

Type codes

DSNU-...

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

002	Piston diameter	
8	8	
10	10	
12	12	
16	16	
20	20	
25	25	
32	32	
40	40	
50	50	
63	63	

003	Stroke	
...	1 ... 500	

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

005	Position sensing	
A	For proximity sensor	

006	Special material properties	
	None	
F1A	Recommended for production facilities for the manufacture of lithium-ion batteries (Cu<=1%, Zn<=1%, Ni<=1%)	

007	Cylinder end cap	
	Standard	
MA	Axial air connection, end cap	
MH	Direct mounting, bearing cap	
MQ	Transverse supply port, end cap	

008	Protection against rotation	
Q	Square piston rod	
	None	

009	Piston rod type	
	At one end	
S2	Through piston rod	

010	Piston rod thread extension	
	None	
...K2	1 ... 70 mm	

011	K6 - Shortened male piston rod thread	
	None	
K6	1 ... 10 mm	

012	Piston rod thread type	
	Male thread	
K3	Female thread	

013	Custom thread	
"M10"K5	M10	
"M12"K5	M12	
"M16"K5	M16	

014	Piston rod extension	
	None	
...K8	1 ... 500 mm	

015	Clamping unit	
	None	
KP	attached	

016	Temperature range	
	Standard	
S6	Heat-resistant seals max. 120 °C	

017	Constant motion	
	Standard	
S10	Uniform, slow movement	

018	Corrosion protection	
	Standard	
R3	High corrosion protection	

019	Scraper variant	
	Standard	
R8	Dust protection	
A6	Metal scraper	

020	EU certification	
	None	
EX4	II 2GD	

Datasheet

Operating and environmental conditions											
Piston Ø		8	10	12	16	20	25	32	40	50	63
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											
DSNU-...	[MPa]	0.15 ... 1 ¹⁾			0.1 ... 1						
	[bar]	1.5 ... 10 ¹⁾			1 ... 10						
DSNU-...S10	[MPa]	–		0.05 ... 1	0.03 ... 1			0.02 ... 1			
	[bar]	–		0.5 ... 10	0.3 ... 10			0.2 ... 10			
DSNU-...L	[MPa]	0.06 ... 1			0.05 ... 1		0.04 ... 1		0.02 ... 1		
	[bar]	0.6 ... 10			0.5 ... 10		0.4 ... 10		0.2 ... 10		
DSNU-...A6	[MPa]	–						0.2 ... 1			
	[bar]	–						2 ... 10			
Ambient temperature ²⁾											
DSNU-...	[°C]	–20 ... +80									
DSNU-...S6	[°C]	0 ... +120									
DSNU-...S10/L	[°C]	+5 ... +80									
DSNU-...R3	[°C]	–20 ... +80									
DSNU-...A1	[°C]	0 ... +80									
DSNU-...S6-A6	[°C]	–						0 ... +120			
Corrosion resistance class CRC ³⁾											
DSNU-...		2									
DSNU-...R3		3									
DSNU-...F1A		0									
DSNU-...P		See certificate						–			
DSNU-...PPV		See certificate						–			

1) For DSNU-12-...-PPV (pneumatic cushioning adjustable at both ends): 0.2 ... 1 MPa (2 ... 10 bar)

2) Note operating range of proximity switches

3) Corrosion resistance class CRC 0 to Festo standard FN 940070

No corrosion stress. Applies to small, visually unimportant standards-based parts such as threaded pins, circlips and clamping sleeves which are usually only available on the market in a phosphated or burnished version (and possibly oiled) as well as to ball bearings (for components < CRC 3) and plain bearings.

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.

Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

ATEX ¹⁾	
ATEX category for gas	II 2G
Type of ignition protection for gas	Ex h IIC T4 Gb
ATEX category for dust	II 2D
Type of ignition protection for dust	Ex h IIIC T120°C Db
Explosion-proof ambient temperature	–20°C ≤ Ta ≤ +60°C
CE marking (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)
UKCA marking (see declaration of conformity)	To UK EX instructions
Explosion protection certification outside the EU	EPL Db (GB)
	EPL Gb (GB)

1) Note the ATEX certification of the accessories.

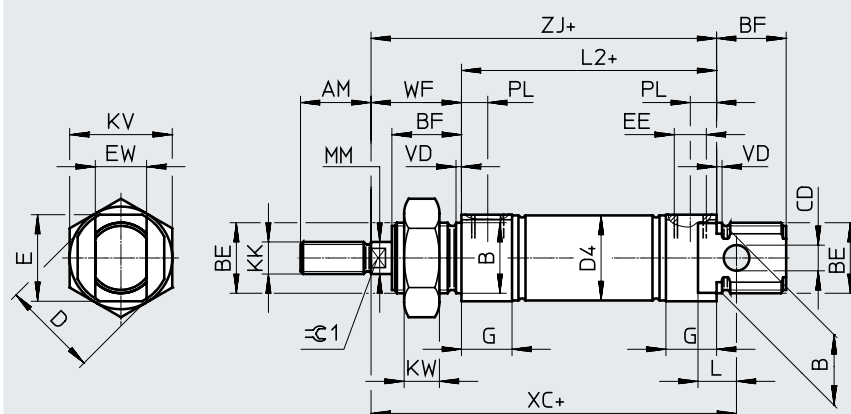
Weights [g]										
Piston Ø	8	10	12	16	20	25	32	40	50	63
Product weight with 0 mm stroke	34.6	37.3	75	89.9	186.8	238	370.5	661	1087	1445
Additional weight per 10 mm stroke	2.4	2.7	4	4.6	7.2	11	15.5	24	40	44
Moving mass with 0 mm stroke	7.5	8.5	18.5	23	44	71	121	230	413	459
Moving mass per 10 mm stroke	1	1	2	2	4	6	9	16	25	25

Datasheet

Dimensions

Download CAD data → www.festo.com

DSNU-8 ... 25


Note

Piston rod nut is not included in the scope of delivery for diameter 8 ... 20.

+ = plus stroke length

Ø [mm]	AM	B Ø h8	BE	BF	CD Ø H9	D Ø	D4 Ø	E	EE	EW	G
8	12	12	M12x1.25	12	4	16	9.3	14	M5	8	10
10							11.3				
12	16	16	M16x1.5	17	6	20	13.3	18		12	
16							17.3				
20	20	22	M22x1.5	20	8	30	21.3	26	G1/8	16	16
25	22			22			26.5	27			

Ø [mm]	KK	KV	KW	MM Ø	L	L2	PL	VD	WF ±1.2	XC ±1	ZJ	≧1
8	M4	19	6	4	6	46	6	2	16	64	62	–
10												
12	M6	24	8	6	9	50			22	75	72	5
16						56				82	78	
20	M8	32	11	8	12	68	8.2		24	95	92	7
25	M10x1.25			10		69.5			28	104	97.5	9

Datasheet

Ordering data								
Piston ø	Stroke	P – Elastic cushioning rings/pads at both ends A – With position sensing		PPV – Pneumatic cushioning, adjustable at both ends A – With position sensing		PPS – Pneumatic cushioning, self-adjusting at both ends A – With position sensing		
[mm]	[mm]	Part no.	Type	Part no.	Type	Part no.	Type	
8	10	19177	DSNU-8-10-P-A	–		–		
	15	1908247	DSNU-8-15-P-A					
	20	1908248	DSNU-8-20-P-A					
	25	19178	DSNU-8-25-P-A					
	30	1908249	DSNU-8-30-P-A					
	40	19179	DSNU-8-40-P-A					
	50	19180	DSNU-8-50-P-A					
	60	1908250	DSNU-8-60-P-A					
	80	19181	DSNU-8-80-P-A					
	100	19182	DSNU-8-100-P-A					
10	10	19183	DSNU-10-10-P-A	–		–		
	15	1908251	DSNU-10-15-P-A					
	20	1908252	DSNU-10-20-P-A					
	25	19184	DSNU-10-25-P-A					
	30	1908253	DSNU-10-30-P-A					
	40	19185	DSNU-10-40-P-A					
	50	19186	DSNU-10-50-P-A					
	60	1908254	DSNU-10-60-P-A					
	80	19187	DSNU-10-80-P-A					
	100	19188	DSNU-10-100-P-A					
12	70	5249943	DSNU-12-70-P-A	–		–		
	150	5249947	DSNU-12-150-P-A					
25	400	35191	DSNU-25-400-P-A	35193	DSNU-25-400-PPV-A	559293	DSNU-25-400-PPS-A	
	500	35192	DSNU-25-500-P-A	35194	DSNU-25-500-PPV-A	559294	DSNU-25-500-PPS-A	
32	10	5249365	DSNU-32-10-P-A	–		–		
	15	5249366	DSNU-32-15-P-A					
	20	5249367	DSNU-32-20-P-A					
	25	195980	DSNU-32-25-P-A	196020	DSNU-32-25-PPV-A	559295	DSNU-32-25-PPS-A	
	30	5249368	DSNU-32-30-P-A	5249851	DSNU-32-30-PPV-A	5249968	DSNU-32-30-PPS-A	
	40	195981	DSNU-32-40-P-A	196021	DSNU-32-40-PPV-A	559296	DSNU-32-40-PPS-A	
	50	195982	DSNU-32-50-P-A	196022	DSNU-32-50-PPV-A	559297	DSNU-32-50-PPS-A	
	60	5249369	DSNU-32-60-P-A	5249853	DSNU-32-60-PPV-A	5249970	DSNU-32-60-PPS-A	
	70	5249370	DSNU-32-70-P-A	5249854	DSNU-32-70-PPV-A	5249971	DSNU-32-70-PPS-A	
	80	195983	DSNU-32-80-P-A	196023	DSNU-32-80-PPV-A	559298	DSNU-32-80-PPS-A	
	100	195984	DSNU-32-100-P-A	196024	DSNU-32-100-PPV-A	559299	DSNU-32-100-PPS-A	
	125	195985	DSNU-32-125-P-A	196025	DSNU-32-125-PPV-A	559300	DSNU-32-125-PPS-A	
	150	5249371	DSNU-32-150-P-A	5249855	DSNU-32-150-PPV-A	5249972	DSNU-32-150-PPS-A	
	160	195986	DSNU-32-160-P-A	196026	DSNU-32-160-PPV-A	559301	DSNU-32-160-PPS-A	
	200	195987	DSNU-32-200-P-A	196027	DSNU-32-200-PPV-A	559302	DSNU-32-200-PPS-A	
	250	195988	DSNU-32-250-P-A	196028	DSNU-32-250-PPV-A	559303	DSNU-32-250-PPS-A	
	300	5249372	DSNU-32-300-P-A	5249856	DSNU-32-300-PPV-A	5249973	DSNU-32-300-PPS-A	
	320	195989	DSNU-32-320-P-A	196029	DSNU-32-320-PPV-A	559304	DSNU-32-320-PPS-A	