

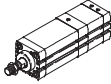
Multi-position cylinders/Adapter kits



Multi-position cylinders ADNМ

Product range overview

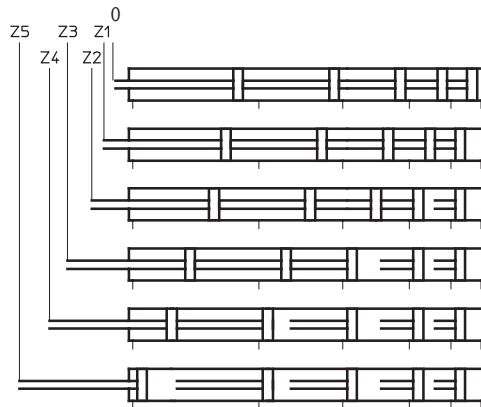


Function	Version	Type	Piston Ø [mm]	Max. stroke [mm]	Piston rod	
					With female thread	With male thread
Double-acting		ADNM Single-ended piston rod	25	300	■	■
			40, 63, 100	1,000	■	■

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: ADNМ-..., with 5 positions



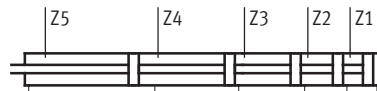
- 0 Initial position
- Z1 Position 1
- Z2 Position 2
- Z3 Position 3
- Z4 Position 4
- Z5 Position 5

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

Rules

Example: ADNМ-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)

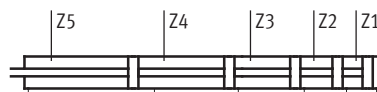


$$Z_5 > Z_4 > Z_3 > Z_2 > Z_1$$

- 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

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

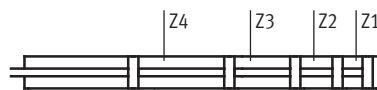
- The sum of all the positions must not exceed the following values:
 Ø 25: 1,000 mm
 Ø 40, 63, 100: 2,000 mm



$$Z_5 + Z_4 + Z_3 + Z_2 + Z_1 \leq 1000$$

- Pos. Z1: 50 mm
- Pos. Z2: 100 mm
- Pos. Z3: 150 mm
- Pos. Z4: 200 mm
- Pos. Z5: 300 mm
- Sum: 800 mm ≤ 1,000 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: 1,000 mm



- Pos. Z5: 300 mm ≤ 300 mm

Multi-position cylinders ADN

Product range overview

Positional tolerance T [mm]

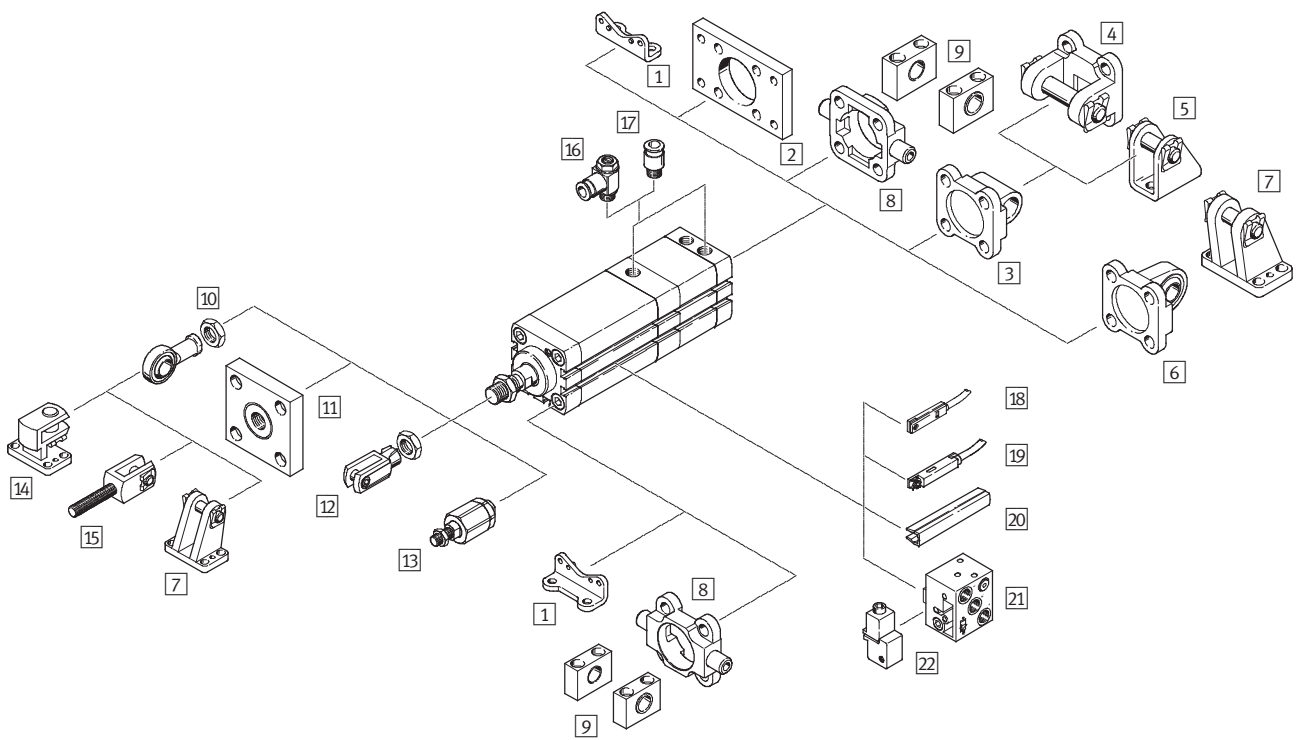
The subsequent position must be greater than the sum of the preceding position plus the positional tolerance T.

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



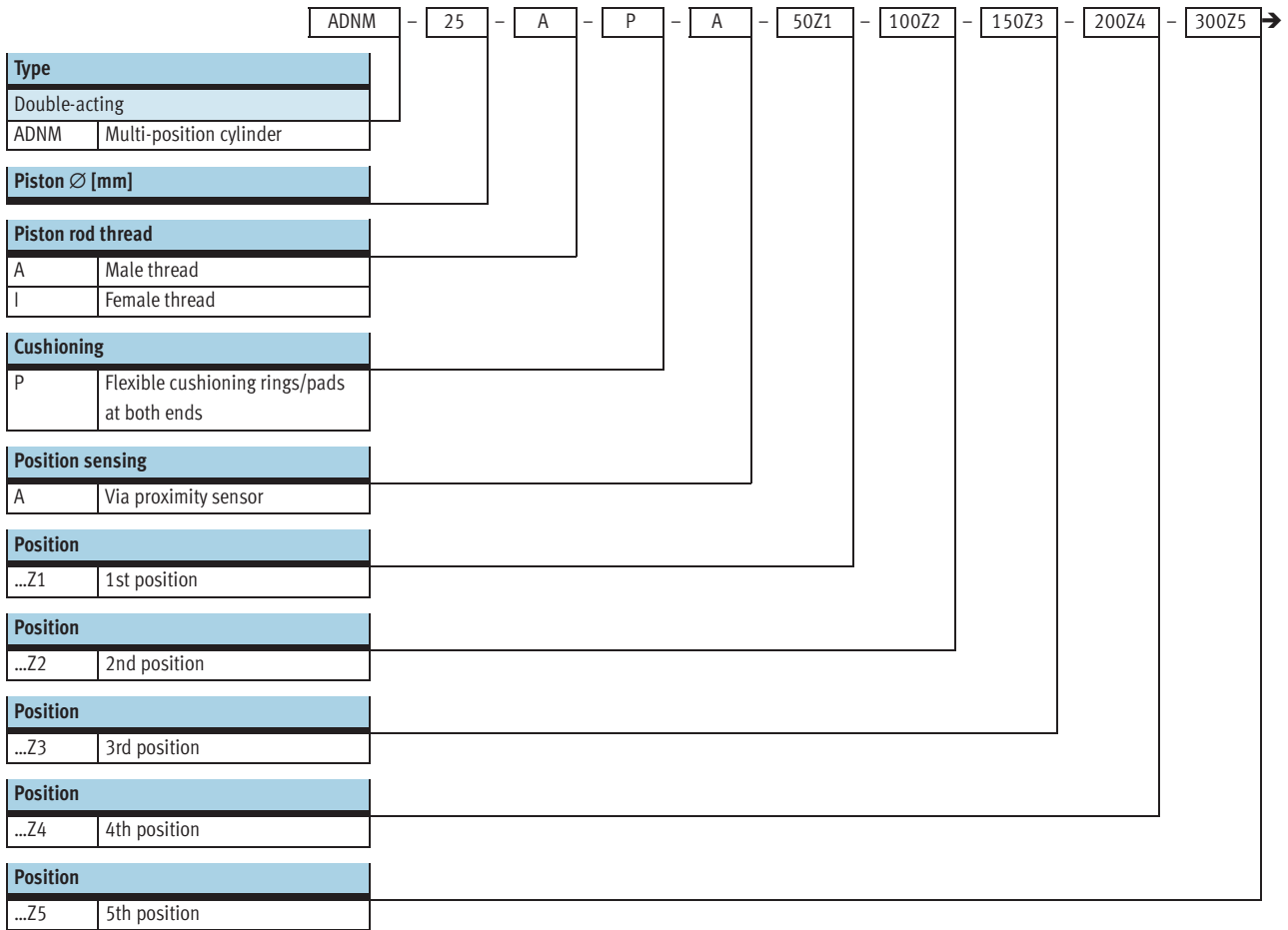
Multi-position cylinders ADN, standard port pattern

Peripherals overview

Mounting attachments and accessories					
	Brief description	∅ 25	∅ 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	For end caps	■	■	18
4	Swivel flange SNCB	For swivel flange SNCL	-	■	21
5	Clevis foot LBN/CRLBN	For swivel flange SNCL	■	-	20
6	Swivel flange SNCS	For end caps	-	■	18
7	Clevis foot LBG	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	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	■	■	quick star
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

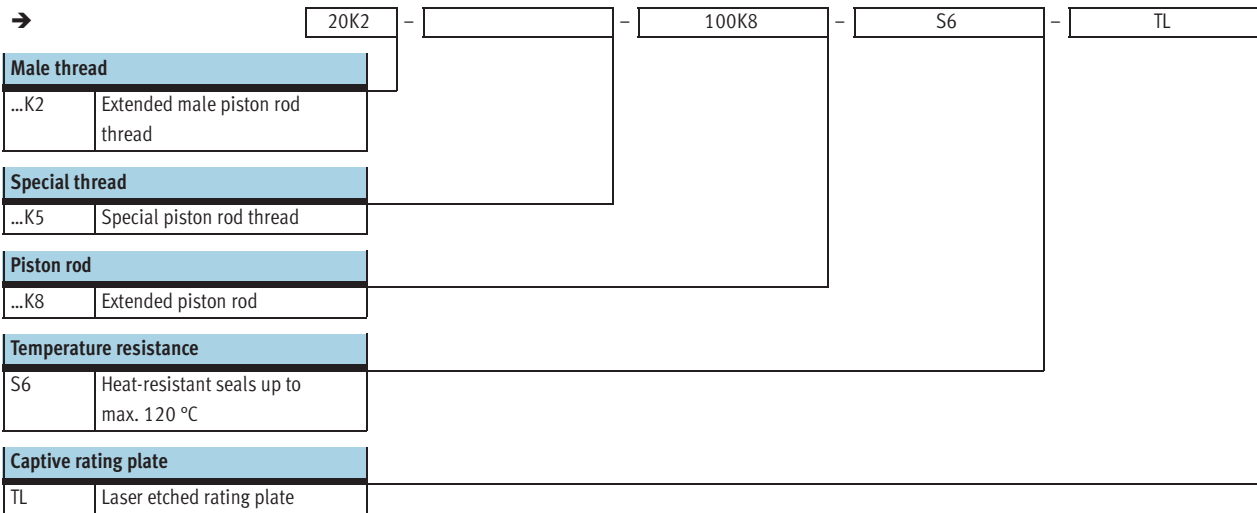
Multi-position cylinders ADNM, standard port pattern

Type codes



Multi-position cylinders ADN, standard port pattern

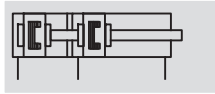
Type codes



Multi-position cylinders ADNM, standard port pattern

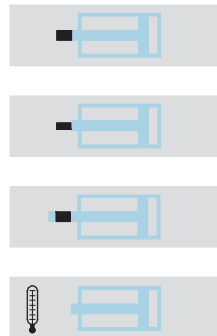
Technical data

Function

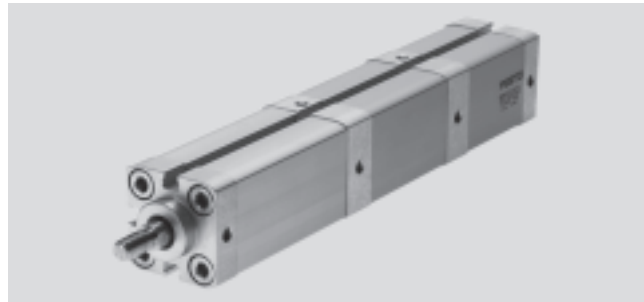


- N- Diameter
25 ... 100 mm
- T- Stroke length
1 ... 2,000 mm

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		

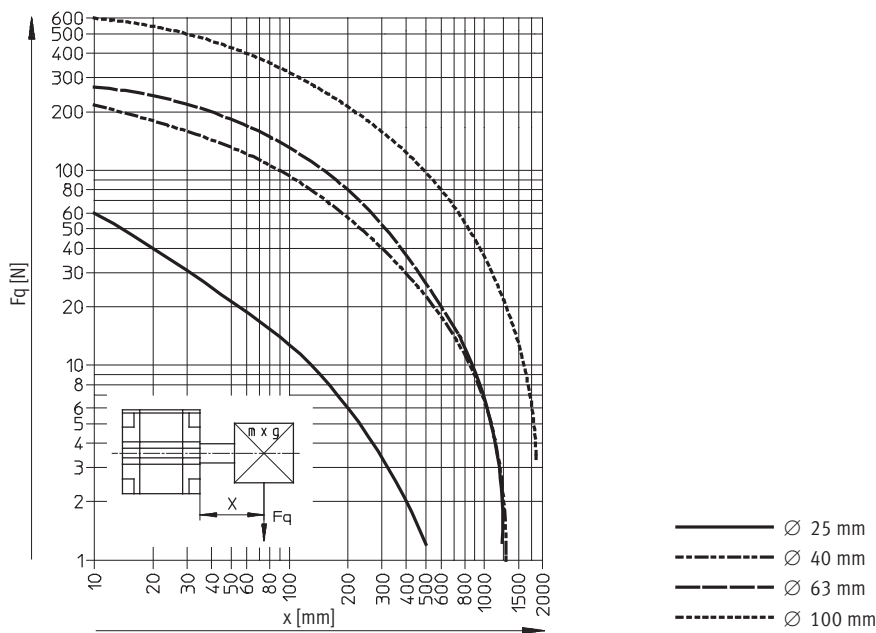
1) Note operating range of proximity sensors
 2) Corrosion resistance class 2 to Festo standard 940 070
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such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

Multi-position cylinders ADN, standard port pattern

Technical data

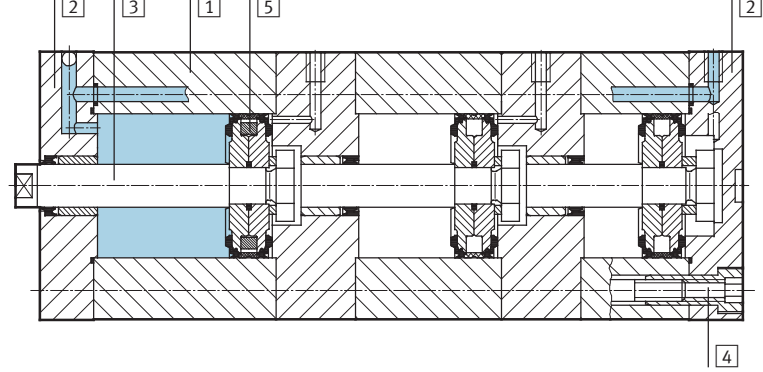
Forces [N] and impact energy [J]				
Piston Ø	25	40	63	100
Theoretical force at 6 bar, advancing	295	754	1870	4712
Theoretical force at 6 bar, retracting	247	633	1681	4417
Max. impact energy at the end positions		0.3	0.7	1.3
	S6	0.15	0.35	0.65

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 ADN, standard port pattern

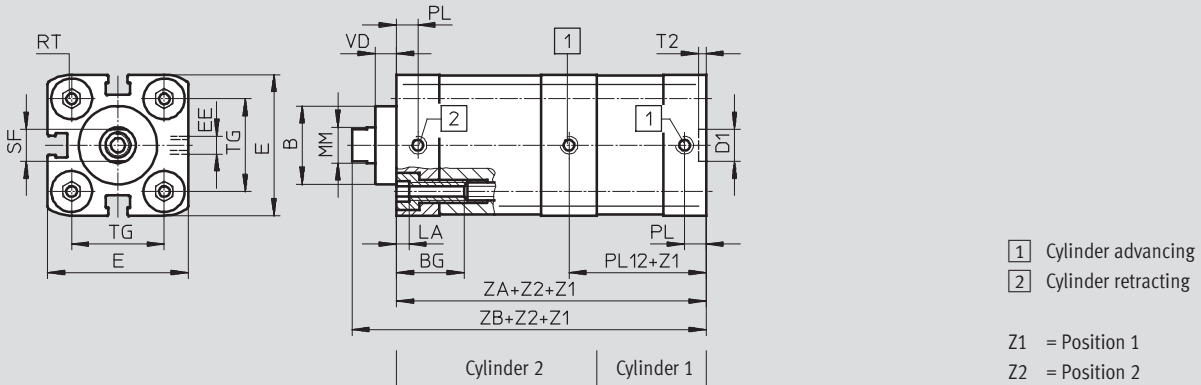
Technical data

FESTO

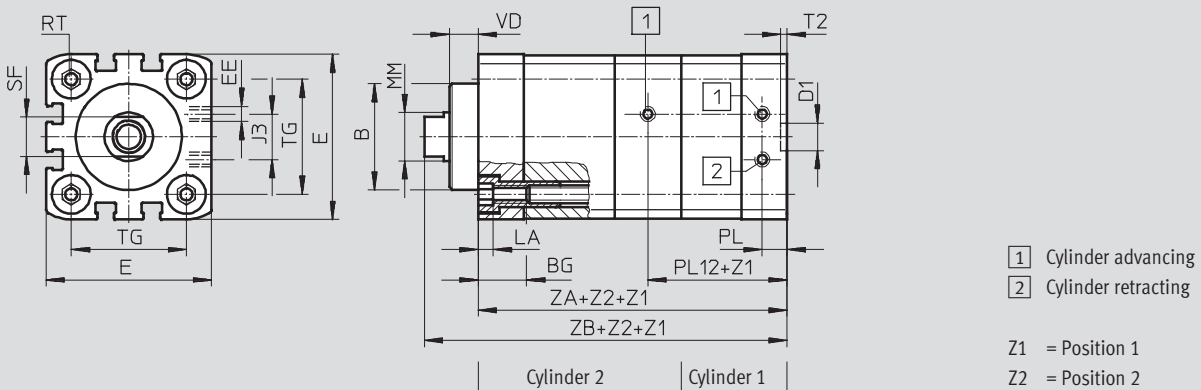
Dimensions – Basic version

Download CAD Data → www.festo.com/us/cad

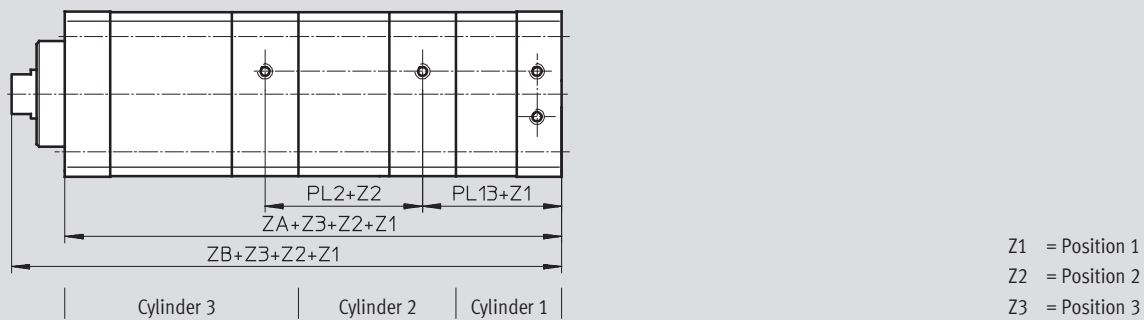
∅ 25/Z2 – 2 positions



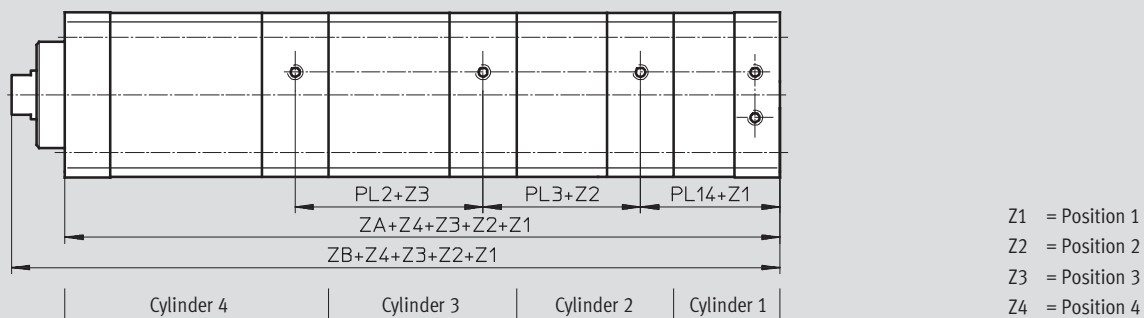
∅ 40 ... 100/Z2 – 2 positions



Z3 – 3 positions



Z4 – 4 positions

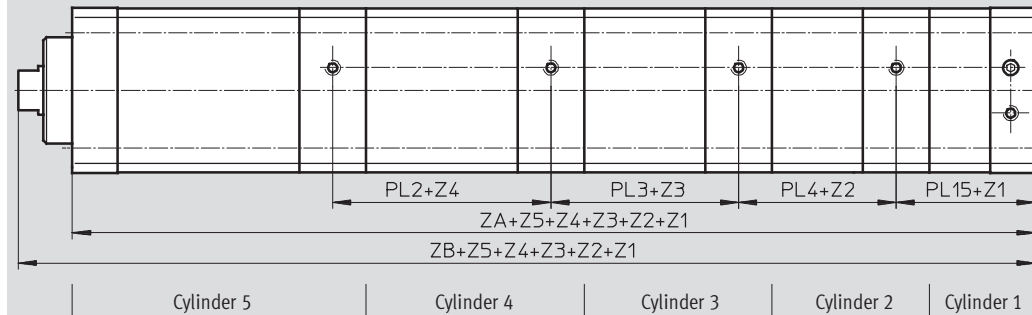


Multi-position cylinders ADNM, standard port pattern

Technical data

Dimensions – Variants Download CAD Data → www.festo.com/us/cad

Z5 – 5 positions



- Z1 = Position 1
- Z2 = Position 2
- Z3 = Position 3
- Z4 = Position 4
- Z5 = Position 5

∅ [mm]	B ∅ f8	BG min.	D1 ∅ H9	E	EE	J3	LA +0.2	MM ∅ h8	PL +0.2	PL2 ±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}	23	20		8.2	41.4	
100	55	17		113.5 ^{+0.6}	40	25		10.5	50.8	

∅ [mm]	PL3 ±0.3	PL4 ±0.3	PL12 ±0.3	PL13 ±0.3	PL14 ±0.3	PL15 ±0.3	RT	SF	T2 +0.1	TG ±0.2	VD
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

∅ [mm]	ZA Number of positions				ZB Number of positions			
	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

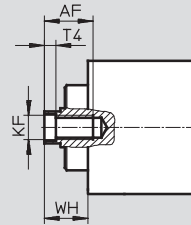
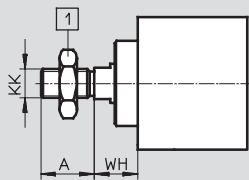
FESTO

Technical data

Dimensions – Variants

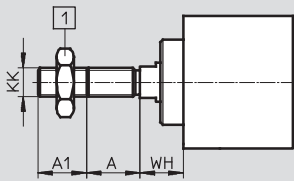
Download CAD Data → www.festo.com/us/cad

Basic version



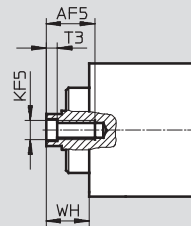
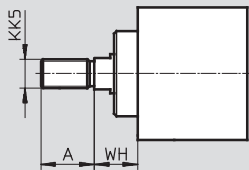
1 Hex nut to DIN 439-B
only with $\varnothing 40 \dots 100$

K2 – Extended male piston rod thread

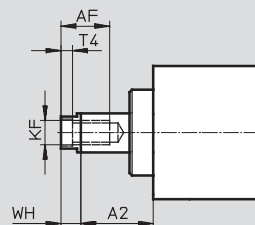
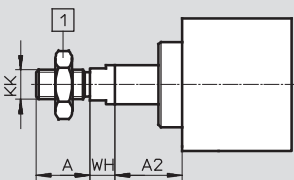


1 Hex nut to DIN 439-B
only with $\varnothing 40 \dots 100$

K5 – Special piston rod thread



K8 – Extended piston rod



1 Hex nut to DIN 439-B
only with $\varnothing 40 \dots 100$

Multi-position cylinders ADN, standard port pattern

Technical data

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

Multi-position cylinders ADNM, standard port pattern

Ordering data – Modular products

M Mandatory data						O Options →				
Module No.	Function	Size	Type of thread	Cushioning	Position sensing	1st position	2nd position	3rd position	4th position	5th position
539 695	ADNM	25	A	P	A	...Z1	...Z2	...Z3	...Z4	...Z5
539 696		40	I							
539 697		63								
539 698		100								
Order example										
539 695	ADNM	- 25	- A	- P	- A	- 50Z1	- 100Z2	- 150Z3	- 200Z4	- 300Z5

Ordering table										
Size	25	40	63	100	Conditions	Code	Enter code			
M Module No.	539 695	539 696	539 697	539 698						
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** - - - - - -

Multi-position cylinders ADN, standard port pattern

Ordering data – Modular products

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	Conditions	Code	Enter code
Male thread extended	Extended male piston rod thread						
[0] [mm]	1 ... 20	1 ... 20	1 ... 20	1 ... 30		-...K2	
Special piston rod thread	M10x1.25	M10x1.25	M12x1.25	M16x1.5	[5]	-"..."K5	
	M10	M12	M16	M20			
Piston rod extended	Extended piston rod				[6]	-...K8	
	[mm]	1 ... 300	1 ... 400	1 ... 400	1 ... 500		
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 ADN, standard port pattern



Accessories

Foot mounting HNA

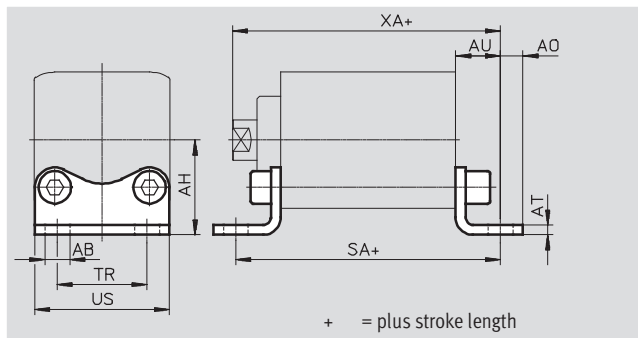
Material:

HNA: Galvanised steel

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

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data									
For \varnothing [mm]	AB \varnothing H14	AH JS14	AO	AT ± 0.5	AU ± 0.2	SA ¹⁾			
						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 \varnothing [mm]	TR ± 0.2	US -0.5	XA ¹⁾			
			2	3	4	5
25	26	38.5	104.5	138.7	172.9	207.1
40	36	54	122.6	161.9	203.2	246.2
63	50	75	135.6	178.0	222.4	268.5
100	75	110	174.9	226.8	280.9	336.7

For \varnothing [mm]	Basic version				R3 – High corrosion protection			
	CRC ²⁾	Weight [g]	Part No.	Type	CRC ²⁾	Weight [g]	Part No.	Type
25	1	90	537 240	HNA-25	3	90	537 255	HNA-25-R3
40	1	157	537 242	HNA-40	3	157	537 257	HNA-40-R3
63	1	328	537 244	HNA-63	3	328	537 259	HNA-63-R3
100	1	814	537 250	HNA-100	3	814	537 261	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 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.

Corrosion resistance class 3 according to Festo standard 940 070

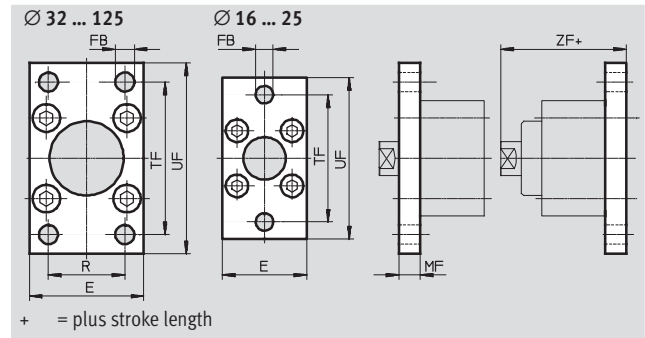
Components subject to high corrosion stress. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment or media such as solvents and cleaning agents.

Multi-position cylinders ADNM, standard port pattern

Accessories

Flange mounting FNC

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



Dimensions and ordering data						
For Ø	E	FB	MF	R	TF	UF
[mm]		Ø				±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	Part No.	Type
	2	3	4	5				
[mm]						[g]		
25	96.5	130.7	164.9	199.1	1	165	537 248	FNC-25
40	114.6	153.9	195.2	238.2	1	291	174 377	FNC-40
63	126.6	169.0	213.4	259.5	1	679	174 379	FNC-63
100	163.9	215.8	269.9	325.7	1	2,041	174 381	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 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.

Multi-position cylinders ADN, standard port pattern



Accessories

Swivel flange SNCL

Material:

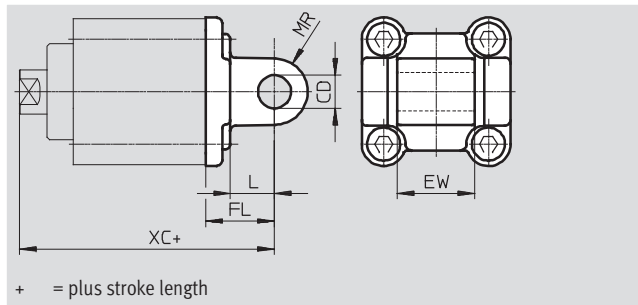
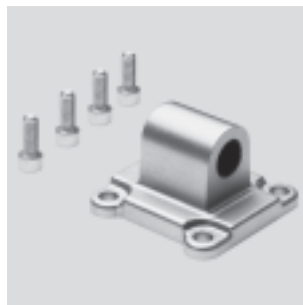
SNCL: Die-cast aluminium

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

protective coating

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data									
For \varnothing [mm]	CD \varnothing H9	EW h12	FL ± 0.2	L	MR	XC ¹⁾			
						2	3	4	5
25	8	16	20	14	8	108.5	142.7	176.9	211.1
40	12	28	25	16	12	129.6	168.9	210.2	253.2
63	16	40	32	21	16	146.6	189.0	233.4	279.5
100	20	60	41	27	20	188.9	240.8	294.9	350.7

For \varnothing [mm]	Basic version				R3 – High corrosion protection			
	CRC ²⁾	Weight [g]	Part No.	Type	CRC ²⁾	Weight [g]	Part No.	Type
25	2	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 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 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

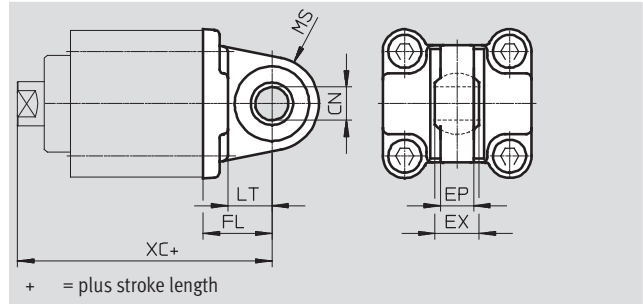
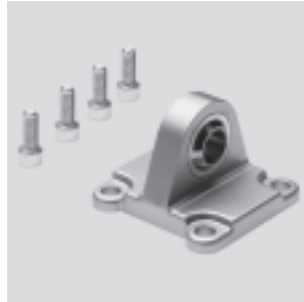
Components subject to high corrosion stress. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment or media such as solvents and cleaning agents.

Multi-position cylinders ADNM, standard port pattern

Accessories

Swivel flange SNCS

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



Dimensions and ordering data						
For \varnothing	CN	EP	EX	FL	LT	MS
[mm]	\varnothing 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 \varnothing	XC ¹⁾				CRC ²⁾	Weight [g]	Part No.	Type
	2	3	4	5				
[mm]								
40	129.6	168.9	210.2	253.2	2	125	174 398	SNCS-40
63	146.6	189.0	233.4	279.5	2	280	174 400	SNCS-63
100	188.9	240.8	294.9	350.7	2	700	174 402	SNCS-100

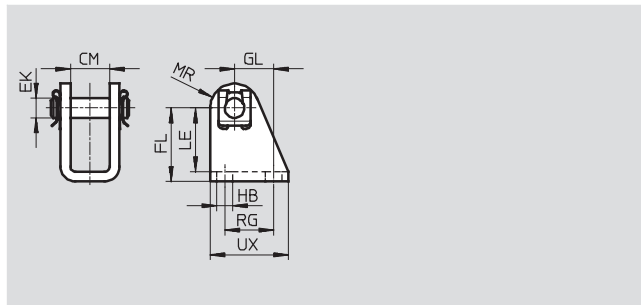
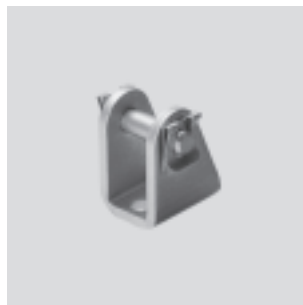
- 1) Number of positions
 - 2 = + pos. Z1 + pos. Z2
 - 3 = + pos. Z1 + pos. Z2 + pos. Z3
 - 4 = + pos. Z1 + pos. Z2 + pos. Z3 + pos. Z4
 - 5 = + pos. Z1 + pos. Z2 + pos. Z3 + pos. Z4 + pos. Z5
- 2) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion 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.

Multi-position cylinders ADN, standard port pattern

Accessories

Clevis foot LBN

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

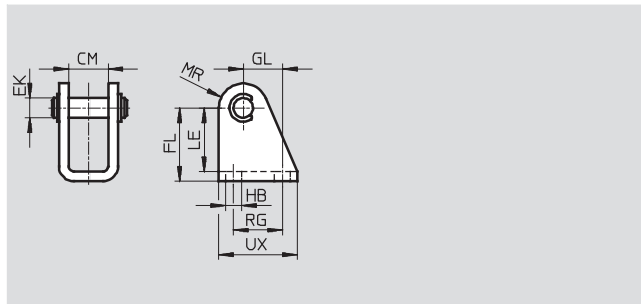


Dimensions and ordering data													
For \varnothing	CM	EK	FL	GL	HB	LE	MR	RG	UX	CRC ¹⁾	Weight	Part No.	Type
[mm]		\varnothing			\varnothing						[g]		
25	16.1	8	30 +0.4/-0.2	16	6.6	26	10	20	32	2	81	6 059	LBN-20/25

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

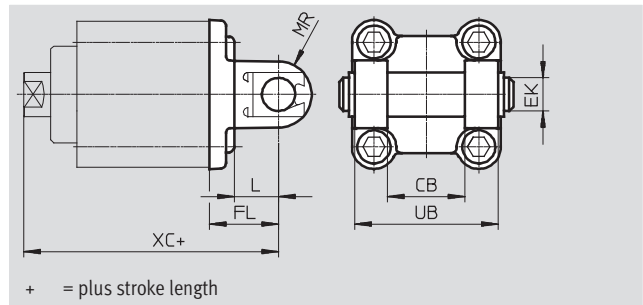
1) Corrosion resistance class 4 according to Festo standard 940 070
Components subject to particularly high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

Multi-position cylinders ADNM, standard port pattern

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 Ø	FL ±0.2	L	MR	UB	XC ¹⁾			
							2	3	4	5
[mm]	H14	e8				h14				
40	28	12	25	16	12	52	129.6	168.9	210.2	253.2
63	40	16	32	21	16	70	146.6	189.0	233.4	279.5
100	60	20	41	27	20	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
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

- 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
- 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.

Multi-position cylinders ADN, standard port pattern

Accessories



Trunnion flange ZNCF/CRZNG

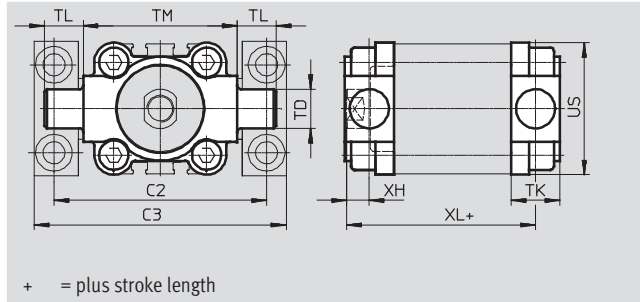
Material:

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 [g]	Part No.	Type	CRC ²⁾	Weight [g]	Part No.	Type
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

- 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
- 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:

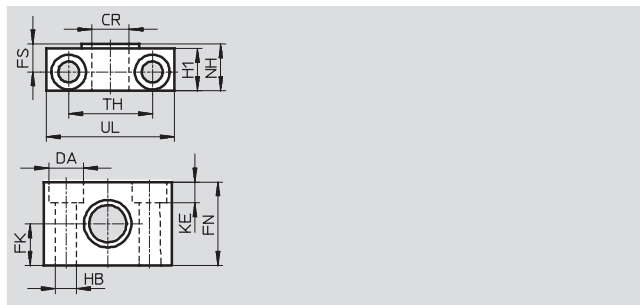
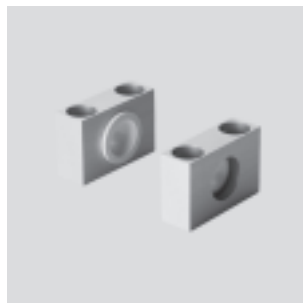
Trunnion support:

Anodised aluminium

Plain bearing: Plastic

Free of copper and PTFE

RoHS-compliant





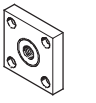




Dimensions and ordering data															
For Ø	CR	DA	FK	FN	FS	H1	HB	KE	NH	TH	UL	CRC ¹⁾	Weight	Part No.	Type
[mm]	Ø D11	Ø H13	±0.1				Ø H13			±0.2			[g]		
40	16	15	18	36	12	18	9	9	21	36	55	2	129	32 960	LN2G-40/50
63	20	18	20	40	13	20	11	11	23	42	65	2	178	32 961	LN2G-63/80
100	25	20	25	50	16	24.5	14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

- 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.

Multi-position cylinders ADNМ, standard port pattern

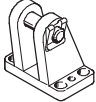
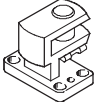
Accessories


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
	100	6 147	SG-M20x1,5		100	6 143	FK-M20x1,5
Coupling piece KSG							
	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

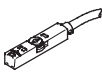
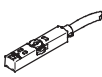
Piston rod attachments for cylinders with special piston rod thread (variant K5) → www.festo.com

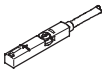


Ordering data – Mounting attachments				Technical data → Internet: clevis foot			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Clevis foot LBG for rod eye SGS				Right-angle clevis foot LQG for rod eye SGS			
	25	–			25	–	
	40	31 762	LBG-40		40	31 769	LQG-40
	63	31 764	LBG-63		63	31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


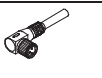
Ordering data – One-way flow control valves				Technical data → Internet: grla			
Designation	Connection		Material	Part No.	Type		
	For Ø	For tubing O.D.					
For exhaust air							
	25, 40	3	Metal design	193 137	GRLA-M5-QS-3-D		
		4			GRLA-M5-QS-4-D		
	63, 100	4			GRLA-1/8-QS-4-D		
		6			GRLA-1/8-QS-6-D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

Multi-position cylinders ADN, standard port pattern

Accessories


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	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

Multi-position cylinders ADN, standard port pattern

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

Product Range and Company Overview

A Complete Suite of Automation Services

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components
Complete custom engineered solutions



Custom Control Cabinets
Comprehensive engineering support and on-site services



Complete Systems
Shipment, stocking and storage services

The Broadest Range of Automation Components

With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



Electromechanical
Electromechanical actuators, motors, controllers & drives



Pneumatics
Pneumatic linear and rotary actuators, valves, and air supply



PLCs and I/O Devices
PLC's, operator interfaces, sensors and I/O devices

Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 12,000 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

Quality Assurance, ISO 9001 and ISO 14001 Certifications

Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



© Copyright 2008, Festo Corporation. While every effort is made to ensure that all dimensions and specifications are correct, Festo cannot guarantee that publications are completely free of any error, in particular typing or printing errors. Accordingly, Festo cannot be held responsible for the same. For Liability and Warranty conditions, refer to our "Terms and Conditions of Sale", available from your local Festo office. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of Festo. All technical data subject to change according to technical update.



Printed on recycled paper at New Horizon Graphic, Inc., FSC certified as an environmentally friendly printing plant.

Festo North America

Festo Regional Contact Center

5300 Explorer Drive
Mississauga, Ontario L4W 5G4
Canada

USA Customers:

For ordering assistance,

Call: 1.800.99.FESTO (1.800.993.3786)

Fax: 1.800.96.FESTO (1.800.963.3786)

Email: customer.service@us.festo.com

For technical support,

Call: 1.866.GO.FESTO (1.866.463.3786)

Fax: 1.800.96.FESTO (1.800.963.3786)

Email: product.support@us.festo.com

Canadian Customers:

Call: 1.877.GO.FESTO (1.877.463.3786)

Fax: 1.877.FX.FESTO (1.877.393.3786)

Email: festo.canada@ca.festo.com

USA Headquarters

Festo Corporation
395 Moreland Road
P.O. Box 18023
Hauppauge, NY 11788, USA
www.festo.com/us

USA Sales Offices

Appleton

North 922 Tower View Drive, Suite N
Greenville, WI 54942, USA

Boston

120 Presidential Way, Suite 330
Woburn, MA 01801, USA

Chicago

1441 East Business Center Drive
Mt. Prospect, IL 60056, USA

Dallas

1825 Lakeway Drive, Suite 600
Lewisville, TX 75057, USA

Detroit – Automotive Engineering Center

2601 Cambridge Court, Suite 320
Auburn Hills, MI 48326, USA

New York

395 Moreland Road
Hauppauge, NY 11788, USA

Silicon Valley

4935 Southfront Road, Suite F
Livermore, CA 94550, USA

United States



USA Headquarters, East: Festo Corp., 395 Moreland Road, Hauppauge, NY 11788

Phone: 1.631.435.0800; Fax: 1.631.435.8026;

Email: info@festo-usa.com

www.festo.com/us

Canada



Headquarters: Festo Inc., 5300 Explorer Drive, Mississauga, Ontario L4W 5G4

Phone: 1.905.624.9000; Fax: 1.905.624.9001;

Email: festo.canada@ca.festo.com

www.festo.ca

Mexico



Headquarters: Festo Pneumatic, S.A., Av. Ceylán 3, Col. Tequesquahuac,
54020 Tlalneantla, Edo. de México

Phone: 011 52 [55] 53 21 66 00; Fax: 011 52 [55] 53 21 66 65;

Email: festo.mexico@mx.festo.com

www.festo.com/mx

Central USA

Festo Corporation
1441 East Business
Center Drive
Mt. Prospect, IL 60056, USA
Phone: 1.847.759.2600
Fax: 1.847.768.9480



Western USA

Festo Corporation
4935 Southfront Road,
Suite F
Livermore, CA 94550, USA
Phone: 1.925.371.1099
Fax: 1.925.245.1286



Festo Worldwide

Argentina Australia Austria Belarus Belgium Brazil Bulgaria Canada Chile China Colombia Croatia Czech Republic Denmark
Estonia Finland France Germany Great Britain Greece Hong Kong Hungary India Indonesia Iran Ireland Israel Italy Japan Latvia
Lithuania Malaysia Mexico Netherlands New Zealand Norway Peru Philippines Poland Romania Russia Serbia Singapore
Slovakia Slovenia South Africa South Korea Spain Sweden Switzerland Taiwan Thailand Turkey Ukraine United States Venezuela

www.festo.com