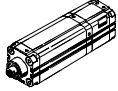


- Multi-position cylinder for advancing by up to 6 positions
- Adapter kits for standard, compact and short-stroke cylinders for advancing by up to 4 positions

# Multi-position cylinder ADVUP

Product range overview




Function	Design	Type	Piston $\varnothing$ [mm]	Stroke [mm]	Pisto rod		→ Page
					With female thread	With male thread	
Double-acting		ADVUP Single-ended piston rod	25	1 ... 500	■	■	1 / 5.10-6
			40, 63, 100	1 ... 2,000	■	■	

## Function principle

By connecting 2 to 5 cylinders in series with the same piston  $\varnothing$  and different stroke lengths, up to 6 positions can be approached.

Example:

ADVUP-25 for 5 positions at 0, 25, 50, 100 and 200 mm.

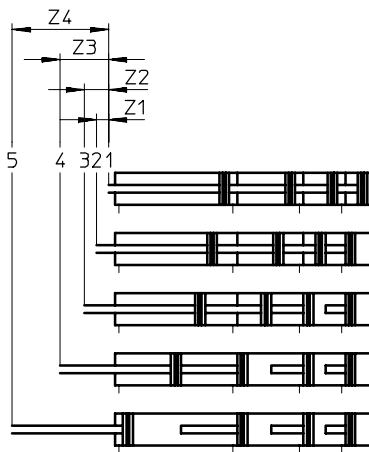
 Note

- Each subsequent cylinder stroke must be greater than the one that preceded it.
- The sum of all individual strokes may not exceed the total stroke, i.e.
 

for piston $\varnothing$ 25:	500 mm
for piston $\varnothing$ 40, 63, 100:	2000 mm
- The stroke of the last cylinder with the extending piston rod may not exceed a maximum permitted stroke, i.e.
 

for piston $\varnothing$ 25:	300 mm
for piston $\varnothing$ 40, 63, 100:	1000 mm
- The strokes of the preceding cylinders must not exceed a maximum permissible stroke defined individually for each one, i.e.
 

for piston $\varnothing$ 25:	200 mm
for piston $\varnothing$ 40, 63:	300 mm
for piston $\varnothing$ 100:	400 mm








- The strokes become larger from one individual cylinder to the next:  
 $Z1 = 25 \text{ mm} < Z2 = 50 \text{ mm} < Z3 = 100 \text{ mm} < Z4 = 200 \text{ mm}$
- Sum of individual strokes = 375 mm < 500 mm
- Stroke of the last cylinder  $Z4 = 200 \text{ mm} < 300 \text{ mm}$
- Stroke of the preceding cylinder:
 

$Z3 = 100 \text{ mm} < 200 \text{ mm}$
$Z2 = 50 \text{ mm} < 200 \text{ mm}$
$Z1 = 25 \text{ mm} < 200 \text{ mm}$

## Adapter kits DPNC/DPNG/DPNN/DPNA/DPVU

Product range overview

Design	Type	For cylinders	Piston Ø [mm]	Overall stroke length [mm]	→ Page
	DPNC	DNCB, DNC, ADVC ADN Ø125 ADVU Ø125	32, 40, 50, 63, 80, 100, 125	1,000	1 / 5.10-20
	DPNG	DNG	32, 40, 50, 63, 80, 100	1,000	1 / 5.10-20
	DPNN	DNU	32, 40, 50, 63, 80, 100	1,000	1 / 5.10-21
	DPNA	ADN	12, 16, 20, 25, 32, 40, 50, 63, 80, 100	600 ... 1,000	1 / 5.10-21
	DPVU	ADVU	12, 16, 20, 25, 32, 40, 50, 63, 80, 100	400 ... 800	1 / 5.10-22

### Function principle

A 3 or 4-position cylinder consists of two separate cylinders whose piston rods advance in opposing directions.

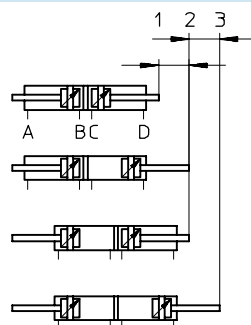
Depending upon actuation and stroke pattern, this type of cylinder can assume up to four positions. In each

case the cylinder is driven precisely against a stop. If one end of the piston rod is fixed, the cylinder barrel

executes the movement. The cylinder must be connected with flexible line connections.

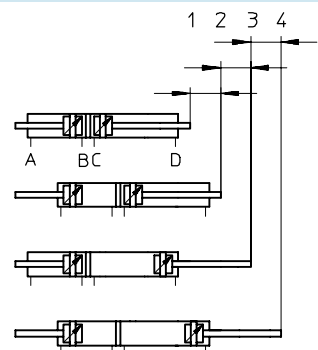
### Implementing 3 positions

Two cylinders with identical stroke length must be connected to this end.



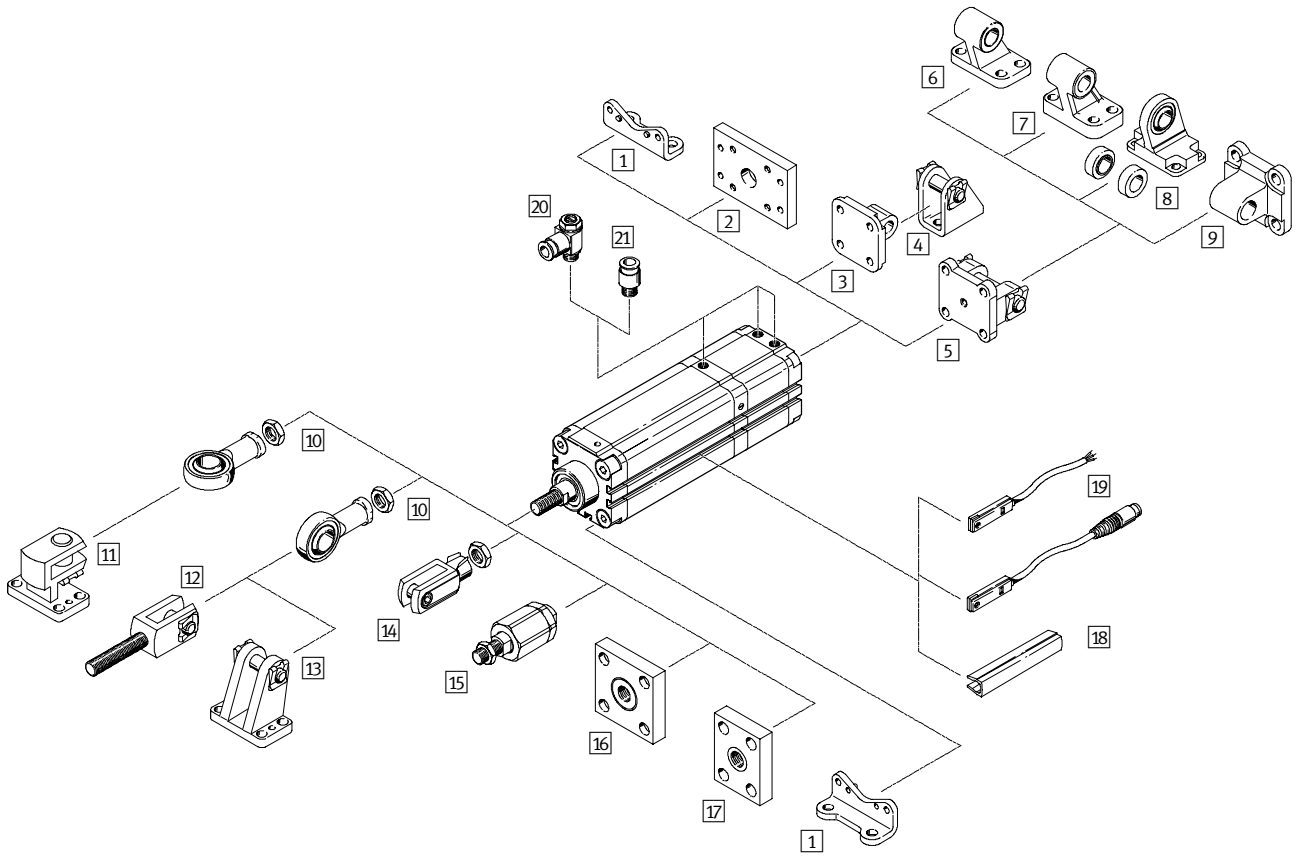
### Implementing 4 positions

Two cylinders with different stroke lengths must be connected to this end.



# Multi-position cylinder ADVUP

Peripherals overview



Special-function drives  
Multi-position cylinders

5.10

# Multi-position cylinder ADVUP

Peripherals overview

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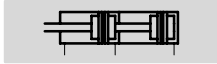
Mounting attachments and accessories					
	Brief description	Piston $\varnothing$ 25 mm	Piston $\varnothing$ 40, 63, 100 mm	→ Page	
1	Foot mounting HUA	for bearing and end caps	■	■	1 / 5.10-14
2	Flange mounting FUA	for end caps	■	■	1 / 5.10-15
3	Swivel flange SUA for $\varnothing$ 25	for end caps	■	-	1 / 5.10-16
4	Clevis foot LBN	-	■	-	1 / 5.10-17
5	Swivel flange SUA for $\varnothing$ 40, 63, 100	for end caps	-	■	1 / 5.10-16
6	Clevis foot LN	-	-	■	1 / 5.10-17
7	Clevis foot LNG	-	-	■	1 / 5.10-17
8	Clevis foot LSN	with spherical bearing	-	■	1 / 5.10-17
9	Swivel flange SNCL	-	-	■	1 / 5.10-17
10	Rod eye SGS	with spherical bearing	■	■	1 / 5.10-17
11	Right-angle clevis foot LQG	-	-	■	1 / 5.10-17
12	Rod clevis SGA	with male thread	■	■	1 / 5.10-17
13	Clevis foot LBG	-	-	■	1 / 5.10-17
14	Rod clevis SG	Permits a swivelling movement of the cylinder in one plane	■	■	1 / 5.10-17
15	Self-aligning rod coupler FK	for compensating radial and angular deviations	■	■	1 / 5.10-17
16	Coupling piece KSG	for compensating radial deviations	■	■	1 / 5.10-17
17	Coupling piece KSZ	for cylinders with a non-rotating piston rod to compensate for radial deviations	■	■	1 / 5.10-17
18	Slot cover ABP-5-S	to protect the sensor cable and keep dirt out of the sensor slots	■	■	1 / 5.10-18
19	Proximity sensors SME/SMT-8	can be integrated in the cylinder profile barrel	■	■	1 / 5.10-18
20	One-way flow control valve GRLA/GRLZ	for speed regulation	■	■	1 / 5.10-19
21	Push-in fitting QS	for connecting compressed air tubing with standard O.D. to CETOP RP 54 P	■	■	Volume 3

# Multi-position cylinder ADVUP

Technical data



## Function



## Variants

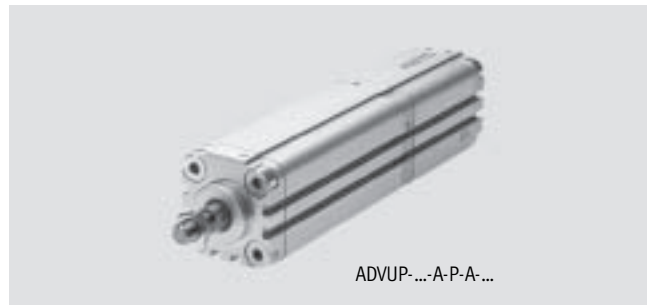


S6

⊘ - Diameter  
25, 40, 63, 100

— - Stroke length  
1 ... 2000

[www.festo.com/en/Spare\\_parts\\_service](http://www.festo.com/en/Spare_parts_service)



General technical data				
Piston Ø	25	40	63	100
Pneumatic connection	M5	M5	G $\frac{1}{8}$	G $\frac{1}{4}$
Piston rod thread	female	M5	M8	M10
	male	M10x1.25	M12x1.25	M16x1.5
Operating medium	Filtered compressed air, lubricated or unlubricated			
Constructional design	Piston			
	Piston rod			
Cushioning	Non-adjustable at either end			
Position sensing	Via proximity sensor			
Type of mounting	Using internal threads			
	Via accessories			
Mounting position	Any			

Operating pressure [bar]				
Piston Ø	25	40	63	100
2 cylinders	1.1 ... 10		0.9 ... 10	
3 cylinders	1.4 ... 10		1.2 ... 10	
4 cylinders	1.7 ... 10		1.5 ... 10	
5 cylinders	2.0 ... 10		1.8 ... 10	

Ambient conditions		
Variant	Basic version	S6
Ambient temperature <sup>1)</sup> [°C]	-20 ... +80	0 ... +150
Corrosion resistance class CRC <sup>2)</sup>	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.

# Multi-position cylinder ADVUP

Technical data

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Forces [N] and impact energy [J]				
Piston Ø	25	40	63	100
Theoretical force at 6 bar, advancing	295	754	1,870	4,712
Theoretical force at 6 bar, retracting	247	633	1,682	4,418
Max. impact energy at end positions	0.10	0.52	0.70	1.00

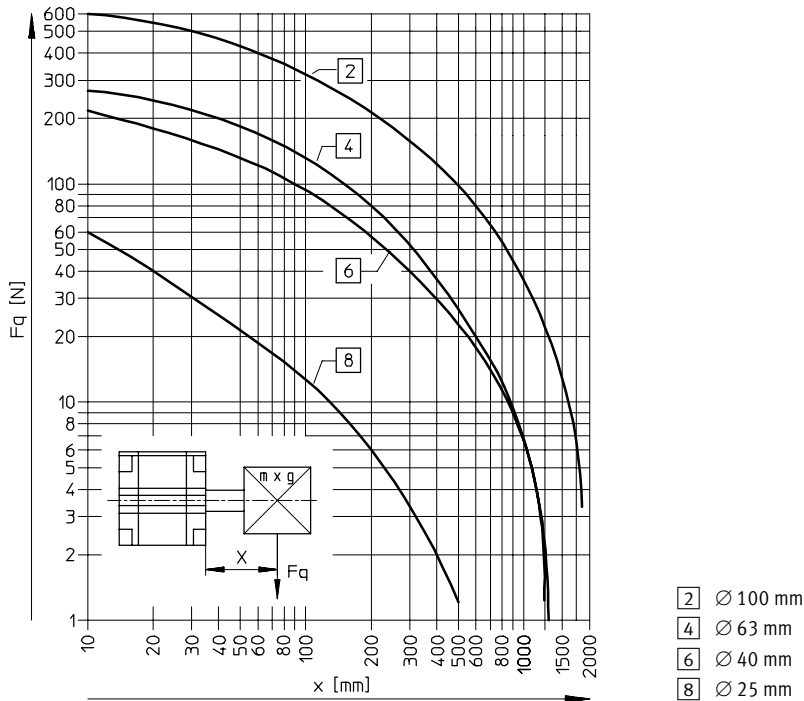
Weights [g]				
Piston Ø	25	40	63	100
<b>2 cylinders</b>				
Product weight at 0 mm stroke	375	825	1,200	5,250
Additional weight per 10 mm stroke	36	70	136	200
Moving load at 0 mm stroke	52	126	268	1,228
Additional load per 10 mm stroke	6	12	21	38
<b>3 cylinders</b>				
Product weight at 0 mm stroke	500	1,100	1,600	7,000
Additional weight per 10 mm stroke	36	69	134	200
Moving load at 0 mm stroke	78	189	402	1,842
Additional load per 10 mm stroke	6	11	19	38
<b>4 cylinders</b>				
Product weight at 0 mm stroke	625	1,375	2,000	8,750
Additional weight per 10 mm stroke	36	69	133	200
Moving load at 0 mm stroke	104	252	536	2,456
Additional load per 10 mm stroke	6	11	18	38
<b>5 cylinders</b>				
Product weight at 0 mm stroke	750	1,650	2,400	10,500
Additional weight per 10 mm stroke	36	69	133	200
Moving load at 0 mm stroke	130	315	670	3,070
Additional load per 10 mm stroke	6	11	18	38

# Multi-position cylinder ADVUP

Technical data

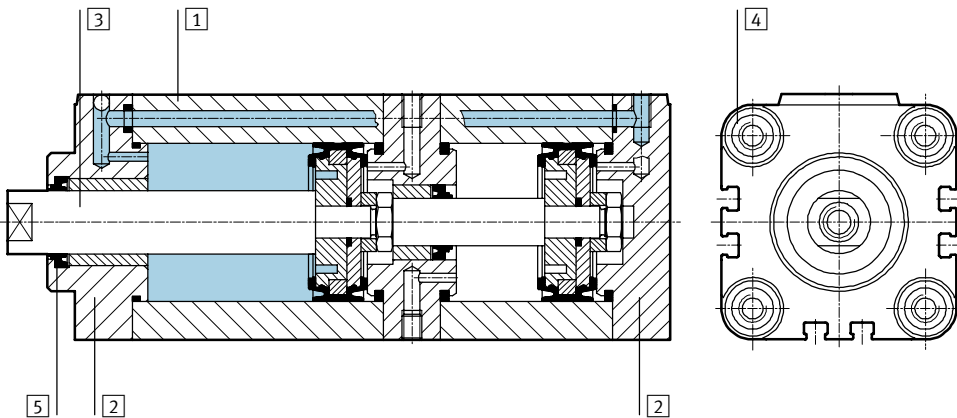
FESTO

## Max. lateral force $F_q$ as a function of projection $X$



## Materials

Sectional view



Variant	Basic version	S6
1 Cylinder barrel	Aluminium smooth anodised	Wrought aluminium alloy
2 Bearing end cap	Aluminium smooth anodised	Wrought aluminium alloy
3 Piston rod	Ø 25	High-alloy stainless steel
	Ø 40, 63, 100	High-alloy steel
4 Flange screws	Tempered steel	Tempered steel
5 Dynamic seals	Polyurethane	Fluorocarbon rubber



# Multi-position cylinder ADVUP

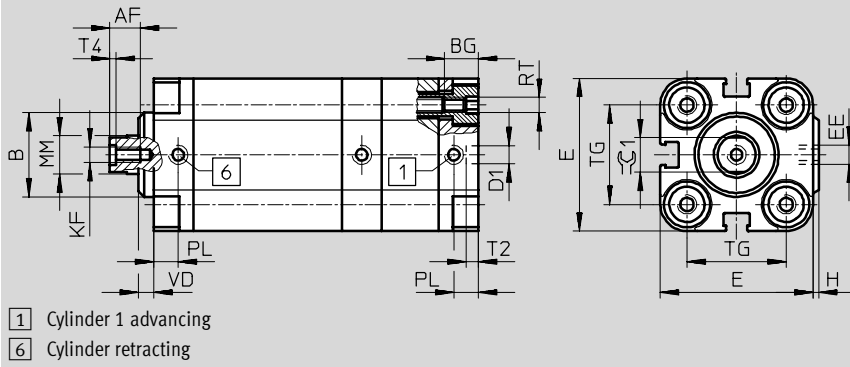
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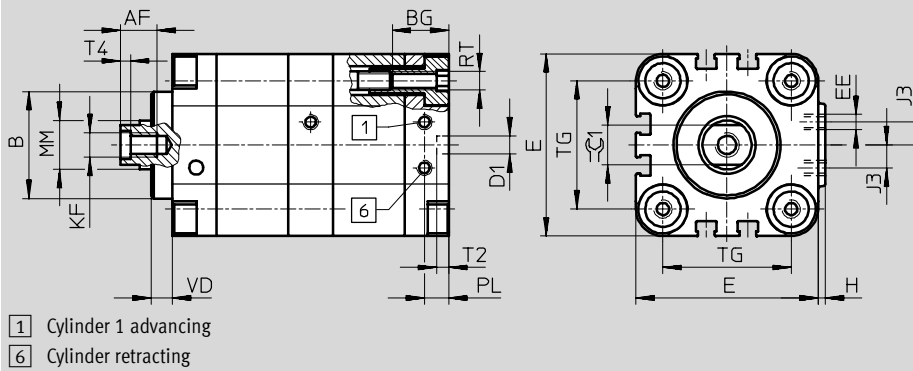
## Dimensions – Basic cylinder

Download CAD data → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)

Piston Ø 25 mm



Piston Ø 40, 63, 100 mm



Ø	AF	B	BG	D1	E	EE	H	J3	KF
[mm]		Ø		Ø H9					
25	10	22	11	6	40	M5	1.5	–	M5
40	12	35	15	6	60	M5	2.5	7.5	M8
63	16	42	23	8	87	G $\frac{1}{8}$	4	10.5	M10
100	20	55	23	8	128	G $\frac{1}{4}$	5	14.5	M12

Ø	MM	PL	RT	T2	T4	TG	VD	≈C1
[mm]	Ø			-0.2				h13
25	10	8	M5	4	2	26	4	9
40	16	8	M6	4	3.3	42	7	13
63	20	8	M10	4	4.7	62	11.5	17
100	25	10.5	M10	4	6.1	103	15	22

# Multi-position cylinder ADVUP

Technical data

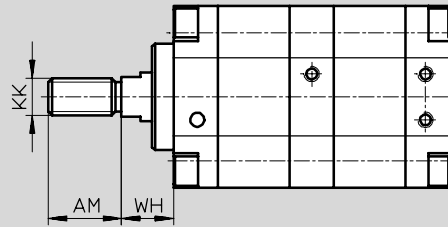
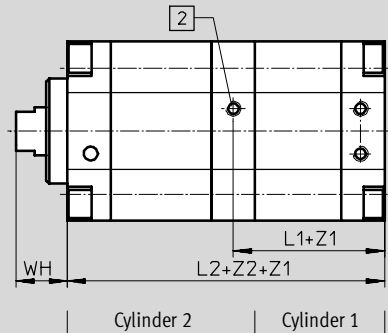


## Dimensions – Variants

Download CAD data → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)

2 cylinders

with male thread

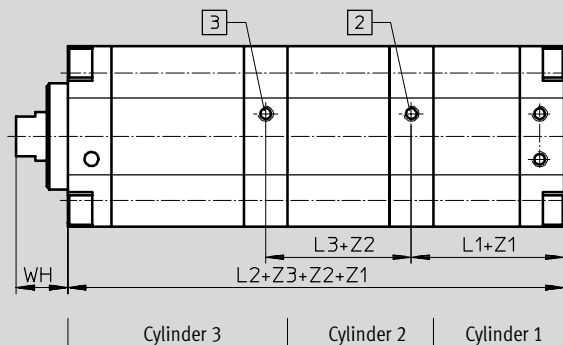


- 2 Cylinder 2 advancing
- Z1 Stroke of cylinder 1
- Z2 Stroke of cylinder 2

- Note

A piston rod with male thread also exists for the ADVUP variants comprising 3, 4 or 5 cylinders.

3 cylinders



- 2 Cylinder 2 advancing
- 3 Cylinder 3 advancing
- Z1 Stroke of cylinder 1
- Z2 Stroke of cylinder 2
- Z3 Stroke of cylinder 3

∅ [mm]	AM	KK	L1	L2		L3	WH
				2 cylinders	3 cylinders		
25 <sup>1)</sup>	22	M10x1.25	39	78	110.5	32.5	11.5
40 <sup>1)</sup>	24	M12x1.25	45.3	90.5	128.5	38	16.5
63 <sup>1)</sup>	32	M16x1.5	50.3	100.5	143	42.5	21.5
100 <sup>1)</sup>	40	M20x1.5	67.8	135.5	193.5	58	27

1) Nut for piston rod thread included in scope of delivery.

# Multi-position cylinder ADVUP

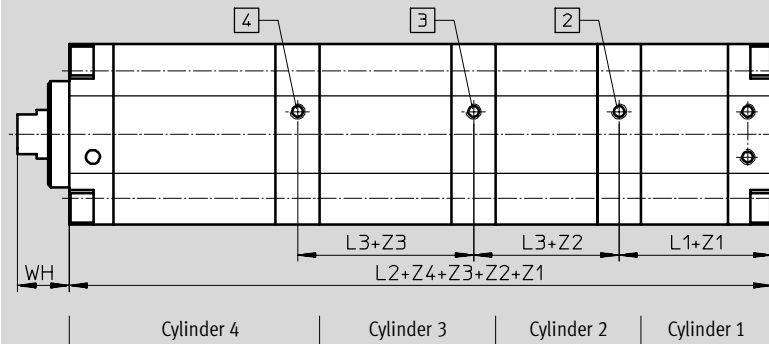
Technical data



## Dimensions – Variants

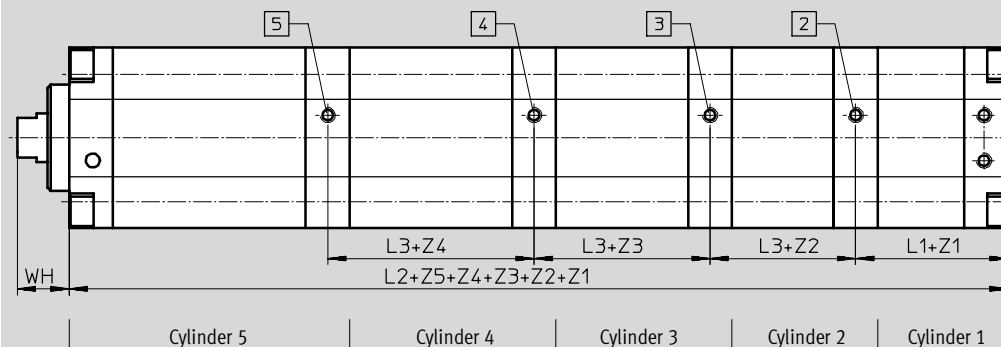
Download CAD data → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)

### 4 cylinders



- |   |   |
|---|---|
| <p>2 Cylinder 2 advancing</p> <p>3 Cylinder 3 advancing</p> <p>4 Cylinder 4 advancing</p> | <p>Z1 Stroke of cylinder 1</p> <p>Z2 Stroke of cylinder 2</p> <p>Z3 Stroke of cylinder 3</p> <p>Z4 Stroke of cylinder 4</p> |
|---|---|

### 5 cylinders



- |   |  |
|---|--|
| <p>2 Cylinder 2 advancing</p> <p>3 Cylinder 3 advancing</p> <p>4 Cylinder 4 advancing</p> <p>5 Cylinder 5 advancing</p> | <p>Z1 Stroke of cylinder 1</p> <p>Z2 Stroke of cylinder 2</p> <p>Z3 Stroke of cylinder 3</p> <p>Z4 Stroke of cylinder 4</p> <p>Z5 Stroke of cylinder 5</p> |
|---|--|

Ø [mm]	L1	L2		L3	WH
		4 cylinders	5 cylinders		
25 <sup>1)</sup>	39	143	175.5	32.5	11.5
40 <sup>1)</sup>	45.3	166.5	204.5	38	16.5
63 <sup>1)</sup>	50.3	185.5	228	42.5	21.5
100 <sup>1)</sup>	67.8	251.5	309.5	58	27

1) Nut for piston rod thread included in scope of delivery.

# Multi-position cylinder ADVUP, female thread

Ordering data – Modular product system



M Mandatory data					O Options					
Module No.	Drive system	Size	Cushioning	Position sensing	Mid-position					Temperature-resistant
					1	2	3	4	5	
161 147	ADVUP	25	P	A	...Z1	...Z2	...Z3	...Z4	...Z5	S6
161 148		40								
161 149		63								
161 150		100								
<b>Ordering example</b>										
<b>161 147</b>	<b>ADVUP</b>	<b>- 25</b>	<b>- P</b>	<b>- A</b>	<b>- 40Z1</b>	<b>- 95Z2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>- S6</b>

Ordering table								
Size	25	40	63	100	Condi- tions	Code	Enter code	
<b>M</b> Module No.	<b>161 147</b>	<b>161 148</b>	<b>161 149</b>	<b>161 150</b>				
Drive system	Compact multi-position cylinders					<b>ADVUP</b>		ADVUP
Size	25	40	63	100		-...		
Cushioning	Flexible cushioning in the end positions					<b>-P</b>		-P
Position sensing	Via proximity sensor					<b>-A</b>		-A
1. Mid-position [mm]	1 ... 200	1 ... 300	1 ... 300	1 ... 400	1	<b>-...Z1</b>		
2. Mid-position [mm]	1 ... 300	1 ... 1000	1 ... 1000	1 ... 1000	1 2	<b>-...Z2</b>		
3. Mid-position [mm]	1 ... 300	1 ... 1000	1 ... 1000	1 ... 1000	1 2	<b>-...Z3</b>		
4. Mid-position [mm]	1 ... 300	1 ... 1000	1 ... 1000	1 ... 1000	1 2	<b>-...Z4</b>		
5. Mid-position [mm]	1 ... 300	1 ... 1000	1 ... 1000	1 ... 1000	1 2	<b>-...Z5</b>		
Temperature-resistant	Heat-resistant seals to max. 150° C					<b>-S6</b>		

- 1 Z1 ... Z5** For the selected mid-positions the following must apply:  
 The end of the retracted piston rod is the reference point for all mid-positions!  
 $Z1 < Z2 < Z3 < Z4 < Z5$ : each subsequent mid-position must be larger than the one that precedes it.  
 Maximum overall length (sum of all individual strokes):  
 $Z1 + Z2 + Z3 + Z4 + Z5 \leq 500$  mm at  $\varnothing 25$   
 $Z1 + Z2 + Z3 + Z4 + Z5 \leq 2000$  mm at  $\varnothing 40 \dots 100$ .

- 2 Z2 ... Z5** Max. permissible stroke except for the last position (visible piston rod) in mm:  
 200 mm for  $\varnothing 25$ ;  
 300 mm for  $\varnothing 40, 63$ ;  
 400 mm for  $\varnothing 100$ .

Transfer order code

**ADVUP** -  - **P** -  - **A** -  -  -  -  -  -  -

# Multi-position cylinder ADVUP, male thread

Ordering data – Modular product system



M Mandatory data						O Options					
Module No.	Drive system	Size	Thread type	Cushioning	Position sensing	Mid-position					Temperature-resistant
						1	2	3	4	5	
197 277	ADVUP	25	A	P	A	...Z1	...Z2	...Z3	...Z4	...Z5	S6
197 278		40									
197 279		63									
197 280		100									
<b>Ordering example</b>											
<b>197 278</b>	<b>ADVUP</b>	<b>- 25</b>	<b>- A</b>	<b>- P</b>	<b>- A</b>	<b>- 20Z1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Ordering table								
Size	25	40	63	100	Condi-tions	Code	Enter code	
M Module No.	197 277	197 278	197 279	197 280				
Drive system	Compact multi-position cylinders					ADVUP		ADVUP
Size	25	40	63	100		-...		
Thread type	Male thread					-A		-A
Cushioning	Flexible cushioning in the end positions					-P		-P
Position sensing	Via proximity sensor					-A		-A
1. Mid-position [mm]	1 ... 200	1 ... 300	1 ... 300	1 ... 400	1	-...Z1		
2. Mid-position [mm]	1 ... 300	1 ... 1000	1 ... 1000	1 ... 1000	1 2	-...Z2		
3. Mid-position [mm]	1 ... 300	1 ... 1000	1 ... 1000	1 ... 1000	1 2	-...Z3		
4. Mid-position [mm]	1 ... 300	1 ... 1000	1 ... 1000	1 ... 1000	1 2	-...Z4		
5. Mid-position [mm]	1 ... 300	1 ... 1000	1 ... 1000	1 ... 1000	1 2	-...Z5		
Temperature-resistant	Heat-resistant seals to max. 150° C					-S6		

**1 Z1 ... Z5** For the selected mid-positions the following must apply:  
 The end of the retracted piston rod is the reference point for all mid-positions!  
 $Z1 < Z2 < Z3 < Z4 < Z5$ : each subsequent mid-position must be larger than the one that precedes it.  
 Maximum overall length (sum of all individual strokes):  
 $Z1 + Z2 + Z3 + Z4 + Z5 \leq 500$  mm at  $\varnothing 25$   
 $Z1 + Z2 + Z3 + Z4 + Z5 \leq 2000$  mm at  $\varnothing 40 \dots 100$ .

**2 Z2 ... Z5** Max. permissible stroke except for the last mid-position (visible piston rod) in mm:  
 200 mm for  $\varnothing 25$ ;  
 300 mm for  $\varnothing 40, 63$ ;  
 400 mm for  $\varnothing 100$ .

Transfer order code

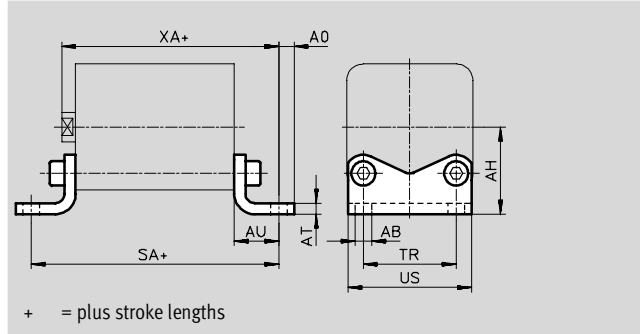
# Multi-position cylinder ADVUP

Accessories



## Foot mounting HUA for piston $\varnothing$ 63, 100 mm

Material:  
Galvanised steel  
Free of copper, PTFE and silicone



Dimensions and ordering data										
for $\varnothing$	AB $\varnothing$	AH	AO	AT	AU	SA				TR
						2 cylinders <sup>1)</sup>	3 cylinders <sup>2)</sup>	4 cylinders <sup>3)</sup>	5 cylinders <sup>4)</sup>	
25	6.6	29	6.25	4	16	110	142.5	175	207.5	26
40	9	40.5	8.25	5	20	130.5	168.5	206.5	244.5	42
63	11	56.5	11.75	6	27	154.5	197	239.5	282	62
100	13.5	81	11.75	8	33	201.5	259.5	317.5	375.5	103

for $\varnothing$	US	XA				CRC <sup>5)</sup>	Weight [g]	Part No.	Type
		2 cylinders <sup>1)</sup>	3 cylinders <sup>2)</sup>	4 cylinders <sup>3)</sup>	5 cylinders <sup>4)</sup>				
25	38	105.5	138	170.5	203	2	90	157 311	HUA-25
40	58	127	165	203	241	2	201	157 313	HUA-40
63	85	149	191.5	234	276.5	2	550	157 315	HUA-63
100	126	195.5	253.5	311.5	369.5	2	1,050	157 317	HUA-100

- 1) plus stroke length X1+X2
- 2) plus stroke length X1+X2+X3
- 3) plus stroke length X1+X2+X3+X4
- 4) plus stroke length X1+X2+X3+X4+X5
- 5) 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.

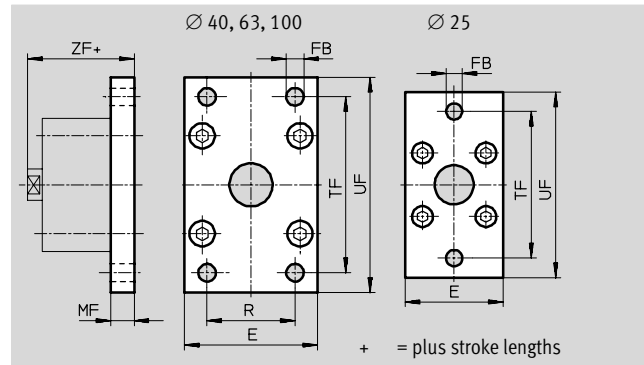
# Multi-position cylinder ADVUP

Accessories



## Flange mounting FUA

Material:  
Clear anodised aluminium



Dimensions and ordering data														
for Ø	E	FB Ø	MF	R	TF	UF	ZF				CRC <sup>5)</sup>	Weight [g]	Part No.	Type
							2 cylinders <sup>1)</sup>	3 cylinders <sup>2)</sup>	4 cylinders <sup>3)</sup>	5 cylinders <sup>4)</sup>				
25	40	6.6	10	–	60	76	99.5	132	164.5	197	2	87	157 301	FUA-25
40	60	9	10	36	82	102	117	155	193	231	2	180	157 303	FUA-40
63	87	9	15	50	110	130	137	179.5	222	264.5	2	550	157 305	FUA-63
100	128	14	15	75	163	190	177.5	235.5	293.5	351.5	2	1 035	157 307	FUA-100

- 1) plus stroke length X1+X2
- 2) plus stroke length X1+X2+X3
- 3) plus stroke length X1+X2+X3+X4
- 4) plus stroke length X1+X2+X3+X4+X5
- 5) 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.

Core Range

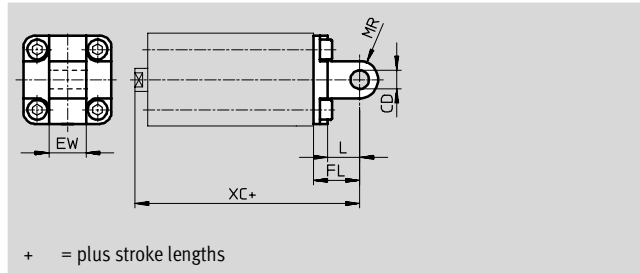
# Multi-position cylinder ADVUP

Accessories



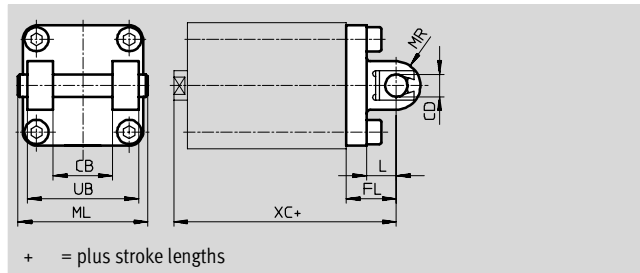
## Swivel flange SUA for piston $\varnothing$ 25 mm

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



## for piston $\varnothing$ 40, 63, 100 mm

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone




Dimensions and ordering data								
for $\varnothing$	CB	CD $\varnothing$	EW	FL	L	ML	MR	UB
25	-	8	16	20	14	-	8	-
40	28	12	-	25	16	62	12	52
63	40	16	-	32	21	82	16	70
100	60	20	-	41	26	126	20	110

for $\varnothing$	XC				Weight [g]	Part No.	Type
	2 cylinders <sup>1)</sup>	3 cylinders <sup>2)</sup>	4 cylinders <sup>3)</sup>	5 cylinders <sup>4)</sup>			
25	109.5	142	174.5	207	86	157 321	SUA-25
40	132	170	208	246	320	157 323	SUA-40
63	154	196.5	239	281.5	760	157 325	SUA-63
100	203.5	261.5	319.5	377.5	1 900	157 327	SUA-100

- 1) plus stroke length X1+X2
- 2) plus stroke length X1+X2+X3
- 3) plus stroke length X1+X2+X3+X4
- 4) plus stroke length X1+X2+X3+X4+X5

for $\varnothing$	Max. stroke length
25	50 mm
40	100 mm
63	100 mm
100	150 mm

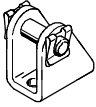
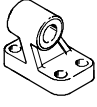
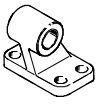
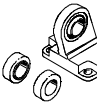
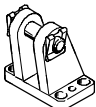
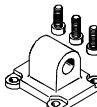
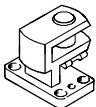
-  Note  
The maximum stroke length may not be exceeded when combining cylinders and swivel flanges.





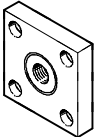
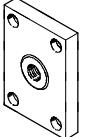


# Multi-position cylinder ADVUP

Accessories

FESTO

Ordering data – Mounting attachments				Technical data → 1 / 10.1-2			
Designation	for Ø	Part No.	Type	Designation	for Ø	Part No.	Type
<b>Clevis foot LBN</b>				<b>Clevis foot LNG</b>			
	25	6 059	LBN-20/25		40	33 891	LNG-40
					63	33 893	LNG-63
					100	33 895	LNG-100
<b>Clevis foot LN</b>				<b>Clevis foot LSN</b>			
	40	5 148	LN-40		40	5 562	LSN-40
	63	5 150	LN-63		63	5 564	LSN-63
	100	5 152	LN-100		100	5 566	LSN-100
<b>Clevis foot LBG</b>				<b>Swivel flange SNCL</b>			
	40	31 762	LBG-40		40	174 405	SNCL-40
	63	31 764	LBG-63		63	174 407	SNCL-63
	100	31 766	LBG-100		100	174 409	SNCL-100
<b>Right-angle clevis foot LQG</b>							
	25	–	–				
	40	31 769	LQG-40				
	63	31 771	LQG-63				
	100	31 773	LQG-100				











Ordering data – Piston rod attachments				Technical data → 1 / 10.3-3			
Designation	for Ø	Part No.	Type	Designation	for Ø	Part No.	Type
<b>Rod eye SGS</b>				<b>Rod clevis SGA</b>			
	25	9 261	SGS-M10x1,25		25	32 954	SGA-M10x1,25
	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
<b>Rod clevis SG</b>				<b>Self-aligning rod coupler FK</b>			
	25	6 144	SG-M10x1,25		25	6 140	FK-M10x1,25
	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
<b>Coupling piece KSG</b>				<b>Coupling piece KSZ</b>			
	25	32 963	KSG-M10x1,25		25	36 125	KSZ-M10x1,25
	40	32 964	KSG-M12x1,25		40	36 126	KSZ-M12x1,25
	63	32 965	KSG-M16x1,5		63	36 127	KSZ-M16x1,5
	100	32 966	KSG-M20x1,5		100	36 128	KSZ-M20x1,5









 Core Range





















# Multi-position cylinder ADVUP

Accessories


FESTO

Ordering data – Proximity sensor for slot type 8, magneto-resistive							Technical data → 1 / 10.2-13		
	Mounting	Switch output	Electrical connection			Cable length [m]	Part No.	Type	
			Cable	M8 plug	M12 plug				
<b>NO contact</b>									
	Insertable from above	PNP	3-wire	–	–	2.5	525 898	SMT-8F-PS-24V-K2,5-OE	
		NPN		–	–		525 909	SMT-8F-NS-24V-K2,5-OE	
		–	2-wire	–	–	2.5	525 908	SMT-8F-ZS-24V-K2,5-OE	
		PNP	–	3-pin	–	0.3	525 899	SMT-8F-PS-24V-K0,3-M8D	
		NPN	–		–		525 910	SMT-8F-NS-24V-K0,3-M8D	
		PNP	–	–	3-pin	0.3	525 900	SMT-8F-PS-24V-K0,3-M12	
	Insertable, flush with the cylinder profile	PNP	3-wire	–	–	2.5	175 436	SMT-8-PS-K-LED-24-B	
		–	3-pin	–	–	0.3	175 484	SMT-8-PS-S-LED-24-B	
<b>NC contact</b>									
	Insertable from above	PNP	3-wire	–	–	7.5	525 911	SMT-8F-PO-24V-K7,5-OE	

Ordering data – Proximity sensor for slot type 8, magnetic reed						Technical data → 1 / 10.2-16			
	Mounting	Electrical connection		Cable length [m]	Part No.	Type			
		Cable	M8 plug						
<b>NO contact</b>									
	Insertable from above	3-wire		–	2.5	525 895	SME-8F-DS-24V-K2,5-OE		
		2-wire		–		5,0	525 897	SME-8F-DS-24V-K5,0-OE	
		–		3-pin	–	2.5	525 907	SME-8F-ZS-24V-K2,5-OE	
		–		3-pin	–	0.3	525 896	SME-8F-DS-24V-K0,3-M8D	
	Insertable, flush with the cylinder profile	3-wire		–	2.5	150 855	SME-8-K-LED-24		
		–		3-pin	–	0.3	150 857	SME-8-S-LED-24	
<b>NC contact</b>									
	Insertable from above	3-wire		–	7.5	525 906	SME-8F-DO-24V-K7,5-OE		

Ordering data – Plug sockets						Technical data → 1 / 10.2-100	
	Mounting	Switch output		Connection	Cable length [m]	Part No.	Type
		PNP	NPN				
<b>Straight socket</b>							
	M8 union nut			3-pin	2.5	159 420	SIM-M8-3GD-2,5-PU
					5	159 421	SIM-M8-3GD-5-PU
	M12 union nut			3-pin	2.5	159 428	SIM-M12-3GD-2,5-PU
					5	159 429	SIM-M12-3GD-5-PU
<b>Angled plug socket</b>							
	M8 union nut			3-pin	2.5	159 422	SIM-M8-3WD-2,5-PU
					5	159 423	SIM-M8-3WD-5-PU
	M12 union nut			3-pin	2.5	159 430	SIM-M12-3WD-2,5-PU
					5	159 431	SIM-M12-3WD-5-PU



Ordering data – Slot cover for slot type 8			
	Mounting	Length [m]	Part No. Type
	Insertable from above	2x 0.5	151 680 ABP-5-S

 Core Range

# Multi-position cylinder ADVUP

Accessories

**FESTO**

Ordering data – One-way flow control valves				Technical data → Volume 2			
	Connection		Material	Part No.	Type		
	Thread	For tubing OD					
<b>For exhaust air</b>							
	M5	3	Metal design	193 137	GRLA-M5-QS-3-D		
		4		193 138	GRLA-M5-QS-4-D		
		6		193 139	GRLA-M5-QS-6-D		
	G1/8	3		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		
	G1/4	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		
	<b>For supply air</b>						
		M5		3	Metal design	193 153	GRLZ-M5-QS-3-D
4			193 154	GRLZ-M5-QS-4-D			
6			193 155	GRLZ-M5-QS-6-D			
G1/8		3	193 156	GRLZ-1/8-QS-3-D			
		4	193 157	GRLZ-1/8-QS-4-D			
		6	193 158	GRLZ-1/8-QS-6-D			
		8	193 159	GRLZ-1/8-QS-8-D			

# Adapter kits DPNC/DPNG, standard port pattern

Technical data



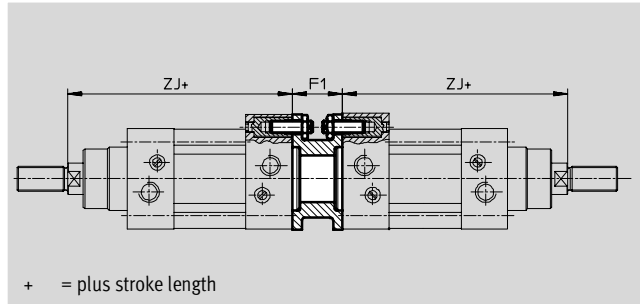
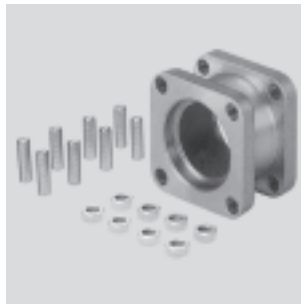
## Adapter kit DPNC

for standard cylinder DNCB, DNC,  
standard cylinder ADN Ø125,  
compact cylinder ADVU Ø125 and  
short-stroke cylinder ADVC

Material:

Flange: Wrought aluminium alloy;  
threaded pins, hex nuts: Galvanised  
steel

Free of copper, PTFE and silicone



+ = plus stroke length



Note

The maximum overall stroke length  
may not be exceeded when  
combining cylinders and the  
adapter kit.

Dimensions and ordering data							
For Ø	F1	ZJ	Max. overall stroke length [mm]	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
32	27	120	1,000	2	85	174 418	DPNC-32
40	27	135	1,000	2	115	174 419	DPNC-40
50	32	143	1,000	2	210	174 420	DPNC-50
63	28	158	1,000	2	360	174 421	DPNC-63
80	38	174	1,000	2	620	174 422	DPNC-80
100	38	189	1,000	2	1,190	174 423	DPNC-100
125	48	225	1,000	2	1,600	174 424	DPNC-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.

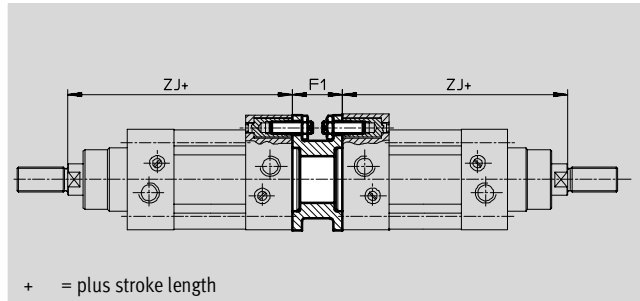
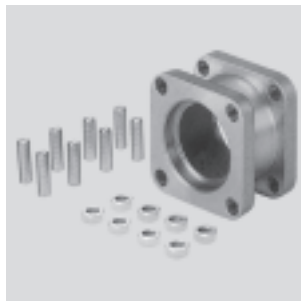
## Adapter kit DPNG

For standard cylinders DNG

Material:

Flange: Wrought aluminium alloy;  
threaded pins, hex nuts: Galvanised  
steel

Free of copper, PTFE and silicone



+ = plus stroke length



Note

The maximum overall stroke length  
may not be exceeded when  
combining cylinders and the  
adapter kit.

Dimensions and ordering data							
For Ø	F1	ZJ	Max. overall stroke length [mm]	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
32	27	120	1,000	2	85	159 485	DPNG-32
40	27	135	1,000	2	115	159 486	DPNG-40
50	32	143	1,000	2	210	159 487	DPNG-50
63	28	158	1,000	2	360	159 488	DPNG-63
80	38	174	1,000	2	620	159 489	DPNG-80
100	38	189	1,000	2	1,190	159 490	DPNG-100

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.

# Adapter kits DPNN/DPNA

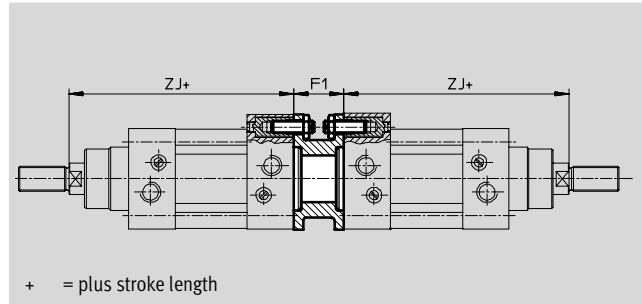
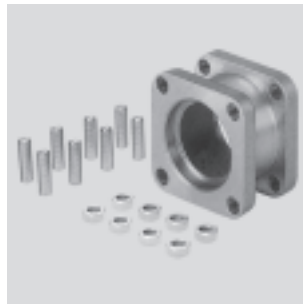
Technical data



**Do not use for new designs!**  
 - 1 - Type Discontinued

**Adapter kit DPNN**  
 for standard cylinders DNU

Material:  
 Flange: Wrought aluminium alloy;  
 threaded pins, hex nuts: Galvanised steel  
 Free of copper, PTFE and silicone



- 1 - Note  
 The maximum overall stroke length may not be exceeded when combining cylinders and the adapter kit.

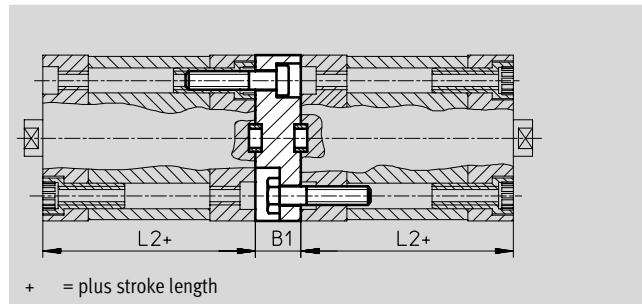
Dimensions and ordering data						
For Ø	F1	ZJ	Max. overall stroke length [mm]	CRC <sup>1)</sup>	Weight [g]	Part No. Type
32	27	120	1,000	2	85	159 485 DPNN-32 - 1 -
40	27	135	1,000	2	115	159 486 DPNN-40 - 1 -
50	32	143	1,000	2	210	159 487 DPNN-50 - 1 -
63	34	155	1,000	2	360	159 488 DPNN-63 - 1 -
80	42	172	1,000	2	620	159 489 DPNN-80 - 1 -
100	42	187	1,000	2	1,190	159 490 DPNN-100 - 1 -

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.

- 1 - **New**

**Adapter kit DPNA**  
 for standard cylinder ADN

Material:  
 Flange: Aluminium  
 Screws: Galvanised steel  
 Free of copper, PTFE and silicone



- 1 - Note  
 The maximum overall stroke length may not be exceeded when combining cylinders and the adapter kit.

Dimensions and ordering data					
For Ø	B1	L2	Max. overall stroke length [mm]	CRC <sup>1)</sup>	Part No. Type
12	13	35	600	2	537 263 DPNA-12 - 1 -
16	13	35	600	2	537 264 DPNA-16 - 1 -
20	13	37	600	2	537 265 DPNA-20 - 1 -
25	13	39	600	2	537 266 DPNA-25 - 1 -
32	15	44	800	2	537 267 DPNA-32 - 1 -
40	15	45	800	2	537 268 DPNA-40 - 1 -
50	15	45	800	2	537 269 DPNA-50 - 1 -
63	15	49	800	2	537 270 DPNA-63 - 1 -
80	17	54	1,000	2	537 271 DPNA-80 - 1 -
100	19,5	67	1,000	2	537 272 DPNA-100 - 1 -

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.

# Adapter kits DPVU

Technical data



## Adapter kit DPVU

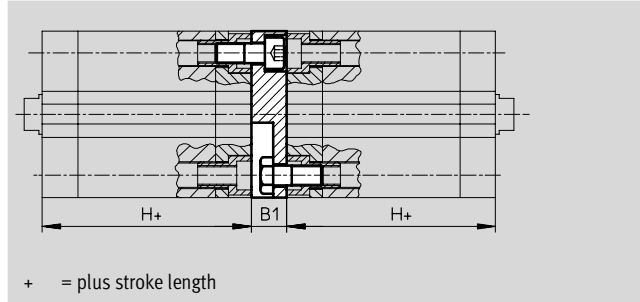
for compact cylinder ADVU

Material:

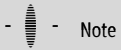
Flange: Aluminium

Screws: Galvanised steel

Free of copper, PTFE and silicone



Dimensions and ordering data							
For Ø	B1	H	Max. overall stroke length [mm]	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
12/16	12,5	38	400	2	22	<b>161 194</b>	<b>DPVU-12/16</b>
20	12,5	38	400	2	36	<b>161 195</b>	<b>DPVU-20</b>
25	13	39,5	400	2	44	<b>161 196</b>	<b>DPVU-25</b>
32	14,5	44,5	600	2	90	<b>161 197</b>	<b>DPVU-32</b>
40	14,5	45,5	600	2	137	<b>161 198</b>	<b>DPVU-40</b>
50	14,5	45,5	600	2	177	<b>161 199</b>	<b>DPVU-50</b>
63	14,5	50	600	2	308	<b>161 200</b>	<b>DPVU-63</b>
80	16,5	56	800	2	495	<b>161 201</b>	<b>DPVU-80</b>
100	19,5	66,5	800	2	859	<b>161 202</b>	<b>DPVU-100</b>



Note

The maximum overall stroke length may not be exceeded when combining cylinders and the adapter kit.

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.