

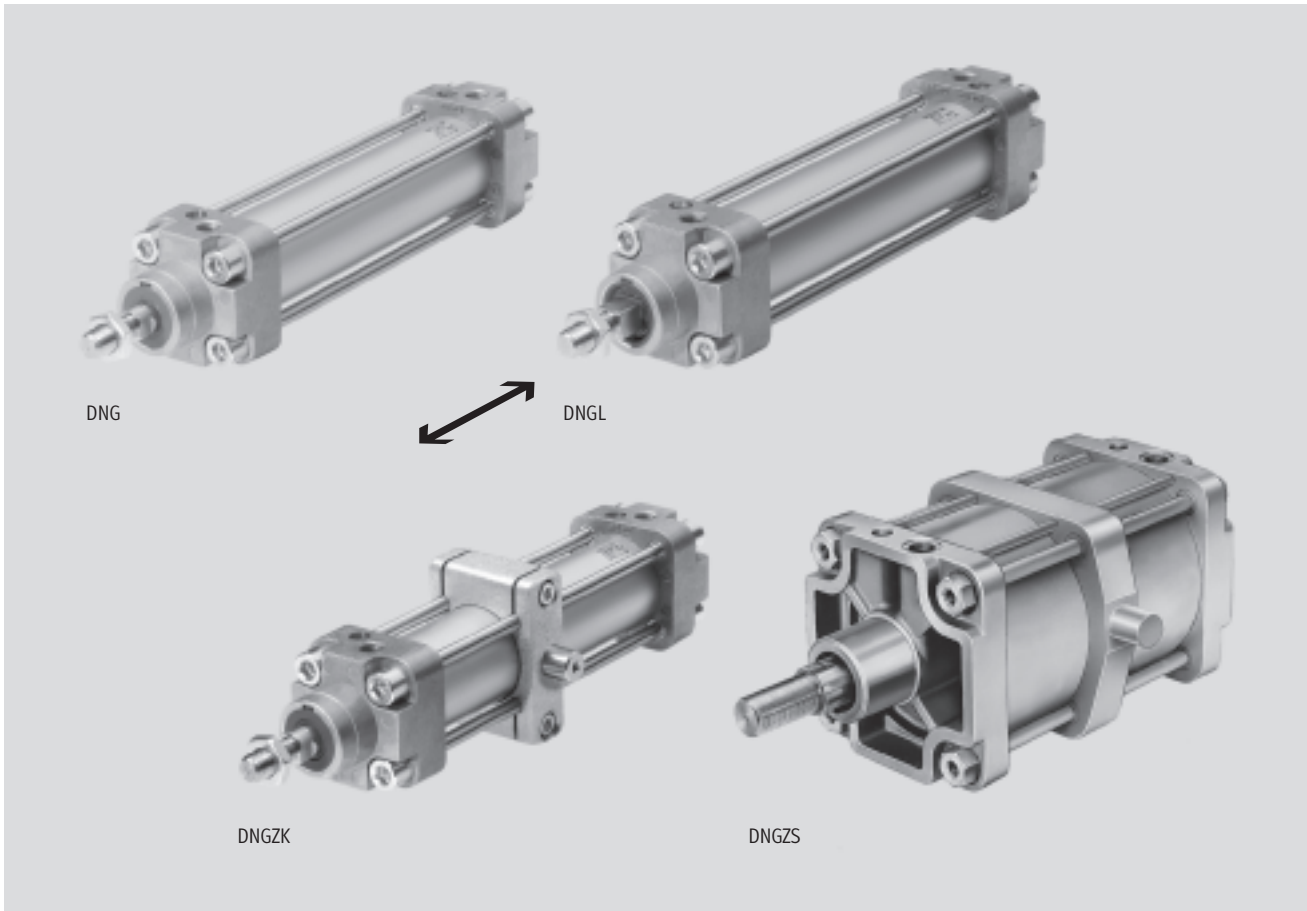
Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552



# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

FESTO

Features



## Brief description

- Double-acting
- For contactless position sensing
- With adjustable end-position cushioning at both ends
- Robust tie rod design
- DNGL/DNGLZ: secured against rotation by means of square piston rod
- Standards-based cylinders to ISO 15552 (corresponds to the withdrawn standards ISO 6431, DIN ISO 6431, VDMA 24 562, NF E 49 003.1 and UNI 10290)



DIN

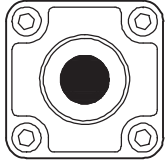


# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

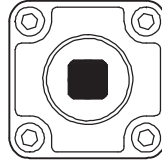
Features

## Variants

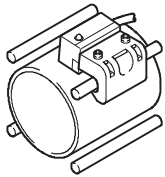
DNG/DNGZK/DNGZS



DNGL/DNGLZ with square piston rod (non-rotating)



## Contactless sensing with proximity sensors SMEO-1/SMT0-1/SMPO-1



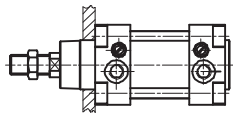
Depending on the stroke, each cylinder can have one or more proximity sensors attached to the tie rods (piston  $\varnothing$  32 ... 100 mm). With piston  $\varnothing$  125 ... 320 mm, they

are fixed to additional mounting rods that are included in the scope of delivery. The sensors are used for contactless sensing of end or intermediate positions of the cylinder.

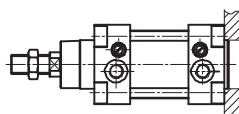
## Mounting options

### Installation of basic version

Mounting at front

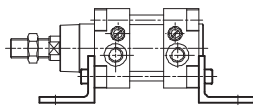


Mounting at rear

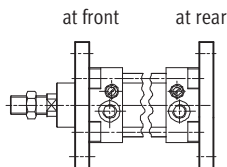


### Installation options using mounting attachments

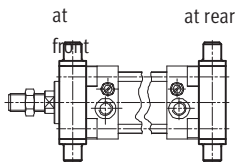
Foot mounting MS1<sup>1)</sup>  
HNG



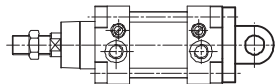
Flange mounting MF1/MF2<sup>1)</sup>  
FNG



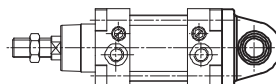
Trunnion flange ZNG



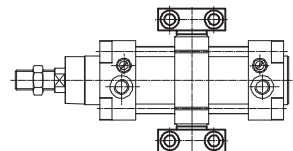
Swivel flange MP2<sup>1)</sup>  
SNG/SNGB/SNGL



Swivel flange with spherical bearing SSNG



Trunnion mounting kit MT4<sup>1)</sup>  
LNZG

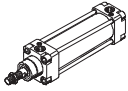
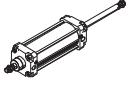
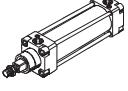
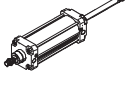
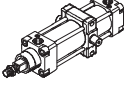
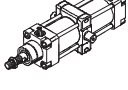
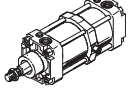


1) Standard designation to ISO 15552 (ISO 6431)

# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

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Product range overview

Function	Design	Type	Piston Ø	Stroke	Position sensing A	Cushioning Adjustable PPV	
			[mm]	[mm]			
Double-acting	<b>Basic version</b>						
		DNG Single-ended piston rod	32, 40, 50, 63, 80, 100, 125	25, 40, 50, 100, 125, 160, 200, 250, 320, 400, 500	10 ... 2000	■	■
			160, 200	–	10 ... 2000		
			250, 320	–	10 ... 1100		
		DNG-...-S2 Through piston rod	32, 40, 50, 63, 80, 100, 125, 160, 200		10 ... 2000	■	■
			250, 320		10 ... 1100		
	<b>Non-rotating piston rod</b>						
		DNGL Single-ended piston rod	32	–	10 ... 300	■	■
			40	–	10 ... 400		
			50, 63	–	10 ... 500		
			80, 100	–	10 ... 600		
		DNGL-...-S2 Through piston rod	32	–	10 ... 300	■	■
			40	–	10 ... 400		
			50, 63	–	10 ... 500		
			80, 100	–	10 ... 600		
		DNLZ with central trunnion mounting	32	–	10 ... 300	■	■
			40	–	10 ... 400		
			50, 63	–	10 ... 500		
			80, 100	–	10 ... 600		
<b>With central trunnion mounting</b>							
	DNGZK adjustable	32, 40, 50, 63	40, 50, 100, 125, 160, 200, 250, 320, 400, 500	10 ... 2000	■	■	
		80, 100	50, 100, 125, 160, 200, 250, 320, 400, 500	10 ... 2000			
		125, 160, 200	–	10 ... 2000			
	DNGZS fixed	250, 320	–	10 ... 1100	■	■	

# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

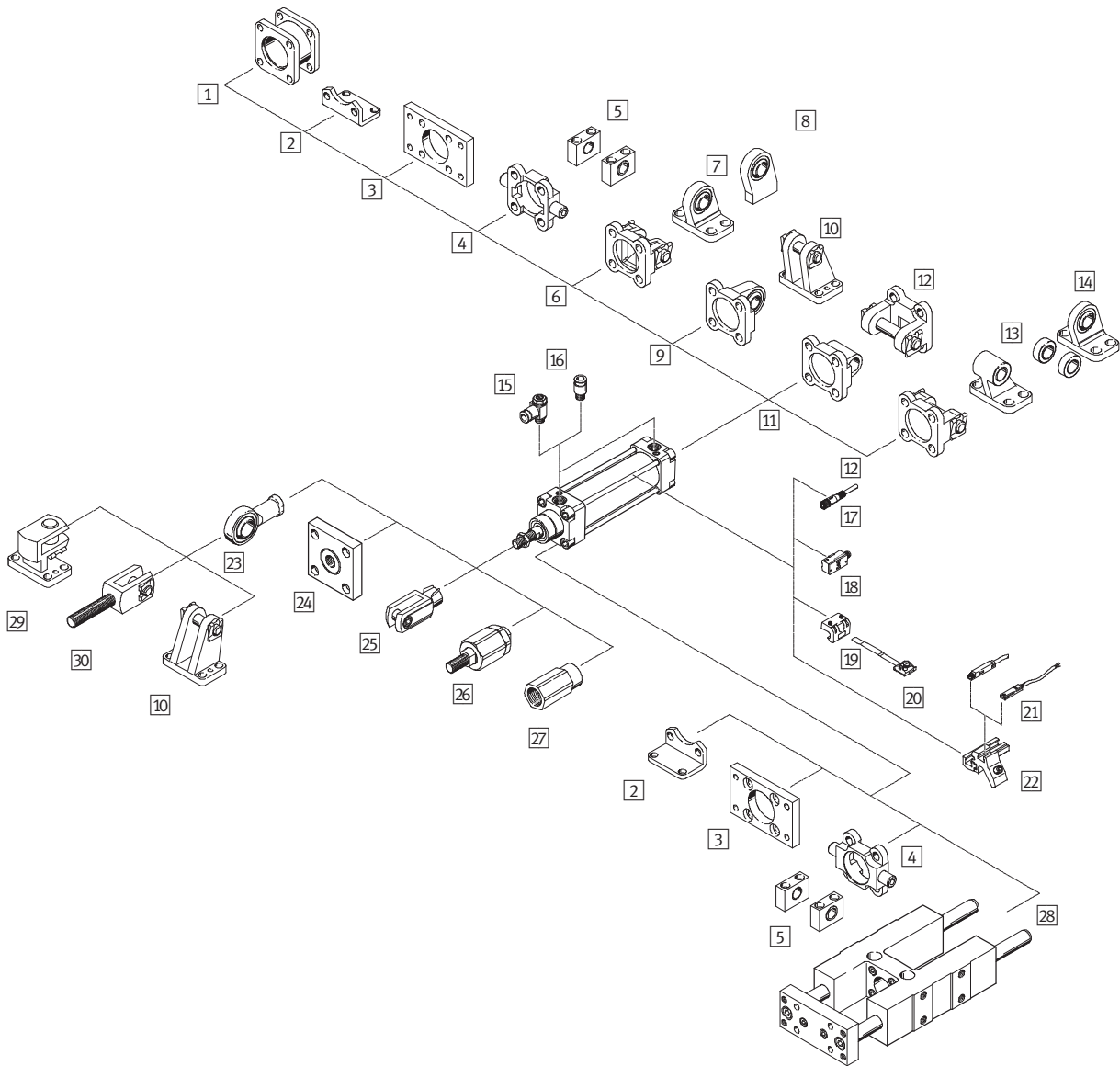
Product range overview

Type	Piston rod		Heat-resistant seal S6	High corrosion protection S8	→ Page/Internet
	Male thread	Stainless steel S3			
<b>Basic version</b>					
<b>DNG</b> Single-ended piston rod	■	■	■	■	9
<b>DNG-...-S2</b> Through piston rod	■	-	-	-	9
<b>Non-rotating piston rod</b>					
<b>DNGL</b> Single-ended piston rod	■	-	■	-	9
<b>DNGL-...-S2</b> Through piston rod	■	-	-	-	9
<b>DNGLZ</b> with central trunnion mounting	■	-	■	-	9
<b>With central trunnion mounting</b>					
<b>DNGZK</b> adjustable	■	■	■	■	9
<b>DNGZS</b> fixed	■	■	■	■	9

# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

Peripherals overview

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Mounting attachments and accessories		
	Brief description	→ Page/Internet
1	Adapter kit DPNG	For connecting two DNG cylinders with identical piston $\varnothing$ to form a multi-position cylinder 19
2	Foot mounting HNG	For bearing and end caps corresponds to MS1 to ISO 15552 20
3	Flange mounting FNG	For bearing or end caps corresponds to MF1/MF2 to ISO 15552 21
4	Trunnion flange ZNG	For bearing or end caps 21
5	Trunnion support LNZG	Corresponds to MT4 to ISO 15552 22
6	Swivel flange SNG	For end caps 22

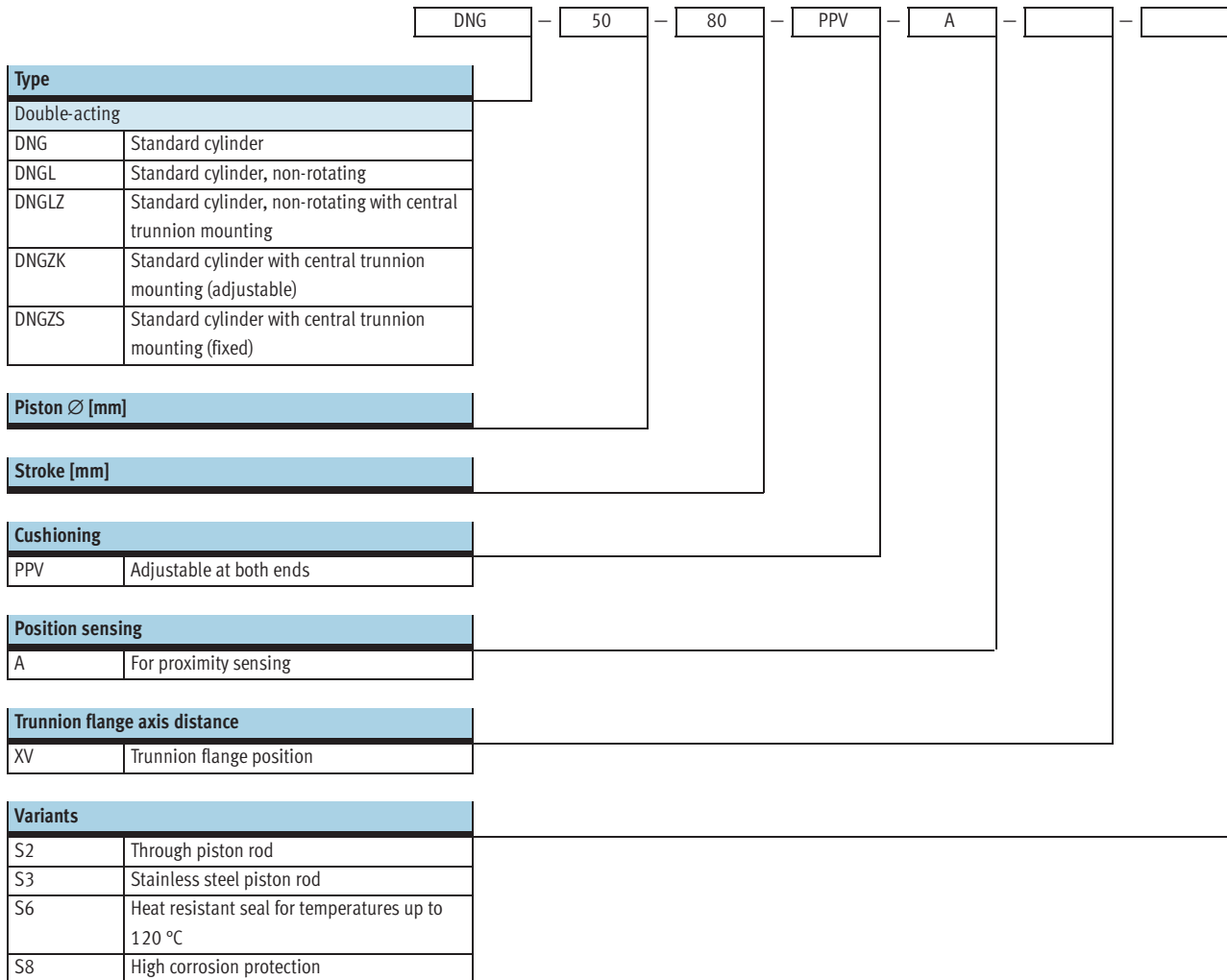
# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

Peripherals overview

Mounting attachments and accessories		
	Brief description	→ Page/Internet
7	Clevis foot mounting LSNG	With spherical bearing 25
8	Clevis foot mounting LSNSG	Weld-on with spherical bearing 25
9	Swivel flange SSNG	With spherical bearing for clevis foot mounting LBG 23
10	Clevis foot mounting LBG	With non-rotating pivot pin 25
11	Swivel flange SNGL	For end caps corresponds to MP2 to ISO 15552 24
12	Swivel flange SNGB	For end caps corresponds to MP2 to ISO 15552 23
13	Clevis foot mounting LNG	For swivel flange SNGB 25
14	Clevis foot mounting LSN	With spherical bearing 25
15	One-way flow control valve GRLA	For speed regulation 25
16	Push-in fitting QS	For connecting compressed air tubing with standard O.D. quick star
17	Connecting cable, straight NEBU	– 28
	Connecting cable, angled NEBU	– 28
18	Proximity sensors SMEO-1/SMTO-1/SMPO-1-H-B	– 29
19	Sensor mounting kit SMB	For proximity sensor SMEO-1/SMTO-1 29
20	Sensor mounting kit SMBS	For proximity sensor SMPO-1-H-B 29
	Sensor mounting kit SMBR-8-8/100-S6	Corrosion resistant, for proximity sensor SME/SMT-8 29
21	Proximity sensors SME/SMT-8	– 28
22	Sensor mounting kit SMBZ-8- ...	For proximity sensor SME/SMT-8 28
23	Rod eye SGS	With spherical bearing 26
24	Coupling piece KSG/KSZ	For compensating radial deviations 26
25	Rod clevis SG	Permits a swivelling movement of the cylinder in one plane 26
26	Self-aligning rod coupler FK	For compensating radial and angular deviations 26
27	Adapter AD	– 26
28	Guided unit FENG	To protect against torsion at high torque loads 27
29	Right-angle clevis foot LQG	With non-rotating pivot pin 25
30	Rod clevis SGA	Suitable for spherical mounting of cylinders in conjunction with rod eye SGS 26

# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

Type codes

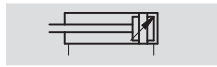




# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

Technical data

Function



- Ø - Diameter  
32 ... 320 mm

- l - Stroke length  
10 ... 2000 mm

-  - [www.festo.com](http://www.festo.com)

Variants



S2



S3



S6

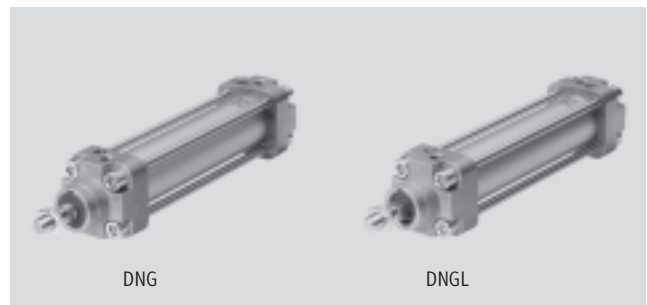


S8

- 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)

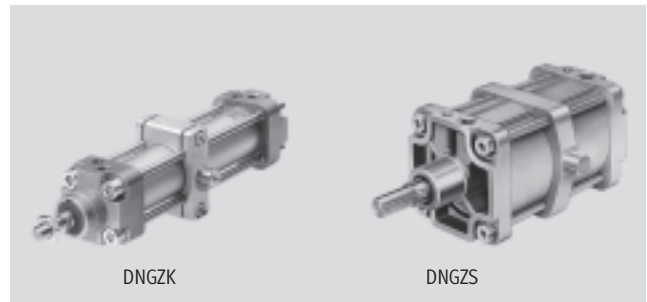


DIN



DNG

DNGL



DNGZK

DNGZS

General technical data											
Piston Ø	32	40	50	63	80	100	125	160	200	250	320
Pneumatic connection	G $\frac{3}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{1}{2}$	G $\frac{3}{4}$	G $\frac{3}{4}$	G1	G1
Piston rod thread	M10x1.25	M12x1.25	M16x1.5	M16x1.5	M20x1.5	M20x1.5	M27x2	M36x2	M36x2	M42x2	M48x2
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	40	40	50	60	66
Position sensing	For proximity sensing										
Type of mounting	Via accessories										
Mounting position	Any										

Operating and environmental conditions											
Piston Ø	32	40	50	63	80	100	125	160	200	250	320
Operating pressure [bar]	0.6 ... 10										
Ambient temperature <sup>1)</sup> [°C]	-20 ... +80										
ATEX	Specified types → <a href="http://www.festo.com">www.festo.com</a>										

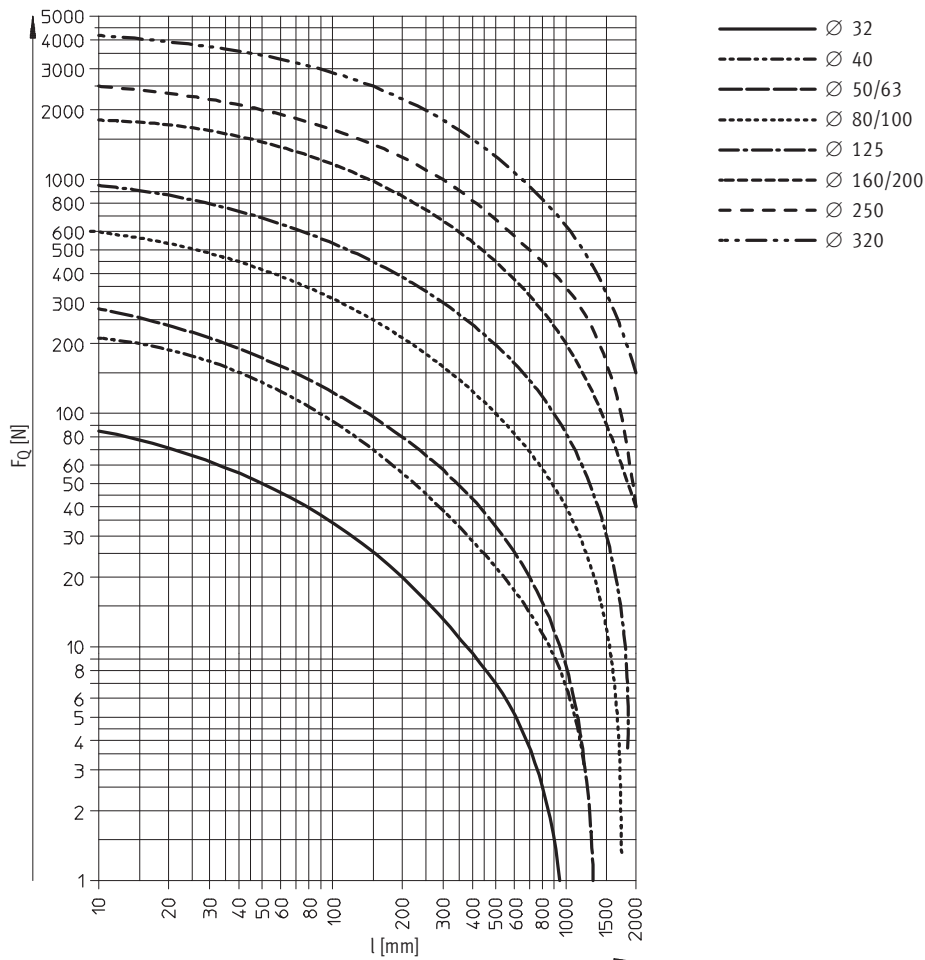
1) Note operating range of proximity sensors

Forces [N]											
Piston Ø	32	40	50	63	80	100	125	160	200	250	320
Theoretical force at 6 bar, advancing	482	753	1,178	1,870	3,015	4,712	7,360	12,064	18,850	29,450	48,250
Theoretical force at 6 bar, retracting	415	633	990	1,682	2,720	4,418	6,880	11,310	18,096	28,270	46,380

# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

Technical data

## Lateral force $F_Q$ as a function of the stroke length $l$



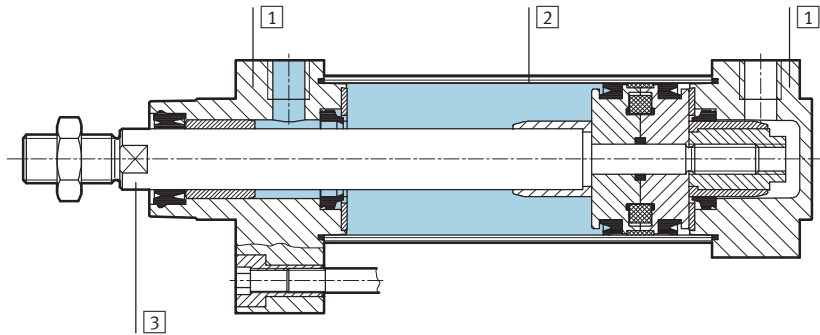
Weights [g]											
Piston Ø	32	40	50	63	80	100	125	160	200	250	320
<b>DNG/DNGL</b>											
Product weight at 0 mm stroke	565	790	1,400	1,725	2,875	4,100	7,305	17,265	20,115	30,800	53,200
Additional weight per 10 mm stroke	30	40	50	60	80	100	140	190	250	360	570
<b>DNGZK/DNGLZ/DNGZS</b>											
Product weight at 0 mm stroke	820	1,275	1,945	2,765	3,960	6,210	10,215	19,510			
Additional weight per 10 mm stroke	30	40	50	60	80	100	140	190			

# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

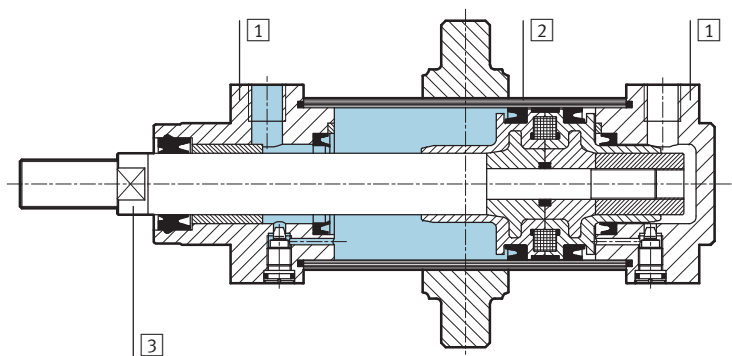
Technical data

## Materials

Sectional view DNG/DNGL



Sectional view DNGZK/DNGLZ



Standard cylinder	DNG/DNGL	DNGZK/DNGLZ
1 Bearing and end caps	Aluminium	Die-cast aluminium (∅ 160/200: die-cast aluminium)
2 Cylinder barrel	Aluminium	Aluminium (∅ 160/200: brass)
3 Piston rod, tie rod	High-alloy steel	
- Seals	Polyurethane, nitrile rubber	

# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

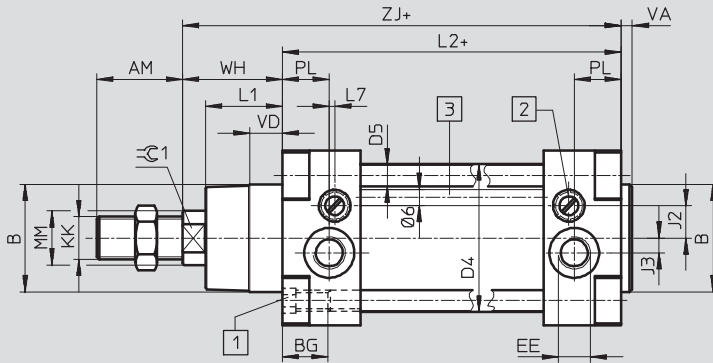
Technical data

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## Dimensions

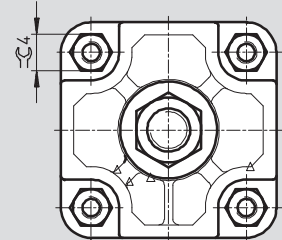
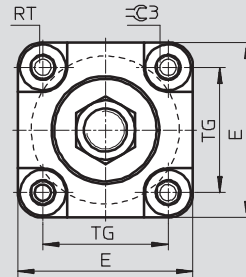
Download CAD data → [www.festo.com](http://www.festo.com)

### DNG/DNGL

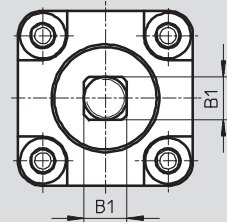
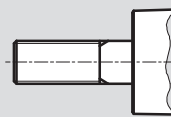


DNG-32 ... 63

DNG-80 ... 320



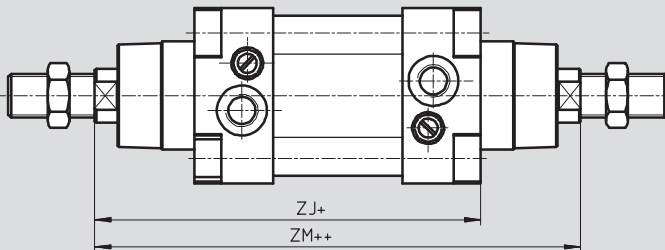
### DNGL/DNGLZ



- 1 Socket head screw with female thread for mounting attachments
- 2 Regulating screw for adjustable end-position cushioning
- 3 From Ø 125 with additional rods for mounting proximity sensors

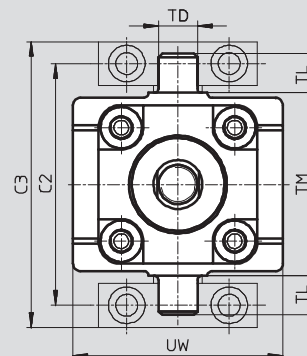
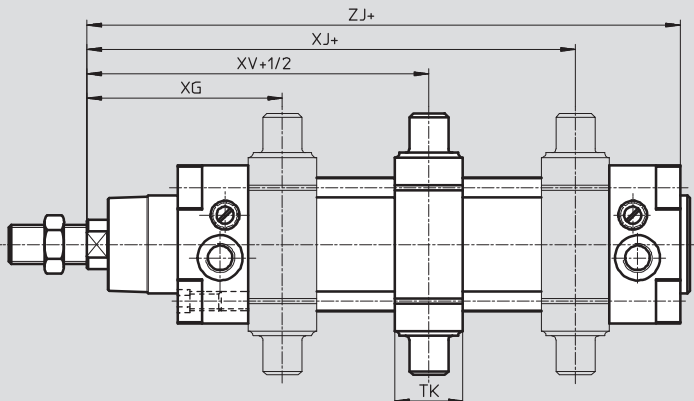
+ = plus stroke length

### Variant S2 – Through piston rod



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

### DNGZK/DNGLZ/DNGZS – with central trunnion mounting adjustable, fixed



- + = plus stroke length
- +1/2 = plus half stroke length

# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552


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Technical data

∅ [mm]	AM	B ∅ d11	B1 f9	BG	C2	C3	D4 ∅	D5 ∅	E	EE	J2	J3
32	22	30	10	17	71	86	37	6	50	G1/8	7	-
40	24	35	12	16.5	87	105	45	6	55	G1/4	9.5	2.5
50	32	40	16	17	99	117	55	8	65	G1/4	12	5.5
63	32	45	16	19.5	116	136	68	8	75	G3/8	14	6
80	40	45	20	20	136	156	86	10	100	G3/8	15	7
100	40	55	20	20	164	189	107	10	120	G1/2	13	8
125	54	60	-	25	192	217	133	12	145	G1/2	13	8
160	72	65	-	24	245	280	168	16	186	G3/4	22	22
200	72	75	-	24	295	330	210	16	230	G3/4	22	22
250	84	90	-	25.5	375	420	254	18.3	270	G1	25	25
320	96	110	-	28.5	465	520	325	22	340	G1	30	30

∅ [mm]	KK	L1	L2	L7	MM ∅	PL	RT	TD ∅ e9	TG	TK	TL
32	M10x1.25	19	94 ±0.4	5.8	12	8.8	M6	12	32.5	20	12
40	M12x1.25	21.5	105 ±0.7	5.3	16	11	M6	16	38	25	16
50	M16x1.5	28.5	106 ±0.7	2	20	17.5	M8	16	46.5	28	16
63	M16x1.5	28.5	121 ±0.8	5	20	18	M8	20	56.5	30	20
80	M20x1.5	34.5	128 ±0.8	8	25	17	M10	20	72	32	20
100	M20x1.5	37.5	138 ±0.8	13	25	18	M10	25	89	38	25
125	M27x2	46	160 ±1	14	32	18	M12	25	110	44	25
160	M36x2	55	180 ±1.1	-	40	25	M16	32	140	48	32
200	M36x2	65	180 ±1.6	-	40	28	M16	32	175	48	32
250	M42x2	67	200 ±2	-	50	31	M20	40	220	60	40
320	M48x2	82	220 ±2	-	63	31	M24	50	270	70	50

∅ [mm]	TM	UW	VA	VD	WH	XG	XJ	XV	ZJ	ZM	≈C1	≈C3	≈C4
32	50	68	4	10.5	26	62 ±1.8	84 ±1.8	73 ±1.8	120	146	10	6	-
40	63	72	4	10.5	30	69 ±1.8	96 ±1.8	82.5 ±1.8	135	165	13	6	-
50	75	86	4	12	37	80 ±1.8	100 ±1.8	90 ±1.8	143	180	17	8	-
63	90	98	4	12.5	37	87 ±2.2	108 ±2.2	97.5 ±2.2	158	195	17	8	-
80	110	110	4	16.5	46	101 ±2.2	119 ±2.2	110 ±2.2	174	220	22	-	17
100	132	136	4	15.5	51	112 ±2.2	128 ±2.2	120 ±2.2	189	240	22	-	17
125	160	160	6	20.5	65	136 ±2.2	154 ±2.2	145 ±2.2	225	290	27	-	19
160	200	200	6	-	80	155 ±2.6	185 ±2.6	170 ±2.6	260	340	36	-	32
200	250	240	6	-	95	165 ±2.2	205 ±2.2	185 ±2.2	275	370	36	-	32
250	320	270	10	-	105	187	223	205	305	410	46	-	36
320	400	340	10	-	120	211	249	230	340	460	55	-	46

 Note



DNGZS-250/-320-...-PPV-A:  
The central trunnion mounting is fitted as standard tightly screwed with the tie rods in the cylinder mid-section. As a special design,

mounting is possible between the dimensions XG and XJ.  
The required dimension XV must be entered in the order (➔ 18).

# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

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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 <sup>1)</sup>	Part No.	Type <sup>1)</sup>	Part No.	Type <sup>1)</sup>
<b>Basic version</b>							
	25	36 321	DNG-32-25-PPV-A	36 333	DNG-40-25-PPV-A	36 345	DNG-50-25-PPV-A
	40	36 322	DNG-32-40-PPV-A	36 334	DNG-40-40-PPV-A	36 346	DNG-50-40-PPV-A
	50	36 323	DNG-32-50-PPV-A	36 335	DNG-40-50-PPV-A	36 347	DNG-50-50-PPV-A
	80	36 324	DNG-32-80-PPV-A	36 336	DNG-40-80-PPV-A	36 348	DNG-50-80-PPV-A
	100	36 325	DNG-32-100-PPV-A	36 337	DNG-40-100-PPV-A	36 349	DNG-50-100-PPV-A
	125	36 326	DNG-32-125-PPV-A	36 338	DNG-40-125-PPV-A	36 350	DNG-50-125-PPV-A
	160	36 327	DNG-32-160-PPV-A	36 339	DNG-40-160-PPV-A	36 351	DNG-50-160-PPV-A
	200	36 328	DNG-32-200-PPV-A	36 340	DNG-40-200-PPV-A	36 352	DNG-50-200-PPV-A
	250	36 329	DNG-32-250-PPV-A	36 341	DNG-40-250-PPV-A	36 353	DNG-50-250-PPV-A
	320	36 330	DNG-32-320-PPV-A	36 342	DNG-40-320-PPV-A	36 354	DNG-50-320-PPV-A
	400	36 331	DNG-32-400-PPV-A	36 343	DNG-40-400-PPV-A	36 355	DNG-50-400-PPV-A
	500	36 332	DNG-32-500-PPV-A	36 344	DNG-40-500-PPV-A	36 356	DNG-50-500-PPV-A
Variable stroke	10 ... 2,000	30 000	DNG-32-...-PPV-A	30 001	DNG-40-...-PPV-A	30 002	DNG-50-...-PPV-A
Variant S2	10 ... 2,000	34 625	DNG-32-...-PPV-A-S2	34 626	DNG-40-...-PPV-A-S2	34 627	DNG-50-...-PPV-A-S2
Variant S3	10 ... 2,000	34 973	DNG-32-...-PPV-A-S3	34 974	DNG-40-...-PPV-A-S3	34 975	DNG-50-...-PPV-A-S3
Variant S6	10 ... 2,000	34 854	DNG-32-...-PPV-A-S6	34 855	DNG-40-...-PPV-A-S6	34 856	DNG-50-...-PPV-A-S6
Variant S8	10 ... 2,000	35 453	DNG-32-...-PPV-A-S8	35 454	DNG-40-...-PPV-A-S8	35 455	DNG-50-...-PPV-A-S8
<b>with non-rotating piston rod</b>							
Variable stroke	10 ... 300	30 049	DNGL-32-...-PPV-A	–	–	–	–
	10 ... 400	–	–	30 050	DNGL-40-...-PPV-A	–	–
	10 ... 500	–	–	–	–	30 051	DNGL-50-...-PPV-A
	10 ... 600	–	–	–	–	–	–
Variant S2	10 ... 300	35 338	DNGL-32-...-PPV-A-S2	–	–	–	–
	10 ... 400	–	–	35 339	DNGL-40-...-PPV-A-S2	–	–
	10 ... 500	–	–	–	–	35 340	DNGL-50-...-PPV-A-S2
	10 ... 600	–	–	–	–	–	–
Variant S6	10 ... 300	35 344	DNGL-32-...-PPV-A-S6	–	–	–	–
	10 ... 400	–	–	35 345	DNGL-40-...-PPV-A-S6	–	–
	10 ... 500	–	–	–	–	35 346	DNGL-50-...-PPV-A-S6
	10 ... 600	–	–	–	–	–	–
<b>with adjustable central trunnion mounting</b>							
	40	36 405	DNGZK-32-40-PPV-A	36 416	DNGZK-40-40-PPV-A	36 427	DNGZK-50-40-PPV-A
	50	36 406	DNGZK-32-50-PPV-A	36 417	DNGZK-40-50-PPV-A	36 428	DNGZK-50-50-PPV-A
	80	36 407	DNGZK-32-80-PPV-A	36 418	DNGZK-40-80-PPV-A	36 429	DNGZK-50-80-PPV-A
	100	36 408	DNGZK-32-100-PPV-A	36 419	DNGZK-40-100-PPV-A	36 430	DNGZK-50-100-PPV-A
	125	36 409	DNGZK-32-125-PPV-A	36 420	DNGZK-40-125-PPV-A	36 431	DNGZK-50-125-PPV-A
	160	36 410	DNGZK-32-160-PPV-A	36 421	DNGZK-40-160-PPV-A	36 432	DNGZK-50-160-PPV-A
	200	36 411	DNGZK-32-200-PPV-A	36 422	DNGZK-40-200-PPV-A	36 433	DNGZK-50-200-PPV-A
	250	36 412	DNGZK-32-250-PPV-A	36 423	DNGZK-40-250-PPV-A	36 434	DNGZK-50-250-PPV-A
	320	36 413	DNGZK-32-320-PPV-A	36 424	DNGZK-40-320-PPV-A	36 435	DNGZK-50-320-PPV-A
	400	36 414	DNGZK-32-400-PPV-A	36 425	DNGZK-40-400-PPV-A	36 436	DNGZK-50-400-PPV-A
	500	36 415	DNGZK-32-500-PPV-A	36 426	DNGZK-40-500-PPV-A	36 437	DNGZK-50-500-PPV-A
Variable stroke	10 ... 2,000	34 440	DNGZK-32-...-PPV-A	34 441	DNGZK-40-...-PPV-A	34 442	DNGZK-50-...-PPV-A
Variant S3	10 ... 2,000	34 938	DNGZK-32-...-PPV-A-S3	34 939	DNGZK-40-...-PPV-A-S3	34 940	DNGZK-50-...-PPV-A-S3
Variant S6	10 ... 2,000	34 947	DNGZK-32-...-PPV-A-S6	34 948	DNGZK-40-...-PPV-A-S6	34 949	DNGZK-50-...-PPV-A-S6
Variant S8	10 ... 2,000	35 499	DNGZK-32-...-PPV-A-S8	35 520	DNGZK-40-...-PPV-A-S8	35 521	DNGZK-50-...-PPV-A-S8

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

# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

FESTO

Technical data

Ordering data							
Design	Stroke [mm]	Piston Ø 63 [mm]		Piston Ø 80 [mm]		Piston Ø 100 [mm]	
		Part No.	Type <sup>1)</sup>	Part No.	Type <sup>1)</sup>	Part No.	Type <sup>1)</sup>
<b>Basic version</b>							
	25	36 357	DNG-63-25-PPV-A	36 369	DNG-80-25-PPV-A	36 381	DNG-100-25-PPV-A
	40	36 358	DNG-63-40-PPV-A	36 370	DNG-80-40-PPV-A	36 382	DNG-100-40-PPV-A
	50	36 359	DNG-63-50-PPV-A	36 371	DNG-80-50-PPV-A	36 383	DNG-100-50-PPV-A
	80	36 360	DNG-63-80-PPV-A	36 372	DNG-80-80-PPV-A	36 384	DNG-100-80-PPV-A
	100	36 361	DNG-63-100-PPV-A	36 373	DNG-80-100-PPV-A	36 385	DNG-100-100-PPV-A
	125	36 362	DNG-63-125-PPV-A	36 374	DNG-80-125-PPV-A	36 386	DNG-100-125-PPV-A
	160	36 363	DNG-63-160-PPV-A	36 375	DNG-80-160-PPV-A	36 387	DNG-100-160-PPV-A
	200	36 364	DNG-63-200-PPV-A	36 376	DNG-80-200-PPV-A	36 388	DNG-100-200-PPV-A
	250	36 365	DNG-63-250-PPV-A	36 377	DNG-80-250-PPV-A	36 389	DNG-100-250-PPV-A
	320	36 366	DNG-63-320-PPV-A	36 378	DNG-80-320-PPV-A	36 390	DNG-100-320-PPV-A
	400	36 367	DNG-63-400-PPV-A	36 379	DNG-80-400-PPV-A	36 391	DNG-100-400-PPV-A
	500	36 368	DNG-63-500-PPV-A	36 380	DNG-80-500-PPV-A	36 392	DNG-100-500-PPV-A
	Variable stroke	10 ... 2,000	30 003	DNG-63-...-PPV-A	30 004	DNG-80-...-PPV-A	30 005
Variant S2	10 ... 2,000	34 628	DNG-63-...-PPV-A-S2	34 629	DNG-80-...-PPV-A-S2	34 630	DNG-100-...-PPV-A-S2
Variant S3	10 ... 2,000	34 976	DNG-63-...-PPV-A-S3	34 977	DNG-80-...-PPV-A-S3	34 978	DNG-100-...-PPV-A-S3
Variant S6	10 ... 2,000	34 857	DNG-63-...-PPV-A-S6	34 858	DNG-80-...-PPV-A-S6	34 859	DNG-100-...-PPV-A-S6
Variant S8	10 ... 2,000	35 456	DNG-63-...-PPV-A-S8	35 457	DNG-80-...-PPV-A-S8	35 458	DNG-100-...-PPV-A-S8
<b>with non-rotating piston rod</b>							
Variable stroke	10 ... 300	–	–	–	–	–	–
	10 ... 400	–	–	–	–	–	–
	10 ... 500	30 052	DNGL-63-...-PPV-A	–	–	–	–
	10 ... 600	–	–	30 053	DNGL-80-...-PPV-A	30 054	DNGL-100-...-PPV-A
Variant S2	10 ... 300	–	–	–	–	–	–
	10 ... 400	–	–	–	–	–	–
	10 ... 500	35 341	DNGL-63-...-PPV-A-S2	–	–	–	–
	10 ... 600	–	–	35 342	DNGL-80-...-PPV-A-S2	35 343	DNGL-100-...-PPV-A-S2
Variant S6	10 ... 300	–	–	–	–	–	–
	10 ... 400	–	–	–	–	–	–
	10 ... 500	35 347	DNGL-63-...-PPV-A-S6	–	–	–	–
	10 ... 600	–	–	35 348	DNGL-80-...-PPV-A-S6	35 349	DNGL-100-...-PPV-A-S6
<b>with adjustable central trunnion mounting</b>							
	40	36 438	DNGZK-63-40-PPV-A	–	–	–	–
	50	36 439	DNGZK-63-50-PPV-A	36 449	DNGZK-80-50-PPV-A	36 459	DNGZK-100-50-PPV-A
	80	36 440	DNGZK-63-80-PPV-A	36 450	DNGZK-80-80-PPV-A	36 460	DNGZK-100-80-PPV-A
	100	36 441	DNGZK-63-100-PPV-A	36 451	DNGZK-80-100-PPV-A	36 461	DNGZK-100-100-PPV-A
	125	36 442	DNGZK-63-125-PPV-A	36 452	DNGZK-80-125-PPV-A	36 462	DNGZK-100-125-PPV-A
	160	36 443	DNGZK-63-160-PPV-A	36 453	DNGZK-80-160-PPV-A	36 463	DNGZK-100-160-PPV-A
	200	36 444	DNGZK-63-200-PPV-A	36 454	DNGZK-80-200-PPV-A	36 464	DNGZK-100-200-PPV-A
	250	36 445	DNGZK-63-250-PPV-A	36 455	DNGZK-80-250-PPV-A	36 465	DNGZK-100-250-PPV-A
	320	36 446	DNGZK-63-320-PPV-A	36 456	DNGZK-80-320-PPV-A	36 466	DNGZK-100-320-PPV-A
	400	36 447	DNGZK-63-400-PPV-A	36 457	DNGZK-80-400-PPV-A	36 467	DNGZK-100-400-PPV-A
	500	36 448	DNGZK-63-500-PPV-A	36 458	DNGZK-80-500-PPV-A	36 468	DNGZK-100-500-PPV-A
Variable stroke	10 ... 2,000	34 443	DNGZK-63-...-PPV-A	34 444	DNGZK-80-...-PPV-A	34 445	DNGZK-100-...-PPV-A
Variant S3	10 ... 2,000	34 941	DNGZK-63-...-PPV-A-S3	34 942	DNGZK-80-...-PPV-A-S3	34 943	DNGZK-100-...-PPV-A-S3
Variant S6	10 ... 2,000	34 950	DNGZK-63-...-PPV-A-S6	34 951	DNGZK-80-...-PPV-A-S6	34 952	DNGZK-100-...-PPV-A-S6
Variant S8	10 ... 2,000	35 522	DNGZK-63-...-PPV-A-S8	35 523	DNGZK-80-...-PPV-A-S8	35 524	DNGZK-100-...-PPV-A-S8

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


# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

FESTO

Technical data

Ordering data					
Design	Stroke [mm]	Piston Ø 32 [mm] Part No. Type <sup>1)</sup>		Piston Ø 40 [mm] Part No. Type <sup>1)</sup>	
with non-rotating piston rod and adjustable central trunnion mounting					
Variable stroke	10 ... 300	35 320	DNGLZ-32-...-PPV-A	–	–
	10 ... 400	–	–	35 321	DNGLZ-40-...-PPV-A
	10 ... 500	–	–	–	35 322 DNGLZ-50-...-PPV-A
	10 ... 600	–	–	–	–
Variant S6	10 ... 300	35 332	DNGLZ-32-...-PPV-A-S6	–	–
	10 ... 400	–	–	35 333	DNGLZ-40-...-PPV-A-S6
	10 ... 500	–	–	–	35 334 DNGLZ-50-...-PPV-A-S6
	10 ... 600	–	–	–	–

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

Ordering data					
Design	Stroke [mm]	Piston Ø 125 [mm] Part No. Type <sup>1)</sup>		Piston Ø 160 [mm] Part No. Type <sup>1)</sup>	
Basic version					
	25	36 393	DNG-125-25-PPV-A	–	–
	40	36 394	DNG-125-40-PPV-A	–	–
	50	36 395	DNG-125-50-PPV-A	–	–
	80	36 396	DNG-125-80-PPV-A	–	–
	100	36 397	DNG-125-100-PPV-A	–	–
	125	36 398	DNG-125-125-PPV-A	–	–
	160	36 399	DNG-125-160-PPV-A	–	–
	200	36 400	DNG-125-200-PPV-A	–	–
	250	36 401	DNG-125-250-PPV-A	–	–
	320	36 402	DNG-125-320-PPV-A	–	–
	400	36 403	DNG-125-400-PPV-A	–	–
	500	36 404	DNG-125-500-PPV-A	–	–
	Variable stroke	10 ... 2,000	30 006	DNG-125-...-PPV-A	33 024
10 ... 1,100		–	–	–	–
Variant S2	10 ... 2,000	34 631	DNG-125-...-PPV-A-S2	34 632	DNG-160-...-PPV-A-S2
	10 ... 1,100	–	–	–	–
Variant S3	10 ... 2,000	34 979	DNG-125-...-PPV-A-S3	34 980	DNG-160-...-PPV-A-S3
	10 ... 1,100	–	–	–	–
Variant S6	10 ... 2,000	34 860	DNG-125-...-PPV-A-S6	34 861	DNG-160-...-PPV-A-S6
	10 ... 1,100	–	–	–	–
Variant S8	10 ... 2,000	35 459	DNG-125-...-PPV-A-S8	35 497	DNG-160-...-PPV-A-S8
	10 ... 1,100	–	–	–	–
with adjustable central trunnion mounting					
Variable stroke	10 ... 2,000	34 446	DNGZK-125-...-PPV-A	34 447	DNGZK-160-...-PPV-A
Variant S3	10 ... 2,000	34 944	DNGZK-125-...-PPV-A-S3	34 945	DNGZK-160-...-PPV-A-S3
Variant S6	10 ... 2,000	34 953	DNGZK-125-...-PPV-A-S6	34 954	DNGZK-160-...-PPV-A-S6
Variant S8	10 ... 2,000	35 525	DNGZK-125-...-PPV-A-S8	35 526	DNGZK-160-...-PPV-A-S8

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




# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

Technical data

Ordering data				
Design	Stroke [mm]	Piston Ø 63 [mm] Part No. Type <sup>1)</sup>	Piston Ø 80 [mm] Part No. Type <sup>1)</sup>	Piston Ø 100 [mm] Part No. Type <sup>1)</sup>
with non-rotating piston rod and adjustable central trunnion mounting				
Variable stroke	10 ... 300	–	–	–
	10 ... 400	–	–	–
	10 ... 500	<b>35 323 DNGLZ-63-...-PPV-A</b>	–	–
	10 ... 600	–	<b>35 324 DNGLZ-80-...-PPV-A</b>	<b>35 325 DNGLZ-100-...-PPV-A</b>
Variant S6	10 ... 300	–	–	–
	10 ... 400	–	–	–
	10 ... 500	<b>35 335 DNGLZ-63-...-PPV-A-S6</b>	–	–
	10 ... 600	–	<b>35 336 DNGLZ-80-...-PPV-A-S6</b>	<b>35 337 DNGLZ-100-...-PPV-A-S6</b>

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

Ordering data			
Design	Stroke [mm]	Piston Ø 250 [mm] Part No. Type <sup>1)</sup>	Piston Ø 320 [mm] Part No. Type <sup>1)</sup>
Basic version			
	25	–	–
	40	–	–
	50	–	–
	80	–	–
	100	–	–
	125	–	–
	160	–	–
	200	–	–
	250	–	–
	320	–	–
	400	–	–
	500	–	–
Variable stroke	10 ... 2,000	–	–
	10 ... 1,100	<b>151 892 DNG-250-...-PPV-A</b>	<b>151 897 DNG-320-...-PPV-A</b>
Variant S2	10 ... 2,000	–	–
	10 ... 1,100	<b>151 893 DNG-250-...-PPV-A-S2</b>	<b>151 898 DNG-320-...-PPV-A-S2</b>
Variant S3	10 ... 2,000	–	–
	10 ... 1,100	<b>151 894 DNG-250-...-PPV-A-S3</b>	<b>151 899 DNG-320-...-PPV-A-S3</b>
Variant S6	10 ... 2,000	–	–
	10 ... 1,100	<b>151 895 DNG-250-...-PPV-A-S6</b>	<b>151 900 DNG-320-...-PPV-A-S6</b>
Variant S8	10 ... 2,000	–	–
	10 ... 1,100	<b>151 896 DNG-250-...-PPV-A-S8</b>	<b>151 901 DNG-320-...-PPV-A-S8</b>
with fixed central trunnion mounting			
Variable stroke	10 ... 1,100	➔ 18	–

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

# Standard cylinders DNG/DNGL/DNGZK/DNGZS, to ISO 15552

FESTO

Ordering data – Modular product DNGZS

M Mandatory data						O Options		
Module No.	Function	Piston Ø	Stroke	Cushioning	Position sensing	Trunnion flange position	Temperature-resistant	Corrosion protection
157 500 157 504	DNGZS	250 320	10 ... 1 100	PPV	A	...XV	S6	S3 S8
<b>Ordering example</b>								
<b>157 504</b>	<b>DNGZS</b>	<b>- 320</b>	<b>- 600</b>	<b>- PPV</b>	<b>- A</b>	<b>- 215XV</b>	<b>- S6</b>	<b>- S3</b>

Ordering table						
Size	250	320	Condi- tions	Code	Enter code	
M Module No.	<b>157 500</b>	<b>157 504</b>				
Function	Standard cylinder, double-acting, with central trunnion mounting to ISO 15552			<b>DNGZS</b>		DNGZS
Piston Ø [mm]	250	320		-...		
Stroke [mm]	10 ... 1 100			-...		
Cushioning	Pneumatic cushioning adjustable at both ends			<b>-PPV</b>		-PPV
Position sensing	For proximity sensing			<b>-A</b>		-A
O Trunnion flange position [mm]	187 ... 1 323	211 ... 1 349	[1]	<b>-...XV</b>		
Temperature-resistant	Heat-resistant seals up to max. 120 °C			<b>-S6</b>		
Corrosion protection	Stainless steel piston rod			<b>- S3</b>		
	High corrosion protection including piston rod, stainless steel			[2]	<b>-S8</b>	

[1] ...XV Trunnion flange at standard mid-position of cylinder:  
Piston Ø 250 mm:  $205 \text{ mm} + \frac{\text{Stroke}}{2}$   
Piston Ø 320 mm:  $230 \text{ mm} + \frac{\text{Stroke}}{2}$

[2] S8 Not with S6.

Transfer order code

	<b>DNGZS</b>	-		-		-	<b>PPV</b>	-	<b>A</b>	-		-		-	
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# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

FESTO

Accessories

## Adapter kit DPNG

for piston  $\varnothing$  32 ... 100 mm

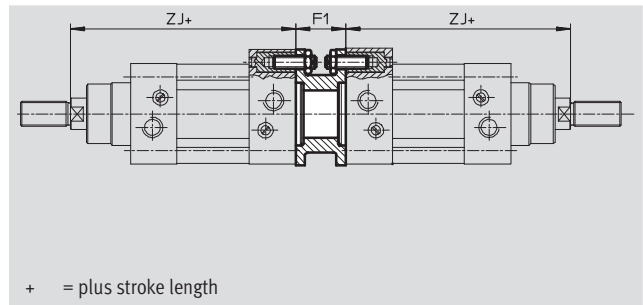
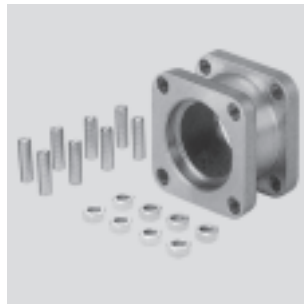
Material:

Flange: Wrought aluminium alloy;

Threaded studs, hex nuts:

Galvanised steel

Free of copper, PTFE and silicone



### Dimensions and ordering data

For $\varnothing$	F1	ZJ	Max. overall stroke length [mm]	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
32	27	120	1,000	2	85	159 485	DPNG-32
40	27	135	1,000	2	115	159 486	DPNG-40
50	32	143	1,000	2	210	159 487	DPNG-50
63	28	158	1,000	2	360	159 488	DPNG-63
80	38	174	1,000	2	620	159 489	DPNG-80
100	38	189	1,000	2	1,190	159 490	DPNG-100

- Note

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

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

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

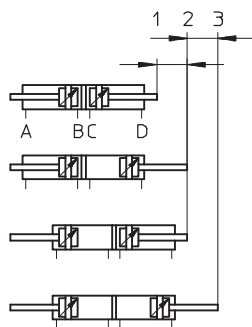
A 3 or 4-position cylinder consists of two separate cylinders whose piston rods advance in opposing directions. This means that depending upon actuation and stroke pattern, this type

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.

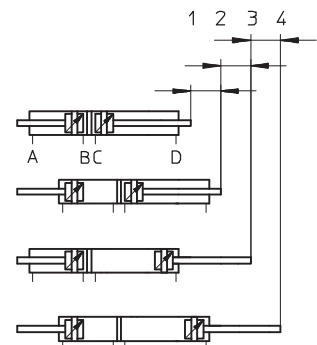
### To achieve 3 positions

Two cylinders with identical stroke length must be connected together.



### To achieve 4 positions

Two cylinders with different stroke lengths must be connected together.



# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

FESTO

Accessories

## Foot mounting HNG

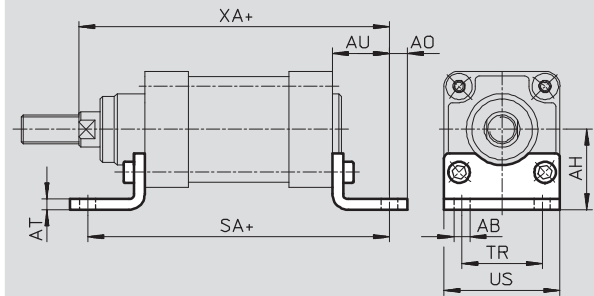
Material:

Galvanised steel

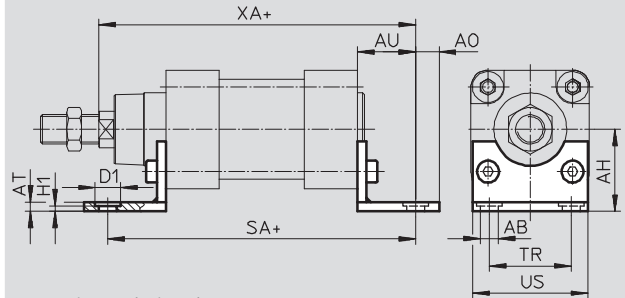
Free of copper, PTFE and silicone



For piston  $\varnothing$  32 ... 250



For piston  $\varnothing$  320



+ = plus stroke length

### Dimensions and ordering data

For $\varnothing$ [mm]	AB $\varnothing$ H14	AH	AO	AT	AU	D1	H1	SA	TR	US	XA	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
32	7	32	6.5	4	24	-	-	142	32	45	144	2	225	32 947	HNG-32
40	10	36	9	4	28	-	-	161	36	54	163	2	270	32 948	HNG-40
50	10	45	9.5	5	32	-	-	170	45	64	175	2	400	32 949	HNG-50
63	10	50	12.5	5	32	-	-	185	50	75	190	2	480	32 950	HNG-63
80	12	63	15	6	41	-	-	210	63	93	215	2	1,080	32 951	HNG-80
100	14.5	71	17.5	6	41	-	-	220	75	110	230	2	1,250	32 952	HNG-100
125	16.5	90	22	8	45	-	-	250	90	131	270	2	2,025	32 953	HNG-125
160	18.5	115	20	10	60	-	-	300	115	169	320	2	2,200	34 476	HNG-160
200	24	135	30	12	70	-	-	320	135	214	345	2	3,795	34 477	HNG-200
250	28	165	35	20	75	-	-	350	165	270	380	2	8,000	157 510	HNG-250
320	35	185	40	25	85	60	23	390	200	340	425	2	13,000	157 511	HNG-320

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 DNG/DNGL/DNGZK/DNGZS, ISO 15552

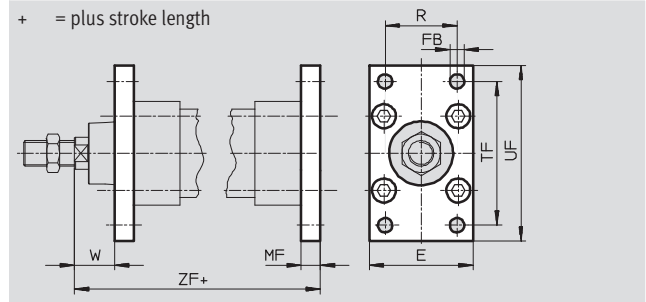
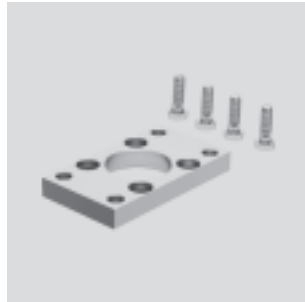
FESTO

Accessories

## Flange mounting FNG

Material:

FNG-32 ... 100: Galvanised steel  
 FNG-125 ... 320: Painted nodular graphite cast iron  
 Free of copper, PTFE and silicone



Dimensions and ordering data													
For Ø	E	FB Ø	MF	R	TF	UF	W	ZF	CRC <sup>1)</sup>	Weight	Part No.	Type	
[mm]										[g]			
32	45	7	10	32	64	80	16	130	2	245	<b>32 940</b>	<b>FNG-32</b>	
40	54	9	10	36	72	90	20	145	2	290	<b>32 941</b>	<b>FNG-40</b>	
50	65	9	12	45	90	110	25	155	2	520	<b>32 942</b>	<b>FNG-50</b>	
63	75	9	12	50	100	120	25	170	2	690	<b>32 943</b>	<b>FNG-63</b>	
80	93	12	16	63	126	150	30	190	2	1,660	<b>32 944</b>	<b>FNG-80</b>	
100	110	14	16	75	150	175	35	205	2	2,395	<b>32 945</b>	<b>FNG-100</b>	
125	140	16	20	90	180	220	45	245	2	4,560	<b>32 946</b>	<b>FNG-125</b>	
160	180	18	20	115	230	280	60	280	2	6,200	<b>34 478</b>	<b>FNG-160</b>	
200	220	22	25	135	270	320	70	300	2	8,200	<b>34 479</b>	<b>FNG-200</b>	
250	270	26	25	165	330	390	80	330	2	13 100	<b>157 508</b>	<b>FNG-250</b>	
320	340	33	30	200	400	470	90	370	2	21 500	<b>157 509</b>	<b>FNG-320</b>	

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

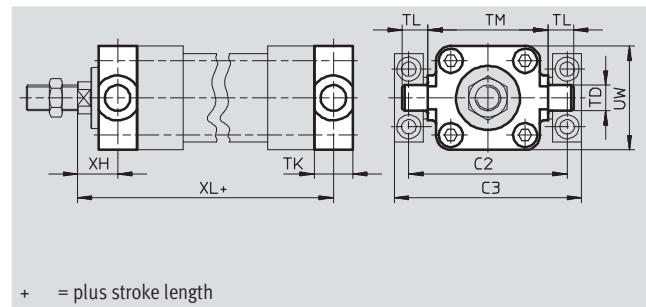
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents

## Trunnion flange ZNG

for trunnion mounting LNZG

Material:

Corrosion resistant cast steel  
 Free of copper, PTFE and silicone



Dimensions and ordering data														
For Ø	C2	C3	TD Ø e9	TK	TL	TM	UW	XH	XL	CRC <sup>1)</sup>	Weight	Part No.	Type	
[mm]											[g]			
32	71	86	12	16	12	50	50	18	128	2	190	<b>31 754</b>	<b>ZNG-32</b>	
40	87	105	16	20	16	63	55	20	145	2	330	<b>31 755</b>	<b>ZNG-40</b>	
50	99	117	16	24	16	75	65	25	155	2	535	<b>31 756</b>	<b>ZNG-50</b>	
63	116	136	20	24	20	90	75	25	170	2	800	<b>31 757</b>	<b>ZNG-63</b>	
80	136	156	20	28	20	110	100	32	188	2	1,380	<b>31 758</b>	<b>ZNG-80</b>	
100	164	189	25	38	25	132	120	32	208	2	2,745	<b>31 759</b>	<b>ZNG-100</b>	
125	192	217	25	50	25	160	150	40	250	2	5,100	<b>31 760</b>	<b>ZNG-125</b>	

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 DNG/DNGL/DNGZK/DNGZS, ISO 15552

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Accessories

## LNZG trunnion support

Material:

Trunnion support:

32 ... 125: Anodised aluminium

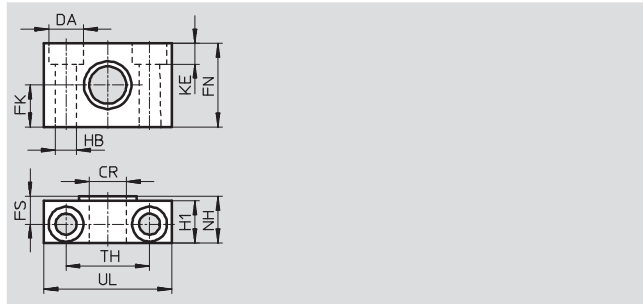
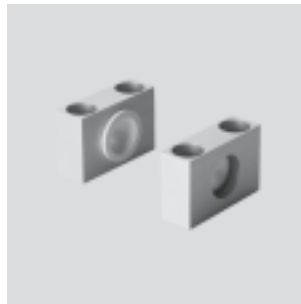
160 ... 320: Galvanised steel

Plain bearing:

32 ... 200: Plastic

250 ... 320: Sintered bronze

Free of copper, PTFE and silicone



Dimensions and ordering data															
For Ø	CR	DA	FK	FN	FS	H1	HB	KE	NH	TH	UL	CRC <sup>1)</sup>	Weight	Part No.	Type
[mm]	Ø	Ø	Ø				Ø						[g]		
32	12 D11	11	15 ±0.1	30	10.5	15	6.6	6.8	18	32 ±0.2	46	2	125	<b>32 959</b>	<b>LNZG-32</b>
40/50	16 D11	15	18 ±0.1	36	12	18	9	9	21	36 ±0.2	55	2	400	<b>32 960</b>	<b>LNZG-40/50</b>
63/80	20 D11	18	20 ±0.1	40	13	20	11	11	23	42 ±0.2	65	2	480	<b>32 961</b>	<b>LNZG-63/80</b>
100/125	25 D11	20	25 ±0.1	50	16	24.5	14	13	28.5	50 ±0.2	75	2	960	<b>32 962</b>	<b>LNZG-100/125</b>
160/200	32 D11	26	30 ±0.2	60	22.5	36	18	17	40	60 ±0.3	92	2	1,965	<b>35 780</b>	<b>LNZG-160/200</b>
250	40 G7	33	35 ±0.2	70	27.5	45	22	21.5	50	90 ±0.3	140	2	5,500	<b>157 516</b>	<b>LNZG-250</b>
320	50 G7	40	40 ±0.2	80	32.5	55	26	21.5	60	100 ±0.3	150	2	6,580	<b>157 517</b>	<b>LNZG-320</b>

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

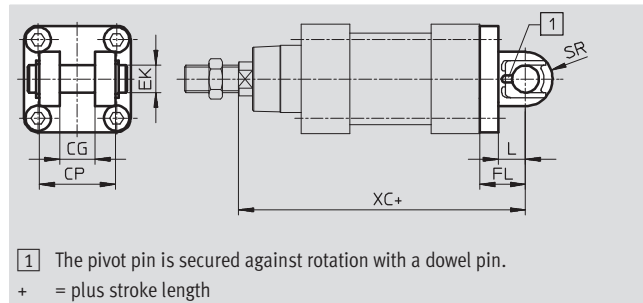
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents

## Swivel flange SNG

for clevis foot LSNG/LSNSG

Material:

Die-cast aluminium



Dimensions and ordering data											
For Ø	CG	CP	EK	FL	L	SR	XC	CRC <sup>1)</sup>	Weight	Part No.	Type
[mm]	H14	d12	Ø						[g]		
32	14	34	10	22	13	11	142	2	190	<b>32 968</b>	<b>SNG-32</b>
40	16	40	12	25	16	13	160	2	270	<b>32 969</b>	<b>SNG-40</b>
50	21	45	16	27	16	15	170	2	445	<b>32 970</b>	<b>SNG-50</b>
63	21	51	16	32	21	18	190	2	675	<b>32 971</b>	<b>SNG-63</b>
80	25	65	20	36	22	20	210	2	1,265	<b>32 972</b>	<b>SNG-80</b>
100	25	75	20	41	27	22	230	2	1,790	<b>32 973</b>	<b>SNG-100</b>
125	37	97	30	50	30	26	275	2	4,000	<b>32 974</b>	<b>SNG-125</b>
160	43	122	35	55	35	32	315	2	6,558	<b>152 597</b>	<b>SNG-160</b>
200	43	122	35	60	35	32	335	2	9,678	<b>152 598</b>	<b>SNG-200</b>

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

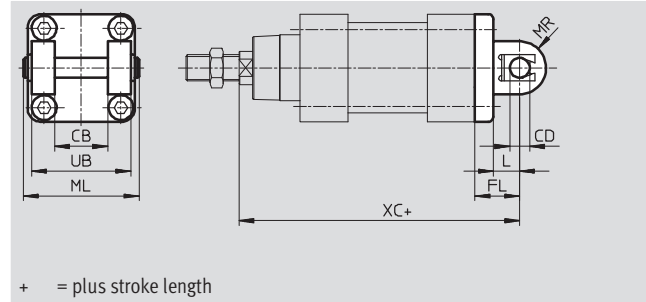
# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

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Accessories

## Swivel flange SNGB for clevis foot LN/LSN

Material:  
Die-cast aluminium  
Ø 200: Steel

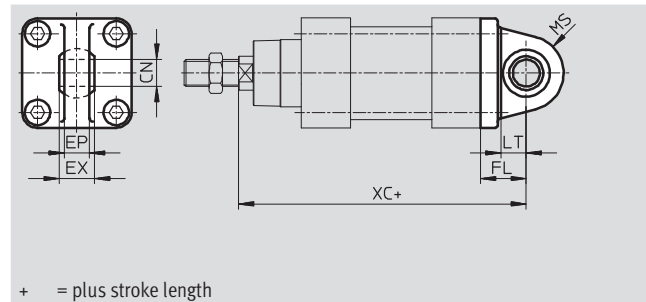


Dimensions and ordering data												
For Ø	CB	CD	FL	L	ML	MR	UB	XC	CRC <sup>1)</sup>	Weight	Part No.	Type
[mm]	Ø	Ø					h14			[g]		
32	26	10	22	13	55	10	45	142	2	125	34 540	SNGB-32
40	28	12	25	16	63	12	52	160	2	175	34 541	SNGB-40
50	32	12	27	16	71	12	60	170	2	243	34 542	SNGB-50
63	40	16	32	21	83	16	70	190	2	380	34 543	SNGB-63
80	50	16	36	22	103	16	90	210	2	610	34 544	SNGB-80
100	60	20	41	27	127	20	110	230	2	1,040	34 545	SNGB-100
125	70	25	50	30	148	25	130	275	2	1,750	34 546	SNGB-125
160	90	30	55	37	191	30	170	315	2	7,000	34 547	SNGB-160
200	90	30	60	35	191	36	170	335	2	11 000	562 455	SNGB-200-B
250	110	40	70	47	231	40	200	375	2	15 200	157 512	SNGB-250
320	120	45	80	52	253	45	220	420	2	26 450	157 513	SNGB-320

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

## Swivel flange SSNG with spherical bearing for clevis foot LBG

Material:  
Nodular graphite cast iron



Dimensions and ordering data												
For Ø	CN	EP	EX	FL	LT	MS	XC	CRC <sup>1)</sup>	Weight	Part No.	Type	
[mm]	Ø								[g]			
32	10	10.5	14	22	–	16	142	2	195	34 291	SSNG-32	
40	12	12	16	25	–	18	160	2	255	34 292	SSNG-40	
50	16	15	21	27	–	21	170	2	430	34 293	SSNG-50	
63	16	15	21	32	19	23	190	2	565	34 294	SSNG-63	
80	20	18	25	36	21	27	210	2	940	34 295	SSNG-80	
100	20	18	25	41	24	30	230	2	1,510	34 296	SSNG-100	
125	30	25	37	50	28	40	275	2	3,082	34 568	SSNG-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

# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

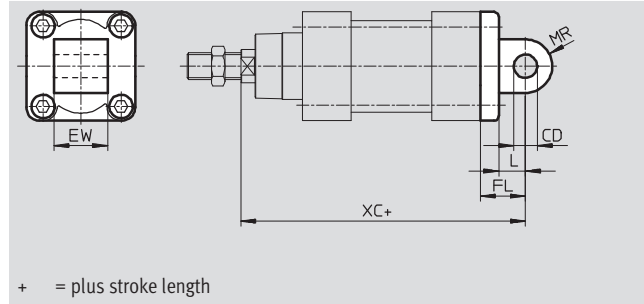
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Accessories

## Swivel flange SNGL

Material:  
Die-cast aluminium

Variant CT:  
Free of copper, PTFE and silicone



Dimensions and ordering data										
For Ø	CD Ø	EW	FL	L	MR	XC	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
[mm]										
32	10	26	22	13	10	142	2	75	151 527	SNGL-32
40	12	28	25	16	12	160	2	106	151 528	SNGL-40
50	12	32	27	16	12	170	2	183	151 529	SNGL-50
63	16	40	32	21	16	190	2	270	151 530	SNGL-63
80	16	50	36	22	16	210	2	503	151 531	SNGL-80
100	20	60	41	27	20	230	2	767	151 532	SNGL-100
125	25	70	50	30	25	275	2	1,433	151 533	SNGL-125
160	30	90	55	35	25	315	2	2,252	151 534	SNGL-160
200	30	90	60	35	25	335	2	3,306	151 535	SNGL-200







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 DNG/DNGL/DNGZK/DNGZS, ISO 15552

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Accessories





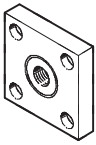
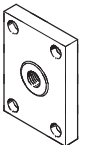

Ordering data – Mounting attachments				Technical data → Internet: clevis foot			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
<b>Clevis foot LSNG</b>				<b>Weld-on clevis foot LSNSG</b>			
	32	31 740	LSNG-32		32	31 747	LSNSG-32
	40	31 741	LSNG-40		40	31 748	LSNSG-40
	50	31 742	LSNG-50		50	31 749	LSNSG-50
	63	31 743	LSNG-63		63	31 750	LSNSG-63
	80	31 744	LSNG-80		80	31 751	LSNSG-80
	100	31 745	LSNG-100		100	31 752	LSNSG-100
	125	31 746	LSNG-125		125	31 753	LSNSG-125
	160	152 599	LSNG-160		160	–	–
	200	152 600	LSNG-200		200	–	–
<b>Clevis foot LBG</b>				<b>Clevis foot LNG</b>			
	32	31 761	LBG-32		32	33 890	LNG-32
	40	31 762	LBG-40		40	33 891	LNG-40
	50	31 763	LBG-50		50	33 892	LNG-50
	63	31 764	LBG-63		63	33 893	LNG-63
	80	31 765	LBG-80		80	33 894	LNG-80
	100	31 766	LBG-100		100	33 895	LNG-100
	125	31 767	LBG-125		125	33 896	LNG-125
	160	–	–		160	–	–
	200	–	–		200	33 898	LNG-200
<b>Clevis foot LSN</b>				<b>Clevis foot, right-angled LQG</b>			
	32	5 561	LSN-32		32	31 768	LQG-32
	40	5 562	LSN-40		40	31 769	LQG-40
	50	5 563	LSN-50		50	31 770	LQG-50
	63	5 564	LSN-63		63	31 771	LQG-63
	80	5 565	LSN-80		80	31 772	LQG-80
	100	5 566	LSN-100		100	31 773	LQG-100
	125	6 987	LSN-125		125	31 774	LQG-125
	160	6 988	LSN-160		160	–	–
	200	6 989	LSN-200		200	–	–
	250	6 990	LSN-250		250	–	–
	320	6 991	LSN-320		320	–	–

Ordering data – One-way flow control valves				Technical data → Internet: grla	
	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

# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

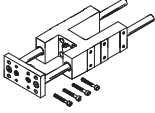
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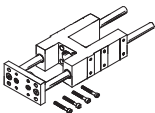
Accessories

Ordering data – Piston rod attachments				Technical data → Internet: piston-rod attachment			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
<b>Rod eye SGS</b>				<b>Rod clevis SGA</b>			
	32	9 261	SGS-M10x1,25		32	32 954	SGA-M10x1,25
	40	9 262	SGS-M12x1,25		40	10 767	SGA-M12x1,25
	50	9 263	SGS-M16x1,5		50	10 768	SGA-M16x1,5
	63				63		
	80	9 264	SGS-M20x1,5		80	10 769	SGA-M20x1,5
	100				100		
	125	10 774	SGS-M27x2		125	10 770	SGA-M27x2
	160	10 775	SGS-M36x2		160	10 775	SGA-M36x2
	200				200		
	250	10 776	SGS-M42x2		–	–	–
320	10 777	SGS-M48x2	–	–	–	–	
<b>Rod clevis SG</b>				<b>Self-aligning rod coupler FK</b>			
	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		
	125	14 987	SG-M27x2-B		125	10 485	FK-M27x2
	160	9 581	SG-M36x2		160	10 746	FK-M36x2
	200				200		
	250	9 582	SG-M42x2		250	–	–
320	9 583	SG-M48x2	320	–	–	–	
<b>Coupling piece KSG</b>				<b>Coupling piece KSZ</b>			
	32	32 963	KSG-M10x1,25		32	36 125	KSZ-M10x1,25
	40	32 964	KSG-M12x1,25		40	36 126	KSZ-M12x1,25
	50	32 965	KSG-M16x1,5		50	36 127	KSZ-M16x1,5
	63				63		
	80	32 966	KSG-M20x1,5		80	36 128	KSZ-M20x1,5
	100				100		
125	32 967	KSG-M27x2	125	–	–	–	
<b>Adapter AD</b>							
	32	157 333	AD-M10x1,25-1/8				
		157 334	AD-M10x1,25-1/4				
	40	160 256	AD-M12x1,25-1/4				
		160 257	AD-M12x1,25-3/8				

# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552

Accessories



Ordering data – Guide units for fixed strokes (recirculating ball bearing guide only)				Technical data → Internet: festo		
	Stroke [mm]	Part No.	Type	Stroke [mm]	Part No.	Type
	<b>For Ø 32 mm</b>				<b>For Ø 40 mm</b>	
	10 ... 50	34 493	FENG-32-50-KF	10 ... 50	34 499	FENG-40-50-KF
	10 ... 100	34 494	FENG-32-100-KF	10 ... 100	34 500	FENG-40-100-KF
	10 ... 160	34 495	FENG-32-160-KF	10 ... 160	34 501	FENG-40-160-KF
	10 ... 200	34 496	FENG-32-200-KF	10 ... 200	34 502	FENG-40-200-KF
	10 ... 250	150 289	FENG-32-250-KF	10 ... 250	34 503	FENG-40-250-KF
	10 ... 320	34 497	FENG-32-320-KF	10 ... 320	34 504	FENG-40-320-KF
	10 ... 400	150 290	FENG-32-400-KF	10 ... 400	150 291	FENG-40-400-KF
	10 ... 500	34 498	FENG-32-500-KF	10 ... 500	34 505	FENG-40-500-KF
<b>For Ø 50 mm</b>				<b>For Ø 63 mm</b>		
	10 ... 50	34 506	FENG-50-50-KF	10 ... 50	34 513	FENG-63-50-KF
	10 ... 100	34 507	FENG-50-100-KF	10 ... 100	34 514	FENG-63-100-KF
	10 ... 160	34 508	FENG-50-160-KF	10 ... 160	34 515	FENG-63-160-KF
	10 ... 200	34 509	FENG-50-200-KF	10 ... 200	34 516	FENG-63-200-KF
	10 ... 250	34 510	FENG-50-250-KF	10 ... 250	34 517	FENG-63-250-KF
	10 ... 320	34 511	FENG-50-320-KF	10 ... 320	34 518	FENG-63-320-KF
	10 ... 400	150 292	FENG-50-400-KF	10 ... 400	34 519	FENG-63-400-KF
	10 ... 500	34 512	FENG-50-500-KF	10 ... 500	34 520	FENG-63-500-KF
<b>For Ø 80 mm</b>				<b>For Ø 100 mm</b>		
	10 ... 50	34 521	FENG-80-50-KF	10 ... 50	34 529	FENG-100-50-KF
	10 ... 100	34 522	FENG-80-100-KF	10 ... 100	34 530	FENG-100-100-KF
	10 ... 160	34 523	FENG-80-160-KF	10 ... 160	34 531	FENG-100-160-KF
	10 ... 200	34 524	FENG-80-200-KF	10 ... 200	34 532	FENG-100-200-KF
	10 ... 250	34 525	FENG-80-250-KF	10 ... 250	34 533	FENG-100-250-KF
	10 ... 320	34 526	FENG-80-320-KF	10 ... 320	34 534	FENG-100-320-KF
	10 ... 400	34 527	FENG-80-400-KF	10 ... 400	34 535	FENG-100-400-KF
	10 ... 500	34 528	FENG-80-500-KF	10 ... 500	34 536	FENG-100-500-KF

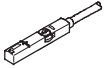

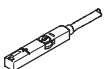
Ordering data – Guide units for variable strokes				Technical data → Internet: festo	
	For Ø [mm]	Stroke [mm]	With recirculating ball bearing guide	With sliding bearing guide	
			Part No. Type	Part No.	Type
	32	10 ... 500	34 487 FENG-32-...-KF	34 481	FENG-32-...
	40	10 ... 500	34 488 FENG-40-...-KF	34 482	FENG-40-...
	50	10 ... 500	34 489 FENG-50-...-KF	34 483	FENG-50-...
	63	10 ... 500	34 490 FENG-63-...-KF	34 484	FENG-63-...
	80	10 ... 500	34 491 FENG-80-...-KF	34 485	FENG-80-...
	100	10 ... 500	34 492 FENG-100-...-KF	34 486	FENG-100-...

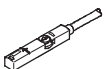


# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552


FESTO

Accessories

Ordering data – Connecting cables				Technical data → Internet: nebu	
	Electrical connection, left	Electrical connection, right	Cable length [m]	Part No.	Type
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541 333	NEBU-M8G3-K-2.5-LE3
			5	541 334	NEBU-M8G3-K-5-LE3
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541 338	NEBU-M8W3-K-2.5-LE3
			5	541 341	NEBU-M8W3-K-5-LE3

Ordering data – Proximity sensors for T-slot, magneto-resistive				Technical data → Internet: smt	
	Type of mounting	Switch output	Electrical connection	Cable length [m]	Part No. Type
<b>N/O contact</b>					
	Insertable in the slot from above, flush with cylinder profile	PNP	Cable, 3-wire	2.5	543 867 SMT-8M-PS-24V-K-2,5-OE
			Plug M8x1, 3-pin	0.3	543 866 SMT-8M-PS-24V-K-0,3-M8D
			Plug M12x1, 3-pin	0.3	543 869 SMT-8M-PS-24V-K-0,3-M12
		NPN	Cable, 3-wire	2.5	543 870 SMT-8M-NS-24V-K-2,5-OE
			Plug M8x1, 3-pin	0.3	543 871 SMT-8M-NS-24V-K-0,3-M8D
			Plug M12x1, 3-pin	0.3	543 872 SMT-8M-NS-24V-K-0,3-M12
	Insertable in the slot lengthwise, flush with the cylinder profile	PNP	Cable, 3-wire	2.5	175 436 SMT-8-PS-K-LED-24-B
			Plug M8x1, 3-pin	0.3	175 484 SMT-8-PS-S-LED-24-B
<b>N/C contact</b>					
	Insertable in the slot from above, flush with cylinder profile	PNP	Cable, 3-wire	7.5	543 873 SMT-8M-PO-24V-K7,5-OE


Ordering data – Proximity sensors for T-slot, magnetic reed				Technical data → Internet: sme	
	Type of mounting	Switch output	Electrical connection	Cable length [m]	Part No. Type
<b>N/O contact</b>					
	Insertable in the slot from above, flush with cylinder profile	Contacting	Cable, 3-wire	2.5	543 862 SME-8M-DS-24V-K-2,5-OE
			Cable, 3-wire	5.0	543 863 SME-8M-DS-24V-K-5,0-OE
			Cable, 3-wire	2.5	543 872 SME-8M-ZS-24V-K-2,5-OE
			Plug M8x1, 3-pin	0.3	543 861 SME-8M-DS-24V-K-0,3-M8D
			Plug M12x1, 3-pin	0.3	543 871 SME-8M-ZS-24V-K-0,3-M12
	Insertable in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	150 855 SME-8-K-LED-24
			Plug M8x1, 3-pin	0.3	150 857 SME-8-S-LED-24
<b>N/C contact</b>					
	Insertable in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	7.5	160 251 SME-8-O-K-LED-24


Ordering data – Mounting kits for proximity sensors SME/SMT-8			Technical data → Internet: smbz	
	For Ø	Materials	Part No.	Type
	32 ... 100 mm	Rail: Wrought aluminium alloy, anodised	537 806	SMBZ-8-32/100
	125 ... 320 mm	Screws: High-alloy steel Free of copper and PTFE	537 808	SMBZ-8-125/320


# Standard cylinders DNG/DNGL/DNGZK/DNGZS, ISO 15552


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
Accessories

Ordering data – Rectangular proximity sensors, magneto-resistive						Technical data → Internet: smto	
	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	SMTO-1-PS-K-LED-24-C
			–	3-pin	–	151 685	SMTO-1-PS-S-LED-24-C
		NPN	3-wire	–	2.5	151 684	SMTO-1-NS-K-LED-24-C
			–	3-pin	–	151 686	SMTO-1-NS-S-LED-24-C

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

Ordering data – Mounting kits for proximity sensors SMEO/SMTO-1				Technical data → Internet: smb	
	For Ø	Mounting		Part No.	Type
	32 ... 50 mm	Directly on the mounting or tie rod		36 162	SMB-2-B
	125 ... 320 mm			11 886	SMB-1
	63 ... 100 mm			36 163	SMB-3-B

Ordering data – Rectangular proximity sensors, pneumatic				Technical data → Internet: smpo	
	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 kits for proximity sensors SMPO-1				Technical data → Internet: smbs	
	For Ø	Mounting		Part No.	Type
	32 ... 100 mm	On the cylinder barrel via clamping strap		151 226	SMBS-2

Ordering data – Mounting kits for proximity sensors SME/SMT-8					Technical data → Internet: smbr	
	For Ø	Mounting	CRC <sup>1)</sup>	Part No.	Type	
	32 ... 100 mm	On the cylinder barrel via clamping strap	4	538 937	SMBR-8-8/100-S6	

1) Corrosion resistance class 4 according to Festo standard 940 070  
Components requiring higher corrosion resistance. Parts used with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required