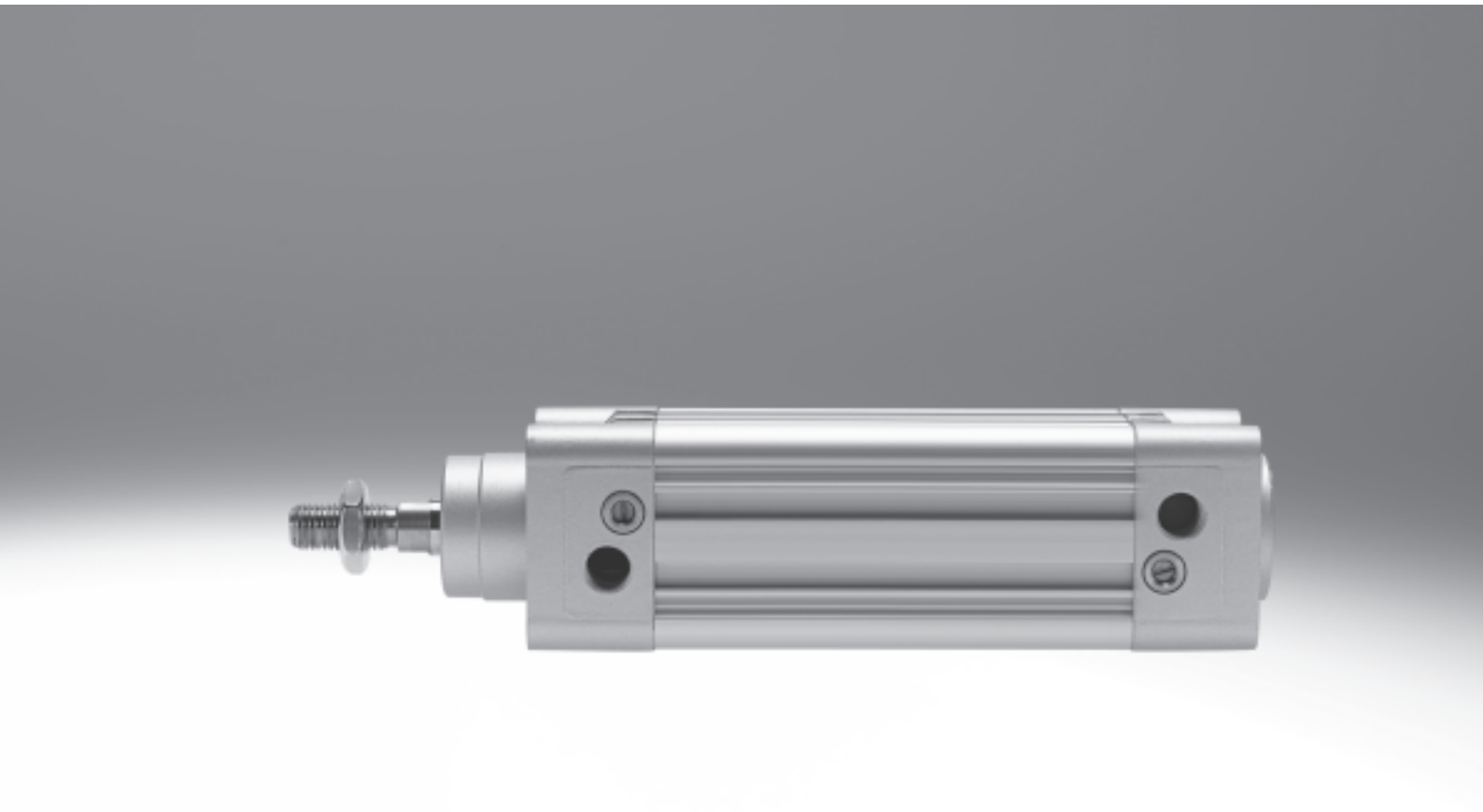
Standard cylinders DNC-C180, to ISO 15552

FESTO



New

Standard cylinders DNC-C180, to ISO 15552

Key features

At a glance

- Standards-based cylinders to ISO 15552 (corresponds to the withdrawn standards ISO 6431, DIN ISO 6431, VDMA 24 562, NF E 49 003.1 and UNI 10290)
- The sensor slots on the compressed air connection side are sealed by the covers at the barrel ends, which means that the proximity sensors can only be inserted from above. End-position sensing via these slots is therefore only possible in combination with the proximity sensors SME/SMT-8M.
- The modern design and construction save up to 11% on fitting space compared to ordinary standard cylinders, thus permitting a considerably more compact system design.

High quality product

- Proven technology, compact, solid and reliable
- Excellent running characteristics thanks to efficient piston system
- Simple and finely adjustable end-position cushioning thanks to new PPV adjusting screw
- When an ideal setting has been found, imprinted scale ensures easy reproducibility

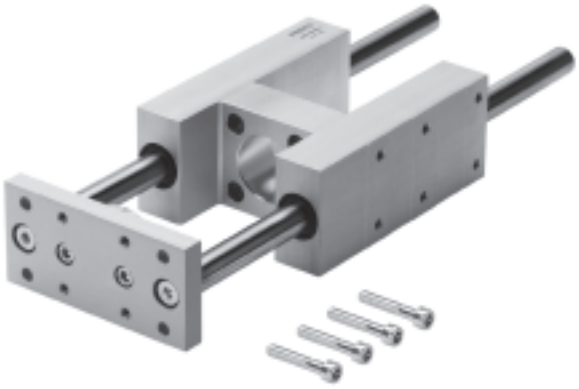
Contactless sensing

- The proximity sensors fit flush in the profile slot. On the one hand, this does away with the need for additional mounting kits and on the other, it protects the proximity sensor against mechanical damage.

Easy to mount

- Wide selection of mounting options
- All accessories and mounting attachments from the DNC range can be used

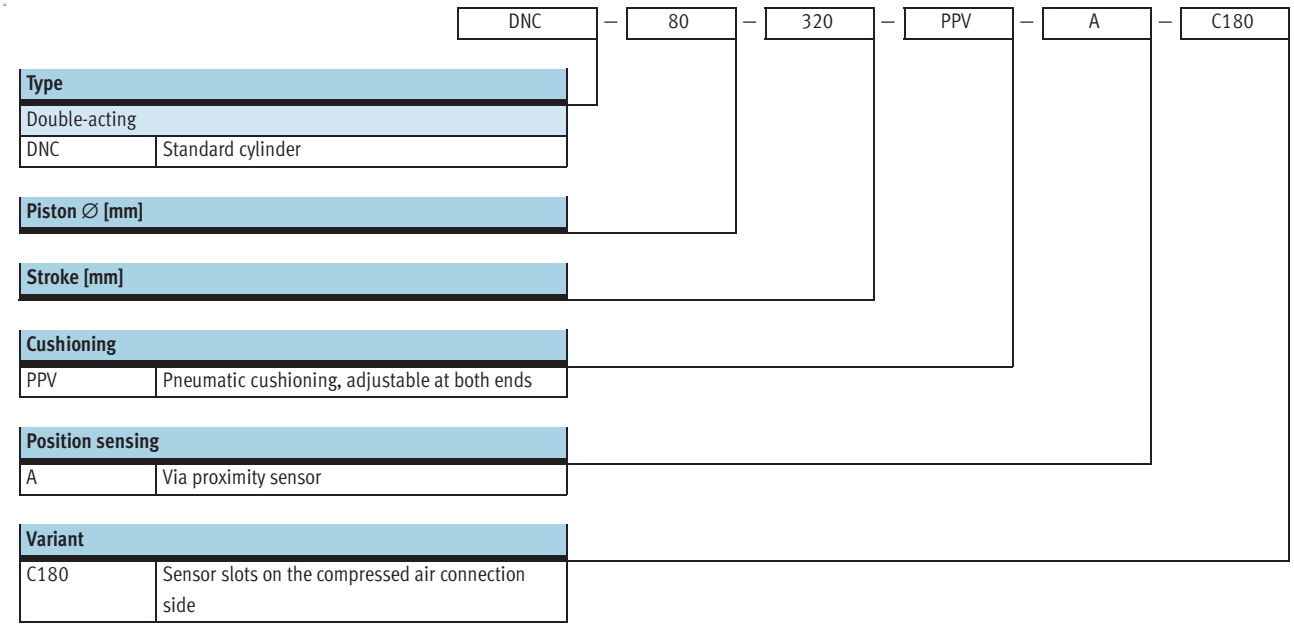
Accessories



Guide units protect standard cylinders from torsion when these are subjected to high torque loads. They provide high-precision guidance for handling applications.
The arrangement of the sensor slots on the compressed air connection side means that no additional kit is required for sensing the end positions in combination with the guide unit.

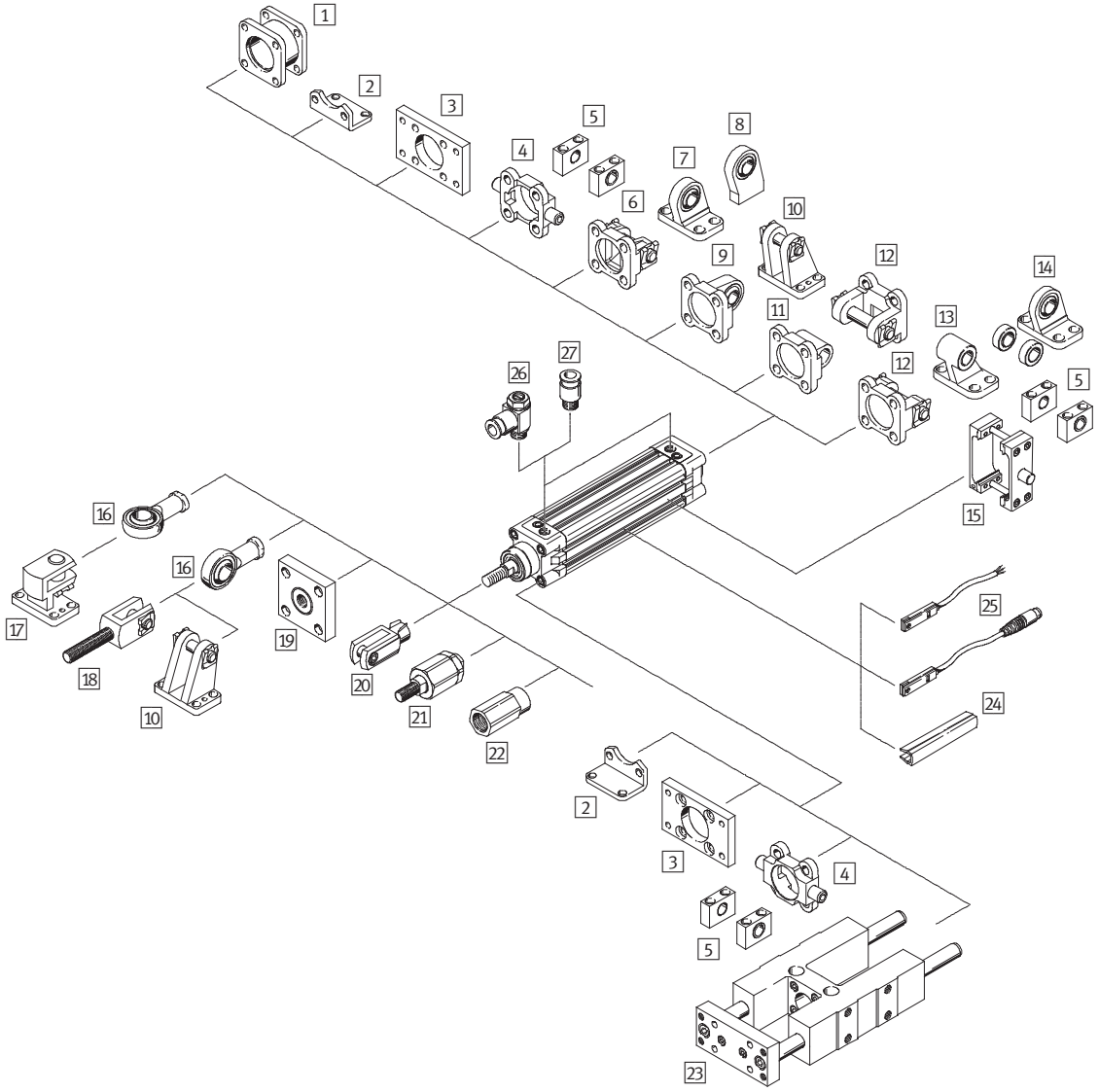
Standard cylinders DNC-C180, to ISO 15552

Type codes



Standard cylinders DNC-C180, to ISO 15552

Peripherals overview



Mounting attachments and accessories			
		Brief description	→ Page/ Internet
1	Multi-position kit DPNC	For connecting two cylinders with identical piston diameters to form a multi-position cylinder	10
2	Foot mounting HNC/CRHNC	For bearing or end caps	11
3	Flange mounting FNC/CRFNG	For bearing or end caps	12
4	Trunnion flange ZNCF/CRZNG	For bearing or end caps	13
5	Trunnion support LNZG/CRLNZG	–	15
6	Swivel flange SNC	For end caps	16
7	Clevis foot LSNG	With spherical bearing	19
8	Clevis foot LSNSG	Weld-on, with spherical bearing	19

Standard cylinders DNC-C180, to ISO 15552

Peripherals overview

Mounting attachments and accessories			
		Brief description	→ Page/ Internet
9	Swivel flange SNCS	With spherical bearing for end caps	18
10	Clevis foot LBG	–	19
11	Swivel flange SNCL	For end caps	18
12	Swivel flange SNCB/SNCB-...-R3	For end caps	17
13	Clevis foot LNG/CRLNG	–	19
14	Clevis foot LSN	With spherical bearing	19
15	Trunnion mounting kit ZNCM	For mounting anywhere along the cylinder profile barrel	14
16	Rod eye SGS/CRSGS	With spherical bearing	20
17	Right-angle clevis foot LQG	–	19
18	Rod clevis SGA	With male thread	20
19	Coupling piece KSG	For compensating for radial deviations	20
	Coupling piece KSZ	For cylinders with a non-rotating piston rod to compensate for radial deviations	20
20	Rod clevis SG/CRSG	Permits a swivelling movement of the cylinder in one plane	20
21	Self-aligning rod coupler FK	For compensating radial and angular deviations	20
22	Adapter AD	For fitting a suction cup on a hollow cylinder piston rod	20
23	Guide unit FENG	For protecting standard cylinders against rotation at high torque loads	21
24	Slot cover ABP-5-S	For protecting the sensor cable and keeping dirt out of the sensor slots	21
25	Proximity sensor SME/SMT-8M	Can be integrated in the cylinder profile barrel	22
26	One-way flow control valve GRLA	For regulating speed	22
27	Push-in fitting QS	For connecting compressed air tubing with standard O.D.	quick star

Standard cylinders DNC-C180, to ISO 15552

Technical data

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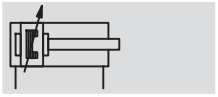
Function



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

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General technical data							
Piston ∅		32	40	50	63	80	100
Pneumatic connection		G1⁄8	G1⁄4	G1⁄4	G3⁄8	G3⁄8	G1⁄2
Piston rod thread		M10x1.25	M12x1.25	M16x1.5	M16x1.5	M20x1.5	M20x1.5
Design		Piston					
		Piston rod					
		Profile barrel					
Cushioning		Elastic cushioning rings/pads at both ends					
		Pneumatic cushioning, adjustable at both ends					
Cushioning length	[mm]	20	20	22	22	32	32
Position sensing		Via proximity sensor					
Type of mounting		Via female thread					
		Via accessories					
Mounting position		Any					

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

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

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

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

Permissible impact velocity:

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

Maximum permissible load:

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

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

Note

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

Standard cylinders DNC-C180, to ISO 15552

Technical data

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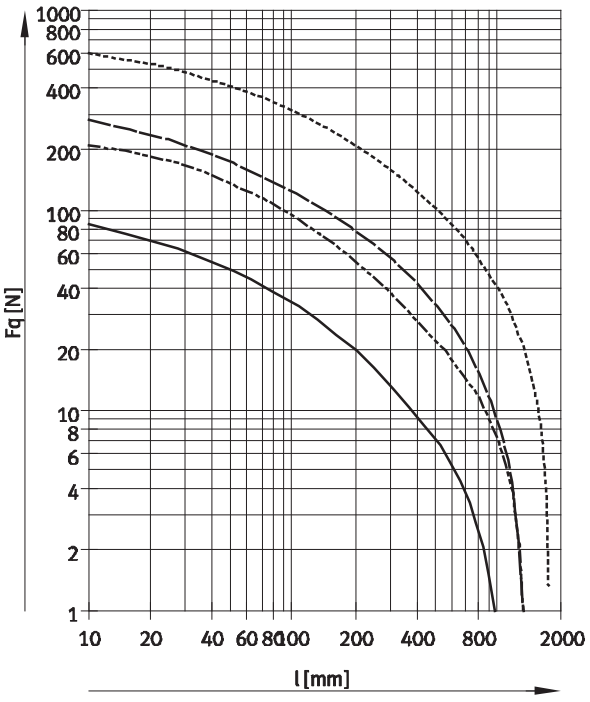
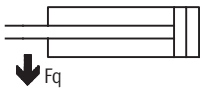
Lateral force Fq as a function of stroke length l

Basic version



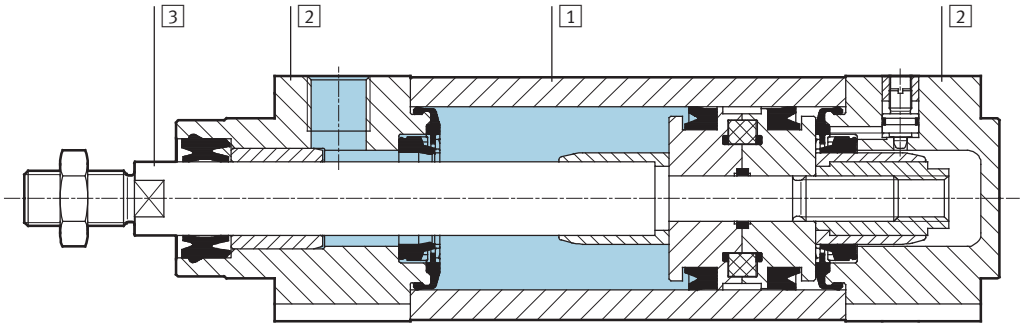


∅ 32
∅ 40
∅ 50/63
∅ 80/100

Weight [g]						
Piston ∅	32	40	50	63	80	100
Product weight with 0 mm stroke	517	800	1,260	1,709	2,790	4,653
Additional weight per 10 mm stroke	30	45	64	73	106	115
Moving load with 0 mm stroke	162	307	538	663	1,131	1,544
Additional load per 10 mm stroke	9	16	25	25	38	38

Materials

Sectional view



Standard cylinder		
1	Profile barrel	Smooth anodised wrought aluminium alloy
2	Bearing and end caps	Die-cast aluminium
3	Piston rod	High-alloy steel
–	Seals	Polyurethane, nitrile rubber

Standard cylinders DNC-C180, to ISO 15552

Technical data

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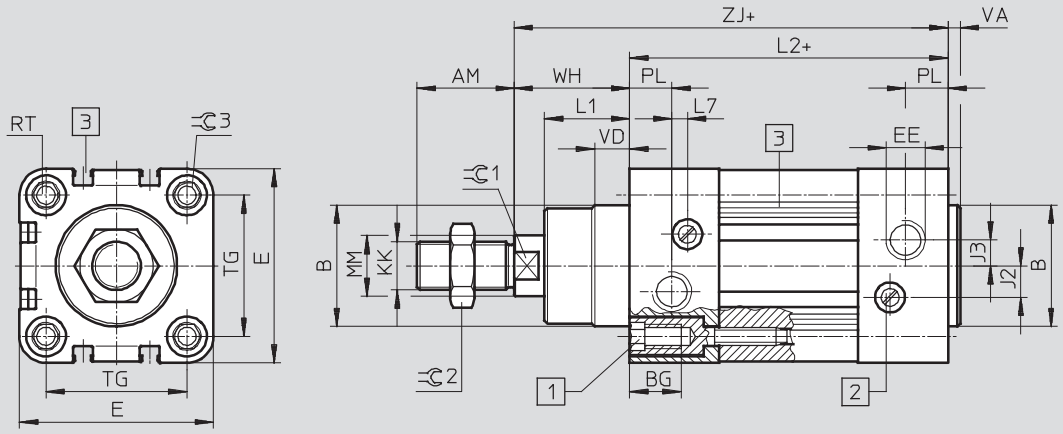
Dimensions Download CAD Data ➔ **www.festo.com/us/cad**



1 Socket head screw with female thread for mounting attachments

2 Regulating screw for adjustable end-position cushioning

3 Slot for proximity sensor SME/SMT-8M

\+ = plus stroke length

∅ [mm]	AM	B ∅ d11	BG	E	EE	J2	J3	KK	L1	L2	L7
32	22	30	16	45	G1⁄8	6	5.2	M10x1.25	18	94	3.3
40	24	35	16	54	G1⁄4	8	6	M12x1.25	21.5	105	3.6
50	32	40	17	64	G1⁄4	10.4	8.5	M16x1.5	28	106	5.1
63	32	45	17	75	G3⁄8	12.4	10	M16x1.5	28.5	121	6.6
80	40	45	17	93	G3⁄8	12.5	8	M20x1.5	34.7	128	10.5
100	40	55	17	110	G1⁄2	12	10	M20x1.5	38.2	138	8

∅ [mm]	MM ∅	PL	RT	TG	VA	VD	WH	ZJ	=C1	=C2	=C3
32	12	15.6	M6	32.5	4	10	26	120	10	16	6
40	16	14	M6	38	4	10.5	30	135	13	18	6
50	20	14	M8	46.5	4	11.5	37	143	17	24	8
63	20	17	M8	56.5	4	15	37	158	17	24	8
80	25	16.4	M10	72	4	15.7	46	174	22	30	6
100	25	18.8	M10	89	4	19.2	51	189	22	30	6

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

Standard cylinders DNC-C180, to ISO 15552

Technical data

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Ordering data								
Type	Piston ∅ [mm]	Stroke [mm]	With position sensing Part No.	Type[1]	Piston ∅ [mm]	Stroke [mm]	With position sensing Part No.	Type[1]
	32	50	**567882**	**DNC-32-50-PPV-A-C180**	63	50	**567909**	**DNC-63-50-PPV-A-C180**
		80	**567883**	**DNC-32-80-PPV-A-C180**		80	**567910**	**DNC-63-80-PPV-A-C180**
		100	**567884**	**DNC-32-100-PPV-A-C180**		100	**567911**	**DNC-63-100-PPV-A-C180**
		125	**567885**	**DNC-32-125-PPV-A-C180**		125	**567912**	**DNC-63-125-PPV-A-C180**
		160	**567886**	**DNC-32-160-PPV-A-C180**		160	**567913**	**DNC-63-160-PPV-A-C180**
		200	**567887**	**DNC-32-200-PPV-A-C180**		200	**567914**	**DNC-63-200-PPV-A-C180**
		250	**567888**	**DNC-32-250-PPV-A-C180**		250	**567915**	**DNC-63-250-PPV-A-C180**
		320	**567889**	**DNC-32-320-PPV-A-C180**		320	**567916**	**DNC-63-320-PPV-A-C180**
	40	50	**567891**	**DNC-40-50-PPV-A-C180**	80	50	**567918**	**DNC-80-50-PPV-A-C180**
		80	**567892**	**DNC-40-80-PPV-A-C180**		80	**567919**	**DNC-80-80-PPV-A-C180**
		100	**567893**	**DNC-40-100-PPV-A-C180**		100	**567920**	**DNC-80-100-PPV-A-C180**
		125	**567894**	**DNC-40-125-PPV-A-C180**		125	**567921**	**DNC-80-125-PPV-A-C180**
		160	**567895**	**DNC-40-160-PPV-A-C180**		160	**567922**	**DNC-80-160-PPV-A-C180**
		200	**567896**	**DNC-40-200-PPV-A-C180**		200	**567923**	**DNC-80-200-PPV-A-C180**
		250	**567897**	**DNC-40-250-PPV-A-C180**		250	**567924**	**DNC-80-250-PPV-A-C180**
		320	**567898**	**DNC-40-320-PPV-A-C180**		320	**567925**	**DNC-80-320-PPV-A-C180**
	50	50	**567900**	**DNC-50-50-PPV-A-C180**	100	50	**567927**	**DNC-100-50-PPV-A-C180**
		80	**567901**	**DNC-50-80-PPV-A-C180**		80	**567928**	**DNC-100-80-PPV-A-C180**
		100	**567902**	**DNC-50-100-PPV-A-C180**		100	**567929**	**DNC-100-100-PPV-A-C180**
		125	**567903**	**DNC-50-125-PPV-A-C180**		125	**567930**	**DNC-100-125-PPV-A-C180**
		160	**567904**	**DNC-50-160-PPV-A-C180**		160	**567931**	**DNC-100-160-PPV-A-C180**
		200	**567905**	**DNC-50-200-PPV-A-C180**		200	**567932**	**DNC-100-200-PPV-A-C180**
		250	**567906**	**DNC-50-250-PPV-A-C180**		250	**567933**	**DNC-100-250-PPV-A-C180**
		320	**567907**	**DNC-50-320-PPV-A-C180**		320	**567934**	**DNC-100-320-PPV-A-C180**

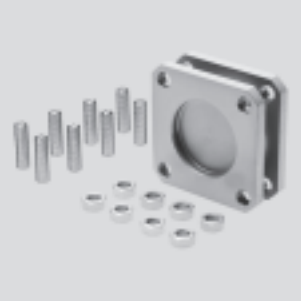
1) The mounting nut on the piston rod thread is included in the scope of delivery

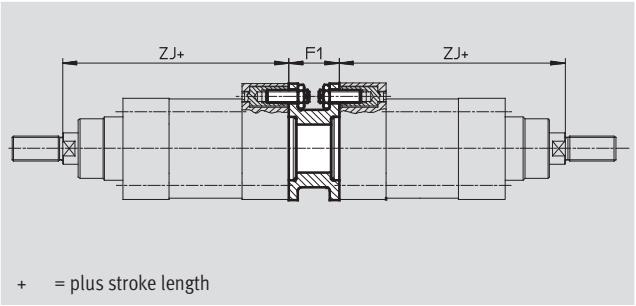
Ordering data – Variable stroke				
Type	Piston ∅ [mm]	Variable stroke[2] [mm]	With position sensing Part No.	Type[1]
	32	2 … 2,000	**567890**	**DNC-32-…-PPV-A-C180**
	40	2 … 2,000	**567899**	**DNC-40-…-PPV-A-C180**
	50	2 … 2,000	**567908**	**DNC-50-…-PPV-A-C180**
	63	3 … 2,000	**567917**	**DNC-63-…-PPV-A-C180**
	80	3 … 2,000	**567926**	**DNC-80-…-PPV-A-C180**
	100	3 … 2,000	**567935**	**DNC-100-…-PPV-A-C180**

1) The mounting nut on the piston rod thread is included in the scope of delivery
2) Cylinders with position sensing require a minimum stroke of 10 mm to ensure reliable sensing

Multi-position kit DPNC

Materials:
Flange: Wrought aluminium alloy
Threaded studs, hex nuts:
Galvanised steel





\+ = plus stroke length

Dimensions and ordering data

For ∅ [mm]	F1	ZJ	Max. overall stroke length [mm]	Weight [g]	Part No.	Type
32	27	120	1,000	85	**174418**	**DPNC-32**
40	27	135	1,000	115	**174419**	**DPNC-40**
50	32	143	1,000	210	**174420**	**DPNC-50**
63	28	158	1,000	360	**174421**	**DPNC-63**
80	38	174	1,000	620	**174422**	**DPNC-80**
100	38	189	1,000	1,190	**174423**	**DPNC-100**

Note

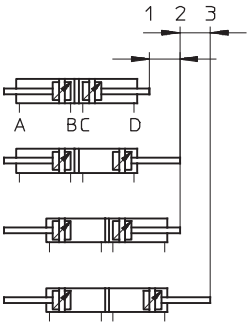
The maximum overall stroke length must not be exceeded when combining cylinders and multi-position kits.

Connecting two cylinders with identical piston diameter 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 on actuation and stroke division, 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's connections must be flexible.

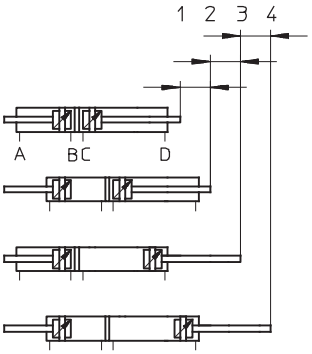
To achieve 3 positions

Two cylinders with identical stroke length must be connected together.



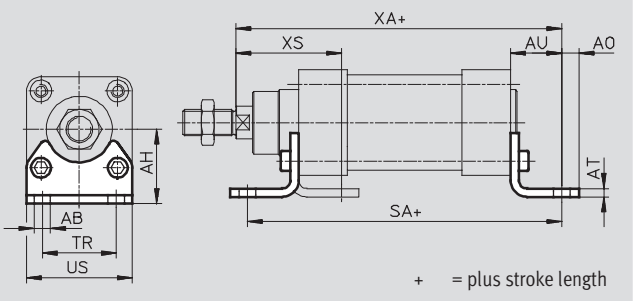
To achieve 4 positions

Two cylinders with different stroke lengths must be connected together.



Foot mounting HNC/CRHNC

Materials:
HNC: Galvanised steel
CRHNC: High-alloy steel
Free of copper, PTFE and silicone



Dimensions and ordering data

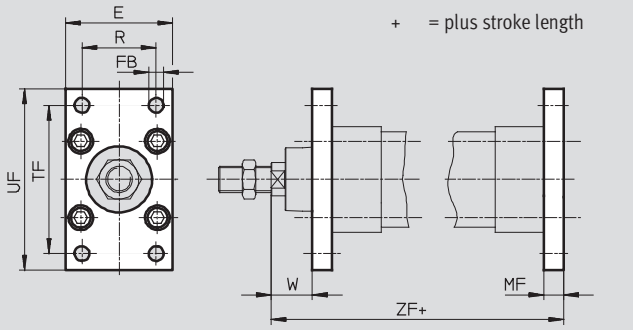
For ∅ [mm]	AB ∅	AH	AO	AT	AU	SA	TR	US	XA	XS
32	7	32	6.5	4	24	142	32	45	144	45
40	10	36	9	4	28	161	36	54	163	53
50	10	45	9.5	5	32	170	45	64	175	62
63	10	50	12.5	5	32	185	50	75	190	63
80	12	63	15	6	41	210	63	93	215	81
100	14.5	71	17.5	6	41	220	75	110	230	86

For ∅	Basic version				High corrosion protection			
	CRC[1)]	Weight [g]	Part No.	Type	CRC[1)]	Weight [g]	Part No.	Type
[mm]								
32	2	144	**174369**	**HNC-32**	4	139	**176937**	**CRHNC-32**
40	2	193	**174370**	**HNC-40**	4	188	**176938**	**CRHNC-40**
50	2	353	**174371**	**HNC-50**	4	341	**176939**	**CRHNC-50**
63	2	436	**174372**	**HNC-63**	4	424	**176940**	**CRHNC-63**
80	2	829	**174373**	**HNC-80**	4	809	**176941**	**CRHNC-80**
100	2	1,009	**174374**	**HNC-100**	4	990	**176942**	**CRHNC-100**

1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
Corrosion resistance class 4 according to Festo standard 940 070
Components subject to particularly high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

Flange mounting FNC/CRFNG

Materials:
FNC: Galvanised steel
CRFNG: High-alloy steel
Free of copper, PTFE and silicone



Dimensions and ordering data

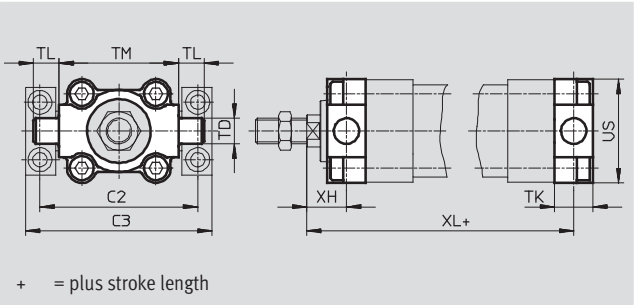
For ∅ [mm]	E	FB ∅ H13	MF	R	TF	UF	W	ZF
32	45	7	10	32	64	80	16	130
40	54	9	10	36	72	90	20	145
50	65	9	12	45	90	110	25	155
63	75	9	12	50	100	120	25	170
80	93	12	16	63	126	150	30	190
100	110	14	16	75	150	175	35	205

For ∅ [mm]	Basic version				High corrosion protection			
	CRC[1)]	Weight [g]	Part No.	Type	CRC[1)]	Weight [g]	Part No.	Type
32	1	221	**174376**	**FNC-32**	4	240	**161846**	**CRFNG-32**
40	1	291	**174377**	**FNC-40**	4	300	**161847**	**CRFNG-40**
50	1	536	**174378**	**FNC-50**	4	550	**161848**	**CRFNG-50**
63	1	679	**174379**	**FNC-63**	4	710	**161849**	**CRFNG-63**
80	1	1,495	**174380**	**FNC-80**	4	1,680	**161850**	**CRFNG-80**
100	1	2,041	**174381**	**FNC-100**	4	2,450	**161851**	**CRFNG-100**

1) CRC1: Corrosion resistance class to Festo standard 940070
Components with light corrosion exposure. Protection for transport and storage. Components without significant decorative function or surface, e.g. installed out of sight internally or behind covers.
Corrosion resistance class 4 according to Festo standard 940 070
Components subject to particularly high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

Trunnion flange ZNCF/CRZNG

Materials:
ZNCF: Stainless steel casting
CRZNG: Electropolished stainless steel casting
Free of copper, PTFE and silicone



\+ = plus stroke length

Dimensions and ordering data

For ∅ [mm]	C2	C3	TD ∅ e9	TK	TL	TM	US	XH	XL
32	71	86	12	16	12	50	45	18	128
40	87	105	16	20	16	63	54	20	145
50	99	117	16	24	16	75	64	25	155
63	116	136	20	24	20	90	75	25	170
80	136	156	20	28	20	110	93	32	188
100	164	189	25	38	25	132	110	32	208

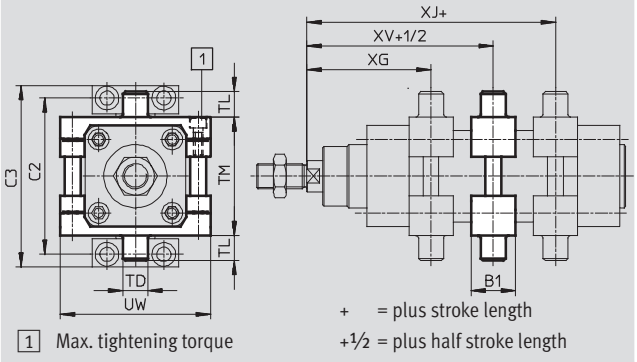
For ∅ [mm]	Basic version				High corrosion protection			
	CRC[1)]	Weight [g]	Part No.	Type	CRC[1)]	Weight [g]	Part No.	Type
32	2	130	**174411**	**ZNCF-32**	4	150	**161852**	**CRZNG-32**
40	2	240	**174412**	**ZNCF-40**	4	260	**161853**	**CRZNG-40**
50	2	390	**174413**	**ZNCF-50**	4	430	**161854**	**CRZNG-50**
63	2	600	**174414**	**ZNCF-63**	4	640	**161855**	**CRZNG-63**
80	2	1,150	**174415**	**ZNCF-80**	4	1,300	**161856**	**CRZNG-80**
100	2	2,030	**174416**	**ZNCF-100**	4	2,400	**161857**	**CRZNG-100**

1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
Corrosion resistance class 4 according to Festo standard 940 070
Components subject to particularly high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

Trunnion mounting kit ZNCM for basic version DNC

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

Materials:
Tempered steel



Dimensions and ordering data

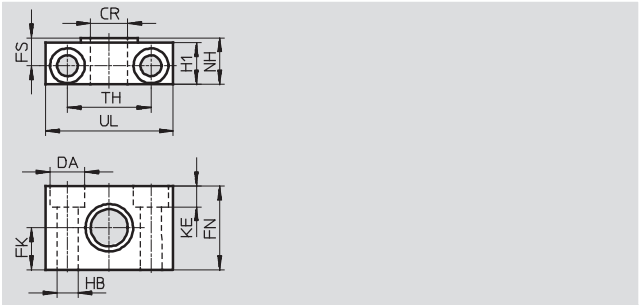
For ∅ [mm]	B1	C2	C3	TD ∅ e9	TL	TM	UW	XG
32	30	71	86	12	12	50	65	66.1
40	32	87	105	16	16	63	75	75.6
50	34	99	117	16	16	75	95	83.6
63	41	116	136	20	20	90	105	93.1
80	44	136	156	20	20	110	130	103.9
100	48	164	189	25	25	132	145	113.8

For ∅ [mm]	XG	XJ	XV	Max. tightening torque [Nm]	CRC[1)]	Weight [g]	Part No.	Type
32	66.1	79.9	73	4+1	2	224	**163525**	**ZNCM-32**
40	75.6	89.4	82.5	8+1	2	396	**163526**	**ZNCM-40**
50	83.6	96.4	90	8+2	2	616	**163527**	**ZNCM-50**
63	93.1	101.9	97.5	18+2	2	931	**163528**	**ZNCM-63**
80	103.9	116.1	110	28+2	2	1,494	**163529**	**ZNCM-80**
100	113.8	126.2	120	28+2	2	2,095	**163530**	**ZNCM-100**

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

Trunnion support LNZG

Materials:
Trunnion support:
Anodised aluminium
Plain bearing: Plastic
Free of copper, PTFE and silicone



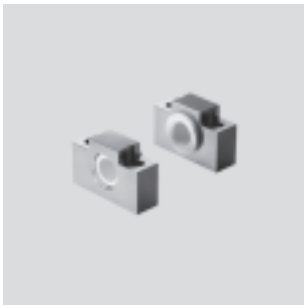
Dimensions and ordering data

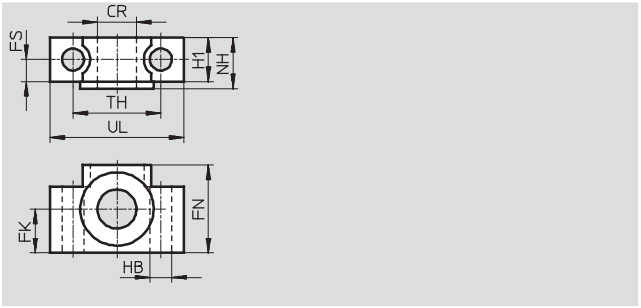
For ∅ [mm]	CR ∅ D11	DA ∅ H13	FK ∅ ±0.1	FN	FS	H1	HB ∅ H13	KE	NH	TH ±0.2	UL	CRC[1]	Weight [g]	Part No.	Type
32	12	11	15	30	10.5	15	6.6	6.8	18	32	46	2	90	**32959**	**LNZG-32**
40, 50	16	15	18	36	12	18	9	9	21	36	55	2	140	**32960**	**LNZG-40/50**
63, 80	20	18	20	40	13	20	11	11	23	42	65	2	190	**32961**	**LNZG-63/80**
100	25	20	25	50	16	24.5	14	13	28.5	50	75	2	320	**32962**	**LNZG-100/125**

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

Trunnion support CRLNZG

Materials:
High-alloy steel
Free of copper, PTFE and silicone





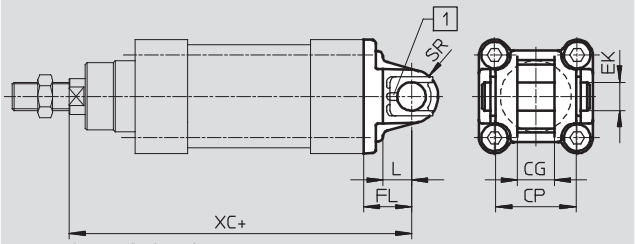
Dimensions and ordering data

For ∅ [mm]	CR ∅ D11	FK ∅ ±0.1	FN	FS	H1	HB ∅ H13	NH	TH ±0.2	UL	CRC[1]	Weight [g]	Part No.	Type
32	12	15	30	10.5	15	6.6	18	32	46	4	200	**161874**	**CRLNZG-32**
40, 50	16	18	36	12	18	9	21	36	55	4	330	**161875**	**CRLNZG-40/50**
63, 80	20	20	40	13	20	11	23	42	65	4	440	**161876**	**CRLNZG-63/80**
100	25	25	50	16	24.5	14	28.5	50	75	4	740	**161877**	**CRLNZG-100**

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

Swivel flange SNC

Materials:
Die-cast aluminium



\+ = plus stroke length
1 The king pin is secured against rotation with a dowel pin

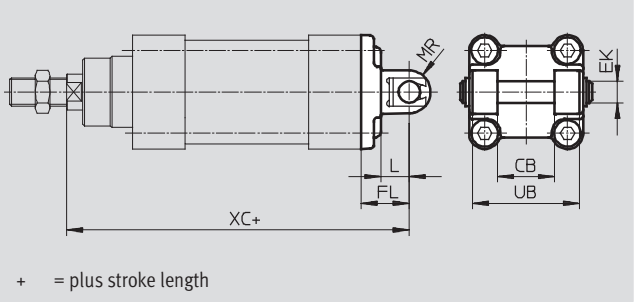
Dimensions and ordering data

For ∅ [mm]	CG H14	CP h14	EK ∅ H9	FL ±0.2	L	SR	XC	KP	CRC[1]	Weight [g]	Part No.	Type
32	14	34	10	22	13	10	142	187	2	90	**174383**	**SNC-32**
40	16	40	12	25	16	12	160	213	2	120	**174384**	**SNC-40**
50	21	45	16	27	16	12	170	237	2	240	**174385**	**SNC-50**
63	21	51	16	32	21	16	190	266	2	320	**174386**	**SNC-63**
80	25	65	20	36	22	16	210	305	2	625	**174387**	**SNC-80**
100	25	75	20	41	27	20	230	328	2	830	**174388**	**SNC-100**

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

Swivel flange
SNCB/SNCB-...-R3

Materials:
SNCB: Die-cast aluminium
SNCB-...-R3: Die-cast aluminium with protective coating, high corrosion protection
Free of copper, PTFE and silicone



\+ = plus stroke length

Dimensions and ordering data

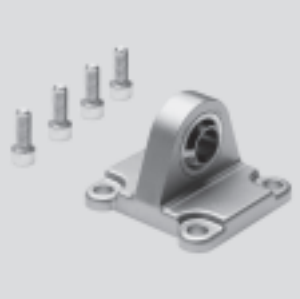
For ∅ [mm]	CB H14	EK ∅ e8	FL ±0.2	L	MR	UB h14	XC
32	26	10	22	13	8.5	45	142
40	28	12	25	16	12	52	160
50	32	12	27	16	12	60	170
63	40	16	32	21	16	70	190
80	50	16	36	22	16	90	210
100	60	20	41	27	20	110	230

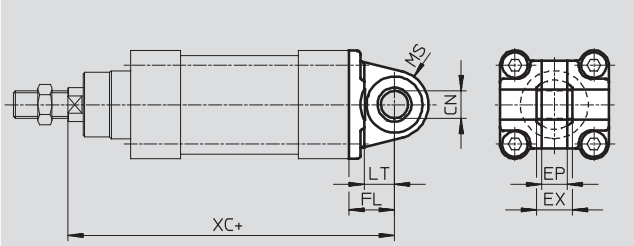
For ∅	Basic version				Variant R3 – High corrosion protection			
	CRC[1]	Weight	Part No.	Type	CRC[1]	Weight	Part No.	Type
[mm]		[g]				[g]		
32	2	100	**174390**	**SNCB-32**	3	100	**176944**	**SNCB-32-R3**
40	2	150	**174391**	**SNCB-40**	3	150	**176945**	**SNCB-40-R3**
50	2	225	**174392**	**SNCB-50**	3	225	**176946**	**SNCB-50-R3**
63	2	365	**174393**	**SNCB-63**	3	365	**176947**	**SNCB-63-R3**
80	2	610	**174394**	**SNCB-80**	3	610	**176948**	**SNCB-80-R3**
100	2	925	**174395**	**SNCB-100**	3	925	**176949**	**SNCB-100-R3**

1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
Corrosion resistance class 3 according to Festo standard 940 070
Components subject to high corrosion stress. External visible parts in direct contact with industrial atmospheres or media such as solvents and cleaning agents, with a predominantly functional requirement for the surface.

Swivel flange SNCS

Materials:
Die-cast aluminium





\+ = plus stroke length

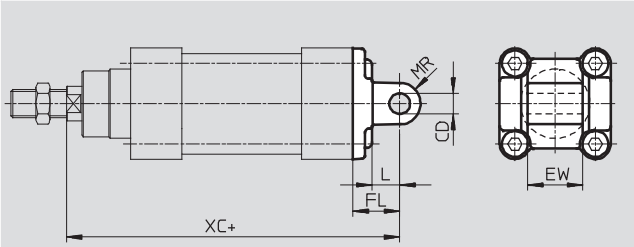
Dimensions and ordering data

For ∅ [mm]	CN ∅ H7	EP ±0.2	EX	FL ±0.2	LT	MS	XC	CRC[1]	Weight [g]	Part No.	Type
32	10	10.5	14	22	13	15	142	2	85	**174397**	**SNCS-32**
40	12	12	16	25	16	17	160	2	125	**174398**	**SNCS-40**
50	16	15	21	27	16	20	170	2	210	**174399**	**SNCS-50**
63	16	15	21	32	21	22	190	2	280	**174400**	**SNCS-63**
80	20	18	25	36	22	27	210	2	540	**174401**	**SNCS-80**
100	20	18	25	41	27	29	230	2	700	**174402**	**SNCS-100**

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

Swivel flange SNCL

Materials:
Die-cast aluminium
Free of copper, PTFE and silicone



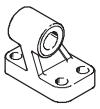
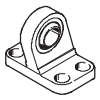
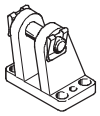
\+ = plus stroke length

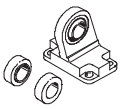
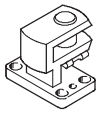
Dimensions and ordering data

For ∅ [mm]	CD ∅ H9	EW −0.2/−0.6	FL ±0.2	L	MR	XC	CRC[1]	Weight [g]	Part No.	Type
32	10	26	22	13	10	142	2	75	**174404**	**SNCL-32**
40	12	28	25	16	12	160	2	100	**174405**	**SNCL-40**
50	12	32	27	16	12	170	2	160	**174406**	**SNCL-50**
63	16	40	32	21	16	190	2	250	**174407**	**SNCL-63**
80	16	50	36	22	16	210	2	405	**174408**	**SNCL-80**
100	20	60	41	27	20	230	2	655	**174409**	**SNCL-100**

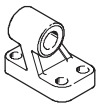
1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Ordering data – Mounting attachments — Technical data ➔ Internet: clevis foot

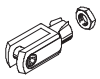
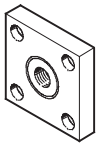
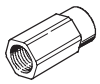
Designation	For ∅	Part No.	Type
Clevis foot LNG			
	32	**33890**	**LNG-32**
	40	**33891**	**LNG-40**
	50	**33892**	**LNG-50**
	63	**33893**	**LNG-63**
	80	**33894**	**LNG-80**
	100	**33895**	**LNG-100**
Clevis foot LSNG			
	32	**31740**	**LSNG-32**
	40	**31741**	**LSNG-40**
	50	**31742**	**LSNG-50**
	63	**31743**	**LSNG-63**
	80	**31744**	**LSNG-80**
	100	**31745**	**LSNG-100**
Clevis foot LBG			
	32	**31761**	**LBG-32**
	40	**31762**	**LBG-40**
	50	**31763**	**LBG-50**
	63	**31764**	**LBG-63**
	80	**31765**	**LBG-80**
	100	**31766**	**LBG-100**

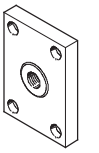
Designation	For ∅	Part No.	Type
Clevis foot LSN			
	32	**5561**	**LSN-32**
	40	**5562**	**LSN-40**
	50	**5563**	**LSN-50**
	63	**5564**	**LSN-63**
	80	**5565**	**LSN-80**
	100	**5566**	**LSN-100**
Clevis foot LSNSG			
	32	**31747**	**LSNSG-32**
	40	**31748**	**LSNSG-40**
	50	**31749**	**LSNSG-50**
	63	**31750**	**LSNSG-63**
	80	**31751**	**LSNSG-80**
	100	**31752**	**LSNSG-100**
Right-angle clevis foot LQG			
	32	**31768**	**LQG-32**
	40	**31769**	**LQG-40**
	50	**31770**	**LQG-50**
	63	**31771**	**LQG-63**
	80	**31772**	**LQG-80**
	100	**31773**	**LQG-100**

Ordering data – Mounting attachments, corrosion-resistant — Technical data ➔ Internet: crlng

Designation	For ∅	Part No.	Type
Clevis foot CRLNG			
	32	**161840**	**CRLNG-32**
	40	**161841**	**CRLNG-40**
	50	**161842**	**CRLNG-50**
	63	**161843**	**CRLNG-63**
	80	**161844**	**CRLNG-80**
	100	**161845**	**CRLNG-100**

Ordering data – Piston rod attachments — Technical data ➔ Internet: piston rod attachments

Designation	For ∅	Part No.	Type
Rod eye SGS			
	32	**9261**	**SGS-M10x1,25**
	40	**9262**	**SGS-M12x1,25**
	50	**9263**	**SGS-M16x1,5**
	63		
	80	**9264**	**SGS-M20x1,5**
	100		
Rod clevis SG			
	32	**6144**	**SG-M10x1,25**
	40	**6145**	**SG-M12x1,25**
	50	**6146**	**SG-M16x1,5**
	63		
	80	**6147**	**SG-M20x1,5**
	100		
Coupling piece KSG			
	32	**32963**	**KSG-M10x1,25**
	40	**32964**	**KSG-M12x1,25**
	50	**32965**	**KSG-M16x1,5**
	63		
	80	**32966**	**KSG-M20x1,5**
	100		
Adapter AD			
	32	**157333**	**AD-M10x1,25-⅛**
		157334	**AD-M10x1,25-¼**
	40	**160256**	**AD-M12x1,25-¼**
		160257	**AD-M12x1,25-⅜**

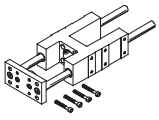
Designation	For ∅	Part No.	Type
Rod clevis SGA			
	32	**32954**	**SGA-M10x1,25**
	40	**10767**	**SGA-M12x1,25**
	50	**10768**	**SGA-M16x1,5**
	63		
	80	**10769**	**SGA-M20x1,5**
	100		
Self-aligning rod coupler FK			
	32	**6140**	**FK-M10x1,25**
	40	**6141**	**FK-M12x1,25**
	50	**6142**	**FK-M16x1,5**
	63		
	80	**6143**	**FK-M20x1,5**
	100		
Coupling piece KSZ			
	32	**36125**	**KSZ-M10x1,25**
	40	**36126**	**KSZ-M12x1,25**
	50	**36127**	**KSZ-M16x1,5**
	63		
	80	**36128**	**KSZ-M20x1,5**
	100		

Ordering data – Piston rod attachments, corrosion-resistant — Technical data ➔ Internet: crsg

Designation	For ∅	Part No.	Type
Rod eye CRSGS			
	32	**195582**	**CRSGS-M10x1,25**
	40	**195583**	**CRSGS-M12x1,25**
	50	**195584**	**CRSGS-M16x1,5**
	63		
	80	**195585**	**CRSGS-M20x1,5**
	100		

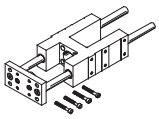
Designation	For ∅	Part No.	Type
Rod clevis CRSG			
	32	**13569**	**CRSG-M10x1,25**
	40	**13570**	**CRSG-M12x1,25**
	50	**13571**	**CRSG-M16x1,5**
	63		
	80	**13572**	**CRSG-M20x1,5**
	100		

Ordering data – Guide units for fixed strokes (recirculating ball bearing guide only) — Technical data ➔ Internet: feng



Stroke [mm]	Part No.	Type	Stroke [mm]	Part No.	Type
For ∅ 32 mm			For ∅ 40 mm		
10 … 50	**34493**	**FENG-32-50-KF**	10 … 50	**34499**	**FENG-40-50-KF**
10 … 100	**34494**	**FENG-32-100-KF**	10 … 100	**34500**	**FENG-40-100-KF**
10 … 160	**34495**	**FENG-32-160-KF**	10 … 160	**34501**	**FENG-40-160-KF**
10 … 200	**34496**	**FENG-32-200-KF**	10 … 200	**34502**	**FENG-40-200-KF**
10 … 250	**150289**	**FENG-32-250-KF**	10 … 250	**34503**	**FENG-40-250-KF**
10 … 320	**34497**	**FENG-32-320-KF**	10 … 320	**34504**	**FENG-40-320-KF**
10 … 400	**150290**	**FENG-32-400-KF**	10 … 400	**150291**	**FENG-40-400-KF**
10 … 500	**34498**	**FENG-32-500-KF**	10 … 500	**34505**	**FENG-40-500-KF**
For ∅ 50 mm			For ∅ 63 mm		
10 … 50	**34506**	**FENG-50-50-KF**	10 … 50	**34513**	**FENG-63-50-KF**
10 … 100	**34507**	**FENG-50-100-KF**	10 … 100	**34514**	**FENG-63-100-KF**
10 … 160	**34508**	**FENG-50-160-KF**	10 … 160	**34515**	**FENG-63-160-KF**
10 … 200	**34509**	**FENG-50-200-KF**	10 … 200	**34516**	**FENG-63-200-KF**
10 … 250	**34510**	**FENG-50-250-KF**	10 … 250	**34517**	**FENG-63-250-KF**
10 … 320	**34511**	**FENG-50-320-KF**	10 … 320	**34518**	**FENG-63-320-KF**
10 … 400	**150292**	**FENG-50-400-KF**	10 … 400	**34519**	**FENG-63-400-KF**
10 … 500	**34512**	**FENG-50-500-KF**	10 … 500	**34520**	**FENG-63-500-KF**
For ∅ 80 mm			For ∅ 100 mm		
10 … 50	**34521**	**FENG-80-50-KF**	10 … 50	**34529**	**FENG-100-50-KF**
10 … 100	**34522**	**FENG-80-100-KF**	10 … 100	**34530**	**FENG-100-100-KF**
10 … 160	**34523**	**FENG-80-160-KF**	10 … 160	**34531**	**FENG-100-160-KF**
10 … 200	**34524**	**FENG-80-200-KF**	10 … 200	**34532**	**FENG-100-200-KF**
10 … 250	**34525**	**FENG-80-250-KF**	10 … 250	**34533**	**FENG-100-250-KF**
10 … 320	**34526**	**FENG-80-320-KF**	10 … 320	**34534**	**FENG-100-320-KF**
10 … 400	**34527**	**FENG-80-400-KF**	10 … 400	**34535**	**FENG-100-400-KF**
10 … 500	**34528**	**FENG-80-500-KF**	10 … 500	**34536**	**FENG-100-500-KF**

Ordering data – Guide units for variable strokes — Technical data ➔ Internet: feng

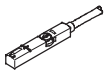
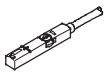


For ∅ [mm]	Stroke [mm]	With recirculating ball bearing guide Part No.	Type	For ∅ [mm]	Stroke [mm]	With plain-bearing guide Part No.	Type
32	10 … 500	**34487**	**FENG-32-…-KF**	32	10 … 500	**34481**	**FENG-32-…**
40	10 … 500	**34488**	**FENG-40-…-KF**	40	10 … 500	**34482**	**FENG-40-…**
50	10 … 500	**34489**	**FENG-50-…-KF**	50	10 … 500	**34483**	**FENG-50-…**
63	10 … 500	**34490**	**FENG-63-…-KF**	63	10 … 500	**34484**	**FENG-63-…**
80	10 … 500	**34491**	**FENG-80-…-KF**	80	10 … 500	**34485**	**FENG-80-…**
100	10 … 500	**34492**	**FENG-100-…-KF**	100	10 … 500	**34486**	**FENG-100-…**

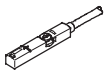
Ordering data – Slot cover for T-slot

Assembly	Length	Part No.	Type
Insertable from above	2x 0.5 m	**151680**	**ABP-5-S**

Ordering data – Proximity sensors for T-slot, magneto-resistive — Technical data ➔ Internet: smt

	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in the slot from above, flush with the cylinder profile	PNP	Cable, 3-wire	2.5	**543867**	**SMT-8M-PS-24V-K-2,5-OE**
			Plug M8x1, 3-pin	0.3	**543866**	**SMT-8M-PS-24V-K-0,3-M8D**
			Plug M12x1, 3-pin	0.3	**543869**	**SMT-8M-PS-24V-K-0,3-M12**
		NPN	Cable, 3-wire	2.5	**543870**	**SMT-8M-NS-24V-K-2,5-OE**
			Plug M8x1, 3-pin	0.3	**543871**	**SMT-8M-NS-24V-K-0,3-M8D**
N/C contact						
	Insertable in the slot from above, flush with the cylinder profile	PNP	Cable, 3-wire	7.5	**543873**	**SMT-8M-PO-24V-K7,5-OE**

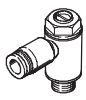
Ordering data – Proximity sensors for T-slot, magnetic reed — Technical data ➔ Internet: sme

	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in the slot from above, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	**543862**	**SME-8M-DS-24V-K-2,5-OE**
				5.0	**543863**	**SME-8M-DS-24V-K-5,0-OE**
			Cable, 2-wire	2.5	**543872**	**SME-8M-ZS-24V-K-2,5-OE**
			Plug M8x1, 3-pin	0.3	**543861**	**SME-8M-DS-24V-K-0,3-M8D**
N/C contact						
	Insertable in the slot from above, flush with the cylinder profile	Contacting	Cable, 3-wire	7.5	**546799**	**SME-8M-DO-24V-K-7,5-OE**

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	**541333**	**NEBU-M8G3-K-2.5-LE3**
			5	**541334**	**NEBU-M8G3-K-5-LE3**
	Straight socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	**541363**	**NEBU-M12G5-K-2.5-LE3**
			5	**541364**	**NEBU-M12G5-K-5-LE3**
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	**541338**	**NEBU-M8W3-K-2.5-LE3**
			5	**541341**	**NEBU-M8W3-K-5-LE3**
	Angled socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	**541367**	**NEBU-M12W5-K-2.5-LE3**
			5	**541370**	**NEBU-M12W5-K-5-LE3**

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

	Connection		Material	Part No.	Type
	Thread	For tubing O.D.			
	G1/8	3	Metal design	**193142**	**GRLA-1/8-QS-3-D**
		4		**193143**	**GRLA-1/8-QS-4-D**
		6		**193144**	**GRLA-1/8-QS-6-D**
		8		**193145**	**GRLA-1/8-QS-8-D**
	G1/4	6		**193146**	**GRLA-1/4-QS-6-D**
		8		**193147**	**GRLA-1/4-QS-8-D**
		10		**193148**	**GRLA-1/4-QS-10-D**
	G3/8	6		**193149**	**GRLA-3/8-QS-6-D**
		8		**193150**	**GRLA-3/8-QS-8-D**
		10		**193151**	**GRLA-3/8-QS-10-D**
	G1/2	12		**193152**	**GRLA-1/2-QS-12-D**

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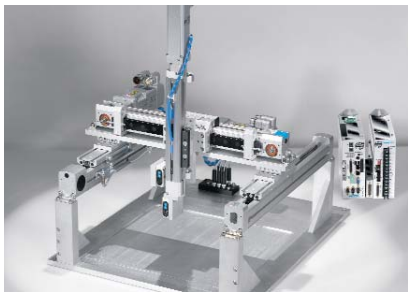

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