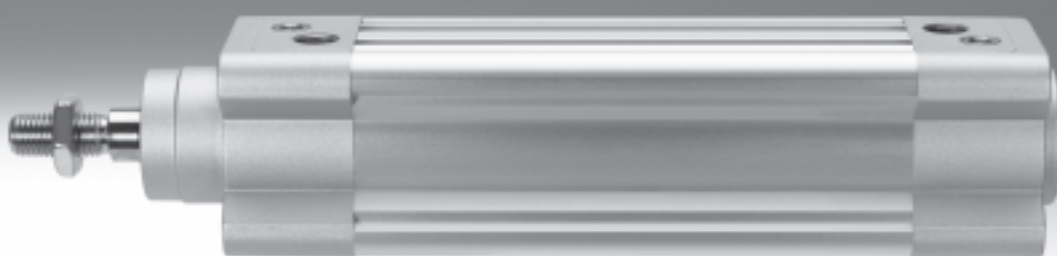


Standard cylinders DSBC, to ISO 15552

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Standard cylinders DSBC, to ISO 15552

Key features

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At a glance



DIN



- Standards-based cylinders to ISO 15552 (corresponds to the withdrawn standards ISO 6431, DIN ISO 6431, VDMA 24 562, NF E 49 003.1 and UNI 10290)

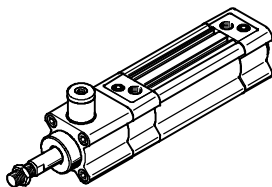
- Double-acting
- For contactless position sensing
- Optionally with protection against rotation
- Extensive range of accessories makes it possible to install the cylinder virtually anywhere

- Three types of cushioning available:
 - P cushioning: elastic cushioning rings/pads at both ends
 - PPS cushioning: pneumatic cushioning, self-adjusting at both ends
 - PPV cushioning: pneumatic cushioning, adjustable at both ends

- The variants can be configured individually thanks to the modular product system
- Excellent flexibility thanks to the wide range of variants

Variants from the modular product system		
Symbol	Features	Description
	Q Square piston rod	Protection against rotation. For correctly oriented feeding
	U Uniform, slow movement	Suitable for slow stroke movements at a constant, judder-free speed over the full stroke of the cylinder. Seal contains silicone grease (not free of paint-wetting impairment substances)
	T Through piston rod	For working at both ends with the same force in the forward and return stroke, for attaching external stops
	F Female piston rod thread	–
	R3 High corrosion protection	All external cylinder surfaces comply with corrosion resistance class 3 to Festo standard 940 070. The piston rod is made from corrosion and acid-resistant steel
	T1 Heat-resistant seals	Temperature range 0 ... 120 °C
	T3 Low temperature	Temperature range –40 ... +80 °C
	T4 Heat-resistant seals	Temperature range 0 ... 150 °C (not PWIS-free)
	A3 Unlubricated operation	Cleaning processes degrease the piston rod. A special piston rod seal designed for unlubricated operation permits a longer service life compared to the standard seal
	...E Extended piston rod	–
	...L Extended male piston rod thread	–

Standard cylinder DSBC-...-C with clamping unit

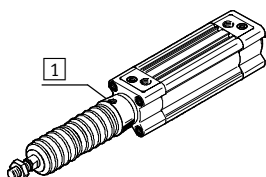


- Standard hole pattern
- Holding or clamping the piston rod in any position
- Piston rod can be held in position for long periods even with alternating loads, fluctuating operating pressure or leaks in the system

Additional measures are required for use in safety-related applications; in Europe, for example, the standards listed under the EC Machinery Directive must be observed.

Without additional measures in accordance with statutory minimum requirements, the product is not suitable for use in safety-related sections of control systems.

Longer service life with protective bellows kit DADB



The protective bellows kit is a leak-free system. To prevent unwanted media from being drawn in, the supply and exhaust air must be ducted via a venting hole in the connection part **1**.

The kit protects the piston rod, seal and bearings against a wide variety of media, for example:

- Dust
- Chippings
- Oil
- Grease
- Fuel

Standard cylinders DSBC, to ISO 15552

Type codes

DSBC		-		-	32	-	50	-		-		-	PPV	-	A	-	N3	-	T1
------	--	---	--	---	----	---	----	---	--	---	--	---	-----	---	---	---	----	---	----

Type	
Double-acting	
DSBC	Standard cylinder

Protection against rotation	
-	Without protection against rotation
Q	With protection against rotation

Running characteristics	
-	Standard
U	Uniform, slow movement

Piston Ø [mm]	

Stroke [mm]	

Clamping unit	
-	None
C	Attached

Piston rod type	
-	At one end
T	Through piston rod

Piston rod thread type	
-	Male thread
F	Female thread

Cushioning	
P	Elastic cushioning rings/pads at both ends
PPS	Pneumatic cushioning, self-adjusting at both ends
PPV	Pneumatic cushioning, adjustable at both ends

Position sensing	
A	Via proximity sensor

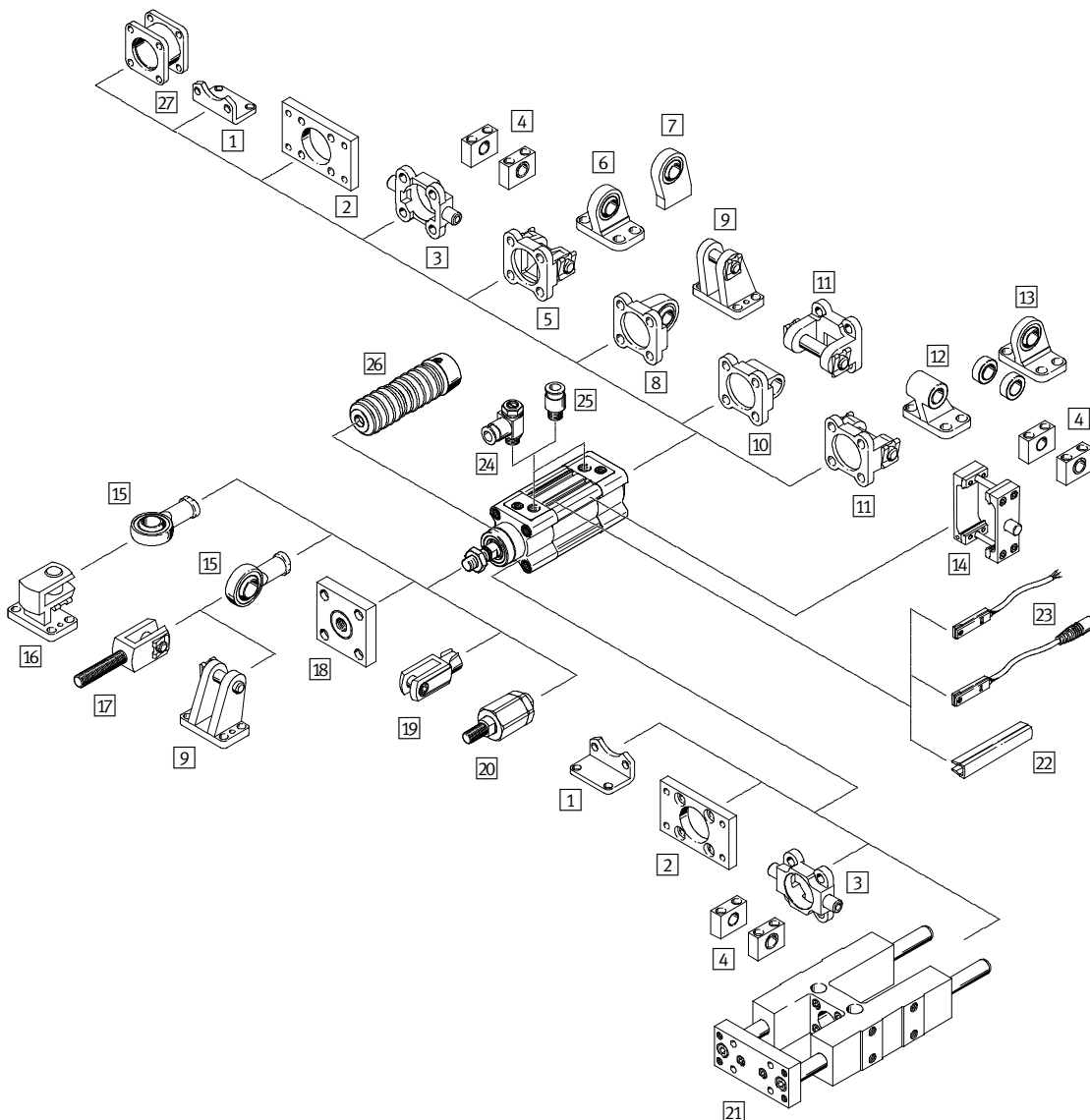
Standard	
N3	Based on ISO 15552

Variants	
R3	High corrosion protection
T1	Temperature range 0 ... +120 °C
T3	Temperature range -40 ... +80 °C
T4	Temperature range 0 ... +150 °C
A3	For unlubricated operation
...E	Piston rod extension
...L	Piston rod thread extension

Standard cylinders DSBC, to ISO 15552

Peripherals overview

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Mounting attachments and accessories					
		Brief description	DSBC-...		➔ Page/Internet
				-C	
1	Foot mounting HNC/CRHNC	For bearing or end caps	■ ¹⁾	■	20
2	Flange mounting FNC/CRFNG	– For bearing or end caps – Cannot be used on the bearing cap in combination with protective bellows kit DADB	■	■	21
3	Trunnion flange ZNCF/CRZNG	– For bearing or end caps – Cannot be used on the bearing cap in combination with protective bellows kit DADB	■	■	22
4	Trunnion support LNZG/CRLNZG	–	■	■	23
5	Swivel flange SNC	For end caps	■ ¹⁾	■ ¹⁾	24
6	Clevis foot LSNG	With spherical bearing	■ ¹⁾	■ ¹⁾	28
7	Clevis foot LSNSG	Weld-on, with spherical bearing	■ ¹⁾	■ ¹⁾	28

Standard cylinders DSBC, to ISO 15552

Peripherals overview

Mounting attachments and accessories					
		Brief description	DSBC-...		➔ Page/Internet
				-C	
8	Swivel flange SNCS	With spherical bearing for end caps	■ ¹⁾	■ ¹⁾	26
9	Clevis foot LBG	–	■ ¹⁾	■	28
10	Swivel flange SNCL	For end caps	■ ¹⁾	■ ¹⁾	26
11	Swivel flange SNCB/SNCB-....-R3	For end caps	■ ¹⁾	■ ¹⁾	25
12	Clevis foot LNG/CRLNG	–	■ ¹⁾	■ ¹⁾	28
13	Clevis foot LSN	With spherical bearing	■ ¹⁾	■ ¹⁾	28
14	Trunnion mounting kit ZNCM	For mounting anywhere along the cylinder profile barrel	■	■	27
15	Rod eye SGS/CRSGS	With spherical bearing	■	■	29
16	Right-angle clevis foot LQG	–	■	■	28
17	Rod clevis SGA	With male thread	■	■	29
18	Coupling piece KSG	To compensate for radial deviations	■	■	29
	Coupling piece KSZ	For cylinders with a non-rotating piston rod to compensate for radial deviations	■	■	29
19	Rod clevis SG/CRSG	Permits a swivelling movement of the cylinder in one plane	■	■	29
20	Self-aligning rod coupler FK	For compensating radial and angular deviations	■	■	29
21	Guide unit FENG	For protecting standard cylinders against rotation at high torque loads	■	■	35
22	Slot cover ABP-5-S	For protecting the sensor cable and keeping dirt out of the sensor slots	■	■	36
23	Proximity sensor SME/SMT-8M	Can be integrated in the cylinder profile barrel	■	■	36
24	One-way flow control valve GRLA	For regulating speed	■	■	grla
25	Push-in fitting QS	For connecting compressed air tubing with standard O.D.	■	■	quick star
26	Protective bellows kit DADB	– Protects the cylinder (piston rod, seal and bearings) against a wide range of media and thus prevents premature wear – The kit can only be used in combination with an extended piston rod (E)	■	–	30
27	Multi-position kit DPNC	For connecting two cylinders with identical piston diameters to form a multi-position cylinder	■	■	34

1) Not variant DSBC-...-T

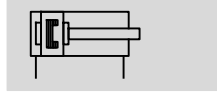
Standard cylinders DSBC, to ISO 15552

Technical data

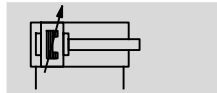
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Function

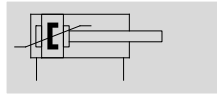
P cushioning



PPV cushioning



PPS cushioning



DIN



- Ø - Diameter
32 ... 100 mm

- | - Stroke length
1 ... 2,800 mm

- T - www.festo.com

- X - Repair service
Piston Ø 100 mm



General technical data						
Piston Ø	32	40	50	63	80	100
Pneumatic connection	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2
Stroke						
DSBC-... [mm]	1 ... 2,800					
DSBC-...-U [mm]	1 ... 500					
DSBC-...-...E [mm]	1 ... 2,000					
DSBC-...-...L [mm]	1 ... 2,000					
Min. stroke with position sensing						
DSBC-... [mm]	2	2	2	3	3	3
DSBC-...-T3 [mm]	3	4	3	4	4	4
Design	Piston					
	Piston rod					
	Cylinder barrel					
Mode of operation	Double-acting					
Cushioning						
DSBC-...-P	Elastic cushioning rings/pads at both ends					
DSBC-...-PPV	Pneumatic cushioning, adjustable at both ends					
DSBC-...-PPS	Pneumatic cushioning, self-adjusting at both ends					
Cushioning length [mm]	20	20	22	22	32	32
Position sensing	Via proximity sensor					
Type of mounting	Via female thread					
	Via accessories					
Mounting position	Any					
Clamping type with effective direction						
DSBC-...-C	At both ends					
Max. axial backlash with clamped piston rod without load						
DSBC-...-C [mm]	0.5	0.5	0.7	0.7	0.7	0.7

Standard cylinders DSBC, to ISO 15552

Technical data

Forces [N] and impact energy [J]						
Piston Ø	32	40	50	63	80	100
Theoretical force at 6 bar, advancing	483	754	1,178	1,870	3,016	4,712
Theoretical force at 6 bar, retracting	415	633	990	1,682	2,721	4,418
Max. impact energy in the end positions						
DSBC-...	0.4	0.7	1.0	1.3	1.8	2.5
DSBC-...-T1/-T3	0.2	0.35	0.5	0.65	0.9	1.25
Static holding force						
DSBC-...-C	600	1,000	1,400	2,000	5,000	5,000

Permissible impact velocity:

$$v_{zul.} = \sqrt{\frac{2 \times E_{zul.}}{m_{Eigen} + m_{Last}}}$$

 $v_{perm.}$ Permissible impact velocity

 $E_{perm.}$ Maximum impact energy

 $m_{Intrinsic}$ Moving load (drive)

 m_{Load} Moving effective load

Maximum permissible load:

$$m_{Last} = \frac{2 \times E_{zul.}}{v^2} - m_{Eigen}$$


Note

The specified holding force refers to a static load. If this value is exceeded, slippage may occur. Dynamic forces occurring during operation must not

exceed the static holding force. The clamping unit is not backlash-free in the clamped condition if varying loads are applied to the piston rod.

Actuation:

The clamping unit may only be released if the forces at the piston have reached equilibrium. Otherwise, there is a risk of accidents due to sudden

movement of the piston rod. Blocking off the air supply at both ends (e.g. with a 5/3-way valve) does not provide any safety.

Operating and environmental conditions						
Piston Ø	32	40	50	63	80	100
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:4:4]					
Note on operating/pilot medium	Operation with lubricated medium possible (in which case lubricated operation will always be required)					
Operating pressure						
DSBC-... [bar]	0.6 ... 12					
DSBC-...-T3 [bar]	1 ... 12					
DSBC-...-A3 [bar]	1.5 ... 12		1 ... 12		0.6 ... 12	
Min. release pressure						
DSBC-...-C [bar]	3					
Ambient temperature						
DSBC-... [°C]	−20 ... +80					
DSBC-...-C [°C]	−10 ... +80					
DSBC-...-T1 [°C]	0 ... +120					
DSBC-...-T3 [°C]	−40 ... +80					
DSBC-...-T4 [°C]	0 ... +150					
Corrosion resistance class CRC						
DSBC-...	2 ¹⁾					
DSBC-...-R3	3 ²⁾					

- Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
- Corrosion resistance class 3 according to Festo standard 940 070
Components subject to high corrosion stress. External visible parts in direct contact with industrial atmospheres or media such as solvents and cleaning agents, with a predominantly functional requirement for the surface.

Standard cylinders DSBC, to ISO 15552

Technical data

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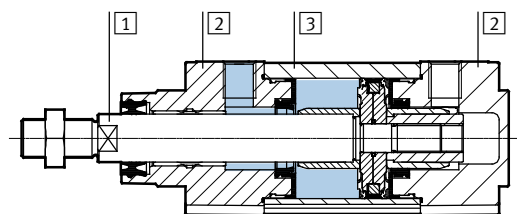
Weight [g]						
Piston Ø	32	40	50	63	80	100
Basic design, variant T1, T3, T4, A3, U						
Product weight with 0 mm stroke	465	740	1,190	1,740	2,660	3,665
Additional weight per 10 mm stroke	27	37	56	62	92	101
Moving load with 0 mm stroke	110	205	365	430	810	1,000
Moving load per 10 mm stroke	9	16	25	25	39	39
Variant Q						
Product weight with 0 mm stroke	503	755	1,241	1,821	2,717	3,827
Additional weight per 10 mm stroke	25	30	51	57	87	95
Moving load with 0 mm stroke	115	170	332	391	757	890
Moving load per 10 mm stroke	8	11	20	20	31	31
Variant T (through piston rod)						
Product weight with 0 mm stroke	581	924	1,523	2,103	3,243	4,353
Additional weight per 10 mm stroke	34	50	81	86	133	141
Moving load with 0 mm stroke	181	339	613	684	1,292	1,516
Moving load per 10 mm stroke	18	32	50	50	78	78

Standard cylinders DSBC, to ISO 15552

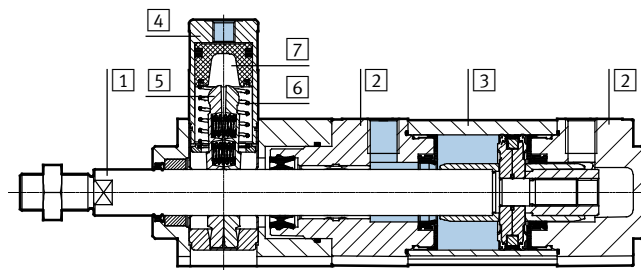
Technical data

Materials

Sectional view – Basic design



Sectional view – With clamping unit



Standard cylinder		
1	Piston rod	High-alloy stainless steel
2	End cap	Coated die-cast aluminium
3	Cylinder barrel	Anodised wrought aluminium alloy
4	Housing, clamping unit	Anodised wrought aluminium alloy
5	Clamping jaw	Brass
6	Spring	Spring steel
7	Piston	Polyacetal
– Piston seal		
	DSBC-...	Polyurethane
	DSBC-...-T1/-T4	Fluoro elastomer
	DSBC-...-T3	Low-temperature polyurethane
Cushioning seal		
	DSBC-...	Polyurethane
	DSBC-...-T1/-T4	Fluoro elastomer
	DSBC-...-T3	Low-temperature polyurethane
Cushioning buffer		
	DSBC-...	Polyacetal
	DSBC-...-T1/-T3/-T4	Aluminium
Note on materials		
	DSBC-...	RoHS-compliant
	DSBC-...-U/-T3/-T4/-A3	Contains PWIS (paint-wetting impairment substances)

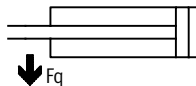
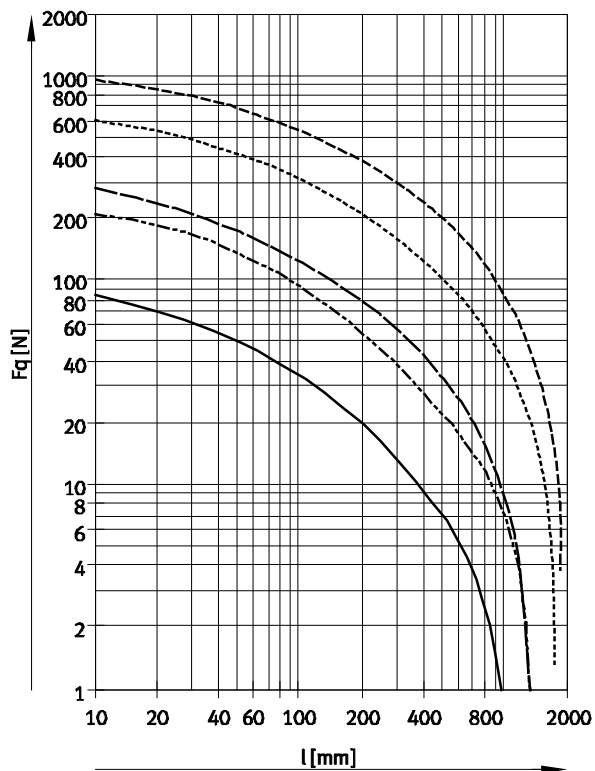
Standard cylinders DSBC, to ISO 15552

Technical data

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Max. lateral force F_q as a function of stroke length l

Basic design



— $\varnothing 32$ — $\varnothing 50, 63$
 - - - $\varnothing 40$ - - - $\varnothing 80, 100$

Permissible torsional backlash with variant Q – With protection against rotation						
Piston $\varnothing$	32	40	50	63	80	100
Torsional backlash [°]	±0.65	±0.6	±0.45	±0.45	±0.45	±0.45

Standard cylinders DSBC, to ISO 15552

Technical data

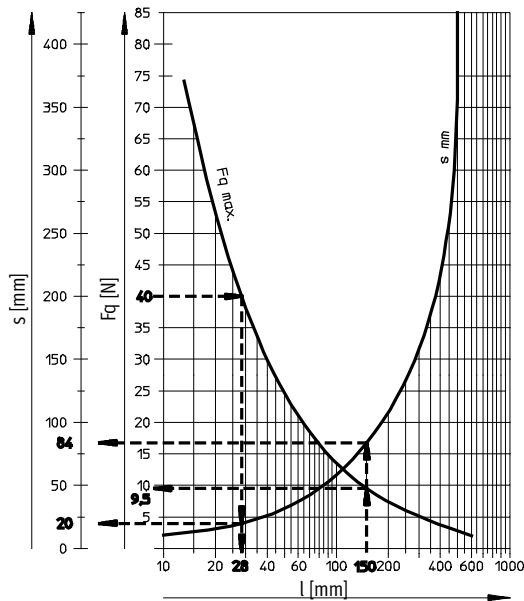
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Max. lateral force F_q as a function of stroke length l and lever arm s

Q – With protection against rotation

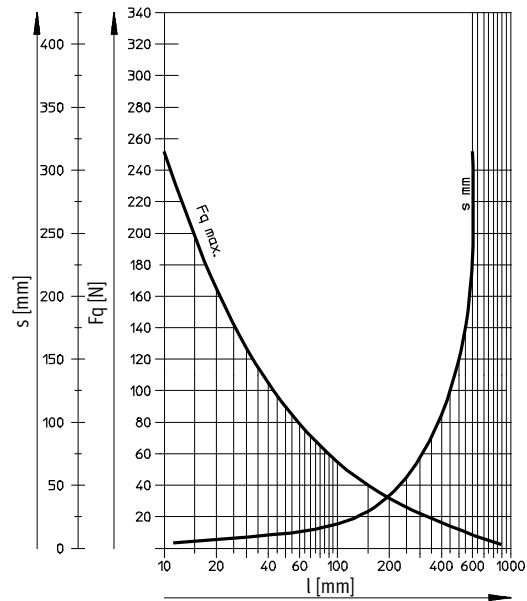
Ø 32

Max. torque = 800 Nmm/max. stroke = 300 mm



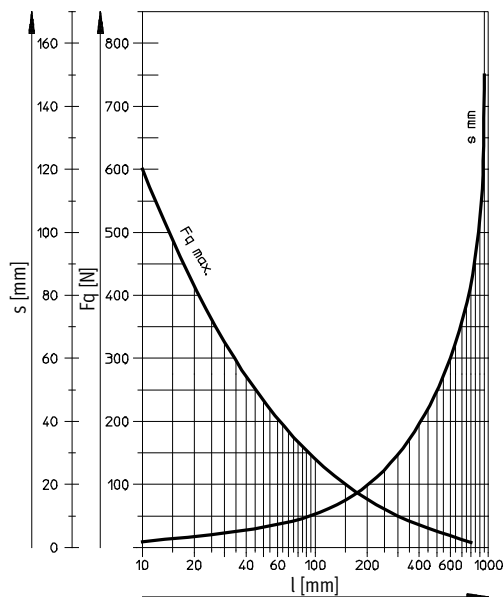
Ø 40

Max. torque = 1,100 Nmm/max. stroke = 400 mm



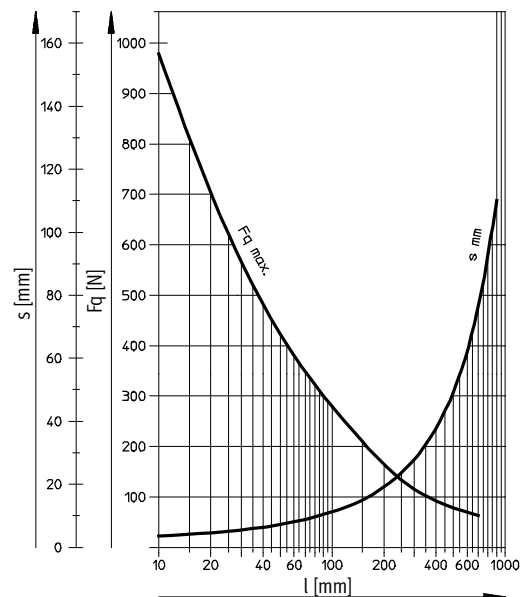
Ø 50/63

Max. torque = 1,500 Nmm/max. stroke = 500 mm



Ø 80/100

Max. torque = 3,000 Nmm/max. stroke = 600 mm



Examples for piston Ø 32 mm

Example 1:

Stroke length l = 150 mm

Result: Permissible

lateral force F_q = 9.5 N

Lever arm s = 84 mm

Example 2:

Lateral force F_q = 40 N

Result: Permissible

stroke length l = 28 mm

Lever arm s = 20 mm

Example 3:

Stroke length l = 150 mm

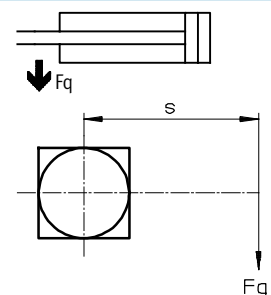
Lever arm s = 100 mm

$F_q = \frac{\text{Max. torque } 800 \text{ Nmm}}{\text{Lever arm } 100 \text{ mm}}$

= 8 N

Result: Permissible

$F_q = 8 \text{ N} < F_{q\text{max.}} = 9.5 \text{ N}$



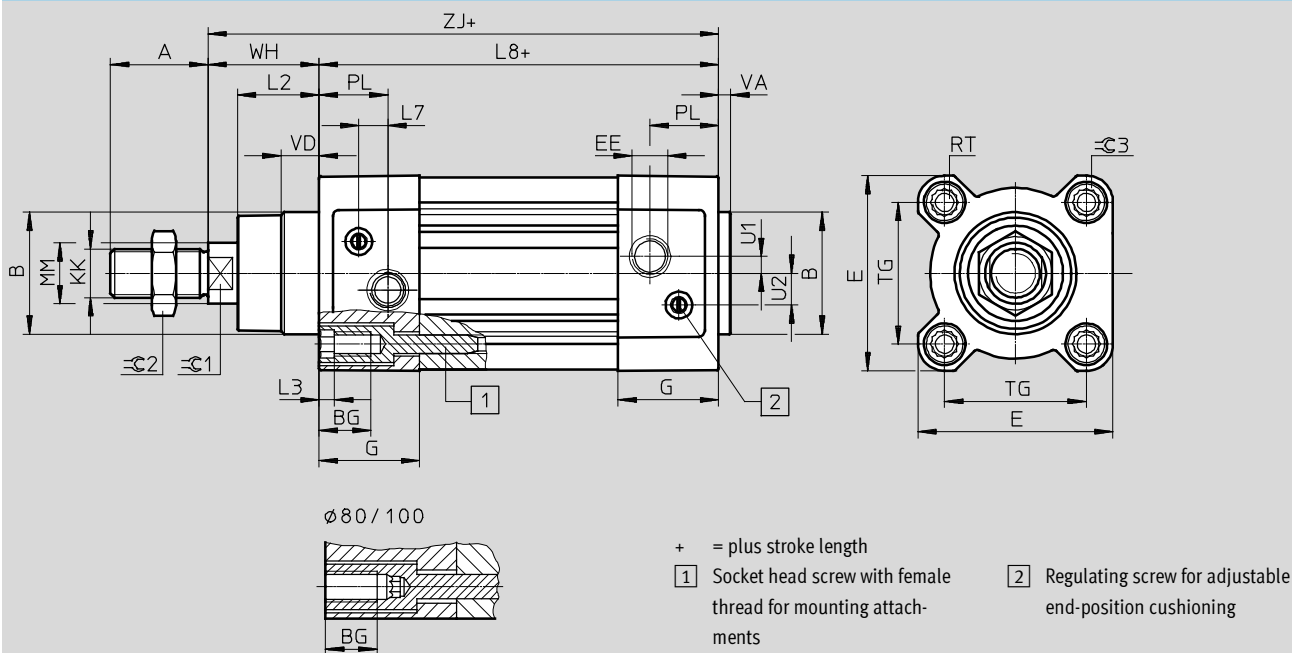
Standard cylinders DSBC, to ISO 15552

Technical data

FESTO

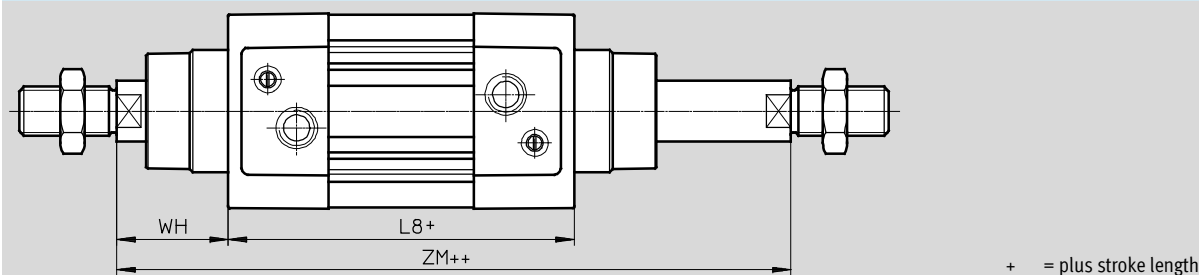
Dimensions

Download CAD data → www.festo.com



Variant

T – Through piston rod



Ø	A	B	BG	E	EE	G	U2	U1	KK	L2	L3	L7	L8
[mm]	-0.5	Ø d11	min.	+0.5		-0.2	±0.1	±0.1		-0.2	max.		±0.4
32	22	30	16	45	G1/8	28	5.7	5.25	M10x1.25	18	5	6.5	94
40	24	35	16	54	G1/4	33	8	4	M12x1.25	21.3	5	7.5	105
50	32	40	17	64	G1/4	33	10.4	5.5	M16x1.5	26.8	5	9.5	106
63	32	45	17	75	G3/8	40.5	12.75	6.25	M16x1.5	27	5	9	121
80	40	45	17	93	G3/8	43	12.5	8	M20x1.5	34.2	–	11	128
100	40	55	17	110	G1/2	48	13.5	10	M20x1.5	38	–	7.5	138

Ø	MM	PL	RT	TG	VA	VD	WH	ZJ	ZM	1	2	3
[mm]	Ø	±0.1		±0.3	-0.2	+0.5	+2.2	+1.8	+1			
32	12	19.5	M6	32.5	4	10	26	119.1	146.1	10	16	6
40	16	22.5	M6	38	4	10.5	28.7	133.9	164.8	13	18	6
50	20	22.5	M8	46.5	4	11.5	35.6	141.8	179.8	17	24	8
63	20	27.5	M8	56.5	4	15	35.9	157.1	195.4	17	24	8
80	25	30	M10	72	4	15.7	45.4	173.6	221	22	30	6
100	25	31.5	M10	89	4	19.2	49.3	187.5	238.8	22	30	6

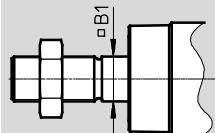
Standard cylinders DSBC, to ISO 15552

Technical data

Dimensions – Variants

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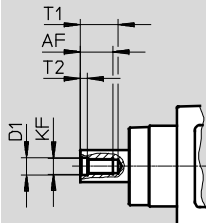
Q – With protection against rotation



Note

In combination with variant T, the piston rod is protected against rotation at one end.

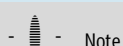
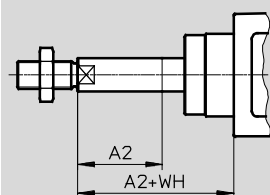
F – Female thread



Note

In combination with variant T, the piston rod has female threads at both ends.

...E – Piston rod extension

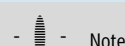
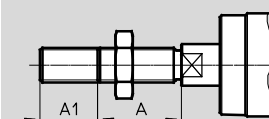


Note

In combination with variant T, the piston rod is extended at one end.

+ = plus stroke length

...L – Piston rod thread extension



Note

In combination with variant T, the piston rod thread is extended at both ends.

Ø [mm]	A	A1		A2		AF min.
		min.	max.	min.	max.	
32	22	1	35	1	500	12
40	24	1	35	1	500	12
50	32	1	70	1	500	16
63	32	1	70	1	500	16
80	40	1	70	1	500	20
100	40	1	70	1	500	20

Ø [mm]	B1	D1	KF	T1 max.	T2	WH
32	10	6.4	M6	16	2.6	26
40	12	8.4	M8	16	3.3	28.7
50	16	10.5	M10	21	4.7	35.6
63	16	10.5	M10	21	4.7	35.9
80	20	13	M12	26.5	6.1	45.4
100	20	13	M12	26.5	6.1	49.3

Standard cylinders DSBC, to ISO 15552

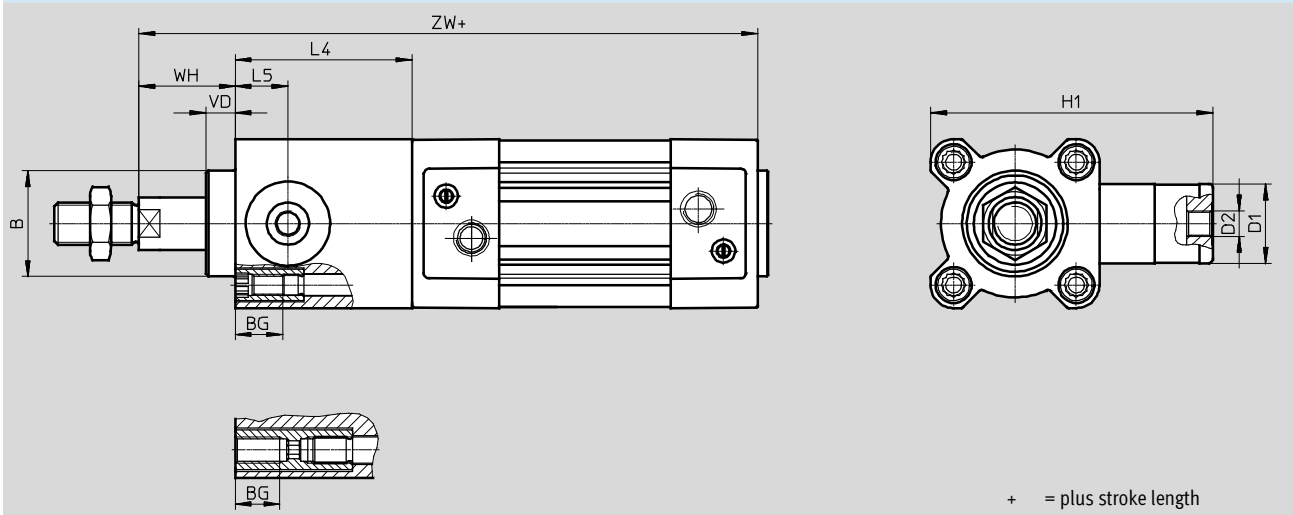
Technical data

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Dimensions – Variants

Download CAD data → www.festo.com

C – Clamping unit



Ø	B	BG	D1	D2	H1	L4	L5	VD	WH	ZW
[mm]	Ø					±0.2				±1.8
32	30	16	20	M5	67	45	14	11.5	26	164.1
40	35	16	24	G $\frac{1}{8}$	88	53	16	11.5	30	186.9
50	40	16	30	G $\frac{1}{8}$	107	67	20	11	37	208.8
63	45	16	38	G $\frac{1}{8}$	123	76	24	11	37	233.1
80	45	17	48	G $\frac{1}{8}$	165	95	31.5	12.5	46	268.6
100	55	17	48	G $\frac{1}{8}$	174	98	31	12	51	285.7

Standard cylinders DSBC, to ISO 15552

Technical data

Ordering data – Standard design					
Piston Ø [mm]	Stroke [mm]	With PPV cushioning		With PPS cushioning	
		Part No.	Type	Part No.	Type
32	20	2123069	DSBC-32-20-PPVA-N3	2123085	DSBC-32-20-PPSA-N3
	25	1376422	DSBC-32-25-PPVA-N3	1376467	DSBC-32-25-PPSA-N3
	30	2123070	DSBC-32-30-PPVA-N3	2123086	DSBC-32-30-PPSA-N3
	40	1376423	DSBC-32-40-PPVA-N3	1376468	DSBC-32-40-PPSA-N3
	50	1376424	DSBC-32-50-PPVA-N3	1376469	DSBC-32-50-PPSA-N3
	60	2123071	DSBC-32-60-PPVA-N3	2123087	DSBC-32-60-PPSA-N3
	70	2123072	DSBC-32-70-PPVA-N3	2123088	DSBC-32-70-PPSA-N3
	80	1376425	DSBC-32-80-PPVA-N3	1376470	DSBC-32-80-PPSA-N3
	100	1376426	DSBC-32-100-PPVA-N3	1376471	DSBC-32-100-PPSA-N3
	125	1376427	DSBC-32-125-PPVA-N3	1376472	DSBC-32-125-PPSA-N3
	150	2123073	DSBC-32-150-PPVA-N3	2123089	DSBC-32-150-PPSA-N3
	160	1376428	DSBC-32-160-PPVA-N3	1376473	DSBC-32-160-PPSA-N3
	200	1376429	DSBC-32-200-PPVA-N3	1376474	DSBC-32-200-PPSA-N3
	250	1376430	DSBC-32-250-PPVA-N3	1376475	DSBC-32-250-PPSA-N3
	300	2123074	DSBC-32-300-PPVA-N3	2123090	DSBC-32-300-PPSA-N3
	320	1376431	DSBC-32-320-PPVA-N3	1376476	DSBC-32-320-PPSA-N3
	400	1376432	DSBC-32-400-PPVA-N3	1376477	DSBC-32-400-PPSA-N3
	500	1376433	DSBC-32-500-PPVA-N3	1376478	DSBC-32-500-PPSA-N3
	1 ... 2,800	1463254	DSBC-32-...-PPVA-N3	1463252	DSBC-32-...-PPSA-N3
40	20	2123166	DSBC-40-20-PPVA-N3	2123780	DSBC-40-20-PPSA-N3
	25	1376656	DSBC-40-25-PPVA-N3	1376903	DSBC-40-25-PPSA-N3
	30	2123167	DSBC-40-30-PPVA-N3	2123781	DSBC-40-30-PPSA-N3
	40	1376657	DSBC-40-40-PPVA-N3	1376904	DSBC-40-40-PPSA-N3
	50	1376658	DSBC-40-50-PPVA-N3	1376905	DSBC-40-50-PPSA-N3
	60	2123224	DSBC-40-60-PPVA-N3	2123782	DSBC-40-60-PPSA-N3
	70	2123225	DSBC-40-70-PPVA-N3	2123783	DSBC-40-70-PPSA-N3
	80	1376659	DSBC-40-80-PPVA-N3	1376906	DSBC-40-80-PPSA-N3
	100	1376660	DSBC-40-100-PPVA-N3	1376907	DSBC-40-100-PPSA-N3
	125	1376661	DSBC-40-125-PPVA-N3	1376908	DSBC-40-125-PPSA-N3
	150	2123226	DSBC-40-150-PPVA-N3	2123784	DSBC-40-150-PPSA-N3
	160	1376662	DSBC-40-160-PPVA-N3	1376909	DSBC-40-160-PPSA-N3
	200	1376663	DSBC-40-200-PPVA-N3	1376910	DSBC-40-200-PPSA-N3
	250	1376664	DSBC-40-250-PPVA-N3	1376911	DSBC-40-250-PPSA-N3
	300	2123227	DSBC-40-300-PPVA-N3	2123785	DSBC-40-300-PPSA-N3
	320	1376665	DSBC-40-320-PPVA-N3	1376912	DSBC-40-320-PPSA-N3
	400	1376666	DSBC-40-400-PPVA-N3	1376913	DSBC-40-400-PPSA-N3
	500	1376667	DSBC-40-500-PPVA-N3	1376914	DSBC-40-500-PPSA-N3
	1 ... 2,800	1462834	DSBC-40-...-PPVA-N3	1462835	DSBC-40-...-PPSA-N3



Note

Other variants in the modular product system → 18

Standard cylinders DSBC, to ISO 15552

Technical data

FESTO

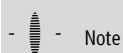
Ordering data – Standard design					
Piston Ø [mm]	Stroke [mm]	With PPV cushioning		With PPS cushioning	
		Part No.	Type	Part No.	Type
50	20	2098969	DSBC-50-20-PPVA-N3	2102628	DSBC-50-20-PPSA-N3
	25	1366948	DSBC-50-25-PPVA-N3	1376301	DSBC-50-25-PPSA-N3
	30	2098970	DSBC-50-30-PPVA-N3	2102629	DSBC-50-30-PPSA-N3
	40	1366949	DSBC-50-40-PPVA-N3	1376304	DSBC-50-40-PPSA-N3
	50	1366950	DSBC-50-50-PPVA-N3	1376305	DSBC-50-50-PPSA-N3
	60	2098972	DSBC-50-60-PPVA-N3	2102630	DSBC-50-60-PPSA-N3
	70	2098973	DSBC-50-70-PPVA-N3	2102631	DSBC-50-70-PPSA-N3
	80	1366951	DSBC-50-80-PPVA-N3	1376306	DSBC-50-80-PPSA-N3
	100	1366952	DSBC-50-100-PPVA-N3	1376307	DSBC-50-100-PPSA-N3
	125	1366953	DSBC-50-125-PPVA-N3	1376308	DSBC-50-125-PPSA-N3
	150	2098974	DSBC-50-150-PPVA-N3	2102632	DSBC-50-150-PPSA-N3
	160	1366954	DSBC-50-160-PPVA-N3	1376309	DSBC-50-160-PPSA-N3
	200	1366955	DSBC-50-200-PPVA-N3	1376310	DSBC-50-200-PPSA-N3
	250	1366956	DSBC-50-250-PPVA-N3	1376311	DSBC-50-250-PPSA-N3
	300	2098975	DSBC-50-300-PPVA-N3	2102633	DSBC-50-300-PPSA-N3
	320	1366957	DSBC-50-320-PPVA-N3	1376312	DSBC-50-320-PPSA-N3
	400	1366958	DSBC-50-400-PPVA-N3	1376313	DSBC-50-400-PPSA-N3
	500	1366959	DSBC-50-500-PPVA-N3	1376314	DSBC-50-500-PPSA-N3
	1 ... 2,800	1463766	DSBC-50-...-PPVA-N3	1463768	DSBC-50-...-PPSA-N3
63	20	2125490	DSBC-63-20-PPVA-N3	2126684	DSBC-63-20-PPSA-N3
	25	1383578	DSBC-63-25-PPVA-N3	1383632	DSBC-63-25-PPSA-N3
	30	2125491	DSBC-63-30-PPVA-N3	2126685	DSBC-63-30-PPSA-N3
	40	1383579	DSBC-63-40-PPVA-N3	1383633	DSBC-63-40-PPSA-N3
	50	1383580	DSBC-63-50-PPVA-N3	1383634	DSBC-63-50-PPSA-N3
	60	2125492	DSBC-63-60-PPVA-N3	2126686	DSBC-63-60-PPSA-N3
	70	2125493	DSBC-63-70-PPVA-N3	2126687	DSBC-63-70-PPSA-N3
	80	1383581	DSBC-63-80-PPVA-N3	1383635	DSBC-63-80-PPSA-N3
	100	1383582	DSBC-63-100-PPVA-N3	1383636	DSBC-63-100-PPSA-N3
	125	1383583	DSBC-63-125-PPVA-N3	1383637	DSBC-63-125-PPSA-N3
	150	2125494	DSBC-63-150-PPVA-N3	2126688	DSBC-63-150-PPSA-N3
	160	1383584	DSBC-63-160-PPVA-N3	1383638	DSBC-63-160-PPSA-N3
	200	1383585	DSBC-63-200-PPVA-N3	1383639	DSBC-63-200-PPSA-N3
	250	1383586	DSBC-63-250-PPVA-N3	1383640	DSBC-63-250-PPSA-N3
	300	2125495	DSBC-63-300-PPVA-N3	2126689	DSBC-63-300-PPSA-N3
	320	1383587	DSBC-63-320-PPVA-N3	1383641	DSBC-63-320-PPSA-N3
	400	1383588	DSBC-63-400-PPVA-N3	1383642	DSBC-63-400-PPSA-N3
	500	1383589	DSBC-63-500-PPVA-N3	1383643	DSBC-63-500-PPSA-N3
	1 ... 2,800	1463483	DSBC-63-...-PPVA-N3	1463481	DSBC-63-...-PPSA-N3

 **Note**
Other variants in the modular product system → 18

Standard cylinders DSBC, to ISO 15552

Technical data

Ordering data – Standard design					
Piston Ø [mm]	Stroke [mm]	With PPV cushioning		With PPS cushioning	
		Part No.	Type	Part No.	Type
80	20	2126594	DSBC-80-20-PPVA-N3	2126636	DSBC-80-20-PPSA-N3
	25	1383333	DSBC-80-25-PPVA-N3	1383366	DSBC-80-25-PPSA-N3
	30	2126595	DSBC-80-30-PPVA-N3	2126637	DSBC-80-30-PPSA-N3
	40	1383334	DSBC-80-40-PPVA-N3	1383367	DSBC-80-40-PPSA-N3
	50	1383335	DSBC-80-50-PPVA-N3	1383368	DSBC-80-50-PPSA-N3
	60	2126597	DSBC-80-60-PPVA-N3	2126638	DSBC-80-60-PPSA-N3
	70	2126598	DSBC-80-70-PPVA-N3	2126639	DSBC-80-70-PPSA-N3
	80	1383336	DSBC-80-80-PPVA-N3	1383369	DSBC-80-80-PPSA-N3
	100	1383337	DSBC-80-100-PPVA-N3	1383370	DSBC-80-100-PPSA-N3
	125	1383338	DSBC-80-125-PPVA-N3	1383371	DSBC-80-125-PPSA-N3
	150	2126599	DSBC-80-150-PPVA-N3	2126640	DSBC-80-150-PPSA-N3
	160	1383339	DSBC-80-160-PPVA-N3	1383372	DSBC-80-160-PPSA-N3
	200	1383340	DSBC-80-200-PPVA-N3	1383373	DSBC-80-200-PPSA-N3
	250	1383341	DSBC-80-250-PPVA-N3	1383374	DSBC-80-250-PPSA-N3
	300	2126600	DSBC-80-300-PPVA-N3	2126641	DSBC-80-300-PPSA-N3
	320	1383342	DSBC-80-320-PPVA-N3	1383375	DSBC-80-320-PPSA-N3
	400	1383343	DSBC-80-400-PPVA-N3	1383376	DSBC-80-400-PPSA-N3
	500	1383344	DSBC-80-500-PPVA-N3	1383377	DSBC-80-500-PPSA-N3
	1 ... 2,800	1463504	DSBC-80-...-PPVA-N3	1463500	DSBC-80-...-PPSA-N3
100	25	1384804	DSBC-100-25-PPVA-N3	1384890	DSBC-100-25-PPSA-N3
	40	1384805	DSBC-100-40-PPVA-N3	1384891	DSBC-100-40-PPSA-N3
	50	1384806	DSBC-100-50-PPVA-N3	1384892	DSBC-100-50-PPSA-N3
	80	1384807	DSBC-100-80-PPVA-N3	1384893	DSBC-100-80-PPSA-N3
	100	1384808	DSBC-100-100-PPVA-N3	1384894	DSBC-100-100-PPSA-N3
	125	1384809	DSBC-100-125-PPVA-N3	1384895	DSBC-100-125-PPSA-N3
	160	1384810	DSBC-100-160-PPVA-N3	1384896	DSBC-100-160-PPSA-N3
	200	1384811	DSBC-100-200-PPVA-N3	1384897	DSBC-100-200-PPSA-N3
	250	1384812	DSBC-100-250-PPVA-N3	1384898	DSBC-100-250-PPSA-N3
	320	1384813	DSBC-100-320-PPVA-N3	1384899	DSBC-100-320-PPSA-N3
	400	1384814	DSBC-100-400-PPVA-N3	1384900	DSBC-100-400-PPSA-N3
	500	1384815	DSBC-100-500-PPVA-N3	1384901	DSBC-100-500-PPSA-N3
	1 ... 2,800	1463598	DSBC-100-...-PPVA-N3	1463558	DSBC-100-...-PPSA-N3



Note

Other variants in the modular product system → 18

Standard cylinders DSBC, to ISO 15552

Ordering data – Modular products

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Ordering table										
Size	32	40	50	63	80	100	Conditions	Code		Enter code
M Module No.	1463250	1461995	1463770	1463475	1463495	1463520				
Function	Standard cylinder, double-acting, based on ISO 15552							DSBC		DSBC
O Protection against rotation	None									
	With protection against rotation						1	-Q		
Running characteristics	Standard									
	Uniform, slow movement						2	U		
M Piston Ø [mm]	32	40	50	63	80	100		-...		
Stroke [mm]	1 ... 2,800							-...		
O Clamping unit	None									
	Attached						3	-C		
Piston rod type	At one end									
	Through piston rod							-T		
Piston rod thread type	Male thread									
	Female thread						4	F		
M Cushioning	Elastic cushioning rings/pads at both ends							-P		
	Pneumatic cushioning, self-adjusting at both ends						5	-PPS		
	Pneumatic cushioning, adjustable at both ends							-PPV		
↓ Position sensing	Via proximity sensor							A		

- 1** **Q** Not with U, T3, T4, A3
2 **U** Not with C, PPS, T1, T3, T4, A3
3 **C** Only with strokes from 10 ... 2,000 mm
4 **F** Not with ...L
5 **PPS** Not with T1, T3, T4

Transfer order code

DSBC - - - - - - - - - -

Standard cylinders DSBC, to ISO 15552

FESTO

Ordering data – Modular products

Ordering table									
Size	32	40	50	63	80	100	Conditions	Code	Enter code
Standard 0 Corrosion protection Temperature range Wiper seal variant Piston rod extension Piston rod thread extension	Not in accordance with standard								
	Based on ISO 15552							-N3	
	Standard								
	High corrosion protection							R3	
	Standard								
	Heat-resistant seals up to max. 120							T1	
	-40 ... +80							T3	
	0 ... +150							T4	
	None								
	For unlubricated operation						6	A3	
	None								
	1 ... 500						7	-...E	
	None								
	1 ... 35		1 ... 70					7	-...L

6 **A3** Not with T1, T3, T4

7 **-...E, -...L** Only up to strokes of 2,000 mm

Transfer order code

- - - - - -

Standard cylinders DSBC, to ISO 15552

Accessories

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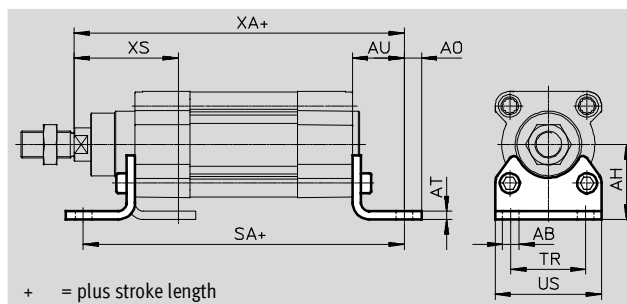
Foot mounting HNC/CRHNC

Material:

HNC: Galvanised steel

CRHNC: High-alloy steel

Free of copper, PTFE and silicone



Dimensions and ordering data										
For Ø	OB Ø	AH	AO	AT	AU	SA	TR	US	XA	XS
[mm]										
32	7	32	6.5	4	24	142	32	45	143.1	46
40	10	36	9	4	28	161	36	54	161.9	52.7
50	10	45	9.5	5	32	170	45	64	173.8	62.6
63	10	50	12.5	5	32	185	50	75	189.1	62.9
80	12	63	15	6	41	210	63	93	214.6	80.4
100	14.5	71	17.5	6	41	220	75	110	228.5	84.3

For Ø [mm]	Basic design				High corrosion protection			
	CRC ¹⁾	Weight [g]	Part No.	Type	CRC ¹⁾	Weight [g]	Part No.	Type
32	2	144	174369	HNC-32	4	139	176937	CRHNC-32
40	2	193	174370	HNC-40	4	188	176938	CRHNC-40
50	2	353	174371	HNC-50	4	341	176939	CRHNC-50
63	2	436	174372	HNC-63	4	424	176940	CRHNC-63
80	2	829	174373	HNC-80	4	809	176941	CRHNC-80
100	2	1,009	174374	HNC-100	4	990	176942	CRHNC-100

1) Corrosion resistance class 2 according to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Corrosion resistance class 4 according to Festo standard 940 070

Components subject to very high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

Standard cylinders DSBC, to ISO 15552

Accessories

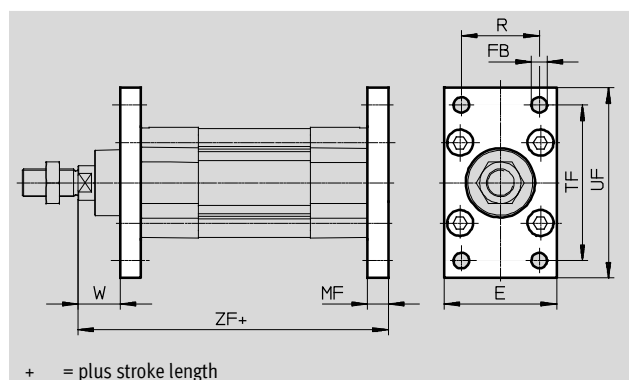
Flange mounting FNC/CRFNG

Material:

FNC: Galvanised steel

CRFNG: High-alloy steel

Free of copper, PTFE and silicone



Dimensions and ordering data								
For Ø	E	FB	MF	R	TF	UF	W	ZF
[mm]		Ø H13						
32	45	7	10	32	64	80	16	129.1
40	54	9	10	36	72	90	18.7	143.9
50	65	9	12	45	90	110	23.6	153.8
63	75	9	12	50	100	120	23.9	169.1
80	93	12	16	63	126	150	29.4	189.6
100	110	14	16	75	150	175	33.3	203.5

For Ø	Basic design				High corrosion protection			
	CRC ¹⁾	Weight	Part No.	Type	CRC ¹⁾	Weight	Part No.	Type
[mm]		[g]				[g]		
32	1	221	174376	FNC-32	4	225	161846	CRFNG-32
40	1	291	174377	FNC-40	4	300	161847	CRFNG-40
50	1	536	174378	FNC-50	4	540	161848	CRFNG-50
63	1	679	174379	FNC-63	4	680	161849	CRFNG-63
80	1	1,495	174380	FNC-80	4	1,500	161850	CRFNG-80
100	1	2,041	174381	FNC-100	4	2,100	161851	CRFNG-100

1) Corrosion resistance class 1 according to Festo standard 940 070

Components subject to low corrosion stress. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.

Corrosion resistance class 4 according to Festo standard 940 070

Components subject to very high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

Standard cylinders DSBC, to ISO 15552

Accessories

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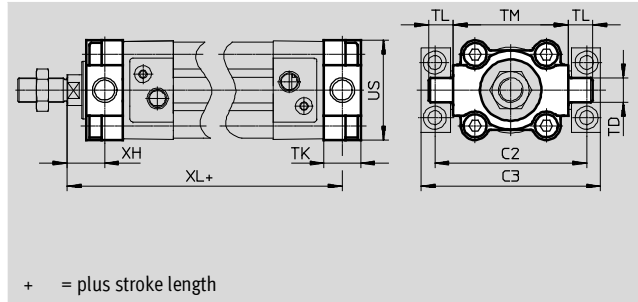
Trunnion flange ZNCF/CRZNG

Material:

ZNCF: Stainless steel casting

CRZNG: Electropolished stainless steel casting

Free of copper, PTFE and silicone



Dimensions and ordering data									
For Ø	C2	C3	TD Ø e9	TK max.	TL	TM h14	US	XH	XL
[mm]									
32	71	86	12	16	12	50	50	18	127.1
40	87	105	16	20	16	63	55	18.7	143.9
50	99	117	16	24	16	75	65	23.6	153.8
63	116	136	20	24	20	90	75	23.9	169.1
80	136	156	20	28	20	110	100	31.4	187.6
100	164	189	25	38	25	132	120	30.3	206.5

For Ø [mm]	Basic design				High corrosion protection			
	CRC ¹⁾	Weight [g]	Part No.	Type	CRC ¹⁾	Weight [g]	Part No.	Type
32	2	150	174411	ZNCF-32	4	150	161852	CRZNG-32
40	2	285	174412	ZNCF-40	4	285	161853	CRZNG-40
50	2	473	174413	ZNCF-50	4	473	161854	CRZNG-50
63	2	687	174414	ZNCF-63	4	687	161855	CRZNG-63
80	2	1,296	174415	ZNCF-80	4	1,296	161856	CRZNG-80
100	2	2,254	174416	ZNCF-100	4	2,254	161857	CRZNG-100

1) Corrosion resistance class 2 according to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Corrosion resistance class 4 according to Festo standard 940 070

Components subject to very high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

Standard cylinders DSBC, to ISO 15552

Accessories

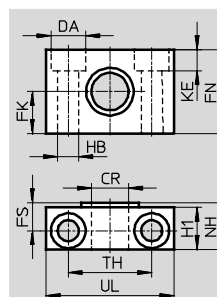
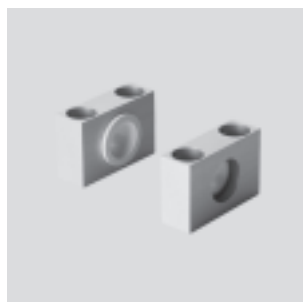
Trunnion support LNZG

Material:

Trunnion support: Anodised aluminium

Plain bearing: Plastic

Free of copper, PTFE and silicone



Dimensions and ordering data															
For Ø	CR	DA	FK	FN	FS	H1	HB	KE	NH	TH	UL	CRC ¹⁾	Weight	Part No.	Type
[mm]	Ø D11	Ø H13	Ø ±0.1				Ø H13			±0.2			[g]		
32	12	11	15	30	10.5	15	6.6	6.8	18	32	46	2	83	32959	LNZG-32
40, 50	16	15	18	36	12	18	9	9	21	36	55	2	129	32960	LNZG-40/50
63, 80	20	18	20	40	13	20	11	11	23	42	65	2	178	32961	LNZG-63/80
100	25	20	25	50	16	24.5	14	13	28.5	50	75	2	306	32962	LNZG-100/125

1) Corrosion resistance class 2 according to Festo standard 940 070

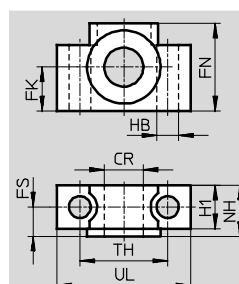
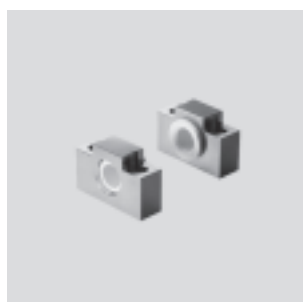
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Trunnion support CRLNZG

Material:

High-alloy steel

Free of copper, PTFE and silicone



Dimensions and ordering data													
For Ø	CR	FK	FN	FS	H1	HB	NH	TH	UL	CRC ¹⁾	Weight	Part No.	Type
[mm]	Ø D11	Ø ±0.1				Ø H13		±0.2			[g]		
32	12	15	30	10.5	15	6.6	18	32	46	4	205	161874	CRLNZG-32
40, 50	16	18	36	12	18	9	21	36	55	4	323	161875	CRLNZG-40/50
63, 80	20	20	40	13	20	11	23	42	65	4	435	161876	CRLNZG-63/80
100	25	25	50	16	24.5	14	28.5	50	75	4	739	161877	CRLNZG-100/125

1) Corrosion resistance class 4 to Festo standard 940 070

Components subject to high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

Standard cylinders DSBC, to ISO 15552

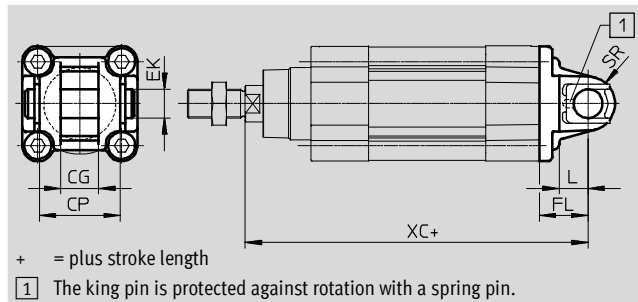
Accessories

FESTO

Swivel flange SNC

Material:

Die-cast aluminium



Dimensions and ordering data										
For Ø	CG	CP	EK Ø	FL	L	SR	XC	CRC ¹⁾	Weight	Part No. Type
[mm]	H14	h14	H9	±0.2					[g]	
32	14	34	10	22	13	10	141.1	2	90	174383 SNC-32
40	16	40	12	25	16	12	158.9	2	120	174384 SNC-40
50	21	45	16	27	16	12	168.8	2	240	174385 SNC-50
63	21	51	16	32	21	16	189.1	2	320	174386 SNC-63
80	25	65	20	36	22	16	209.6	2	625	174387 SNC-80
100	25	75	20	41	27	20	228.5	2	830	174388 SNC-100

1) Corrosion resistance class 2 according to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Standard cylinders DSBC, to ISO 15552

Accessories

FESTO

Swivel flange

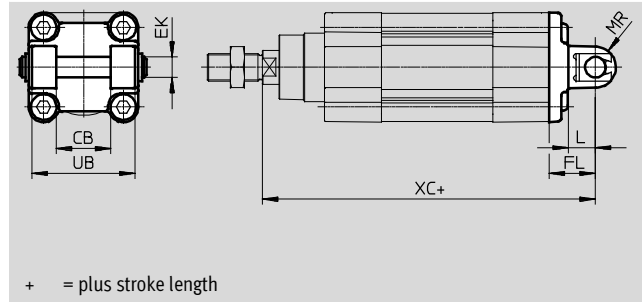
SNCB/SNCB-...-R3

Material:

SNCB: Die-cast aluminium

SNCB-...-R3: Die-cast aluminium with protective coating, high corrosion protection

Free of copper, PTFE and silicone



Dimensions and ordering data							
For Ø	CB	EK Ø	FL	L	MR	UB	XC
[mm]	H14	e8	±0.2			h14	
32	26	10	22	13	8.5	45	141.1
40	28	12	25	16	12	52	158.9
50	32	12	27	16	12	60	168.8
63	40	16	32	21	16	70	189.1
80	50	16	36	22	16	90	209.6
100	60	20	41	27	20	110	228.5

For Ø [mm]	Basic design				Variant R3 – High corrosion protection			
	CRC ¹⁾	Weight [g]	Part No.	Type	CRC ¹⁾	Weight [g]	Part No.	Type
32	2	103	174390	SNCB-32	3	100	176944	SNCB-32-R3
40	2	155	174391	SNCB-40	3	151	176945	SNCB-40-R3
50	2	232	174392	SNCB-50	3	228	176946	SNCB-50-R3
63	2	375	174393	SNCB-63	3	371	176947	SNCB-63-R3
80	2	636	174394	SNCB-80	3	632	176948	SNCB-80-R3
100	2	1,035	174395	SNCB-100	3	986	176949	SNCB-100-R3

1) Corrosion resistance class 2 according to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Corrosion resistance class 3 to Festo standard 940 070

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

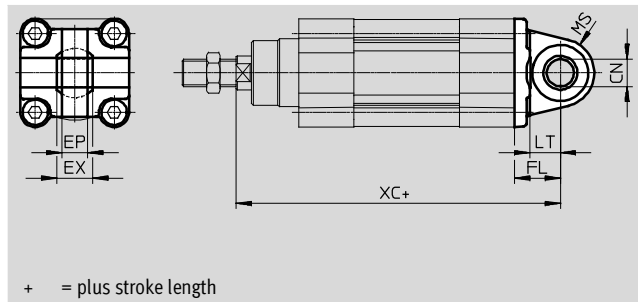
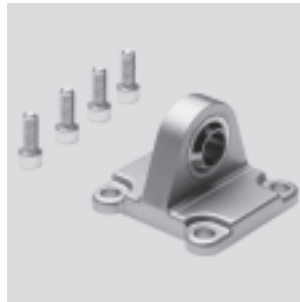
Standard cylinders DSBC, to ISO 15552

Accessories

FESTO

Swivel flange SNCS

Material:
Die-cast aluminium



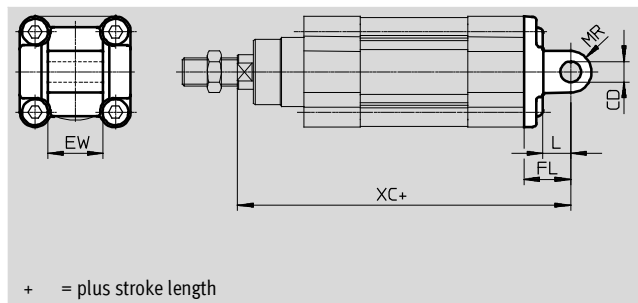
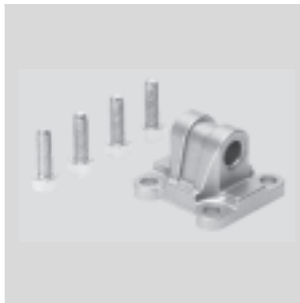
Dimensions and ordering data										
For Ø	CN	EP	EX	FL	LT	MS	XC	CRC ¹⁾	Weight	Part No. Type
[mm]	Ø H7	±0.2		±0.2					[g]	
32	10	10.5	14	22	13	15	141.1	2	85	174397 SNCS-32
40	12	12	16	25	16	17	158.9	2	125	174398 SNCS-40
50	16	15	21	27	16	20	168.8	2	210	174399 SNCS-50
63	16	15	21	32	21	22	189.1	2	280	174400 SNCS-63
80	20	18	25	36	22	27	209.6	2	540	174401 SNCS-80
100	20	18	25	41	27	29	228.5	2	700	174402 SNCS-100

1) Corrosion resistance class 2 according to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Swivel flange SNCL

Material:
Die-cast aluminium
Free of copper, PTFE and silicone



Dimensions and ordering data										
For Ø	CD Ø	EW	FL	L	MR	XC	CRC ¹⁾	Weight	Part No.	Type
[mm]	H9	h12	±0.2					[g]		
32	10	26	22	13	10	141.1	2	75	174404	SNCL-32
40	12	28	25	16	12	158.9	2	100	174405	SNCL-40
50	12	32	27	16	12	168.8	2	160	174406	SNCL-50
63	16	40	32	21	16	189.1	2	250	174407	SNCL-63
80	16	50	36	22	16	209.6	2	405	174408	SNCL-80
100	20	60	41	27	20	228.5	2	655	174409	SNCL-100

1) Corrosion resistance class 2 according to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

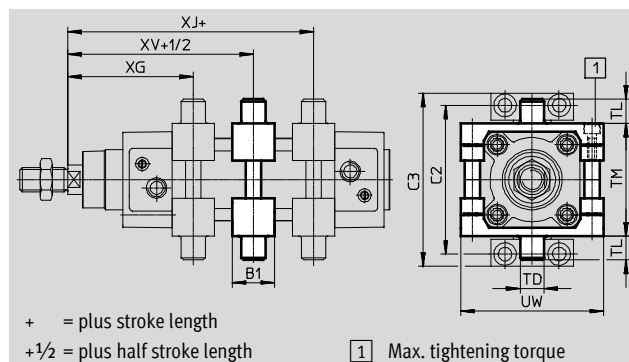
Standard cylinders DSBC, to ISO 15552

Accessories

Trunnion mounting kit ZNCM

The mounting kit can be attached at any position along the profile barrel of the cylinder.

Material:
Galvanised steel



Dimensions and ordering data							
For Ø	B1	C2	C3	TD Ø e9	TL	TM	UW
[mm]							
32	30	71	86	12	12	50	65
40	32	87	105	16	16	63	75
50	34	99	117	16	16	75	95
63	41	116	136	20	20	90	105
80	44	136	156	20	20	110	130
100	48	164	189	25	25	132	145

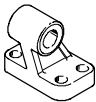
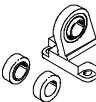
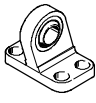
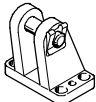
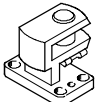
For Ø	XG	XJ	XV	Max. tightening torque [Nm]	CRC ¹⁾	Weight [g]	Part No.	Type
[mm]	min.	max.						
32	69±1.4	76±1.4	73±1.4	4+1	1	224	163525	ZNCM-32
40	77.7±1.4	84.9±1.4	81.2±1.4	8+1	1	396	163526	ZNCM-40
50	85.6±1.4	91.8±1.4	88.6±1.4	8+2	1	616	163527	ZNCM-50
63	96.9±1.8	96.1±1.8	96.4±1.8	18+2	1	931	163528	ZNCM-63
80	110.4±1.8	108.6±1.8	109.4±1.8	28+2	1	1,494	163529	ZNCM-80
100	121.3±1.8	115.5±1.8	118.3±1.8	28+2	1	2,095	163530	ZNCM-100

1) Corrosion resistance class 1 according to Festo standard 940 070
Components subject to low corrosion stress. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.

Standard cylinders DSBC, to ISO 15552

Accessories

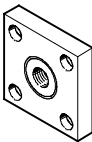
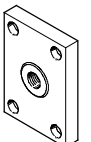
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Ordering data – Mounting attachments				Technical data → Internet: clevis foot			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Clevis foot LNG				Clevis foot LSN			
	32	33890	LNG-32		32	5561	LSN-32
	40	33891	LNG-40		40	5562	LSN-40
	50	33892	LNG-50		50	5563	LSN-50
	63	33893	LNG-63		63	5564	LSN-63
	80	33894	LNG-80		80	5565	LSN-80
	100	33895	LNG-100		100	5566	LSN-100
Clevis foot LSNG				Clevis foot LSNSG			
	32	31740	LSNG-32		32	31747	LSNSG-32
	40	31741	LSNG-40		40	31748	LSNSG-40
	50	31742	LSNG-50		50	31749	LSNSG-50
	63	31743	LSNG-63		63	31750	LSNSG-63
	80	31744	LSNG-80		80	31751	LSNSG-80
	100	31745	LSNG-100		100	31752	LSNSG-100
Clevis foot LBG				Right-angle clevis foot LQG			
	32	31761	LBG-32		32	31768	LQG-32
	40	31762	LBG-40		40	31769	LQG-40
	50	31763	LBG-50		50	31770	LQG-50
	63	31764	LBG-63		63	31771	LQG-63
	80	31765	LBG-80		80	31772	LQG-80
	100	31766	LBG-100		100	31773	LQG-100

Ordering data – Mounting attachments, corrosion-resistant			Technical data ➔ Internet: crlng	
Designation	For Ø	Part No.	Type	
Clevis foot CRLNG				
	32	161840	CRLNG-32	
	40	161841	CRLNG-40	
	50	161842	CRLNG-50	
	63	161843	CRLNG-63	
	80	161844	CRLNG-80	
	100	161845	CRLNG-100	

Standard cylinders DSBC, to ISO 15552

Accessories

Ordering data – Piston rod attachments				Technical data → Internet: piston rod attachment			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Rod eye SGS				Rod clevis SGA			
	32	9261	SGS-M10x1,25		32	32954	SGA-M10x1,25
	40	9262	SGS-M12x1,25		40	10767	SGA-M12x1,25
	50	9263	SGS-M16x1,5		50	10768	SGA-M16x1,5
	63				63		
	80	9264	SGS-M20x1,5		80	10769	SGA-M20x1,5
	100				100		
Rod clevis SG				Self-aligning rod coupler FK			
	32	6144	SG-M10x1,25		32	6140	FK-M10x1,25
	40	6145	SG-M12x1,25		40	6141	FK-M12x1,25
	50	6146	SG-M16x1,5		50	6142	FK-M16x1,5
	63				63		
	80	6147	SG-M20x1,5		80	6143	FK-M20x1,5
	100				100		
Coupling piece KSG				Coupling piece KSZ			
	32	32963	KSG-M10x1,25		32	36125	KSZ-M10x1,25
	40	32964	KSG-M12x1,25		40	36126	KSZ-M12x1,25
	50	32965	KSG-M16x1,5		50	36127	KSZ-M16x1,5
	63				63		
	80	32966	KSG-M20x1,5		80	36128	KSZ-M20x1,5
	100				100		

Ordering data – Piston rod attachments, corrosion-resistant				Technical data → Internet: crsg			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Rod eye CRSGS				Rod clevis CRSG			
	32	195582	CRSGS-M10x1,25		32	13569	CRSG-M10x1,25
	40	195583	CRSGS-M12x1,25		40	13570	CRSG-M12x1,25
	50	195584	CRSGS-M16x1,5		50	13571	CRSG-M16x1,5
	63				63		
	80	195585	CRSGS-M20x1,5		80	13572	CRSG-M20x1,5
	100				100		

Standard cylinders DSBC, to ISO 15552

Accessories

FESTO

Protective bellows kit DADB



General technical data							
Type DADB-V6-		32	40	50	63	80	100
Max. stroke range of cylinder ¹⁾	[mm]	10 ... 500	10 ... 500	10 ... 500	10 ... 500	10 ... 500	10 ... 500
Type of mounting		Via threaded pin					
Mounting position		Any					
Resistance to media		Dust, chippings, oil, grease, fuel (➔ Internet: Resistance to media)					
Ambient temperature ²⁾	[°C]	-10 ... +80					
Protection class		IP54					
Corrosion resistance class CRC ³⁾		3					

1) In combination with the protective bellows kit DADB

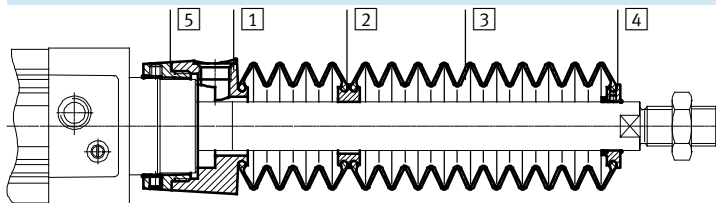
2) Note operating range of proximity sensors and cylinder

3) Corrosion resistance class 3 according to Festo standard 940 070

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

Materials

Sectional view



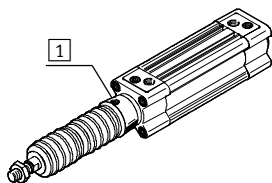
Bellows		
1	Connection	Polyamide
2	Adapter	Polyamide
3	Bellows	Nitrile rubber
4	End piece	Polyamide
5	Connector	Polyamide
-	O-ring	Nitrile rubber
Note on materials		Free of copper and PTFE
		RoHS-compliant

Weight [g]						
Type DADB-V6- Stroke [mm]	32	40	50	63	80	100
10 ... 50	29	42	71	69	99	124
51 ... 125	41	56	91	89	127	152
126 ... 175	52	68	105	103	140	165
176 ... 250	66	85	129	127	193	218
251 ... 300	79	100	147	145	231	255
301 ... 350	92	115	166	164	268	293
351 ... 375	92	115	167	165	259	284
376 ... 425	104	129	185	183	296	321
426 ... 475	117	144	204	202	334	359
476 ... 500	117	144	205	203	324	349

Standard cylinders DSBC, to ISO 15552

Accessories

Travel speed v as a function of tubing length l



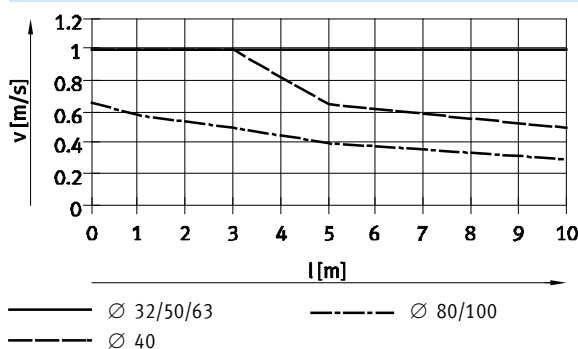
The protective bellows kit is a leak-free system. To prevent unwanted media from being drawn in, the supply and exhaust air must be ducted via a venting hole

in the connection part **1**.

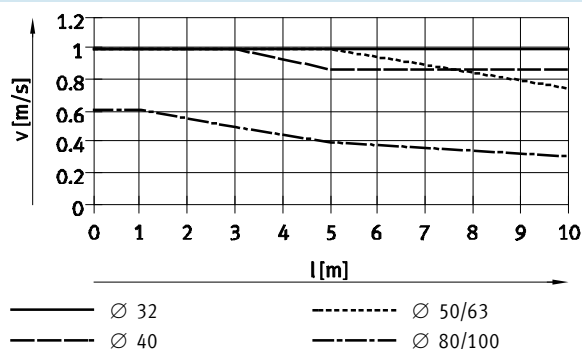
The pressure generated in the protective bellows kit by the positioning motion is primarily defined by the travel

speed and tubing length. The recommended tubing length based on the travel speed of the drive can be read from the graph.

Advance



Return



Note

The push-in fittings opposite must be used for the venting hole. Silencers can be used as an alternative. This reduces the travel speed slightly.

Tubing length and push-in fitting for venting hole

Ø [mm]	Tubing O.D. [mm]	Push-in fitting	
		Part No.	Type
32, 40	8	186109	QS-G $\frac{1}{8}$ -8-I
		533929	QS-F-G $\frac{1}{8}$ -8-I
		533880	QS-F-G $\frac{1}{8}$ -8H
50, 63, 80, 100	12	186350	QS-G $\frac{1}{4}$ -12
		533848	QS-F-G $\frac{1}{4}$ -12
		533884	QS-F-G $\frac{1}{4}$ -12H

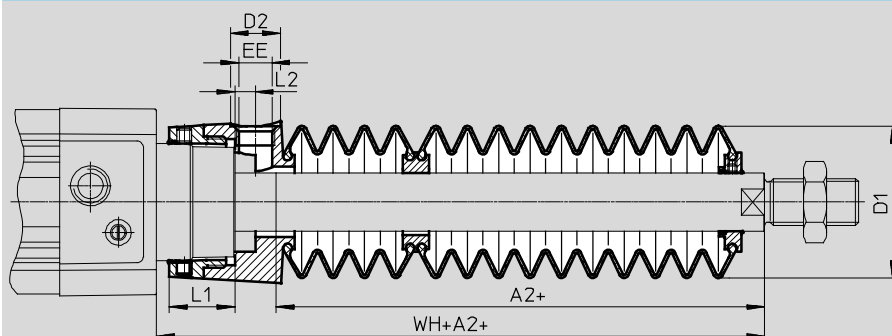
Standard cylinders DSBC, to ISO 15552

Accessories

FESTO

Dimensions

Download CAD data → www.festo.com



+ = plus stroke length

Ø Stroke [mm]	32							40						
	A2 ¹⁾	D1 max.	D2	EE	L1	L2	WH+A2	A2 ¹⁾	D1 max.	D2	EE	L1	L2	WH+A2
10 ... 50	29	38	14	G ¹ / ₈	12.9	5.4	55	28	46	14	G ¹ / ₈	16.3	5.4	56.7
51 ... 125	47						73	43						71.7
126 ... 175	61						87	56						84.7
176 ... 250	80						106	72						100.7
251 ... 300	96						122	86						114.7
301 ... 350	112						138	100						128.7
351 ... 375	114						140	101						129.7
376 ... 425	130						156	115						143.7
426 ... 475	145						171	130						158.7
476 ... 500	147						173	131						159.7

Ø Stroke [mm]	50							63						
	A2 ¹⁾	D1 max.	D2	EE	L1	L2	WH+A2	A2 ¹⁾	D1 max.	D2	EE	L1	L2	WH+A2
10 ... 50	28	57	17	G ¹ / ₄	22.35	7	63.6	28	57	17	G ¹ / ₄	22.4	7	63.9
51 ... 125	46						81.6	46						81.9
126 ... 175	56						91.6	56						91.9
176 ... 250	73						108.6	73						108.9
251 ... 300	86						121.6	86						121.9
301 ... 350	97						132.6	97						132.9
351 ... 375	105						140.6	105						140.9
376 ... 425	116						151.6	116						151.9
426 ... 475	126						161.6	126						161.9
476 ... 500	134						169.6	134						169.9

Ø Stroke [mm]	80							100						
	A2 ¹⁾	D1 max.	D2	EE	L1	L2	WH+A2	A2 ¹⁾	D1 max.	D2	EE	L1	L2	WH+A2
10 ... 50	25	93	17	G ¹ / ₄	28	4	70.4	25	93	17	G ¹ / ₄	28	4	74.3
51 ... 125	37						82.4	37						86.3
126 ... 175	49						94.4	49						98.3
176 ... 250	62						107.4	62						111.3
251 ... 300	74						119.4	74						123.3
301 ... 350	86						131.4	86						135.3
351 ... 375	87						132.4	87						136.3
376 ... 425	98						143.4	98						147.3
426 ... 475	110						155.4	110						159.3
476 ... 500	111						156.4	111						160.3

1) The dimension corresponds to the E value (piston rod extension) of the drive

Standard cylinders DSBC, to ISO 15552

Accessories

Ordering data – Protective bellows kit

An extended piston rod (order code E) is required when using a protective bellows kit → Ordering data – Modular products.

The necessary dimension for order code E as a function of piston diameter and cylinder stroke as well as the corresponding protective bellows kit is indicated in the table below:

Order example:

Selected standard cylinder:

DSBC-32-320-PPV-A-...

The dimension for the corresponding E value (see table):

112 mm

Complete type code for standard cylinder:

DSBC-32-320-PPV-A-...-112E

The corresponding protective bellows kit:

DADB-V6-32-S301-350

Cylinder data			Protective bellows kit	
Ø	Stroke	Dimension for E	Part No.	Type
[mm]	[mm]	[mm]		
32	10 ... 50	29	553271	DADB-V6-32-S10-50
	51 ... 125	47	553273	DADB-V6-32-S51-125
	126 ... 175	61	553275	DADB-V6-32-S126-175
	176 ... 250	80	553277	DADB-V6-32-S176-250
	251 ... 300	96	553279	DADB-V6-32-S251-300
	301 ... 350	112	553281	DADB-V6-32-S301-350
	351 ... 375	114	553283	DADB-V6-32-S351-375
	376 ... 425	130	553285	DADB-V6-32-S376-425
	426 ... 475	145	553287	DADB-V6-32-S426-475
	476 ... 500	147	553289	DADB-V6-32-S476-500
50	10 ... 50	28	553311	DADB-V6-50-S10-50
	51 ... 125	46	553313	DADB-V6-50-S51-125
	126 ... 175	56	553315	DADB-V6-50-S126-175
	176 ... 250	73	553317	DADB-V6-50-S176-250
	251 ... 300	86	553319	DADB-V6-50-S251-300
	301 ... 350	97	553321	DADB-V6-50-S301-350
	351 ... 375	105	553323	DADB-V6-50-S351-375
	376 ... 425	116	553325	DADB-V6-50-S376-425
	426 ... 475	126	553327	DADB-V6-50-S426-475
	476 ... 500	134	553329	DADB-V6-50-S476-500
63	10 ... 50	28	553331	DADB-V6-63-S10-50
	51 ... 125	46	553333	DADB-V6-63-S51-125
	126 ... 175	56	553335	DADB-V6-63-S126-175
	176 ... 250	73	553337	DADB-V6-63-S176-250
	251 ... 300	86	553339	DADB-V6-63-S251-300
	301 ... 350	97	553341	DADB-V6-63-S301-350
	351 ... 375	105	553343	DADB-V6-63-S351-375
	376 ... 425	116	553345	DADB-V6-63-S376-425
	426 ... 475	126	553347	DADB-V6-63-S426-475
	476 ... 500	134	553349	DADB-V6-63-S476-500
80	10 ... 50	25	553351	DADB-V6-80-S10-50
	51 ... 125	37	553353	DADB-V6-80-S51-125
	126 ... 175	49	553355	DADB-V6-80-S126-175
	176 ... 250	62	553357	DADB-V6-80-S176-250
	251 ... 300	74	553359	DADB-V6-80-S251-300
	301 ... 350	86	553361	DADB-V6-80-S301-350
	351 ... 375	87	553363	DADB-V6-80-S351-375
	376 ... 425	98	553365	DADB-V6-80-S376-425
	426 ... 475	110	553367	DADB-V6-80-S426-475
	476 ... 500	111	553369	DADB-V6-80-S476-500
100	10 ... 50	25	553371	DADB-V6-100-S10-50
	51 ... 125	37	553373	DADB-V6-100-S51-125
	126 ... 175	49	553375	DADB-V6-100-S126-175
	176 ... 250	62	553377	DADB-V6-100-S176-250
	251 ... 300	74	553379	DADB-V6-100-S251-300
	301 ... 350	86	553381	DADB-V6-100-S301-350
	351 ... 375	87	553383	DADB-V6-100-S351-375
	376 ... 425	98	553385	DADB-V6-100-S376-425
	426 ... 475	110	553387	DADB-V6-100-S426-475
	476 ... 500	111	553389	DADB-V6-100-S476-500

Standard cylinders DSBC, to ISO 15552

Accessories

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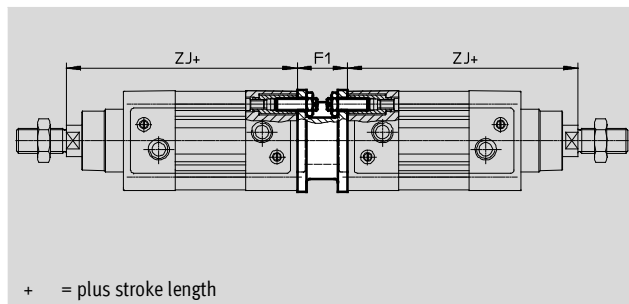
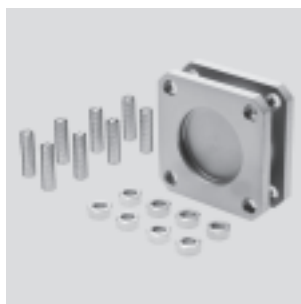
Multi-position kit DPNC

Material:

Flange: Wrought aluminium alloy

Threaded pins, hex nuts: Galvanised steel

steel



Dimensions and ordering data						
For Ø	F1	ZJ	Max. overall stroke length	Weight	Part No.	Type
[mm]		+1.8	[mm]	[g]		
32	27	119.1	1,000	85	174418	DPNC-32
40	27	133.9	1,000	115	174419	DPNC-40
50	32	141.8	1,000	210	174420	DPNC-50
63	28	157.1	1,000	360	174421	DPNC-63
80	38	173.6	1,000	620	174422	DPNC-80
100	38	187.5	1,000	1,190	174423	DPNC-100

 Note

The maximum overall stroke length must not be exceeded when combining cylinders and multi-position kits.

Connecting two cylinders with identical piston Ø 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.

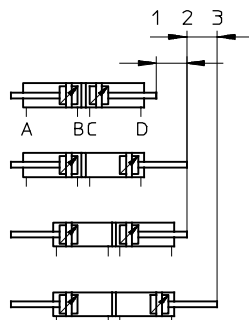
This means that depending on actuation and stroke division, this type of cylinder can assume up to four positions.

In each case the cylinder is driven precisely against a stop. Note that when one end of the piston rod is

fixed, the cylinder barrel executes the movement. The cylinder's connections must be flexible.

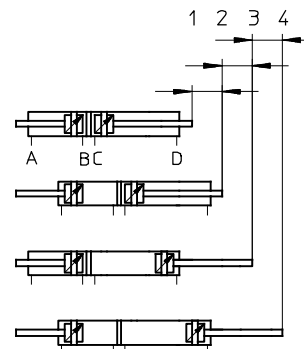
To achieve 3 positions

Two cylinders with identical stroke length must be connected together.



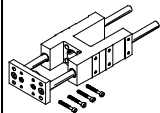
To achieve 4 positions

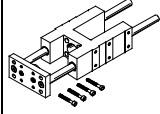
Two cylinders with different stroke lengths must be connected together.



Standard cylinders DSBC, to ISO 15552

Accessories

Ordering data – Guide units for fixed strokes (recirculating ball bearing guide only)				Technical data → Internet: festo		
	Stroke [mm]	Part No.	Type	Stroke [mm]	Part No.	Type
	For Ø 32 mm			For Ø 40 mm		
	10 ... 50	34493	FENG-32-50-KF	10 ... 50	34499	FENG-40-50-KF
	10 ... 100	34494	FENG-32-100-KF	10 ... 100	34500	FENG-40-100-KF
	10 ... 160	34495	FENG-32-160-KF	10 ... 160	34501	FENG-40-160-KF
	10 ... 200	34496	FENG-32-200-KF	10 ... 200	34502	FENG-40-200-KF
	10 ... 250	150289	FENG-32-250-KF	10 ... 250	34503	FENG-40-250-KF
	10 ... 320	34497	FENG-32-320-KF	10 ... 320	34504	FENG-40-320-KF
	10 ... 400	150290	FENG-32-400-KF	10 ... 400	150291	FENG-40-400-KF
	10 ... 500	34498	FENG-32-500-KF	10 ... 500	34505	FENG-40-500-KF
	For Ø 50 mm			For Ø 63 mm		
	10 ... 50	34506	FENG-50-50-KF	10 ... 50	34513	FENG-63-50-KF
	10 ... 100	34507	FENG-50-100-KF	10 ... 100	34514	FENG-63-100-KF
	10 ... 160	34508	FENG-50-160-KF	10 ... 160	34515	FENG-63-160-KF
	10 ... 200	34509	FENG-50-200-KF	10 ... 200	34516	FENG-63-200-KF
	10 ... 250	34510	FENG-50-250-KF	10 ... 250	34517	FENG-63-250-KF
	10 ... 320	34511	FENG-50-320-KF	10 ... 320	34518	FENG-63-320-KF
	10 ... 400	150292	FENG-50-400-KF	10 ... 400	34519	FENG-63-400-KF
	10 ... 500	34512	FENG-50-500-KF	10 ... 500	34520	FENG-63-500-KF
	For Ø 80 mm			For Ø 100 mm		
	10 ... 50	34521	FENG-80-50-KF	10 ... 50	34529	FENG-100-50-KF
	10 ... 100	34522	FENG-80-100-KF	10 ... 100	34530	FENG-100-100-KF
	10 ... 160	34523	FENG-80-160-KF	10 ... 160	34531	FENG-100-160-KF
	10 ... 200	34524	FENG-80-200-KF	10 ... 200	34532	FENG-100-200-KF
	10 ... 250	34525	FENG-80-250-KF	10 ... 250	34533	FENG-100-250-KF
	10 ... 320	34526	FENG-80-320-KF	10 ... 320	34534	FENG-100-320-KF
	10 ... 400	34527	FENG-80-400-KF	10 ... 400	34535	FENG-100-400-KF
	10 ... 500	34528	FENG-80-500-KF	10 ... 500	34536	FENG-100-500-KF

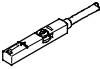
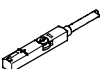
Ordering data – Guide units for variable strokes				Technical data → Internet: festo	
	For Ø [mm]	Stroke [mm]	With recirculating ball bearing guide Part No. Type	With plain-bearing guide Part No. Type	
	32	10 ... 500	34487 FENG-32-...-KF	34481	FENG-32-...
	40	10 ... 500	34488 FENG-40-...-KF	34482	FENG-40-...
	50	10 ... 500	34489 FENG-50-...-KF	34483	FENG-50-...
	63	10 ... 500	34490 FENG-63-...-KF	34484	FENG-63-...
	80	10 ... 500	34491 FENG-80-...-KF	34485	FENG-80-...
	100	10 ... 500	34492 FENG-100-...-KF	34486	FENG-100-...

Standard cylinders DSBC, to ISO 15552

Accessories

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Ordering data – Proximity sensor for T-slot, magneto-resistive					Technical data ➔ Internet: smt	
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in the slot from above, flush with the cylinder profile	PNP	Cable, 3-wire	2.5	543867	SMT-8M-PS-24V-K-2,5-OE
			Plug M8x1, 3-pin	0.3	543866	SMT-8M-PS-24V-K-0,3-M8D
			Plug M12x1, 3-pin	0.3	543869	SMT-8M-PS-24V-K-0,3-M12
		NPN	Cable, 3-wire	2.5	543870	SMT-8M-NS-24V-K-2,5-OE
			Plug M8x1, 3-pin	0.3	543871	SMT-8M-NS-24V-K-0,3-M8D
N/C contact						
	Insertable in the slot from above, flush with the cylinder profile	PNP	Cable, 3-wire	7.5	543873	SMT-8M-PO-24V-K7,5-OE

Ordering data – Proximity sensor for T-slot, magnetic reed					Technical data → Internet: sme	
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in the slot from above, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	543862	SME-8M-DS-24V-K-2,5-OE
				5.0	543863	SME-8M-DS-24V-K-5,0-OE
			Cable, 2-wire	2.5	543872	SME-8M-ZS-24V-K-2,5-OE
			Plug M8x1, 3-pin	0.3	543861	SME-8M-DS-24V-K-0,3-M8D
N/C contact						
	Insertable in the slot from above, flush with the cylinder profile	Contacting	Cable, 3-wire	7.5	546799	SME-8M-DO-24V-K-7,5-OE

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	541333	NEBU-M8G3-K-2.5-LE3
			5	541334	NEBU-M8G3-K-5-LE3
	Straight socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541363	NEBU-M12G5-K-2.5-LE3
			5	541364	NEBU-M12G5-K-5-LE3
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541338	NEBU-M8W3-K-2.5-LE3
			5	541341	NEBU-M8W3-K-5-LE3
	Angled socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541367	NEBU-M12W5-K-2.5-LE3
			5	541370	NEBU-M12W5-K-5-LE3

Ordering data – Slot cover for T-slot					
	Mounting	Length		Part No.	Type
	Insertable	2x 0.5 m		151680	ABP-5-S