

Do not use for new designs!
- 1 - Type to be discontinued

Standard cylinders DNU/DNUL, ISO 6431

FESTO

For new designs use standard
cylinders DNC
→ 1 / 1.2-24



- Double-acting
- For contactless position sensing
- Comprehensive range of accessories

ISO standard cylinders
ISO 6431

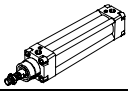
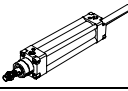
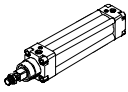
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Product range overview

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Function	Design	Type	Piston \varnothing [mm]	Stroke [mm]	Position sensing A	Cushioning Adjustable PPV	
Double-acting	Basic version						
		DNU Single-ended piston rod	32, 40, 50, 63, 80, 100	25, 40, 50, 80, 100, 125, 160, 200, 250, 300, 320, 400, 500	10 ... 2,000	■	■
		DNU-...-S2 Through piston rod	32, 40, 50, 63, 80, 100	–	10 ... 2,000	■	■
	Non-rotating piston rod						
		DNUL Single-ended piston rod	32 40 50, 63 80, 100	– – – –	10 ... 300 10 ... 400 10 ... 500 10 ... 600	■	■

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Product range overview

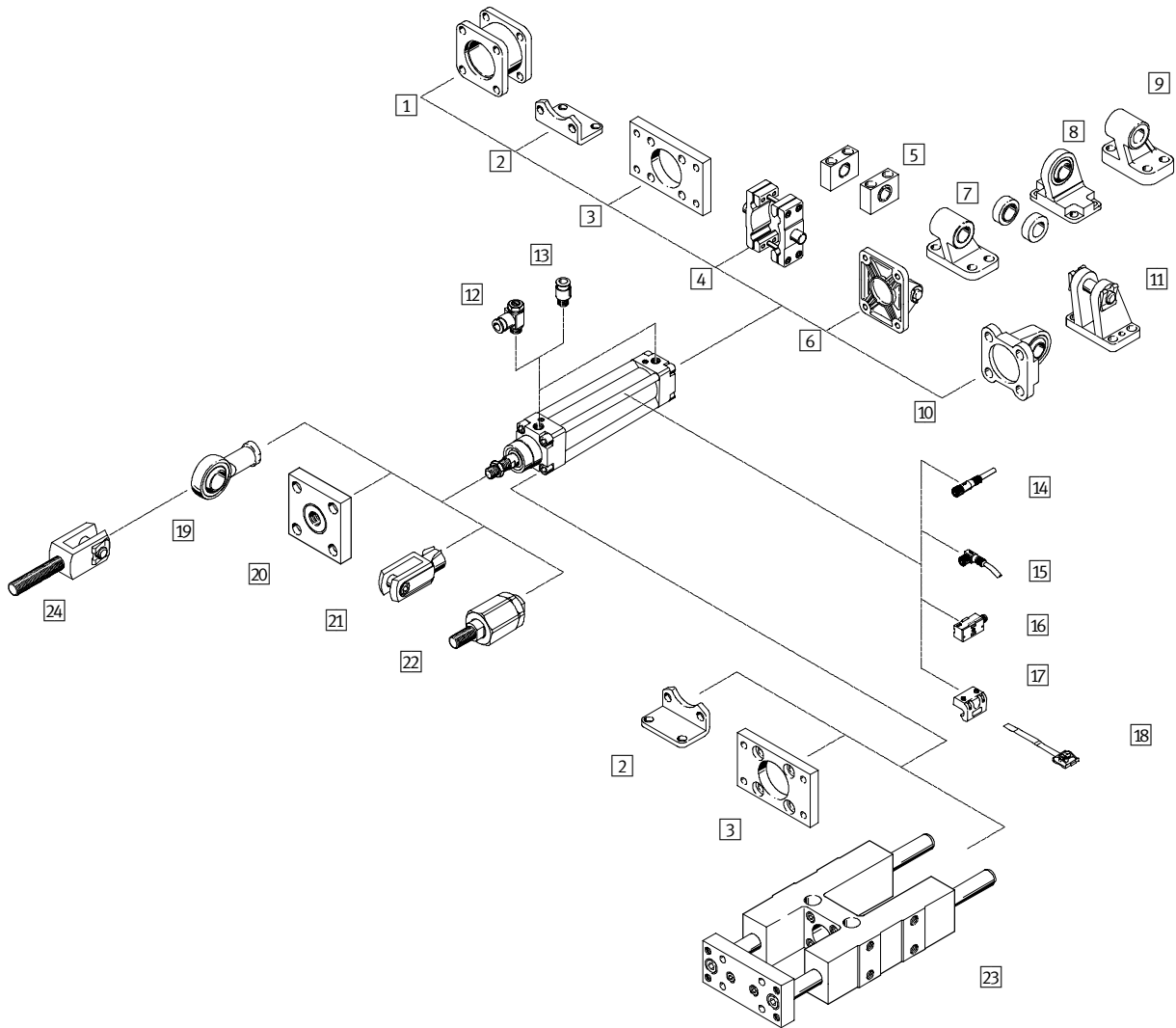
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Type	Piston rod Stainless steel S3	Heat resistant seal for temperatures up to 150 °C S6	High corrosion protection S8	→ Page
Basic version				
DNU Single-ended piston rod	■	■	■	1 / 1.3-7
DNU...-S2 Through piston rod	-	■	-	1 / 1.3-7
Non-rotating piston rod				
DNUL Single-ended piston rod	-	■	-	1 / 1.3-7

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Peripherals overview



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Peripherals overview

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Mounting attachments and accessories		
	Brief description	→ Page
1	Adapter kit DPNN	For connecting two DNU cylinders with identical piston \varnothing to form a multi-position cylinder 1 / 1.3-13
2	Foot mounting HN	For bearing and end caps 1 / 1.3-14
3	Flange mounting FN	For bearing or end caps 1 / 1.3-14
4	Trunnion mounting kit ZNU	For mounting anywhere along the cylinder profile barrel 1 / 1.3-15
5	Trunnion support LNZ	– 1 / 1.3-15
6	Swivel flange SN	For end caps 1 / 1.3-15
7	Clevis foot mounting LN	– 1 / 1.3-17
8	Clevis foot mounting LSN	With spherical bearing 1 / 1.3-17
9	Clevis foot mounting LNG	– 1 / 1.3-17
10	Swivel flange SSN	With spherical bearing for clevis foot LBG 1 / 1.3-16
11	Clevis foot mounting LBG	With non-rotating pivot pin 1 / 1.3-17
12	One-way flow control valve GRLA	For speed regulation 1 / 1.3-17
13	Push-in fitting QS	For connecting compressed air tubing with standard O.D. to CETOP RP 54 P Volume 3
14	Plug socket with cable, straight SIM-M8	– 1 / 1.3-19
15	Plug socket with cable, angled SIM-M8	– 1 / 1.3-19
16	Proximity sensors SMEO-1/SMT0-1/SMPO-1	– 1 / 1.3-19
17	Sensor mounting kit SMBU	For proximity sensor SMEO-1/SMT0-1 1 / 1.3-19
18	Sensor mounting kit SMBS	For proximity sensor SMPO-1 1 / 1.3-19
19	Rod eye SGS	With spherical bearing 1 / 1.3-18
20	Coupling piece KSG/KSZ	For compensating radial deviations 1 / 1.3-18
21	Rod clevis SG	Permits a swivelling movement of the cylinder in one plane 1 / 1.3-18
22	Self-aligning rod coupler FK	For compensating radial and angular deviations 1 / 1.3-18
23	Guided unit FEN	To protect against torsion at high torque loads 1 / 1.3-18
24	Rod clevis SGA	Suitable for spherical mounting of cylinders in conjunction with rod eye SGS 1 / 1.3-18

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Type code

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		DNU	-	50	-	80	-	PPV	-	A	-	
Type												
Double-acting												
DNU	Standard cylinder											
DNUL	Standard cylinder, non-rotating											
Piston Ø [mm]												
Stroke [mm]												
Cushioning												
PPV	Adjustable at both ends											
Sensing												
A	Position sensing											
Variants												
S2	Through piston rod											
S3	Stainless steel piston rod											
S6	Heat resistant seal for temperatures up to 150 °C											
S8	High corrosion protection											
S26	Through piston rod with heat resistant seals for temperatures up to 150 °C											

Do not use for new designs!

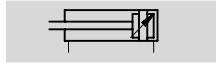
-  - Type to be discontinued


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Technical data

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Function



-  - Diameter
32 ... 125 mm

-  - Stroke length
2 ... 2,000 mm

-  - www.festo.com/en/Spare_parts_service

Variants



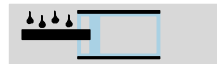
S2



S3



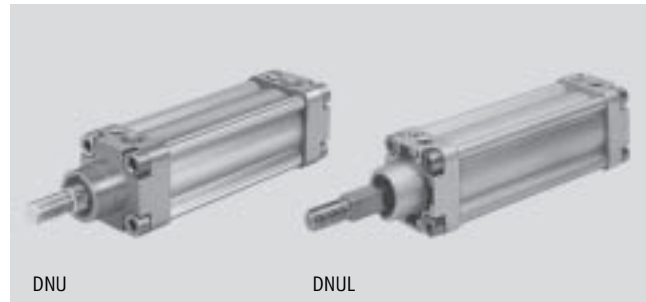
S6



S8



S26



DNU

DNUL



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 $\frac{3}{8}$	G $\frac{1}{2}$
Piston rod thread	M10x1.25	M12x1.25	M16x1.5	M16x1.5	M20x1.5	M20x1.5
Operating medium	Filtered compressed air, lubricated or unlubricated					
Design	Piston					
	Piston rod					
	Profile barrel					
Cushioning	Adjustable at both ends					
Cushioning length [mm]	19	21	23	23	30	30
Position sensing	Via proximity sensor					
Type of mounting	Via accessories					
Mounting position	Any					

Operating and environmental conditions						
Piston \varnothing	32	40	50	63	80	100
Operating pressure [bar]	12					
Ambient temperature ¹⁾ [°C]	-20 ... +80					

1) Note operating range of proximity sensors


Forces [N]							
Piston \varnothing	32	40	50	63	80	100	
Theoretical force at 6 bar, advancing		482	753	1,178	1,870	3,015	4,712
	S2	393	586	924	1,601	2,615	4,221
Theoretical force at 6 bar, retracting		415	633	990	1,682	2,720	4,418
	S2	393	586	924	1,601	2,615	4,221

Technical data – Square piston rod						
Piston \varnothing	32	40	50	63	80	100
Max. torque at the piston rod ¹⁾ [Nm]	0.8	1.1	1.5	1.5	3.0	3.0

1) The max. torque must also be observed when fitting mounting attachments to the piston rod.

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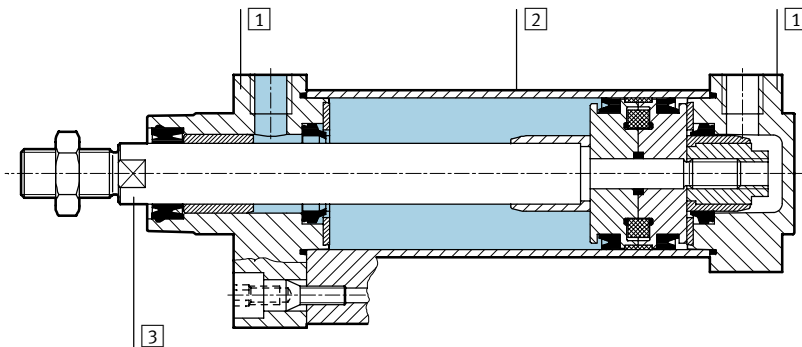
Technical data

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Weights [g]						
Piston Ø	32	40	50	63	80	100
Product weight at 0 mm stroke	483	727	1,146	1,674	2,662	3,864
Additional weight per 10 mm stroke	26	36	48	57	76	90

Materials

Sectional view



Standard cylinder	
1 Bearing and end caps	Aluminium
2 Cylinder barrel	Anodised aluminium
3 Piston rod, tie rod	High-alloy steel
- Seals	Polyurethane

Max. permissible torque at the piston rod for DNUL

Graphs → 1 / 1.3-9

Examples apply to piston Ø 32 mm

Example 1:

Stroke length = 150 mm

Result: Permissible

Lateral force = 9.5 N

Lever arm = 84 mm

Example 2:

Lateral force = 40 N

Result: Permissible

Stroke length = 28 mm

Lever arm = 20 mm

Example 3:

Stroke length = 150 mm

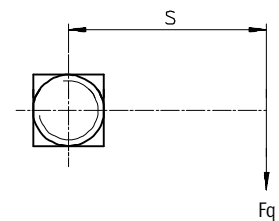
Lever arm = 100 mm


$$F_q = \frac{\text{Max. Torque } 800 \text{ Nmm}}{\text{Leverarm } 100 \text{ mm}}$$

$$= 8 \text{ N}$$

Result: Permissible

$F_q 8 \text{ N} < F_{q \text{ max. } 9.5 \text{ N}}$



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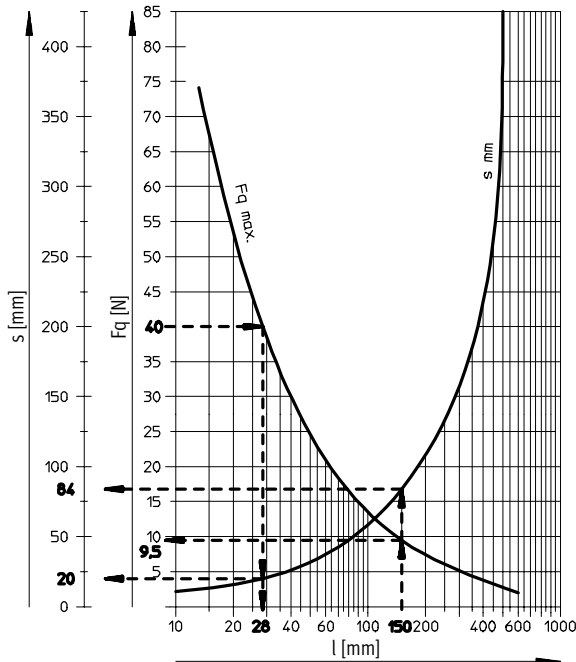
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Lateral force F_q as a function of the stroke length l and lever arm s

DNUL-32

Max. torque = 800 Nmm

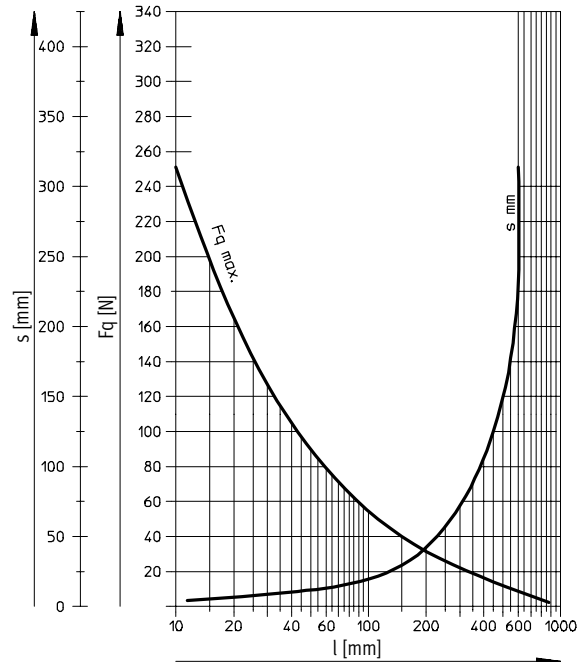
Max. stroke = 300 mm



DNUL-40

Max. torque = 1,100 Nmm

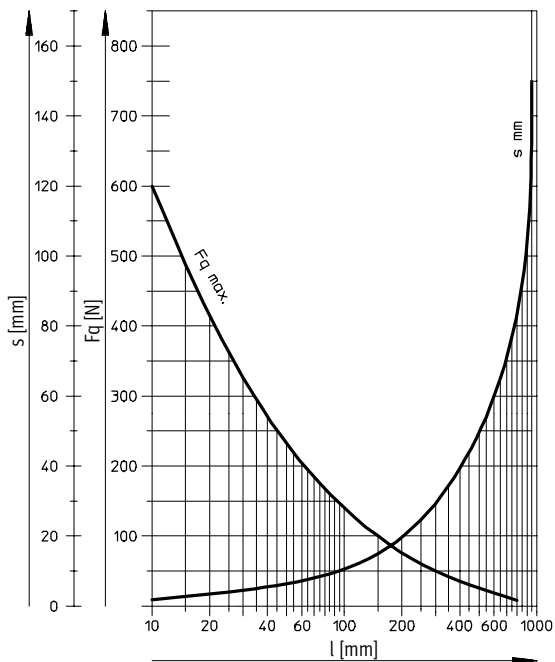
Max. stroke = 400 mm



DNUL-50/63

Max. torque = 1,500 Nmm

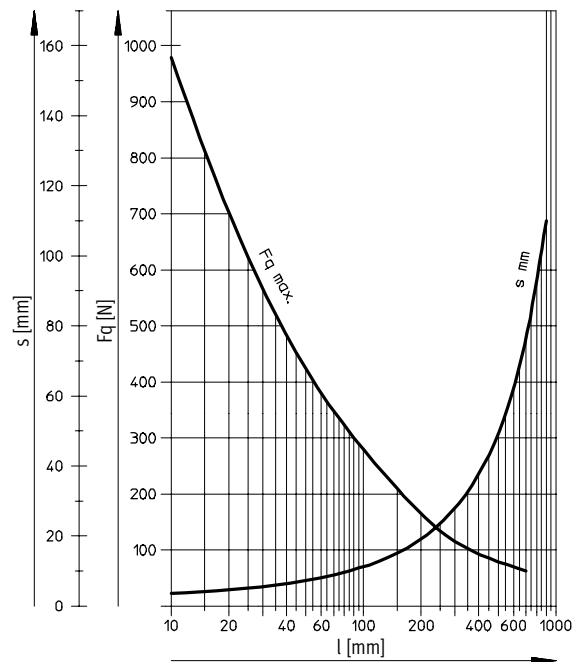
Max. stroke = 500 mm



DNUL-80/100

Max. torque = 3,000 Nmm

Max. stroke = 600 mm



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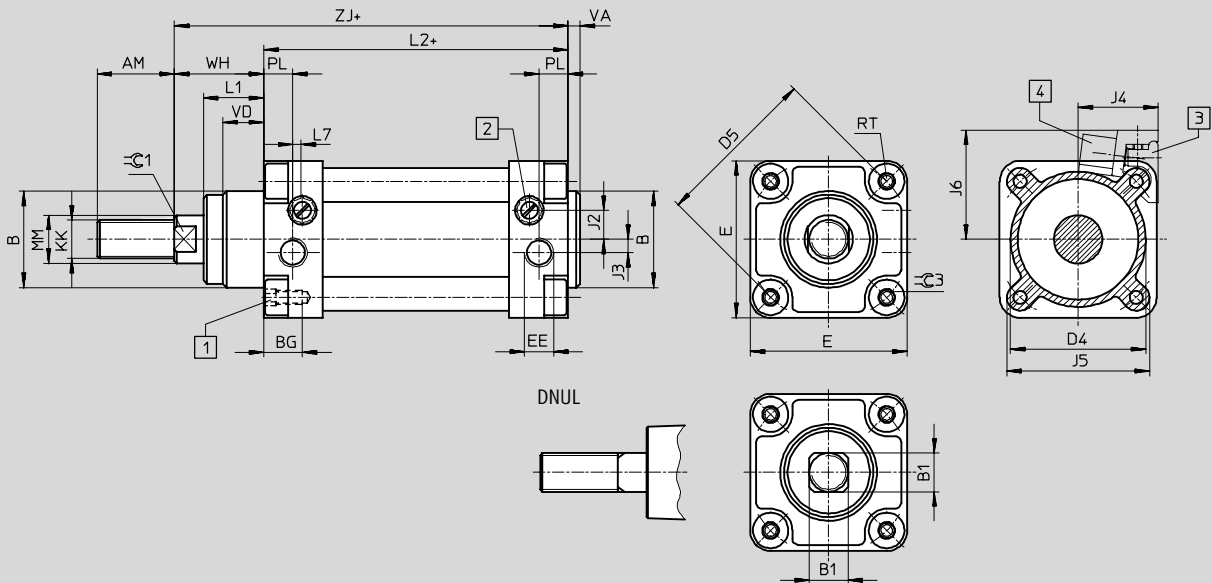
Technical data

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Dimensions

Download CAD data → www.festo.com/en/engineering

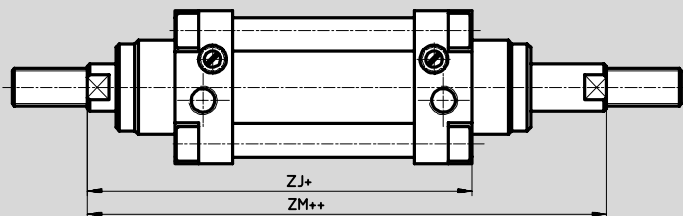
DNU/DNUL



- 1** Socket head screw with female thread for mounting attachments
- 2** Regulating screw for adjustable end-position cushioning
- 3** Mounting kit SMBU-...-B for proximity sensor
- 4** Proximity sensor SMEO-1/SMT0-1/SMPO-1

+ = plus stroke length

Variant S2/S26 – Through piston rod




+ = plus stroke length
 ++ = plus 2x stroke length

∅	AM	B	B1	BG	D4	D5	E	EE	J2	J3	J4	J5	J6
[mm]		∅ f8	f8		∅	∅							
32	22	30	10	13	37	46	45	G $\frac{1}{8}$	7	–	25	43.7	37
40	24	35	12	13	46	56	54	G $\frac{1}{4}$	9	4.5	29	50.6	41
50	32	40	16	16	56	68	65	G $\frac{1}{4}$	11.5	5.5	33.5	59.1	45.5
63	32	42	16	19	70	84	80	G $\frac{3}{8}$	13	11.5	42	72.7	53
80	40	48	21	20	87	100	96	G $\frac{3}{8}$	17	16	49	84.1	60
100	40	52	21	20	107	132	126	G $\frac{1}{2}$	17.5	18	57.5	106.7	68.5

∅	KK	L1	L2	L7	MM	PL	RT	VA	VD	WH	ZJ	ZM	∠C1
[mm]					∅ f8								
32	M10x1.25	16	94	9.5	12	9	M5	4	16	26	120	146	10
40	M12x1.25	20	105	6	16	12	M5	5.5	20	30	135	165	13
50	M16x1.5	25	106	4	20	12	M6	5	17	37	143	180	17
63	M16x1.5	28	115	–	20	14.5	M6	6	28	40	155	195	17
80	M20x1.5	34	124	–	25	14	M8	6	23	48	172	220	22
100	M20x1.5	40	134	–	25	16	M8	7	23	53	187	240	22


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Technical data

Ordering data							
Design	Stroke [mm]	Piston Ø 32 [mm]		Piston Ø 40 [mm]		Piston Ø 50 [mm]	
		Part No.	Type ¹⁾	Part No.	Type ¹⁾	Part No.	Type ¹⁾
Basic version							
	25	14 121	DNU-32-25-PPV-A	14 132	DNU-40-25-PPV-A	14 143	DNU-50-25-PPV-A
	40	14 122	DNU-32-40-PPV-A	14 133	DNU-40-40-PPV-A	14 144	DNU-50-40-PPV-A
	50	14 123	DNU-32-50-PPV-A	14 134	DNU-40-50-PPV-A	14 145	DNU-50-50-PPV-A
	80	14 124	DNU-32-80-PPV-A	14 135	DNU-40-80-PPV-A	14 146	DNU-50-80-PPV-A
	100	14 125	DNU-32-100-PPV-A	14 136	DNU-40-100-PPV-A	14 147	DNU-50-100-PPV-A
	125	14 126	DNU-32-125-PPV-A	14 137	DNU-40-125-PPV-A	14 148	DNU-50-125-PPV-A
	160	14 127	DNU-32-160-PPV-A	14 138	DNU-40-160-PPV-A	14 149	DNU-50-160-PPV-A
	200	14 128	DNU-32-200-PPV-A	14 139	DNU-40-200-PPV-A	14 150	DNU-50-200-PPV-A
	250	14 129	DNU-32-250-PPV-A	14 140	DNU-40-250-PPV-A	14 151	DNU-50-250-PPV-A
	300	14 130	DNU-32-300-PPV-A	14 141	DNU-40-300-PPV-A	14 152	DNU-50-300-PPV-A
	320	34 704	DNU-32-320-PPV-A	34 705	DNU-40-320-PPV-A	34 706	DNU-50-320-PPV-A
	400	32 473	DNU-32-400-PPV-A	32 475	DNU-40-400-PPV-A	32 477	DNU-50-400-PPV-A
500	32 474	DNU-32-500-PPV-A	32 476	DNU-40-500-PPV-A	32 478	DNU-50-500-PPV-A	
Variable stroke	10 ... 2,000	14 120	DNU-32-...-PPV-A	14 131	DNU-40-...-PPV-A	14 142	DNU-50-...-PPV-A
Variant S2	10 ... 2,000	14 186	DNU-32-...-PPV-A-S2	14 187	DNU-40-...-PPV-A-S2	14 188	DNU-50-...-PPV-A-S2
Variant S3	10 ... 2,000	158 844	DNU-32-...-PPV-A-S3	158 845	DNU-40-...-PPV-A-S3	158 846	DNU-50-...-PPV-A-S3
Variant S6	10 ... 2,000	14 919	DNU-32-...-PPV-A-S6	14 920	DNU-40-...-PPV-A-S6	14 921	DNU-50-...-PPV-A-S6
Variant S8	10 ... 2,000	158 850	DNU-32-...-PPV-A-S8	158 851	DNU-40-...-PPV-A-S8	158 852	DNU-50-...-PPV-A-S8
Variant S26	10 ... 2,000	14 925	DNU-32-...-PPV-A-S26	14 926	DNU-40-...-PPV-A-S26	14 927	DNU-50-...-PPV-A-S26
With non-rotating piston rod							
Variable stroke	10 ... 300	15 602	DNUL-32-...-PPV-A	–	–	–	–
	10 ... 400	–	–	15 603	DNUL-40-...-PPV-A	–	–
	10 ... 500	–	–	–	–	15 604	DNUL-50-...-PPV-A
	10 ... 600	–	–	–	–	–	–
Variant S6	10 ... 300	15 660	DNUL-32-...-PPV-A-S6	–	–	–	–
	10 ... 400	–	–	15 661	DNUL-40-...-PPV-A-S6	–	–
	10 ... 500	–	–	–	–	15 662	DNUL-50-...-PPV-A-S6
	10 ... 600	–	–	–	–	–	–

1) The scope of delivery includes a hex nut for the piston rod thread.

ISO standard cylinders
ISO 6431


1.3

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Technical data

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Ordering data							
Design	Stroke [mm]	Piston Ø 63 [mm]		Piston Ø 80 [mm]		Piston Ø 100 [mm]	
		Part No.	Type ¹⁾	Part No.	Type ¹⁾	Part No.	Type ¹⁾
Basic version							
	25	14 154	DNU-63-25-PPV-A	14 165	DNU-80-25-PPV-A	14 176	DNU-100-25-PPV-A
	40	14 155	DNU-63-40-PPV-A	14 166	DNU-80-40-PPV-A	14 177	DNU-100-40-PPV-A
	50	14 156	DNU-63-50-PPV-A	14 167	DNU-80-50-PPV-A	14 178	DNU-100-50-PPV-A
	80	14 157	DNU-63-80-PPV-A	14 168	DNU-80-80-PPV-A	14 179	DNU-100-80-PPV-A
	100	14 158	DNU-63-100-PPV-A	14 169	DNU-80-100-PPV-A	14 180	DNU-100-100-PPV-A
	125	14 159	DNU-63-125-PPV-A	14 170	DNU-80-125-PPV-A	14 181	DNU-100-125-PPV-A
	160	14 160	DNU-63-160-PPV-A	14 171	DNU-80-160-PPV-A	14 182	DNU-100-160-PPV-A
	200	14 161	DNU-63-200-PPV-A	14 172	DNU-80-200-PPV-A	14 183	DNU-100-200-PPV-A
	250	14 162	DNU-63-250-PPV-A	14 173	DNU-80-250-PPV-A	14 184	DNU-100-250-PPV-A
	300	14 163	DNU-63-300-PPV-A	14 174	DNU-80-300-PPV-A	14 185	DNU-100-300-PPV-A
	320	34 707	DNU-63-320-PPV-A	34 708	DNU-80-320-PPV-A	34 709	DNU-100-320-PPV-A
	400	32 479	DNU-63-400-PPV-A	32 481	DNU-80-400-PPV-A	32 483	DNU-100-400-PPV-A
	500	32 480	DNU-63-500-PPV-A	32 482	DNU-80-500-PPV-A	32 484	DNU-100-500-PPV-A
Variable stroke	10 ... 2,000	14 153	DNU-63-...-PPV-A	14 164	DNU-80-...-PPV-A	14 175	DNU-100-...-PPV-A
Variant S2	10 ... 2,000	14 189	DNU-63-...-PPV-A-S2	14 190	DNU-80-...-PPV-A-S2	14 191	DNU-100-...-PPV-A-S2
Variant S3	10 ... 2,000	158 847	DNU-63-...-PPV-A-S3	158 848	DNU-80-...-PPV-A-S3	158 849	DNU-100-...-PPV-A-S3
Variant S6	10 ... 2,000	14 922	DNU-63-...-PPV-A-S6	14 923	DNU-80-...-PPV-A-S6	14 924	DNU-100-...-PPV-A-S6
Variant S8	10 ... 2,000	158 853	DNU-63-...-PPV-A-S8	158 854	DNU-80-...-PPV-A-S8	158 855	DNU-100-...-PPV-A-S8
Variant S26	10 ... 2,000	14 928	DNU-63-...-PPV-A-S26	14 929	DNU-80-...-PPV-A-S26	14 930	DNU-100-...-PPV-A-S26
With non-rotating piston rod							
Variable stroke	10 ... 300	-	-	-	-	-	-
	10 ... 400	-	-	-	-	-	-
	10 ... 500	15 605	DNUL-63-...-PPV-A	-	-	-	-
	10 ... 600	-	-	15 606	DNUL-80-...-PPV-A	15 607	DNUL-100-...-PPV-A
Variant S6	10 ... 300	-	-	-	-	-	-
	10 ... 400	-	-	-	-	-	-
	10 ... 500	15 663	DNUL-63-...-PPV-A-S6	-	-	-	-
	10 ... 600	-	-	15 664	DNUL-80-...-PPV-A-S6	15 665	DNUL-100-...-PPV-A-S6

1) The scope of delivery includes a hex nut for the piston rod thread.

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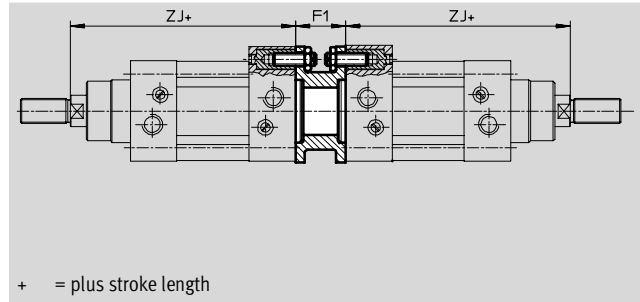
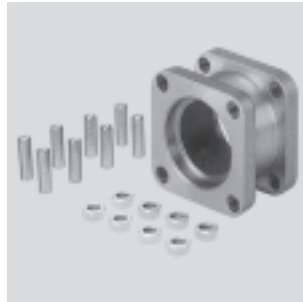
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Accessories

Adapter kit DPNN

Material:

Flange: Wrought aluminium alloy;
 Threaded studs, hex nuts: Galvanised steel
 Free of copper, PTFE and silicone



 - Note
 The maximum overall stroke length may not be exceeded when combining cylinders and the adapter kit.

Dimensions and ordering data							
for \varnothing	F1	ZJ	Max. overall stroke length [mm]	CRC ¹⁾	Weight [g]	Part No.	Type
32	27	120	1,000	2	85	13 468	DPNN-32
40	27	135	1,000	2	115	13 469	DPNN-40
50	32	143	1,000	2	210	13 470	DPNN-50
63	34	155	1,000	2	360	13 471	DPNN-63
80	42	172	1,000	2	620	13 472	DPNN-80
100	42	187	1,000	2	1,190	13 473	DPNN-100

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

ISO standard cylinders
 ISO 6431

1.3

Connecting two cylinders with identical piston \varnothing as a 3 or 4-position cylinder

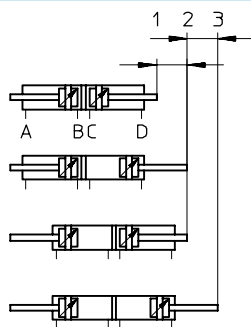
A 3 or 4-position cylinder consists of two separate cylinders whose piston rods advance in opposing directions. This means that depending upon

actuation and stroke pattern, this type of cylinder can assume up to four positions. In each case the cylinder is driven precisely against a stop. Note

that when one end of the piston rod is fixed, the cylinder barrel executes the movement. The cylinder must be connected with flexible line connections.

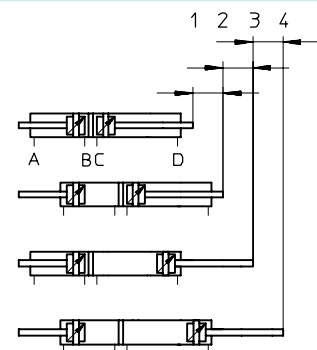
To achieve 3 positions

Two cylinders with identical stroke length must be connected together.



To achieve 4 positions

Two cylinders with different stroke lengths must be connected together.



Do not use for new designs!
 - Type to be discontinued

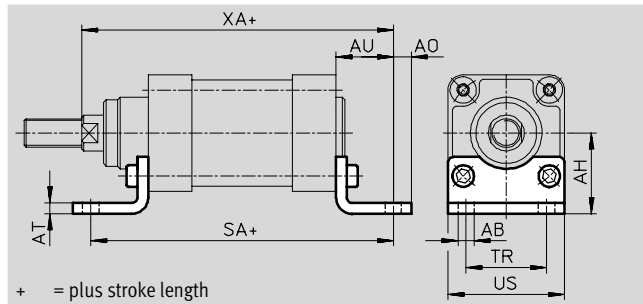
Standard cylinders DNU/DNUL, ISO 6431

Accessories

FESTO

Foot mounting HN

Material:
 Galvanised steel
 Free of copper, PTFE and silicone



Dimensions and ordering data

For \varnothing	AB \varnothing	AH	AO	AT	AU	SA	TR	US	XA	CRC ¹⁾	Weight [g]	Part No.	Type
32	7	32	8	4	24	142	32	45	144	2	140	5 135	HN-32
40	9	36	10	5	28	161	36	54	163	2	220	5 136	HN-40
50	9	45	10	6	32	170	45	65	175	2	380	5 137	HN-50
63	9	50	15	6	35	185	50	80	190	2	580	5 138	HN-63
80	12	63	17	8	43	210	63	96	215	2	1,100	5 139	HN-80
100	14	71	14	8	43	220	75	126	230	2	1,480	5 140	HN-100

1) Corrosion resistance class 2 according to Festo standard 940 070

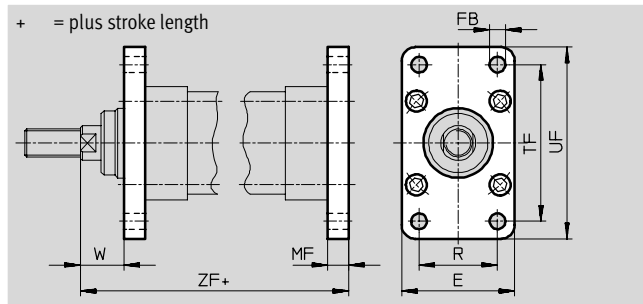
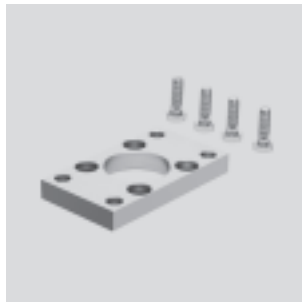
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

ISO standard cylinders
ISO 6431

1.3

Flange mounting FN

Material:
 Galvanised steel
 Free of copper, PTFE and silicone




Dimensions and ordering data

For \varnothing	E	FB \varnothing	MF	R	TF	UF	W	ZF	CRC ¹⁾	Weight [g]	Part No.	Type
32	45	7	10	32	64	77	16	130	2	80	5 141	FN-32
40	54	9	10	36	72	90	20	145	2	110	5 142	FN-40
50	65	9	12	45	90	110	25	155	2	190	5 143	FN-50
63	80	9	15	50	100	125	25	170	2	340	5 144	FN-63
80	96	12	18	63	126	154	30	190	2	520	5 145	FN-80
100	126	14	18	75	150	186	35	205	2	900	5 146	FN-100

1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

Do not use for new designs!
 -  - Type to be discontinued

Standard cylinders DNU/DNUL, ISO 6431

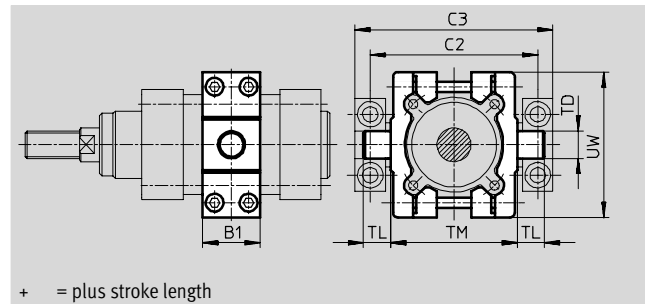
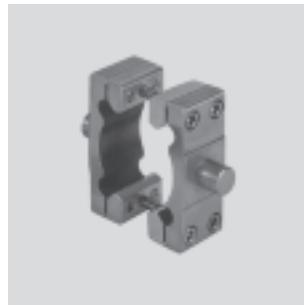
FESTO

Accessories

Trunnion mounting kit ZNU

The mounting kit can be attached at any position along the profile of the cylinder barrel.

Material:
 Galvanised steel
 Free of copper, PTFE and silicone



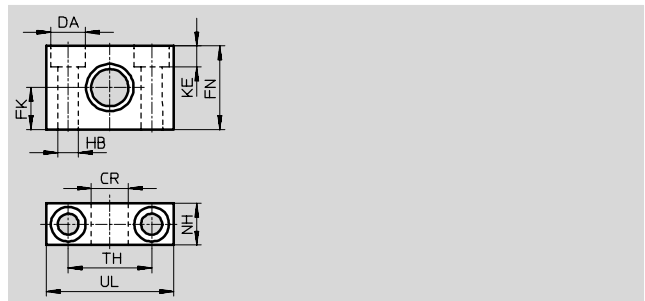
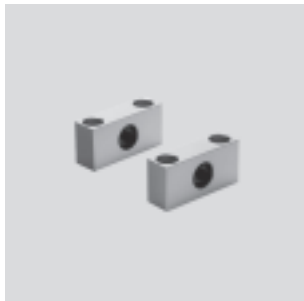
Dimensions and ordering data												
For \varnothing	B1	C2	C3	TD	TL	TM	UW	CRC ¹⁾	Weight	Part No.	Type	
[mm]				\varnothing e9					[g]			
32	30	65	80	12	12	50	65	2	300	14 210	ZNU-32	
40	32	81	99	16	16	63	75	2	515	14 211	ZNU-40	
50	34	93	111	16	16	75	86	2	710	14 212	ZNU-50	
63	41	110	130	20	20	90	105	2	1,190	14 213	ZNU-63	
80	44	130	150	20	20	110	120	2	1,590	14 214	ZNU-80	
100	44	157	182	25	25	132	140	2	2,050	14 215	ZNU-100	

1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

Trunnion support LNZ

Material:
 Anodised aluminium



Dimensions and ordering data													
For \varnothing	CR	DA	FK	FN	HB	KE	NH	TH	UL	CRC ¹⁾	Weight	Part No.	Type
[mm]	\varnothing	\varnothing	\varnothing		\varnothing			± 0.2			[g]		
32	12 E10	11	12.5 ± 0.1	25	6.6	6.8	15	36	50	2	90	6 184	LNZ-32
40/50	16 E10	15	18 ± 0.1	36	9	9	18	36	55	2	150	6 185	LNZ-40/50
63/80	20 E10	18	20 ± 0.1	40	11	11	20	42	65	2	215	6 186	LNZ-63/80
100	25 E10	20	25 ± 0.1	50	14	13	25	50	75	2	380	6 187	LNZ-100/125

1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

Do not use for new designs!
 - Type to be discontinued

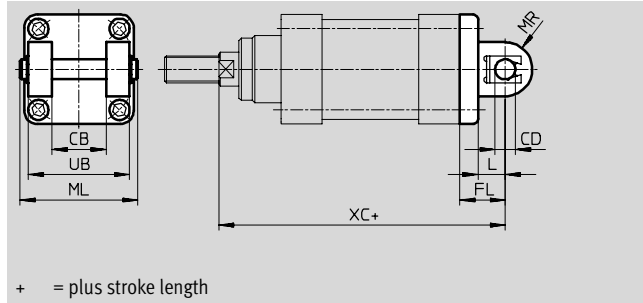
Standard cylinders DNU/DNUL, ISO 6431

Accessories

FESTO

Swivel flange SN

Material:
Die-cast aluminium



Dimensions and ordering data												
For \varnothing	CB	CD	FL	L	ML	MR	UB	XC	CRC ¹⁾	Weight	Part No.	Type
[mm]		\varnothing								[g]		
32	26	10	22	14	54	10	45	142	2	110	5 153	SN-32
40	28	12	25	16	62	13	52	160	2	180	5 154	SN-40
50	32	12	27	16	70	16	60	170	2	260	5 155	SN-50
63	40	16	35	23	82	18	70	190	2	460	5 156	SN-63
80	50	16	38	24	102	18	90	210	2	700	5 157	SN-80
100	60	20	43	28	126	23	110	230	2	1,280	5 158	SN-100

1) Corrosion resistance class 2 according to Festo standard 940 070

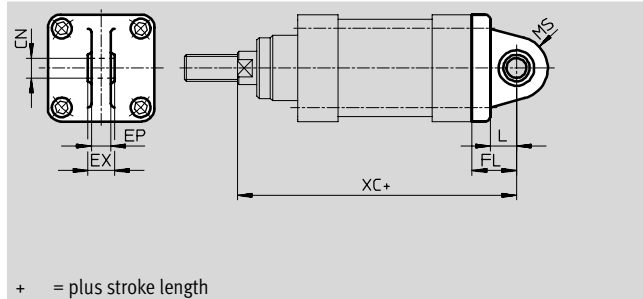
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

ISO standard cylinders
ISO 6431

1.3

Swivel flange SSN

for clevis foot LBG,
with spherical bearing



Dimensions and ordering data												
For \varnothing	CN	EP	EX	FL	L	MS	XC	CRC ¹⁾	Weight	Part No.	Type	
[mm]	\varnothing								[g]			
32	10	10.5	14	22	14	16	142	2	160	34 285	SSN-32	
40	12	12	16	25	16	18	160	2	260	34 286	SSN-40	
50	12	12	16	27	16	19	170	2	400	34 287	SSN-50	
63	16	15	21	35	23	23	190	2	720	34 288	SSN-63	
80	16	15	21	38	24	23	210	2	1,070	34 289	SSN-80	
100	20	18	25	43	28	30	230	2	1,780	34 290	SSN-100	

1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

Standard cylinders DNU/DNUL, ISO 6431

Accessories



Ordering data – Mounting attachments				Technical data → 1 / 10.1-2			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Clevis foot LN				Clevis foot LNG			
	32	5 147	LN-32		32	33 890	LNG-32
	40	5 148	LN-40		40	33 891	LNG-40
	50	5 149	LN-50		50	33 892	LNG-50
	63	5 150	LN-63		63	33 893	LNG-63
	80	5 151	LN-80		80	33 894	LNG-80
	100	5 152	LN-100		100	33 895	LNG-100
Clevis foot LSN				Clevis foot LBG			
	32	5 561	LSN-32		32	31 761	LBG-32
	40	5 562	LSN-40		40	31 762	LBG-40
	50	5 563	LSN-50		50	31 763	LBG-50
	63	5 564	LSN-63		63	31 764	LBG-63
	80	5 565	LSN-80		80	31 765	LBG-80
	100	5 566	LSN-100		100	31 766	LBG-100

Ordering data – One-way flow control valves				Technical data → Volume 2	
	Connection		Material	Part No.	Type
	Thread	for tubing OD			
	G $\frac{1}{8}$	3	Metal design	193 142	GRLA- $\frac{1}{8}$ -QS-3-D
		4		193 143	GRLA- $\frac{1}{8}$ -QS-4-D
		6		193 144	GRLA- $\frac{1}{8}$ -QS-6-D
		8		193 145	GRLA- $\frac{1}{8}$ -QS-8-D
	G $\frac{1}{4}$	6		193 146	GRLA- $\frac{1}{4}$ -QS-6-D
		8		193 147	GRLA- $\frac{1}{4}$ -QS-8-D
		10		193 148	GRLA- $\frac{1}{4}$ -QS-10-D
	G $\frac{3}{8}$	6		193 149	GRLA- $\frac{3}{8}$ -QS-6-D
		8		193 150	GRLA- $\frac{3}{8}$ -QS-8-D
		10		193 151	GRLA- $\frac{3}{8}$ -QS-10-D
	G $\frac{1}{2}$	12		193 152	GRLA- $\frac{1}{2}$ -QS-12-D

Core Range


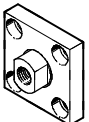

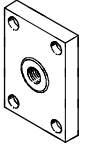


Do not use for new designs!

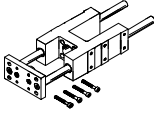
- 1 - Type to be discontinued FEN-32 ... 100

Standard cylinders DNU/DNUL, ISO 6431

Accessories

FESTO

Ordering data – Piston rod attachments				Technical data → 1 / 10.3-2			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Rod eye SGS				Coupling piece KSG			
	32	9 261	SGS-M10x1,25		32	32 963	KSG-M10x1,25
	40	9 262	SGS-M12x1,25		40	32 964	KSG-M12x1,25
	50	9 263	SGS-M16x1,5		50	32 965	KSG-M16x1,5
	63				63		
	80	9 264	SGS-M20x1,5		80	32 966	KSG-M20x1,5
	100				100		
Rod clevis SGA				Coupling piece KSZ			
	32	32 954	SGA-M10x1,25		32	36 125	KSZ-M10x1,25
	40	10 767	SGA-M12x1,25		40	36 126	KSZ-M12x1,25
	50	10 768	SGA-M16x1,5		50	36 127	KSZ-M16x1,25
	63				63		
	80	10 769	SGA-M20x1,5		80	36 128	KSZ-M20x1,25
	100				100		
Rod clevis SG				Self-aligning rod coupler FK			
	32	6 144	SG-M10x1,25		32	6 140	FK-M10x1,25
	40	6 145	SG-M12x1,25		40	6 141	FK-M12x1,25
	50	6 146	SG-M16x1,5		50	6 142	FK-M16x1,5
	63				63		
	80	6 147	SG-M20x1,5		80	6 143	FK-M20x1,5
	100				100		


Ordering data – Guide units					Technical data → 1 / 10.4-2		
	For Ø [mm]	Stroke [mm]	With recirculating ball bearing guide		With sliding bearing guide		
			Part No.	Type	Part No.	Type	
	32	10 ... 500	33 484	FEN-32-...-KF	19 171	FEN-32-...	
	40		33 485	FEN-40-...-KF	19 172	FEN-40-...	
	50		33 486	FEN-50-...-KF	19 173	FEN-50-...	
	63		33 487	FEN-63-...-KF	19 174	FEN-63-...	
	80		33 488	FEN-80-...-KF	19 175	FEN-80-...	
	100		33 489	FEN-100-...-KF	19 176	FEN-100-...	


 Core Range

Standard cylinders DNU/DNUL, ISO 6431


Accessories




FESTO



Ordering data – Rectangular proximity sensor, magneto-resistive						Technical data → 1 / 10.2-73	
Mounting	Switch output	Electrical connection		Cable length [m]	Part No.	Type	
		Cables	M8 plug				
NO contact							
	Via accessories	PNP	3-wire	–	2.5	151 683	SMT0-1-PS-K-LED-24-C
			–	3-pin	–	151 685	SMT0-1-PS-S-LED-24-C
		NPN	3-wire	–	2.5	151 684	SMT0-1-NS-K-LED-24-C
			–	3-pin	–	151 686	SMT0-1-NS-S-LED-24-C

Ordering data – Rectangular proximity sensor, magnetic reed						Technical data → 1 / 10.2-73	
Mounting	Electrical connection	Cables	M8 plug	Cable length [m]	Part No.	Type	
							NO contact
	Via accessories	3-wire	–	2.5	30 459	SME0-1-LED-24-B	
		3-wire	–	5.0	151 672	SME0-1-LED-24-K5-B	
		–	3-pin	–	150 848	SME0-1-S-LED-24-B	

Ordering data – Mounting kit for proximity sensor SME0/SMT0-1				Technical data → 1 / 10.2-88	
For Ø	Mounting	Part No.	Type		
	32 ... 50 mm	On the cylinder profile barrel	36 173	SMBU-1-B	
	63 ... 100 mm		36 174	SMBU-2-B	

Ordering data – Rectangular proximity sensor, pneumatic				Technical data → 1 / 10.2-73	
Mounting	Pneumatic connection	Part No.	Type		
3/2-way valve, normally closed					
	Via accessories	Barbed fitting for tubing ID of 3 mm	31 008	SMPO-1-H-B	

Ordering data – Mounting kit for proximity sensor SMPO-1				Technical data → 1 / 10.2-88	
For Ø	Mounting	Part No.	Type		
	32 mm	Directly on the cylinder profile barrel	150 216	SMBU-1-H-32	
	63 ... 100 mm		36 174	SMBU-2-B	
	32 ... 100 mm	On the cylinder profile barrel via clamping strap	151 226	SMBS-2	

Ordering data – Plug sockets						Technical data → 1 / 10.2-100	
Mounting	Switch output		Connection	Cable length [m]	Part No.	Type	
	PNP	NPN					
Straight socket							
	M8 union nut	■	■	3-pin	2.5	159 420	SIM-M8-3GD-2,5-PU
					5	159 421	SIM-M8-3GD-5-PU
Angled plug socket							
	M8 union nut	■	■	3-pin	2.5	159 422	SIM-M8-3WD-2,5-PU
					5	159 423	SIM-M8-3WD-5-PU

 Core Range