

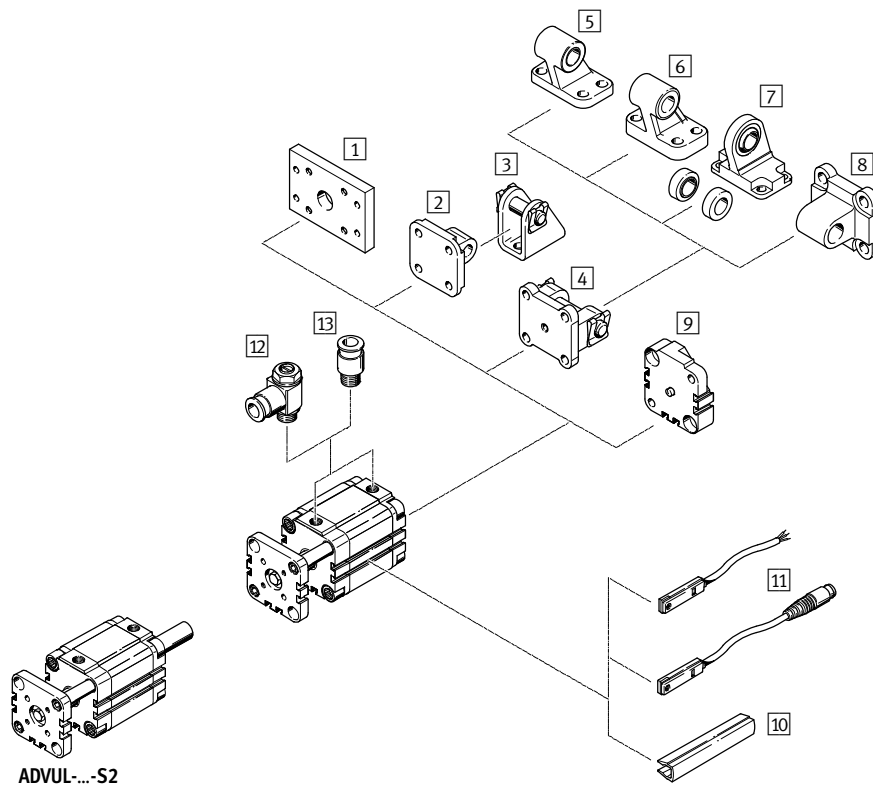


- Piston rod secured against rotation by means of guide rods and yoke plate
- Profile slots for proximity sensors
- Extensive range of accessories

# Compact cylinders ADVUL

Peripherals overview

FESTO



ADVUL-...S2

Mounting attachments and accessories					
	Brief description	ADVUL		→ Page/Internet	
			S2		
1	Flange mounting FUA	For end caps	■	■	11
2	Swivel flange SUA for Ø 12 ... 25	For end caps	■	-	12
3	Clevis foot LBN	-	■	-	14
4	Swivel flange SUA for Ø 32 ... 100	For end caps	■	-	12
5	Clevis foot LN	-	■	-	14
6	Clevis foot LNG	-	■	-	14
7	Clevis foot LSN	With spherical bearing	■	-	14
8	Swivel flange SNCL	-	■	-	14
9	Adapter kit DPVU	For connecting two cylinders with identical piston diameter to form a multi-position cylinder	■	-	13
10	Slot cover ABP-5-S	To protect the sensor cable and keep dirt out of the sensor slots	■	■	15
11	Proximity sensor SME/SMT-8	Can be integrated in the cylinder profile barrel	■	■	15
12	One-way flow control valve GRLA	To regulate speed	■	■	14
13	Push-in fitting QS	For connecting compressed air tubing with standard external diameters	■	■	quick star

# Compact cylinders ADVUL

Type codes

ADVUL – 50 – 80 – P – A – S2

**Type**

Double-acting

ADVUL Compact cylinder, secured against rotation by means of guide rods and yoke plate

**Piston Ø [mm]**

**Stroke [mm]**

**Cushioning**

P Flexible cushioning rings/plates at both ends

**Position sensing**

A For proximity sensing

**Variant**

S2 Through piston rod

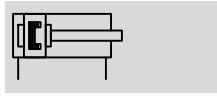
S6 Heat-resistant seals up to 120 °C

# Compact cylinders ADVUL

Technical data

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## Function



- Ø - Diameter  
12 ... 100 mm

- | - Stroke length  
1 ... 400 mm

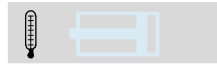
-  - [www.festo.com](http://www.festo.com)

Wearing parts kits, see  
→ 10

## Variants



S2



S6



General technical data										
Piston Ø	12	16	20	25	32	40	50	63	80	100
Pneumatic connection	M5	M5	M5	M5	G1/8	G1/8	G1/8	G1/8	G1/8	G1/4
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)									
Constructional design	Piston									
	Piston rod									
	Cylinder barrel									
Cushioning	Flexible cushioning rings/plates at both ends									
Position sensing	For proximity sensing									
Type of mounting	Via through-holes									
	With female thread									
	Via accessories									
Mounting position	Any									

Operating pressure [bar]										
Piston Ø	12	16	20	25	32	40	50	63	80	100
Piston rod at one end	1.5 ... 10			1.0 ... 10						
Through piston rod S2	1.5 ... 10				1.0 ... 10					

Ambient conditions		
Compact cylinder	Basic version	S6
Ambient temperature <sup>1)</sup> [°C]	-20 ... +80	0 ... +120
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

# Compact cylinders ADVUL

Technical data

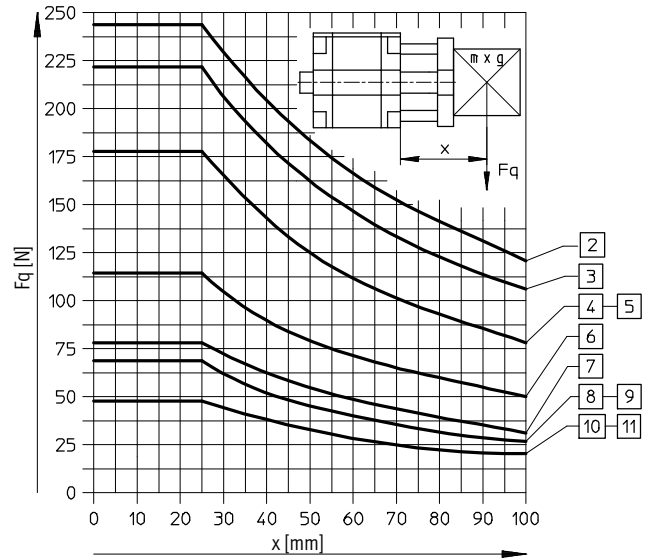
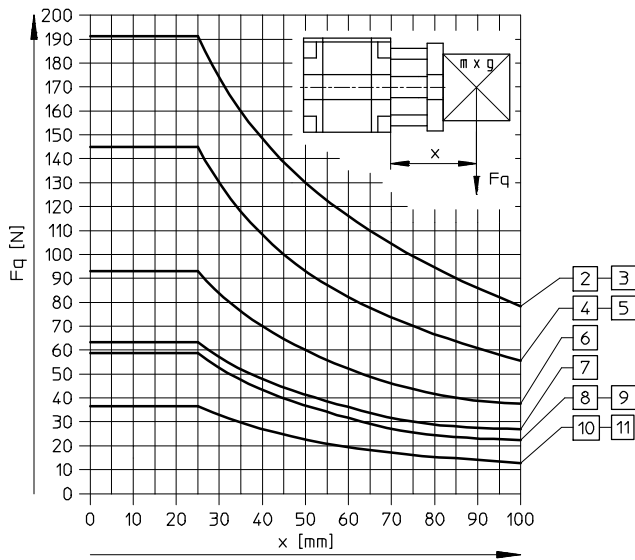
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Forces [N] and impact energy [J]										
Piston $\varnothing$	12	16	20	25	32	40	50	63	80	100
Theoretical force at 6 bar, advancing	68	121	188	295	483	754	1,178	1,870	3,016	4,712
S2	51	90	141	247	415	686	1,057	1,750	2,827	4,418
Theoretical force at 6 bar, retracting	51	90	141	247	415	686	1,057	1,750	2,827	4,418
S2	51	90	141	247	415	686	1,057	1,750	2,827	4,418
Max. impact energy at end positions	0.09	0.10	0.14	0.10	0.40	0.52	0.64	0.70	0.75	1.00

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

Piston rod at one end

Through piston rod



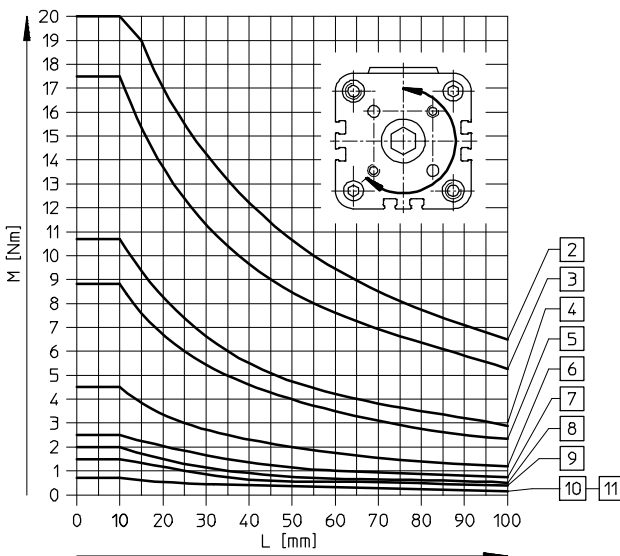
- 2  $\varnothing$  100 mm
- 3  $\varnothing$  80 mm
- 4  $\varnothing$  63 mm

- 5  $\varnothing$  50 mm
- 6  $\varnothing$  40 mm
- 7  $\varnothing$  32 mm

- 8  $\varnothing$  25 mm
- 9  $\varnothing$  20 mm
- 10  $\varnothing$  16 mm

- 11  $\varnothing$  12 mm

## Torque $M$ in relation to stroke length $L$



- 2  $\varnothing$  100 mm
- 3  $\varnothing$  80 mm
- 4  $\varnothing$  63 mm
- 5  $\varnothing$  50 mm
- 6  $\varnothing$  40 mm

- 7  $\varnothing$  32 mm
- 8  $\varnothing$  25 mm
- 9  $\varnothing$  20 mm
- 10  $\varnothing$  16 mm
- 11  $\varnothing$  12 mm

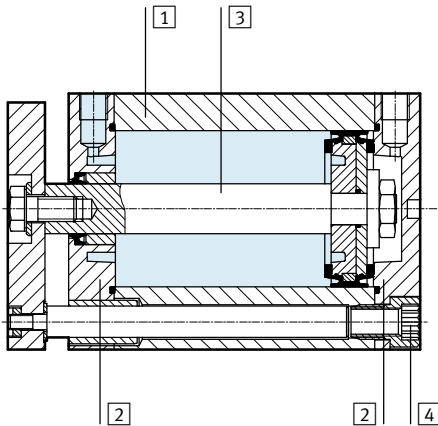
# Compact cylinders ADVUL

Technical data

FESTO

## Materials

Sectional view



Compact cylinder	Basic version	S6
1 Cylinder barrel	Wrought aluminium alloy	Wrought aluminium alloy
2 Bearing and end cap	Wrought aluminium alloy	Wrought aluminium alloy
3 Piston rod	∅ 12 ... 32	High-alloy stainless steel
	∅ 40 ... 100	High-alloy steel
4 Flange screws	∅ 12 ... 16	High-alloy stainless steel
	∅ 20 ... 100	Tempered steel
- Seals	Polyurethane, nitrile rubber	Fluorocautchouc

Weights [g]										
Piston ∅	12	16	20	25	32	40	50	63	80	100
Product weight with 0mm stroke	100	103	179	215	362	517	707	1,252	2,150	3,316
Additional weight per 10 mm stroke	14	16	26	28	38	45	64	72	97	116
Moving load with 0 mm stroke	21	26	50	61	111	147	259	327	685	1,133
Additional load per 10 mm stroke	4	6	11	11	17	17	29	29	43	43

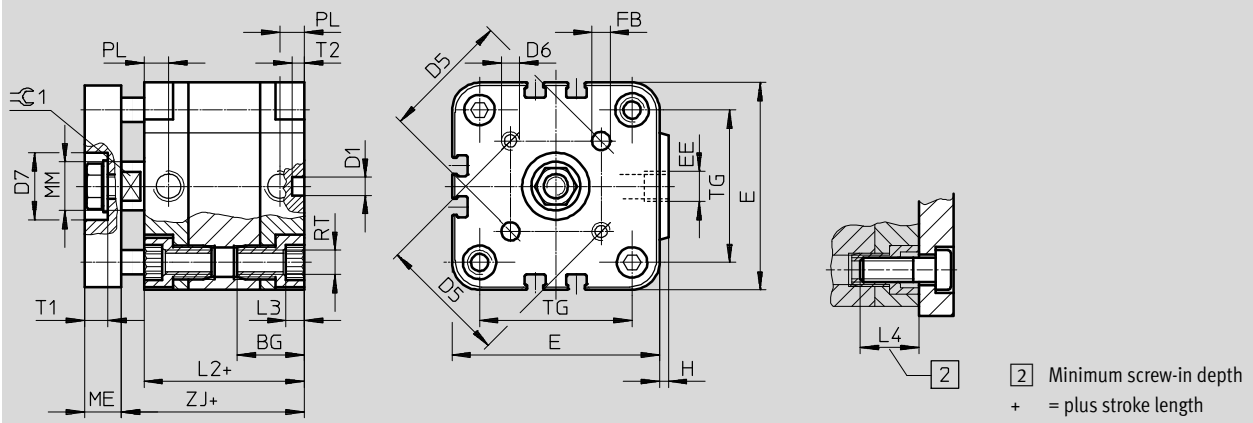
# Compact cylinders ADVUL

Technical data

FESTO

## Dimensions – Basic cylinders

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



∅ [mm]	BG <sup>1)</sup>	D1 ∅ H9	D5	D6	D7 ∅ H9	E	EE	FB ∅ H8	H	L2
12	18.5	6	14	M3	–	29	M5	3	1	38
16	18.5	6	14	M3	–	29	M5	3	1	38
20	18.5	6	17	M4	–	36	M5	4	1.5	38
25	18.5	6	22	M5	14	40	M5	5	1.5	39.5
32	21.5	6	28	M5	17	50	G $\frac{1}{8}$	5	2	44.5
40	21.5	6	33	M5	17	60	G $\frac{1}{8}$	5	2.5	45.5
50	22	6	42	M6	22	68	G $\frac{1}{8}$	6	3	45.5
63	24.5	8	50	M6	22	87	G $\frac{1}{8}$	6	4	50
80	27.5	8	65	M8	28	107	G $\frac{1}{8}$	8	4	56
100	32.5	8	80	M10	30	128	G $\frac{1}{4}$	10	5	66.5

∅ [mm]	L3	L4	ME	MM ∅	PL	RT	T1 +0.2	T2 –0.2	TG	≈C1 h13
12	3	16	6	6	8	M4	–	4	18	5
16	3	16	6	8	8	M4	–	4	18	7
20	4	18	8	10	8	M5	–	4	22	9
25	4	18	8	10	8	M5	4.8	4	26	9
32	5	20	10	12	8	M6	6.1	4	32	10
40	5	20	10	12	8	M6	6.1	4	42	10
50	6	20	12	16	8	M8	7.6	4	50	13
63	8	25	12	16	8	M10	7.6	4	62	13
80	8	25	14	20	8.5	M10	8.7	4	82	17
100	8	25	14	25	10.5	M10	10.3	4	103	22

1) Do not exceed screw-in depth

# Compact cylinders ADVUL

Technical data

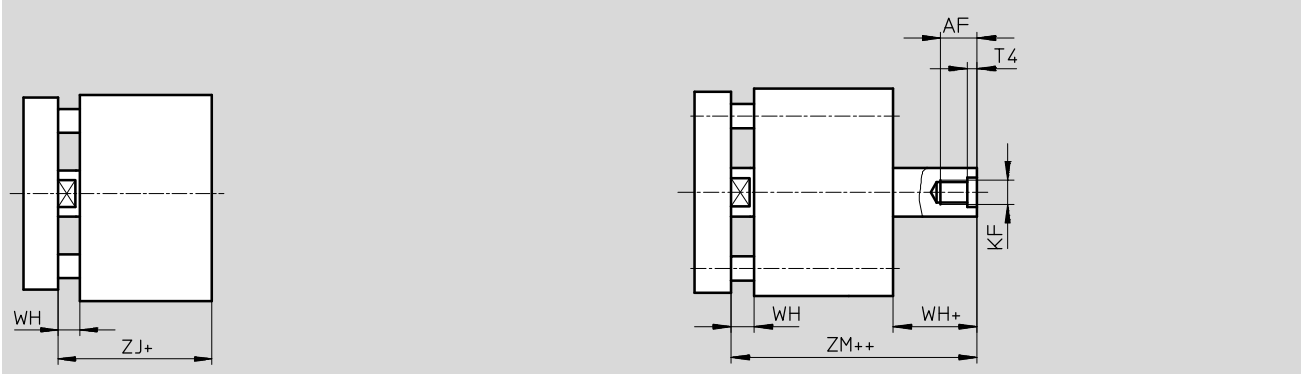
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## Dimensions – Variants

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

Piston rod at one end

Through piston rod



∅	AF	KF	T4	WH	ZJ	ZM
[mm]						
12	8	M3	1.5	4.5	42.5	47
16	10	M4	1.5	4.5	42.5	47
20	12	M5	2	4.5	42.5	47
25	12	M5	2	5.5	45	50.5
32	14	M6	2.6	6	50.5	56.5
40	14	M6	2.6	6.5	52	58.5
50	16	M8	3.3	7.5	53	60.5
63	16	M8	3.3	7.5	57.5	65
80	20 <sup>1)</sup>	M10	4.7	8	64	72
100	24 <sup>1)</sup>	M12	6.1	10	76.5	86.5


1) With a stroke < 5 mm, the maximum screw-in depth is reduced by 5 mm



# Compact cylinders ADVUL

Technical data



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Ordering data – Basic version						
Type	Stroke [mm]	Part No.	Type	Stroke [mm]	Part No.	Type
	Piston Ø 12 mm			Piston Ø 16 mm		
	5	156 844	ADVUL-12-5-P-A	5	156 851	ADVUL-16-5-P-A
	10	156 845	ADVUL-12-10-P-A	10	156 852	ADVUL-16-10-P-A
	15	156 846	ADVUL-12-15-P-A	15	156 853	ADVUL-16-15-P-A
	20	156 847	ADVUL-12-20-P-A	20	156 854	ADVUL-16-20-P-A
	25	156 848	ADVUL-12-25-P-A	25	156 855	ADVUL-16-25-P-A
	30	156 849	ADVUL-12-30-P-A	30	156 856	ADVUL-16-30-P-A
	40	156 850	ADVUL-12-40-P-A	40	156 857	ADVUL-16-40-P-A
	Piston Ø 20 mm			Piston Ø 25 mm		
	5	156 858	ADVUL-20-5-P-A	5	156 866	ADVUL-25-5-P-A
10	156 859	ADVUL-20-10-P-A	10	156 867	ADVUL-25-10-P-A	
15	156 860	ADVUL-20-15-P-A	15	156 868	ADVUL-25-15-P-A	
20	156 861	ADVUL-20-20-P-A	20	156 869	ADVUL-25-20-P-A	
25	156 862	ADVUL-20-25-P-A	25	156 870	ADVUL-25-25-P-A	
30	156 863	ADVUL-20-30-P-A	30	156 871	ADVUL-25-30-P-A	
40	156 864	ADVUL-20-40-P-A	40	156 872	ADVUL-25-40-P-A	
50	156 865	ADVUL-20-50-P-A	50	156 873	ADVUL-25-50-P-A	
Piston Ø 32 mm			Piston Ø 40 mm			
5	156 874	ADVUL-32-5-P-A	5	156 884	ADVUL-40-5-P-A	
10	156 875	ADVUL-32-10-P-A	10	156 885	ADVUL-40-10-P-A	
15	156 876	ADVUL-32-15-P-A	15	156 886	ADVUL-40-15-P-A	
20	156 877	ADVUL-32-20-P-A	20	156 887	ADVUL-40-20-P-A	
25	156 878	ADVUL-32-25-P-A	25	156 888	ADVUL-40-25-P-A	
30	156 879	ADVUL-32-30-P-A	30	156 889	ADVUL-40-30-P-A	
40	156 880	ADVUL-32-40-P-A	40	156 890	ADVUL-40-40-P-A	
50	156 881	ADVUL-32-50-P-A	50	156 891	ADVUL-40-50-P-A	
60	156 882	ADVUL-32-60-P-A	60	156 892	ADVUL-40-60-P-A	
80	156 883	ADVUL-32-80-P-A	80	156 893	ADVUL-40-80-P-A	
Piston Ø 50 mm			Piston Ø 63 mm			
10	156 894	ADVUL-50-10-P-A	10	156 903	ADVUL-63-10-P-A	
15	156 895	ADVUL-50-15-P-A	15	156 904	ADVUL-63-15-P-A	
20	156 896	ADVUL-50-20-P-A	20	156 905	ADVUL-63-20-P-A	
25	156 897	ADVUL-50-25-P-A	25	156 906	ADVUL-63-25-P-A	
30	156 898	ADVUL-50-30-P-A	30	156 907	ADVUL-63-30-P-A	
40	156 899	ADVUL-50-40-P-A	40	156 908	ADVUL-63-40-P-A	
50	156 900	ADVUL-50-50-P-A	50	156 909	ADVUL-63-50-P-A	
60	156 901	ADVUL-50-60-P-A	60	156 910	ADVUL-63-60-P-A	
80	156 902	ADVUL-50-80-P-A	80	156 911	ADVUL-63-80-P-A	
Piston Ø 80 mm			Piston Ø 100 mm			
10	156 912	ADVUL-80-10-P-A	10	156 921	ADVUL-100-10-P-A	
15	156 913	ADVUL-80-15-P-A	15	156 922	ADVUL-100-15-P-A	
20	156 914	ADVUL-80-20-P-A	20	156 923	ADVUL-100-20-P-A	
25	156 915	ADVUL-80-25-P-A	25	156 924	ADVUL-100-25-P-A	
30	156 916	ADVUL-80-30-P-A	30	156 925	ADVUL-100-30-P-A	
40	156 917	ADVUL-80-40-P-A	40	156 926	ADVUL-100-40-P-A	
50	156 918	ADVUL-80-50-P-A	50	156 927	ADVUL-100-50-P-A	
60	156 919	ADVUL-80-60-P-A	60	156 928	ADVUL-100-60-P-A	
80	156 920	ADVUL-80-80-P-A	80	156 929	ADVUL-100-80-P-A	

# Compact cylinders ADVUL

Technical data

FESTO

Ordering data – Variants				
Type	Piston Ø [mm]	Stroke [mm]	Part No.	Type
<b>Variable stroke</b>				
	12	1 ... 200	<b>156 200</b>	<b>ADVUL-12-...-P-A</b>
	16	1 ... 200	<b>156 201</b>	<b>ADVUL-16-...-P-A</b>
	20	1 ... 200	<b>156 202</b>	<b>ADVUL-20-...-P-A</b>
	25	1 ... 200	<b>156 203</b>	<b>ADVUL-25-...-P-A</b>
	32	1 ... 300	<b>156 204</b>	<b>ADVUL-32-...-P-A</b>
	40	1 ... 300	<b>156 205</b>	<b>ADVUL-40-...-P-A</b>
	50	1 ... 300	<b>156 206</b>	<b>ADVUL-50-...-P-A</b>
	63	1 ... 300	<b>156 207</b>	<b>ADVUL-63-...-P-A</b>
	80	1 ... 400	<b>156 208</b>	<b>ADVUL-80-...-P-A</b>
	100	1 ... 400	<b>156 209</b>	<b>ADVUL-100-...-P-A</b>
<b>S2 – Through piston rod, variable stroke</b>				
	12	1 ... 200	<b>165 089</b>	<b>ADVUL-12-...-P-A-S2</b>
	16	1 ... 200	<b>165 090</b>	<b>ADVUL-16-...-P-A-S2</b>
	20	1 ... 200	<b>165 091</b>	<b>ADVUL-20-...-P-A-S2</b>
	25	1 ... 200	<b>165 092</b>	<b>ADVUL-25-...-P-A-S2</b>
	32	1 ... 300	<b>165 093</b>	<b>ADVUL-32-...-P-A-S2</b>
	40	1 ... 300	<b>165 094</b>	<b>ADVUL-40-...-P-A-S2</b>
	50	1 ... 300	<b>165 095</b>	<b>ADVUL-50-...-P-A-S2</b>
	63	1 ... 300	<b>165 096</b>	<b>ADVUL-63-...-P-A-S2</b>
	80	1 ... 400	<b>165 097</b>	<b>ADVUL-80-...-P-A-S2</b>
	100	1 ... 400	<b>165 098</b>	<b>ADVUL-100-...-P-A-S2</b>

Ordering data – Variants				
Type	Piston Ø [mm]	Stroke [mm]	Part No.	Type
<b>S6 – Heat-resistant up to 120 °C, variable stroke</b>				
	12	1 ... 200	<b>156 210</b>	<b>ADVUL-12-...-P-A-S6</b>
	16	1 ... 200	<b>156 211</b>	<b>ADVUL-16-...-P-A-S6</b>
	20	1 ... 200	<b>156 212</b>	<b>ADVUL-20-...-P-A-S6</b>
	25	1 ... 200	<b>156 213</b>	<b>ADVUL-25-...-P-A-S6</b>
	32	1 ... 300	<b>156 214</b>	<b>ADVUL-32-...-P-A-S6</b>
	40	1 ... 300	<b>156 215</b>	<b>ADVUL-40-...-P-A-S6</b>
	50	1 ... 300	<b>156 216</b>	<b>ADVUL-50-...-P-A-S6</b>
	63	1 ... 300	<b>156 217</b>	<b>ADVUL-63-...-P-A-S6</b>
	80	1 ... 400	<b>156 218</b>	<b>ADVUL-80-...-P-A-S6</b>
	100	1 ... 400	<b>156 219</b>	<b>ADVUL-100-...-P-A-S6</b>

Ordering data – Wearing parts kits				
	Part No.	Type	Part No.	Type
Piston Ø	Basic version		S6 – Heat-resistant up to 120 °C	
12	<b>121 115</b>	<b>ADVUL-12-...-P-A<sup>1)</sup></b>	<b>383 559</b>	<b>ADVUL-12-...-P-A-S6<sup>2)</sup></b>
16	<b>121 116</b>	<b>ADVUL-16-...-P-A<sup>1)</sup></b>	<b>383 560</b>	<b>ADVUL-16-...-P-A-S6<sup>2)</sup></b>
20	<b>121 117</b>	<b>ADVUL-20-...-P-A<sup>1)</sup></b>	<b>383 561</b>	<b>ADVUL-20-...-P-A-S6<sup>2)</sup></b>
25	<b>121 118</b>	<b>ADVUL-25-...-P-A<sup>1)</sup></b>	<b>383 562</b>	<b>ADVUL-25-...-P-A-S6<sup>2)</sup></b>
32	<b>121 119</b>	<b>ADVUL-32-...-P-A<sup>1)</sup></b>	<b>383 563</b>	<b>ADVUL-32-...-P-A-S6<sup>1)</sup></b>
40	<b>121 120</b>	<b>ADVUL-40-...-P-A<sup>1)</sup></b>	<b>383 564</b>	<b>ADVUL-40-...-P-A-S6<sup>1)</sup></b>
50	<b>121 121</b>	<b>ADVUL-50-...-P-A<sup>1)</sup></b>	<b>383 565</b>	<b>ADVUL-50-...-P-A-S6<sup>1)</sup></b>
63	<b>121 122</b>	<b>ADVUL-63-...-P-A<sup>1)</sup></b>	<b>383 566</b>	<b>ADVUL-63-...-P-A-S6<sup>1)</sup></b>
80	<b>121 123</b>	<b>ADVUL-80-...-P-A<sup>1)</sup></b>	<b>383 567</b>	<b>ADVUL-80-...-P-A-S6<sup>1)</sup></b>
100	<b>121 124</b>	<b>ADVUL-100-...-P-A<sup>1)</sup></b>	<b>383 568</b>	<b>ADVUL-100-...-P-A-S6<sup>1)</sup></b>

1) Assembly grease included in scope of delivery

2) Assembly grease not included in scope of delivery. If required, please order separately under part no. 329 555 (20 ml)

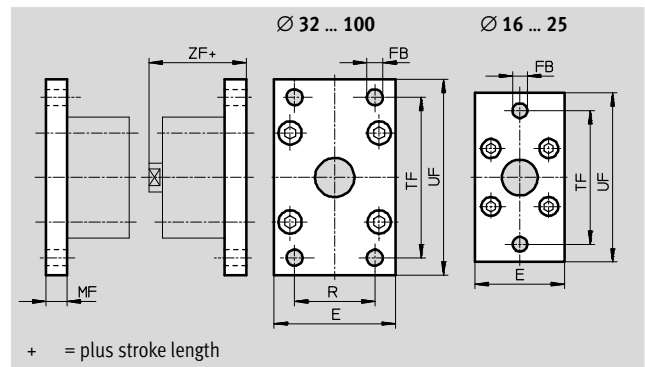
# Compact cylinders ADVUL

Accessories



## Flange mounting FUA

Material:  
Clear anodised aluminium



Dimensions and ordering data											
For Ø	E	FB	MF	R	TF	UF	ZF	CRC <sup>1)</sup>	Weight	Part No.	Type
[mm]		Ø							[g]		
12/16	29	5.5	10	–	43	55	52.5	2	48	<b>157 299</b>	<b>FUA-12/16</b>
20	36	6.6	10	–	55	70	52.5	2	77	<b>157 300</b>	<b>FUA-20</b>
25	40	6.6	10	–	60	76	55	2	91	<b>157 301</b>	<b>FUA-25</b>
32	50	7	10	32	65	80	60.5	2	290	<b>157 302</b>	<b>FUA-32</b>
40	60	9	10	36	82	102	62	2	449	<b>157 303</b>	<b>FUA-40</b>
50	68	9	12	45	90	110	65	2	658	<b>157 304</b>	<b>FUA-50</b>
63	87	9	15	50	110	130	72.5	2	1,277	<b>157 305</b>	<b>FUA-63</b>
80	107	12	15	63	135	160	76	2	1,910	<b>157 306</b>	<b>FUA-80</b>
100	128	14	15	75	163	190	91.5	2	2,716	<b>157 307</b>	<b>FUA-100</b>

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

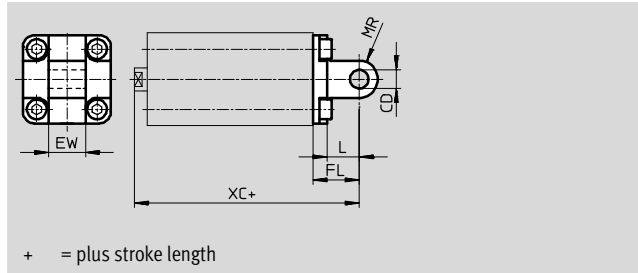
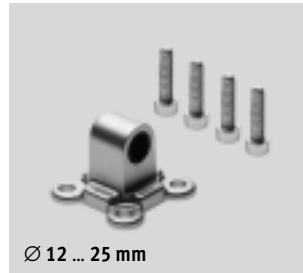
# Compact cylinders ADVUL

Accessories

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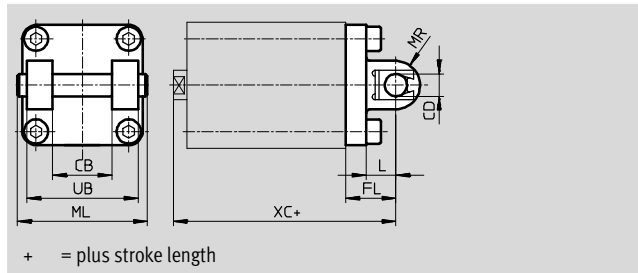
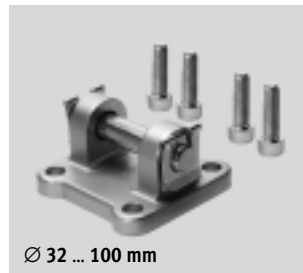
## Swivel flange SUA for piston $\varnothing$ 12 ... 25 mm

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone




## for piston $\varnothing$ 32 ... 100 mm

Material:  
Anodised aluminium  
Free of copper, PTFE and silicone



Dimensions and ordering data												
For $\varnothing$	CB	CD	EW	FL	L	ML	MR	UB	XC	Weight	Part No.	Type
[mm]		$\varnothing$								[g]		
12/16	-	6	12	16	10	-	6	-	58.5	22	157 319	SUA-12/16
20	-	8	16	20	14	-	8	-	62.5	41	157 320	SUA-20
25	-	8	16	20	14	-	8	-	64	45	157 321	SUA-25
32	26	10	-	22	13	54	10	45	72.5	137	157 322	SUA-32
40	28	12	-	25	16	62	12	52	77	199	157 323	SUA-40
50	32	12	-	27	16	70	12	60	80	287	157 324	SUA-50
63	40	16	-	32	21	82	16	70	89.5	530	157 325	SUA-63
80	50	16	-	36	23	102	16	90	100	770	157 326	SUA-80
100	60	20	-	41	26	126	20	110	117.5	1,283	157 327	SUA-100

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

For $\varnothing$	Max. stroke length [mm]
12	50
16	50
20	50
25	50
32	100

For $\varnothing$	Max. stroke length [mm]
40	100
50	100
63	100
80	150
100	150

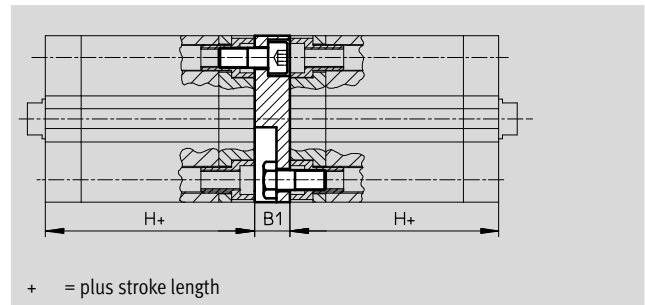
# Compact cylinders ADVUL

Accessories

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## Adapter kit DPVU

Material:  
Aluminium  
Free of copper, PTFE and silicone



Dimensions and ordering data							
For Ø [mm]	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 multi-position 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

## Connecting two cylinders with identical piston diameter as a 3 or 4-position cylinder

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

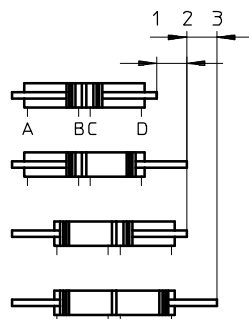
Depending upon actuation and stroke pattern, this type of cylinder can assume up to four positions. In each

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.

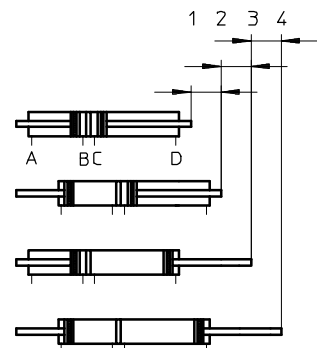
### Implementing 3 positions

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



### Implementing 4 positions

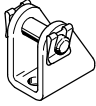

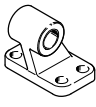
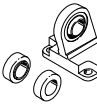
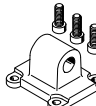
Two cylinders with different stroke lengths must be connected to this end.




# Compact cylinders ADVUL

Accessories

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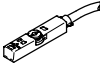
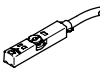
Ordering data – Mounting attachments				Technical data → Internet: mounting attachment			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
<b>Clevis foot LBN</b>				<b>Clevis foot LNG</b>			
	12	6 058	LBN-12/16		32	33 890	LNG-32
	16	6 058	LBN-12/16		40	33 891	LNG-40
	20	6 059	LBN-20/25		50	33 892	LNG-50
	25	6 059	LBN-20/25		63	33 893	LNG-63
			80		33 894	LNG-80	
			100		33 895	LNG-100	
<b>Clevis foot LN</b>				<b>Clevis foot LSN</b>			
	32	5 147	LN-32		32	5 561	LSN-32
	40	5 148	LN-40		40	5 562	LSN-40
	50	5 149	LN-50		50	5 563	LSN-50
	63	5 150	LN-63		63	5 564	LSN-63
	80	5 151	LN-80		80	5 565	LSN-80
	100	5 152	LN-100		100	5 566	LSN-100
<b>Swivel flange SNCL</b>							
	32	174 404	SNCL-32				
	40	174 405	SNCL-40				
	50	174 406	SNCL-50				
	63	174 407	SNCL-63				
	80	174 408	SNCL-80				
	100	174 409	SNCL-100				

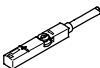


Ordering data – One-way flow control valves				Technical data → Internet: grla		
	Connection		Material	Part No.	Type	
	Thread	For tubing O.D.				
	M5	3	Metal design	193 137	GRLA-M5-QS-3-D	
		4		193 138	GRLA-M5-QS-4-D	
		6		193 139	GRLA-M5-QS-6-D	
	G $\frac{1}{8}$	3		193 142	GRLA- $\frac{1}{8}$ -QS-3-D	
		4		193 143	GRLA- $\frac{1}{8}$ -QS-4-D	
		6		193 144	GRLA- $\frac{1}{8}$ -QS-6-D	
	G $\frac{1}{4}$	8		193 145	GRLA- $\frac{1}{8}$ -QS-8-D	
		6		193 146	GRLA- $\frac{1}{4}$ -QS-6-D	
		8		193 147	GRLA- $\frac{1}{4}$ -QS-8-D	
		10		193 148	GRLA- $\frac{1}{4}$ -QS-10-D	



# Compact cylinders ADVUL

Accessories

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Ordering data – Proximity sensors for T-slot, magneto-resistive						Technical data → Internet: smt	
	Type of mounting	Switch output	Electrical connection	Cable length [m]	Part No.	Type	
<b>N/O contact</b>							
	Insertable in the slot from above, flush with cylinder profile, short design	PNP	Cable, 3-wire	2.5	<b>574335</b>	<b>SMT-8M-A-PS-24V-E-2,5-OE</b>	
			Plug M8x1, 3-pin	0.3	<b>574334</b>	<b>SMT-8M-A-PS-24V-E-0,3-M8D</b>	
			Plug M12x1, 3-pin	0.3	<b>574337</b>	<b>SMT-8M-A-PS-24V-E-0,3-M12</b>	
		NPN	Cable, 3-wire	2.5	<b>574338</b>	<b>SMT-8M-A-NS-24V-E-2,5-OE</b>	
			Plug M8x1, 3-pin	0.3	<b>574339</b>	<b>SMT-8M-A-NS-24V-E-0,3-M8D</b>	
<b>N/C contact</b>							
	Insertable in the slot from above, flush with cylinder profile, short design	PNP	Cable, 3-wire	7.5	<b>574340</b>	<b>SMT-8M-A-PO-24V-E-7,5-OE</b>	

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

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	<b>541 333</b>	<b>NEBU-M8G3-K-2.5-LE3</b>	
			5	<b>541 334</b>	<b>NEBU-M8G3-K-5-LE3</b>	
	Straight socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	<b>541 363</b>	<b>NEBU-M12G5-K-2.5-LE3</b>	
			5	<b>541 364</b>	<b>NEBU-M12G5-K-5-LE3</b>	
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	<b>541 338</b>	<b>NEBU-M8W3-K-2.5-LE3</b>	
			5	<b>541 341</b>	<b>NEBU-M8W3-K-5-LE3</b>	
	Angled socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	<b>541 367</b>	<b>NEBU-M12W5-K-2.5-LE3</b>	
			5	<b>541 370</b>	<b>NEBU-M12W5-K-5-LE3</b>	

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