

Standard cylinders DNC-C180, to ISO 15552

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Standard cylinders DNC-C180, to ISO 15552

Key features

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At a glance

Sensor slots on the compressed air connection side



- Standards-based cylinders to ISO 15552 (corresponds to the withdrawn standards ISO 6431, DIN ISO 6431, VDMA 24 562, NF E 49 003.1 and UNI 10290)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



- 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

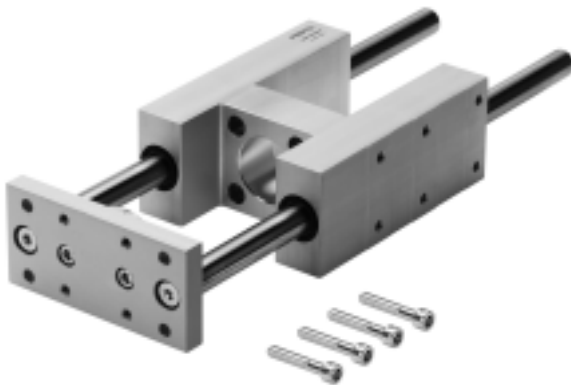
Contactless sensing

- 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.

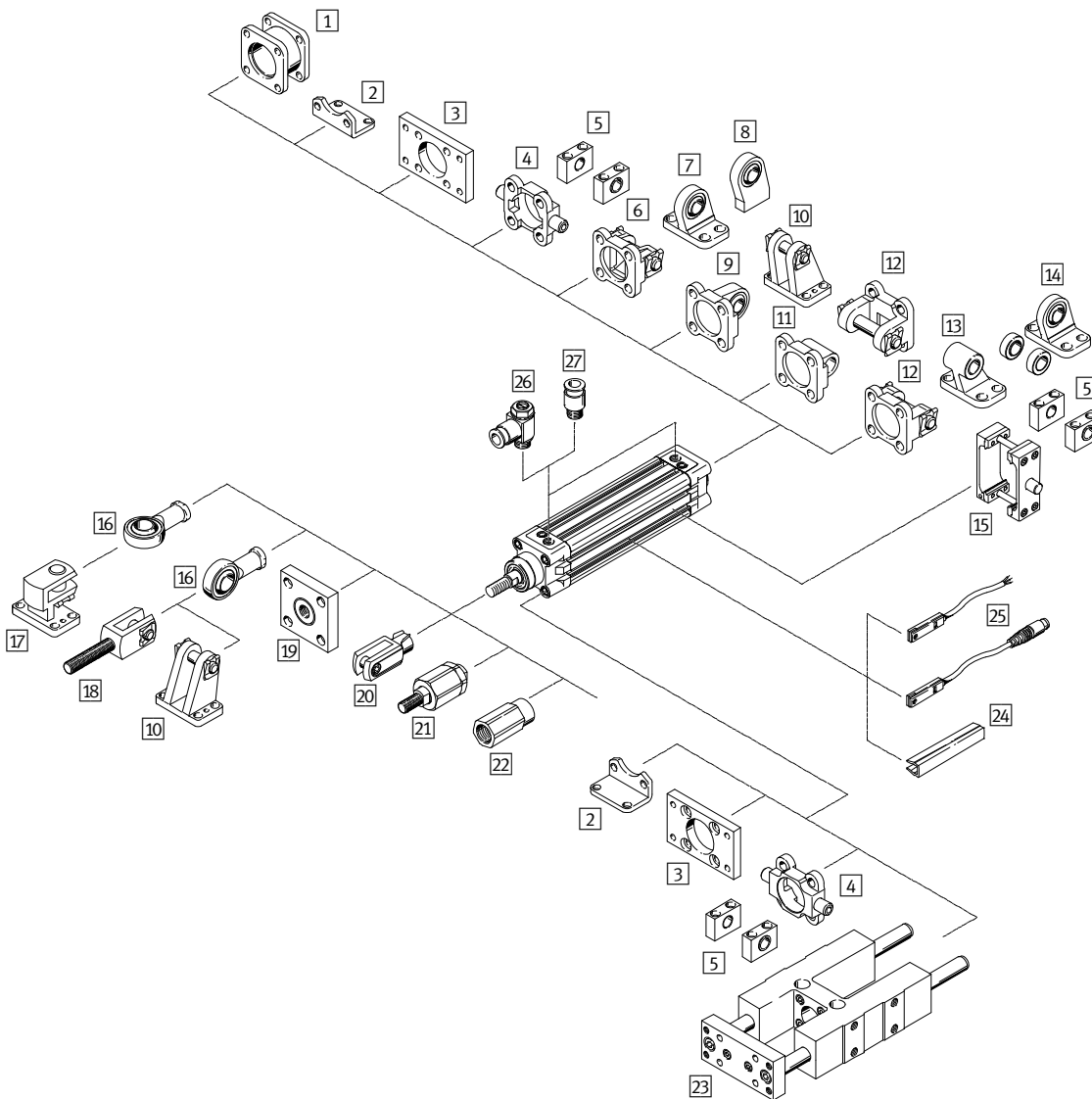
Standard cylinders DNC-C180, to ISO 15552

Type codes

	DNC	–	80	–	320	–	PPV	–	A	–	C180
Type											
Double-acting											
DNC	Standard cylinder										
Piston Ø [mm]											
Stroke [mm]											
Cushioning											
PPV	Pneumatic cushioning, adjustable at both ends										
Position sensing											
A	Via proximity sensor										
Variant											
C180	Sensor slots on the compressed air connection side										

Standard cylinders DNC-C180, to ISO 15552

Peripherals overview



Mounting attachments and accessories			
	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 ZNC/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

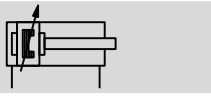
Mounting attachments and accessories		
	Description	→ Page/ Internet
9	Swivel flange SNCS	With spherical bearing for end caps 18
10	Clevis foot LBG	– 19
11	Swivel flange SNCL	For end caps 18
12	Swivel flange SNCB/SNCB-...-R3	For end caps 17
13	Clevis foot LNG/CRLNG	– 19
14	Clevis foot LSN	With spherical bearing 19
15	Trunnion mounting kit DAMT	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/CRFK	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



DIN



Ø - Diameter
32 ... 100 mm

l - Stroke length
2 ... 2000 mm

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Wearing parts kits
→ 24

General technical data						
Piston Ø	32	40	50	63	80	100
Pneumatic connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{3}{8}$	G $\frac{1}{2}$
Piston rod thread	M10x1.25	M12x1.25	M16x1.5	M16x1.5	M20x1.5	M20x1.5
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 to ISO 228-1

Operating and environmental conditions	
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:4:4]
Note on operating/pilot medium	Operation with lubricated medium possible (in which case lubricated operation will always be required)
Operating pressure [bar]	0.6 ... 12
Ambient temperature ¹⁾ [°C]	-20 ... +80
Corrosion resistance class CRC ²⁾	2

1) Note operating range of proximity sensors.

2) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Force [N] and impact energy [J]						
Piston Ø	32	40	50	63	80	100
Theoretical force at 6 bar, advancing	483	754	1178	1870	3016	4712
Theoretical force at 6 bar, retracting	415	633	990	1682	2721	4418
Max. impact energy in the end positions	0.1	0.2	0.2	0.5	0.9	1.2

Permissible impact velocity:

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

$v_{\text{perm.}}$ Permissible impact velocity

$E_{\text{perm.}}$ Max. impact energy

$m_{\text{intrinsic}}$ Moving load (drive)

m_{load} Moving effective load

Maximum permissible load:

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

Note

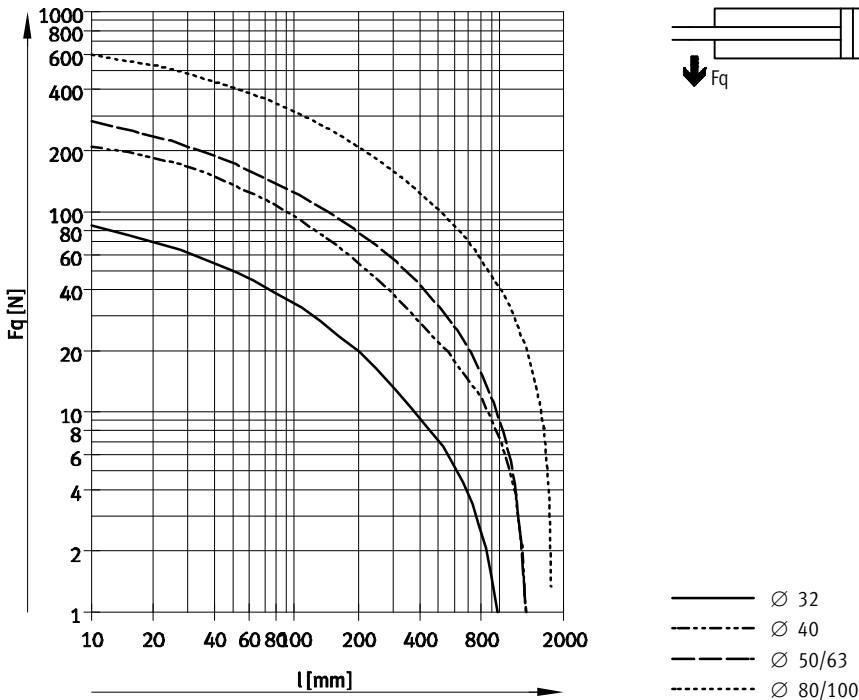
This data represents the maximum values that can be achieved. The maximum permissible impact energy must be observed.

Standard cylinders DNC-C180, to ISO 15552

Technical data

Lateral force F_q as a function of stroke length l

Basic version

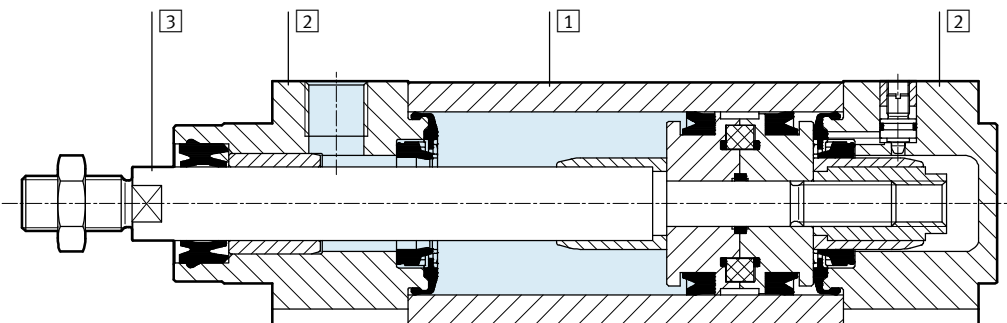


Weight [g]

Piston Ø	32	40	50	63	80	100
Product weight with 0 mm stroke	517	800	1260	1709	2790	4653
Additional weight per 10 mm stroke	30	45	64	73	106	115
Moving load with 0 mm stroke	162	307	538	663	1131	1544
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

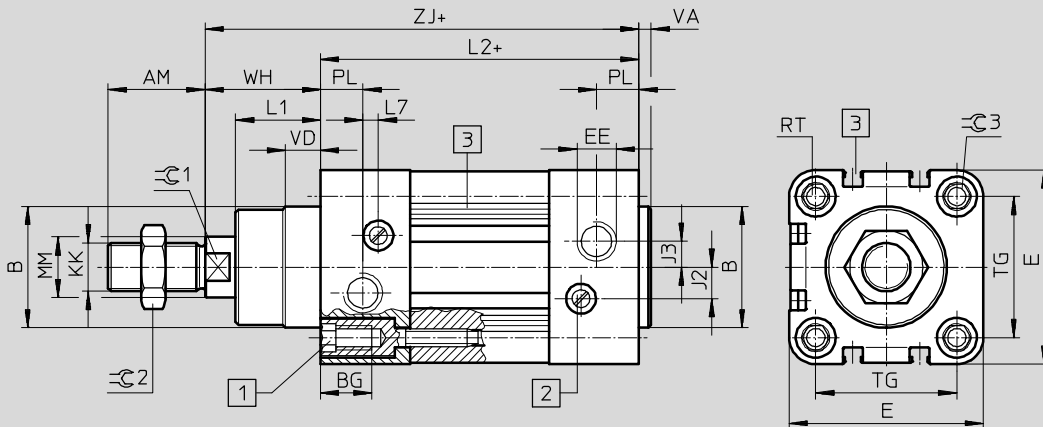
Standard cylinders DNC-C180, to ISO 15552

Technical data

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Dimensions

Download CAD data → www.festo.com



- 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


∅	AM	B ∅ d11	BG	E	EE	J2	J3	KK	L1	L2	L7
32	22	30	16	45	G $\frac{1}{8}$	6	5.2	M10x1.25	18	94	3.3
40	24	35	16	54	G $\frac{1}{4}$	8	6	M12x1.25	21.5	105	3.6
50	32	40	17	64	G $\frac{1}{4}$	10.4	8.5	M16x1.5	28	106	5.1
63	32	45	17	75	G $\frac{3}{8}$	12.4	10	M16x1.5	28.5	121	6.6
80	40	45	17	93	G $\frac{3}{8}$	12.5	8	M20x1.5	34.7	128	10.5
100	40	55	17	110	G $\frac{1}{2}$	12	10	M20x1.5	38.2	138	8

∅	MM ∅	PL	RT	TG	VA	VD	WH	ZJ	⌀1	⌀2	⌀3
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 to ISO 228-1

Standard cylinders DNC-C180, to ISO 15552

Technical data

Ordering data								
Type	Piston Ø [mm]	Stroke [mm]	With position sensing		Piston Ø [mm]	Stroke [mm]	With position sensing	
			Part No.	Type ¹⁾			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 Ø [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

Standard cylinders DNC-C180, to ISO 15552

Accessories



Multi-position kit DPNC

Materials:

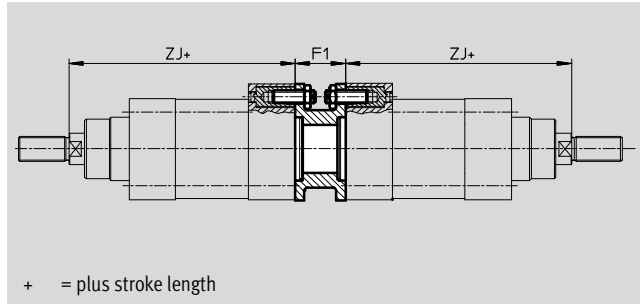
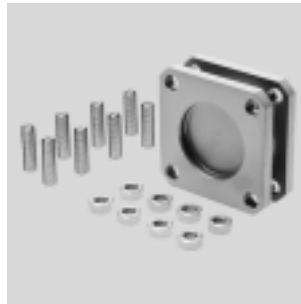
Flange: Wrought aluminium alloy

Threaded studs, hex nuts:


Galvanised steel

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data						
For Ø	F1	ZJ	Max. overall stroke length	Weight	Part No.	Type
[mm]			[mm]	[g]		
32	27	120	1000	292	174418	DPNC-32
40	27	135	1000	410	174419	DPNC-40
50	32	143	1000	335	174420	DPNC-50
63	28	158	1000	390	174421	DPNC-63
80	38	174	1000	847	174422	DPNC-80
100	38	189	1000	1200	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.

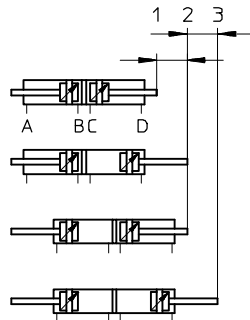
This means that depending on actuation and stroke division, this type of cylinder can assume up to four

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.

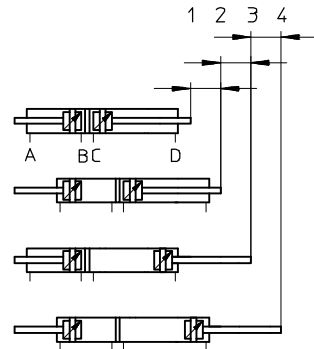
To achieve 3 positions

Two cylinders with identical stroke length must be connected together.



To achieve 4 positions

Two cylinders with different stroke lengths must be connected together.



Standard cylinders DNC-C180, to ISO 15552

Accessories

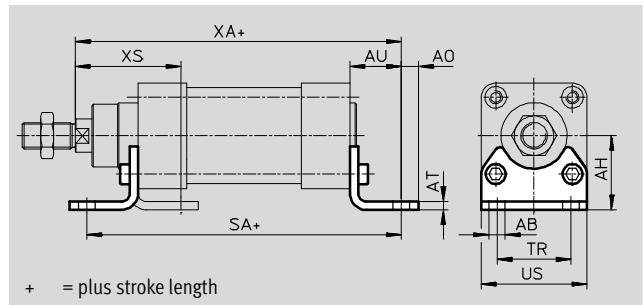
Foot mounting HNC/CRHNC

Materials:

HNC: Galvanised steel

CRHNC: High-alloy steel

Free of copper and PTFE



Dimensions and ordering data										
For \varnothing	AB \varnothing	AH	AO	AT	AU	SA	TR	US	XA	XS
[mm]										
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 \varnothing	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	1009	174374	HNC-100	4	990	176942	CRHNC-100

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
 Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.
 Corrosion resistance class CRC 4 to Festo standard FN 940070
 Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (➔ also FN 940082) using appropriate media.

Standard cylinders DNC-C180, to ISO 15552

Accessories



Flange mounting FNC/CRFNG

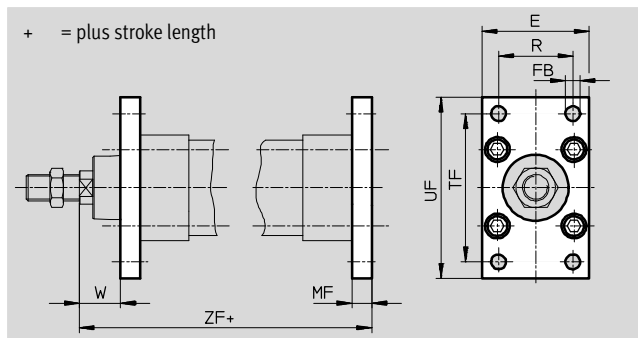
Materials:

FNC: Galvanised steel

CRFNG: High-alloy steel

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data

For \varnothing [mm]	E	FB \varnothing 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 \varnothing [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	220	161846	CRFNG-32
40	1	291	174377	FNC-40	4	291	161847	CRFNG-40
50	1	536	174378	FNC-50	4	526	161848	CRFNG-50
63	1	679	174379	FNC-63	4	680	161849	CRFNG-63
80	1	1495	174380	FNC-80	4	1508	161850	CRFNG-80
100	1	2041	174381	FNC-100	4	2054	161851	CRFNG-100

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

Standard cylinders DNC-C180, to ISO 15552

Accessories

Trunnion flange ZNCF/CRZNG

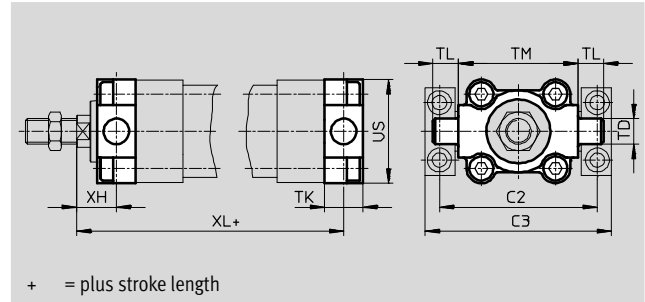
Materials:

ZNCF: Stainless steel casting

CRZNG: Electropolished stainless steel casting

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data									
For \varnothing	C2	C3	TD	TK	TL	TM	US	XH	XL
[mm]			\varnothing e9						
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 \varnothing	Basic version				High corrosion protection			
	CRC ¹⁾	Weight [g]	Part No.	Type	CRC ¹⁾	Weight [g]	Part No.	Type
[mm]								
32	2	150	174411	ZNCF-32	4	150	161852	CRZNG-32
40	2	285	174412	ZNCF-40	4	285	161853	CRZNG-40
50	2	473	174413	ZNCF-50	4	473	161854	CRZNG-50
63	2	687	174414	ZNCF-63	4	687	161855	CRZNG-63
80	2	1296	174415	ZNCF-80	4	1296	161856	CRZNG-80
100	2	2254	174416	ZNCF-100	4	2254	161857	CRZNG-100

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

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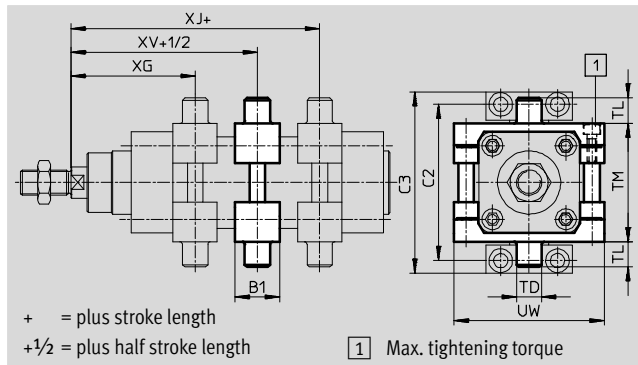


Accessories

Trunnion mounting kit DAMT for basic version DNC

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

Materials:
Tempered steel
Free of copper and PTFE



Dimensions and ordering data								
For \varnothing	B1	C2	C3	TD \varnothing e9	TL	TM	UW	XG
[mm]								
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 \varnothing	XG	XJ	XV	Max. tightening torque [Nm]	CRC ¹⁾	Weight [g]	Part No.	Type
[mm]								
32	66.1	79.9	73	4+1	2	213	2213233	DAMT-V1-32-A
40	75.6	89.4	82.5	8+1	2	388	2214899	DAMT-V1-40-A
50	83.6	96.4	90	8+2	2	608	2214909	DAMT-V1-50-A
63	93.1	101.9	97.5	18+2	2	911	2214971	DAMT-V1-63-A
80	103.9	116.1	110	28+2	2	1494	163529	DAMT-V1-80-A
100	113.8	126.2	120	28+2	2	2095	163530	DAMT-V1-100-A

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Standard cylinders DNC-C180, to ISO 15552

Accessories

Trunnion support LNZG

Materials:

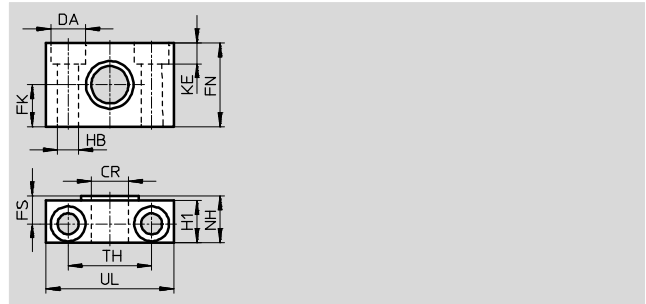
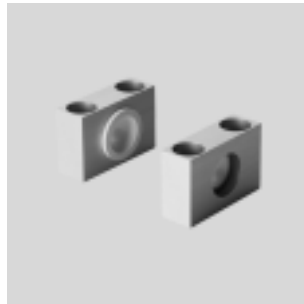
Trunnion support:

Anodised aluminium

Plain bearing: Plastic

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data														Weight	Part No.	Type
For \varnothing	CR	DA	FK	FN	FS	H1	HB	KE	NH	TH	UL	CRC ¹⁾				
[mm]	\varnothing D11	\varnothing H13	\varnothing ± 0.1				\varnothing H13			± 0.2				[g]		
32	12	11	15	30	10.5	15	6.6	6.8	18	32	46	2		83	32959	LNZG-32
40, 50	16	15	18	36	12	18	9	9	21	36	55	2		129	32960	LNZG-40/50
63, 80	20	18	20	40	13	20	11	11	23	42	65	2		178	32961	LNZG-63/80
100	25	20	25	50	16	24.5	14	13	28.5	50	75	2		306	32962	LNZG-100/125

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

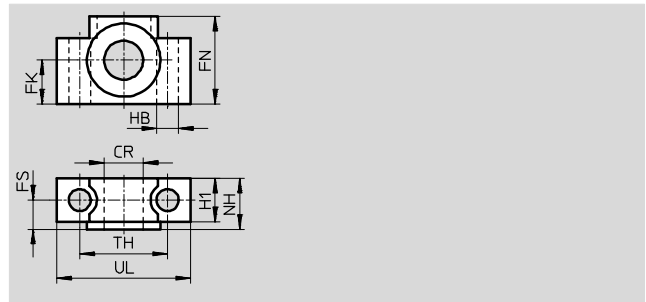
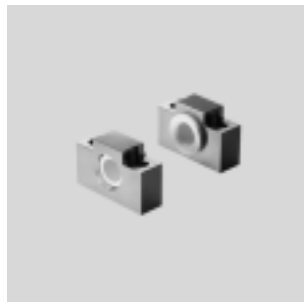
Trunnion support CRLNZG

Materials:

High-alloy steel

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data														Weight	Part No.	Type
For \varnothing	CR	FK	FN	FS	H1	HB	NH	TH	UL	CRC ¹⁾						
[mm]	\varnothing D11	\varnothing ± 0.1				\varnothing H13		± 0.2						[g]		
32	12	15	30	10.5	15	6.6	18	32	46	4				205	161874	CRLNZG-32
40, 50	16	18	36	12	18	9	21	36	55	4				323	161875	CRLNZG-40/50
63, 80	20	20	40	13	20	11	23	42	65	4				435	161876	CRLNZG-63/80
100	25	25	50	16	24.5	14	28.5	50	75	4				739	161877	CRLNZG-100

1) Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

Standard cylinders DNC-C180, to ISO 15552



Accessories

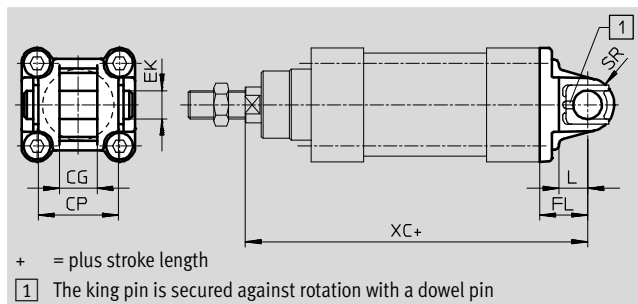
Swivel flange SNC

Materials:

Die-cast aluminium

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data												
For \varnothing	CG	CP	EK	FL	L	SR	XC		CRC ¹⁾	Weight	Part No.	Type
[mm]	H14	h14	\varnothing H9	± 0.2				KP		[g]		
32	14	34	10	22	13	10	142	187	2	93	174383	SNC-32
40	16	40	12	25	16	12	160	213	2	140	174384	SNC-40
50	21	45	16	27	16	12	170	237	2	234	174385	SNC-50
63	21	51	16	32	21	16	190	266	2	331	174386	SNC-63
80	25	65	20	36	22	16	210	305	2	618	174387	SNC-80
100	25	75	20	41	27	20	230	328	2	865	174388	SNC-100

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

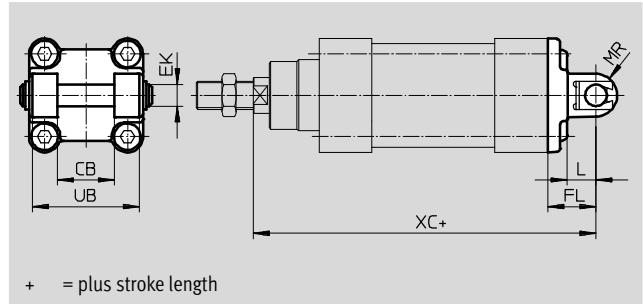
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Standard cylinders DNC-C180, to ISO 15552

Accessories

Swivel flange SNCB/SNCB-...-R3

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



Dimensions and ordering data							
For Ø	CB	EK	FL	L	MR	UB	XC
[mm]	H14	Ø e8	±0.2			h14	
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 Ø [mm]	Basic version				Variant R3 – High corrosion protection			
	CRC ¹⁾	Weight [g]	Part No.	Type	CRC ¹⁾	Weight [g]	Part No.	Type
32	2	103	174390	SNCB-32	3	100	176944	SNCB-32-R3
40	2	155	174391	SNCB-40	3	151	176945	SNCB-40-R3
50	2	232	174392	SNCB-50	3	228	176946	SNCB-50-R3
63	2	375	174393	SNCB-63	3	371	176947	SNCB-63-R3
80	2	636	174394	SNCB-80	3	632	176948	SNCB-80-R3
100	2	1035	174395	SNCB-100	3	986	176949	SNCB-100-R3

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
 Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.
 Corrosion resistance class CRC 4 to Festo standard FN 940070
 Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

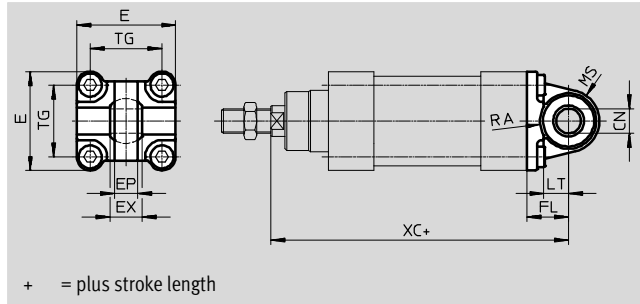
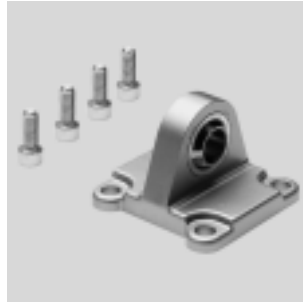
Standard cylinders DNC-C180, to ISO 15552



Accessories

Swivel flange SNCS

Materials:
 SNCS 32 ... 80:
 Die-cast aluminium
 SNCS 100:
 Wrought aluminium alloy
 Free of copper and PTFE
 RoHS-compliant

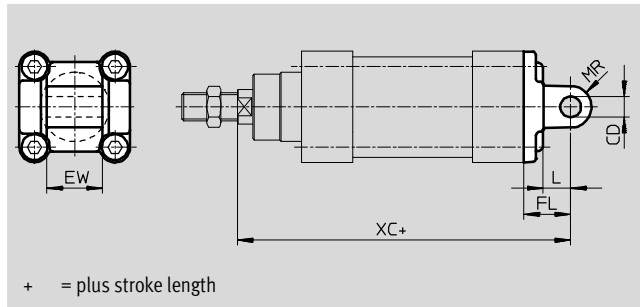


Dimensions and ordering data														
For \varnothing	CN	E	EP	EX	FL	LT	MS	RA	TG	XC	CRC ¹⁾	Weight	Part No.	Type
[mm]	\varnothing		± 0.2		± 0.2			+1				[g]		
32	10 ^{+0.013}	45 ^{+0.2/-0.5}	10.5	14	22	13	15 ^{+0.5}	14.5	32.5	142	2	86	174397	SNCS-32
40	12 ^{+0.015}	54 ^{-0.5}	12	16	25	16	17 ^{+0.5}	17.5	38	160	2	122	174398	SNCS-40
50	16 ^{+0.015}	64 ^{-0.6}	15	21	27	16	20 ^{+0.5}	18.5	46.5	170	2	216	174399	SNCS-50
63	16 ^{+0.015}	75 ^{-0.6}	15	21	32	21	23 ^{-0.5}	23	56.5	190	2	281	174400	SNCS-63
80	20 ^{+0.018}	93 ^{-0.8}	18	25	36	22	28 ^{-0.5}	25	72	210	2	557	174401	SNCS-80
100	20 ^{+0.018}	109 ^{+1/-0.7}	18	25	41	27	30 ± 0.5	95	89	230	2	683	174402	SNCS-100

19 Corrosion resistance class CRC 2 to Festo standard FN 940070
 Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Swivel flange SNCL

Materials:
 Die-cast aluminium
 Free of copper and PTFE
 RoHS-compliant

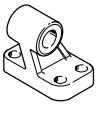
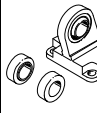


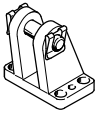
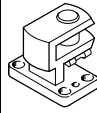


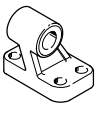
Dimensions and ordering data										
For \varnothing	CD	EW	FL	L	MR	XC	CRC ¹⁾	Weight	Part No.	Type
[mm]	\varnothing	H9	$-0.2/-0.6$	± 0.2				[g]		
32	10	26	22	13	10	142	2	71	174404	SNCL-32
40	12	28	25	16	12	160	2	95	174405	SNCL-40
50	12	32	27	16	12	170	2	158	174406	SNCL-50
63	16	40	32	21	16	190	2	225	174407	SNCL-63
80	16	50	36	22	16	210	2	436	174408	SNCL-80
100	20	60	41	27	20	230	2	606	174409	SNCL-100

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
 Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Standard cylinders DNC-C180, to ISO 15552

Accessories






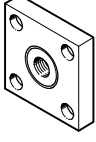
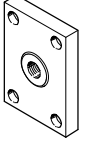

Ordering data – Mounting attachments				Technical data → Internet: clevis foot			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Clevis foot LNG				Clevis foot LSN			
	32	33890	LNG-32		32	5561	LSN-32
	40	33891	LNG-40		40	5562	LSN-40
	50	33892	LNG-50		50	5563	LSN-50
	63	33893	LNG-63		63	5564	LSN-63
	80	33894	LNG-80		80	5565	LSN-80
	100	33895	LNG-100		100	5566	LSN-100
Clevis foot LSNG				Clevis foot LSNSG			
	32	31740	LSNG-32		32	31747	LSNSG-32
	40	31741	LSNG-40		40	31748	LSNSG-40
	50	31742	LSNG-50		50	31749	LSNSG-50
	63	31743	LSNG-63		63	31750	LSNSG-63
	80	31744	LSNG-80		80	31751	LSNSG-80
	100	31745	LSNG-100		100	31752	LSNSG-100
Clevis foot LBG				Right-angle clevis foot LQG			
	32	31761	LBG-32		32	31768	LQG-32
	40	31762	LBG-40		40	31769	LQG-40
	50	31763	LBG-50		50	31770	LQG-50
	63	31764	LBG-63		63	31771	LQG-63
	80	31765	LBG-80		80	31772	LQG-80
	100	31766	LBG-100		100	31773	LQG-100




Ordering data – Mounting attachments, corrosion-resistant				Technical data → Internet: crlng			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Clevis foot CRLNG				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

Standard cylinders DNC-C180, to ISO 15552

Accessories

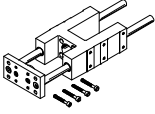
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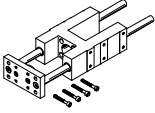
Ordering data – Piston rod attachments				Technical data → Internet: piston rod attachments			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Rod eye SGS				Rod clevis SGA			
	32	9261	SGS-M10x1,25		32	32954	SGA-M10x1,25
	40	9262	SGS-M12x1,25		40	10767	SGA-M12x1,25
	50	9263	SGS-M16x1,5		50	10768	SGA-M16x1,5
	63						
	80				9264		
	100						
Rod clevis SG				Self-aligning rod coupler FK			
	32	6144	SG-M10x1,25		32	6140	FK-M10x1,25
	40	6145	SG-M12x1,25		40	6141	FK-M12x1,25
	50	6146	SG-M16x1,5		50	6142	FK-M16x1,5
	63						
	80	6147	SG-M20x1,5	80	6143	FK-M20x1,5	
	100						
Coupling piece KSG				Coupling piece KSZ			
	32	32963	KSG-M10x1,25		32	36125	KSZ-M10x1,25
	40	32964	KSG-M12x1,25		40	36126	KSZ-M12x1,25
	50	32965	KSG-M16x1,5		50	36127	KSZ-M16x1,5
	63						
	80				32966		
	100						
Adapter AD							
	32	157333	AD-M10x1,25-1/8				
		157334	AD-M10x1,25-1/4				
	40	160256	AD-M12x1,25-1/4				
		160257	AD-M12x1,25-3/8				


Ordering data – Piston rod attachments, corrosion-resistant				Technical data → Internet: crsg			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Rod eye CRSGS				Rod clevis CRSG			
	32	195582	CRSGS-M10x1,25		32	13569	CRSG-M10x1,25
	40	195583	CRSGS-M12x1,25		40	13570	CRSG-M12x1,25
	50	195584	CRSGS-M16x1,5		50	13571	CRSG-M16x1,5
	63						
	80				195585		
	100						
Self-aligning rod coupler CRFK							
	32	2305778	CRFK-M10x1,25				
	40	2305779	CRFK-M12x1,25				
	50	2490673	CRFK-M16x1,5				
	63						
	80			2545677	CRFK-M20x1,5		
	100						

Standard cylinders DNC-C180, to ISO 15552

Accessories

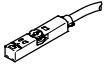
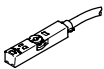
Ordering data – Guide units for fixed strokes (recirculating ball bearing guide only)				Technical data → Internet: festo		
	Stroke [mm]	Part No.	Type	Stroke [mm]	Part No.	Type
	For Ø 32 mm			For Ø 40 mm		
	10 ... 50	34493	FENG-32-50-KF	10 ... 50	34499	FENG-40-50-KF
	10 ... 100	34494	FENG-32-100-KF	10 ... 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 Ø 50 mm			For Ø 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 Ø 80 mm			For Ø 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

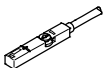

Ordering data – Guide units for variable strokes				Technical data → Internet: festo		
	For Ø [mm]	Stroke [mm]	With recirculating ball bearing guide Part No. Type	For Ø [mm]	Stroke [mm]	With plain-bearing guide Part No. Type
	32	10 ... 500	34487 FENG-32-...-KF	32	10 ... 500	34481 FENG-32-...-GF
	40	10 ... 500	34488 FENG-40-...-KF	40	10 ... 500	34482 FENG-40-...-GF
	50	10 ... 500	34489 FENG-50-...-KF	50	10 ... 500	34483 FENG-50-...-GF
	63	10 ... 500	34490 FENG-63-...-KF	63	10 ... 500	34484 FENG-63-...-GF
	80	10 ... 500	34491 FENG-80-...-KF	80	10 ... 500	34485 FENG-80-...-GF
	100	10 ... 500	34492 FENG-100-...-KF	100	10 ... 500	34486 FENG-100-...-GF



Ordering data – Slot cover for T-slot			
	Assembly	Length	Part No. Type
	Insertable from above	2x 0.5 m	151680 ABP-5-S

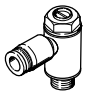
Standard cylinders DNC-C180, to ISO 15552

Accessories

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
N/O contact						
	Insertable in the slot from above, flush with cylinder profile, short design	PNP	Cable, 3-wire	2.5	574335	SMT-8M-A-PS-24V-E-2,5-OE
			Plug M8x1, 3-pin	0.3	574334	SMT-8M-A-PS-24V-E-0,3-M8D
			Plug M12x1, 3-pin	0.3	574337	SMT-8M-A-PS-24V-E-0,3-M12
		NPN	Cable, 3-wire	2.5	574338	SMT-8M-A-NS-24V-E-2,5-OE
			Plug M8x1, 3-pin	0.3	574339	SMT-8M-A-NS-24V-E-0,3-M8D
N/C contact						
	Insertable in the slot from above, flush with cylinder profile, short design	PNP	Cable, 3-wire	7.5	574340	SMT-8M-A-PO-24V-E-7,5-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.			
	G $\frac{1}{8}$	3	Metal design	193142	GRLA- $\frac{1}{8}$ -QS-3-D
		4		193143	GRLA- $\frac{1}{8}$ -QS-4-D
		6		193144	GRLA- $\frac{1}{8}$ -QS-6-D
		8		193145	GRLA- $\frac{1}{8}$ -QS-8-D
	G $\frac{1}{4}$	6		193146	GRLA- $\frac{1}{4}$ -QS-6-D
		8		193147	GRLA- $\frac{1}{4}$ -QS-8-D
		10		193148	GRLA- $\frac{1}{4}$ -QS-10-D
	G $\frac{3}{8}$	6		193149	GRLA- $\frac{3}{8}$ -QS-6-D
		8		193150	GRLA- $\frac{3}{8}$ -QS-8-D
		10		193151	GRLA- $\frac{3}{8}$ -QS-10-D
	G $\frac{1}{2}$	12		193152	GRLA- $\frac{1}{2}$ -QS-12-D