

Round cylinders DSNU-S

FESTO



Festo Core Range
Solves the majority of your automation tasks

Worldwide: Quickest delivery – wherever, whenever
Simply good: Expected high Festo quality
Fast: Easy and fast to select

With the Festo Core Range, we have selected the most important products and functions from our broad product catalogue, and added the quickest delivery.

The Core Range offers you the best value for your automation tasks.

Just look
for the
star!

Key features

At a glance

DSNU-S-8 ... 16

- Cylinder barrel made of stainless steel
- Short end cap made of wrought aluminium alloy
- Space-saving



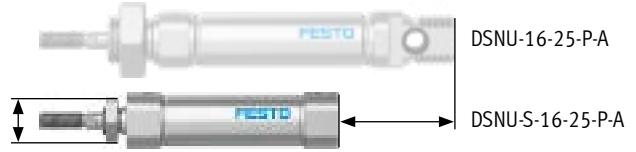
DSNU-S-20 ... 25

- Cylinder barrel made of stainless steel
- End cap made of wrought aluminium alloy with short thread
- Space-saving



Space-saving mounting

- Overall width reduced by up to 40%
- Overall length up to 3.5 cm shorter



Cushioning types

Cushioning P

Mode of operation

- The drive is equipped with flexible polymer end-position cushioning

Application

- Small loads
- Low speeds
- Low impact energies

Advantages

- No adjustment required
- Saves time

Cushioning PPS

- The drive is equipped with self-adjusting end-position cushioning

- Small to medium loads
- Low to medium speeds
- Medium impact energies

- No adjustment required
- Saves time
- Powerful

For manufacturing lithium-ion batteries

DSNU-S-...-F1A

Recommended for production plants for manufacturing lithium-ion batteries (Cu<=1%, Zn<=1%, Ni<=1%).

Metals with more than 1% copper, zinc or nickel by mass are excluded from use.

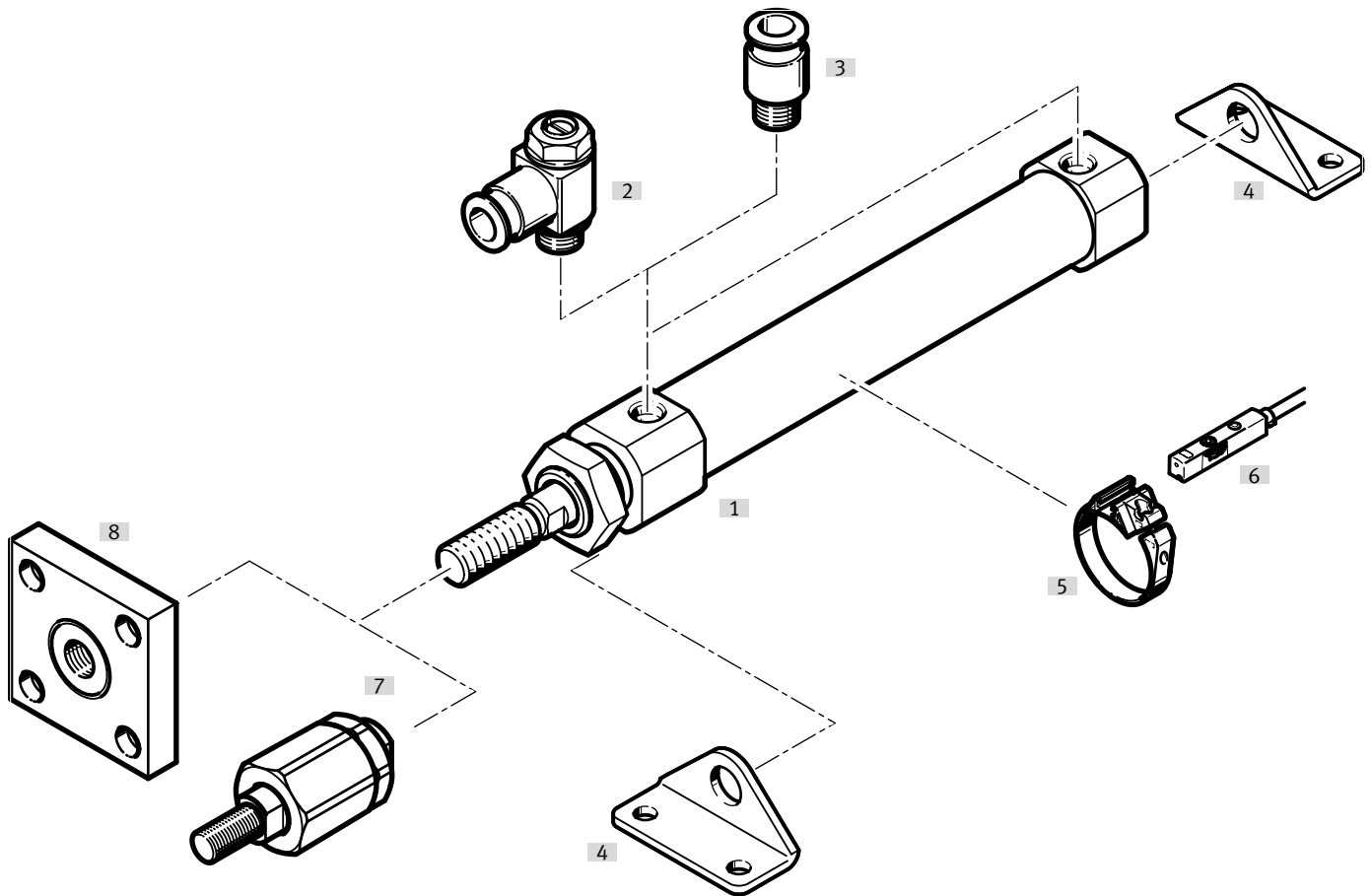
Exceptions are nickel in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils

Accessories

Your Festo contact partner can provide information about which accessories are suitable for manufacturing lithium-ion batteries.

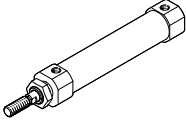
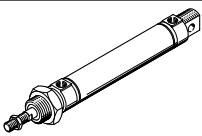
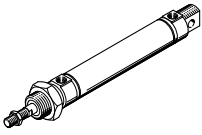
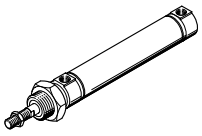
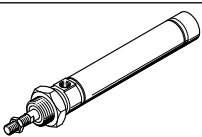
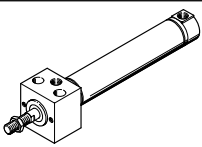
Peripherals overview

DSNU-S...



Mounting attachments and accessories		Piston \varnothing	Description	→ Page/ Internet
[1]	Round cylinder DSNU-S			
[2]	One-way flow control valve GRLA/GRLZ	8 ... 25	For regulating speed	23
[3]	Push-in fitting QS	8 ... 25	For connecting tubing with standard O.D.	qs
[4]	Foot mounting HBN-S	8 ... 25	For bearing or end caps	20
[5]	Mounting kit SMBR	8 ... 25	For proximity switch and position transmitter	22
[6]	Proximity switch SMT/SDBT	8 ... 25	Integrated in cylinder profile	22
	Position transmitter SDAS/SDAT/SMAT	8 ... 25	<ul style="list-style-type: none"> continuously senses the position of the piston has an analogue output 	22
[7]	Self-aligning rod coupler FK	8 ... 25	To compensate for radial and angular deviations	21
[8]	Coupling piece KSG	12 ... 25	To compensate for radial deviations	21

Product range overview

Function	Design	Piston \varnothing [mm]	Stroke ¹⁾ [mm]	Variable stroke ¹⁾²⁾ [mm]	Piston rod					Female thread K3	
					Through S2	Extended K8	Male thread				
							Extended K2	Shortened K6	Custom thread K5		
Double-acting	DSNU-S-... – Space-saving										
		8	10, 15, 20, 25, 30, 40, 50, 60, 80, 100	1 ... 100	-	-	-	-	-	-	
		12	10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 125, 150	1 ... 150	-	-	-	-	-	-	
		16	10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 125, 150, 200	1 ... 200	-	-	-	-	-	-	
		20									
		25									
	DSNU-... – Cylinder barrel made of stainless steel										
		8, 10	10, 15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 100, 125, 150, 160, 200, 250, 300, 320, 400, 500	1 ... 100 1 ... 200 1 ... 320 1 ... 500	■	■	■	■	■	■	
		12, 16									
		20									
		25									
		32, 40, 50, 63	25, 40, 50, 80, 100, 125, 160, 200, 250, 320	1 ... 500					From \varnothing 25	From \varnothing 20	
	DSNU-Q-... – Protected against rotation										
		12, 16	-	5 ... 160							
		20	-	5 ... 200							
		25	-	5 ... 250	■	■	■	■	■	■	
		32	-	5 ... 300							
		40, 50	-	5 ... 400							
		63	-	5 ... 500					From \varnothing 25	From \varnothing 20	
	DSNU-MQ-... – Lateral supply port, short end cap										
		8, 10	-	1 ... 100	-	■	■	■	■	■	
12, 16		-	1 ... 200								
20		-	1 ... 320								
25		-	1 ... 500								
32, 40, 50, 63		-	1 ... 500								
DSNU-MA-... – Axial supply port, short end cap											
	8, 10	-	1 ... 100	-	■	■	■	■	■		
	12, 16	-	1 ... 200								
	20	-	1 ... 320								
	25	-	1 ... 500								
	32, 40, 50	-	1 ... 500								
	63	-	1 ... 500								
DSNU-MH-... – Direct mounting											
	8, 10	-	1 ... 100	■	■	■	■	■	■		
	12, 16	-	1 ... 200								
	20	-	1 ... 320								
	25	-	1 ... 500								
	32, 40, 50	-	1 ... 500								
	63	-	1 ... 500								

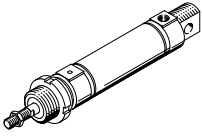
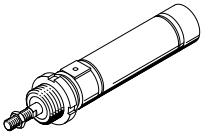
1) Cylinders DSNU-S are also available with longer strokes on request
 2) Cylinders with position sensing require a minimum stroke of 10 mm to ensure reliable sensing

Product range overview

Piston \varnothing	Cushioning			Position sensing	Clamping unit	Heat-resistant seal	Slow speed (constant motion)	Low friction	Corrosion protection	Dust protection (wiper seal)	Metal scraper	For manufacturing lithium-ion batteries	→ Page/ Internet
	Fixed	Adjustable	Self-adjusting										
	P	PPV ³⁾	PPS	A	KP	S6	S10	S11	R3	R8	A6	F1A	
DSNU-S-... – Space-saving													
8 ... 25	■	–	■ From \varnothing 16	■	–	–	–	–	–	–	–	■	8
DSNU-... – Cylinder barrel made of stainless steel													
8 ... 63	■	■ From \varnothing 16	■ From \varnothing 16	■	■	■	■ From \varnothing 12	■ From \varnothing 12	■ From \varnothing 12	■ From \varnothing 32	■ From \varnothing 32	■ Up to \varnothing 40	dsnu
DSNU-Q-... – Protected against rotation													
12 ... 63	■ \varnothing 12 and from \varnothing 32	■ From \varnothing 16	–	■	■	■ From \varnothing 32	–	–	■ From \varnothing 16	–	–	–	dsnu
DSNU-MQ-... – Lateral supply port													
8 ... 63	■	■ From \varnothing 16	■ From \varnothing 16	■	■	■	–	–	■	■ From \varnothing 32	■ From \varnothing 32	■ Up to \varnothing 40	dsnu
DSNU-MA-... – Axial supply port													
8 ... 63	■ From \varnothing 32	–	–	■	■	■	–	–	■	–	■	■ Up to \varnothing 40	dsnu
DSNU-MH-... – Direct mounting													
8 ... 63	■	■ From \varnothing 32	–	■	–	■	–	–	■	–	–	–	dsnu

3) In the modular product system from \varnothing 12 mm

Product range overview

Function	Design	Piston \varnothing [mm]	Stroke [mm]	Variable stroke ¹⁾ [mm]	Cushioning, fixed P	Position sensing A
Single-acting	ESNU-... – With position sensing					
		8 ... 63	10, 25, 50	1 ... 50	■	■
Single-acting	ESNU-MA-... – Axial supply port					
		8 ... 63	–	1 ... 50	■	■

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

Product range overview

Piston \varnothing	Piston rod					→ Page/ Internet
	Extended K8	Male thread			Female thread K3	
		Extended K2	Shortened K6	Custom thread K5		
ESNU-... – With position sensing						
8 ... 63	■	■	■	■	■	esnu
ESNU-MA-... – Axial supply port						
8 ... 63	■	■	■	■	■	esnu

Type codes

DSNU-S-...

001	Series
DSNU	Round cylinder, double-acting, based on ISO 6432

002	Design type
S	Short

003	Piston diameter [mm]
8	8
12	12
16	16
20	20
25	25

004	Stroke [mm]
...	1 ... 200

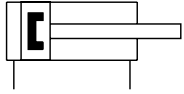
005	Cushioning
P	Elastic cushioning rings/plates on both sides
PPS	Pneumatic cushioning, self-adjusting at both ends

006	Position sensing
A	For proximity sensor

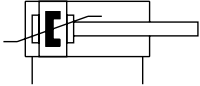
007	Special material properties
F1A	Recommended for production facilities for the manufacture of lithium-ion batteries


Data sheet


P cushioning



PPS cushioning



 Diameter
 8 ... 25 mm

 Stroke length
 1 ... 200 mm



General technical data		8	12	16	20	25
Piston \varnothing		8	12	16	20	25
Pneumatic connection		M5			G1/8	
Piston rod thread		M4	M6	M8		M10x1.25
Stroke ¹⁾²⁾	[mm]	10, 15, 20, 25, 30, 40, 50, 60, 80, 100	10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 125, 150	10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 125, 150, 200		
Design		Piston				
		Piston rod				
		Cylinder barrel				
Mode of operation	Double-acting					
Cushioning						
DSNU-S...-P		Elastic cushioning rings/pads at both ends				
DSNU-S...-PPS		-			Self-adjusting pneumatic end-position cushioning	
Cushioning length						
DSNU-S...-PPS	[mm]	-		12	15	17
Position sensing		Via proximity switch				
Type of mounting		With accessories				
Mounting position		Any				

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

2) Also available with longer strokes on request.

Operating and environmental conditions

Operating and environmental conditions		8	12	16	20	25
Piston \varnothing		8	12	16	20	25
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]				
Note on the operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)				
Operating pressure						
	[MPa]	0.15 ... 1	0.15 ... 1	0.08 ... 1	0.08 ... 1	0.06 ... 1
	[bar]	1.5 ... 10	1.5 ... 10	0.8 ... 10	0.8 ... 10	0.6 ... 10
Ambient temperature ¹⁾	[°C]	-20 ... +80				
Corrosion resistance class CRC ²⁾		2				

1) Note operating range of proximity switches.

2) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Data sheet

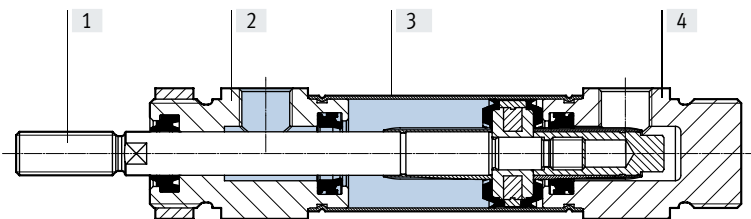
Forces [N] and impact energy [J]					
Piston ø	8	12	16	20	25
Theoretical force at 6 bar, advancing	30.2	67.9	120.6	188.5	294.5
Theoretical force at 6 bar, retracting	22.6	50.9	103.7	158.3	247.4
Impact energy in the end positions ¹⁾	0.03	0.07	0.15	0.20	0.30

1) The values are reduced by approx. 50% at an ambient temperature of 80°C
Flow-controlled compressed air is recommended to protect against overload.

Weight [g]					
Piston ø	8	12	16	20	25
Product weight with 0 mm stroke					
[P]	20.1	35.9	49	126.1	180
[PPS]	–	–	57.7	123.5	173.2
Additional weight per 10 mm stroke	2.4	4	4.6	7.2	11
Moving mass with 0 mm stroke					
	6.3	16.17	18.52	37.44	63.93
Moving mass per 10 mm stroke	1	2	2	4	6

Materials

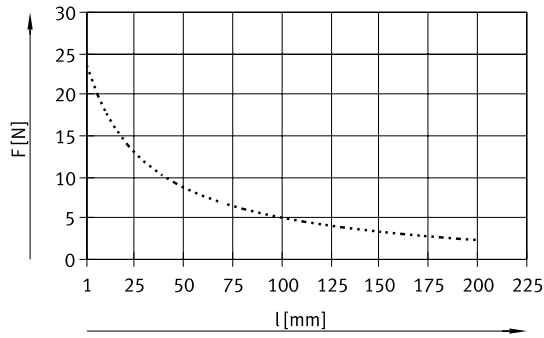
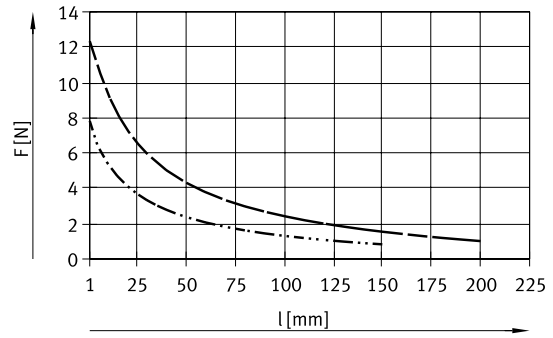
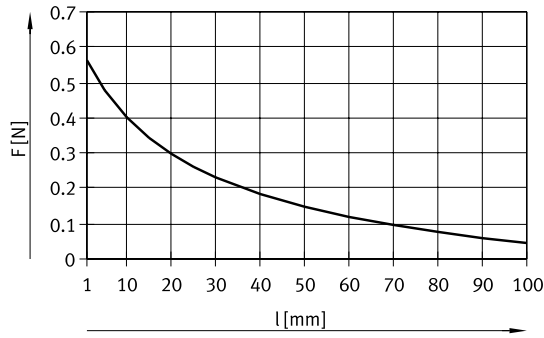
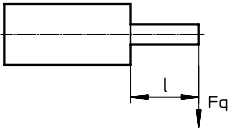
Sectional view



Round cylinder	8 ... 25
[1] Piston rod	High-alloy stainless steel
[2] Bearing cap	Anodised wrought aluminium alloy
[3] Cylinder barrel	High-alloy stainless steel
[4] End cap	Anodised wrought aluminium alloy
– Seals	TPE-U(PU)
– PWIS conformity	VDMA24364-B1/B2-L
– Note on materials	
DSNU-S-...	RoHS-compliant
DSNU-S-...-F1A	Metals with more than 1% copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils

Data sheet

Max. lateral force F_q as a function of projection l



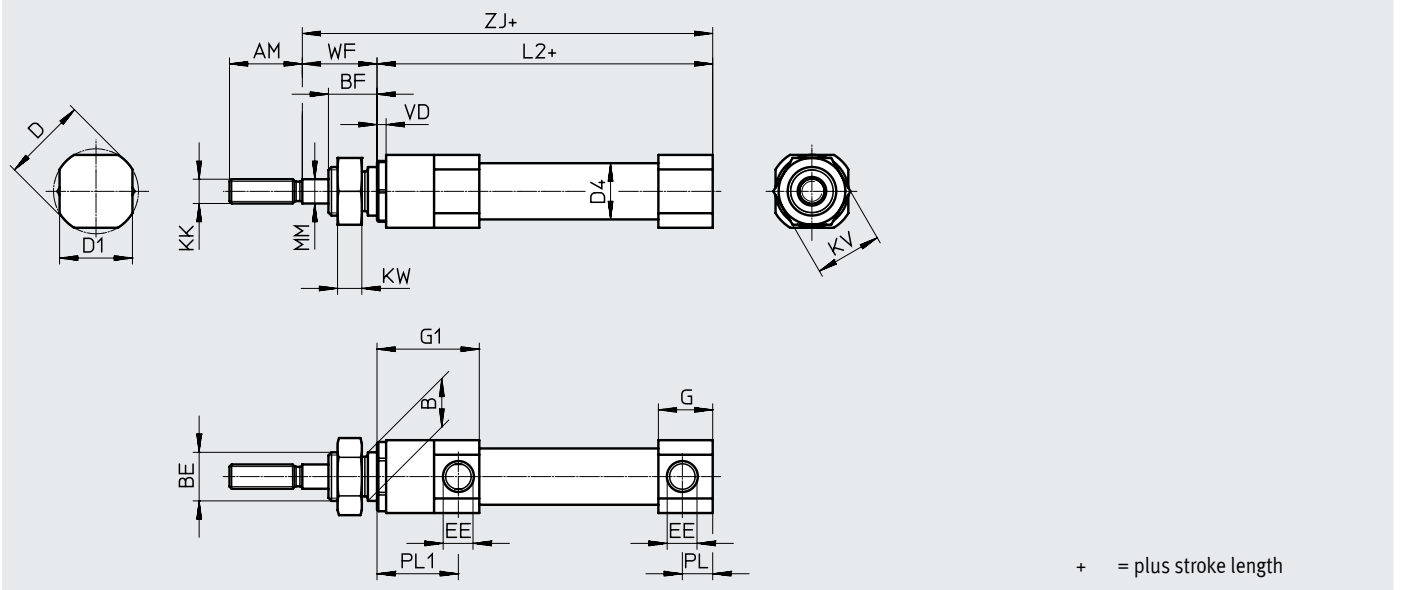
- DSNU-S-8
- · - · - · DSNU-S-12/16
- - - DSNU-S-20
- · · · · DSNU-S-25

Data sheet

Dimensions

Download CAD data → www.festo.com

DSNU-S-8



Data sheet

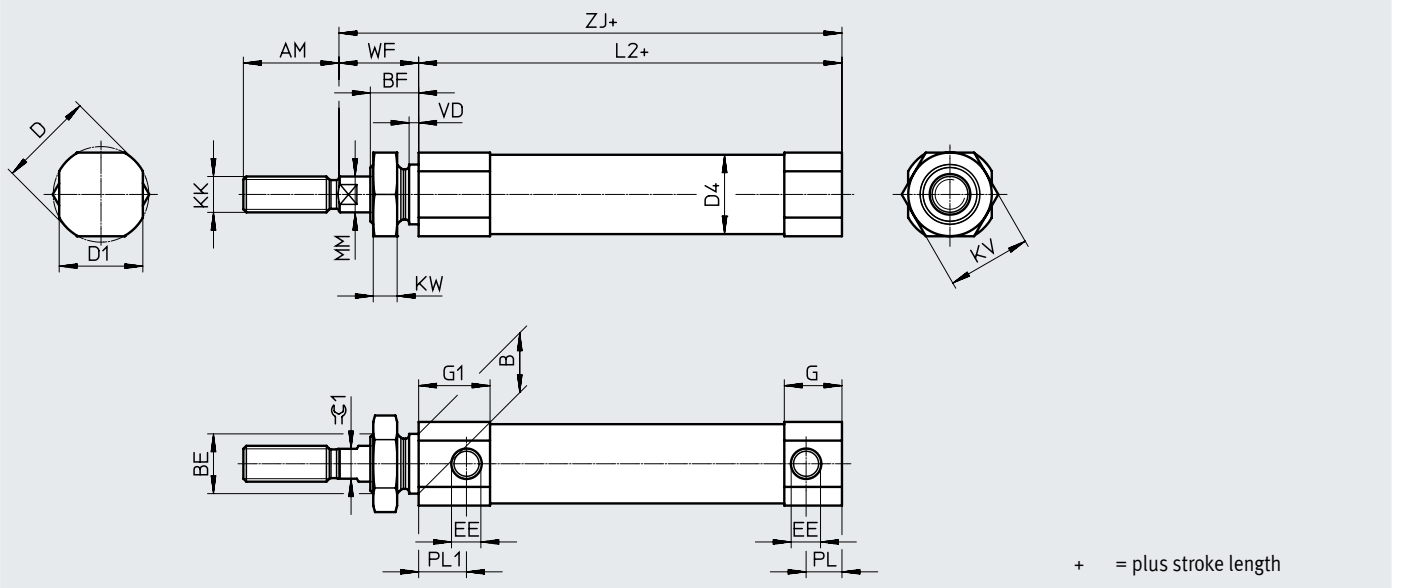
∅	AM	B	BE	BF	D ∅	D1 ∅	D4 ∅
[mm]		h8					
8	12	8	M8x1	8	14	12	9.3
∅	EE	G	G1	KK	KV	KW	L2+
[mm]							
8	M5	9	16.9	M4	11	4	45.4
∅	MM ∅	PL	PL1	VD	WF ±0.7	ZJ ±1	
[mm]							
8	4	5	13.4	1.5	11.9	57.7	

Data sheet

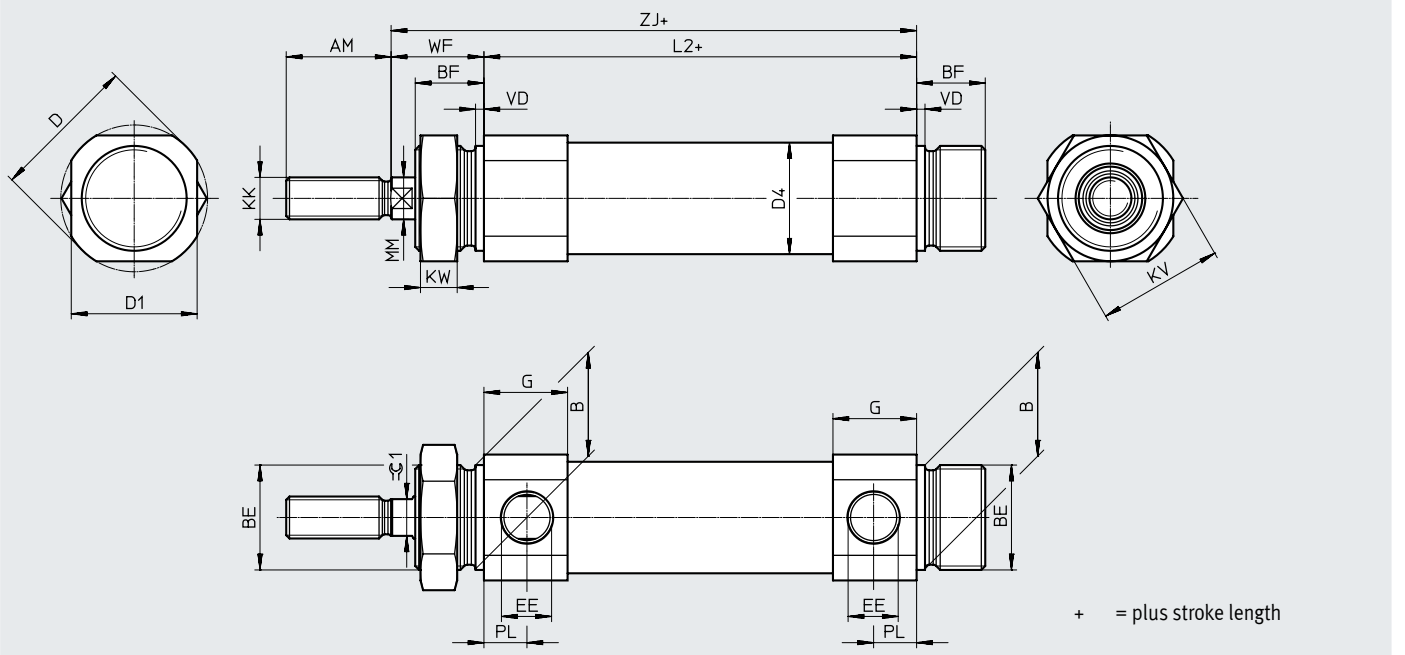
Dimensions

Download CAD data → www.festo.com

DSNU-S-12 ... 16



DSNU-S-20 ... 25



Data sheet

∅ [mm]	AM	B h8	BE	BF	D ∅	D1 ∅	D4 ∅	EE
12	16	10	M10x1	8	16	14	13.3	M5
16					20	18	17.3	
20	20	20	M20x1.5	13	28	24	21.3	G1/8
25	22				30	27	26.5	

∅ [mm]	G		G1	KK	KV	KW	L2+	
	DSNU-...-P	DSNU-...-PPS					DSNU-...-P	DSNU-...-PPS
12	9.7	–	12	M6	14	4	46	–
16	11.2	9.7	11.2				45.5	57
20	16	16	–	M8	24	7	57.6	57.6
25	16.8	16.8	–	M10x1.25			60.3	60.3

∅ [mm]	MM ∅	PL	PL1	VD	WF	ZJ ±1		=G1
						DSNU-...-P	DSNU-...-PPS	
12	6	6	8	1.5	13 ±0.7	59.3	–	5
16			7.5		12.9 ±0.75	58.8	70.3	
20	8	8.2	–	1.5	17.3 ±0.75	75.3	75.3	7
25	10	8.3	–	–	19.6 ±0.75	80.3	80.3	9

Data sheet

★ Core Range

Ordering data				PPS – Pneumatic cushioning, self-adjusting at both ends			
Piston ø	Stroke	P – Elastic cushioning rings/pads at both ends A – With position sensing		Part no.	Type		
[mm]	[mm]		Part no.	Type			
8	10		5205897	DSNU-S-8-10-P-A	–		
	15		5205898	DSNU-S-8-15-P-A			
	20		5205899	DSNU-S-8-20-P-A			
	25		5205900	DSNU-S-8-25-P-A			
	30		5205902	DSNU-S-8-30-P-A			
	40		5205903	DSNU-S-8-40-P-A			
	50		5205904	DSNU-S-8-50-P-A			
	60		5205905	DSNU-S-8-60-P-A			
	80		5205906	DSNU-S-8-80-P-A			
	100		5205907	DSNU-S-8-100-P-A			
12	10	★	5211896	DSNU-S-12-10-P-A	–		
	15	★	5211897	DSNU-S-12-15-P-A			
	20	★	5211898	DSNU-S-12-20-P-A			
	25	★	5211899	DSNU-S-12-25-P-A			
	30	★	5211900	DSNU-S-12-30-P-A			
	40	★	5211901	DSNU-S-12-40-P-A			
	50	★	5211903	DSNU-S-12-50-P-A			
	60	★	5211904	DSNU-S-12-60-P-A			
	80	★	5211905	DSNU-S-12-80-P-A			
	100	★	5211906	DSNU-S-12-100-P-A			
	125	★	5211908	DSNU-S-12-125-P-A			
	150	★	5211909	DSNU-S-12-150-P-A			
16	10	★	5216087	DSNU-S-16-10-P-A	–		
	15	★	5216088	DSNU-S-16-15-P-A			
	20	★	5216089	DSNU-S-16-20-P-A			
	25	★	5216090	DSNU-S-16-25-P-A		★ 5217238	DSNU-S-16-25-PPS-A
	30	★	5216091	DSNU-S-16-30-P-A		★ 5217239	DSNU-S-16-30-PPS-A
	40	★	5216093	DSNU-S-16-40-P-A		★ 5217240	DSNU-S-16-40-PPS-A
	50	★	5216094	DSNU-S-16-50-P-A		★ 5217241	DSNU-S-16-50-PPS-A
	60	★	5216095	DSNU-S-16-60-P-A		★ 5217242	DSNU-S-16-60-PPS-A
	80	★	5216096	DSNU-S-16-80-P-A		★ 5217243	DSNU-S-16-80-PPS-A
	100	★	5216098	DSNU-S-16-100-P-A		★ 5217244	DSNU-S-16-100-PPS-A
	125	★	5216099	DSNU-S-16-125-P-A		★ 5217245	DSNU-S-16-125-PPS-A
	150	★	5216100	DSNU-S-16-150-P-A		★ 5217246	DSNU-S-16-150-PPS-A
	200	★	5216101	DSNU-S-16-200-P-A		★ 5217248	DSNU-S-16-200-PPS-A
	20	10	★	5224633		DSNU-S-20-10-P-A	–
15		★	5224634	DSNU-S-20-15-P-A			
20		★	5224635	DSNU-S-20-20-P-A			
25		★	5224636	DSNU-S-20-25-P-A	★ 5225836	DSNU-S-20-25-PPS-A	
30		★	5224637	DSNU-S-20-30-P-A	★ 5225837	DSNU-S-20-30-PPS-A	
40		★	5224639	DSNU-S-20-40-P-A	★ 5225838	DSNU-S-20-40-PPS-A	
50		★	5224641	DSNU-S-20-50-P-A	★ 5225839	DSNU-S-20-50-PPS-A	
60		★	5224642	DSNU-S-20-60-P-A	★ 5225840	DSNU-S-20-60-PPS-A	
80		★	5224643	DSNU-S-20-80-P-A	★ 5225841	DSNU-S-20-80-PPS-A	
100		★	5224644	DSNU-S-20-100-P-A	★ 5225842	DSNU-S-20-100-PPS-A	
125		★	5224645	DSNU-S-20-125-P-A	★ 5225843	DSNU-S-20-125-PPS-A	
150		★	5224646	DSNU-S-20-150-P-A	★ 5225844	DSNU-S-20-150-PPS-A	
200		★	5224647	DSNU-S-20-200-P-A	★ 5225846	DSNU-S-20-200-PPS-A	

Data sheet

★ Core Range

Ordering data					
Piston \varnothing [mm]	Stroke [mm]	P – Elastic cushioning rings/pads at both ends A – With position sensing		PPS – Pneumatic cushioning, self-adjusting at both ends A – With position sensing	
		Part no.	Type	Part no.	Type
25	10	★ 5228227	DSNU-S-25-10-P-A		
	15	★ 5228228	DSNU-S-25-15-P-A		
	20	★ 5228229	DSNU-S-25-20-P-A		
	25	★ 5228230	DSNU-S-25-25-P-A	★ 5228452	DSNU-S-25-25-PPS-A
	30	★ 5228231	DSNU-S-25-30-P-A	★ 5228453	DSNU-S-25-30-PPS-A
	40	★ 5228232	DSNU-S-25-40-P-A	★ 5228454	DSNU-S-25-40-PPS-A
	50	★ 5228233	DSNU-S-25-50-P-A	★ 5228455	DSNU-S-25-50-PPS-A
	60	★ 5228234	DSNU-S-25-60-P-A	★ 5228456	DSNU-S-25-60-PPS-A
	80	★ 5228235	DSNU-S-25-80-P-A	★ 5228457	DSNU-S-25-80-PPS-A
	100	★ 5228236	DSNU-S-25-100-P-A	★ 5228458	DSNU-S-25-100-PPS-A
	125	★ 5228237	DSNU-S-25-125-P-A	★ 5228459	DSNU-S-25-125-PPS-A
	150	★ 5228238	DSNU-S-25-150-P-A	★ 5228460	DSNU-S-25-150-PPS-A
	200	★ 5228239	DSNU-S-25-200-P-A	★ 5228461	DSNU-S-25-200-PPS-A

Ordering data – Modular product system

Ordering table								
Size	8	12	16	20	25	Conditions	Code	Enter code
Module no.	8112002	8112003	8112004	8112005	8112006			
Function	Double-acting round cylinder						DSNU	DSNU
Design	Space-saving						-S	-S
Piston ø [mm]	8	12	16	20	25		-...	
Stroke ¹⁾ [mm]	1 ... 100	1 ... 150	1 ... 200	1 ... 200	1 ... 200		-...	
Cushioning	Elastic cushioning rings/pads at both ends						-P	
	-		Pneumatic cushioning, self-adjusting at both ends				-PPS	
Position sensing	Via proximity switch						-A	-A

1) Also available with longer strokes on request

Ordering data – Modular product system

Ordering table								
Size	8	12	16	20	25	Conditions	Code	Enter code
Module no.	8148785	8148786	8148787	8148788	8148789			
Function	Double-acting round cylinder						DSNU	DSNU
Design	Space-saving						-S	-S
Piston Ø [mm]	8	12	16	20	25		-...	
Stroke ¹⁾ [mm]	1 ... 100	1 ... 150	1 ... 200	1 ... 200	1 ... 200		-...	
Cushioning	Elastic cushioning rings/pads at both ends						-P	
	-		Pneumatic cushioning, self-adjusting at both ends				-PPS	
Position sensing	Via proximity switch						-A	-A
Special material properties	None							
	Recommended for production facilities for manufacturing lithium-ion batteries						-F1A	

1) Also available with longer strokes on request

Accessories

Foot mounting HBN-S

Scope of delivery:

HBN-S-...x1-...: 1 foot

HBN-S-...x2-...: 2 feet and 1 nut

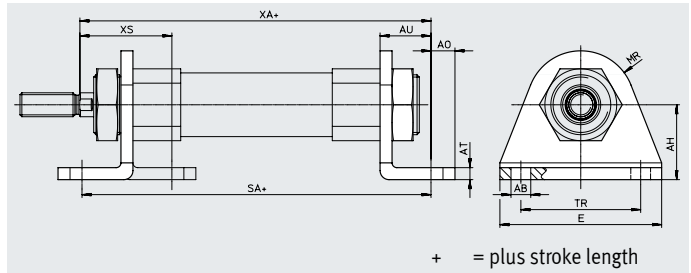
Material:

HBN-S:

Mounting: Galvanised steel

Nut: Galvanised steel

RoHS-compliant



Dimensions and ordering data

For \varnothing [mm]	AB \varnothing	AH	AO	AT	AU ± 0.2	E	MR
8	4.5	10	5	2	11	35	7
12	5.5	15	6	3	14	42	10
16	5.5	15	6	3	14	42	10
20	6.6	25	8	4	17	54	18
25	6.6	25	8	4	17	54	18

For \varnothing [mm]	SA		TR ± 0.1	XA		XS
		DSNU-PPS			DSNU-PPS	
8	67.4	–	25	68.7	–	21.3
12	74	–	32	73.3	–	24.3
16	73.5	85	32	72.8	84.3	24.3
20	91.6	91.6	40	92.3	92.3	30.7
25	94.3	94.3	40	97.3	97.3	33

For \varnothing [mm]	Basic version CRC ¹⁾	Weight [g]	Part no.	Type
8, 10	1	12	★ 5407712	HBN-S-8x1
12, 16	1	30	★ 5407772	HBN-S-12/16x1
20, 25	1	77	★ 5407787	HBN-S-20/25x1
	1	165	★ 5407847	HBN-S-20/25x2

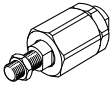
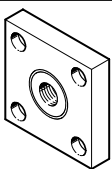
1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

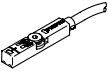
Accessories

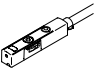
Ordering data – Piston rod attachments


Data sheets → Internet: piston rod attachment

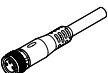
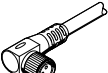
Designation	For ø	Part no.	Type
Self-aligning rod coupler FK			
	8	6528	FK-M4
	12	2061	FK-M6
	16		
	20	2062	FK-M8
	25	6140	FK-M10x1.25
Coupling piece KSG			
	12	-	
	16		
	20		
	25		

Accessories

Ordering data – Proximity switch for T-slot, magneto-resistive							Datasheets → Internet: smt
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part no.	Type	
N/O							
	Inserted in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-wire	2.5	★ 574335	SMT-8M-A-PS-24V-E-2,5-OE	
			Cable, 2-wire	5	★ 8165237	SMT-8M-A-ZS-24V-E-5,0-OE	
			Plug M8x1, 3-pin	0.3	★ 574334	SMT-8M-A-PS-24V-E-0,3-M8D	
		NPN	Cable, 3-wire	2.5	★ 574338	SMT-8M-A-NS-24V-E-2,5-OE	
			Plug M8x1, 3-pin	0.3	★ 574339	SMT-8M-A-NS-24V-E-0,3-M8D	

Ordering data – Proximity switch for T-slot, Magnetic Hall							Datasheets → Internet: sdbt	
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part no.	Type		
N/O or N/C contact, switchable								
	Inserted in the slot from above, flush with the cylinder profile, short design	PNP, switchable to NPN	Plug M8x1, 3-pin	0.3	★ 8059120	SDBT-MSX-1L-PU-E-0.3-N-M8		
			Cable, 3-wire	2.5	★ 8059121	SDBT-MSX-1L-PU-E-2.5-N-LE		
		NPN, switchable to NPN	Plug M8x1, 3-pin	0.3	★ 8059123	SDBT-MSX-1L-NU-E-0.3-N-M8		
			Cable, 3-wire	2.5	★ 8059124	SDBT-MSX-1L-NU-E-2.5-N-LE		

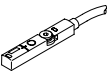
Ordering data – Mounting kits for proximity switch SMT/SDBT				Data sheets → Internet: smbr
Designation	For ø	Part no.	Type	
Mounting kit SMBR-8				
	8	175091	SMBR-8-8	
	12	★ 175093	SMBR-8-12	
	16	★ 175094	SMBR-8-16	
	20	★ 175095	SMBR-8-20	
	25	★ 175096	SMBR-8-25	

Ordering data – Connecting cables						Data sheets → 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	
	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	

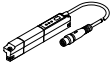
Position transmitter

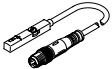
The position transmitter continuously senses the position of the piston.


It has an analogue output with an output signal relative to the piston position.

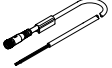

Ordering data – Position transmitter for T-slot							Datasheets → Internet: sdas
	Position measuring range	Description	Type of mounting	Electrical connection	Cable length [m]	Part no.	Type
	≤ 52	Choice of two operating modes: • two adjustable switching outputs • IO-Link	Inserted in the slot from above	Plug M8x1, 4-pin, lengthwise	0.3	8063974	SDAS-MHS-M40-1L-PNLK-PN-E-0.3-M8

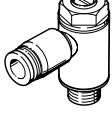
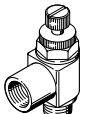
Accessories

Ordering data – Position transmitter for T-slot								Datasheets → Internet: sdat	
	Position measuring range	Analogue output		Type of mounting	Electrical connection	Cable length [m]	Part no.	Type	
		[V]	[mA]						
	0 ... 50	–	4 ... 20	Inserted in the slot from above	Plug M8x1, 4-pin, lengthwise	0.3	1531265	SDAT-MHS-M50-1L-SA-E-0.3-M8	
	0 ... 80						1531266	SDAT-MHS-M80-1L-SA-E-0.3-M8	
	0 ... 100						1531267	SDAT-MHS-M100-1L-SA-E-0.3-M8	
	0 ... 125						1531268	SDAT-MHS-M125-1L-SA-E-0.3-M8	
	0 ... 160						1531269	SDAT-MHS-M160-1L-SA-E-0.3-M8	

Ordering data – Position transmitter for T-slot								Datasheets → Internet: smat	
	Position measuring range	Analogue output		Type of mounting	Electrical connection	Cable length [m]	Part no.	Type	
		[V]	[mA]						
	0 ... 40	0 ... 10	–	Inserted in the slot from above	Plug M8x1, 4-pin, lengthwise	0.3	553744	SMAT-8M-U-E-0,3-M8D	

Ordering data – Mounting kits for position transmitter				Datasheets → Internet: smbr	
Designation	For ø	Part no.	Type		
Mounting kit SMBR-8					
	8	175091	SMBR-8-8		
	10	175092	SMBR-8-10		
	12	★ 175093	SMBR-8-12		
	16	★ 175094	SMBR-8-16		
	20	★ 175095	SMBR-8-20		
	25	★ 175096	SMBR-8-25		

Ordering data – Connecting cables						Datasheets → Internet: nebu	
	Electrical connection, left	Electrical connection, right	Cable length [m]	Part no.	Type		
	Straight socket, M8x1, 3-pin	Cable, open end, 4-wire	2.5	541342	NEBU-M8G4-K-2.5-LE4		
			5	541343	NEBU-M8G4-K-5-LE4		
	Angled socket, M8x1, 3-pin	Cable, open end, 4-wire	2.5	541344	NEBU-M8W4-K-2.5-LE4		
			5	541345	NEBU-M8W4-K-5-LE4		

Ordering data – One-way flow control valves					Data sheets → Internet: grl	
	Connection Thread	For tubing O.D.	Material	Part no.	Type	
For exhaust air						
	M5	3	Metal design	★ 193137	GRLA-M5-QS-3-D	
		4		★ 193138	GRLA-M5-QS-4-D	
		6		★ 193139	GRLA-M5-QS-6-D	
	G1/8	3		★ 193142	GRLA-1/8-QS-3-D	
		4		★ 193143	GRLA-1/8-QS-4-D	
		6		★ 193144	GRLA-1/8-QS-6-D	
		8		★ 193145	GRLA-1/8-QS-8-D	
		For supply air				
	M5	3	Metal design	★ 193153	GRLZ-M5-QS-3-D	
		4		★ 193154	GRLZ-M5-QS-4-D	
		6		★ 193155	GRLZ-M5-QS-6-D	
	G1/8	3		★ 193156	GRLZ-1/8-QS-3-D	
		4		★ 193157	GRLZ-1/8-QS-4-D	
		6		★ 193158	GRLZ-1/8-QS-6-D	
		8		★ 193159	GRLZ-1/8-QS-8-D	