Type codes

001	Series	
CRDSNU	Round cylinder, double-acting, stainless steel	

002	Piston diameter	
12	12	
16	16	
20	20	
25	25	

003	Stroke	
...	1 ... 500	

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

005	Position sensing	
A	For proximity sensor	

006	Cylinder end cap	
	Standard	
MQ	Short end cap without swivel mounting	
MG	Bearing cap without mounting thread	

007	Scraper variant	
	None	
A1	Increased chemical resistance	
A2	Hard scraper	
A3	For unlubricated operation	

008	Piston rod type	
	At one end	
S2	Through piston rod	

009	Piston rod thread type	
	Male thread	
K3	Female thread	

010	Custom thread	
“M10”K5	M10	

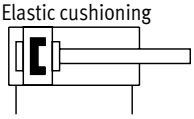
011	Piston rod extension	
	None	
...K8	1 ... 500 mm	

012	Temperature range	
	Standard	
S6	Heat-resistant seals max. 120 °C	
TT	-40 ... +80°C	

013	EU certification	
	None	
EX4	II 2GD	

Data sheet

Elastic cushioning



Diameter
12 ... 25 mm

Stroke length
1 ... 500 mm

Spare parts management

General technical data						
Piston diameter			12	16	20	25
Pneumatic connection			M5	M5	G1/8	G1/8
Piston rod thread			M6	M6	M8	M10x1.25
Design			Piston			
			Piston rod			
			Cylinder barrel			
Cushioning	P		Elastic cushioning rings/plates at both ends			
	PPV		–		Cushioning, adjustable at both ends	
	PPS		–	Cushioning, self-adjusting at both ends		
Cushioning length	PPV	[mm]	–		15	17
	PPS	[mm]	–	12	15	17
Position sensing			Via proximity switch			
Type of mounting			With accessories			
			With male thread			
Mounting position			Any			

Operating conditions		
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating/ pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)
Operating pressure[1]	[bar]	1 ... 10
Food-safe[2]		→ supplementary material information

1) An increase in the minimum operating pressure is possible with variants
2) Additional information is available at www.festo.com/sp → Certificates.

Environmental conditions						
Standards-based cylinder		Basic type/A3	A1	S6	TT	EX4
Ambient temperature[1]	[°C]	–20 ... +80	0 ... +80	0 ... +120	–40 ... +80	–20 ... +60
Corrosion resistance CRC[2]		3				

1) Note operating range of proximity switches
2) 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)

1) Note the ATEX certification of the accessories.

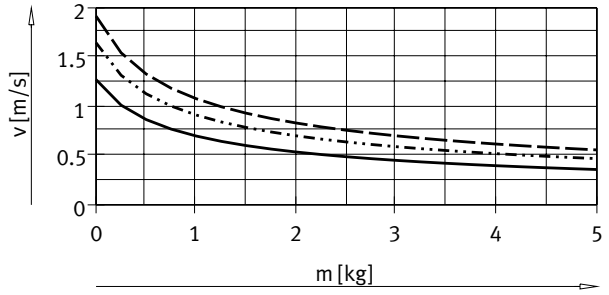
Data sheet

Forces [N] and impact energy [J]				
Piston diameter	12	16	20	25
Theoretical force at 6 bar, advancing	68	121	188	295
Theoretical force at 6 bar, retracting	51	104	158	247
Impact energy in the end positions for elastic cushioning[1)]	0.07	0.15	0.20	0.30

1) The values are reduced by approx. 50% at an ambient temperature of 80°C

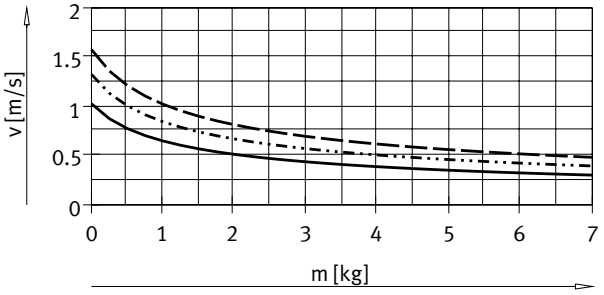
Average piston speed v as a function of applied load m in combination with cushioning PPS

Piston diameter 16



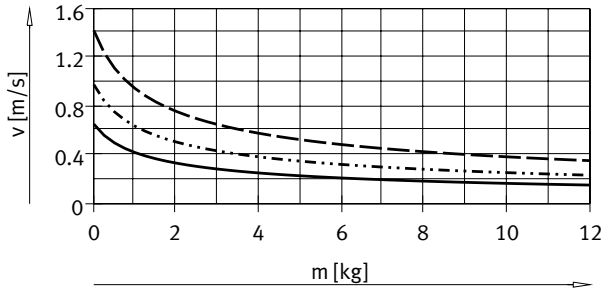
DSNU-16-50
DSNU-16-100
DSNU-16-200

Piston diameter 20



DSNU-20-50
DSNU-20-100
DSNU-20-200

Piston diameter 25



DSNU-25-50
DSNU-25-100
DSNU-25-200

Note

Engineering software for elastic cushioning PPV cushioning
➔ https://www.festo.com/eap/en_gb/PneumaticSizing/

Additional graphs for PPS cushioning
➔ www.festo.com

Average piston speed = Stroke/movement time

Weight [g]				
Piston diameter	12	16	20	25
Basic weight with 0 mm stroke	101	130	310	410
Additional weight per 10 mm stroke	4	5	7	11
Moving mass with 0 mm stroke	19	21	42	73
Additional mass per 10 mm stroke	2	2	4	6