



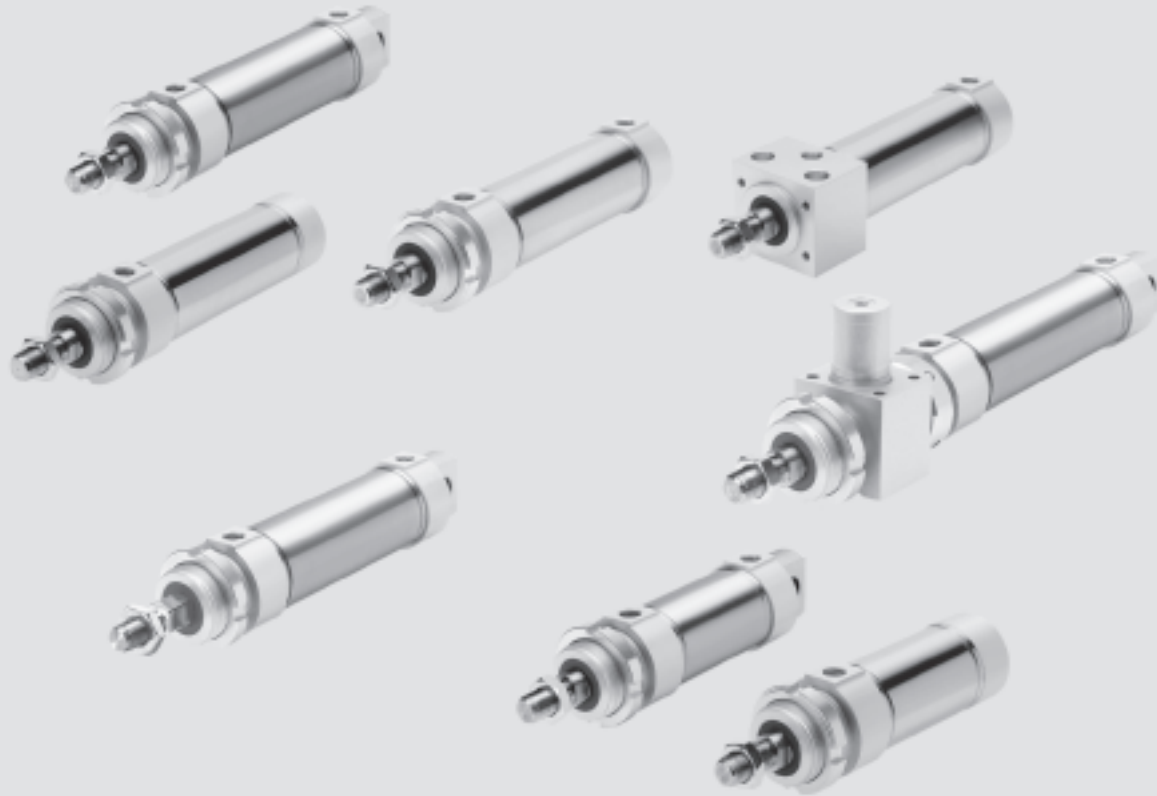
- Quick reacting thanks to minimal break-away force
- Meet the highest requirements for running characteristics, service life and load carrying ability
- Comprehensive range of accessories

Specified types in accordance with ATEX directive for potentially explosive atmospheres
➔ www.festo.com/en/ex

Round cylinders DSNU/ESNU

Key features

FESTO



Cylinders with piston rods
Round cylinders

2.4

Optimal range

- Good running performance and long service life thanks to smooth, hard cylinder bore
- Piston rod and cylinder barrel made of stainless steel
- The cap is swaged onto the barrel

Functional

- Three different end caps mean numerous functional and space-saving designs
- Piston diameter 32 to 63 mm. The series is not repairable

Variants

- Non-rotating
- Through piston rod
- With or without position sensing
- Flexible cushioning rings/plates at both ends or pneumatic cushioning adjustable at both ends
- Further piston rod variants

Round cylinders DSNU/ESNU

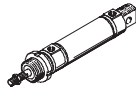
Key features

FESTO

Standard range

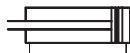
Double-acting

Basic version
DSNU



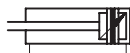
With position sensing
Flexible cushioning rings/plates at both ends

DSNU-P-A



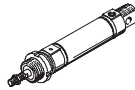
With position sensing
Pneumatic cushioning adjustable at both ends

DSNU-PPV-A



Single-acting

Basic version
ESNU



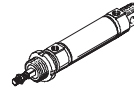
With position sensing
Flexible cushioning rings/plates at both ends

ESNU-P-A



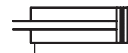
Double-acting Non-rotating

Basic version
DSNU-Q



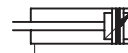
With position sensing
Flexible cushioning rings/plates at both ends

DSNU-P-A-Q



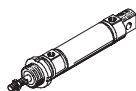
With position sensing
Pneumatic cushioning adjustable at both ends

DSNU-PPV-A-Q



Variants from the modular system

Basic version
DSNU/ESNU



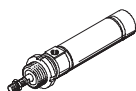
S2: Through piston rod



K8: Piston rod extended



Axial air connection
DSNU-MA/ESNU-MA



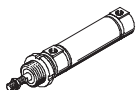
K2: Extended male piston rod thread



S6: Heat-resistant seal up to max.
120 °C



Lateral air connection
DSNU-MQ



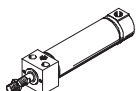
K6: Shortened male piston rod thread



S10: Slow speed (constant motion)



With direct mounting
DSNU-MH



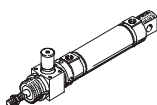
K3: Female piston rod thread



S11: Low friction



With clamping unit
DSNU-...-KP



K5: Special thread on piston rod



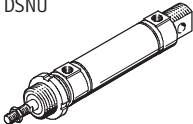
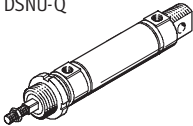
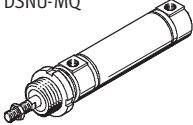
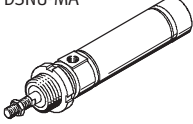
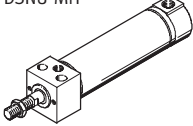
R3: High corrosion protection



Round cylinders DSNU

Product range overview

FESTO

Function	Design	Piston Ø [mm]	Stroke [mm]	Variable stroke ¹⁾ [mm]	Piston rod						
					Through S2	Extended K8	Male thread			Female thread K3	
							Extended K2	Shortened K6	Special thread K5		
Double- acting	Basic version with position sensing										
	DSNU 	32, 40, 50, 63	25, 40, 50, 80, 100, 125, 160, 200, 250, 320	1 ... 500	■	■	■	■	■	■	
	Non-rotating										
	DSNU-Q 	32	–	5 ... 300	■	■	■	■	■	■	
		40, 50	–	5 ... 400							
		63	–	5 ... 500							
	Lateral air connection										
	DSNU-MQ 	32, 40, 50, 63	–	1 ... 500	–	■	■	■	■	■	
	Axial air connection										
	DSNU-MA 	32, 40, 50, 63	–	1 ... 500	–	■	■	■	■	■	
	Direct mounting										
	DSNU-MH 	32, 40, 50, 63	–	1 ... 500	–	■	■	■	■	■	

1) Cylinders with position sensing require a minimum stroke of 10 mm to ensure reliable sensing

Round cylinders DSNU

Product range overview

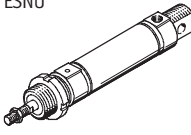
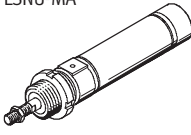
FESTO

Design	Cushioning		Position sensing	Clamping unit	Heat-resistant seal	Slow speed (constant motion)	Low friction	Corrosion protection	Wiper seal	➔Page
	Fixed	Adjustable								
	P	PPV								
	P	PPV	A	KP	S6	S10	S11	R3	R8	
Basic version with position sensing										
DSNU	■	■	■	■	■	■	■	■	■	1 / 2.4-11
Non-rotating										
DSNU-Q	■	■	■	■	■	■	■	■	–	1 / 2.4-17
Lateral air connection										
DSNU-MQ	■	■	■	■	■	–	–	■	■	1 / 2.4-11
Axial air connection										
DSNU-MA	■	–	■	■	■	–	–	■	–	1 / 2.4-11
Direct mounting										
DSNU-MH	■	■	■	–	■	–	–	■	–	1 / 2.4-11

Round cylinders ESNU

Product range overview



Function	Design	Piston Ø [mm]	Stroke ¹⁾ [mm]	Variable stroke [mm]	Cushioning Fixed P	Position sensing A
Single- acting	Basic version with position sensing					
	ESNU 	32, 40, 50, 63	10, 25, 50	1 ... 50	■	■
	Axial air connection					
	ESNU-MA 	32, 40, 50, 63	–	1 ... 50	■	■

1) Cylinders with position sensing require a minimum stroke of 10 mm to ensure reliable sensing

Round cylinders ESNU

Product range overview

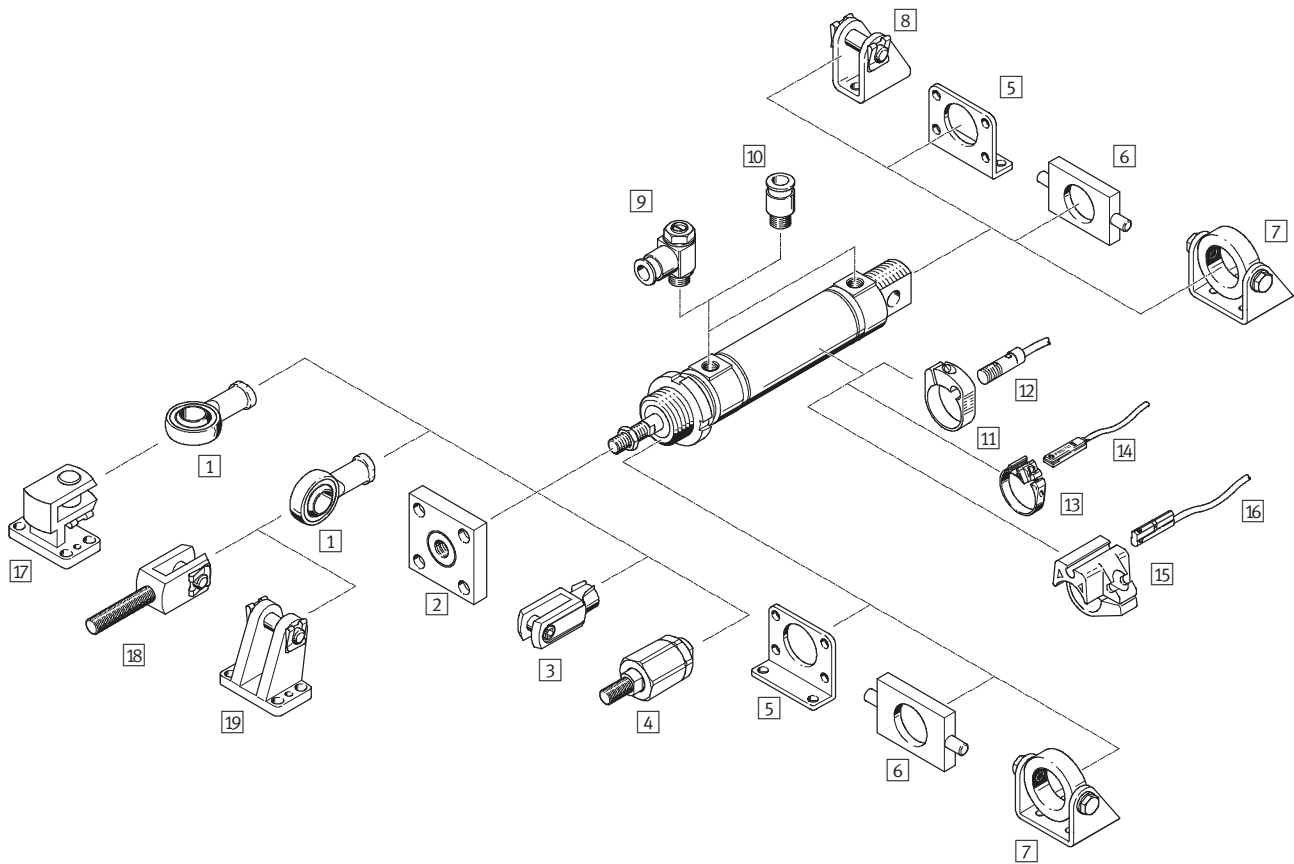
FESTO

Design	Piston rod					→Page
	Extended	Male thread			Female thread	
		Extended	Shortened	Special thread		
	K8	K2	K6	K5	K3	
Basic version with position sensing						
ESNU						1 / 2.4-28
Axial air connection						
ESNU-MA						1 / 2.4-28

Round cylinders DSNU/ESNU

Peripherals overview

FESTO



Cylinders with piston rods
Round cylinders

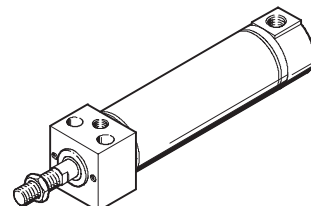
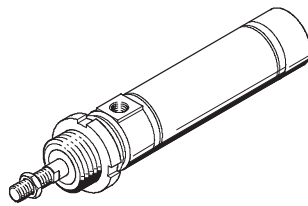
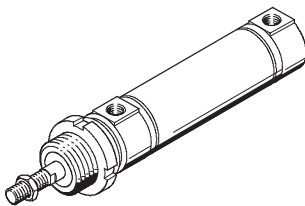
2.4

Variants

DSNU-MQ

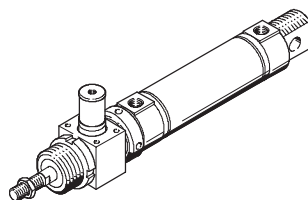
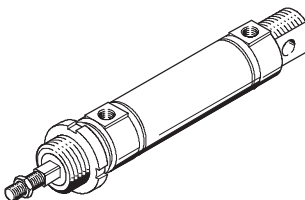
DSNU-MA

DSNU-MH



DSNU-Q

DSNU-KP



Round cylinders DSNU/ESNU

Peripherals overview

FESTO

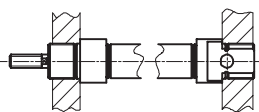
Cylinders with piston rods
Round cylinders

2.4

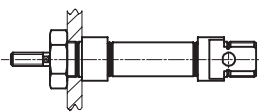
Mounting attachments and accessories							
	DSNU/ESNU	DSNU/ESNU MA	DSNU MQ	MH	KP	DSNU-Q	→Page
1 Rod eye SGS/CRSGS	■	■	■	■	■	■	1 / 2.4-38
2 Coupling piece KSG/KSZ	■	■	■	■	■	■	1 / 2.4-38
3 Rod clevis SG/CRSG	■	■	■	■	■	■	1 / 2.4-38
4 Self-aligning rod coupler FK	■	■	■	■	■	■	1 / 2.4-38
5 Foot mounting HBN/CRH	■	■	■	—	■	■	1 / 2.4-34
Flange mounting FBN/CRFV	■	■	■	—	■	■	1 / 2.4-35
6 Swivel mounting WBN	■	■	■	—	■	■	1 / 2.4-36
7 Swivel mounting SBN	■	■	■	—	■	■	1 / 2.4-36
8 Clevis foot LBN/CRLBN	■	—	—	—	■	■	1 / 2.4-37
9 One-way flow control valve GRLA/GRLZ/CRGRLA	■	■	■	■	■	■	1 / 2.4-38
10 Push-in fitting QS	■	■	■	■	■	■	Volume 3
11 Sensor mounting kit CRSMBR	■	■	■	■	■	■	1 / 2.4-39
12 Proximity sensor SMEO/SMT0/CRSME0-4	■	■	■	■	■	■	1 / 2.4-39
13 Sensor mounting kit SMBR-8	■	■	■	■	■	■	1 / 2.4-40
14 Proximity sensor SME/SMT-8	■	■	■	■	■	■	1 / 2.4-40
15 Sensor mounting kit SMBR-10	■	■	■	■	■	■	1 / 2.4-41
16 Proximity sensor SME/SMT-10	■	■	■	■	■	■	1 / 2.4-41
17 Clevis foot, lateral LQG	■	■	■	■	■	■	1 / 2.4-37
18 Rod clevis SGA	■	■	■	■	■	■	1 / 2.4-38
19 Clevis foot LBG	■	■	■	■	■	■	1 / 2.4-37

Mounting options

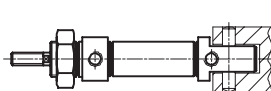
Mounting front and rear



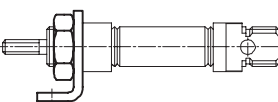
Mounting with hex nut



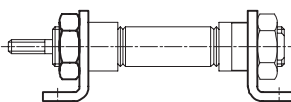
Swivel mounting



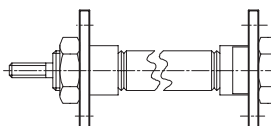
Foot mounting (for short strokes)



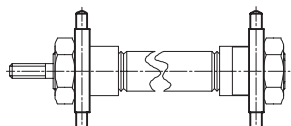
Foot mounting



Flange mounting



Swivel mounting



Round cylinders DSNU/ESNU

Type codes

FESTO

DSNU		32	80	PPV	A	MQ
Type						
Double-acting						
DSNU	Round cylinder					
Single-acting						
ESNU	Round cylinder					
Piston Ø [mm]						
Stroke [mm]						
Cushioning						
P	Flexible cushioning rings/plates at both ends					
PPV	Pneumatic cushioning adjustable at both ends					
Position sensing						
A	For proximity sensing					
Variant						
MQ	Lateral air connection					
MA	Axial air connection					
MH	With mounting flange on bearing cap					

Modular product system

Individually configurable

DSNU → 1 / 2.4-24

ESNU → 1 / 2.4-32

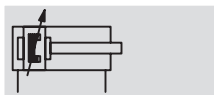
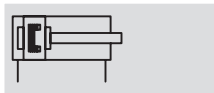
- Square piston rod (protection against rotation)
- Through piston rod (piston rod type)
- Extended male piston rod thread
- Male piston rod thread, shortened at one end
- Female piston rod thread (female thread)
- Special piston rod thread (special thread)
- Extended piston rod
- Clamping unit on piston rod
- Heat-resistant seals for temperatures up to 120 °C (temperature resistance)
- Slow speed (constant motion at low piston rod speeds)
- Low friction
- All external cylinder surfaces conform to corrosion resistance class CRC 3 (corrosion protection)
- Dust protection (wiper seal)

Round cylinders DSNU

Technical data

FESTO

Function



⌀ - Diameter
32 ... 63 mm

└ - Stroke length
1 ... 500 mm

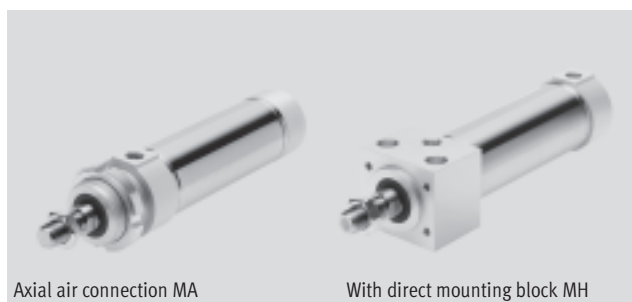
Variants

➔ 1 / 2.4-15



Basic version

Lateral air connection MQ



Axial air connection MA

With direct mounting block MH

General technical data				
Piston Ø	32	40	50	63
Pneumatic connection	G1/8	G1/4	G1/4	G3/8
Piston rod thread	M10x1.25	M12x1.25	M16x1.5	M16x1.5
Constructional design	Piston			
	Piston rod			
	Cylinder barrel			
Cushioning	Flexible cushioning rings/plates at both ends			
	Pneumatic cushioning adjustable at both ends			
Cushioning length (PPV) [mm]	14	18	20	21
Position sensing	For proximity sensing			
Type of mounting	Direct mounting (MH variant only)			
	Via accessories			
Assembly position	Any			

Operating conditions				
Piston Ø	32	40	50	63
Operating medium	Filtered compressed air, lubricated or unlubricated			
Operating pressure	Basic version	1 ... 10		
	S10	0.5 ... 10	0.4 ... 10	
	S11	0.2 ... 10	0.2 ... 10	

Ambient conditions					
Round cylinder	Basic version	S6	S10	S11	R3
Ambient temperature ¹⁾ [°C]	-20 ... +80	0 ... +120	+5 ... +80		-20 ... +80
Corrosion resistance class CRC ²⁾	2	2	2	2	3

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 normal industrial environment or media such as coolants or lubricating agents

Corrosion resistance class 3 according to Festo standard 940 070

Components requiring higher corrosion resistance. 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

Round cylinders DSNU

Technical data

FESTO

Forces [N] and impact energy [J]				
Piston Ø	32	40	50	63
Theoretical force at 6 bar, advancing	483	753	1,178	1,870
Theoretical force at 6 bar, retracting	415	633	990	1,682
Impact energy at the end positions	0.40	0.70	1	1.3

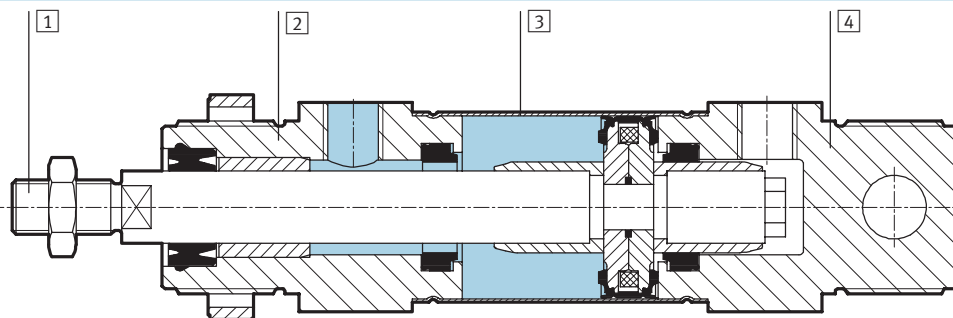
Speed [mm/s]				
Piston Ø	32	40	50	63
Speed with judder-free running, S10 horizontal, without load, at 6 bar	8 ... 100			5 ... 100
Minimum speed, advancing S11	<1 ¹⁾			
Minimum speed, retracting S11	<1 ¹⁾			

1) Measurements of less than 1 mm/s were not conducted

Weights [g]				
Piston Ø	32	40	50	63
Product weight with 0 mm stroke	370.5	661	1,087	1,445
Additional weight per 10 mm stroke	15.5	24	40	44

Materials

Sectional view



Round cylinder	Basic version	S6	S10	S11	R3
1 Piston rod	High-alloy steel				High-alloy stainless steel
2 Bearing cap	Wrought aluminium alloy				
3 Cylinder barrel	High-alloy stainless steel				
4 End cap	Wrought aluminium alloy				
– Seals	Polyurethane, nitrile rubber	Fluoro rubber			Polyurethane, nitrile rubber

Round cylinders DSNU

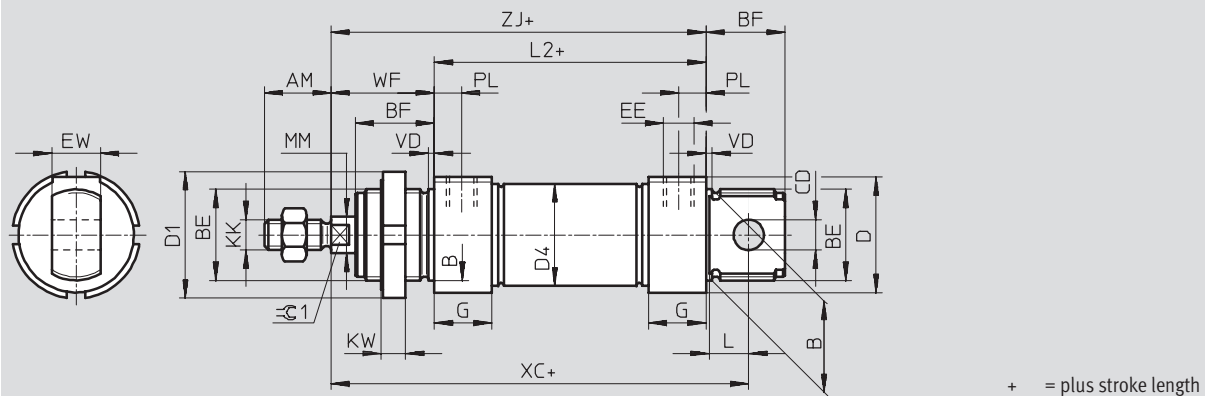
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com/en/engineering

Basic version



Ø	AM	B Ø h9	BE	BF	CD Ø E10	D Ø	D1 Ø	D4 Ø	EE	EW	G
[mm]											
32	22	30	M30x1.5	26	10	38	42	33.6	G $\frac{1}{8}$	16	19
40	24	38	M38x1.5	30	12	46	50	41.6	G $\frac{1}{4}$	18	25
50	32	45	M45x1.5	33	16	57	60	52.4	G $\frac{3}{8}$	21	28
63						70		65.4			

Ø	KK	KW	L	L2	MM Ø	PL	VD	WF	XC ±1	ZJ	≡C1
[mm]											
32	M10x1.25	8	13	69.5	12	9	2	34	117.5	103.5	10
40	M12x1.25	10	15	84.6	16	12	3	39	139.6	123.6	13
50	M16x1.5		16	86.2	20			13	44	147.2	130.2
63				94.2		45			156.2	139.2	

Cylinders with piston rods
Round cylinders

2.4

Round cylinders DSNU

Technical data

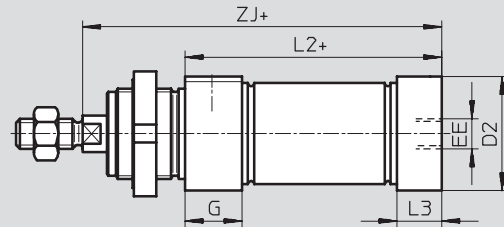
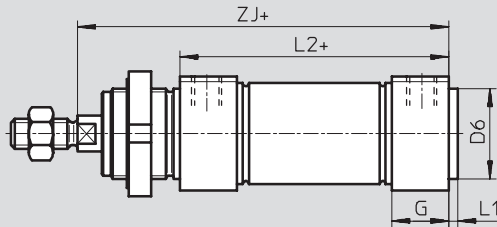
FESTO

Dimensions

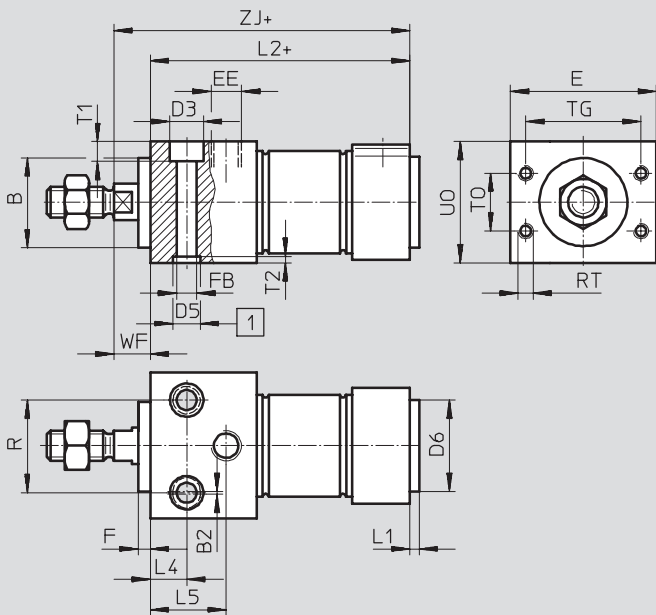
Download CAD data → www.festo.com/en/engineering

MQ – Lateral air connection

MA – Axial air connection



MH – With direct mounting block



- 1 Centring holes
(2 centring sleeves included in scope of delivery)
+ = plus stroke length

Ø	B Ø h9	B2	E	EE	G	F	FB Ø	D2 Ø	D3	D5 Ø	D6 Ø	L1	L2		
[mm]													-MQ	-MA	-MH
32	30	1	48	G1/8	19	4	6.6	34	11	9	30	3	69.5	65.5	85.5
40	38		54	G1/4	25		9	42	14	12	38	4	84.6	77.6	104.6
50	45		64					53			86.2		86.2	109.2	
63		2	72	G3/8	28		11	66	18	15	45		94.2	94.2	117.2

Ø	L3	L4	L5	R	RT	T0	T1	T2	TG	UO	WF	ZJ		
[mm]												-MQ	-MA	-MH
32	15	12	25	30	M5	16	6.6	2.1	38	40	12	103.5	99.5	97.5
40	18	15	32	38		24	9	2.6	42	48		123.6	116.5	116.6
50	25		35	42	M6	32			50	58	15	130.2	130.2	124.2
63	28		36	44	M8	36	11	3.1	52	72		139.2	139.2	132.2

Round cylinders DSNU

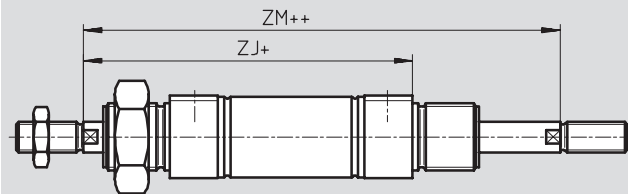
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com/en/engineering

S2 – Through piston rod



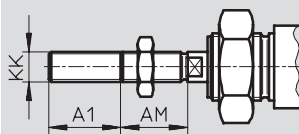
Note

The thread designs on both piston rod ends are identical. In combination with variant Q, the left-hand piston rod end is square, the right-hand piston rod end round.

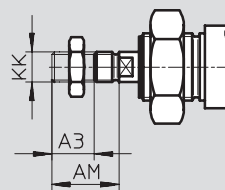
+ = plus stroke length

++ = plus 2x stroke length

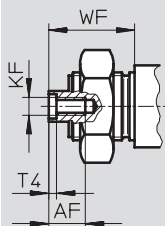
K2 – Extended male piston rod thread



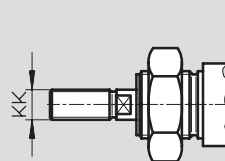
K6 – Shortened male piston rod thread



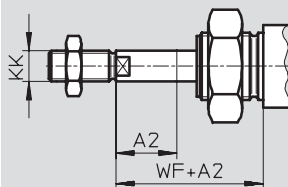
K3 – Female piston rod thread



K5 – Special piston rod thread



K8 – Extended piston rod



Note

If variant K8 is required in combination with S2, the piston rod will only be extended on one side.

Ø [mm]	A1 max.	A2 max.	A3 max.	AF	AM	KF	KK		T4	WF	ZJ			ZM
							Basic thread	Special thread ¹⁾			-MQ	-MA	-MH	
32	35	500	8	12	22	M6	M10x1.25	M10	2.6	34	103.5	99.5	97.5	137.5
40					24	M8	M12x1.25	M12	3.3	39	123.6	111.6	116.6	162.6
50	70		10	16	32	M10	M16x1.5	M16	4.7	44	130.2	130.2	124.2	174.2
63										45	139.2	139.2	132.2	184.2

1) The special threads are only available as male threads. The scope of delivery does not include a hex nut for the piston rod thread

Round cylinders DSNU

Technical data

FESTO

Cylinders with piston rods
Round cylinders

2.4

Ordering data						
Type	Piston Ø [mm]	Stroke [mm]	Flexible cushioning rings/plates at both ends		Pneumatic cushioning adjustable at both ends	
			Part No.	Type	Part No.	Type
	32	25	195 980	DSNU-32-25-P-A	196 020	DSNU-32-25-PPV-A
		40	195 981	DSNU-32-40-P-A	196 021	DSNU-32-40-PPV-A
		50	195 982	DSNU-32-50-P-A	196 022	DSNU-32-50-PPV-A
		80	195 983	DSNU-32-80-P-A	196 023	DSNU-32-80-PPV-A
		100	195 984	DSNU-32-100-P-A	196 024	DSNU-32-100-PPV-A
		125	195 985	DSNU-32-125-P-A	196 025	DSNU-32-125-PPV-A
		160	195 986	DSNU-32-160-P-A	196 026	DSNU-32-160-PPV-A
		200	195 987	DSNU-32-200-P-A	196 027	DSNU-32-200-PPV-A
		250	195 988	DSNU-32-250-P-A	196 028	DSNU-32-250-PPV-A
		320	195 989	DSNU-32-320-P-A	196 029	DSNU-32-320-PPV-A
	40	25	195 990	DSNU-40-25-P-A	196 030	DSNU-40-25-PPV-A
		40	195 991	DSNU-40-40-P-A	196 031	DSNU-40-40-PPV-A
		50	195 992	DSNU-40-50-P-A	196 032	DSNU-40-50-PPV-A
		80	195 993	DSNU-40-80-P-A	196 033	DSNU-40-80-PPV-A
		100	195 994	DSNU-40-100-P-A	196 034	DSNU-40-100-PPV-A
		125	195 995	DSNU-40-125-P-A	196 035	DSNU-40-125-PPV-A
		160	195 996	DSNU-40-160-P-A	196 036	DSNU-40-160-PPV-A
		200	195 997	DSNU-40-200-P-A	196 037	DSNU-40-200-PPV-A
		250	195 998	DSNU-40-250-P-A	196 038	DSNU-40-250-PPV-A
		320	195 999	DSNU-40-320-P-A	196 039	DSNU-40-320-PPV-A
	50	25	196 000	DSNU-50-25-P-A	196 040	DSNU-50-25-PPV-A
		40	196 001	DSNU-50-40-P-A	196 041	DSNU-50-40-PPV-A
		50	196 002	DSNU-50-50-P-A	196 042	DSNU-50-50-PPV-A
		80	196 003	DSNU-50-80-P-A	196 043	DSNU-50-80-PPV-A
		100	196 004	DSNU-50-100-P-A	196 044	DSNU-50-100-PPV-A
		125	196 005	DSNU-50-125-P-A	196 045	DSNU-50-125-PPV-A
		160	196 006	DSNU-50-160-P-A	196 046	DSNU-50-160-PPV-A
		200	196 007	DSNU-50-200-P-A	196 047	DSNU-50-200-PPV-A
		250	196 008	DSNU-50-250-P-A	196 048	DSNU-50-250-PPV-A
		320	196 009	DSNU-50-320-P-A	196 049	DSNU-50-320-PPV-A
	63	25	196 010	DSNU-63-25-P-A	196 050	DSNU-63-25-PPV-A
		40	196 011	DSNU-63-40-P-A	196 051	DSNU-63-40-PPV-A
		50	196 012	DSNU-63-50-P-A	196 052	DSNU-63-50-PPV-A
		80	196 013	DSNU-63-80-P-A	196 053	DSNU-63-80-PPV-A
		100	196 014	DSNU-63-100-P-A	196 054	DSNU-63-100-PPV-A
		125	196 015	DSNU-63-125-P-A	196 055	DSNU-63-125-PPV-A
		160	196 016	DSNU-63-160-P-A	196 056	DSNU-63-160-PPV-A
		200	196 017	DSNU-63-200-P-A	196 057	DSNU-63-200-PPV-A
		250	196 018	DSNU-63-250-P-A	196 058	DSNU-63-250-PPV-A
		320	196 019	DSNU-63-320-P-A	196 059	DSNU-63-320-PPV-A



Note

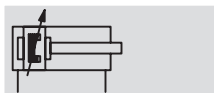
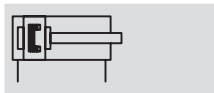
Further variants can be configured and ordered via the DSNU product modules → 1 / 2.4-24.

Round cylinders DSNU-Q, non-rotating

Technical data

FESTO

Function



$\varnothing$ - Diameter
 32 ... 63 mm

- Stroke length
 5 ... 500 mm



General technical data				
Piston $\varnothing$	32	40	50	63
Pneumatic connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$
Piston rod thread	M10x1.25	M12x1.25	M16x1.5	M16x1.5
Constructional design	Piston			
	Non-rotating with square piston rod			
Max. torque at the piston rod [Nm]	0.8	1.1	1.5	1.5
Cushioning	Flexible cushioning rings/plates at both ends			
	Pneumatic cushioning adjustable at both ends			
Cushioning length (PPV) [mm]	14	18	20	21
Position sensing	For proximity sensing			
Type of mounting	Via accessories			
Assembly position	Any			

Operating conditions				
Piston $\varnothing$	32	40	50	63
Operating medium	Filtered compressed air, lubricated or unlubricated			
Operating pressure [bar]	1 ... 10			

Ambient conditions		
Round cylinder	Basic version	R3
Ambient temperature ¹⁾ [°C]	-20 ... +80	
Corrosion resistance class CRC ²⁾	2	3

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 normal industrial environment or media such as coolants or lubricating agents

Corrosion resistance class 3 according to Festo standard 940 070

Components requiring higher corrosion resistance. 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

Round cylinders DSNU-Q, non-rotating

Technical data

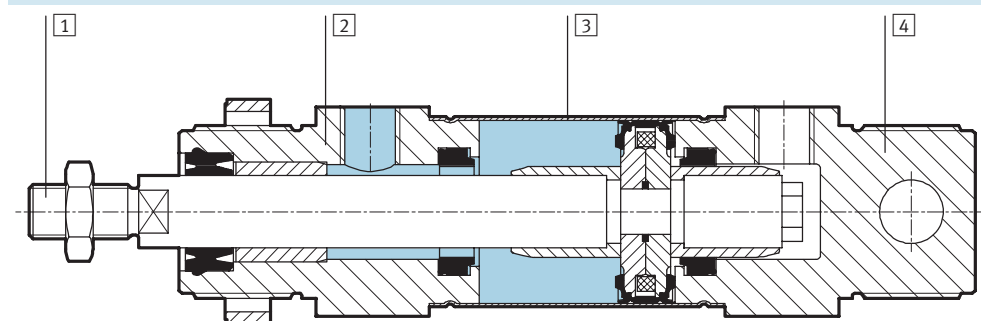
FESTO

Forces [N] and impact energy [J]				
Piston Ø	32	40	50	63
Theoretical force at 6 bar, advancing	483	753	1,178	1,870
Theoretical force at 6 bar, retracting	415	633	990	1,682
Impact energy at end positions	0.40	0.70	1	1.3

Weights [g]				
Piston Ø	32	40	50	63
Product weight with 0 mm stroke	370.5	661	1,087	1,445
Additional weight per 10 mm stroke	15.5	24	40	44

Materials

Sectional view



Round cylinder	Basic version	R3
1 Piston rod	High-alloy steel	High-alloy stainless steel
2 Bearing cap	Wrought aluminium alloy	
3 Cylinder barrel	High-alloy stainless steel	
4 End cap	Wrought aluminium alloy	
– Seals	Polyurethane, nitrile rubber	

Round cylinders DSNU-Q, non-rotating

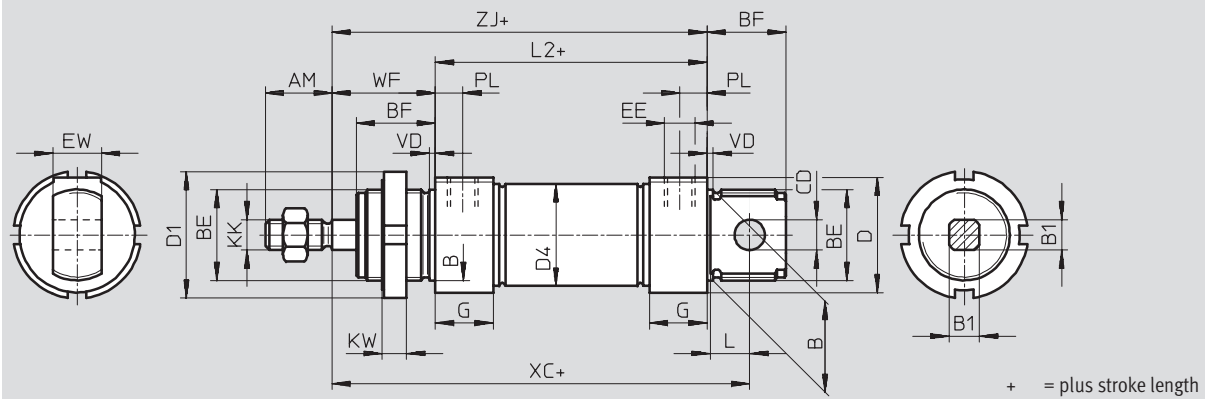
Technical data

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Dimensions

Download CAD data → www.festo.com/en/engineering

Basic version



Ø	AM	B	B1	BE	BF	CD	D	D1	D4	EE	EW
[mm]		Ø h9	□			Ø E10	Ø	Ø	Ø		
32	22	30	10	M30x1.5	26	10	38	42	33.6	G ¹ / ₈	16
40	24	38	12	M38x1.5	30	12	46	50	41.6	G ¹ / ₄	18
50	32	45	16	M45x1.5	33	16	57	60	52.4	G ¹ / ₄	21
63	32	45	16	M45x1.5	33	16	70	60	65.4	G ³ / ₈	21

Ø	G	KK	KW	L	L2	PL	VD	WF	XC	ZJ
[mm]									±1	
32	19	M10x1.25	8	13	69.5	9	2	34	117.5	103.5
40	25	M12x1.25	10	15	84.6	12	3	39	139.6	123.6
50	25	M16x1.5	10	16	86.2	12	3	44	147.2	130.2
63	28	M16x1.5	10	16	94.2	13	3	45	156.2	139.2

Cylinders with piston rods
Round cylinders

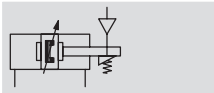
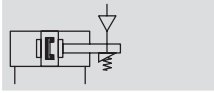
2.4

Round cylinders DSNU-KP, with clamping cartridge

Technical data

FESTO

Function



Ø - Diameter
32 ... 63 mm

Stroke length
1 ... 500 mm



General technical data				
Piston Ø	32	40	50	63
Pneumatic connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$
Piston rod thread	M10x1.25	M12x1.25	M16x1.5	M16x1.5
Constructional design	Piston			
	Piston rod			
	Cylinder barrel			
Cushioning	Flexible cushioning rings/plates at both ends			
	Pneumatic cushioning adjustable at both ends			
Cushioning length (PPV) [mm]	14	18	20	21
Position sensing	For proximity sensing			
Type of mounting	Via through-holes			
	Via accessories			
Assembly position	Any			
Clamping unit holding force [N]	600	1,000	1,400	2,000
Max. axial backlash at the clamped piston rod [mm]	0.25	0.25	0.3	0.3
Clamping unit pneumatic connection	M5	G $\frac{1}{8}$	G $\frac{1}{8}$	G $\frac{1}{8}$

Operating conditions				
Piston Ø	32	40	50	63
Operating medium	Filtered compressed air, lubricated or unlubricated			
Operating pressure [bar]	3 ... 10			

Ambient conditions		
Round cylinder	Basic version	R3
Ambient temperature ¹⁾ [°C]	-10 ... +80	
Corrosion resistance class CRC ²⁾	2	3

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 normal industrial environment or media such as coolants or lubricating agents

Corrosion resistance class 3 according to Festo standard 940 070

Components requiring higher corrosion resistance. 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

Round cylinders DSNU-KP, with clamping cartridge

Technical data

FESTO

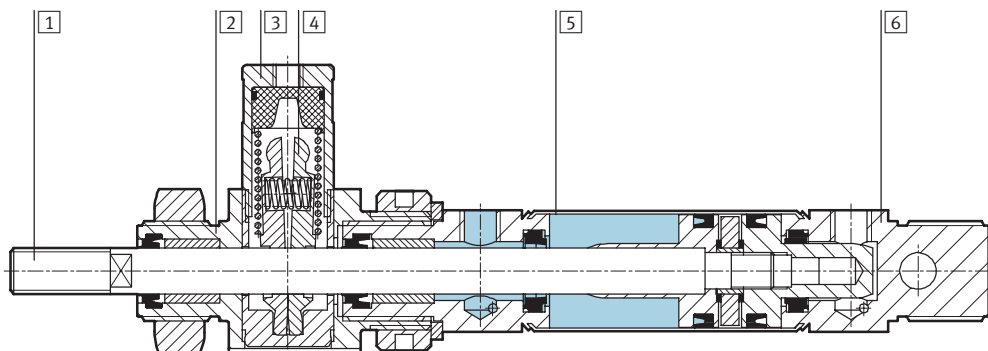
Forces [N] and impact energy [J]				
Piston Ø	32	40	50	63
Theoretical force at 6 bar, advancing	483	753	1,178	1,870
Theoretical force at 6 bar, retracting	415	633	990	1,682
Impact energy at the end positions ¹⁾	0.40	0.70	1	1.3

1) The values are reduced by approx. 50% at 80 °C

Weights [g]				
Piston Ø	32	40	50	63
Product weight with 0 mm stroke	711.5	1,287	2,059	2,556
Additional weight per 10 mm stroke	15.5	24	40	44

Materials

Sectional view



Round cylinder	Basic version	R3
1 Piston rod	High-alloy steel	High-alloy stainless steel
2 Bearing cap	Wrought aluminium alloy	
3 Clamping unit housing	Wrought aluminium alloy	
4 Clamping jaws	Brass	
5 Cylinder barrel	High-alloy stainless steel	
6 End cap	Wrought aluminium alloy	
– Clamping unit piston	Polyacetate	
– Spring	Spring steel	
– Seals	Polyurethane, nitrile rubber	

Round cylinders DSNU-KP, with clamping cartridge

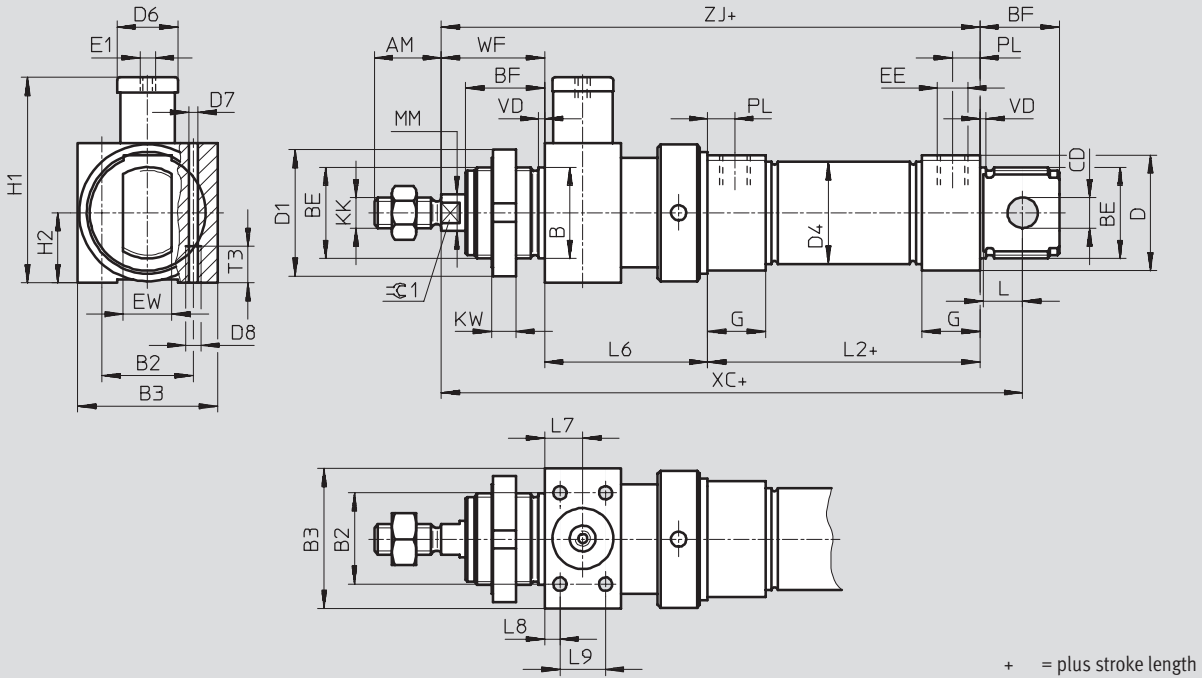
Technical data

FESTO

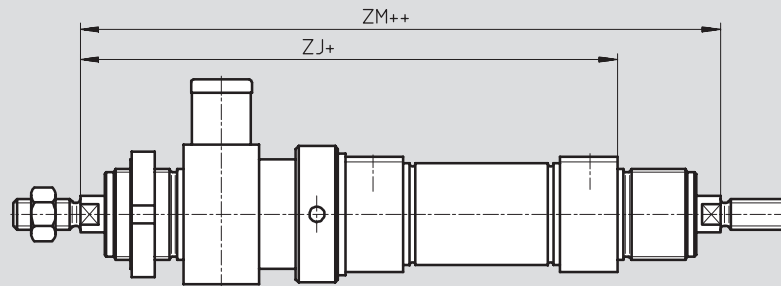
Dimensions

Download CAD data → www.festo.com/en/engineering

Basic version



S2 – Through piston rod



- Note

The thread designs on both piston rod ends are identical. The clamping cartridge is mounted on only one side.

In combination with variant Q, the front piston rod is square, the rear piston rod round. The clamping

cartridge is mounted on the rear, round piston rod.

+ = plus stroke length

++ = plus stroke length

Round cylinders DSNU-KP, with clamping cartridge

Technical data

FESTO

Ø [mm]	AM	B Ø h9	B2	B3	BE	BF	CD Ø E10	D Ø	D1 Ø	D4 Ø	D6	D7
32	22	30	30	46	M30x1.5	26	10	38	42	33.6	20	4.4
40	24	38	36	56	M38x1.5	30	12	46	50	41.6	24	6.8
50	32	45	50	65	M45x1.5	33	16	57	60	52.4	30	8.5
63			54	72	M45x1.5			70		65.4	38	

Ø [mm]	D8	E1	EE	EW	G	H1	H2	KK	KW	MM Ø	L	L2
32	M5	M5	G½	16	19	67.5	23	M10x1.25	8	12	13	69.5
40	M8	G½	G¼	18	25	89	28	M12x1.25	10	16	15	84.6
50	M10	G½		21		107.5	32.5	M16x1.5		20	16	86.2
63		G½	G¾		28	121.5	36					94.2

Ø [mm]	L6 ±0.75	L7	L8	L9	T3	PL	VD	WF	XC ±1	ZJ	ZM	≈C1
32	55	12.5	5	15	12	9	2	34	171	157	191	10
40	69	17	7	20	18	12	3	39	207.1	191.1	230.1	13
50	78	20		26	20			44	223.7	206.7	250.7	17
63	86	24	8	32	21	13		45	240.7	223.7	268.7	

Round cylinders DSNU

Ordering data – Modular products

FESTO

Cylinders with piston rods
Round cylinders

2.4

M Mandatory data					O Options →			
Module No.	Function	Piston 	Stroke	Cushioning	Position sensing	Cylinder cap	Type of piston rod	Male thread extended
193 992	DSNU	32	1 ... 500	P PPV	A	MQ MA MH	S2	...K2
193 993		40						
193 994		50						
193 995		63						
Ordering example								
193 994	DSNU	– 50	– 400	– PPV	– A	– MQ	–	–

Ordering table								
Size	32	40	50	63	Condi- tions	Code	Enter code	
M Module No.	193 992	193 993	193 994	193 995				
Function	Double-acting round cylinder					DSNU		DSNU
Piston Ø [mm]	32	40	50	63		-...		
Stroke [mm]	1 ... 500					-...		
Cushioning	Flexible cushioning rings/plates at both ends					-P		
	Pneumatic cushioning adjustable at both ends				1	-PPV		
O Position sensing	For proximity sensing				2	-A		
Cylinder cap	Lateral air connection, end cap				3	-MQ		
	Axial air connection, end cap				4	-MA		
	Mounting flange at front (direct mounting), bearing cap				5	-MH		
Type of piston rod	Through piston rod				6	-S2		
Male thread extended [mm]	1 ... 35		1 ... 70		7	-...K2		

- 1 PPV Not with MA
 2 A Minimum stroke: 10 mm
 3 MQ Not with S2, S10, S11
 4 MA Not with S2, S10, S11, R8

- 5 MH Not with combination S6-R3
 Not with KP, S10, S11, R8
 6 S2 Not with MQ, MA, S10, S11
 7 K2 Not with K3, K6

Transfer order code

	DSNU	-		-		-		-		-		-	
--	------	---	--	---	--	---	--	---	--	---	--	---	--

Round cylinders DSNU

Ordering data – Modular products

FESTO

Options

Male thread shortened	Female thread	Special thread	Piston rod extended	Clamping unit	Temperature-resistant	Constant motion	Running characteristics	Corrosion protection	Wiper seal
...K6	K3	"... "K5	...K8	KP	S6	S10	S11	R3	R8
- 8K6	-	-	-	-	- S6	-	-	- R3	-

Ordering table

Size	32	40	50	63	Condi- tions	Code	Enter code
Male thread shortened [mm]	Piston rod with shortened male thread 1 ... 8			1 ... 10	8	-...K6	
Female thread	Female piston rod thread (M6) (M8) (M10)				9	-K3	
Special thread	Special piston rod thread M10 M12 M16					-"... "K5	
Piston rod extended at front [mm]	Extended piston rod at front 1 ... 500					...K8	
Clamping unit	Clamping cartridge				10	-KP	
Temperature-resistant	Heat-resistant seals up to max. 120 °C				11	-S6	
Constant motion	Slow speed (constant motion at low piston speeds)				12	-S10	
Running characteristics	Low friction				13	-S11	
Corrosion protection	High corrosion protection				14	-R3	
Wiper seal	Metal scraper					-R8	

- 8 K6 Not with K3
9 K3 Not with K5
10 KP Not with S6, S10, S11, R3, R8

- 11 S6 Not with S10, S11
12 S10 Not with S11, R3, R8
13 S11 Not with R3, R8
14 R3 Not with R8

Transfer order code

- [] - [] - [] - [] - [] - [] - [] - [] - [] - []

Cylinders with piston rods
Round cylinders

2.4

Round cylinders DSNU-Q, non-rotating

Ordering data – Modular products

FESTO

M Mandatory data					O Options				
Module No.	Function	Piston 	Stroke	Cushio- ning	Position sensing	Cylinder cap	Protection against torsion	Type of piston rod	Male thread extended
193 992	DSNU	32	1 ... 500	P PPV	A	MQ MA MH	Q	S2	...K2
193 993		40							
193 994		50							
193 995		63							
Ordering example									
193 992	DSNU	- 32	- 500	- P	- A	- MA	- Q	-	-

Ordering table								
Size		32	40	50	63	Condi- tions	Code	Enter code
M	Module No.	193 992	193 993	193 994	193 995			
	Function	Double-acting round cylinder					DSNU	
	Piston Ø [mm]	32	40	50	63		-...	
	Stroke [mm]	1 ... 500					-...	
	Cushioning	Flexible cushioning rings/plates at both ends					-P	
		Pneumatic cushioning adjustable at both ends				1	-PPV	
O	Position sensing	For proximity sensors				2	-A	
	Cylinder cap	Lateral air connection, end cap				3	-MQ	
		Axial air connection, end cap				3	-MA	
		Mounting flange at front (direct mounting), bearing cap				4	-MH	
	Protection against torsion	Square piston rod					-Q	
		Restricted stroke [mm]						
		5 ... 300	5 ... 400		5 ... 500			
	Type of piston rod	Through piston rod					-S2	
Male thread extended [mm]	Piston rod with extended male thread				5	-...K2		
	1 ... 35		1 ... 70					

- 1 PPV Not with MA
2 A Minimum stroke: 10 mm
3 MQ, MA Not with S2

- 4 MH Not with combination Q-R3, S6-R3
Not with KP
5 K2 Not with K3, K6

Transfer order code

	DSNU	-		-		-		-		-	Q	-		-	
--	------	---	--	---	--	---	--	---	--	---	---	---	--	---	--

Round cylinders DSNU-Q, non-rotating

Ordering data – Modular products

FESTO

→ 0 Options

Male thread shortened	Female thread	Special thread	Piston rod extended	Clamping unit	Temperature-resistant	Corrosion protection
...K6	K3	“...”K5	...K8	KP	S6	R3
-	- K3	-	-	- KP	-	-

Ordering table							
Size	32	40	50	63	Condi- tions	Code	Enter code
↓ Male thread shortened	Piston rod with shortened male thread						
0 [mm]	1 ... 4	1 ... 10			6	-...K6	
Female thread	Female piston rod thread						
	(M6)	(M8)	(M10)		7	-K3	
Special thread	Special piston rod thread						
	M10	M12	M16			-“...”K5	
Piston rod extended	Extended piston rod						
[mm]	1 ... 500					...K8	
Clamping unit	Clamping cartridge						
					8	-KP	
Temperature-resistant	Heat-resistant seals up to max. 120 °C					-S6	
Corrosion protection	High corrosion protection					-R3	

6 K6 Not with K3
7 K3 Not with K5

8 KP Only with S2
Not with S6, R3

Cylinders with piston rods
Round cylinders

2.4

Transfer order code

- - - - - - -

Round cylinders ESNU

Technical data

FESTO

Function



Ø - Diameter
32 ... 63 mm

— - Stroke length
1 ... 50 mm

Additional variants

→ 1 / 2.4-31



Basic version



Axial air connection MA

General technical data				
Piston Ø	32	40	50	63
Pneumatic connection	G1/8	G1/4	G1/4	G3/8
Piston rod thread	M10x1.25	M12x1.25	M16x1.5	M16x1.5
Constructional design	Piston			
	Piston rod			
	Cylinder barrel			
Cushioning	Flexible cushioning rings/plates at both ends			
Position sensing	For proximity sensing			
Type of mounting	Via accessories			
Assembly position	Any			

Operating conditions				
Piston Ø	32	40	50	63
Operating medium	Filtered compressed air, lubricated or unlubricated			
Operating pressure [bar]	1.2 ... 10			

Ambient conditions		
Round cylinder		
Ambient temperature ¹⁾ [°C]	-20 ... +80	
Corrosion resistance class CRC ²⁾	2	

1) Note operating range of proximity sensors

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

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

Round cylinders ESNU

Technical data

FESTO

Forces [N] and impact energy [J]				
Piston Ø	32	40	50	63
Theoretical force at 6 bar, advancing	442	688	1,071	1,763
Spring return force 10 mm stroke	36	60	95	95
Spring return force 25 mm stroke	30	50	82	82
Spring return force 50 mm stroke	20	30	60	60
Impact energy at the end positions ¹⁾	0.40	0.70	1	1.3

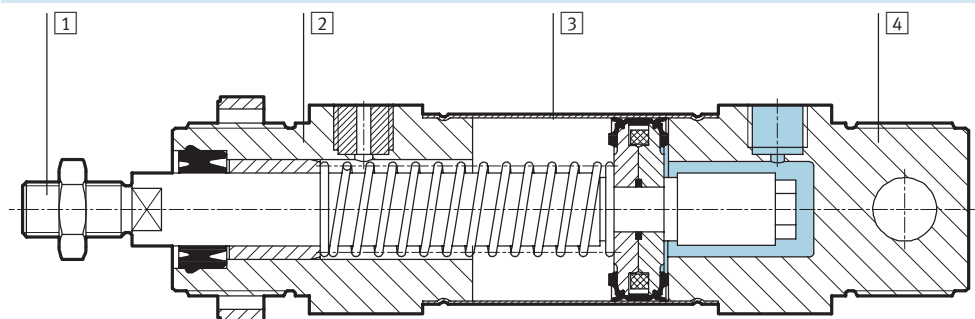
1) The values are reduced by approx. 50% at 80 °C

Weights ESNU-... [g]				
Piston Ø	32	40	50	63
Product weight with 0 mm stroke	370.5	661	1,087	1,445
Additional weight per 10 mm stroke	15.5	24	40	44

Weights ESNU-...-MA [g]				
Piston Ø	32	40	50	63
Product weight with 0 mm stroke	330	585	1,013	1,369
Additional weight per 10 mm stroke	15.5	24	40	44

Materials

Sectional view



Round cylinder		
1	Piston rod	High-alloy steel
2	Bearing cap	Wrought aluminium alloy
3	Cylinder barrel	High-alloy stainless steel
4	End cap	Wrought aluminium alloy
-	Seals	Polyurethane, nitrile rubber
-	Spring	Spring steel

Round cylinders ESNU

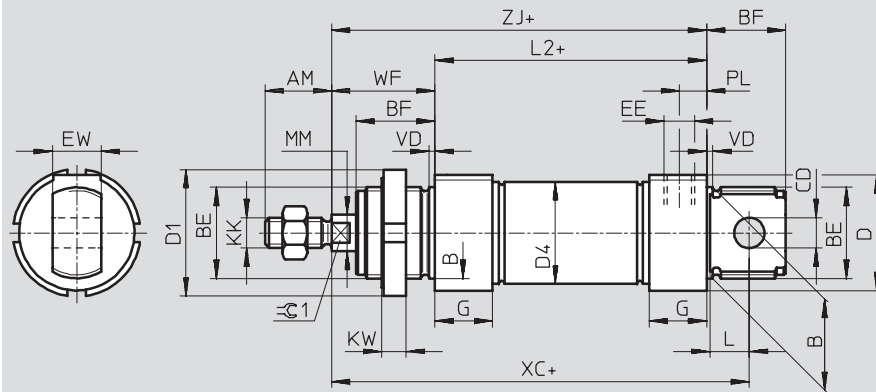
Technical data

FESTO

Dimensions

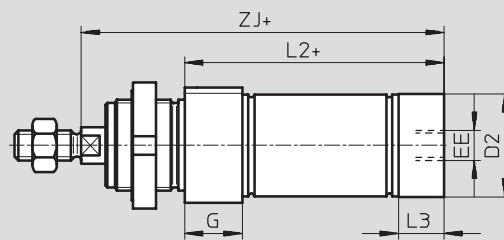
Download CAD data → www.festo.com/en/engineering

Basic version



+ = plus stroke length

MA – Axial air connection



+ = plus stroke length

Ø [mm]	AM	B Ø h9	BE	BF	CD Ø E10	D Ø	D1 Ø	D2 Ø	D4 Ø	EE	EW	G	KK
32	22	30	M30x1.5	26	10	38	42	34	33.6	G $\frac{1}{8}$	16	19	M10x1.25
40	24	38	M38x1.5	30	12	46	50	42	41.6	G $\frac{1}{4}$	18	25	M12x1.25
50	32	45	M45x1.5	33	16	57	60	53	52.4	G $\frac{3}{8}$	21	28	M16x1.5
63						70		66	65.4				

Ø	KW	L	L2		L3	PL	MM Ø	VD	WF	XC ±1	ZJ		≈G1
[mm]				-MA								-MA	
32	8	13	69.5	65.5	15	9	12	2	34	117.5	103.5	99.5	10
40	10	15	84.6	77.6	18	12	16	3	39	139.6	123.6	116.6	13
50		16	86.2	86.2	25		20		44	147.2	130.2	130.2	17
63			94.2	94.2	28	13			45	156.2	139.2	139.2	

Round cylinders ESNU

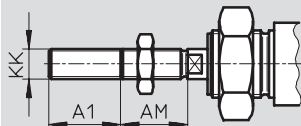
Technical data

FESTO

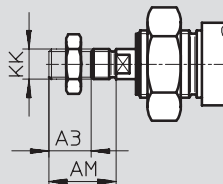
Dimensions

Download CAD data → www.festo.com/en/engineering

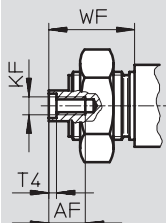
K2 – Extended male piston rod thread



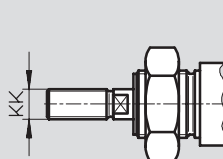
K6 – Shortened male piston rod thread



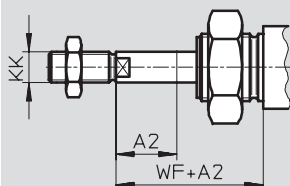
K3 – Female piston rod thread



K5 – Special piston rod thread



K8 – Extended piston rod



Ø [mm]	A1 max.	A2 max.	A3 max.	AF	AM	KF	KK		T4	WF
							Basic thread	Special thread ¹⁾		
32	35	50	8	M6	22	12	M10x1.25	M10	2.6	34
40				M8	24		M12x1.25	M12	3.3	39
50			10	M10	32	16	M16x1.5	M16	4.7	44
63										45

1) The special threads are only available as male threads. The scope of delivery does not include a hex nut for the piston rod thread

Ordering data

Type	Piston Ø [mm]	Stroke [mm]	Without position sensing		With position sensing	
			Part No.	Type	Part No.	Type
	32	10	195 870	ESNU-32-10-P	196 376	ESNU-32-10-P-A
		25	195 871	ESNU-32-25-P	196 377	ESNU-32-25-P-A
		50	195 872	ESNU-32-50-P	196 378	ESNU-32-50-P-A
	40	10	195 873	ESNU-40-10-P	196 379	ESNU-40-10-P-A
		25	195 874	ESNU-40-25-P	196 380	ESNU-40-25-P-A
		50	195 875	ESNU-40-50-P	196 381	ESNU-40-50-P-A
	50	10	195 876	ESNU-50-10-P	196 382	ESNU-50-10-P-A
		25	195 877	ESNU-50-25-P	196 383	ESNU-50-25-P-A
		50	195 878	ESNU-50-50-P	196 384	ESNU-50-50-P-A
	63	10	195 879	ESNU-63-10-P	196 385	ESNU-63-10-P-A
		25	195 880	ESNU-63-25-P	196 386	ESNU-63-25-P-A
		50	195 881	ESNU-63-50-P	196 387	ESNU-63-50-P-A

Round cylinders ESNU

Ordering data – Modular products

FESTO

Mandatory data					Options	
Module No.	Function	Piston Ø	Stroke	Cushioning	Position sensing	End cap
194 002	ESNU	32	1 ... 50	P	A	MA
194 003		40				
194 004		50				
194 005		63				
Ordering example						
194 002	ESNU	- 32	- 45	- P	- A	- MA

Ordering table							
Size	32	40	50	63	Condi- tions	Code	Enter code
M Module No.	194 002	194 003	194 004	194 005			
Function	Single-acting round cylinder					ESNU	ESNU
Piston Ø [mm]	32	40	50	63		-...	
Stroke [mm]	1 ... 50					-...	
Cushioning	Flexible cushioning rings/plates at both ends					-P	-P
O Position sensing	For proximity sensing				1	-A	
End cap	Axial air connection					-MA	

1 A Minimum stroke: 10 mm

Transfer order code

	ESNU	-		-	P	-		-
--	------	---	--	---	---	---	--	---

Round cylinders ESNU

Ordering data – Modular products

FESTO

Options

Male thread extended	Male thread shortened	Female thread	Special thread	Piston rod extended
...K2	...K6	K3	“...”K5	...K8
50K2	-	-	“M10”K5	- 30K8

Ordering table

Ordering table								
Size		32	40	50	63	Condi- tions	Code	Enter code
↓ 0	Male thread extended	Piston rod with extended male thread				2	---K2	
	[mm]	1 ... 35						
	Male thread shortened	Piston rod with shortened male thread					---K6	
	[mm]	1 ... 8		1 ... 10				
	Female thread	Female piston rod thread				3	-K3	
		(M6)	(M8)	(M10)				
Special thread	Special piston rod thread					-“...”K5		
	M10	M12	M16					
Piston rod extended	Piston rod extended					...K8		
[mm]	1 ... 50							

2 K2 Not with female thread K3, shortened male thread K6

3 K3 Not with special thread K5, shortened male thread K6

Transfer order code

	-		-		-		-	
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Round cylinders DSNU/ESNU

Accessories

FESTO

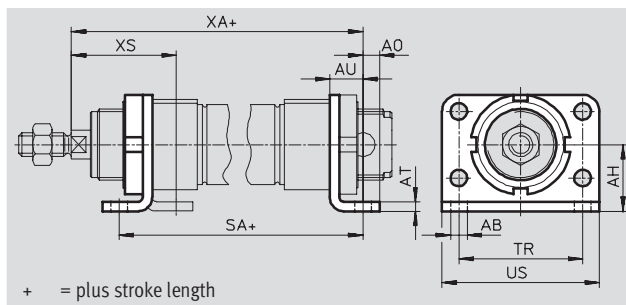
Foot mounting HBN/CRH

Material:

HBN: Galvanised steel

CRH: High-alloy stainless steel

Free of copper, PTFE and silicone



Dimensions and ordering data

For Ø	AB	AH	AO	AT	AU	SA		TR	US	XA		XS	
[mm]	Ø						-KP				-KP		-KP
32	7	28	7	4	14	97.5	151	52	66	117.5	171	44	–
40	9	33	10	5	20	124.6	192.1	60	80	138.6	206.1	49	–
50	9	40	10	6	20	126.2	202.7	70	90	150.2	226.7	58	–
63	9	45	10	6	20	134.2	218.7	76	96	159.2	243.7	59	–

For Ø	Basic version				High corrosion protection			
	CRC ¹⁾	Weight [g]	Part No.	Type	CRC ¹⁾	Weight [g]	Part No.	Type
32	2	247	195 851	HBN-32x2	4	237	162 951	CRH-32
40	2	446	195 852	HBN-40x2	4	341	162 952	CRH-40
50	2	666	195 853	HBN-50x2	4	559	162 953	CRH-50
63	2	816	195 854	HBN-63x2	4	680	162 954	CRH-63

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

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

Corrosion resistance class 4 according to Festo standard 940 070

Components requiring higher corrosion resistance. Parts used with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required

Round cylinders DSNU/ESNU

Accessories

FESTO

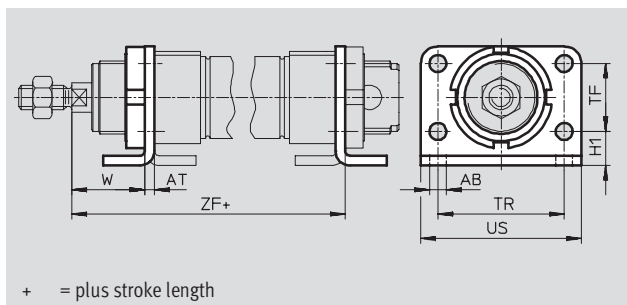
Flange mounting FBN/CRFV

Material:

FBN: Galvanised steel

CRFV: High-alloy stainless steel

Free of copper, PTFE and silicone



+ = plus stroke length

Dimensions and ordering data									
For Ø	AB	AT	H1	TF	TR	US	W	ZF	
[mm]	Ø								-KP
32	7	4	14	28	52	66	30	107.5	161
40	9	5	18	30	60	80	29	123.6	191.1
50	9	6	20	40	70	90	38	136.2	212.6
63	9	6	20	50	76	96	39	145.2	229.7

For Ø	Basic version				High corrosion protection			
	CRC ¹⁾	Weight [g]	Part No.	Type	CRC ¹⁾	Weight [g]	Part No.	Type
32	2	102	195 855	FBN-32	4	102	161 858	CRFV-32
40	2	190	195 856	FBN-40	4	190	161 859	CRFV-40
50	2	290	195 857	FBN-50	4	290	161 860	CRFV-50
63	2	365	195 858	FBN-63	4	365	161 861	CRFV-63

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

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

Corrosion resistance class 4 according to Festo standard 940 070

Components requiring higher corrosion resistance. Parts used with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required

Cylinders with piston rods
Round cylinders

2.4

Round cylinders DSNU/ESNU

Accessories

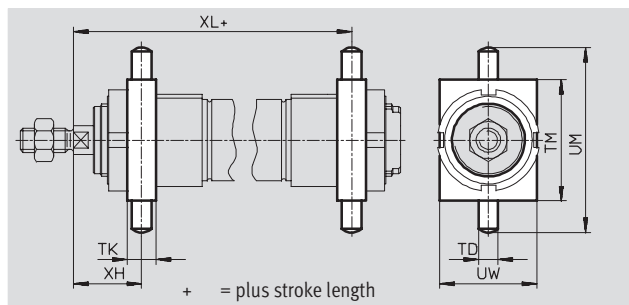
FESTO

Swivel mounting WBN

Material:

Galvanised steel

Free of copper, PTFE and silicone



Dimensions and ordering data											
For Ø	TD	TK	TM	UM	UW	XH	XL		CRC ¹⁾	Weight	Part No. Type
[mm]	Ø f8							-KP		[g]	
32	8	12	50	76	40	28	109.5	163	2	130	195 863 WBN-32
40	10	15	60	92	50	31.5	126.1	193.6	2	240	195 864 WBN-40
50	12	20	80	116	65	34	140.2	216.7	2	610	195 865 WBN-50/63
63	12	20	80	116	65	35	149.2	233.7	2	610	195 865 WBN-50/63

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

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents

Swivel mounting SBN

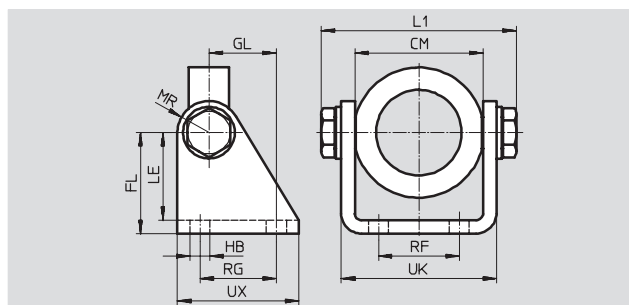
Material:

Mounting ring: Wrought aluminium alloy, anodised

Bearings: Bronze

Screws: Galvanised steel

Bracket: Steel



Dimensions and ordering data													
For Ø	CM	FL	GL	HB	L1	LE	MR	RF	RG	UK	UX	CRC ¹⁾	Weight
[mm]					max.								[g]
32	46.1+0.2	40	27	9	72.2	35	13	28	30	56.1	50	2	295
40	57.1+0.2	45	30	9	88.2	39	14	36	34	69.1	54	2	465
50/63	70.1+0.4	50	34	9	102.2	44	16	42	35	82.1	65	2	670

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

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents

Round cylinders DSNU/ESNU

Accessories

FESTO

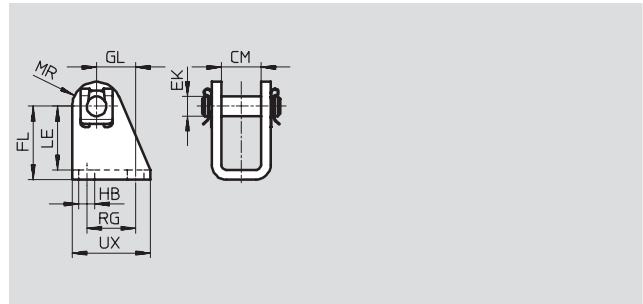
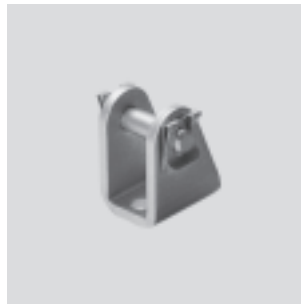
Clevis foot LBN/CRLBN

Material:

LBN: Galvanised steel

CRLBN: High-alloy stainless steel

Free of copper, PTFE and silicone



Dimensions and ordering data									
For Ø	CM	EK Ø	FL	GL	HB	LE	MR	RG	UX
[mm]									
32	16.1	10	35 +0.4/-0.2	18.5	6.6	31	11	24	35
40	18.1	12	40 +0.4/-0.2	24.5	9	35	13	30	45
50, 63	21.1	16	45 +0.5/-0.2	28	9	39	14	34	50

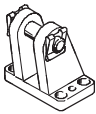
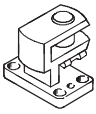
For Ø [mm]	Basic version				High corrosion protection			
	CRC ¹⁾	Weight [g]	Part No.	Type	CRC ¹⁾	Weight [g]	Part No.	Type
32	2	109	195 860	LBN-32	4	107	195 866	CRLBN-32
40	2	192	195 861	LBN-40	4	184	195 867	CRLBN-40
50, 63	2	302	195 862	LBN-50/63	4	289	195 868	CRLBN-50/63

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

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

Corrosion resistance class 4 according to Festo standard 940 070

Components requiring higher corrosion resistance. Parts used with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required

Ordering data – Mounting attachments				Technical data → 1 / 10.1-2			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Clevis foot mounting LBG				Clevis foot, right-angled LQG			
	32	31 761	LBG-32		32	31 768	LQG-32
	40	31 762	LBG-40		40	31 769	LQG-40
	50	31 763	LBG-50		50	31 770	LQG-50
	63	31 764	LBG-63		63	31 771	LQG-63

Round cylinders DSNU/ESNU

Accessories

FESTO

Ordering data – Piston rod attachments				Technical data → 1 / 10.3-2			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Rod eye SGS				Rod clevis SGA			
	32	9 261	SGS-M10x1,25		32	32 954	SGA-M10x1,25
	40	9 262	SGS-M12x1,25		40	10 767	SGA-M12x1,25
	50	9 263	SGS-M16x1,5		50	10 768	SGA-M16x1,5
	63				63		
Rod clevis SG				Self-aligning rod coupler FK			
	32	6 144	SG-M10x1,25		32	6 140	FK-M10x1,25
	40	6 145	SG-M12x1,25		40	6 141	FK-M12x1,25
	50	6 146	SG-M16x1,5		50	6 142	FK-M16x1,5
	63				63		
Coupling piece KSG				Coupling piece KSZ			
	32	32 963	KSG-M10x1,25		32	36 125	KSZ-M10x1,25
	40	32 964	KSG-M12x1,25		40	36 126	KSZ-M12x1,25
	50	32 965	KSG-M16x1,5		50	36 127	KSZ-M16x1,5
	63				63		

Ordering data – Corrosion resistant piston rod attachments				Technical data → 1 / 10.3-2			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Rod eye CRSGS				Rod clevis CRSG			
	32	195 582	CRSGS-M10x1,25		32	13 569	CRSG-M10x1,25
	40	195 583	CRSGS-M12x1,25		40	13 570	CRSG-M12x1,25
	50	195 584	CRSGS-M16x1,5		50	13 571	CRSG-M16x1,5
	63				63		

Ordering data – One-way flow control valves				Technical data → Volume 2			
	Connection		Material	Part No.	Type		
	Thread	For tubing O.D.					
For exhaust air							
	G1/8	3	Metal design	193 142	GRLA-1/8-QS-3-D		
		4		193 143	GRLA-1/8-QS-4-D		
		6		193 144	GRLA-1/8-QS-6-D		
		8		193 145	GRLA-1/8-QS-8-D		
	G1/4	6		193 146	GRLA-1/4-QS-6-D		
		8		193 147	GRLA-1/4-QS-8-D		
		10		193 148	GRLA-1/4-QS-10-D		
	G3/8	6		193 149	GRLA-3/8-QS-6-D		
		8		193 150	GRLA-3/8-QS-8-D		
		10		193 151	GRLA-3/8-QS-10-D		
	For supply air						
	G1/8	3	Metal design	193 156	GR LZ-1/8-QS-3-D		
		4		193 157	GR LZ-1/8-QS-4-D		
		6		193 158	GR LZ-1/8-QS-6-D		
		8		193 159	GR LZ-1/8-QS-8-D		

Round cylinders DSNU/ESNU

Accessories

FESTO

Ordering data – Corrosion resistant one-way flow control valves						Technical data➔ Volume 2	
	Connection		Material	Part No.	Type		
	Thread	For push-in fitting					
For exhaust air							
	G1/8	CRQS/CRQSL/CRQST	Electrolytically polished stain- less steel casting	161 404	CRGRLA-1/8-B		
	G1/4			161 405	CRGRLA-1/4-B		
	G3/8			161 406	CRGRLA-3/8-B		

Ordering data – Proximity sensors, u-shaped design, magneto-resistive								Technical data➔ 1 / 10.2-75		
	Mounting	Switch out-put	Electrical connection		Cable length [m]	Connection direction	Part No.	Type		
			Cable	M8 plug						
NO contact										
	Via accessories	PNP	3-wire	–	2.5	In-line	152 836	SMT0-4U-PS-K-LED-24		
			–	3-pin	–	In-line	152 742	SMT0-4U-PS-S-LED-24		
		NPN	3-wire	–	2.5	In-line	152 837	SMT0-4U-NS-K-LED-24		
			–	3-pin	–	In-line	152 743	SMT0-4U-NS-S-LED-24		

Ordering data – Proximity sensors, u-shaped design, magnetic reed							Technical data➔ 1 / 10.2-77	
	Mounting	Electrical connection		Cable length	Connection direction	Part No.	Type	
		Cable	M8 plug					
NO contact								
	Via accessories	3-wire	–	2.5	In-line	36 198	SME0-4U-K-LED-24	
				5	In-line	175 401	SME0-4U-K5-LED-24	
		–	3-pin	–	In-line	151 526	SME0-4U-S-LED-24-B	

Ordering data – Proximity sensors, round design, magnetic reed, corrosion resistant							Technical data➔ 1 / 10.2-79	
	Mounting	Electrical connection		Cable length	Connection direction	Part No.	Type	
		Cable	M8 plug					
NO contact								
	Via accessories	3-wire	–	2.5	In-line	161 775	CRSME0-4-K-LED-24	

Ordering data – Mounting kit for proximity sensor SMEO/SMT0/CRSMEO				Technical data ➔ 1 / 10.2-81	
Designation	For Ø		Part No.	Type	
Mounting kit CRSMBR, corrosion resistant					
	32		163 888	CRSMBR-32	
	40		163 889	CRSMBR-40	
	50		163 890	CRSMBR-50	
	63		163 891	CRSMBR-63	

Round cylinders DSNU/ESNU

Accessories

FESTO

Ordering data – Proximity sensor for T-slot, magneto-resistive							Technical data➔1 / 10.2-13	
	Mounting	Switch out-put	Electrical connection			Cable length [m]	Part No.	Type
			Cable	M8 plug	M12 plug			
NO contact								
	Via accessories	PNP	3-wire	–	–	2.5	525 898	SMT-8F-PS-24V-K2,5-OE
		NPN					525 909	SMT-8F-NS-24V-K2,5-OE
		–	2-wire	–	–	2.5	525 908	SMT-8F-ZS-24V-K2,5-OE
		PNP	–	3-pin	–	0.3	525 899	SMT-8F-PS-24V-K0,3-M8D
		NPN					525 910	SMT-8F-NS-24V-K0,3-M8D
		PNP	–	–	3-pin	0.3	525 900	SMT-8F-PS-24V-K0,3-M12
	Via accessories	PNP	3-wire	–	–	2.5	175 436	SMT-8-PS-K-LED-24-B
			–	3-pin	–	0.3	175 484	SMT-8-PS-S-LED-24-B
NC contact								
	Via accessories	PNP	3-wire	–	–	7.5	525 911	SMT-8F-PO-24V-K7,5-OE

Ordering data – Proximity sensor for T-slot, magnetic reed					Technical data➔ 1 / 10.2-18	
	Mounting	Electrical connection		Cable length [m]	Part No.	Type
		Cable	M8 plug			
NO contact						
	Via accessories	3-wire	–	2.5	525 895	SME-8F-DS-24V-K2,5-OE
				5.0	525 897	SME-8F-DS-24V-K5,0-OE
		2-wire	–	2.5	525 907	SME-8F-ZS-24V-K2,5-OE
		–	3-pin	0.3	525 896	SME-8F-DS-24V-K0,3-M8D
	Via accessories	3-wire	–	2.5	150 855	SME-8-K-LED-24
		–	3-pin	0.3	150 857	SME-8-S-LED-24
NC contact						
	Via accessories	3-wire	–	7.5	160 251	SME-8-O-K-LED-24

Ordering data – Mounting kit for proximity sensors SME/SMT-8				Technical data ➔ 1 / 10.2-51	
Designation	For Ø			Part No.	Type
Mounting kit SMBR-8					
	32			175 097	SMBR-8-32
	40			175 098	SMBR-8-40
	50			175 099	SMBR-8-50
	63			175 100	SMBR-8-63

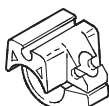
Round cylinders DSNU/ESNU

Accessories

FESTO

Ordering data – Proximity sensor for C-slot, magneto-resistive								Technical data➔ 1 / 10.2-57	
	Mounting	Switch output	Electrical connection		Cable length [m]	Connection direction	Part No.	Type	
			Cable	M8 plug					
NO contact									
	Via accessories	PNP	3-wire	–	2.5	In-line	525 915	SMT-10F-PS-24V-K2,5L-OE	
			–	3-pin	0.3	In-line	525 916	SMT-10F-PS-24V-K0,3L-M8D	
						Lateral	526 675	SMT-10F-PS-24V-K0,3Q-M8D	
	Via accessories	PNP	–	3-pin	0.3	In-line	173 220	SMT-10-PS-SL-LED-24	
			3-wire	–	2.5		173 218	SMT-10-PS-KL-LED-24	

Ordering data – Proximity sensor for C-slot, magnetic reed							Technical data➔ 1 / 10.2-60	
	Mounting	Electrical connection		Cable length [m]	Connection direction	Part No.	Type	
		Cable	M8 plug					
NO contact								
	Via accessories	–	3-pin	0.3	In-line	525 914	SME-10F-DS-24V-K0,3L-M8D	
		3-wire	–	2.5	In-line	525 913	SME-10F-DS-24V-K2,5L-OE	
		2-wire				526 672	SME-10F-ZS-24V-K2,5L-OE	
	Via accessories	3-wire	–	0.3	In-line	173 212	SME-10-SL-LED-24	
		–	3-pin	2.5		173 210	SME-10-KL-LED-24	

Ordering data – Mounting kit for proximity sensors SME/SMT-10				Technical data➔ 1 / 10.2-68	
Designation	For Ø		Part No.	Type	
Mounting kit SMBR-10					
	32		175 105	SMBR-10-32	
	40		175 106	SMBR-10-40	
	50		175 107	SMBR-10-50	
	63		175 108	SMBR-10-63	

Ordering data – Plug sockets with cable							Technical data➔ 1 / 10.2-114	
	Mounting	Switch output		Connection	Cable length [m]	Part No.	Type	
		PNP	NPN					
Straight plug socket								
	Union nut M8	■	■	3-pin	2.5	159 420	SIM-M8-3GD-2,5-PU	
					5	159 421	SIM-M8-3GD-5-PU	
	Union nut M12	■	■	3-pin	2.5	159 428	SIM-M12-3GD-2,5-PU	
					5	159 429	SIM-M12-3GD-5-PU	
Angled plug socket								
	Union nut M8	■	■	3-pin	2.5	159 422	SIM-M8-3WD-2,5-PU	
					5	159 423	SIM-M8-3WD-5-PU	
	Union nut M12	■	■	3-pin	2.5	159 430	SIM-M12-3WD-2,5-PU	
					5	159 431	SIM-M12-3WD-5-PU	