Function	Design	Type	Piston ∅	Stroke		Position sensing	Protection against rotation	Through/hollow piston rod	Extended male piston rod thread	Female piston rod thread	Special piston rod thread
			[mm]	[mm]		A	Q	S2/S20	K2	K3	K5
Double-acting	**Basic version**										
		**DNC**	32, 40, 50, 63, 80, 100, 125	20, 25, 30, 40, 50, 60, 70, 80, 100, 125, 150, 160, 200, 250, 300, 320, 400, 500	10 … 2,000	■	■	■	■	■	■
	Standard hole pattern, with clamping unit										
		**DNC-KP**	32, 40, 50, 63, 80, 100, 125	–	10 … 2,000	■	■	■ S2	■	■	■
		**DNCKE**	40, 63, 100	–	10 … 2,000	■	–	–	–	–	–
	Standard hole pattern, with end-position locking										
		**DNC-…-EL**	32, 40, 50, 63, 80, 100	–	10 … 2,000	■	–	■ S2	■	■	■
	Standard hole pattern, cylinder/valve combination										
		**DNC-V1 … V6**	32, 40, 50, 63, 80, 100	–	100 … 2,000	■	■	■	■	■	■
	Standard hole pattern, tandem cylinder										
		**DNCT**	32, 40, 50	–	2 … 500	■	–	–	–	–	–
			63, 80, 100, 125		3 … 500						

https://www.markazbargh.com/product-category/dnc-type-pneumatic-cylinder/

Type	Special spanner flats	Extended piston rod	Smooth anodised piston rod	Heat-resistant seals to max. 120 °C	Slow speed (constant motion)	Low friction	High corrosion protection	Dust protection	Low temperature	Cylinder/valve combination	→ Page/Internet
	K7	K8	K10	S6	S10	S11	R3	R8	TT	V1 ... V6	
Basic version											
DNC	■	■	■	■	■	■	■	■	■	–	9
Standard hole pattern, with clamping unit											
DNC-KP	■	■	–	–	–	–	–	–	–	■	25
DNCKE	–	–	–	–	–	–	–	–	–	–	2
Standard hole pattern, with end-position locking											
DNC-...-EL	–	■	–	–	–	–	–	–	–	–	33
https://www.markazbargh.com/brand/lmc/											
Standard hole pattern, cylinder/valve combination											
DNC-V1 ... V6	■	■	■	–	■	■	–	■	–	■	40
Standard hole pattern, tandem cylinder											
DNCT	–	–	–	■	–	–	–	–	–	–	2

DNC	–	80	–	320	–	PPV	–	A

Type	
Double-acting	
DNC	Standard cylinder

Piston ∅ [mm]

Stroke [mm]

Cushioning	
P	Flexible cushioning rings/pads at both ends
PPV	Pneumatic cushioning, adjustable at both ends

Position sensing	
	Without position sensing
A	Via proximity sensor

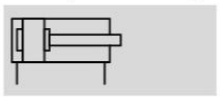
Note

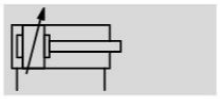
The standard cylinder DNC can be ordered using either a fixed part number and type designation or via the modular product system.
The type code listed above only applies to the DNC standard cylinder with fixed part number and type designation.
Variants can only be ordered using the modular product system.

Function

DNC-...

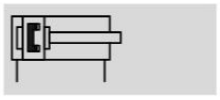
Without position sensing

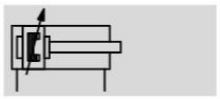




DNC-...-A-...

With position sensing





Diameter
32 ... 125 mm

Stroke length
10 ... 2,000 mm

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Wearing parts kits
➔ 24

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

General technical data								
Piston ∅		32	40	50	63	80	100	125
Pneumatic connection		G⅛	G¼	G¼	G⅜	G⅜	G½	G½
Piston rod thread		M10x1.25	M12x1.25	M16x1.5	M16x1.5	M20x1.5	M20x1.5	M27x2
	K3	M6	M8	M10	M10	M12	M12	M16
	K5	M10	M12	M16	M16	M20	M20	M27
Constructional design		Piston						
		Piston rod						
		Profile barrel						
Max. torsional backlash of piston rod [°]	Q	±0.65	±0.6	±0.45	±0.45	±0.45	±0.45	–
Cushioning		Flexible cushioning rings/pads at both ends						
		Pneumatic cushioning, adjustable at both ends						
Cushioning length PPV	[mm]	20	20	22	22	32	32	42
Position sensing		Via proximity sensor						
Type of mounting		Via female thread						
		Via accessories						
Mounting position		Any						

Note: This product conforms to ISO 1179-1 and to ISO 228-1

Operating and environmental conditions								
Piston ∅		32	40	50	63	80	100	125
Operating medium		Compressed air in accordance with ISO 8573-1:2010 [7:4:4]						
Note on operating/pilot medium		Operation with lubricated medium possible (in which case lubricated operation will always be required)						
Operating pressure [bar]		0.6 ... 12						0.6 ... 10
	R8	1.5 ... 12						1.5 ... 10
	S11	After 10 strokes						
		0.16 ... 12		0.1 ... 12		0.06 ... 12		0.06 ... 10
		After 24 hours						
		0.3 ... 12		0.2 ... 12		0.1 ... 12		0.1 ... 10
	TT	1 ... 12						–
Ambient temperature[1] [°C]		–20 ... +80						
	S6	0 ... 120						
	TT	–40 ... +80						–
Corrosion resistance class CRC[2]		2						
	R3	3						
Certification		Germanischer Lloyd						
ATEX		Specified types ➔ www.festo.com						

1) Note operating range of proximity sensors

2) Corrosion resistance class 2 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
Corrosion resistance class 3 as per 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.

Force [N] and impact energy [J]								
Piston ∅		32	40	50	63	80	100	125
Theoretical force at 6 bar, advancing		483	754	1,178	1,870	3,016	4,712	7,363
	S2/S20	415	633	990	1,682	2,721	4,418	6,881
Theoretical force at 6 bar, retracting		415	633	990	1,682	2,721	4,418	6,881
	S2/S20	415	633	990	1,682	2,721	4,418	6,881
Max. impact energy at the end positions[1]		0.1	0.2	0.2	0.5	0.9	1.2	5

1) The permissible impact energy is reduced by approx. 10% for variants K10 and S20

Permissible impact velocity:

$$v_{perm.} = \sqrt{\frac{2 \times E_{perm.}}{m_{dead} + m_{load}}}$$

Maximum permissible load:

$$m_{load} = \frac{2 \times E_{perm.}}{v^2} - m_{dead}$$

$v_{perm.}$ Permissible impact velocity
$E_{perm.}$ Max. impact energy
$m_{Intrinsic}$ Moving load (drive)
m_{Load} Moving effective load

- Note

This data represents the maximum values that can be achieved. The maximum permissible impact energy must be observed.