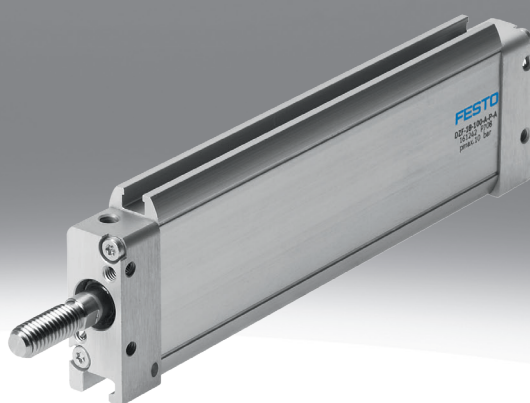


Flat cylinder, metric DZF

FESTO



Characteristics

At a glance

[Link](#) [dzf](#)

For high packing density with block mounting: Double-acting cylinder with adjustable cushioning and protection against torsion with oval piston.

- Extremely flat design
- Protected against rotation thanks to special piston shape
- Ideal for block mounting
- Wide variety of mounting and assembly options

Piston rod thread type

[] Female thread

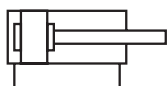


[A] Male thread



Cushioning

[P] Elastic cushioning rings/plates on both sides



The drive is fitted with elastic polymer end-position cushioning.

Benefits:

- No adjustment required
- Saves time

Position sensing

[A] For proximity sensor

By using proximity switches, any position can be detected.

Piston rod type

[] At one end



- The piston rod can be used for connection at one end of the cylinder

[S2] Through piston rod



- The piston rod can be used for connection at both ends of the cylinder
- Identical forces in the forward and return stroke

[S20] Through, hollow piston rod

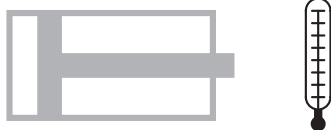


- The piston rod can be used for connection at both ends of the cylinder
- The piston rod is hollow inside, so that it can be used to carry vacuum or compressed air
- Identical forces in the forward and return stroke

Characteristics

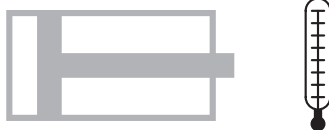
Temperature resistance

[] Standard



Temperature range: -20 ... +80 °C

[S6] Heat-resistant seals max. 120 °C



Temperature range: 0 ... +120 °C

Type code

001	Series	
DZF	Flat cylinder, double-acting	

002	Piston diameter [mm]	
12	12	
18	18	
25	25	
32	32	
40	40	
50	50	
63	63	

003	Stroke [mm]	
10	10	
25	25	
40	40	
50	50	
80	80	
100	100	
125	125	
160	160	
200	200	
250	250	
320	320	
...	10 ... 320	

004	Piston rod thread type	
	Female thread	
A	Male thread	

005	Cushioning	
P	Elastic cushioning rings/plates on both sides	

006	Position sensing	
A	For proximity sensor	

007	Piston rod type	
	At one end	
S2	Through piston rod	
S20	Through, hollow piston rod	

008	Temperature resistance	
	Standard	
S6	Heat-resistant seals max. 120 °C	

Datasheet

General technical data							
Piston diameter [mm]	12 mm	18 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Stroke	1 ... 200 mm			1 ... 320 mm			
Pneumatic connection	M5			G1/8		G1/4	
Design	Piston Piston rod						
Protection against torque/ guide	Oval piston						
Mode of operation	Double-acting						
Cushioning	Elastic cushioning rings/plates at both ends						
Position detection ¹⁾	Via proximity switch						
Variants	Through piston rod Through, hollow piston rod Heat-resistant seals max. 120°C Piston rod at one end						
Type of mounting	Either: Via female thread With accessories						
Mounting position	optional						

1) Please note that, when positioning cylinders in series, the stray fields from the switching magnets can result in incorrect switching.

Ambient temperature – DZF-12 ... 32							
Piston diameter [mm]	12 mm		18 mm		25 mm		32 mm
Piston rod thread type	Female thread	Male thread	Female thread	Male thread	Female thread	Male thread	Female thread
Piston rod thread	M3	M6	M4	M8	M5	M10x1.25	M6

Piston rod thread – DZF-40 ... 63						
Piston diameter [mm]	40 mm		50 mm		63 mm	
Piston rod thread type	Female thread	Male thread	Female thread	Male thread	Female thread	Male thread
Piston rod thread	M8	M12x1.25	M10	M16x1.5	M10	M16x1.5

Operating and environmental conditions							
Piston diameter [mm]	12 mm	18 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]						
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)						
Operating pressure	0.16 ... 1 MPa	0.1 ... 1 MPa					
Operating pressure	1.6 ... 10 bar	1 ... 10 bar					
Operating pressure	23.2 ... 145 psi	14.5 ... 145 psi					
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress						

1) More information www.festo.com/x/topic/kbk

Ambient temperature – DZF-12 ... 32							
Piston diameter [mm]	12 mm		18 mm		25 mm		32 mm
Temperature resistance	Standard	Heat-resistant seals max. 120 °C	Standard	Heat-resistant seals max. 120 °C	Standard	Heat-resistant seals max. 120 °C	Standard
Ambient temperature ¹⁾	-20 ... 80°C	0 ... 120°C	-20 ... 80°C	0 ... 120°C	-20 ... 80°C	0 ... 120°C	-20 ... 80°C

1) Note the application range of the proximity switches

Ambient temperature – DZF-40 ... 63						
Piston diameter [mm]	40 mm		50 mm		63 mm	
Temperature resistance	Standard	Heat-resistant seals max. 120 °C	Standard	Heat-resistant seals max. 120 °C	Standard	Heat-resistant seals max. 120 °C
Ambient temperature ¹⁾	-20 ... 80°C	0 ... 120°C	-20 ... 80°C	0 ... 120°C	-20 ... 80°C	0 ... 120°C

1) Note the application range of the proximity switches

Datasheet

Forces and impact energy – DZF-12

Piston diameter [mm]	12 mm		
Piston rod type	At one end	Through piston rod	Through, hollow piston rod
Temperature resistance	Standard	Heat-resistant seals max. 120 °C	Standard
Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke	68 N		51 N
Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke	51 N		
Impact energy in end positions	0.09 J	0.045 J	0.09 J

Forces and impact energy – DZF-18

Piston diameter [mm]	18 mm		
Piston rod type	At one end	Through piston rod	Through, hollow piston rod
Temperature resistance	Standard	Heat-resistant seals max. 120 °C	Standard
Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke	153 N		123 N
Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke	123 N		
Impact energy in end positions	0.1 J	0.05 J	0.1 J

Forces and impact energy – DZF-25

Piston diameter [mm]	25 mm		
Piston rod type	At one end	Through piston rod	Through, hollow piston rod
Temperature resistance	Standard	Heat-resistant seals max. 120 °C	Standard
Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke	295 N		247 N
Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke	247 N		
Impact energy in end positions	0.1 J	0.05 J	0.1 J

Forces and impact energy – DZF-32

Piston diameter [mm]	32 mm		
Piston rod type	At one end	Through piston rod	Through, hollow piston rod
Temperature resistance	Standard	Heat-resistant seals max. 120 °C	Standard
Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke	483 N		415 N
Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke	415 N		
Impact energy in end positions	0.4 J	0.2 J	0.4 J

Forces and impact energy – DZF-40

Piston diameter [mm]	40 mm		
Piston rod type	At one end	Through piston rod	Through, hollow piston rod
Temperature resistance	Standard	Heat-resistant seals max. 120 °C	Standard
Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke	754 N		633 N
Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke	633 N		
Impact energy in end positions	0.52 J	0.26 J	0.52 J

Forces and impact energy – DZF-50

Piston diameter [mm]	50 mm		
Piston rod type	At one end	Through piston rod	Through, hollow piston rod
Temperature resistance	Standard	Heat-resistant seals max. 120 °C	Standard
Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke	1,178 N		990 N
Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke	990 N		
Impact energy in end positions	0.64 J	0.32 J	0.64 J

Datasheet

Forces and impact energy – DZF-63

Piston diameter [mm]	63 mm			
Piston rod type	At one end		Through piston rod	Through, hollow piston rod
Temperature resistance	Standard	Heat-resistant seals max. 120 °C		Standard
Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke	1,870 N		1,682 N	
Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke	1,682 N			
Impact energy in end positions	0.7 J	0.35 J		0.7 J

Torque and angle of rotation

Piston diameter [mm]	12 mm	18 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Max. torque for protection against torsion ¹⁾	0.1 Nm	0.2 Nm	0.5 Nm	0.8 Nm	1 Nm	1.2 Nm	1.5 Nm
Torsional backlash at piston rod +/-	2.5 deg	1.2 deg	1 deg	0.8 deg	0.6 deg	0.5 deg	0.4 deg

1) The max. torque must not be exceeded even when attaching mounting components to the piston rod

Weight

Piston diameter [mm]	12 mm	18 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Basic weight for 0 mm stroke	96 g	107 g	168 g	272 g	480 g	854 g	1,379 g
Additional weight per 10 mm stroke	9 g	13 g	18 g	24 g	40 g	64 g	91 g
Moving mass for 0 mm stroke	12 g	24 g	40 g	65 g	120 g	219 g	337 g
Additional moving mass per 10 mm stroke	2 g	4 g	6 g	9 g	16 g	25 g	

Materials – DZF-12 ... 18

Piston diameter [mm]	12 mm				18 mm			
Piston rod type	At one end		Through piston rod	Through, hollow piston rod	At one end		Through piston rod	Through, hollow piston rod
Temperature resistance	Standard	Heat-resistant seals max. 120 °C	Standard			Heat-resistant seals max. 120 °C	Standard	
Material housing	Anodised wrought aluminium alloy							
Material cover	Wrought aluminium alloy							
Material piston rod	High-alloy stainless steel							
Material piston seal	NBR	HNBR	NBR			HNBR	NBR	
Material seals	NBR TPE-U(PU)	FPM	NBR TPE-U(PU)			FPM	NBR TPE-U(PU)	
LABS (PWIS) conformity	VDMA24364-B1/B2-L							

Materials – DZF-25 ... 32

Piston diameter [mm]	25 mm				32 mm			
Piston rod type	At one end		Through piston rod	Through, hollow piston rod	At one end		Through piston rod	Through, hollow piston rod
Temperature resistance	Standard	Heat-resistant seals max. 120 °C	Standard			Heat-resistant seals max. 120 °C	Standard	
Material housing	Anodised wrought aluminium alloy							
Material cover	Die-cast aluminium							
Material piston rod	High-alloy stainless steel				High-alloy steel			
Material piston seal	NBR	HNBR	NBR			HNBR	NBR	
Material seals	HNBR TPE-U(PU)	FPM HNBR	HNBR TPE-U(PU)			FPM HNBR	HNBR TPE-U(PU)	
LABS (PWIS) conformity	VDMA24364-B1/B2-L							

Datasheet

Materials – DZF-40 ... 50

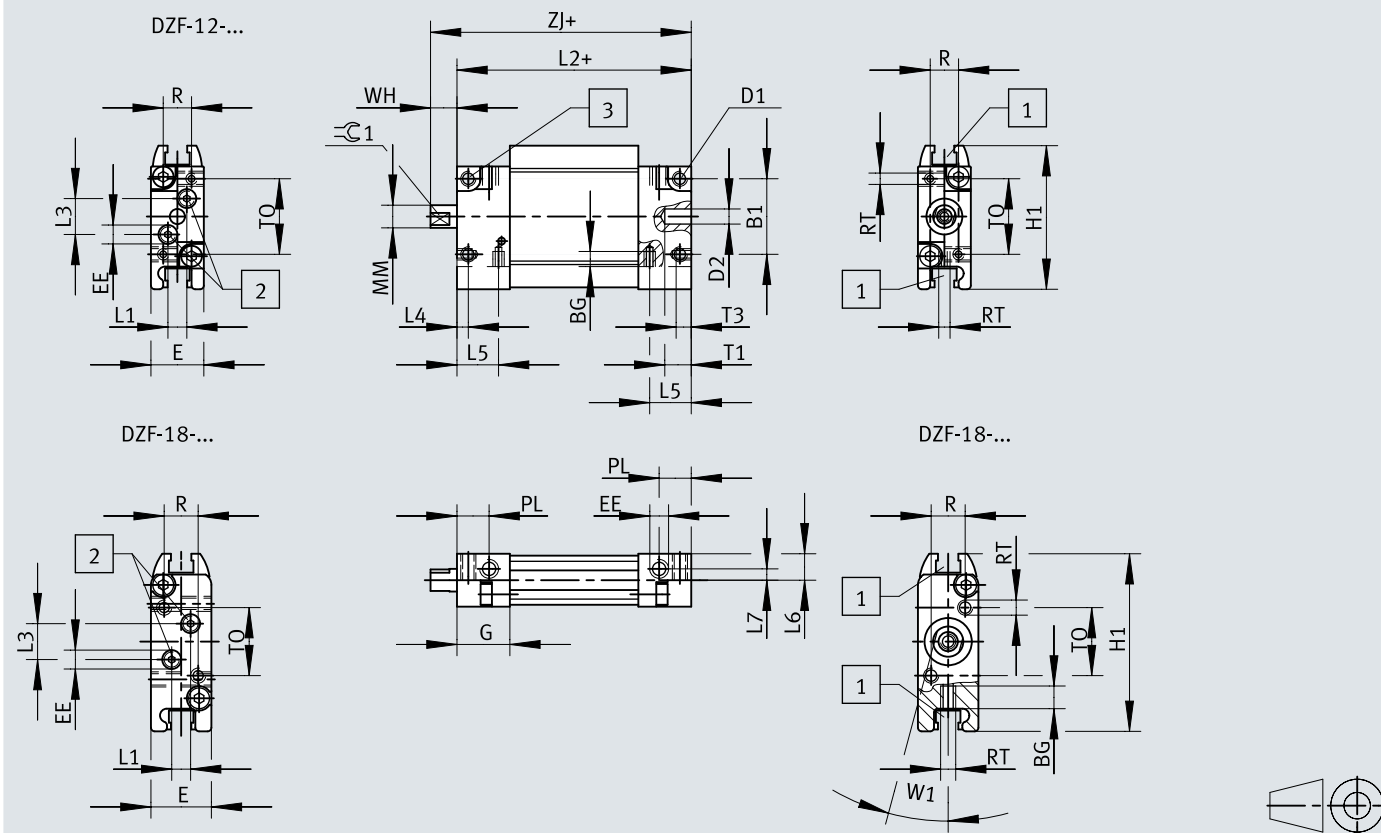
Materials - B2 - PWIS							
Piston diameter [mm]	40 mm				50 mm		
Piston rod type	At one end		Through piston rod	Through, hollow piston rod	At one end		Through piston rod Through, hollow piston rod
Temperature resistance	Standard	Heat-resistant seals max. 120 °C	Standard			Heat-resistant seals max. 120 °C	Standard
Material housing	Anodised wrought aluminium alloy						
Material cover	Die-cast aluminium						
Material piston rod	High-alloy steel			High-alloy stainless steel	High-alloy steel		
Material piston seal	NBR	HNBR	NBR		HNBR	NBR	
Material seals	NBR TPE-U(PU)	FPM	NBR TPE-U(PU)		FPM	NBR TPE-U(PU)	
LABS (PWIS) conformity	VDMA24364-B1/B2-L						

Materials – DZF-63

Materials - B2-C3			
Piston diameter [mm]	63 mm		
Piston rod type	At one end		Through piston rod Through, hollow piston rod
Temperature resistance	Standard	Heat-resistant seals max. 120 °C	Standard
Material housing	Anodised wrought aluminium alloy		
Material cover	Die-cast aluminium		
Material piston rod	High-alloy steel		
Material piston seal	NBR	HNBR	NBR
Material seals	NBR TPE-U(PU)	FPM	NBR TPE-U(PU)
LABS (PWIS) conformity	VDMA24364-B1/B2-L		

Dimensions

Dimensions – Flat cylinder DZF-12 ... 18

Download CAD data www.festo.com

- [1] Mounting slot for proximity switch
 [2] Additional compressed air connections, sealed with blanking plugs
 [3] Max. tightening torque
 [4] + = plus stroke length

	B1	BG	D1	D2 ø H9	E	EE	G	H1	L1	L2	L3	L4	L5
DZF-12	20	4	M4	4	14	M5	14	38	5	62	9,5	3	11
DZF-18	20	6	M4	4	16	M5	14	47	5	62	9,5	3,5	5

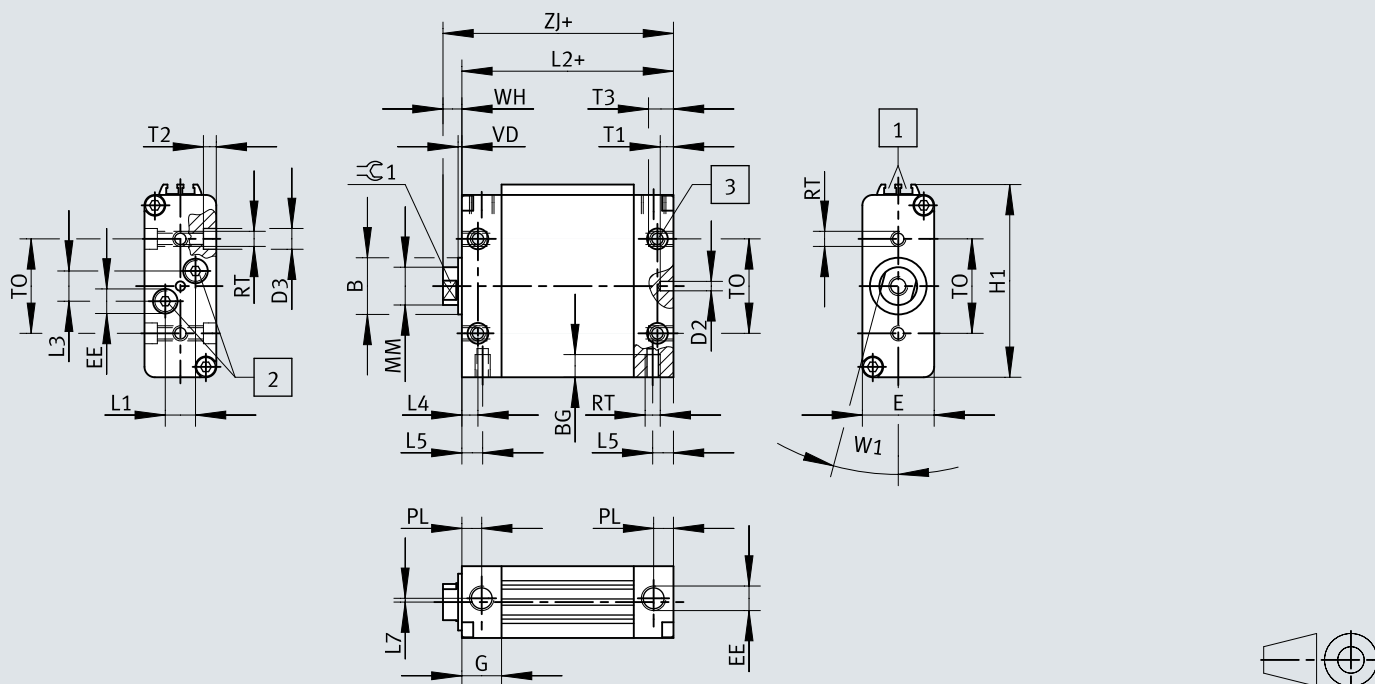
	L6	L7	MM ø	PL	R	RT	T1	T3	T0	WH	ZJ	⊖C1 h13	1)
DZF-12	7	3	6	8,5	7,5	M3	7	4	20	7	69	5	0,8/2,9 ²⁾
DZF-18	–	2,5	8	8,5	9	M4	7	6	18	7	69	7	2,9

1) Max. tightening torque [Nm] +10%

2) For M3/M4

Dimensions

Dimensions – Flat cylinder DZF-25 ... 63

[Download CAD data](#) www.festo.com


- [1] Mounting slot for proximity switch
- [2] Additional compressed air connections, sealed with blanking plugs
- [3] Max. tightening torque
- [4] + = plus stroke length

	B ø h9	BG	D2 ø H9	D3 ø	E	EE	G	H1	L1	L2	L3	L4	L5
DZF-25	16	8	4	8	20	M5	12	56	6	62	10	5	5
DZF-32	20	9	4	10	24	G1/8	17	65	7,5	72	14,5	8,5	8,5
DZF-40	25	9	4	10	30	G1/8	17	82	7,5	76	14,5	8,5	8,5
DZF-50	30	12	5	11	38	G1/4	21	102	16	82	16	8,5	8,5
DZF-63	30	14	5	15	50	G1/4	21	126,5	21	82	19	8,5	8,5

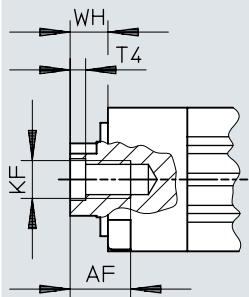
	L7	MM ø	PL	RT	T1	T2	T3	T0	VD	W1 ±1	WH	ZJ	≈±1 h13	1)
DZF-25	–	10	6	M5	7	4	8	25	2	15°	8	70	9	4
DZF-32	1,5	12	8,5	M6	7	4	9	32	2	15°	8	80	10	9,9
DZF-40	–	16	8,5	M6	7	5	9	40	2	15°	9	85	13	9,9
DZF-50	–	20	10,5	M8	7	6	12	50	2	15°	10	92	17	20
DZF-63	–	20	10,5	M10	7	6	14	60	2	15°	10	92	17	35

1) Max. tightening torque [Nm] +10%

Dimensions

Dimensions – Flat cylinder DZF-... – with female thread

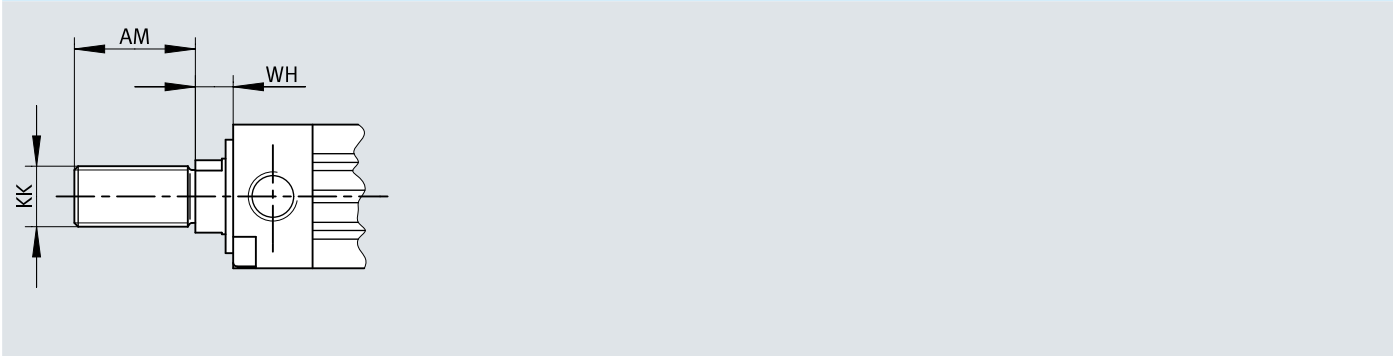
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	AF	KF	T4	WH
DZF-12	8	M3	1,5	7
DZF-18	10	M4	1,5	7
DZF-25	12	M5	2	8
DZF-32	14	M6	2,6	8
DZF-40	16	M8	3,3	9
DZF-50	20	M10	4,7	10
DZF-63	20	M10	4,7	10

Dimensions

Dimensions – Flat cylinder DZF-...-A-... – with male thread [Download CAD data](#) www.festo.com

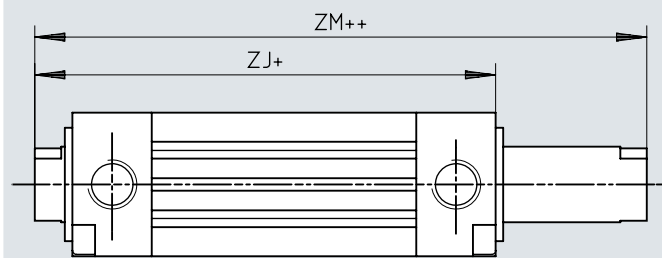


	AM	KK	WH
DZF-12	16	M6	7
DZF-18	20	M8	7
DZF-25	22	M10x1,25	8
DZF-32	22	M10x1,25	8
DZF-40	24	M12x1,25	9
DZF-50	32	M16x1,5	10
DZF-63	32	M16x1,5	10

Dimensions

Dimensions – Flat cylinder DZF...-S2 – through piston rod with female thread

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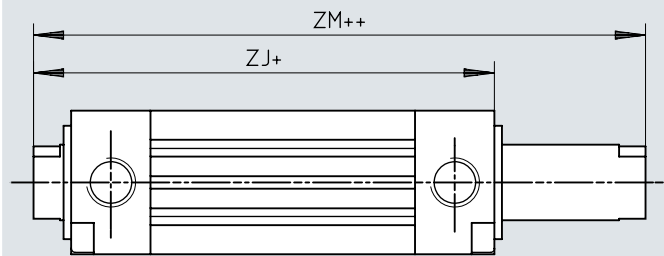
[1] + = plus stroke length

[2] ++ = plus 2x stroke length

	ZJ	ZM
DZF-12	69	76
DZF-18	69	76
DZF-25	70	78
DZF-32	80	88
DZF-40	85	94
DZF-50	92	102
DZF-63	92	102

Dimensions

Dimensions – Flat cylinder DZF-...-S2 – through piston rod with male thread Download CAD data www.festo.com



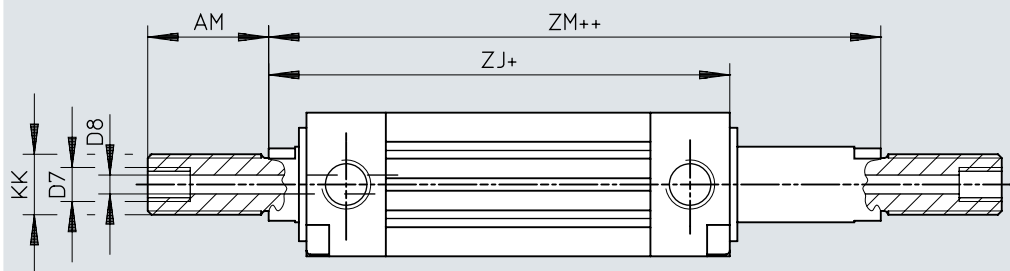
- [1] + = plus stroke length
[2] ++ = plus 2x stroke length

	ZJ	ZM
DZF-12	69	76
DZF-18	69	76
DZF-25	70	78
DZF-32	80	88
DZF-40	85	94
DZF-50	92	102
DZF-63	92	102

Dimensions

Dimensions – Flat cylinder DZF...-S20 – hollow through piston rod

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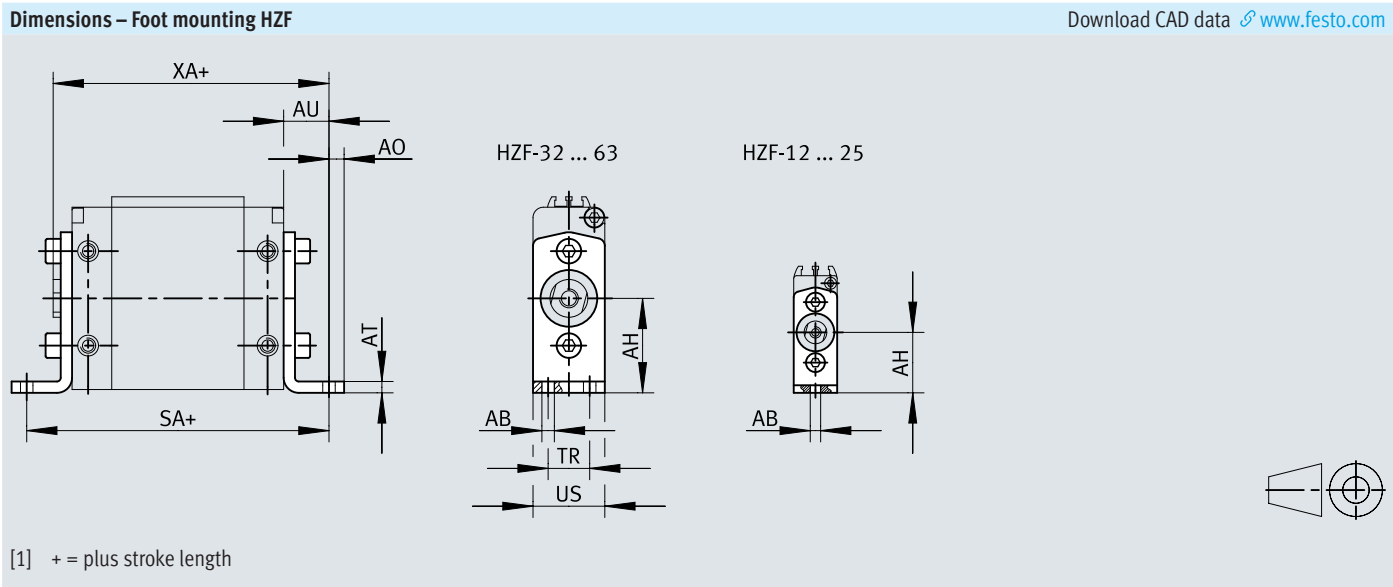


[1] + = plus stroke length

[2] ++ = plus 2x stroke length

	AM	D7	D8 ø	KK	ZJ	ZM
DZF-12	16	–	1,8	M6	69	76
DZF-18	20	–	2,8	M8	69	76
DZF-25	22	–	3,8	M10x1,25	70	78
DZF-32	22	–	4,5	M10x1,25	80	88
DZF-40	24	–	6	M12x1,25	85	94
DZF-50	32	G1/8	8	M16x1,5	92	102
DZF-63	32	G1/8	8	M16x1,5	92	102

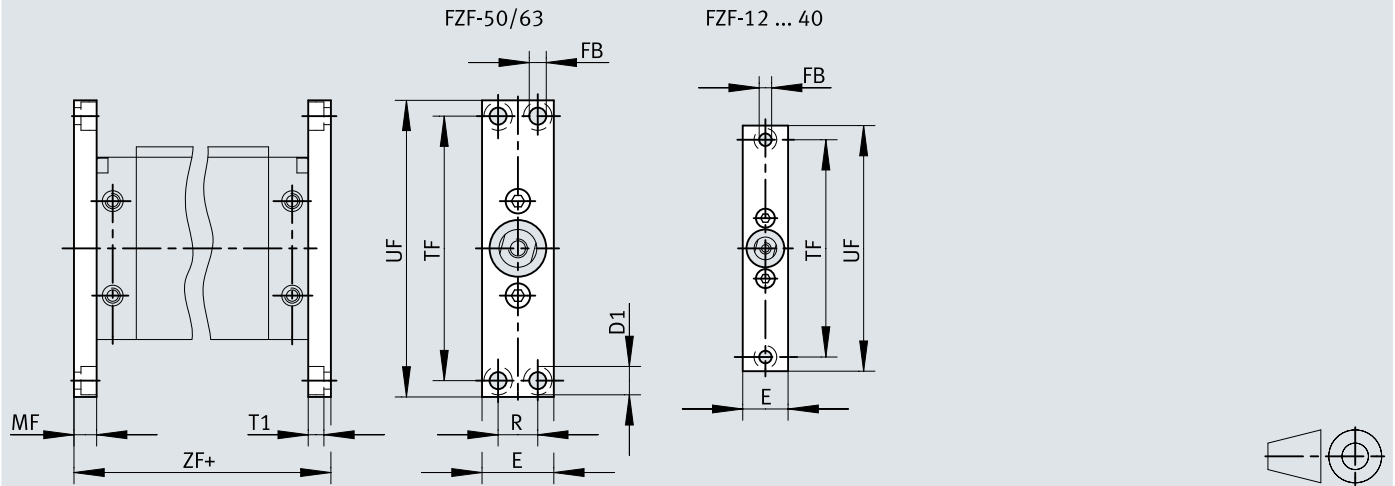
Dimensions



	AB Ø	AH	AO	AT	AU	SA	TR	US	XA
HZF-12	4,5	25	5	2	13	88	–	14	82
HZF-18	5,5	29	5	2	17	96	–	16	86
HZF-25	5,5	28	6	3	16	94	–	20	86
HZF-32	5,5	32	5,5	3	18	108	13	24	98
HZF-40	5,5	40	7	4	20	116	16	30	105
HZF-50	6,6	50	8	4	24	130	22	38	116
HZF-63	9	63	10	4	27	136	30	50	119

Dimensions

Dimensions – Flange mounting FZF

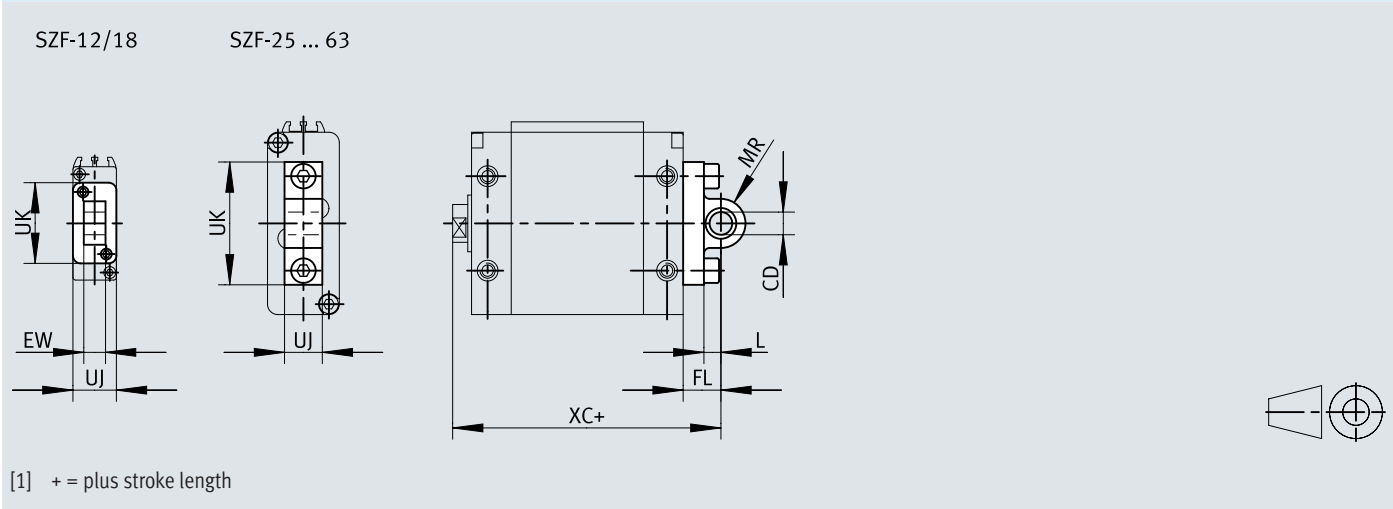
[Download CAD data](http://www.festo.com)


[1] + = plus stroke length

	D1 ø	E	FB ø	MF	R	T1	TF	UF	ZF
FZF-12	8	14	4,5	8	–	4,5	75	90	78
FZF-18	8	16	4,5	8	–	4,5	80	94	78
FZF-25	10	20	5,5	10	–	5,7	100	112	82
FZF-32	11	24	6,6	10	–	6,5	115	130	92
FZF-40	11	30	6,6	10	–	6,3	132	146	96
FZF-50	15	38	9	12	21	8,3	140	157	106
FZF-63	15	50	9	15	33	8,3	140	157	112

Dimensions

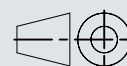
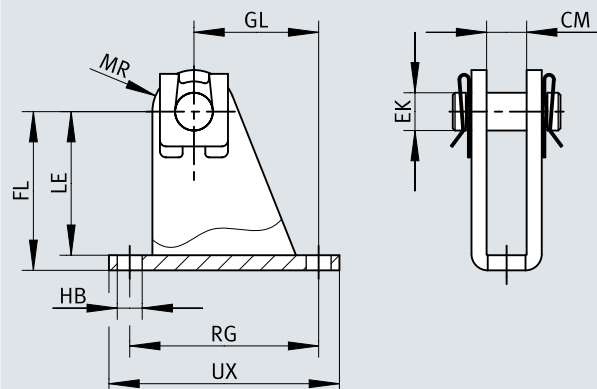
Dimensions – Swivel flange SZF [Download CAD data](http://www.festo.com) www.festo.com



	CD Ø H9	EW h12	FL	L	MR	UJ	UK	XC
SZF-12	8	7	16	13	7	14	26	85
SZF-18	8	7	18	15	7	16	26	87
SZF-25	8	–	14	8	7,5	9	37	84
SZF-32	10	–	15	6	10	10,5	44	95
SZF-40	12	–	18	9	13	10,5	52	103
SZF-50	12	–	20	9	13	20	65	112
SZF-63	16	–	24	13	17	25	78	116

Dimensions

Dimensions – Clevis foot LZF

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	CM	EK Ø H8	FL	GL	HB Ø	LE	MR	RG	UX
LZF-12/18	7,1 _{+0,4}	8	32 _{+0,4/-0,2}	18	4,5	29	8	30	37
LZF-12/18	7,1 _{+0,4}	8	32 _{+0,4/-0,2}	18	4,5	29	8	30	37
LZF-25	9,1 _{+0,4}	8	35 _{+0,4/-0,2}	25,5	5,5	32	9,5	40	49
LZF-32	10,6 _{+0,4}	10	42 _{+0,4/-0,2}	33	6,6	38	11	50	60
LZF-40	10,6 _{+0,4}	12	51 _{+0,4/-0,2}	29,5	6,6	47	14	50	60
LZF-50	20,1 _{+0,5}	12	55 _{+0,6/-0,2}	24	9	50	14	30	46
LZF-63	25,1 _{+0,5}	16	68 _{+0,6/-0,2}	32	11	63	18	40	60

Ordering data

Flat cylinder DZF-...					
	Piston diameter [mm] ¹⁾	Stroke	Piston rod thread type	Part no.	Type
	12 mm	1 ... 200 mm	Female thread	164000	DZF-12- -P-A
			Male thread	161220	DZF-12- -A-P-A
		10 mm	Female thread	164003	DZF-12-10-P-A
			Male thread	161224	DZF-12-10-A-P-A
		25 mm	Female thread	164004	DZF-12-25-P-A
			Male thread	161225	DZF-12-25-A-P-A
		40 mm	Female thread	164005	DZF-12-40-P-A
			Male thread	161226	DZF-12-40-A-P-A
		50 mm	Female thread	164006	DZF-12-50-P-A
			Male thread	161227	DZF-12-50-A-P-A
		80 mm	Female thread	164007	DZF-12-80-P-A
			Male thread	161228	DZF-12-80-A-P-A
		100 mm	Female thread	164008	DZF-12-100-P-A
			Male thread	161229	DZF-12-100-A-P-A
		125 mm	Female thread	164009	DZF-12-125-P-A
			Male thread	161230	DZF-12-125-A-P-A
		160 mm	Female thread	164010	DZF-12-160-P-A
			Male thread	161231	DZF-12-160-A-P-A
		200 mm	Female thread	164011	DZF-12-200-P-A
			Male thread	161232	DZF-12-200-A-P-A
	18 mm	1 ... 200 mm	Female thread	164012	DZF-18- -P-A
			Male thread	161233	DZF-18- -A-P-A
		10 mm	Female thread	164015	DZF-18-10-P-A
			Male thread	161237	DZF-18-10-A-P-A
		25 mm	Female thread	164016	DZF-18-25-P-A
			Male thread	161238	DZF-18-25-A-P-A
		40 mm	Female thread	164017	DZF-18-40-P-A
			Male thread	161239	DZF-18-40-A-P-A
		50 mm	Female thread	164018	DZF-18-50-P-A
			Male thread	161240	DZF-18-50-A-P-A
		80 mm	Female thread	164019	DZF-18-80-P-A
			Male thread	161241	DZF-18-80-A-P-A
		100 mm	Female thread	164020	DZF-18-100-P-A
			Male thread	161242	DZF-18-100-A-P-A
		125 mm	Female thread	164021	DZF-18-125-P-A
			Male thread	161243	DZF-18-125-A-P-A
		160 mm	Female thread	164022	DZF-18-160-P-A
			Male thread	161244	DZF-18-160-A-P-A
		200 mm	Female thread	164023	DZF-18-200-P-A
			Male thread	161245	DZF-18-200-A-P-A
	25 mm	1 ... 200 mm	Female thread	164024	DZF-25- -P-A
			Male thread	161246	DZF-25- -A-P-A
		10 mm	Female thread	164027	DZF-25-10-P-A
			Male thread	161250	DZF-25-10-A-P-A
		25 mm	Female thread	164028	DZF-25-25-P-A
			Male thread	161251	DZF-25-25-A-P-A
		40 mm	Female thread	164029	DZF-25-40-P-A
			Male thread	161252	DZF-25-40-A-P-A
		50 mm	Female thread	164030	DZF-25-50-P-A
			Male thread	161253	DZF-25-50-A-P-A
		80 mm	Female thread	164031	DZF-25-80-P-A
			Male thread	161254	DZF-25-80-A-P-A
		100 mm	Female thread	164032	DZF-25-100-P-A
			Male thread	161255	DZF-25-100-A-P-A

Ordering data

Flat cylinder DZF-...					
	Piston diameter [mm] ¹⁾	Stroke	Piston rod thread type	Part no.	Type
	25 mm	125 mm	Female thread	164033	DZF-25-125-P-A
			Male thread	161256	DZF-25-125-A-P-A
		160 mm	Female thread	164034	DZF-25-160-P-A
			Male thread	161257	DZF-25-160-A-P-A
		200 mm	Female thread	164035	DZF-25-200-P-A
			Male thread	161258	DZF-25-200-A-P-A
	32 mm	1 ... 320 mm	Female thread	164036	DZF-32- -P-A
			Male thread	161259	DZF-32- -A-P-A
		10 mm	Female thread	164039	DZF-32-10-P-A
			Male thread	161263	DZF-32-10-A-P-A
		25 mm	Female thread	164040	DZF-32-25-P-A
			Male thread	161264	DZF-32-25-A-P-A
		40 mm	Female thread	164041	DZF-32-40-P-A
			Male thread	161265	DZF-32-40-A-P-A
		50 mm	Female thread	164042	DZF-32-50-P-A
			Male thread	161266	DZF-32-50-A-P-A
		80 mm	Female thread	164043	DZF-32-80-P-A
			Male thread	161267	DZF-32-80-A-P-A
		100 mm	Female thread	164044	DZF-32-100-P-A
			Male thread	161268	DZF-32-100-A-P-A
		125 mm	Female thread	164045	DZF-32-125-P-A
			Male thread	161269	DZF-32-125-A-P-A
		160 mm	Female thread	164046	DZF-32-160-P-A
			Male thread	161270	DZF-32-160-A-P-A
		200 mm	Female thread	164047	DZF-32-200-P-A
			Male thread	161271	DZF-32-200-A-P-A
		250 mm	Female thread	164048	DZF-32-250-P-A
			Male thread	161272	DZF-32-250-A-P-A
		320 mm	Female thread	164049	DZF-32-320-P-A
			Male thread	161273	DZF-32-320-A-P-A
	40 mm	1 ... 320 mm	Female thread	164050	DZF-40- -P-A
			Male thread	161274	DZF-40- -A-P-A
		10 mm	Female thread	164053	DZF-40-10-P-A
			Male thread	161278	DZF-40-10-A-P-A
		25 mm	Female thread	164054	DZF-40-25-P-A
			Male thread	161279	DZF-40-25-A-P-A
		40 mm	Female thread	164055	DZF-40-40-P-A
			Male thread	161280	DZF-40-40-A-P-A
		50 mm	Female thread	164056	DZF-40-50-P-A
			Male thread	161281	DZF-40-50-A-P-A
		80 mm	Female thread	164057	DZF-40-80-P-A
			Male thread	161282	DZF-40-80-A-P-A
		100 mm	Female thread	164058	DZF-40-100-P-A
			Male thread	161283	DZF-40-100-A-P-A
		125 mm	Female thread	164059	DZF-40-125-P-A
			Male thread	161284	DZF-40-125-A-P-A
		160 mm	Female thread	164060	DZF-40-160-P-A
			Male thread	161285	DZF-40-160-A-P-A
		200 mm	Female thread	164061	DZF-40-200-P-A
			Male thread	161286	DZF-40-200-A-P-A
		250 mm	Female thread	164062	DZF-40-250-P-A
			Male thread	161287	DZF-40-250-A-P-A
		320 mm	Female thread	164063	DZF-40-320-P-A
			Male thread	161288	DZF-40-320-A-P-A

Ordering data

Flat cylinder DZF-...					
	Piston diameter [mm] ¹⁾	Stroke	Piston rod thread type	Part no.	Type
	50 mm	1 ... 320 mm	Female thread	164064	DZF-50- -P-A
			Male thread	161289	DZF-50- -A-P-A
		10 mm	Female thread	164067	DZF-50-10-P-A
			Male thread	161293	DZF-50-10-A-P-A
		25 mm	Female thread	164068	DZF-50-25-P-A
			Male thread	161294	DZF-50-25-A-P-A
		40 mm	Female thread	164069	DZF-50-40-P-A
			Male thread	161295	DZF-50-40-A-P-A
		50 mm	Female thread	164070	DZF-50-50-P-A
			Male thread	161296	DZF-50-50-A-P-A
		80 mm	Female thread	164071	DZF-50-80-P-A
			Male thread	161297	DZF-50-80-A-P-A
		100 mm	Female thread	164072	DZF-50-100-P-A
			Male thread	161298	DZF-50-100-A-P-A
		125 mm	Female thread	164073	DZF-50-125-P-A
			Male thread	161299	DZF-50-125-A-P-A
		160 mm	Female thread	164074	DZF-50-160-P-A
			Male thread	161300	DZF-50-160-A-P-A
		200 mm	Female thread	164075	DZF-50-200-P-A
			Male thread	161301	DZF-50-200-A-P-A
		250 mm	Female thread	164076	DZF-50-250-P-A
			Male thread	161302	DZF-50-250-A-P-A
		320 mm	Female thread	164077	DZF-50-320-P-A
			Male thread	161303	DZF-50-320-A-P-A
	63 mm	1 ... 320 mm	Female thread	164078	DZF-63- -P-A
			Male thread	161304	DZF-63- -A-P-A
		10 mm	Female thread	164081	DZF-63-10-P-A
			Male thread	161308	DZF-63-10-A-P-A
		25 mm	Female thread	164082	DZF-63-25-P-A
			Male thread	161309	DZF-63-25-A-P-A
		40 mm	Female thread	164083	DZF-63-40-P-A
			Male thread	161310	DZF-63-40-A-P-A
		50 mm	Female thread	164084	DZF-63-50-P-A
			Male thread	161311	DZF-63-50-A-P-A
		80 mm	Female thread	164085	DZF-63-80-P-A
			Male thread	161312	DZF-63-80-A-P-A
		100 mm	Female thread	164086	DZF-63-100-P-A
			Male thread	161313	DZF-63-100-A-P-A
		125 mm	Female thread	164087	DZF-63-125-P-A
			Male thread	161314	DZF-63-125-A-P-A
		160 mm	Female thread	164088	DZF-63-160-P-A
			Male thread	161315	DZF-63-160-A-P-A
		200 mm	Female thread	164089	DZF-63-200-P-A
			Male thread	161316	DZF-63-200-A-P-A
		250 mm	Female thread	164090	DZF-63-250-P-A
			Male thread	161317	DZF-63-250-A-P-A
		320 mm	Female thread	164091	DZF-63-320-P-A
			Male thread	161318	DZF-63-320-A-P-A

1) DZF-25 ... 63: A hex nut for the piston rod thread is included in the scope of delivery.

Flat cylinder DZF-...-S6 – heat-resistant seals max. 120°C					
	Piston diameter [mm] ¹⁾	Stroke	Piston rod thread type	Part no.	Type
	12 mm	1 ... 200 mm	Female thread	164002	DZF-12- -P-A-S6

Ordering data

Flat cylinder DZF-...-S6 – heat-resistant seals max. 120°C

	Piston diameter [mm] ¹⁾	Stroke	Piston rod thread type	Part no.	Type
	12 mm	1 ... 200 mm	Male thread	161223	DZF-12- -A-P-A-S6
	18 mm		Female thread	164014	DZF-18- -P-A-S6
			Male thread	161236	DZF-18- -A-P-A-S6
	25 mm		Female thread	164026	DZF-25- -P-A-S6
			Male thread	161249	DZF-25- -A-P-A-S6
	32 mm	1 ... 320 mm	Female thread	164038	DZF-32- -P-A-S6
			Male thread	161262	DZF-32- -A-P-A-S6
	40 mm		Female thread	164052	DZF-40- -P-A-S6
			Male thread	161277	DZF-40- -A-P-A-S6
	50 mm		Female thread	164066	DZF-50- -P-A-S6
			Male thread	161292	DZF-50- -A-P-A-S6
	63 mm		Female thread	164080	DZF-63- -P-A-S6
			Male thread	161307	DZF-63- -A-P-A-S6

1) DZF-25 ... 63: A hex nut for the piston rod thread is included in the scope of delivery.

Flat cylinder DZF-...-S2 – through piston rod

	Piston diameter [mm] ¹⁾	Stroke	Piston rod thread type	Part no.	Type
	12 mm	1 ... 200 mm	Female thread	164001	DZF-12- -P-A-S2
			Male thread	161221	DZF-12- -A-P-A-S2
	18 mm		Female thread	164013	DZF-18- -P-A-S2
			Male thread	161234	DZF-18- -A-P-A-S2
	25 mm		Female thread	164025	DZF-25- -P-A-S2
			Male thread	161247	DZF-25- -A-P-A-S2
	32 mm	1 ... 320 mm	Female thread	164037	DZF-32- -P-A-S2
			Male thread	161260	DZF-32- -A-P-A-S2
	40 mm		Female thread	164051	DZF-40- -P-A-S2
			Male thread	161275	DZF-40- -A-P-A-S2
	50 mm		Female thread	164065	DZF-50- -P-A-S2
			Male thread	161290	DZF-50- -A-P-A-S2
	63 mm		Female thread	164079	DZF-63- -P-A-S2
			Male thread	161305	DZF-63- -A-P-A-S2

1) DZF-25 ... 63: A hex nut for the piston rod thread is included in the scope of delivery.

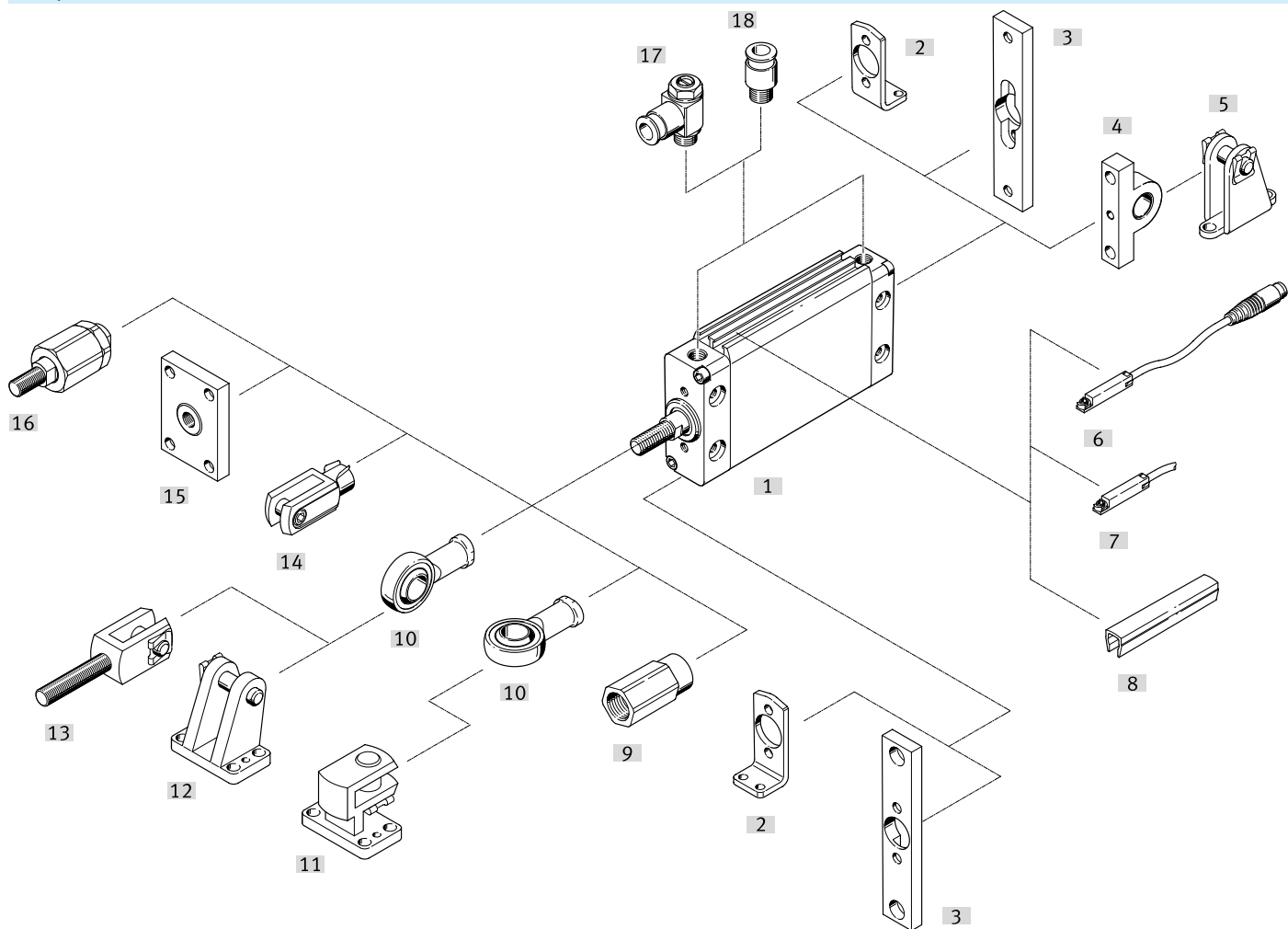
Flat cylinder DZF-...-S20 – through, hollow piston rod

Flat cylinder DZF-...-S20 through, hollow piston rod					
	Piston diameter [mm] ¹⁾	Stroke	Piston rod thread type	Part no.	Type
	12 mm	1 ... 200 mm	Male thread	161222	DZF-12- -A-P-A-S20
	18 mm			161235	DZF-18- -A-P-A-S20
	25 mm			161248	DZF-25- -A-P-A-S20
	32 mm	1 ... 320 mm		161261	DZF-32- -A-P-A-S20
	40 mm			161276	DZF-40- -A-P-A-S20
	50 mm			161291	DZF-50- -A-P-A-S20
	63 mm			161306	DZF-63- -A-P-A-S20

1) DZF-25 ... 63: A hex nut for the piston rod thread is included in the scope of delivery.

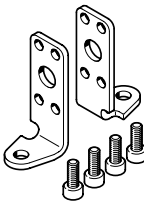
Peripherals

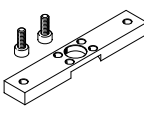
Flat cylinder DZF

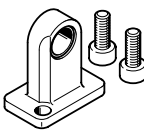


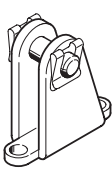
Accessories			→ Link
Type/order code	Description		
[1] Flat cylinder DZF	Double-acting		dzf
[2] Foot mounting HZF	For bearing and end caps		25
[3] Flange mounting FZF	For bearing and end caps		25
[4] Swivel flange SZF	For end cap		25
[5] Clevis foot LZF	-		25
[6] Proximity switch SME-8	Can be integrated into the cylinder profile barrel		27
[7] Proximity switch SMT-8	Can be integrated into the cylinder profile barrel		27
[8] Slot cover ABP-5-S	For protecting the sensor cables and the sensor slots from contamination		28
[9] Adapter AD	For suction cup with connection		27
[10] Rod eye SGS	With spherical bearing		26
[11] Right-angle clevis foot LQG	-		26
[12] Clevis foot LBG	-		25
[13] Rod clevis SGA	With male thread		26
[14] Rod clevis SG	Permits a swivelling movement of the cylinder in one plane		26
[15] Coupling piece KSZ	For cylinders with non-rotating piston rod to compensate for radial deviations		26
[16] Self-aligning rod coupler FK	To compensate for radial and angular deviations		26
[17] One-way flow control valve GRLA	For regulating speed		28
[17] One-way flow control valve GRLZ	For regulating speed		29
[18] Push-in fitting QS	For bearing and end caps		qs

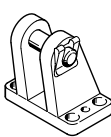
Accessories

Foot mounting HZF						
	Description	Material mounting	Note on materials	Product weight	Part no.	Type
	For Ø 12	Galvanised steel	RoHS-compliant	21 g	161804	HZF-12
	For Ø 25			58 g	161806	HZF-25
	For Ø 32			82 g	161807	HZF-32
	For Ø 40			142 g	161808	HZF-40
	For Ø 50			249 g	161809	HZF-50
	For Ø 63			436 g	161810	HZF-63
	For Ø 18			30 g	161805	HZF-18

Foot mounting FZF						
	Description	Material mounting	Note on materials	Product weight	Part no.	Type
	For Ø 12	Anodised wrought aluminium alloy	RoHS-compliant	23 g	161811	FZF-12
	For Ø 25			56 g	161813	FZF-25
	For Ø 32			78 g	161814	FZF-32
	For Ø 40			109 g	161815	FZF-40
	For Ø 50			167 g	161816	FZF-50
	For Ø 63			299 g	161817	FZF-63
	For Ø 18			28 g	161812	FZF-18

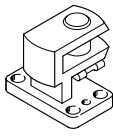
Swivel flange SZF						
	Description	Material mounting	Note on materials	Product weight	Part no.	Type
	For Ø 12	High-alloy stainless steel	RoHS-compliant	20 g	161818	SZF-12
	For Ø 25			30 g	161820	SZF-25
	For Ø 32			55 g	161821	SZF-32
	For Ø 40			75 g	161822	SZF-40
	For Ø 50			190 g	161823	SZF-50
	For Ø 63			340 g	161824	SZF-63
	For Ø 18			25 g	161819	SZF-18

Clevis foot LZF					
	Description	Material mounting	Product weight	Part no.	Type
	For Ø 25	Galvanised steel	64 g	163963	LZF-25
	For Ø 32		123 g	163964	LZF-32
			413 g	163967	LZF-63
	For Ø 40		163 g	163965	LZF-40
	For Ø 50		246 g	163966	LZF-50
	For Ø 12/18		45 g	163962	LZF-12/18

Clevis foot LBG						
	Description	Material mounting	Note on materials	Product weight	Part no.	Type
	For Ø 32	Stainless steel casting	RoHS-compliant	220 g	31761	LBG-32
	For Ø 40			300 g	31762	LBG-40
	For Ø 50			540 g	31763	LBG-50
	For Ø 63			580 g	31764	LBG-63

Accessories

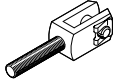
Clevis foot transverse LQG

	Description	Material mounting	Note on materials	Product weight	Part no.	Type
	For Ø 32	Stainless steel casting	RoHS-compliant	301 g	31768	LQG-32
	For Ø 40			369 g	31769	LQG-40
	For Ø 50			706 g	31770	LQG-50
	For Ø 63	Spheroidal graphite cast iron		784 g	31771	LQG-63

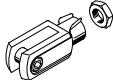
Rod eye SGS

	Description	Material housing	Note on materials	Product weight	Part no.	Type
	For Ø 12	Galvanised steel	RoHS-compliant	30 g	9254	SGS-M6
	For Ø 18			54 g	9255	SGS-M8
	For Ø 25/32			88 g	9261	SGS-M10X1,25
	for Ø 40			130 g	9262	SGS-M12X1,25
	For Ø 50/63			261 g	9263	SGS-M16X1,5

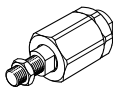
Rod clevis SGA

	Description	Material rod eye	Note on materials	Product weight	Part no.	Type
	For Ø 25/32	Steel, Galvanised	RoHS-compliant	129 g	32954	SGA-M10X1,25
	for Ø 40			222 g	10767	SGA-M12X1,25
	For Ø 50/63			512 g	10768	SGA-M16X1,5

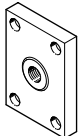
Rod clevis SG

	Description	Material clevis	Note on materials	Product weight	Part no.	Type
	For Ø 12	Steel, Galvanised	RoHS-compliant	22 g	3110	SG-M6
	For Ø 18			53 g	3111	SG-M8
	For Ø 25/32			103 g	6144	SG-M10X1,25
	for Ø 40			166 g	6145	SG-M12X1,25
	For Ø 50/63			375 g	6146	SG-M16X1,5

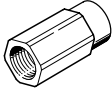
Self-aligning rod coupler FK

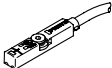
	Description	Material housing	Note on materials	Product weight	Part no.	Type
	For Ø 12	Galvanised steel	RoHS-compliant	24 g	2061	FK-M6
	For Ø 18			56 g	2062	FK-M8
	For Ø 25/32			236 g	6140	FK-M10X1,25
	for Ø 40			245 g	6141	FK-M12X1,25
	For Ø 50/63			709 g	6142	FK-M16X1,5

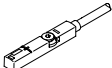
Coupling piece KSZ

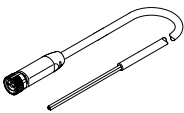
	Description	Material mounting	Note on materials	Product weight	Part no.	Type
	For Ø 12	Steel, Galvanised	RoHS-compliant	45 g	36123	KSZ-M6
	For Ø 18			70 g	36124	KSZ-M8
	For Ø 25/32			110 g	36125	KSZ-M10X1,25
	for Ø 40			180 g	36126	KSZ-M12X1,25
	For Ø 50/63			246 g	36127	KSZ-M16X1,5

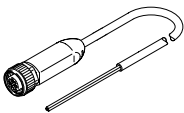
Accessories

Adapter AD						
	Description	Part no.	Type			
	For Ø 12	157329	AD-M6-1/8			
		157330	AD-M6-1/4			
		157328	AD-M6-M5			
	For Ø 25	157333	AD-M10X1,25-1/8			
	For Ø 32	157334	AD-M10X1,25-1/4			
	For Ø 40	160256	AD-M12X1,25-1/4			
		160257	AD-M12X1,25-3/8			
	For Ø 18	157332	AD-M8-1/4			
		157331	AD-M8-1/8			

Proximity switch SMT-8M for T-slot, magneto-resistive							Link smt
	Type of mounting	Switching output	Electrical connection	Cable length	Part no.	Type	
	Screw-clamped, Insertable in the slot from above	3-wire NPN N/O contact	Open end	2.5 m	574338	SMT-8M-A-NS-24V-E-2,5-OE	
			Plug M8, A-coded	0.3 m	574339	SMT-8M-A-NS-24V-E-0,3-M8D	
		3-wire PNP N/C contact	Open end	7.5 m	574340	SMT-8M-A-PO-24V-E-7,5-OE	
				2.5 m	574335	SMT-8M-A-PS-24V-E-2,5-OE	
		3-wire PNP N/O contact	Plug M8, A-coded	0.3 m	574334	SMT-8M-A-PS-24V-E-0,3-M8D	
			Plug M12, A-coded		574337	SMT-8M-A-PS-24V-E-0,3-M12	

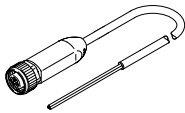
Proximity switch SME-8 for T-slot, magnetic reed							Link sme
	Type of mounting	Switching output	Electrical connection	Cable length	Part no.	Type	
	Screw-clamped, Insertable in the slot from above	3-wire N/O contact	Open end	2.5 m	543862	SME-8M-DS-24V-K-2,5-OE	
				5 m	543863	SME-8M-DS-24V-K-5,0-OE	
		2-wire PNP N/O contact	Plug M8, A-coded	0.3 m	543861	SME-8M-DS-24V-K-0,3-M8D	
			Open end	2.5 m	543872	SME-8M-ZS-24V-K-2,5-OE	
	Clamped in T-slot, Insertable in the slot lengthwise	None			150855	SME-8-K-LED-24	
			Plug M8, A-coded	0.3 m	150857	SME-8-S-LED-24	
		N/C contact, 3-wire	Open end	7.5 m	160251	SME-8-O-K-LED-24	

Connecting cables NEBA, straight, M8 connection						
	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/cores	Cable length	Part no.	Type
	M8x1, A-coded, to EN 61076-2-104	Open end	3	2.5 m	8078223	NEBA-M8G3-U-2.5-N-LE3
				5 m	8078224	NEBA-M8G3-U-5-N-LE3

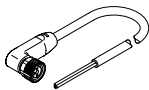
Connecting cables NEBA, straight, M12 connection						
	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/cores	Cable length	Part no.	Type
	M12x1, A-coded to EN 61076-2-101	Open end	3	2.5 m	8078236	NEBA-M12G5-U-2.5-N-LE3

Accessories

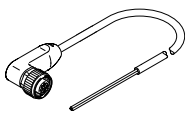
Connecting cables NEBA, straight, M12 connection

	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/cores	Cable length	Part no.	Type
	M12x1, A-coded to EN 61076-2-101	Open end	3	5 m	8078237	NEBA-M12G5-U-5-N-LE3

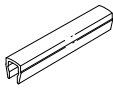
Connecting cables NEBA, angled, M8 connection

	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/cores	Cable length	Part no.	Type
	M8x1, A-coded, to EN 61076-2-104	Open end	3	2.5 m	8078230	NEBA-M8W3-U-2.5-N-LE3
				5 m	8078231	NEBA-M8W3-U-5-N-LE3

Connecting cables NEBA, angled, M12 connection

	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/cores	Cable length	Part no.	Type
	M12x1, A-coded to EN 61076-2-101	Open end	3	2.5 m	8078245	NEBA-M12W5-U-2.5-N-LE3
				5 m	8078246	NEBA-M12W5-U-5-N-LE3

Slot cover ABP for T-slot

	Description	Material housing	Note on materials	Packaging quantity [pieces]	Part no.	Type
	Length 0.5 m, Inserted from above	ABS	RoHS-compliant	2	151680	ABP-5-S

One-way flow control valves GRLA – for exhaust air

	Pneumatic connection, port 2	Pneumatic connection 1	Part no.	Type
	M5	Push-in connector 3 mm	193137	GRLA-M5-QS-3-D
		Push-in connector 4 mm	193138	GRLA-M5-QS-4-D
		Push-in connector 6 mm	193139	GRLA-M5-QS-6-D
	G1/8	Push-in connector 3 mm	193142	GRLA-1/8-QS-3-D
		Push-in connector 4 mm	193143	GRLA-1/8-QS-4-D
		Push-in connector 6 mm	193144	GRLA-1/8-QS-6-D
		Push-in connector 8 mm	193145	GRLA-1/8-QS-8-D
	G1/4	Push-in connector 6 mm	193146	GRLA-1/4-QS-6-D
		Push-in connector 8 mm	193147	GRLA-1/4-QS-8-D
		Push-in connector 10 mm	193148	GRLA-1/4-QS-10-D

One-way flow control valves GRLZ – for supply air

	Pneumatic connection, port 2	Pneumatic connection 1	Part no.	Type
	M5	Push-in connector 3 mm	193153	GRLZ-M5-QS-3-D

Accessories

One-way flow control valves GRLZ – for supply air				
	Pneumatic connection, port 2	Pneumatic connection 1	Part no.	Type
	M5	Push-in connector 4 mm	193154	GRLZ-M5-QS-4-D
		Push-in connector 6 mm	193155	GRLZ-M5-QS-6-D
	G1/8	Push-in connector 3 mm	193156	GRLZ-1/8-QS-3-D
		Push-in connector 4 mm	193157	GRLZ-1/8-QS-4-D
		Push-in connector 6 mm	193158	GRLZ-1/8-QS-6-D
		Push-in connector 8 mm	193159	GRLZ-1/8-QS-8-D