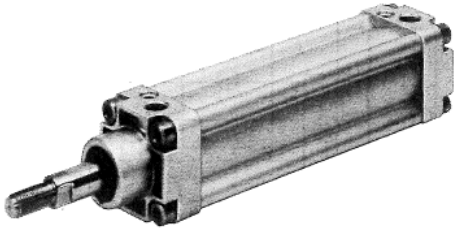


DNU Cylinder



Design: Extruded aluminum barrel with end caps connected directly to the body. The piston has a permanent magnet for use with proximity sensors. Integrated adjustable air cushioning for end positions.

Standards: ISO 6431

Product Life: The DNU was released in 1987 and will be phased out in 2011.

Bores: 32mm – 100mm / 1 ¼” – 4”

Strokes: 10mm - 2,000mm / 0.4” – 79”

Sensors: Electric (SMEO-1) and Inductive (SMTO-1); mount to body with SMBU brackets.

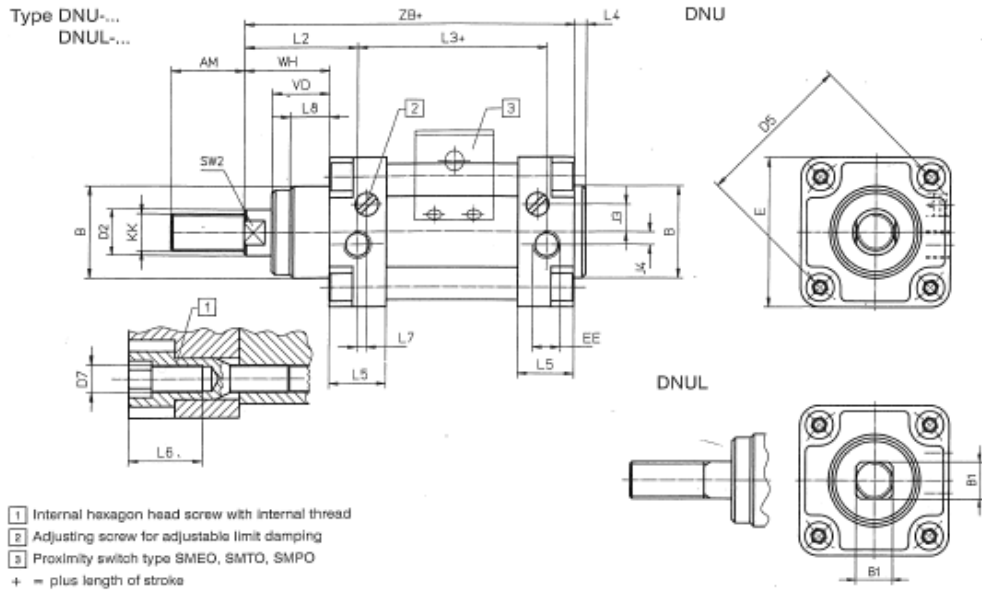
<u>Repair Kits:</u>	<u>Bore</u>	<u>Repair Kit</u>
	32mm	105301
	40mm	105302
	50mm	105303
	63mm	108703
	80mm	108704
	100mm	108705
	125mm	108711

****Note:** Repair Kits can be used for both Metric and Inch designs.

****Note:** The DNGU and DNG also use the same repair kits.

Alternatives DNCB: Low-cost Functional replacement that meets ISO 15552
 Classic tie rod design – round tube with end caps held together with tie
 Aluminium extrusion design with integrated sensor slots
 Different dimensions, mounting accessories, and sensors from DNU
 More cost effective than DNU due to newer design, simplified production





- 1 Internal hexagon head screw with internal thread
- 2 Adjusting screw for adjustable limit damping
- 3 Proximity switch type SMEO, SMT0, SMPO
- + = plus length of stroke

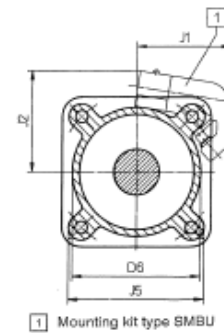
Piston-∅ mm	AM	B f8 ∅	B ₁ f8 ∅	D ₂ f8 dia.	D ₅	D ₆	D ₇	J ₁	J ₂	J ₅	E	EE	J ₃	J ₄	KK	L ₂	L ₃	L ₄	L ₅	L ₆	L ₇	L ₈	L ₉	SW ₂	VD	WH	ZB
32	22	30	10	12	46	37	M5	33.5	35	43.7	45	G ³ / ₈	7	-	M10×1.25	35	76	4	26	14	9	-	10	16	26	120	
40	24	35	12	16	56	46	M5	37	39.5	50.65	54	G ¹ / ₄	9	4.5	M12×1.25	42	81	5.5	24	14	6	-	13	20	30	135	
50	32	40	16	20	68	56	M6	41	44	59.1	65	G ¹ / ₄	11.5	5.5	M16×1.5	49	82	5	24	14	4	17	17	25	37	143	
63	32	42	16	20	84	70	M6	47	52.5	72.7	80	G ³ / ₈	12	14	M16×1.5	54	87	6	28.5	17	-	20	17	28	40	155	
80	40	48	20	25	100	87	M8	54	59.5	84.1	96	G ³ / ₈	16	16	M20×1.5	62	96	6	28	16	-	23	22	34	48	172	
100	40	52	20	25	132	107	M8	63	67	106.7	126	G ¹ / ₂	16	16	M20×1.5	69.5	101	7	32.5	16	-	23	22	40	53	187	

Weights

Piston-∅ mm	Basic cylinder kg		Mounting attachments kg						
	Type DNU-..., DNUL-... Basic weight	Weight per 10 mm stroke	HN-... Steel, galvanized	FN-... G-Al	SN-... GD-Al	LN-... GTS-35	LSN-... GTS-35	ZNU-...	LNZ-... Anodized aluminum; DU-friction bearing
32	0.483	0.026	0.140	0.080	0.110	0.160	0.140	0.300	0.090
40	0.727	0.036	0.220	0.110	0.180	0.210	0.200	0.515	0.150
50	1.146	0.048	0.380	0.190	0.260	0.420	0.350	0.710	0.150
63	1.674	0.057	0.580	0.340	0.460	0.540	0.460	1.190	0.215
80	2.662	0.076	1.100	0.520	0.700	0.880	0.780	1.590	0.215
100	3.864	0.090	1.480	0.900	1.280	1.370	1.180	2.050	0.380

Proximity sensors type SME and SMP
mounted using mounting kit type SMBU on profiled barrel
(see Sheet 1.360)

Assembly kit for proximity switch		
Piston dia mm	Order code	
	Part. no.	type
32, 40, 50	14835	SMBU-1
63, 80, 100	14836	SMBU-2



Alternative 1

DNCB Cylinder



Design: Round cylinder tube with square end caps held together with tie rods. The piston has a permanent magnet for use with proximity sensors. Integrated adjustable air cushioning for both end positions.

Standards: ISO 15552 (previously ISO 6431)

Bores: 32mm – 100mm / 1 ¼” – 4”

Strokes: 10mm – 2000mm

Sensors: Electric (SME-8) and Inductive (SMT-8); mount in sensor slots on body

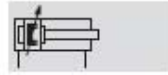
Production: Made in the USA

Standard cylinders DNCB, ISO 15552

FESTO

Technical data

Function





DIN



 www.festo.com



-  Diameter
32 ... 100 mm
-  Stroke length
2 ... 2,000 mm

Wearing parts kits
→ 9

General technical data						
Piston \varnothing	32	40	50	63	80	100
Pneumatic connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{1}{2}$
Piston rod thread	M10x1.25	M12x1.25	M16x1.5	M16x1.5	M20x1.5	M20x1.5
Constructional design	Piston Piston rod Profile barrel					
Cushioning	Pneumatic cushioning adjustable at both ends					
Cushioning length (mm)	20	20	22	22	32	32
Position sensing	For proximity sensing					
Type of mounting	Using internal threads With accessories					
Mounting position	Any					

Operating and environmental conditions	
Operating medium	Filtered compressed air, lubricated or unlubricated
Operating pressure (bar)	0.6 ... 12
Ambient temperature ¹⁾ (°C)	-20 ... +80
Corrosion resistance class CRC ²⁾	2

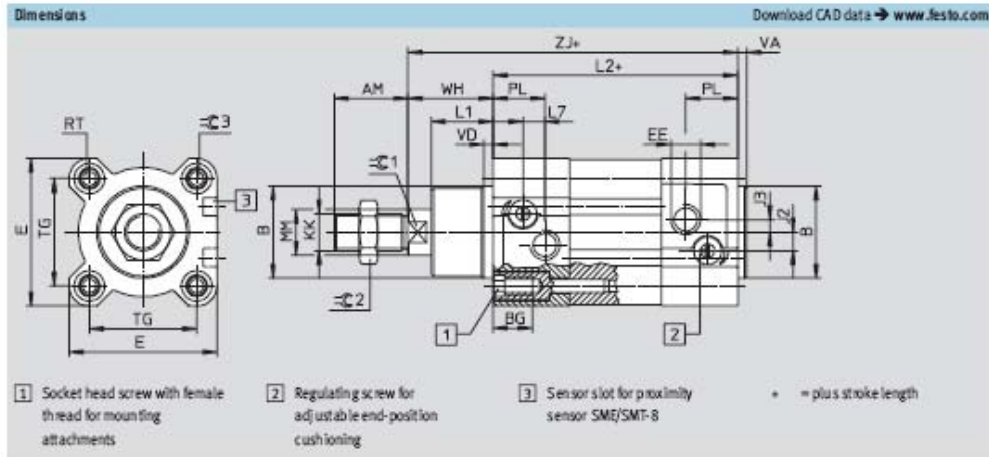
- 1) Note operating range of proximity sensors
- 2) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primary decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents

Forces [N] and impact energy [J]						
Piston \varnothing	32	40	50	63	80	100
Theoretical force at 6 bar, advancing	483	754	1,178	1,870	3,016	4,712
Theoretical force at 6 bar, retracting	415	633	990	1,682	2,721	4,418
Max. impact energy at end positions	0.4	0.7	1	1.3	2	3

 Note
Sizing software
Pro Pneu
→ www.festo.com

Standard cylinders DNCB, ISO 15552

Technical data



∅	AM	B ∅ d11	BG	E	EE	J2	J3	KK	L1	L2	L7
[mm]											
32	22	30	16	45	G $\frac{3}{4}$	5.25	5.7	M1.0x1.25	18	94	6.5
40	24	35	16	54	G $\frac{3}{4}$	8	4	M1.2x1.25	21.3	105	7.5
50	32	40	1.7	64	G $\frac{3}{4}$	8	5.5	M1.6x1.5	26.8	106	9.5
63	32	45	1.7	75	G $\frac{3}{4}$	12.75	6.25	M1.6x1.5	27	121	9
80	40	45	1.7	93	G $\frac{3}{4}$	12.5	8	M2.0x1.5	34.2	128	11
100	40	55	1.7	110	G $\frac{3}{4}$	13.5	10	M2.0x1.5	38	138	7.5

∅	MM ∅	PL	RT	TG	VA	VD	WH	ZJ	∅C 1	∅C 2	∅C 3
[mm]											
32	12	19.5	M6	32.5	4	4	26	120	10	16	6
40	16	22.5	M6	38	4	4	30	135	13	18	6
50	20	22.5	M8	46.5	4	4	37	143	17	24	8
63	20	27.5	M8	56.5	4	4	37	158	17	24	8
80	25	30	M10	72	4	4	46	174	22	30	6
100	25	31.5	M10	89	4	4	51	189	22	30	6