subsequent position must be greater than the sum of the preceding position plus the positional tolerance T.

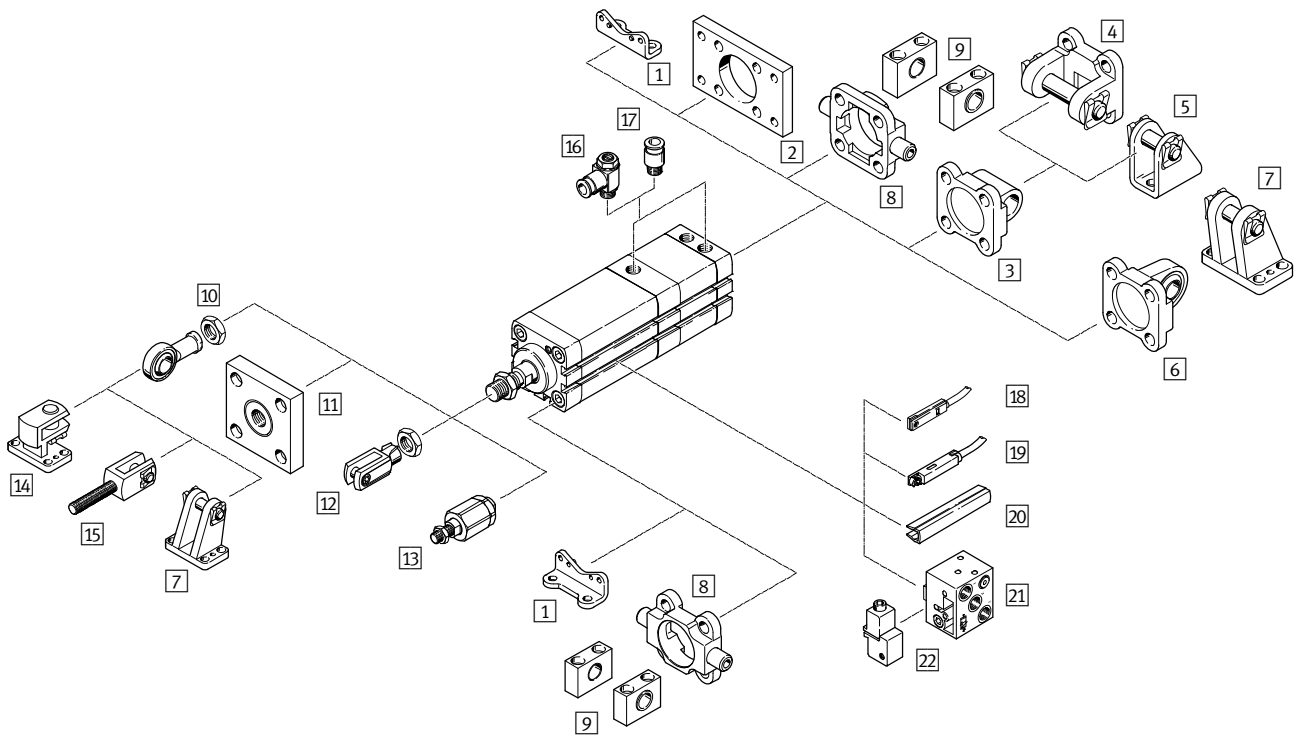
The positional tolerance depends on the number of positions.

Position	Z1	Z2	Z3	Z4	Z5
Piston Ø 25					
Cylinder with 2 positions	1.8	0.8	–	–	–
Cylinder with 3 positions	3.3	1.8	0.8	–	–
Cylinder with 4 positions	4.8	3.3	1.8	0.8	–
Cylinder with 5 positions	6.3	4.8	3.3	1.8	0.8
Piston Ø 40, 63, 100					
Cylinder with 2 positions	1.8	0.8	–	–	–
Cylinder with 3 positions	3.4	1.8	0.8	–	–
Cylinder with 4 positions	5	3.4	1.8	0.8	–
Cylinder with 5 positions	6.6	5	3.4	1.8	0.8

Multi-position cylinders ADNM, standard port pattern

Peripherals overview

FESTO



Multi-position cylinders ADN, standard port pattern

Peripherals overview

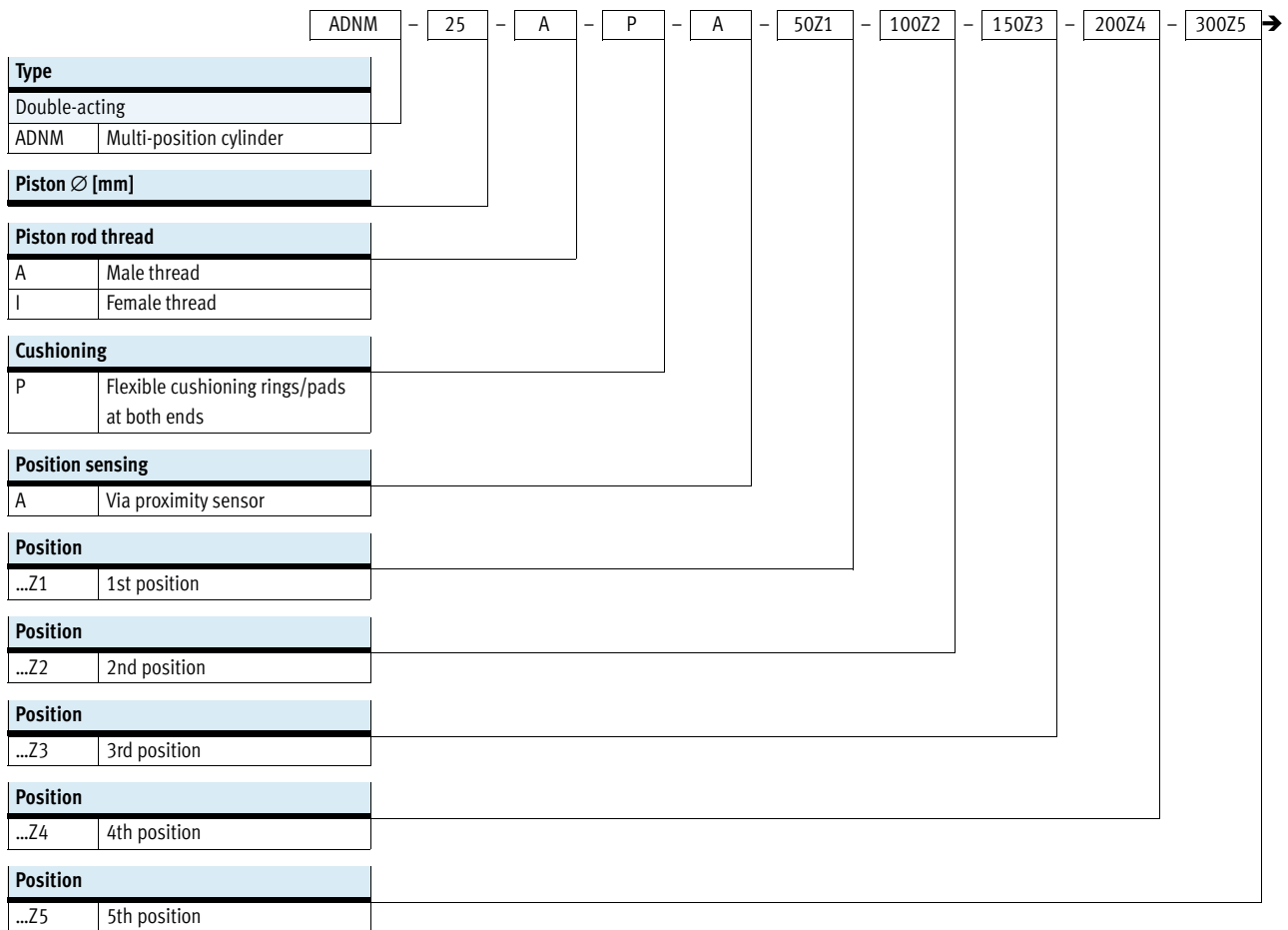
FESTO

Mounting attachments and accessories				
	Description	Ø 25	Ø 40, 63, 100	→ Page/Internet
1	Foot mounting HNA	For bearing and end caps	■	16
2	Flange mounting FNC	For end caps	■	17
3	Swivel flange SNCL/SNCL-...-R3	For end caps	■	18
4	Swivel flange SNCB/SNCB-...-R3	For swivel flange SNCL	–	21
5	Clevis foot LBN/CRLBN	For swivel flange SNCL	–	20
6	Swivel flange SNCS/CRSNCS/SNCS-...-R3	For end caps	■	18
7	Clevis foot LBG/LBG-...-R3	For swivel flange SNCS	–	23
8	Trunnion flange ZNCF/CRZNG	For bearing caps	–	22
9	Trunnion support LNZG	For trunnion flange ZNCF/CRZNG	–	22
10	Rod eye SGS/CRSGS	With spherical bearing	■	23
11	Coupling piece KSG	For compensating radial deviations	■	23
12	Rod clevis SG/CRSG	Permits a swivelling movement of the cylinder in one plane	■	23
13	Self-aligning rod coupler FK/CRFK	For compensating radial and angular deviations	■	23
14	Right-angle clevis foot LQG	For rod eye SGS	–	23
15	Rod clevis SGA	With male thread	–	23
16	One-way flow control valve GRLA	For speed regulation	■	23
17	Push-in fitting QS	For connecting compressed air tubing with standard external diameters	■	qs
18	Proximity sensor SME/SMT-8	Can be integrated in the sensor slot of the cylinder profile barrel	■	24
19	Proximity sensor SME/SMT-8M	Can be integrated in the sensor slot of the cylinder profile barrel	■	24
20	Slot cover ABP-5-S	For protecting the sensor cable and keeping dirt out of the sensor slots	■	25
21	Proximity sensor SMPO-8E	Pneumatic output signal	■	25
22	Mounting kit SMB-8E	For proximity sensor SMPO-8E	■	25

Multi-position cylinders ADNM, standard port pattern

FESTO

Type codes



Multi-position cylinders ADN, standard port pattern



Type codes

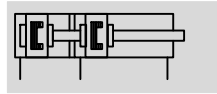
→		20K2	-		-	100K8	-	S6	-	TL
Male thread										
...K2	Extended male piston rod thread									
Special thread										
...K5	Special piston rod thread									
Piston rod										
...K8	Extended piston rod									
Temperature resistance										
S6	Heat-resistant seals up to max. 120 °C									
Captive rating plate										
TL	Laser etched rating plate									

Multi-position cylinders ADNM, standard port pattern

FESTO

Technical data

Function



- Ø - Diameter
25 ... 100 mm
- | - Stroke length
1 ... 2000 mm

Variants



K2



K5



K8



S6



General technical data				
Piston Ø	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
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				
with 2 positions	[bar]	0.8 ... 10	0.6 ... 10	
with 3 positions	[bar]	1.1 ... 10	0.9 ... 10	
with 4 positions	[bar]	1.4 ... 10	1.2 ... 10	
with 5 positions	[bar]	1.7 ... 10	1.5 ... 10	
Ambient temperature ¹⁾	[°C]	-20 ... +80		
S6	[°C]	0 ... +120		
Corrosion resistance class CRC ²⁾		2		

1) Note operating range of proximity sensors

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

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

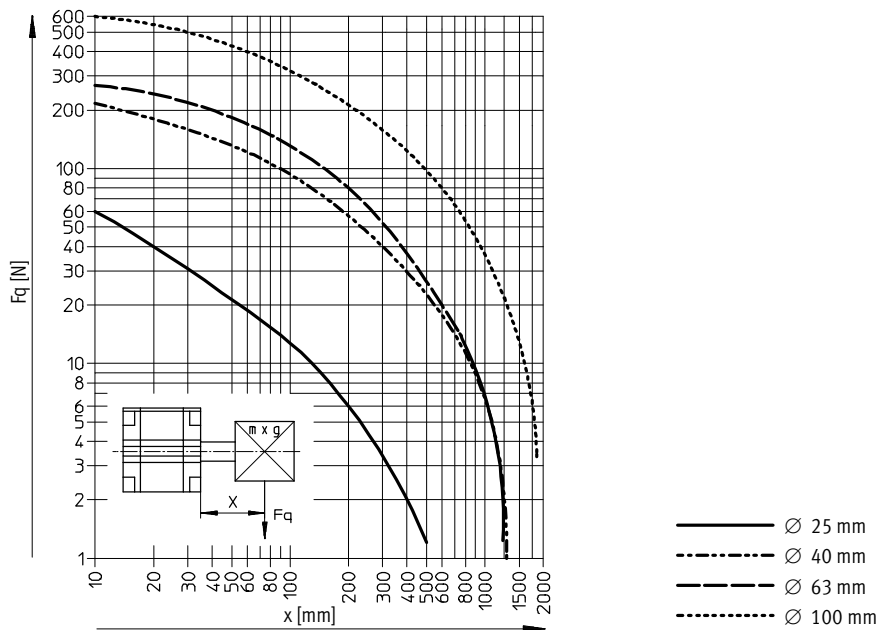
Multi-position cylinders ADN, standard port pattern

Technical data

FESTO

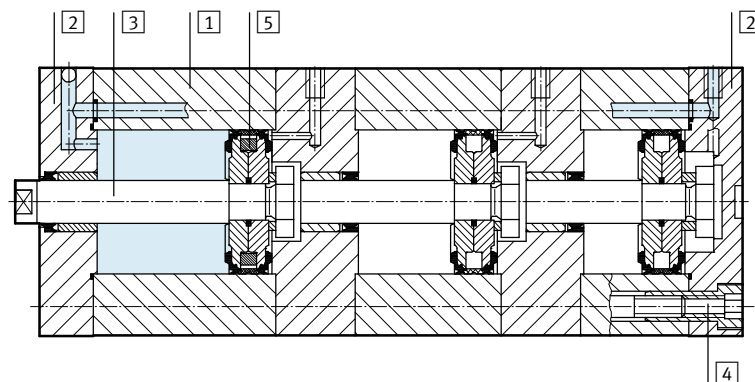
Forces [N] and impact energy [J]				
Piston Ø	25	40	63	100
Theoretical force at 6 bar, advancing	295	754	1870	4712
Theoretical force at 6 bar, retracting	247	633	1681	4417
Max. impact energy at the end positions				
	S6	0.15	0.35	0.65
			1.3	2.5
			0.65	1.25

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



Materials

Sectional view



- - - Note

- 5 Position sensing possible:
 Ø 25: for all positions
 Ø 40, 63, 100: for the last position

Multi-position 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	Fluoro elastomer
Note on materials	RoHS compliant	

Multi-position cylinders ADNM, standard port pattern

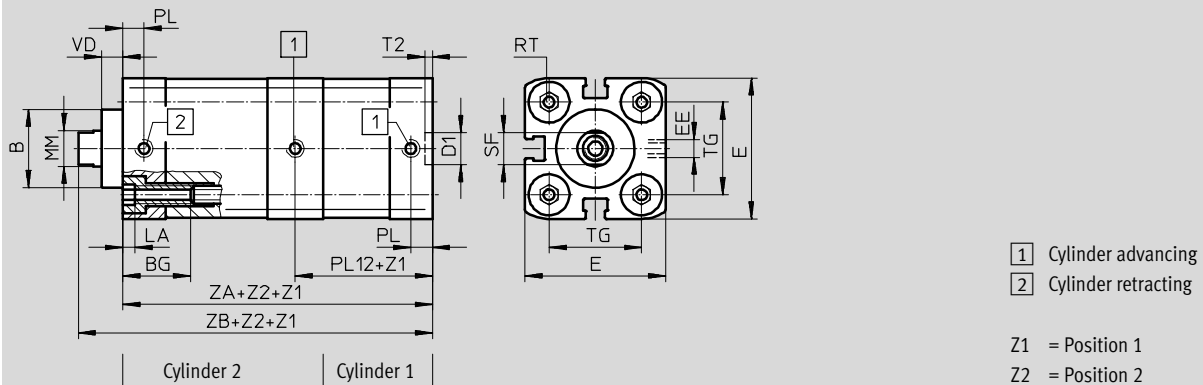
FESTO

Technical data

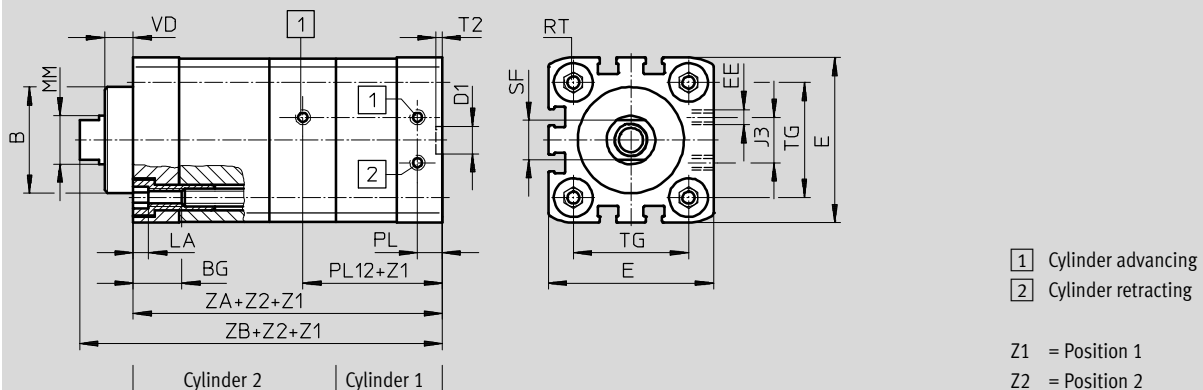
Dimensions – Basic version

Download CAD data → www.festo.com

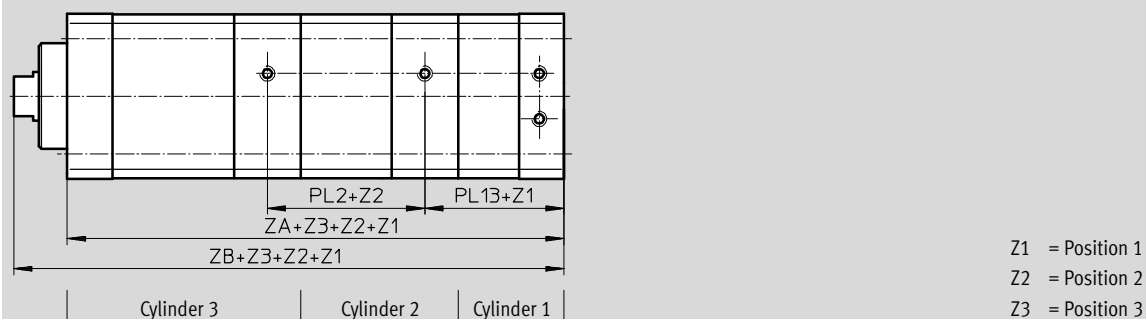
Ø 25/Z2 – 2 positions



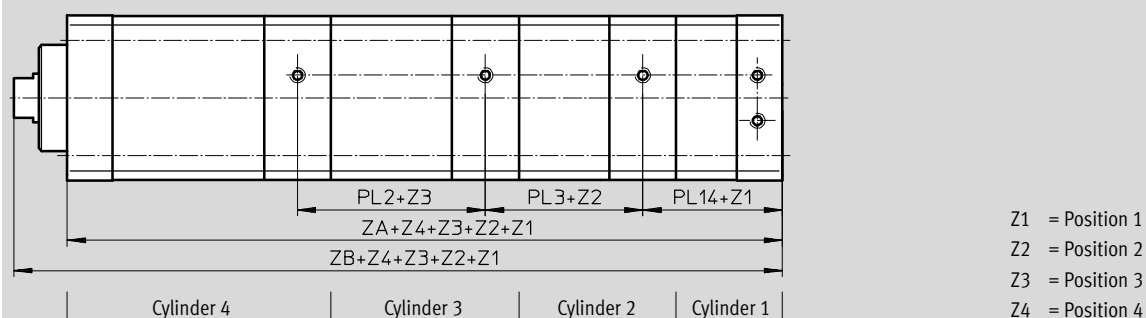
Ø 40 ... 100/Z2 – 2 positions



Z3 – 3 positions



Z4 – 4 positions



Multi-position cylinders ADNM, standard port pattern

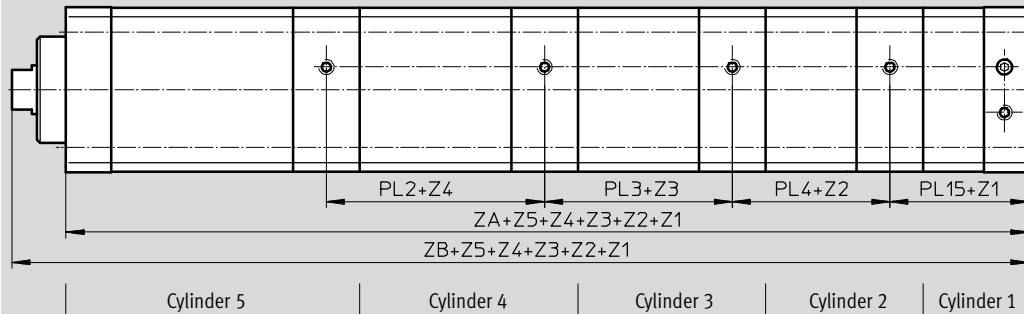
Technical data

FESTO

Dimensions – Variants

Download CAD data → www.festo.com

Z5 – 5 positions



Z1 = Position 1
Z2 = Position 2
Z3 = Position 3

Z4 = Position 4
Z5 = Position 5

Ø	B	BG	D1	E	EE	J3	LA	MM	PL	PL2
[mm]	Ø	min.	Ø				+0.2	Ø	+0.2	±0.3
25	22	15	9	39.5 ^{+0.3}	M5	–	5	10	6	32.1
40	35	16		54.5 ^{+0.3}		15		16	8.2	38.3
63	42		12	75.5 ^{+0.3}	G1/8	23		20	8.2	41.4
100	55	17		113.5 ^{+0.6}		40		25	10.5	50.8

Ø	PL3	PL4	PL12	PL13	PL14	PL15	RT	SF	T2	TG	VD
[mm]	±0.3	±0.3	±0.3	±0.3	±0.3	±0.3			+0.1	±0.2	
25	33.6	35.1	41.9	44.4	45.3	44.8	M5	9	2.1	26	6
40	39.9	41.5	45.7	47.0	48.8	50.6	M6	13	2.1	38	9.5
63	43.0	44.6	49.3	50.6	52.4	54.2	M8	17	2.6	56.5	12
100	52.4	54.0	63.2	64.6	66.7	68.8	M10	21	2.6	89	15.5

Ø	ZA				ZB			
	Number of positions				Number of positions			
[mm]	2	3	4	5	2	3	4	5
25	76.3 ^{+1.2}	110.5 ^{+1.8}	144.7 ^{+2.4}	178.9 ⁺³	88.5 ^{+1.6}	122.7 ^{+2.2}	156.9 ^{+2.8}	191.1 ^{+3.5}
40	86.2 ^{+1.2}	125.5 ^{+1.8}	166.9 ^{+2.4}	209.9 ⁺³	104.6 ^{+1.6}	143.9 ^{+2.2}	185.2 ^{+2.8}	228.2 ^{+3.5}
63	93.3 ^{+1.2}	135.7 ^{+1.8}	180.2 ^{+2.4}	226.3 ⁺³	114.6 ^{+1.6}	157 ^{+2.2}	201.4 ^{+2.8}	247.5 ^{+3.5}
100	120.9 ^{+1.2}	172.8 ^{+1.8}	227 ^{+2.4}	282.8 ⁺³	147.9 ^{+1.6}	199.8 ^{+2.2}	253.9 ^{+2.8}	309.7 ^{+3.5}

Multi-position cylinders ADNM, standard port pattern

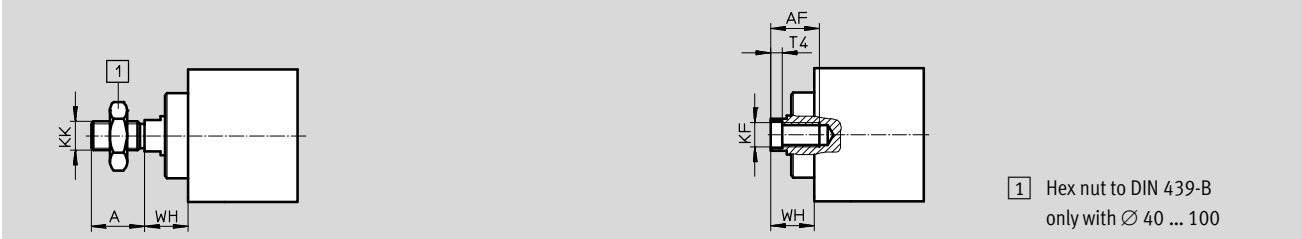
FESTO

Technical data

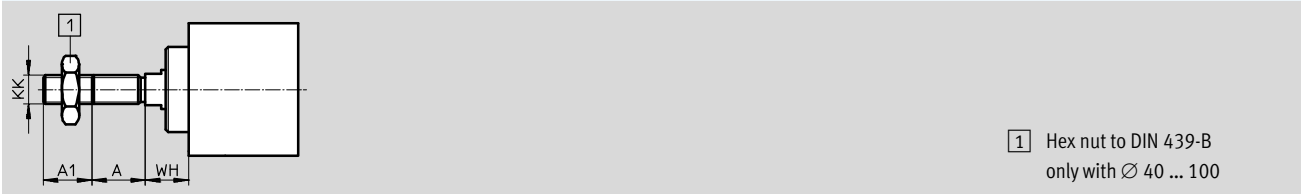
Dimensions – Variants

Download CAD data → www.festo.com

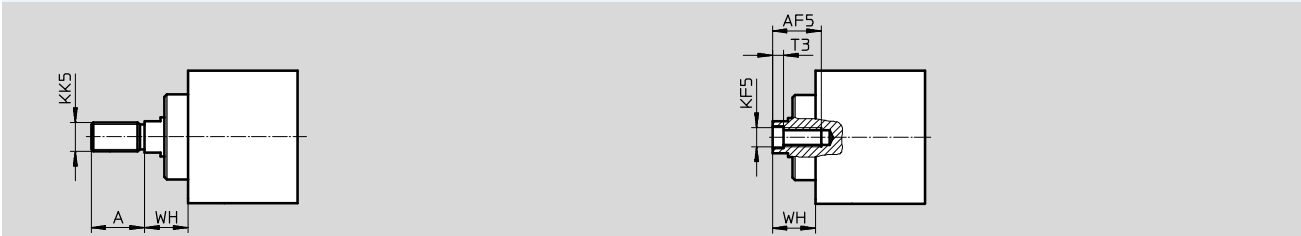
Basic version



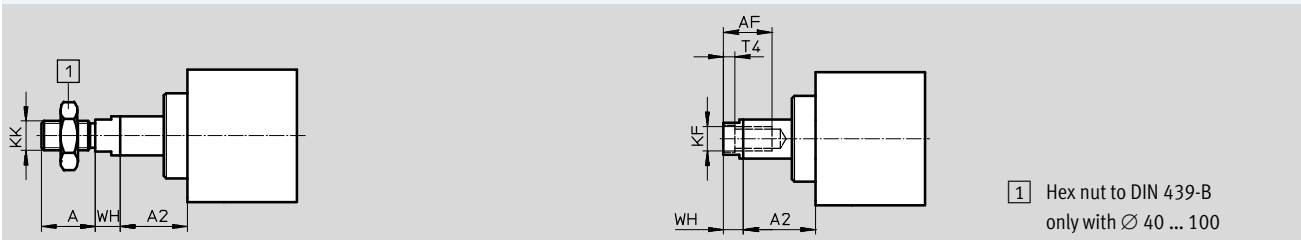
K2 – Extended male piston rod thread



K5 – Special piston rod thread



K8 – Extended piston rod



Multi-position cylinders ADN, standard port pattern

FESTO

Technical data

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

Multi-position cylinders ADN, standard port pattern

FESTO

Ordering data – Modular products

Mandatory data						Options				
Module No.	Function	Size	Type of thread	Cushioning	Position sensing	1st position	2nd position	3rd position	4th position	5th position
539695	ADNM	25	A	P	A	...Z1	...Z2	...Z3	...Z4	...Z5
539696		40	I							
539697		63								
539698		100								
Order example										
539695	ADNM	- 25	- A	- P	- A	- 50Z1	- 100Z2	- 150Z3	- 200Z4	- 300Z5

Ordering table									
Size	25	40	63	100	Conditions	Code	Enter code		
M Module No.	539695	539696	539697	539698					
Function	Multi-position cylinder, standard port pattern					ADNM	ADNM		
Size [mm]	25	40	63	100		-...			
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	
1st position [mm]	1 ... 200	1 ... 300	1 ... 300	1 ... 400	1 2 3 4	-...Z1		- ... Z1	
2nd position [mm]	1 ... 300	1 ... 1000	1 ... 1000	1 ... 1000	1 2 3 4	-...Z2		- ... Z2	
3rd position [mm]	1 ... 300	1 ... 1000	1 ... 1000	1 ... 1000	1 2 3 4	-...Z3			
4th position [mm]	1 ... 300	1 ... 1000	1 ... 1000	1 ... 1000	1 2 3 4	-...Z4			
5th position [mm]	1 ... 300	1 ... 1000	1 ... 1000	1 ... 1000	1 2 3 4	-...Z5			

The end of the retracted piston rod is the reference point for all positions.

- 1 Z2 ... Z5 The subsequent position (e.g. Z4) must be greater than the sum of the preceding position (Z3) plus the positional tolerance T.
- 2 Z2 ... Z5 The sum of all the positions must not exceed the following values:
 Ø25: 1,000 mm
 Ø40, 63, 100: 2,000 mm

- 3 Z2 ... Z5 The positions of the internal cylinders must not exceed the following values:
 Ø25: 200 mm
 Ø40, 63: 300 mm
 Ø100: 400 mm
- 4 Z2 ... Z5 The position of the last cylinder must not exceed the following values:
 Ø25: 300 mm
 Ø40, 63, 100: 1,000 mm

Transfer order code

ADNM - - P - A - ...Z1 - ...Z2 - - -

Multi-position cylinders ADN, standard port pattern

FESTO

Ordering data – Modular products

→ 0 Options				
Male thread extended	Special thread	Piston rod extended	Temperature resistance	Captive rating plate
...K2	“...”K5	...K8	S6	TL
- 20K2	- “M10”K5	- 100K8	-	-

Ordering table							
Size	25	40	63	100	Condi- tions	Code	Enter code
Male thread extended	Extended male piston rod thread					-...K2	
Special piston rod thread	M10x1.25 M10 M5	M10x1.25 M12 M8	M12x1.25 M16 M10	M16x1.5 M20 -	5 6 7	-“...”K5	
Piston rod extended	Extended piston rod					-...K8	
Temperature resistance	Heat-resistant seals up to max. 120 °C					-S6	
Captive rating plate	Laser etched rating plate					-TL	

- 5 K5 Only with piston rod thread A (male thread)
6 K5 Only with piston rod thread I (female thread)

- 7 K8 The sum of the length of the last position and piston rod extension must not exceed the maximum permissible length of the last position

Transfer order code

- - - - -

Multi-position cylinders ADNM, standard port pattern

FESTO

Accessories

Foot mounting HNA

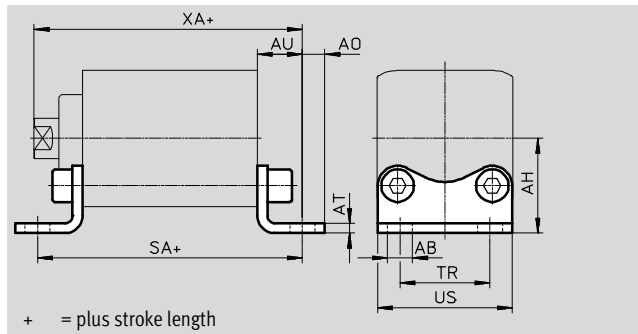
Material:

HNA: Galvanised steel

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

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data									
For Ø	AB Ø	AH	AO	AT	AU	SA ¹⁾			
[mm]	H14	JS14		±0.5	±0.2	2	3	4	5
25	7	29	6.25	4	16	108.3	142.5	176.7	210.9
40	10	38	9		18	122.2	161.5	202.9	245.9
63		50	8	5	21	135.3	177.7	222.2	268.3
100	14.5	74	12.5	6	27	174.9	226.8	281.0	336.8

For Ø	TR	US	XA ¹⁾			
[mm]	±0.2	-0.5	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 Ø	Basic version				R3 – High corrosion protection			
	CRC ²⁾	Weight [g]	Part No.	Type	CRC ²⁾	Weight [g]	Part No.	Type
[mm]								
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 positions

2 = + pos. Z1 + pos. Z2

3 = + pos. Z1 + pos. Z2 + pos. Z3

4 = + pos. Z1 + pos. Z2 + pos. Z3 + pos. Z4

5 = + pos. Z1 + pos. Z2 + pos. Z3 + pos. Z4 + pos. Z5

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

Low corrosion stress. For dry indoor applications 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. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

Multi-position cylinders ADN, standard port pattern

FESTO

Accessories

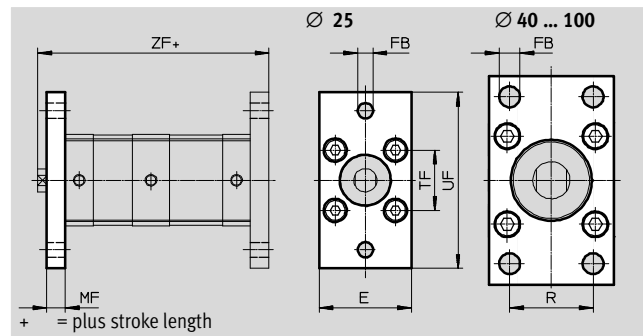
Flange mounting FNC

Material:

Galvanised steel

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data						
For Ø	E	FB Ø	MF	R	TF	UF
[mm]						
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 [mm]	ZF ¹⁾				CRC ²⁾	Weight [g]	Part No.	Type
	2	3	4	5				
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	259.5	1	679	174379	FNC-63
100	163.9	215.8	269.9	325.7	1	2041	174381	FNC-100

1) Number of positions

2 = + pos. Z1 + pos. Z2

3 = + pos. Z1 + pos. Z2 + pos. Z3

4 = + pos. Z1 + pos. Z2 + pos. Z3 + pos. Z4

5 = + pos. Z1 + pos. Z2 + pos. Z3 + pos. Z4 + pos. Z5

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

Low corrosion stress. For dry indoor applications 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).

Multi-position cylinders ADNM, standard port pattern

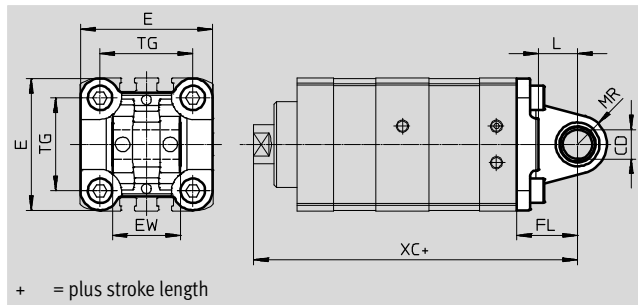
FESTO

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
 Free of copper and PTFE
 RoHS-compliant



Dimensions and ordering data											
For Ø	CD	E	EW	FL	L	MR	TG	XC ¹⁾			
[mm]	Ø H9			±0.2				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	233.4	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 Ø [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	2	95	174405	SNCL-40	–	–	–	–
63	2	225	174407	SNCL-63	–	–	–	–
100	2	606	174409	SNCL-100	–	–	–	–

1) Number of positions

- 2 = + pos. Z1 + pos. Z2
- 3 = + pos. Z1 + pos. Z2 + pos. Z3
- 4 = + pos. Z1 + pos. Z2 + pos. Z3 + pos. Z4
- 5 = + pos. Z1 + pos. Z2 + pos. Z3 + pos. Z4 + pos. Z5

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

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

Multi-position cylinders ADN, standard port pattern

FESTO

Accessories

Swivel flange

SNCS/CRSNCS/SNCS-...-R3

Materials:

SNCS 40 ... 63: Die-cast aluminium

SNCS 100: Wrought aluminium alloy

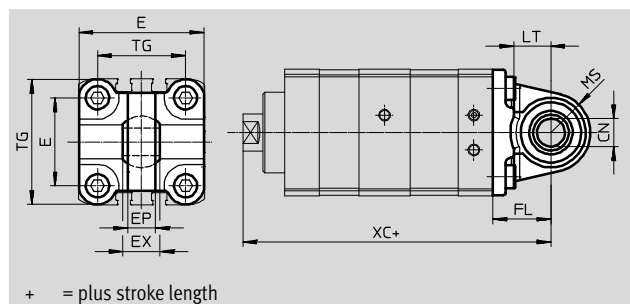
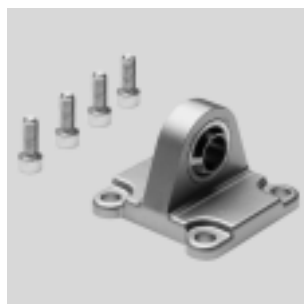
CRSNCS 40 ... 63:

High-alloy stainless steel

SNCS-...-R3 100: Wrought aluminium

alloy with protective coating

RoHS-compliant



Dimensions and ordering data								
For Ø	CN Ø		E		EP	EX	FL	LT
[mm]	ADNM-...	ADNM-...-R3	ADNM-...	ADNM-...-R3	±0.2		±0.2	
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	75 _{-0.6}	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 Ø	MS		TG	XC ¹⁾			
[mm]	ADNM-...	ADNM-...-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 Ø	Basic version				High corrosion protection			
[mm]	CRC ²⁾	Weight [g]	Part No.	Type	CRC ²⁾	Weight [g]	Part No.	Type
40	2	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

1) Number of positions

2 = + pos. Z1 + pos. Z2

3 = + pos. Z1 + pos. Z2 + pos. Z3

4 = + pos. Z1 + pos. Z2 + pos. Z3 + pos. Z4

5 = + pos. Z1 + pos. Z2 + pos. Z3 + pos. Z4 + pos. Z5

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

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional requirements for the surface and 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, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

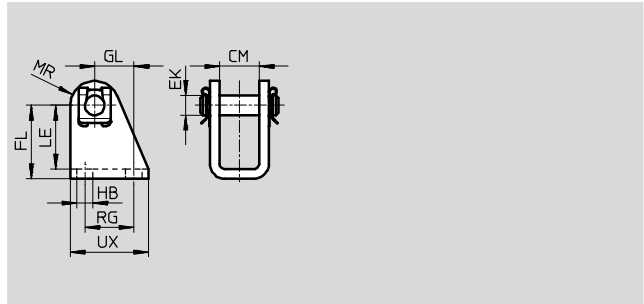
Multi-position cylinders ADN, standard port pattern

FESTO

Accessories

Clevis foot LBN

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

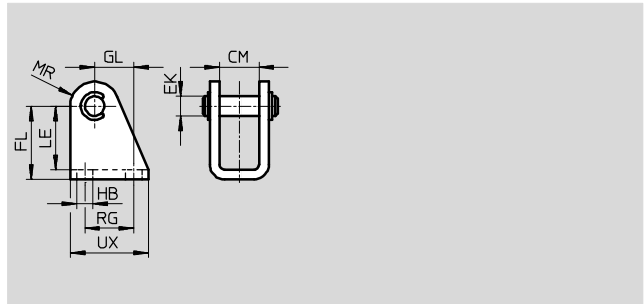


Dimensions and ordering data												
For Ø	CM	EK Ø	FL	GL	HB Ø	LE	MR	RG	UX	CRC ¹⁾	Weight [g]	Part No. Type
[mm]												
25	16.1	8	30 +0.4/-0.2	16	6.6	26	10	20	32	1	84	6059 LBN-20/25

- 1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. For dry indoor applications 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
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	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, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

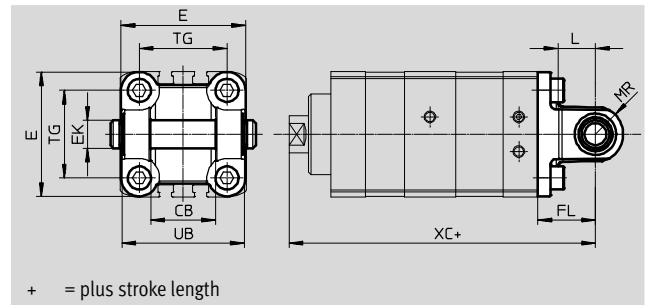
Multi-position cylinders ADNM, standard port pattern

FESTO

Accessories

Swivel flange SNCB/SNCB-...-R3

Material:
SNCB: Die-cast aluminium
SNCB-...-R3: Die-cast aluminium with protective coating
Free of copper and PTFE
RoHS-compliant



Dimensions and ordering data												
For Ø	CB	E	EK Ø	FL	L	MR	TG	UB	XC ¹⁾			
[mm]	H14		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 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	174391	SNCB-40	3	151	176945	SNCB-40-R3
63	2	375	174393	SNCB-63	3	371	176947	SNCB-63-R3
100	2	1035	174395	SNCB-100	3	986	176949	SNCB-100-R3

- 1) Number of positions
 2 = + pos. Z1 + pos. Z2
 3 = + pos. Z1 + pos. Z2 + pos. Z3
 4 = + pos. Z1 + pos. Z2 + pos. Z3 + pos. Z4
 5 = + pos. Z1 + pos. Z2 + pos. Z3 + pos. Z4 + pos. Z5
- 2) Corrosion resistance class CRC 2 to Festo standard FN 940070
 Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.
 Corrosion resistance class CRC 3 to Festo standard FN 940070
 High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

Multi-position cylinders ADN, standard port pattern

FESTO

Accessories

Trunnion flange ZNCF/CRZNG

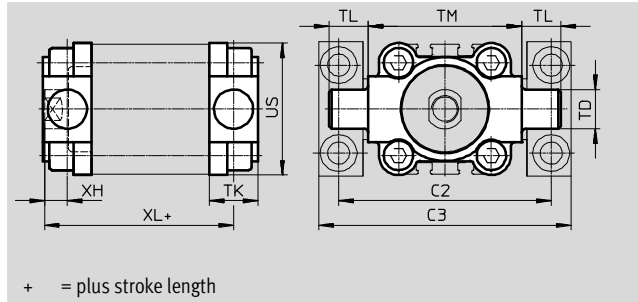
Material:

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	5
40	87	105	16	20	16	63	54	8.4±1	114.6	153.9	195.2	238.2
63	116	136	20	24	20	90	75	9.3±1.2	126.6	169.0	213.4	259.5
100	164	189	25	38	25	132	110	8±1.2	166.9	218.8	272.9	328.7

For Ø	Basic version				R3 – High corrosion protection			
	CRC ²⁾	Weight	Part No.	Type	CRC ²⁾	Weight	Part No.	Type
[mm]		[g]				[g]		
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 positions

2 = + pos. Z1 + pos. Z2

3 = + pos. Z1 + pos. Z2 + pos. Z3

4 = + pos. Z1 + pos. Z2 + pos. Z3 + pos. Z4

5 = + pos. Z1 + pos. Z2 + pos. Z3 + pos. Z4 + pos. Z5

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

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

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, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

Trunnion support LN2G

Material:

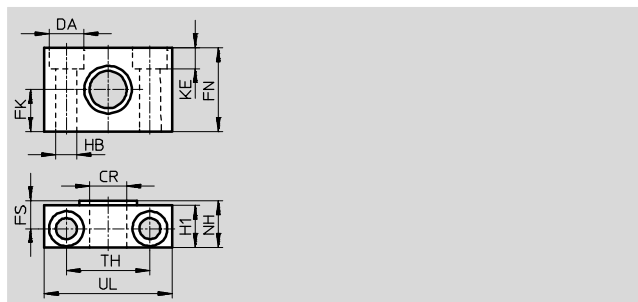
Trunnion support:

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	32960	LN2G-40/50
63	20	18	20	40	13	20	11	11	23	42	65	2	178	32961	LN2G-63/80
100	25	20	25	50	16	24.5	14	13	28.5	50	75	2	306	32962	LN2G-100/125

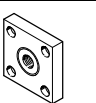
1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Multi-position cylinders ADN, standard port pattern

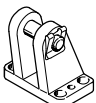
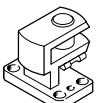
FESTO

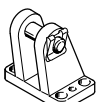
Accessories

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	9255	SGS-M8		25	–	
	40	9262	SGS-M12x1,25		40	10767	SGA-M12x1,25
	63	9263	SGS-M16x1,5		63	10768	SGA-M16x1,5
	100	9264	SGS-M20x1,5		100	10769	SGA-M20x1,5
Rod clevis SG				Self-aligning rod coupler FK			
	25	3111	SG-M8		25	2062	FK-M8
	40	6145	SG-M12x1,25		40	6141	FK-M12x1,25
	63	6146	SG-M16x1,5		63	6142	FK-M16x1,5
	100	6147	SG-M20x1,5		100	6143	FK-M20x1,5
Coupling piece KSG							
	25	–					
	40	32964	KSG-M12x1,25				
	63	32965	KSG-M16x1,5				
	100	32966	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 CRS GS				Rod clevis CR SG			
	25	195581	CRSGS-M8		25	13568	CRSG-M8
	40	195583	CRSGS-M12x1,25		40	13570	CRSG-M12x1,25
	63	195584	CRSGS-M16x1,5		63	13571	CRSG-M16x1,5
	100	195585	CRSGS-M20x1,5		100	13572	CRSG-M20x1,5
Self-aligning rod coupler CR FK							
	40	2305779	CRFK-M12x1,25				
	63	2490673	CRFK-M16x1,5				
	100	2545677	CRFK-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	31762	LBG-40		40	31769	LQG-40
	63	31764	LBG-63		63	31771	LQG-63
	100	31766	LBG-100		100	31773	LQG-100

Ordering data – Mounting attachments, high corrosion protection			
Designation	For Ø	Part No.	Type
Clevis foot LBG-R3 for rod eye SGS			
	40	2078792	LBG-40-R3
	63	2078795	LBG-63-R3
	100	2078799	LBG-100-R3

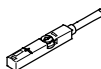
Multi-position cylinders ADN, standard port pattern

Accessories

FESTO

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	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 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, 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						
	Insertable in the slot from above, flush with cylinder profile, short design	PNP	Cable, 3-wire	7.5	574340	SMT-8M-A-PO-24V-E-7,5-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	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
	Insertable 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						
	Insertable 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				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	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

Multi-position cylinders ADNM, standard port pattern

FESTO

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	178563	SMPO-8E

Ordering data – Mounting kit for proximity sensors SMPO-8E		Technical data → 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