

## Twin cylinders DPZ/DPZJ

**FESTO**

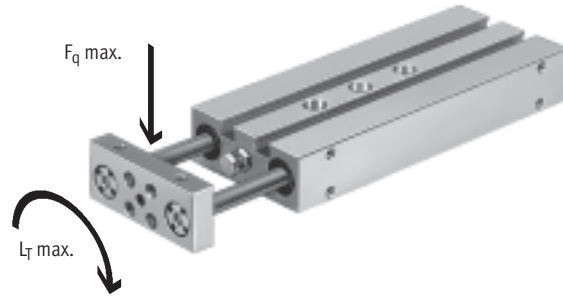


# Twin cylinders DPZ/DPZJ

Key features

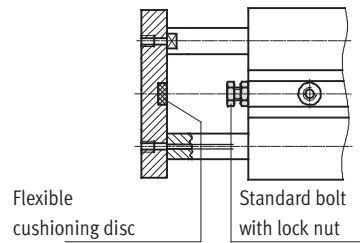
## High force with excellent protection against torsion

- 100 to 1,000 N thrust at 6 bar operating pressure
- Load capacity ( $F_Q$ ) from 8 to 105 N
- Permissible torque load ( $T_T$ ) centrally acting from 0.1 to 3 Nm
- Widely-spaced piston rods for high load capacity



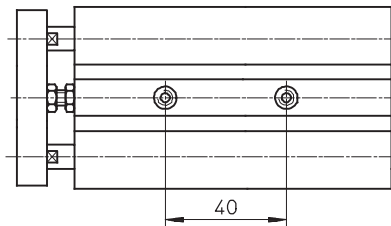
## Precision stroke adjustment

- A standard bolt and lock nut allows variation of the standard strokes within a range of 10 mm
- If necessary, a longer bolt can be used



## Grid dimension

- 20 and 40 mm to suit profile systems



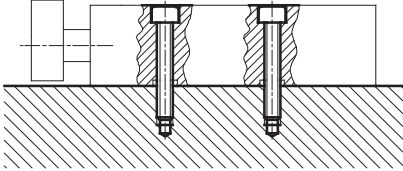
# Twin cylinders DPZ/DPZJ

Key features

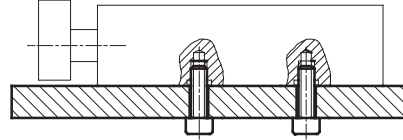
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## Mounting options

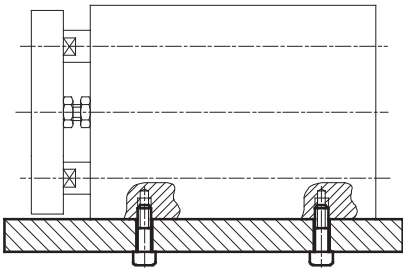
Horizontal mounting from above



Horizontal mounting from below



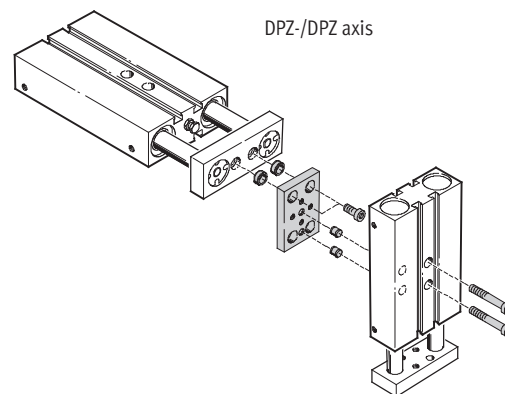
Side mounting from below



## Multi-axis and drive combinations

The twin cylinder DPZ/DPZJ can be combined with different drives. An adapter kit is required for mounting between the two drives.

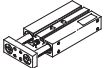
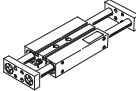
Adapter kits  
→ [www.festo.com](http://www.festo.com)



# Twin cylinders DPZ/DPZJ

Product range overview



Function	Version	Type	Piston Ø [mm]	Stroke [mm]	Precision end position adjustment		Position sensing A	
					Retracted end position	Advanced end position		
Double-acting	<b>Basic version</b>							
		DPZ	10	10, 25, 40, 50	■	-	■	
			16, 20, 25, 32	10, 25, 40, 50, 80, 100				
	<b>Through piston rods with additional yoke plate</b>							
	DPZJ for higher lateral forces and precision	10	10, 25, 40, 50	■	■	■		
		16, 20, 25, 32	10, 25, 40, 50, 80, 100					

# Twin cylinders DPZ/DPZJ

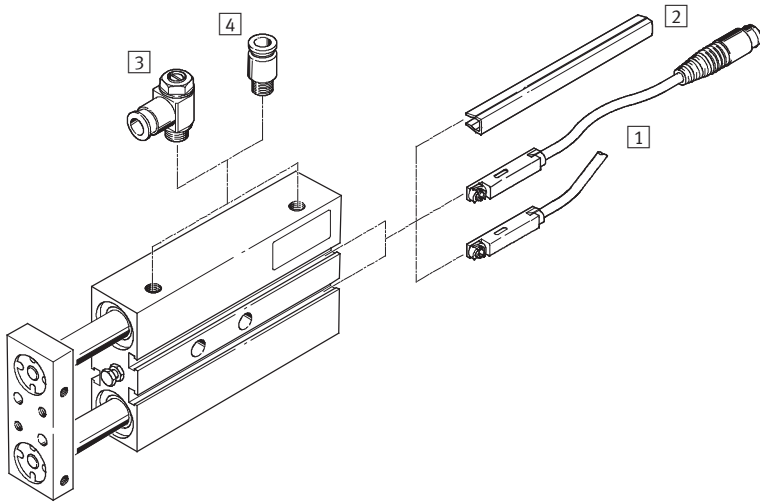
Product range overview

Type	Plain bearing guide	Recirculating ball bearing guide	Through piston rod	Through, hollow piston rod	→ Page/Internet
	GF	KF	S2	S20	
<b>Basic version</b>					
DPZ	■	■	■	■	8
<b>Through piston rods with additional yoke plate</b>					
DPZJ for higher lateral forces and precision	■	■	■	■	8

# Twin cylinders DPZ/DPZJ

Peripherals overview

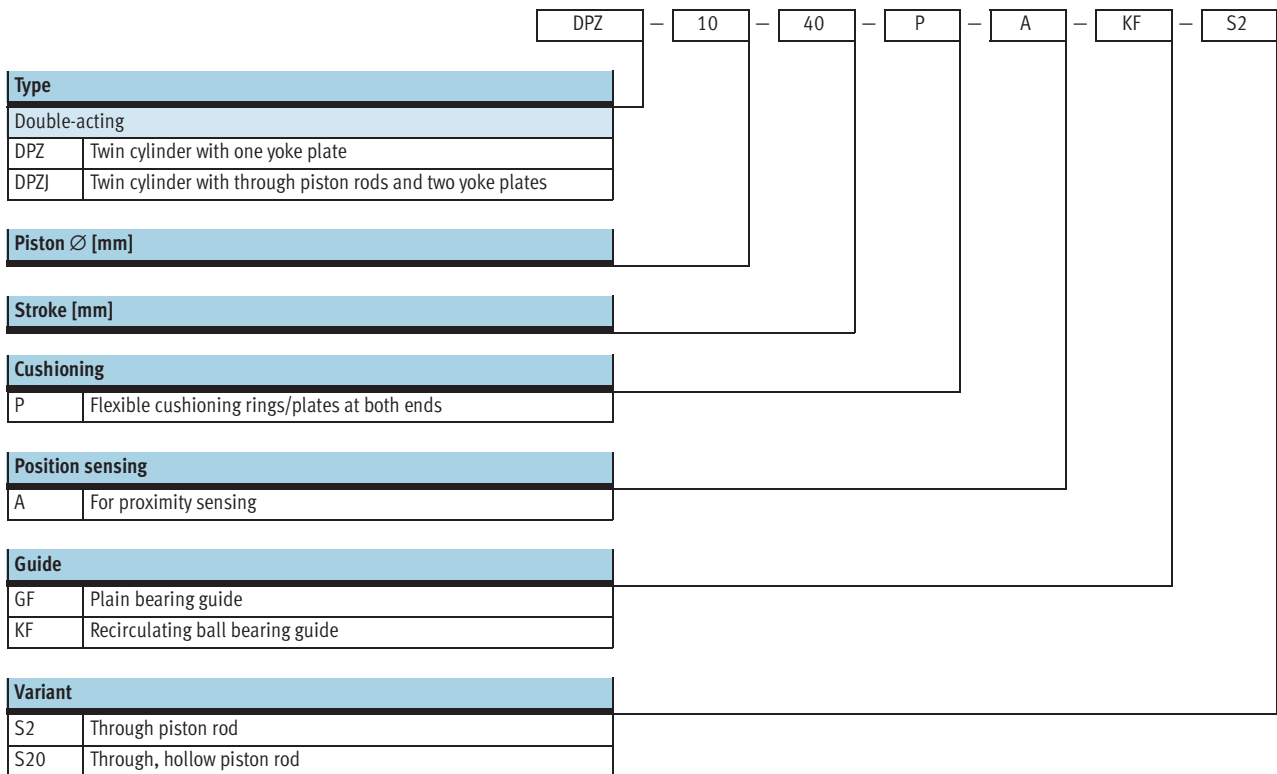
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Accessories					
	Brief description	Piston Ø		→ Page/Internet	
		10, 16 mm	20, 25, 32 mm		
1	Proximity sensor SME/SMT-8	Can be integrated in the cylinder profile barrel	■	■	21
2	Slot cover ABP-5-S	To protect the sensor cable and keep dirt out of the sensor slots	■	■	21
3	One-way flow control valve GRLA	To regulate speed	■	■	22
4	Push-in fitting QS	For connecting compressed air tubing with standard O.D.	■	■	quick star
-	Centring pin ZBS	4 pieces included in scope of delivery	■	-	22
-	Centring sleeve ZBH	4 pieces included in scope of delivery	-	■	22

# Twin cylinders DPZ/DPZJ

Type codes

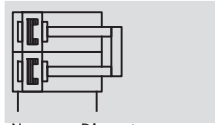


# Twin cylinders DPZ/DPZJ

Technical data

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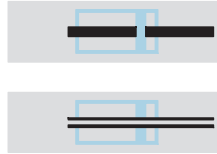
## Function DPZ



-N- Diameter  
10 ... 32 mm  
-T- Stroke length  
10 ... 100 mm

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

## Variants

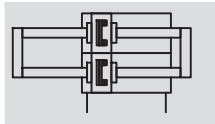


S2

S20



## Function DPZJ



-N- Diameter  
10 ... 32 mm  
-T- Stroke length  
10 ... 100 mm

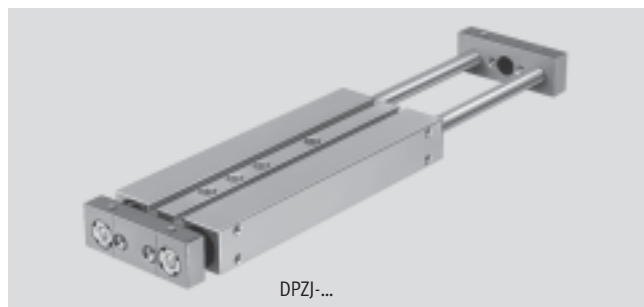
[www.festo.com/en/Spare\\_parts\\_service](http://www.festo.com/en/Spare_parts_service)

## Variants



S2

S20



General technical data					
Piston $\varnothing$	10	16	20	25	32
Pneumatic connection	M5	M5	M5	M5	G $\frac{1}{8}$
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:4:4]				
Note on operating/pilot medium	Operation with lubricated medium possible (in which case lubricated operation will always be required)				
Operating pressure [bar]	2.5 ... 10	1 ... 10			
Constructional design	Parallel piston rods with yoke				
	Through parallel piston rods with yoke				
Cushioning	Flexible cushioning rings/plates at both ends				
Position sensing	For proximity sensing				
Type of mounting	Via through-holes				
	With female thread				
	With mounting plate				
Mounting position	Any				
Protection against torsion/guide	Parallel piston rods/with plain-bearing guide or ball bearing guide				

Ambient conditions		
Variant	Plain-bearing guide GF	Recirculating ball bearing guide KF
Ambient temperature <sup>1)</sup> [°C]	-20 ... +80	
Corrosion resistance class CRC <sup>2)</sup>	2	-
ATEX	Specified types → <a href="http://www.festo.com">www.festo.com</a>	

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.

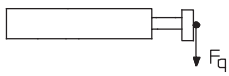


# Twin cylinders DPZ/DPZJ

Technical data

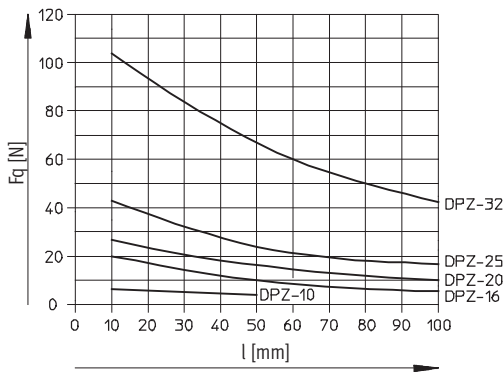
Forces [N] and impact energy [J]						
Piston $\varnothing$	10	16	20	25	32	
Theoretical force at 6 bar, advancing		94	242	376	590	966
	S2/S20, DPZJ	60	180	282	452	724
Theoretical force at 6 bar, retracting		60	180	282	452	724
	S2/S20, DPZJ	60	180	282	452	724
Max. impact energy at end positions	0.08	0.15	0.2	0.3	0.5	

## Permissible lateral force $F_q$ as a function of stroke $l$

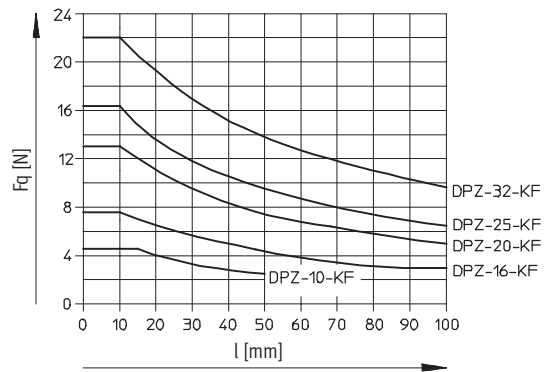


### Piston rods at one end

Plain-bearing guide GF

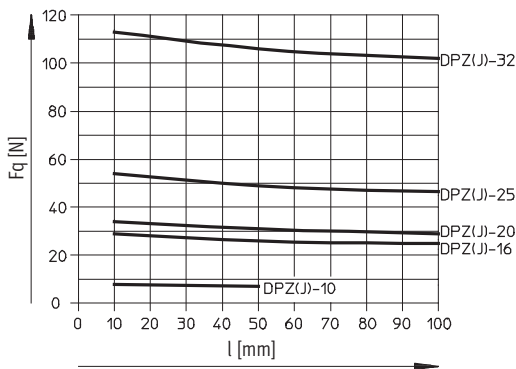


Recirculating ball bearing guide KF

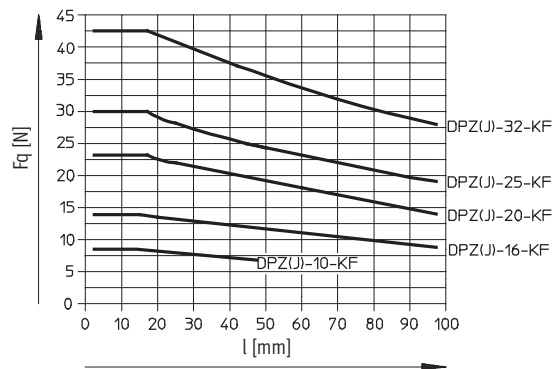


### Through piston rods

Plain-bearing guide GF



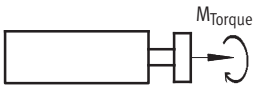
Recirculating ball bearing guide KF



# Twin cylinders DPZ/DPZJ

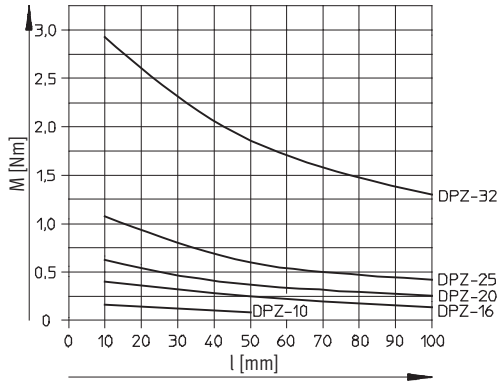
Technical data

## Permissible torque M as a function of stroke l

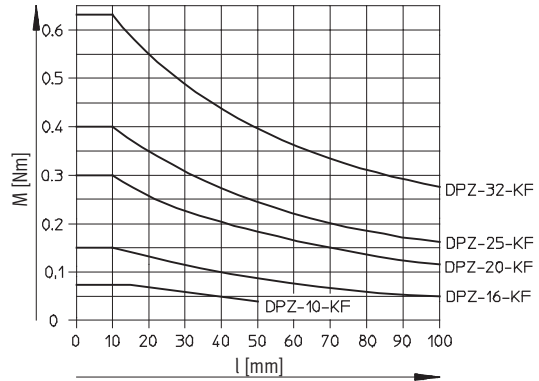


### Piston rods at one end

Plain-bearing guide GF

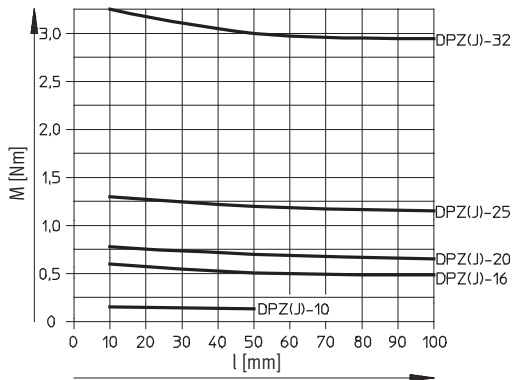


Recirculating ball bearing guide KF

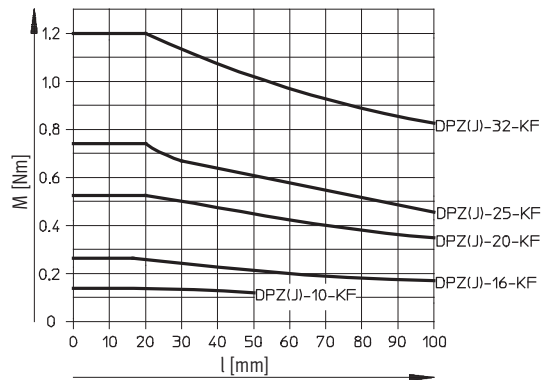


### Through piston rods

Plain-bearing guide GF



Recirculating ball bearing guide KF



# Twin cylinders DPZ/DPZJ

Technical data

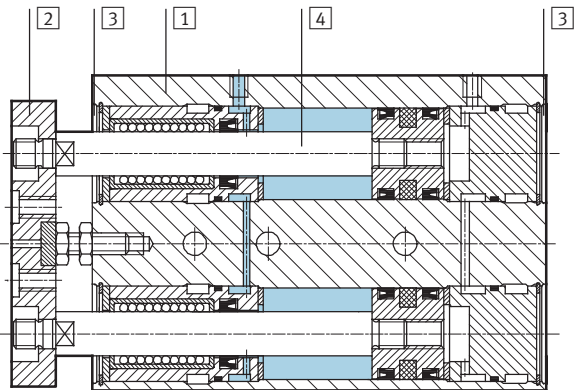
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DPZ with plain-bearing guide GF					
Stroke [mm]	Piston Ø [mm]				
	10	16	20	25	32
Weight [g]					
0	234	389	568	838	1,389
10	257	416	607	891	1,473
25	291	456	666	971	1,598
40	325	496	725	1,052	1,723
50	348	523	764	1,105	1,806
80	417	603	882	1,265	2,057
100	463	657	960	1,372	2,223

DPZ with recirculating ball bearing guide KF					
Stroke [mm]	Piston Ø [mm]				
	10	16	20	25	32
Weight [g]					
0	243	368	522	742	1,200
10	266	395	561	795	1,283
25	300	435	620	875	1,408
40	334	475	679	955	1,533
50	357	502	718	1,009	1,617
80	426	582	836	1,169	1,867
100	472	636	914	1,276	2,034

## Materials

Sectional view



Twin cylinders		
1	Housing	Wrought aluminium alloy
2	Yoke plate	Tempered steel
3	Plug cap	Wrought aluminium alloy
4	Piston rod	GF High-alloy stainless steel
		KF Tempered steel
-	Seals	Polyurethane, nitrile rubber

# Twin cylinders DPZ/DPZJ

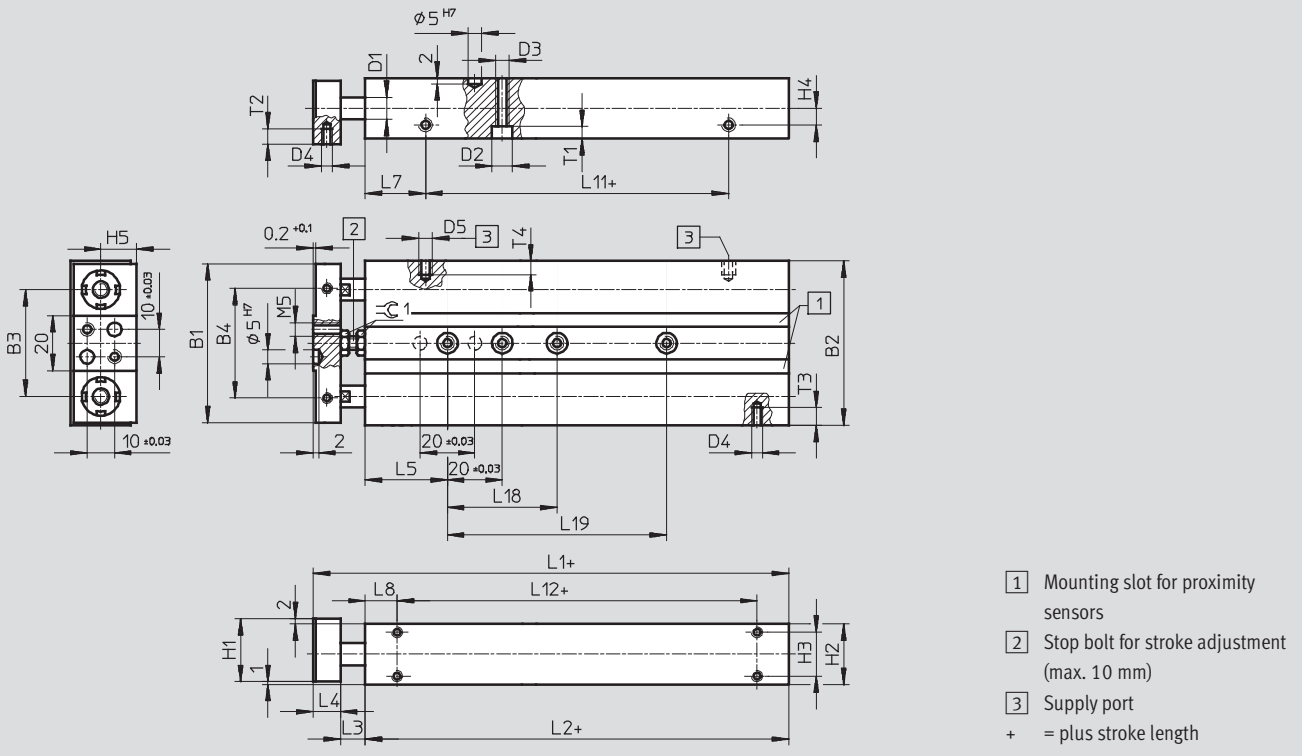
Technical data



## Dimensions – Basic cylinders

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Piston Ø 10, 16 mm



- 1 Mounting slot for proximity sensors
  - 2 Stop bolt for stroke adjustment (max. 10 mm)
  - 3 Supply port
- + = plus stroke length

Ø [mm]	B1	B2	B3	B4	D1 Ø	D2 Ø	D3 Ø	D4	D5	H1	H2	H3	H4	H5	L1		L2	
															GF	KF	GF	KF
10	48	50	33	28	6	7.5	M5	M4	M5	20	19	13	4.5	11.5	89.6	100	71.6	82
16	58	60	39	40	8	7.5	M5	M4	M5	23	22	16	6	13	93.6	107	74.6	88

Ø [mm]	L3	L4	L5	L7		L8		L11		L12 ±0.2		T1	T2	T3	T4	≈C1
				GF	KF	GF	KF	GF	KF	GF	KF					
10	8	10	30	23.4	40.7	13.1	30.8	24.8	24.4	45.4	44.2	4.4	6	5	5	7
16	9	10	30	22	38.9	11.6	25.5	30.6	30.6	51.4	54.4	4.4	5.5	6.5	5	8

Stroke [mm]	L18 ±0.03	L19 ±0.03
10	-	-
25	-	-
40	-	-
50	40	-
80	40	80
100	40	80

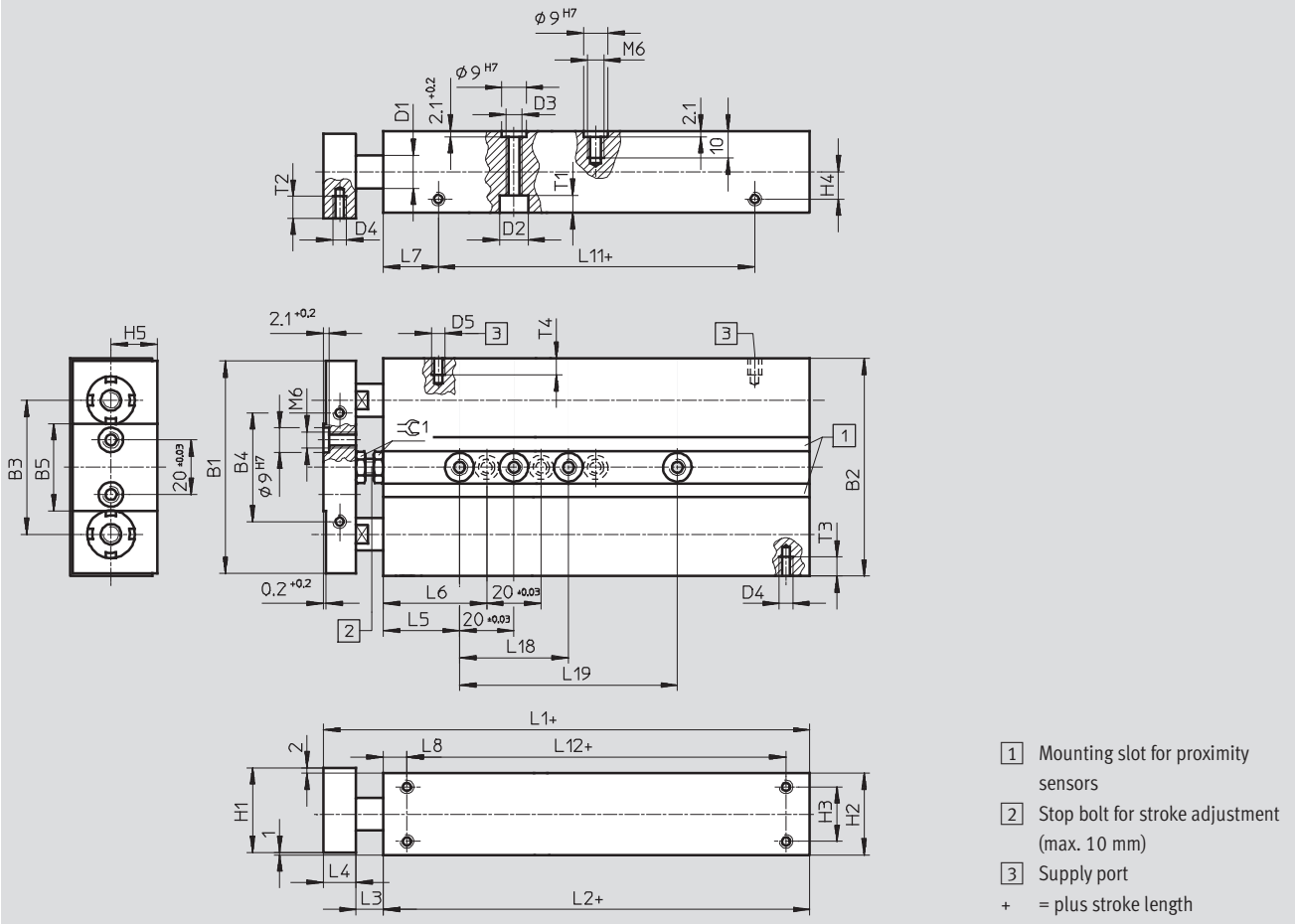
# Twin cylinders DPZ/DPZJ

Technical data

## Dimensions – Basic cylinders

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Piston Ø 20, 25, 32 mm



Ø [mm]	B1	B2	B3	B4	B5	D1 Ø	D2 Ø	D3 Ø	D4	D5	H1	H2	H3	H4	H5	L1		L2	
																GF	KF	GF	KF
20	70	72	45.6	40	32	10	9	M6	M5	M5	25	24	16	7	14	98.6	115	76.6	93
25	78	80	49.2	40	32	12	10.5	6.4	M5	M5	31	30	20	10	17	98.6	116	76.6	94
32	96	98	57	40	35	16	10.5	6.4	M6	G $\frac{1}{8}$	39	38	26	11.5	21	110.1	130	80.1	100

Ø [mm]	L3	L4	L5	L6	L7		L8		L11		L12 ±0.2		T1	T2	T3	T4	≈C1
					GF	KF	GF	KF	GF	KF	GF	KF					
20	10	12	30	-	22.8	43.4	12.9	33.5	31	30.7	50.8	50.5	5.4	6.5	7	6	10
25	10	12	28	38	20.2	40	8.7	28.8	36.2	33.8	59.2	56.5	6.4	8	7	6	10
32	15	15	35	45	25	44.9	10	26	30.1	30.1	60.1	64	6.4	8	9	9	10

Stroke [mm]	L18 ±0.03	L19 ±0.03
10	-	-
25	-	-
40	-	-
50	40	-
80	40	80
100	40	80

# Twin cylinders DPZ/DPZJ

Technical data

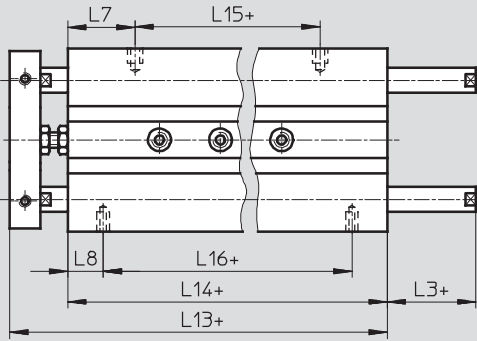
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## Dimensions – Variants DPZ

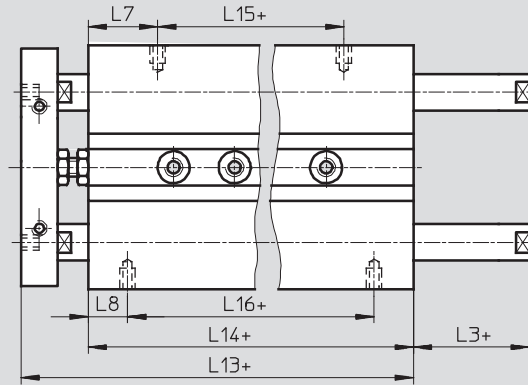
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### S2 – Through piston rods

Ø 10, 16 mm



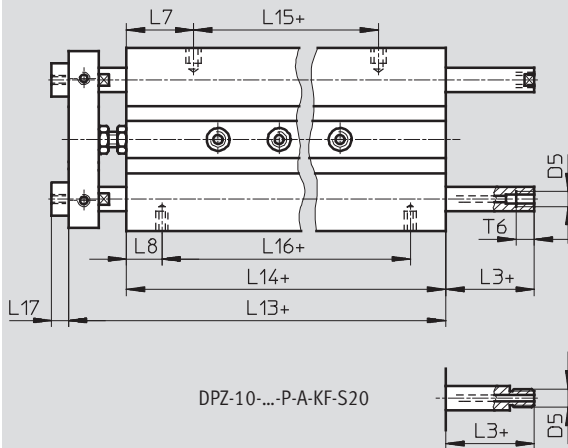
Ø 20, 25, 32 mm



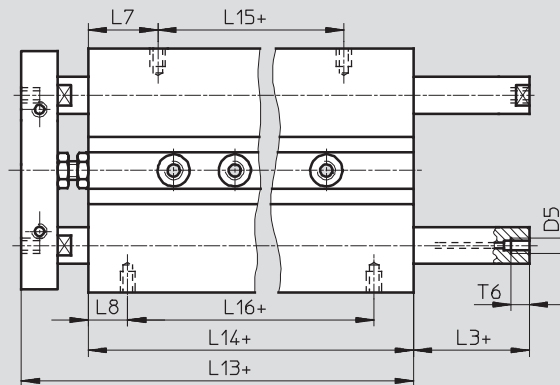
+ = plus stroke length

### S20 – Through, hollow piston rods

Ø 10, 16 mm



Ø 20, 25, 32 mm



+ = plus stroke length

Ø [mm]	D5	L3	L7		L8		L13		L14		L15		L16 ±0.2		L17	T6
			GF	KF	GF	KF	GF	KF	GF	KF	GF	KF				
10	M5	8	23.4	40.7	13.1	30.8	89.6	124	71.6	106	24.8	24.7	45.4	44.4	4.5	6
16	M5	9	22	38.9	11.6	25.5	93.6	127.4	74.6	108.4	30.6	30.6	51.4	57.4	5.5	6
20	M5	10	22.8	43.4	12.9	33.5	98.6	139.2	76.6	117.2	31	30.4	50.8	50.2	–	6
25	M5	10	20.2	40	8.7	28.8	98.6	135	76.6	113	36.2	33	59.2	55.4	–	6
32	G1/8	15	25	44.9	10	26	110.1	149.9	80.1	119.9	30.1	30.1	60.1	67.9	–	10

# Twin cylinders DPZ/DPZJ

Technical data

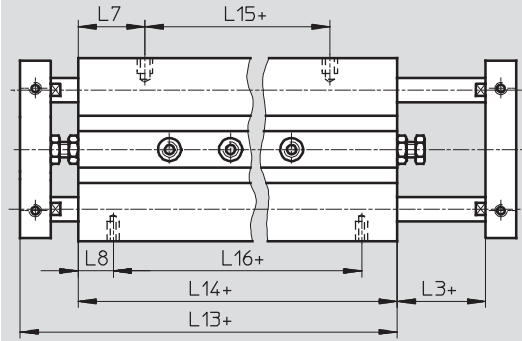


## Dimensions – Variants DPZJ

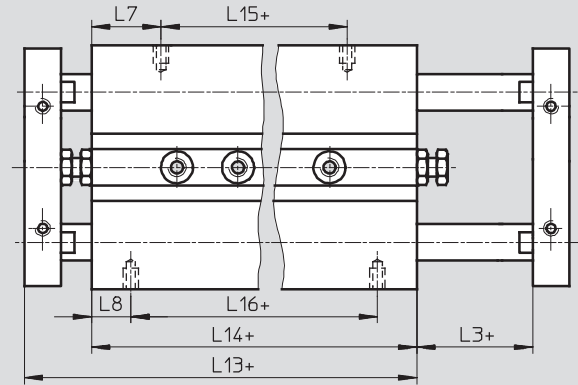
Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

### S2 – Through piston rods

Ø 10, 16 mm



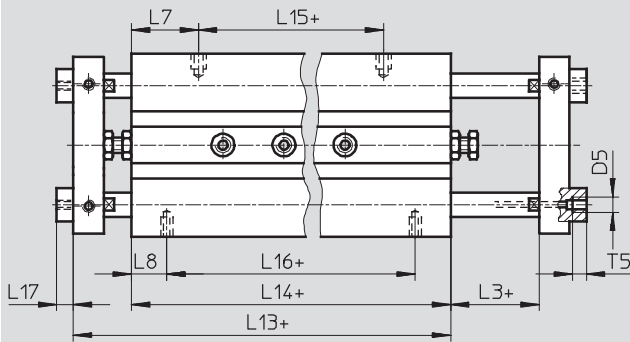
Ø 20, 25, 32 mm



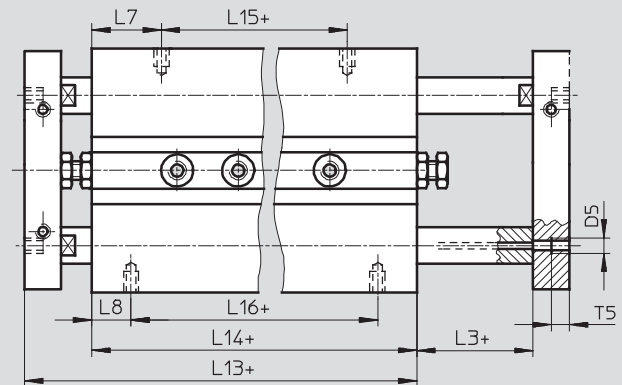
+ = plus stroke length

### S20 – Through, hollow piston rods

Ø 10, 16 mm



Ø 20, 25, 32 mm





+ = plus stroke length

Ø [mm]	D5	L3	L7		L8		L13		L14		L15		L16 ±0.2		L17	T5
			GF	KF	GF	KF	GF	KF	GF	KF	GF	KF	GF	KF		
10	M5	8	23.4	40.7	13.1	30.8	89.6	124	71.6	106	24.8	24.7	45.4	44.4	4.5	5
16	M5	9	22	38.9	11.6	25.5	93.6	127.4	74.6	108.4	30.6	30.6	51.4	57.4	5.5	4.5
20	M5	10	22.8	43.4	12.9	33.5	98.6	139.2	76.6	117.2	31	30.4	50.8	50.2	–	6
25	M5	10	20.2	40	8.7	28.8	98.6	135	76.6	113	36.2	33	59.2	55.4	–	6
32	G1/8	15	25	44.9	10	26	110.1	149.9	80.1	119.9	30.1	30.1	60.1	67.9	–	10

# Twin cylinders DPZ/DPZJ

Technical data

Ordering data – Basic version DPZ						
Type	Piston Ø [mm]	Stroke [mm]	Plain-bearing guide GF		Recirculating ball bearing guide KF	
			Part No.	Type <sup>1)</sup>	Part No.	Type <sup>1)</sup>
	10	10	32 681	DPZ-10-10-P-A	162 001	DPZ-10-10-P-A-KF
		25	32 682	DPZ-10-25-P-A	162 002	DPZ-10-25-P-A-KF
		40	32 683	DPZ-10-40-P-A	162 003	DPZ-10-40-P-A-KF
		50	32 684	DPZ-10-50-P-A	162 004	DPZ-10-50-P-A-KF
	16	10	32 686	DPZ-16-10-P-A	162 026	DPZ-16-10-P-A-KF
		25	32 687	DPZ-16-25-P-A	162 027	DPZ-16-25-P-A-KF
		40	32 688	DPZ-16-40-P-A	162 028	DPZ-16-40-P-A-KF
		50	32 689	DPZ-16-50-P-A	162 029	DPZ-16-50-P-A-KF
		80	32 690	DPZ-16-80-P-A	162 030	DPZ-16-80-P-A-KF
		100	32 691	DPZ-16-100-P-A	162 031	DPZ-16-100-P-A-KF
	20	10	32 693	DPZ-20-10-P-A	162 061	DPZ-20-10-P-A-KF
		25	32 694	DPZ-20-25-P-A	162 062	DPZ-20-25-P-A-KF
		40	32 695	DPZ-20-40-P-A	162 063	DPZ-20-40-P-A-KF
		50	32 696	DPZ-20-50-P-A	162 064	DPZ-20-50-P-A-KF
		80	32 697	DPZ-20-80-P-A	162 065	DPZ-20-80-P-A-KF
		100	32 698	DPZ-20-100-P-A	162 066	DPZ-20-100-P-A-KF
	25	10	32 700	DPZ-25-10-P-A	162 096	DPZ-25-10-P-A-KF
		25	32 701	DPZ-25-25-P-A	162 097	DPZ-25-25-P-A-KF
		40	32 702	DPZ-25-40-P-A	162 098	DPZ-25-40-P-A-KF
		50	32 703	DPZ-25-50-P-A	162 099	DPZ-25-50-P-A-KF
		80	32 704	DPZ-25-80-P-A	162 100	DPZ-25-80-P-A-KF
		100	32 705	DPZ-25-100-P-A	162 101	DPZ-25-100-P-A-KF
	32	10	159 817	DPZ-32-10-P-A	162 131	DPZ-32-10-P-A-KF
		25	159 818	DPZ-32-25-P-A	162 132	DPZ-32-25-P-A-KF
40		159 819	DPZ-32-40-P-A	162 133	DPZ-32-40-P-A-KF	
50		159 820	DPZ-32-50-P-A	162 134	DPZ-32-50-P-A-KF	
80		159 821	DPZ-32-80-P-A	162 135	DPZ-32-80-P-A-KF	
100		159 822	DPZ-32-100-P-A	162 136	DPZ-32-100-P-A-KF	

Ordering data – Variants DPZ						
Type	Piston Ø [mm]	Stroke [mm]	Plain-bearing guide GF		Recirculating ball bearing guide KF	
			Part No.	Type <sup>1)</sup>	Part No.	Type <sup>1)</sup>
S2 – Through piston rods						
	10	10	159 862	DPZ-10-10-P-A-S2	162 006	DPZ-10-10-P-A-KF-S2
		25	159 863	DPZ-10-25-P-A-S2	162 007	DPZ-10-25-P-A-KF-S2
		40	159 864	DPZ-10-40-P-A-S2	162 008	DPZ-10-40-P-A-KF-S2
		50	159 865	DPZ-10-50-P-A-S2	162 009	DPZ-10-50-P-A-KF-S2
	16	10	159 867	DPZ-16-10-P-A-S2	162 033	DPZ-16-10-P-A-KF-S2
		25	159 868	DPZ-16-25-P-A-S2	162 034	DPZ-16-25-P-A-KF-S2
		40	159 869	DPZ-16-40-P-A-S2	162 035	DPZ-16-40-P-A-KF-S2
		50	159 870	DPZ-16-50-P-A-S2	162 036	DPZ-16-50-P-A-KF-S2
		80	159 871	DPZ-16-80-P-A-S2	162 037	DPZ-16-80-P-A-KF-S2
		100	159 872	DPZ-16-100-P-A-S2	162 038	DPZ-16-100-P-A-KF-S2


1) 4 centring pins or sleeves are included in the scope of delivery.



# Twin cylinders DPZ/DPZJ

Technical data


FESTO

Ordering data – Variants DPZ						
Type	Piston Ø [mm]	Stroke [mm]	Plain-bearing guide GF		Recirculating ball bearing guide KF	
			Part No.	Type <sup>1)</sup>	Part No.	Type <sup>1)</sup>
S2 – Through piston rods						
	20	10	159 874	DPZ-20-10-P-A-S2	162 068	DPZ-20-10-P-A-KF-S2
		25	159 875	DPZ-20-25-P-A-S2	162 069	DPZ-20-25-P-A-KF-S2
		40	159 876	DPZ-20-40-P-A-S2	162 070	DPZ-20-40-P-A-KF-S2
		50	159 877	DPZ-20-50-P-A-S2	162 071	DPZ-20-50-P-A-KF-S2
		80	159 878	DPZ-20-80-P-A-S2	162 072	DPZ-20-80-P-A-KF-S2
		100	159 879	DPZ-20-100-P-A-S2	162 073	DPZ-20-100-P-A-KF-S2
	25	10	159 881	DPZ-25-10-P-A-S2	162 103	DPZ-25-10-P-A-KF-S2
		25	159 882	DPZ-25-25-P-A-S2	162 104	DPZ-25-25-P-A-KF-S2
		40	159 883	DPZ-25-40-P-A-S2	162 105	DPZ-25-40-P-A-KF-S2
		50	159 884	DPZ-25-50-P-A-S2	162 106	DPZ-25-50-P-A-KF-S2
		80	159 885	DPZ-25-80-P-A-S2	162 107	DPZ-25-80-P-A-KF-S2
		100	159 886	DPZ-25-100-P-A-S2	162 108	DPZ-25-100-P-A-KF-S2
	32	10	159 891	DPZ-32-10-P-A-S2	162 138	DPZ-32-10-P-A-KF-S2
		25	159 892	DPZ-32-25-P-A-S2	162 139	DPZ-32-25-P-A-KF-S2
		40	159 893	DPZ-32-40-P-A-S2	162 140	DPZ-32-40-P-A-KF-S2
		50	159 894	DPZ-32-50-P-A-S2	162 141	DPZ-32-50-P-A-KF-S2
		80	159 895	DPZ-32-80-P-A-S2	162 142	DPZ-32-80-P-A-KF-S2
		100	159 896	DPZ-32-100-P-A-S2	162 143	DPZ-32-100-P-A-KF-S2

1) 4 centring pins or sleeves are included in the scope of delivery.

# Twin cylinders DPZ/DPZJ


Technical data

Ordering data – Variants DPZ						
Type	Piston Ø [mm]	Stroke [mm]	Plain-bearing guide GF		Recirculating ball bearing guide KF	
			Part No.	Type <sup>1)</sup>	Part No.	Type <sup>1)</sup>
S20 – Through, hollow piston rods						
	10	10	159 901	DPZ-10-10-P-A-S20	162 011	DPZ-10-10-P-A-KF-S20
		25	159 902	DPZ-10-25-P-A-S20	162 012	DPZ-10-25-P-A-KF-S20
		40	159 903	DPZ-10-40-P-A-S20	162 013	DPZ-10-40-P-A-KF-S20
		50	159 904	DPZ-10-50-P-A-S20	162 014	DPZ-10-50-P-A-KF-S20
	16	10	159 906	DPZ-16-10-P-A-S20	162 040	DPZ-16-10-P-A-KF-S20
		25	159 907	DPZ-16-25-P-A-S20	162 041	DPZ-16-25-P-A-KF-S20
		40	159 908	DPZ-16-40-P-A-S20	162 042	DPZ-16-40-P-A-KF-S20
		50	159 909	DPZ-16-50-P-A-S20	162 043	DPZ-16-50-P-A-KF-S20
		80	159 910	DPZ-16-80-P-A-S20	162 044	DPZ-16-80-P-A-KF-S20
		100	159 911	DPZ-16-100-P-A-S20	162 045	DPZ-16-100-P-A-KF-S20
	20	10	159 913	DPZ-20-10-P-A-S20	162 075	DPZ-20-10-P-A-KF-S20
		25	159 914	DPZ-20-25-P-A-S20	162 076	DPZ-20-25-P-A-KF-S20
		40	159 915	DPZ-20-40-P-A-S20	162 077	DPZ-20-40-P-A-KF-S20
		50	159 916	DPZ-20-50-P-A-S20	162 078	DPZ-20-50-P-A-KF-S20
		80	159 917	DPZ-20-80-P-A-S20	162 079	DPZ-20-80-P-A-KF-S20
		100	159 918	DPZ-20-100-P-A-S20	162 080	DPZ-20-100-P-A-KF-S20
	25	10	159 920	DPZ-25-10-P-A-S20	162 110	DPZ-25-10-P-A-KF-S20
		25	159 921	DPZ-25-25-P-A-S20	162 111	DPZ-25-25-P-A-KF-S20
		40	159 922	DPZ-25-40-P-A-S20	162 112	DPZ-25-40-P-A-KF-S20
		50	159 923	DPZ-25-50-P-A-S20	162 113	DPZ-25-50-P-A-KF-S20
		80	159 924	DPZ-25-80-P-A-S20	162 114	DPZ-25-80-P-A-KF-S20
		100	159 925	DPZ-25-100-P-A-S20	162 115	DPZ-25-100-P-A-KF-S20
	32	10	159 930	DPZ-32-10-P-A-S20	162 145	DPZ-32-10-P-A-KF-S20
		25	159 931	DPZ-32-25-P-A-S20	162 146	DPZ-32-25-P-A-KF-S20
		40	159 932	DPZ-32-40-P-A-S20	162 147	DPZ-32-40-P-A-KF-S20
		50	159 933	DPZ-32-50-P-A-S20	162 148	DPZ-32-50-P-A-KF-S20
		80	159 934	DPZ-32-80-P-A-S20	162 149	DPZ-32-80-P-A-KF-S20
		100	159 935	DPZ-32-100-P-A-S20	162 150	DPZ-32-100-P-A-KF-S20

1) 4 centring pins or sleeves are included in the scope of delivery.

# Twin cylinders DPZ/DPZJ

Technical data


Ordering data – Variants DPZJ with additional yoke						
Type	Piston Ø [mm]	Stroke [mm]	Plain-bearing guide GF		Recirculating ball bearing guide KF	
			Part No.	Type <sup>1)</sup>	Part No.	Type <sup>1)</sup>
	10	10	159 940	DPZJ-10-10-P-A-S2	162 016	DPZJ-10-10-P-A-KF-S2
		25	159 941	DPZJ-10-25-P-A-S2	162 017	DPZJ-10-25-P-A-KF-S2
		40	159 942	DPZJ-10-40-P-A-S2	162 018	DPZJ-10-40-P-A-KF-S2
		50	159 943	DPZJ-10-50-P-A-S2	162 019	DPZJ-10-50-P-A-KF-S2
	16	10	159 945	DPZJ-16-10-P-A-S2	162 047	DPZJ-16-10-P-A-KF-S2
		25	159 946	DPZJ-16-25-P-A-S2	162 048	DPZJ-16-25-P-A-KF-S2
		40	159 947	DPZJ-16-40-P-A-S2	162 049	DPZJ-16-40-P-A-KF-S2
		50	159 948	DPZJ-16-50-P-A-S2	162 050	DPZJ-16-50-P-A-KF-S2
		80	159 949	DPZJ-16-80-P-A-S2	162 051	DPZJ-16-80-P-A-KF-S2
		100	159 950	DPZJ-16-100-P-A-S2	162 052	DPZJ-16-100-P-A-KF-S2
	20	10	159 952	DPZJ-20-10-P-A-S2	162 082	DPZJ-20-10-P-A-KF-S2
		25	159 953	DPZJ-20-25-P-A-S2	162 083	DPZJ-20-25-P-A-KF-S2
		40	159 954	DPZJ-20-40-P-A-S2	162 084	DPZJ-20-40-P-A-KF-S2
		50	159 955	DPZJ-20-50-P-A-S2	162 085	DPZJ-20-50-P-A-KF-S2
		80	159 956	DPZJ-20-80-P-A-S2	162 086	DPZJ-20-80-P-A-KF-S2
		100	159 957	DPZJ-20-100-P-A-S2	162 087	DPZJ-20-100-P-A-KF-S2
	25	10	159 959	DPZJ-25-10-P-A-S2	162 117	DPZJ-25-10-P-A-KF-S2
		25	159 960	DPZJ-25-25-P-A-S2	162 118	DPZJ-25-25-P-A-KF-S2
		40	159 961	DPZJ-25-40-P-A-S2	162 119	DPZJ-25-40-P-A-KF-S2
		50	159 962	DPZJ-25-50-P-A-S2	162 120	DPZJ-25-50-P-A-KF-S2
80		159 963	DPZJ-25-80-P-A-S2	162 121	DPZJ-25-80-P-A-KF-S2	
100		159 964	DPZJ-25-100-P-A-S2	162 122	DPZJ-25-100-P-A-KF-S2	
32	10	159 969	DPZJ-32-10-P-A-S2	162 152	DPZJ-32-10-P-A-KF-S2	
	25	159 970	DPZJ-32-25-P-A-S2	162 153	DPZJ-32-25-P-A-KF-S2	
	40	159 971	DPZJ-32-40-P-A-S2	162 154	DPZJ-32-40-P-A-KF-S2	
	50	159 972	DPZJ-32-50-P-A-S2	162 155	DPZJ-32-50-P-A-KF-S2	
	80	159 973	DPZJ-32-80-P-A-S2	162 156	DPZJ-32-80-P-A-KF-S2	
	100	159 974	DPZJ-32-100-P-A-S2	162 157	DPZJ-32-100-P-A-KF-S2	

1) 4 centring pins or sleeves are included in the scope of delivery.

# Twin cylinders DPZ/DPZJ

Technical data

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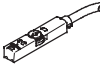
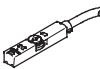
Ordering data – Variant DPZJ with additional yoke						
Type	Piston Ø [mm]	Stroke [mm]	Plain-bearing guide GF		Recirculating ball bearing guide KF	
			Part No.	Type <sup>1)</sup>	Part No.	Type <sup>1)</sup>
S20 – Through, hollow piston rods						
	10	10	159 979	DPZJ-10-10-P-A-S20	162 021	DPZJ-10-10-P-A-KF-S20
		25	159 980	DPZJ-10-25-P-A-S20	162 022	DPZJ-10-25-P-A-KF-S20
		40	159 981	DPZJ-10-40-P-A-S20	162 023	DPZJ-10-40-P-A-KF-S20
		50	159 982	DPZJ-10-50-P-A-S20	162 024	DPZJ-10-50-P-A-KF-S20
	16	10	159 984	DPZJ-16-10-P-A-S20	162 054	DPZJ-16-10-P-A-KF-S20
		25	159 985	DPZJ-16-25-P-A-S20	162 055	DPZJ-16-25-P-A-KF-S20
		40	159 986	DPZJ-16-40-P-A-S20	162 056	DPZJ-16-40-P-A-KF-S20
		50	159 987	DPZJ-16-50-P-A-S20	162 057	DPZJ-16-50-P-A-KF-S20
		80	159 988	DPZJ-16-80-P-A-S20	162 058	DPZJ-16-80-P-A-KF-S20
		100	159 989	DPZJ-16-100-P-A-S20	162 059	DPZJ-16-100-P-A-KF-S20
	20	10	159 991	DPZJ-20-10-P-A-S20	162 089	DPZJ-20-10-P-A-KF-S20
		25	159 992	DPZJ-20-25-P-A-S20	162 090	DPZJ-20-25-P-A-KF-S20
		40	159 993	DPZJ-20-40-P-A-S20	162 091	DPZJ-20-40-P-A-KF-S20
		50	159 994	DPZJ-20-50-P-A-S20	162 092	DPZJ-20-50-P-A-KF-S20
		80	159 995	DPZJ-20-80-P-A-S20	162 093	DPZJ-20-80-P-A-KF-S20
		100	159 996	DPZJ-20-100-P-A-S20	162 094	DPZJ-20-100-P-A-KF-S20
	25	10	159 998	DPZJ-25-10-P-A-S20	162 124	DPZJ-25-10-P-A-KF-S20
		25	159 999	DPZJ-25-25-P-A-S20	162 125	DPZJ-25-25-P-A-KF-S20
		40	160 000	DPZJ-25-40-P-A-S20	162 126	DPZJ-25-40-P-A-KF-S20
		50	160 001	DPZJ-25-50-P-A-S20	162 127	DPZJ-25-50-P-A-KF-S20
80		160 002	DPZJ-25-80-P-A-S20	162 128	DPZJ-25-80-P-A-KF-S20	
100		160 003	DPZJ-25-100-P-A-S20	162 129	DPZJ-25-100-P-A-KF-S20	
32	10	160 008	DPZJ-32-10-P-A-S20	162 159	DPZJ-32-10-P-A-KF-S20	
	25	160 009	DPZJ-32-25-P-A-S20	162 160	DPZJ-32-25-P-A-KF-S20	
	40	160 010	DPZJ-32-40-P-A-S20	162 161	DPZJ-32-40-P-A-KF-S20	
	50	160 011	DPZJ-32-50-P-A-S20	162 162	DPZJ-32-50-P-A-KF-S20	
	80	160 012	DPZJ-32-80-P-A-S20	162 163	DPZJ-32-80-P-A-KF-S20	
	100	160 013	DPZJ-32-100-P-A-S20	162 164	DPZJ-32-100-P-A-KF-S20	

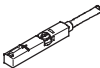


1) 4 centring pins or sleeves are included in the scope of delivery.



# Twin cylinders DPZ/DPZJ

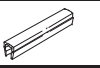
Accessories

FESTO

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	574335	SMT-8M-A-PS-24V-E-2,5-OE	
			Plug M8x1, 3-pin	0.3	574334	SMT-8M-A-PS-24V-E-0,3-M8D	
			Plug M12x1, 3-pin	0.3	574337	SMT-8M-A-PS-24V-E-0,3-M12	
		NPN	Cable, 3-wire	2.5	574338	SMT-8M-A-NS-24V-E-2,5-OE	
			Plug M8x1, 3-pin	0.3	574339	SMT-8M-A-NS-24V-E-0,3-M8D	
<b>N/C contact</b>							
	Insertable in the slot from above, flush with cylinder profile, short design	PNP	Cable, 3-wire	7.5	574340	SMT-8M-A-PO-24V-E-7,5-OE	

Ordering data – Proximity sensors for T-slot, magnetic reed						Technical data → Internet: sme	
	Type of mounting	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	543 862	SME-8M-DS-24V-K-2,5-OE	
				5.0	543 863	SME-8M-DS-24V-K-5,0-OE	
			Cable, 2-wire	2.5	543 872	SME-8M-ZS-24V-K-2,5-OE	
				Plug M8x1, 3-pin	0.3	543 861	SME-8M-DS-24V-K-0,3-M8D
	Insertable in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	150 855	SME-8-K-LED-24	
			Plug M8x1, 3-pin	0.3	150 857	SME-8-S-LED-24	
<b>N/C contact</b>							
	Insertable in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	7.5	160 251	SME-8-0-K-LED-24	


Ordering data – Connecting cables					Technical data → Internet: nebu	
	Electrical connection, left	Electrical connection, right	Cable length [m]	Part No.	Type	
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541 333	NEBU-M8G3-K-2.5-LE3	
			5	541 334	NEBU-M8G3-K-5-LE3	
	Straight socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541 363	NEBU-M12G5-K-2.5-LE3	
			5	541 364	NEBU-M12G5-K-5-LE3	
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541 338	NEBU-M8W3-K-2.5-LE3	
			5	541 341	NEBU-M8W3-K-5-LE3	
	Angled socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541 367	NEBU-M12W5-K-2.5-LE3	
			5	541 370	NEBU-M12W5-K-5-LE3	



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

# Twin cylinders DPZ/DPZJ

Technical data

**FESTO**

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
	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

Ordering data – Accessories					
	For Ø [mm]	Material	Part No.	Type	PE <sup>1)</sup>
Centring pin ZBS					Technical data → Internet: zbs
	10, 16	Stainless steel Free of copper, PTFE and silicone	150 928	ZBS-5	10
Centring sleeve ZBH					Technical data → Internet: zbh
	20, 25, 30	Stainless steel Free of copper, PTFE and silicone	150 927	ZBH-9	10

1) Packaging unit quantity

# Product Range and Company Overview

## A Complete Suite of Automation Services

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



**Custom Automation Components**  
Complete custom engineered solutions



**Custom Control Cabinets**  
Comprehensive engineering support and on-site services



**Complete Systems**  
Shipment, stocking and storage services

## The Broadest Range of Automation Components

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



**Electromechanical**  
Electromechanical actuators, motors, controllers & drives



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



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

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