



- Corrosion-resistant in harsh ambient conditions
- Easy-to-clean design
- Wide choice of variants
- Comprehensive range of accessories

Stainless steel cylinders

Key features

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Their applications

Reliable components need to achieve 100% operational reliability, even in harsh operating conditions. The aim is to maximise availability of machinery while minimising downtimes. Stainless steel cylinders are therefore used in applications where the surface finish of normal pneumatic drives would render them non-resistant to the surrounding media. However, designing a corrosion-resistant system involves more than simply selecting a suitable steel – it also requires the selection of a tailored concept for mounting components and accessories.

Their strengths

Festo's stainless steel cylinders are made from highly resistant materials such as 1.4301 and 1.4401. These popular high-alloy, stainless austenitic chrome/nickel and chrome/nickel/molybdenum steels protect against chemical or electrochemical stress as well as damage to the material surface caused by cleaning or detergents. These groups of materials are particularly resistant to uniform surface corrosion and offer increased protection against pitting and crevice corrosion.

Their advantages

Festo's worldwide service network ensures optimum availability of stainless steel cylinders. As well as a comprehensive range of standard cylinders to DIN ISO 6431 and 6432, we also offer a range of tailored mounting components and accessories. The stainless steel cylinders are assembled with USDA-H1 lubricating grease and wiper seals in accordance with BGW (Federal Institute for Risk Assessment) guidelines. This means that they are suitable for use in the food industry and for direct contact with food products. We will be pleased to answer any inquiries you may have about future additions to our stainless steel range. Just give us a call.

Good to know

Our many years of experience in the area of stainless steel can be invaluable when you are investigating solutions for harsh environments. Our experts can answer any questions you might have about surface finishes and chemical resistance.



The atmosphere in the curing cellar of a cheese factory consists of an unpleasant mix of ammonia, lactic acid and 98% humidity.



An area subject to radiation of up to 4 sievert/h whilst immersed in fully desalinated water in a manipulator for dismantling nuclear reactor pressure reservoirs and thermal shields.

Stainless steel cylinders

Key features

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Resistance

Complete resistance to pitting and crevice corrosion is not always possible, even with ideal application parameters. The following parameters increase the pitting effect of chloride ions:

- Concentration of chloride ions
- Duration of contact
- Temperature
- Decreasing pH value

It must therefore be ensured during design, assembly and operation that all parts of the machinery can be properly cleaned to avoid an accumulation of chloride ions.

Selected sealing materials ensure very high resistance to a wide range of chemical compounds.

Further information on resistance to media can be obtained on the Internet at www.festo.com.

In principle, we recommend that the cylinder be cleaned with the piston rod in the retracted position to avoid the risk of washing out the lifetime lubrication.

Various types of machinery contamination make cleaning processes necessary in many industrial sectors.

The degree of cleaning required ranges from wiping the machinery to wet cleaning to foam cleaning with different exposure times and concentrations.

It is therefore impossible to make a general recommendation on compatibility.



Wet cleaning

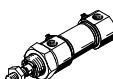
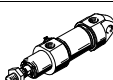
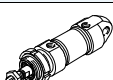
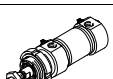
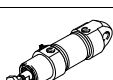
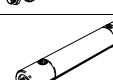
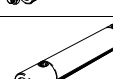
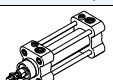
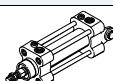


Foam cleaning

Stainless-steel cylinders

Product range overview

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Function	Version	Type	Piston Ø	Stroke	Piston rod				
					Through	Extended	Male thread		Female thread
							Extended	Special thread	
			[mm]	[mm]	S2	K8	K2	K5	K3
Double-acting	Standard cylinder to ISO 6432								
		CRDSNU Single-ended piston rod	12, 16	1 ... 200	■	■	■	■ above Ø 25	■ above Ø 20
			20	1 ... 320					
			25	1 ... 500					
		CRDSNU-MQ Short end cap without swivel mounting	12, 16	1 ... 200	–	■	■	■ above Ø 25	■ above Ø 20
			20	1 ... 320					
			25	1 ... 500					
		CRDSNU-MG Bearing cap without mounting thread	12, 16	1 ... 200	–	■	■	■ above Ø 25	■ above Ø 20
			20	1 ... 320					
			25	1 ... 500					
			25	10, 25, 40, 50, 80, 100, 125, 160, 200	–	–	–	–	–
	Round cylinder								
		CRDSNU Single-ended piston rod	32, 40, 50, 63	1 ... 500	■	■	■	■	■
		CRDSNU-MQ Short end cap without swivel mounting	32, 40, 50, 63	1 ... 500	–	■	■	■	■
		CRDSNU-MG Bearing cap without mounting thread	32, 40, 50, 63	1 ... 500	–	■	■	■	■
			32	10, 25, 40, 50, 80, 100, 125, 160, 200	–	–	–	–	–
		CRHD-MQ Bearing cap with male thread	32, 40, 50, 63, 80, 100	10 ... 500 Special lengths on request	–	–	–	–	–
		CRHD-MC End cap with clevis	32, 40, 50, 63, 80, 100	10 ... 500 Special lengths on request	–	–	–	–	–
		CRHD-MS End cap with lug	32, 40, 50, 63, 80, 100	10 ... 500 Special lengths on request	–	–	–	–	–
	Standard cylinder to ISO 15552 (ISO 6431 and VDMA 24562)								
		CRDNG Single-ended piston rod	32, 40, 50, 63, 80, 100, 125	10 ... 2000	■	–	–	–	–
	Standard cylinder with swivel bearing at rear to ISO 15552 (ISO 6431 and VDMA 24562)								
		CRDNGS Single-ended piston rod	32, 40, 50, 63, 80, 100, 125	10 ... 2000	–	–	–	–	–

Stainless-steel cylinders

Product range overview

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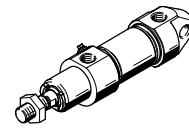
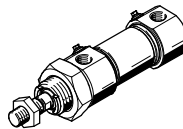
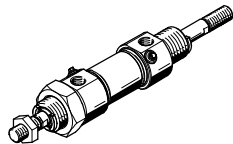
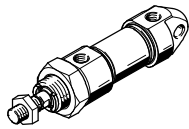
Type	Position sensing	Cushioning			Wiper seal variant			Heat-resistant seal	Low temperature	→ Page/Internet
		Fixed	Adjustable	Self-adjusting	Increased chemical resistance	Hard wiper seal	Unlubricated operation			
	A	P	PPV	PPS	A1	A2	A3	S6	TT	
Standard cylinder to ISO 6432										
CRDSNU Single-ended piston rod	■	■	■ above Ø 20	■ above Ø 16	■	■	■	■	■	6
CRDSNU-MQ Short end cap without swivel mounting	■	■	■ above Ø 20	■ above Ø 16	■	■	■	■	■	6
CRDSNU-MG Bearing cap without mounting thread	■	■	■ above Ø 20	■ above Ø 16	■	–	■	■	–	6
	■	–	–	■	■	–	–	–	–	
Round cylinder										
CRDSNU Single-ended piston rod	■	■	■	■	■	■	■	■	■	16
CRDSNU-MQ Short end cap without swivel mounting	■	■	■	■	■	■	■	■	■	16
CRDSNU-MG Bearing cap without mounting thread	■	■	■	■	■	–	■	■	–	16
	■	–	–	■	■	–	–	–	–	
CRHD-MQ Bearing cap with male thread	■	–	■	–	–	–	–	■	–	26
CRHD-MC End cap with clevis	■	–	■	–	–	–	–	■	–	26
CRHD-MS End cap with lug	■	–	■	–	–	–	–	■	–	26
Standard cylinder to ISO 15552 (ISO 6431 and VDMA 24562)										
CRDNG Single-ended piston rod	■	–	■	–	–	–	–	■	–	34
Standard cylinder with swivel bearing at rear to ISO 15552 (ISO 6431 and VDMA 24562)										
CRDNGS Single-ended piston rod	■	–	■	–	–	–	–	■	–	34

Standard cylinders CRDSNU to ISO 6432, stainless steel

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Key features

Variants			
CRDSNU	CRDSNU-S2:	CRDSNU-MQ:	CRDSNU-MG:
Basic version	Through piston rod	Short end cap without swivel mounting	Bearing cap without mounting thread



Additional variants		
Symbol	Key features	Description
	S2 Through piston rod	For working at both ends with the same force in the forward and return stroke, for attaching external stops
	S6 Heat-resistant seals	Temperature resistance up to max. 120 °C
	K2 Extended male piston rod thread	–
	K3 Female piston rod thread	–
	K5 Special piston rod thread	Metric standard thread to ISO
	K8 Extended piston rod	–
	A1 Wiper seal variant	Increased chemical resistance
	A2 Wiper seal variant	Hard wiper seal: Cylinder with hard wiper seal
	A3 Wiper seal variant	Unlubricated operation: Cleaning processes degrease the piston rod. A special piston rod seal permits a longer service life compared to the standard seal
	TT Low temperature	Temperature resistance down to max. –40 °C

Cushioning types			
	P cushioning	PPS cushioning	PPV cushioning
Mode of operation	The drive is equipped with polymer flexible end-position cushioning	The drive is equipped with self-adjusting end-position cushioning	The drive is equipped with adjustable end-position cushioning
Application	- Small loads - Low speeds - Low impact energies	- Small to medium loads - Low to medium speeds - Medium impact energies	- Medium to high loads - High speeds - High impact energies
Advantages	- No adjustment required - Time-saving	- No adjustment required - Time-saving - Powerful	Very powerful

Mounting options		
Threaded mounting	Mounting via hex nut	Swivel mounting at the rear

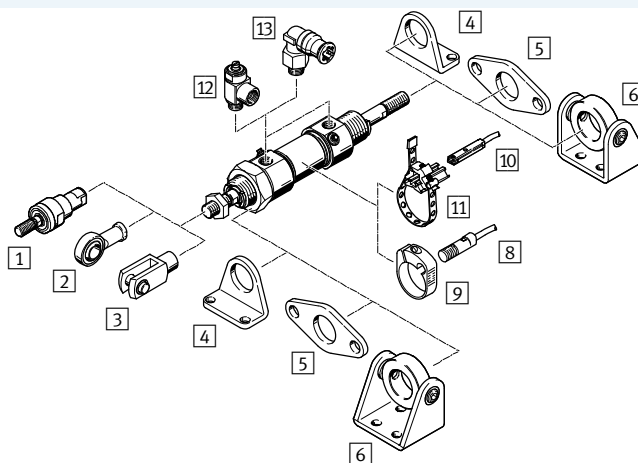
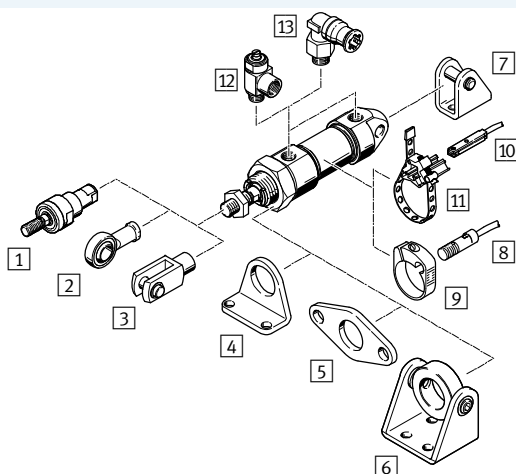
Standard cylinders CRDSNU to ISO6432, stainless steel

Peripherals overview

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CRDSNU-...

CRDSNU-...-S2



Mounting components and accessories							
		Description	CRDSNU-				➔ Page/ Internet
			Basic version	MQ	MG	S2	
1	Self-aligning rod coupler CRFK	For compensating radial and angular misalignments	■	■	■	■	49
2	Rod eye CRSGS	With spherical bearing	■	■	■	■	49
3	Rod clevis CRSG	Permits a swivelling movement of the cylinder in one plane	■	■	■	■	49
4	Foot mounting CRHBN	- For bearing caps - CRDSNU-S2 for bearing and end caps	■	■	–	■	42
5	Flange mounting CRFBN	- For bearing caps - CRDSNU-S2 for bearing and end caps	■	■	–	■	44
6	Swivel mounting CRSBN	- For bearing caps - CRDSNU-S2 for bearing and end caps	■	■	–	■	42
7	Clevis foot CRLBN	For end caps	■	–	■	–	47
8	Proximity sensor CRSME0-4	- Round design - For position sensing	■	■	■	■	49
9	Mounting kit CRSMBR	For proximity sensors CRSME0-4	■	■	■	■	49
10	Proximity sensor CRSMT-8	- Design for T-slot - For position sensing	■	■	■	■	49
11	Mounting kit SMBR	For proximity sensors CRSMT-8	■	■	■	■	50
12	One-way flow control valve CRGRLA	For regulating speed	■	■	■	■	50
13	Push-in fitting CRQS	For connecting compressed air tubing with standard outside diameters	■	■	■	■	qs

Standard cylinders CRDSNU to ISO 6432, stainless steel

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Type codes

		CRDSNU	–	25	–	80	–	PPV	–	A	–	MQ
Type												
Double-acting												
CRDSNU	Standard cylinder											
Piston Ø [mm]												
Stroke [mm]												
Cushioning												
P	Flexible cushioning rings/pads at both ends											
PPV	Pneumatic cushioning, adjustable at both ends											
PPS	Pneumatic cushioning, self-adjusting at both ends											
Position sensing												
A	Via proximity sensor											
Variant												
MQ	Short end cap without swivel mounting											
MG	Bearing cap without mounting thread											

Modular product system

Individually configurable

CRDSNU → 15

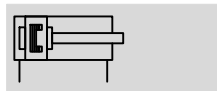
- A1 – Wiper seal variant: For increased chemical resistance
- A2 – Wiper seal variant: Hard wiper seal
- A3 – Wiper seal variant: For unlubricated operation
- S2 – Through piston rod
- K2 – Extended male piston rod thread
- K3 – Female piston rod thread
- K5 – Special piston rod thread
- K8 – Extended piston rod at the front
- S6 – Heat-resistant seals up to max. 120 °C (temperature resistance)
- TT – Low temperature –40 °C ... +80 °C
- ATEX certification II 2GD

Standard cylinders CRDSNU to ISO 6432, stainless steel

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Technical data

Function



DIN



- $\varnothing$ - Diameter
12 ... 25 mm
- l - Stroke length
1 ... 500 mm

General technical data				
Piston $\varnothing$	12	16	20	25
Pneumatic connection	M5	M5	G $\frac{1}{8}$	G $\frac{1}{8}$
Piston rod thread	M6	M6	M8	M10x1.25
Constructional design	Piston			
	Piston rod			
	Cylinder barrel			
Cushioning	P	Flexible cushioning rings/pads at both ends		
	PPV	Adjustable cushioning at both ends		
	PPS	Self-adjusting cushioning at both ends		
Cushioning length	PPV [mm]	15	17	
	PPS [mm]	12	15	17
Position sensing	Via proximity sensor			
Type of mounting	Via accessories			
	Via male thread			
Mounting position	Any			

Operating 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 ¹⁾ [bar]	1 ... 10
Food-safe ²⁾	See supplementary material information

- 1) An increase in the minimum operating pressure is possible with variants
 2) Additional information www.festo.com/sp → Certificates.

Ambient conditions				
Standard cylinder	Basic version	A1	S6	TT
Ambient temperature ¹⁾ [°C]	-20 ... +80	0 ... +80	0 ... +120	-40 ... +80
Corrosion resistance class CRC ²⁾	3			

- 1) Note operating range of proximity sensors
 2) Corrosion resistance class CRC 3 to Festo standard FN 940070
 High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

ATEX ¹⁾	
ATEX category for gas	II 2G
Explosion ignition protection type for gas	c T4
ATEX category for dust	II 2D
Explosion ignition protection type for dust	c 120°C
Explosion-proof ambient temperature	-20°C ≤ Ta ≤ +60°C
CE marking (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)

- 1) Note the ATEX certification of the accessories.

Standard cylinders CRDSNU to ISO 6432, stainless steel

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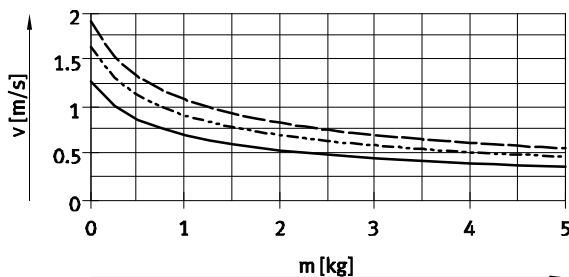
Technical data

Force [N] and impact energy [J]				
Piston Ø	12	16	20	25
Theoretical force at 6 bar, advancing	68	121	188	295
Theoretical force at 6 bar, retracting	51	104	158	247
Impact energy in the end positions for P cushioning ¹⁾	0.07	0.15	0.20	0.30

1) The values are reduced by approx. 50% at an ambient temperature of 80 °C

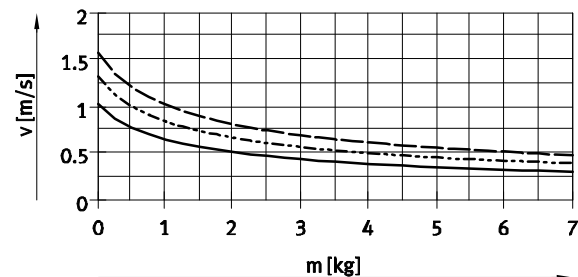
Average piston speed v as a function of applied load m in combination with PPS cushionings

Piston Ø 16



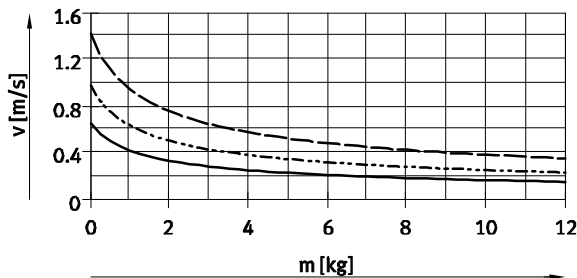
— CRDSNU-16-50
 - - - CRDSNU-16-100
 - · - CRDSNU-16-200

Piston Ø 20



— CRDSNU-20-50
 - - - CRDSNU-20-100
 - · - CRDSNU-20-200

Piston Ø 25



— CRDSNU-25-50
 - - - CRDSNU-25-100
 - · - CRDSNU-25-200

- · - Note

Average piston speed
 = stroke/movement time

- · - Note

Design software
 for flexible cushioning elements
 → www.festo.com

Additional graphs
 for PPS cushioning
 → www.festo.com

Design software
 for PPV cushioning
 → www.festo.com

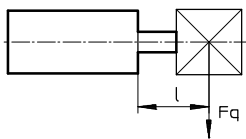
Weight [g]				
Piston Ø	12	16	20	25
Basic weight with 0 mm stroke	101	130	310	410
Additional weight per 10 mm stroke	4	5	7	11
Moving load with 0 mm stroke	19	21	42	73
Additional load per 10 mm stroke	2	2	4	6

Standard cylinders CRDSNU to ISO 6432, stainless steel

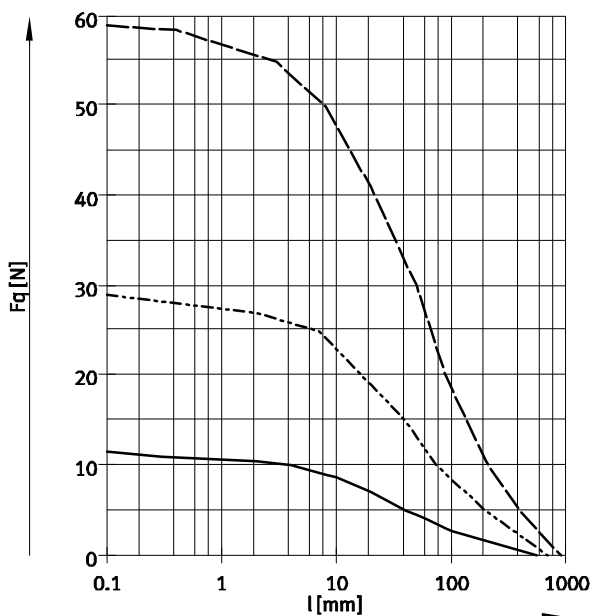
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Technical data

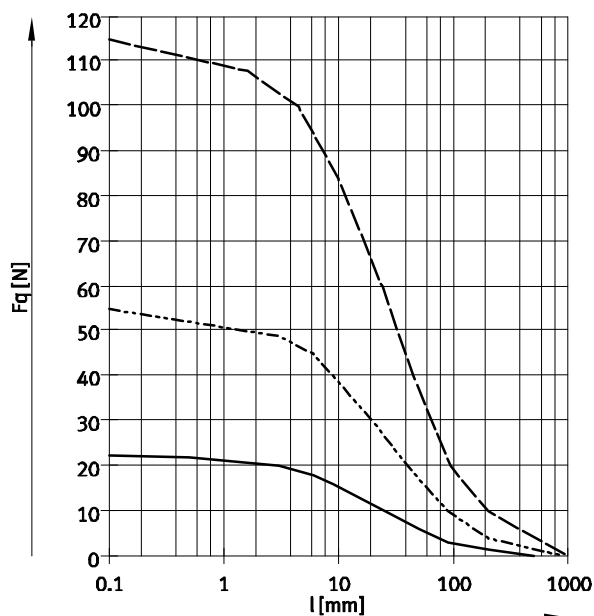
Max. lateral force F_q as a function of projection l



Basic version



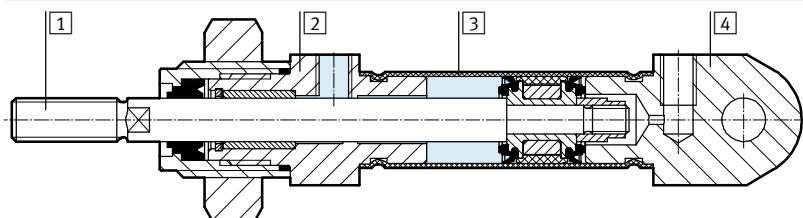
S2 – Through piston rod



- $\varnothing 12/16$
- - - $\varnothing 20$
- . - $\varnothing 25$

Materials

Sectional view



Standard cylinder	Basic version	S6	A3	TT
1 Piston rod	High-alloy stainless steel			
2 Bearing cap	High-alloy stainless steel			
3 Cylinder barrel	High-alloy stainless steel			
4 End cap	High-alloy stainless steel			
- Seals	TPE-U (PUR) media sealing (modified for resistance to hydrolysis and cleaning agents)	FPM	UHMW-PE	TPE-U (PUR) (suitable for low temperatures)
Note on materials	RoHS-compliant			
	-			Contains PWIS (paint-wetting impairment substances)
Certification	Germanischer Lloyd			

Standard cylinders CRDSNU to ISO 6432, stainless steel

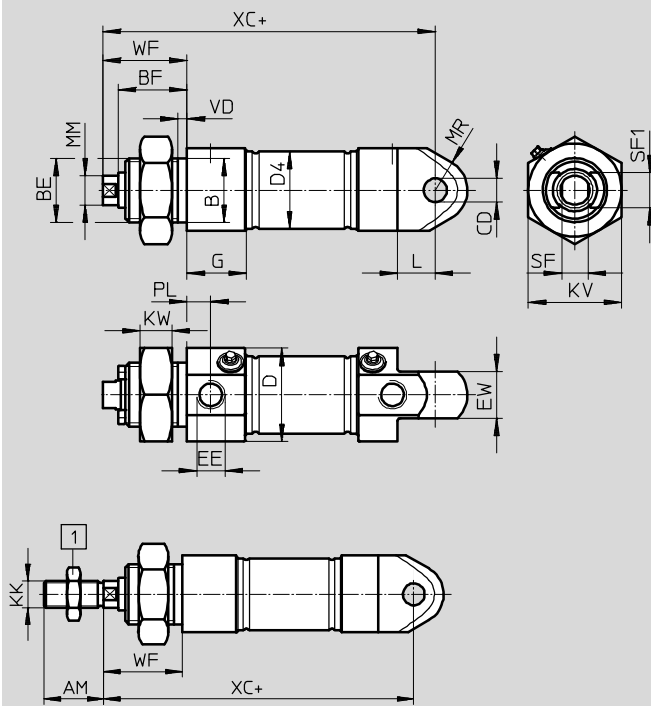
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Technical data

Dimensions

Download CAD data → www.festo.com

Basic version



Note

1 Piston rod nut is not included in the scope of delivery with Ø 12 ... 20.

+ = plus stroke length

Ø	AM	B	BE	BF	CD	D	D4
[mm]		Ø h9			Ø H8	Ø	Ø
12	16	16	M16x1.5	18	6	20	13.3
16	16	16	M16x1.5	18	6	20	17.3
20	20	22	M22x1.5	20.7	8	30	21.3
25	22	22	M22x1.5	23.5	8	32	26.5

Ø	EE	EW	G	KK	KV	KW	L	MM
[mm]								Ø
12	M5	12	9.5	M6	24	8	10	6
16	M5	12	9.7	M6	24	8	10	6
20	G ¹ / ₈	16	20.5	M8	32	11	13	8
25	G ¹ / ₈	16	20.5	M10x1.25	32	11	13	10

Ø	MR	PL	SF	SF1	VD	WF	XC
[mm]							±1
12	8	6	5	9	3.5	22	75
16	8	6	5	9	3.5	22	82
20	11	8.2	7	12	3.5	24	95
25	11	8.2	9	12	3.5	28	104

Standard cylinders CRDSNU to ISO 6432, stainless steel

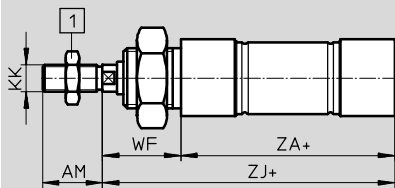
FESTO

Technical data

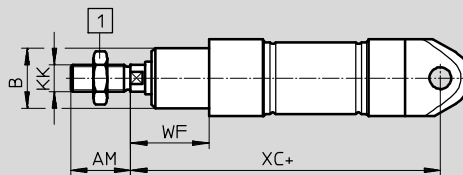
Dimensions

Download CAD data → www.festo.com

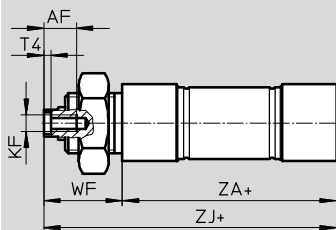
MQ – Short end cap without swivel mounting



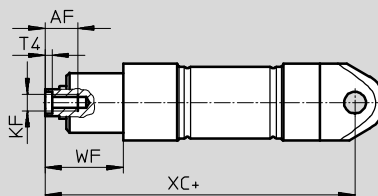
MG – Bearing cap without mounting thread



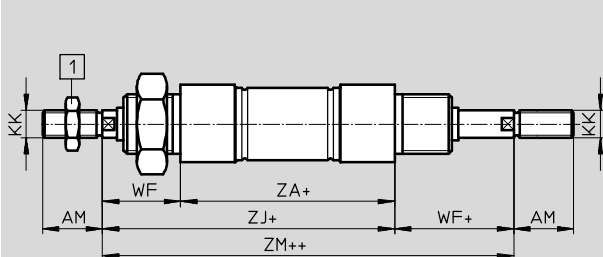
MQ-K3 – Short end cap without swivel mounting, with female piston rod thread



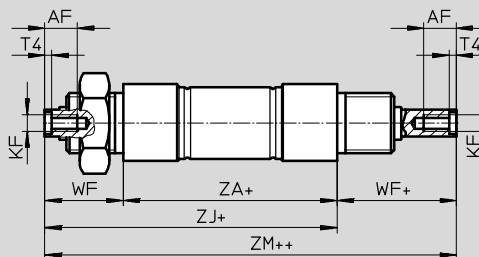
MG-K3 – Bearing cap without mounting thread, with female piston rod thread



S2 – Through piston rod



S2-K3 – Through piston rod, with female thread



- - Note

[1] Piston rod nut is not included in the scope of delivery with Ø 12 ... 20.

+ = plus stroke length

++ = plus 2x stroke length

Ø	AF	AM	B	KF	KK
[mm]			Ø h9		
12	–	16	16	–	M6
16	–	16	16	–	M6
20	12	20	22	M4	M8
25	12	22	22	M6	M10x1.25

Ø	T4	WF	XC	ZA	ZJ	ZM
[mm]			±1			
12	–	22	75	50	72	95
16	–	22	82	56	78	101
20	2	24	95	68	92	117
25	2.6	28	104	69.5	97.5	126

Standard cylinders CRDSNU to ISO 6432, stainless steel

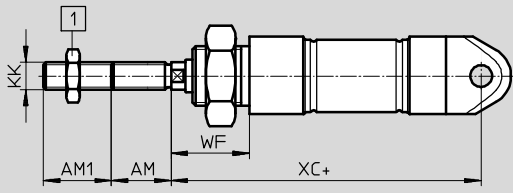
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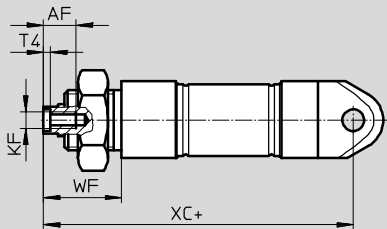
Dimensions

Download CAD data → www.festo.com

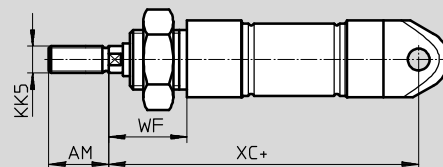
K2 – Extended male piston rod thread



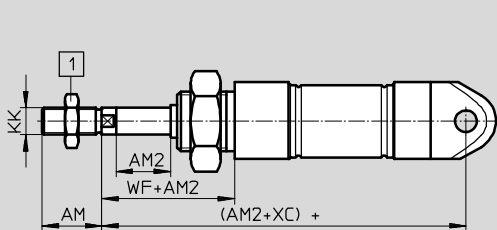
K3 – Female piston rod thread



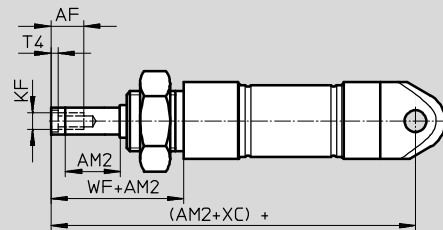
K5 – Special piston rod thread



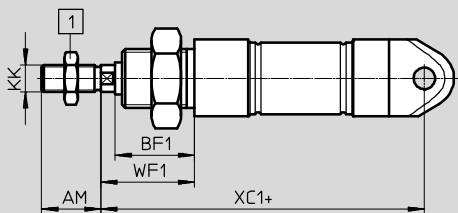
K8 – Extended piston rod



K3-K8 – Extended piston rod, with female thread



TT – Low temperature / A2 – Hard wiper seal



-  - Note

1 Piston rod nut is not included in the scope of delivery with $\varnothing 12 \dots 20$.

+ = plus stroke length

$\varnothing$	AF	AM	AM1	AM2	BF1	KF
[mm]			max.	max.		
12	–	16	1 ... 20	1 ... 100	24	–
16	–	16	1 ... 20	1 ... 100	24	–
20	12	20	1 ... 25	1 ... 100	26.7	M4
25	12	22	1 ... 35	1 ... 100	29.5	M6

$\varnothing$	KK	KK5	T4	WF	WF1	XC	XC1
[mm]						± 1	± 1
12	M6	–	–	22	28	75	81
16	M6	–	–	22	28	82	88
20	M8	–	2	24	30	95	101
25	M10x1.25	M10	2.6	28	34	104	110

Standard cylinders CRDSNU to ISO 6432, stainless steel

FESTO

Ordering data – Modular products

Ordering code				
Type	Piston Ø	Stroke	PPS – Pneumatic cushioning, self-adjusting at both ends	
			A – Via proximity sensor	
			MG – Bearing cap without mounting thread	
			A1 – Wiper seal variant: For increased chemical resistance	
	[mm]	[mm]	Part No.	Type
	25	10	2159636	CRDSNU-B-25-10-PPS-A-MG-A1
		25	2159637	CRDSNU-B-25-25-PPS-A-MG-A1
		40	2159638	CRDSNU-B-25-40-PPS-A-MG-A1
		50	2159639	CRDSNU-B-25-50-PPS-A-MG-A1
		80	2159640	CRDSNU-B-25-80-PPS-A-MG-A1
		100	2159641	CRDSNU-B-25-100-PPS-A-MG-A1
		125	2159642	CRDSNU-B-25-125-PPS-A-MG-A1
		160	2159643	CRDSNU-B-25-160-PPS-A-MG-A1
		200	2159644	CRDSNU-B-25-200-PPS-A-MG-A1



Note

The bearing cap on stock products is made of one piece.

The bearing cap is made of two pieces when ordered using the modular product system. This means that the wiper seal can be replaced if repairs are required.

Ordering table									
Size	12	16	20	25	Condi- tions	Code		Enter code	
[M] Module No.	552787	552788	552789	552790					
Version	Stainless steel					CR			CR
Function	Standard cylinder, double-acting, to ISO 6432					DSNU			DSNU
Piston Ø [mm]	12	16	20	25		-...			
Stroke [mm]	1 ... 200		1 ... 320	1 ... 500		-...			
Cushioning	Flexible cushioning rings/pads at both ends					-P			
	– Pneumatic cushioning, self-adjusting				[1]	-PPS			
	– Pneumatic cushioning, adjustable at both ends					-PPV			
[O] Position sensing	Via proximity sensor					-A			
Cylinder cap	Short end cap without swivel mounting					-MQ			
	Bearing cap without mounting thread					-MG			
Wiper seal variant	Increased chemical resistance				[1]	-A1			
	Hard wiper seal				[2]	-A2			
	Unlubricated operation				[1]	-A3			
Type of piston rod	Through piston rod				[3]	-S2			
Extended male thread	Piston rod with extended male thread					-...K2			
	1 ... 20		1 ... 25	1 ... 35					
Female thread	Piston rod with female thread					-K3			
	–	–	(M4)	(M6)	[4]				
Special thread	Special piston rod thread					-“...”K5			
	–	–	–	M10					
Extended piston rod	1 ... 100					-...K8			
Temperature resistance	Heat-resistant seals up to max. 120 °C					-S6			
Low temperature	Seals and lubricating grease from –40 °C ... +80 °C				[5]	-TT			
Certification EU	II 2GD				[6]	-EX4			

[1] PPS, A1, A3 Not with S6, TT

[2] A2 Not with MG, S2, K3, S6, TT

[3] S2 Not with MQ, MG

[4] K3 Not with K2, K5

[5] TT Not with MG, S2, K3, S6

[6] EX4 Not with S6, TT

Transfer order code

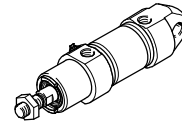
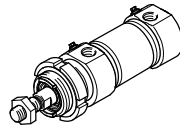
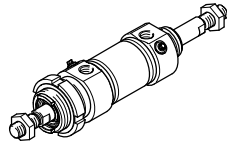
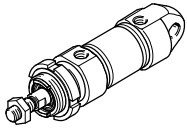
– **CR** **DSNU** – – – – – – – – – – – – – –

Round cylinders CRDSNU, stainless steel

Key features

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Variants			
CRDSNU: Basic version	CRDSNU-S2: Through piston rod	CRDSNU-MQ: Short end cap without swivel mounting	CRDSNU-MG: Bearing cap without mounting thread



Additional variants		
Symbol	Key features	Description
	S2 Through piston rod	For working at both ends with the same force in the forward and return stroke, for attaching external stops
	S6 Heat-resistant seals	Temperature resistance up to max. 120 °C
	K2 Extended male piston rod thread	–
	K3 Female piston rod thread	–
	K5 Special piston rod thread	Metric standard thread to ISO
	K8 Extended piston rod	–
	A1 Wiper seal variant	Increased chemical resistance
	A2 Wiper seal variant	Hard wiper seal: Cylinder with hard wiper seal
	A3 Wiper seal variant	Unlubricated operation: Cleaning processes degrease the piston rod. A special piston rod seal permits a longer service life compared to the standard seal.
	TT Low temperature	Temperature resistance down to max. –40 °C

Cushioning types			
	Cushioning P	Cushioning PPS	Cushioning PPV
Mode of operation	The drive is equipped with polymer flexible end-position cushioning	The drive is equipped with self-adjusting end-position cushioning	The drive is equipped with adjustable end-position cushioning
Application	- Small loads - Low speeds - Low impact energies	- Small to medium loads - Low to medium speeds - Medium impact energies	- Medium to high loads - High speeds - High impact energies
Advantages	- No adjustment required - Time-saving	- No adjustment required - Time-saving - Powerful	Very powerful

Mounting options		
Threaded mounting	Mounting via hex nut	Swivel mounting at the rear

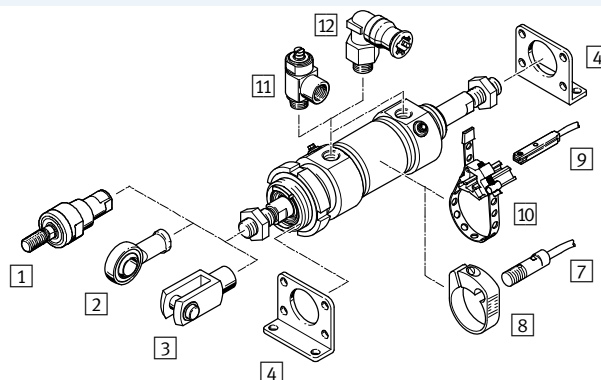
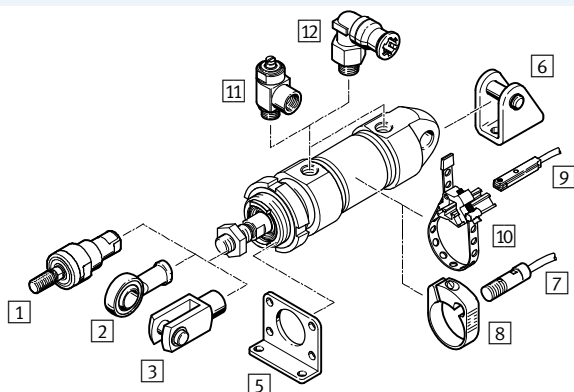
Round cylinders CRDSNU, stainless steel

Peripherals overview

FESTO

CRDSNU-...

CRDSNU-...-S2



Mounting components and accessories		CRDSNU-				→ Page/ Internet
	Description	Basic version	MQ	MG	S2	
1	Self-aligning rod coupler CRFK	For compensating radial and angular misalignments	■	■	■	49
2	Rod eye CRSGS	With spherical bearing	■	■	■	49
3	Rod clevis CRSG	Permits a swivelling movement of the cylinder in one plane	■	■	■	49
4	Foot mounting CRH	2 included in the scope of delivery - CRDSNU-S2 For bearing and end caps	–	–	■	43
5	Flange mounting CRFV	1 included in the scope of delivery - For bearing caps	■	■	–	44
6	Clevis foot CRLBN	For end caps	■	–	■	47
7	Proximity sensor CRSME0-4	- round design - For position sensing	■	■	■	49
8	Mounting kit CRSMBR	For proximity sensors CRSME0-4	■	■	■	49
9	Proximity sensor CRSMT-8	- Design for T-slot - For position sensing	■	■	■	49
10	Mounting kit SMBR	For proximity sensors CRSMT-8	■	■	■	50
11	One-way flow control valve CRGRLA	For regulating speed	■	■	■	50
12	Push-in fitting CRQS	For connecting compressed air tubing with standard outside diameters	■	■	■	qs

Round cylinders CRDSNU, stainless steel

Type codes

FESTO

		CRDSNU	–	32	–	80	–	PPV	–	A	–	MQ
Type												
Double-acting												
CRDSNU	Round cylinder											
Piston Ø [mm]												
Stroke [mm]												
Cushioning												
P	Flexible cushioning rings/pads at both ends											
PPV	Pneumatic cushioning, adjustable at both ends											
PPS	Pneumatic cushioning, self-adjusting at both ends											
Position sensing												
A	Via proximity sensor											
Variant												
MQ	Short end cap without swivel mounting											
MG	Bearing cap without mounting thread											

Modular product system

Individually configurable

CRDSNU → 25

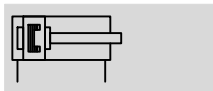
- A1 – Wiper seal variant: For increased chemical resistance
- A2 – Wiper seal variant: Hard wiper seal
- A3 – Wiper seal variant: For unlubricated operation
- S2 – Through piston rod
- K2 – Extended male piston rod thread
- K3 – Female piston rod thread
- K5 – Special piston rod thread
- K8 – Extended piston rod at front
- S6 – Heat-resistant seals up to max. 120 °C (temperature resistance)
- TT – Low temperature –40 °C ... +80 °C
- ATEX certification II 2GD

Round cylinders CRDSNU, stainless steel

FESTO

Technical data

Function



-  Diameter
32 ... 63 mm
-  Stroke length
1 ... 500 mm



General technical data					
Piston Ø		32	40	50	63
Pneumatic connection		G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$
Piston rod thread		M10x1.25	M12x1.25	M16x1.5	M16x1.5
Design		Piston			
		Piston rod			
		Cylinder barrel			
Cushioning	P	Flexible cushioning rings/pads at both ends			
	PPV	Pneumatic cushioning, adjustable at both ends			
	PPS	Pneumatic cushioning, self-adjusting at both ends			
Cushioning length	PPV [mm]	14	18	20	21
	PPS [mm]	14	18	20	21
Position sensing		Via proximity sensor			
Type of mounting		Via accessories			
		With male thread			
Mounting position		Any			

Operating 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 ¹⁾ [bar]	1 ... 10
Food-safe ²⁾	See supplementary material information

- 1) An increase in the minimum operating pressure is possible with variants
2) Additional information www.festo.com/sp → Certificates.

Ambient conditions				
Standard cylinder	Basic version	A1	S6	TT
Ambient temperature ¹⁾ [°C]	-20 ... +80	0 ... +80	0 ... +120	-40 ... +80
Corrosion resistance class CRC ²⁾	3			

- 1) Note operating range of proximity sensors
2) Corrosion resistance class CRC 3 to Festo standard FN 940070
High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

ATEX ¹⁾	
ATEX category for gas	II 2G
Explosion ignition protection type for gas	c T4
ATEX category for dust	II 2D
Explosion ignition protection type for dust	c 120°C
Explosion-proof ambient temperature	-20°C ≤ Ta ≤ +60°C
CE marking (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)

- 1) Note the ATEX certification of the accessories.

Round cylinders CRDSNU, stainless steel

Technical data

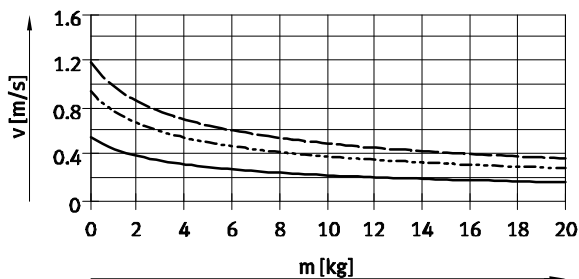
FESTO

Force [N] and impact energy [J]				
Piston Ø	32	40	50	63
Theoretical force at 6 bar, advancing	483	754	1,178	1,870
Theoretical force at 6 bar, retracting	415	633	990	1,682
Impact energy in the end positions for P cushioning ¹⁾	0.4	0.7	1.0	1.3

1) The values are reduced by approx. 50% at an ambient temperature of 80 °C

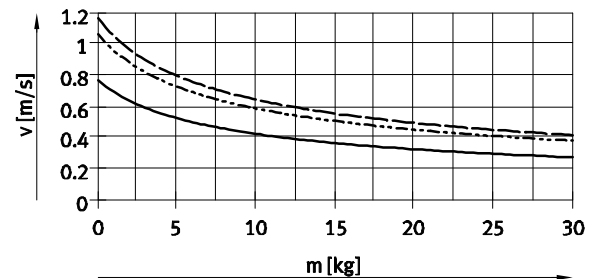
Average piston speed v as a function of applied load m in combination with PPS cushionings

Piston Ø 32



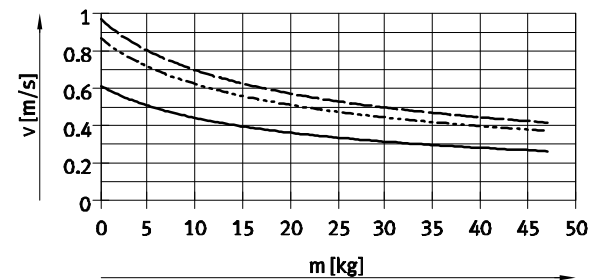
— CRDSNU-32-50
 - - - CRDSNU-32-100
 - · - CRDSNU-32-200

Piston Ø 40



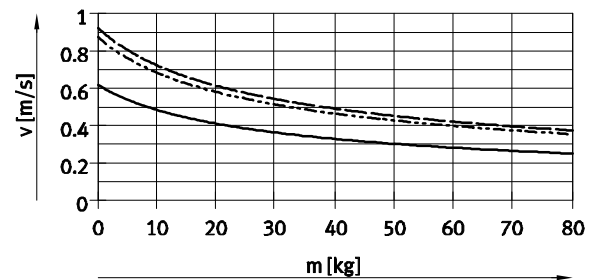
— CRDSNU-40-50
 - - - CRDSNU-40-100
 - · - CRDSNU-40-200

Piston Ø 50



— CRDSNU-50-50
 - - - CRDSNU-50-100
 - · - CRDSNU-50-200

Piston Ø 63



— CRDSNU-63-50
 - - - CRDSNU-63-100
 - · - CRDSNU-63-200

-  - Note

Average piston speed
 = stroke/movement time

-  - Note

Design software
 for flexible cushioning elements
 → www.festo.com

Additional graphs
 for PPS cushioning
 → www.festo.com

Design software
 for PPV cushioning
 → www.festo.com

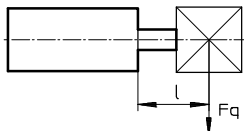
Round cylinders CRDSNU, stainless steel

FESTO

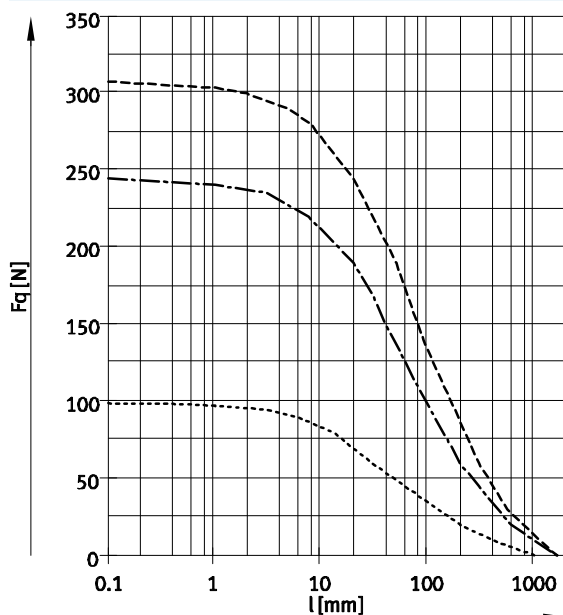
Technical data

Weight [g]				
Piston Ø	32	40	50	63
Basic weight with 0 mm stroke	670	1327	2020	2943
Additional weight per 10 mm stroke	15	24	40	44
Moving load with 0 mm stroke	118	232	416	472
Additional load per 10 mm stroke	9	16	25	25

Max. lateral force F_q as a function of projection l

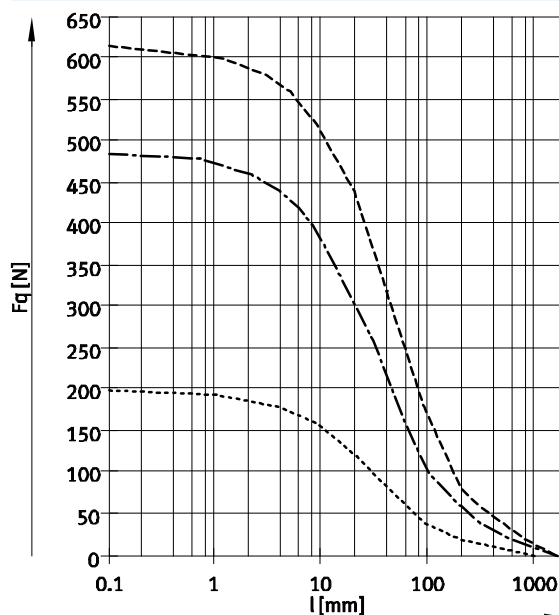


Basic version



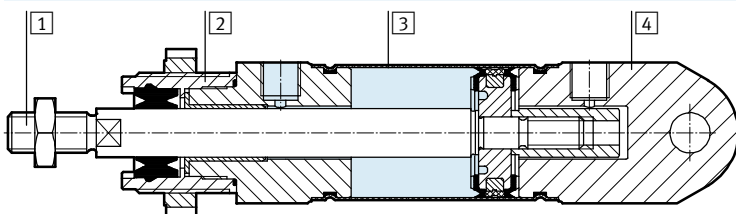
----- Ø 32
 - - - - - Ø 40
 - - - - - Ø 50/63

S2 – Through piston rod



Materials

Sectional view



Standard cylinder	Basic version	S6	A3	TT
1 Piston rod	High-alloy stainless steel			
2 Bearing cap	High-alloy stainless steel			
3 Cylinder barrel	High-alloy stainless steel			
4 End cap	High-alloy stainless steel			
– Seals	TPE-U (PUR) media sealing (modified for resistance to hydrolysis and cleaning agents)	FPM	UHMW-PE	TPE-U (PUR) (suitable for low temperatures)
Note on materials	RoHS-compliant			
	–			Contains PWIS (paint-wetting impairment substances)

Round cylinders CRDSNU, stainless steel

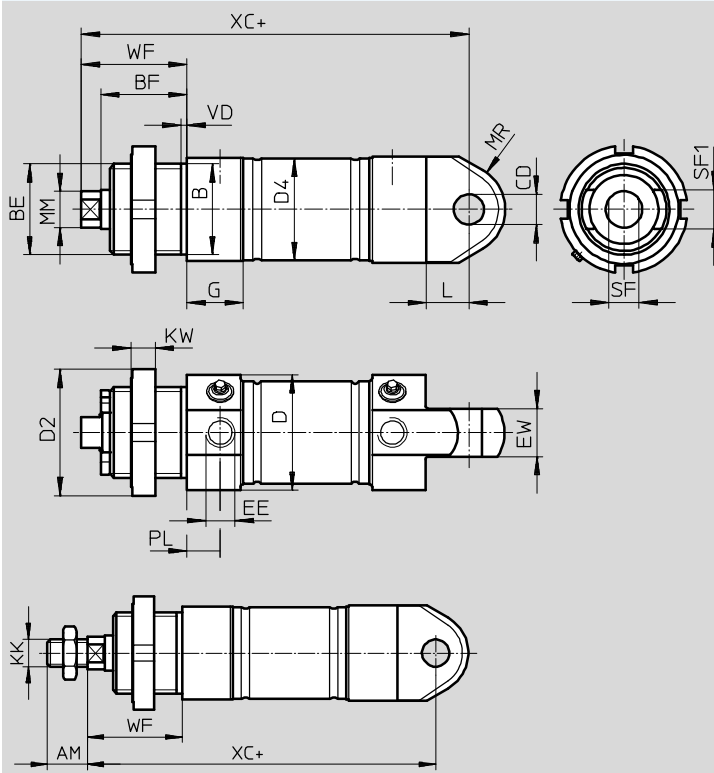
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com

Basic version



+ = plus stroke length

Ø	AM	B	BE	BF	CD	D	D2	D4
[mm]		Ø h9			Ø H8	Ø	Ø	Ø
32	22	30	M30x1.5	28.4	10	38	42	33.6
40	24	38	M38x1.5	32	12	49	50	41.6
50	32	45	M45x1.5	36.4	16	57	60	52.4
63	32	45	M45x1.5	36.4	16	70	60	65.4

Ø	EE	EW	G	KK	KW	L	MM
[mm]							Ø
32	G $\frac{1}{8}$	16	18.6	M10x1.25	8	14	12
40	G $\frac{1}{4}$	18	24.7	M12x1.25	10	16	16
50	G $\frac{1}{4}$	21	24.4	M16x1.5	10	17	20
63	G $\frac{3}{8}$	21	27.4	M16x1.5	10	17	20

Ø	MR	PL	SF	SF1	VD	WF	XC
[mm]							±1
32	15	11	10	13	4.3	34	117.5
40	19	12	13	18	4.3	39	139.6
50	22.5	12	17	22	4.3	44	147.2
63	22.5	13	17	22	4.3	44	155.4

Round cylinders CRDSNU, stainless steel

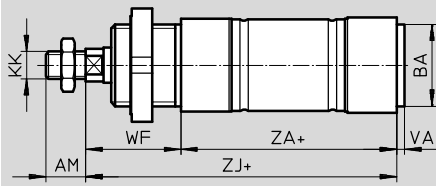
Technical data

FESTO

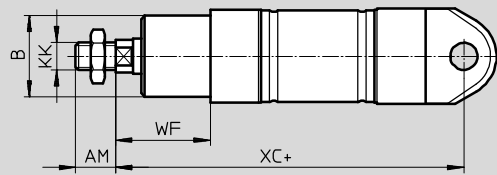
Dimensions

Download CAD data → www.festo.com

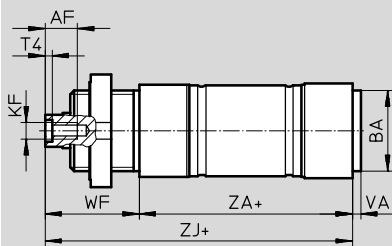
MQ – Short end cap without swivel mounting



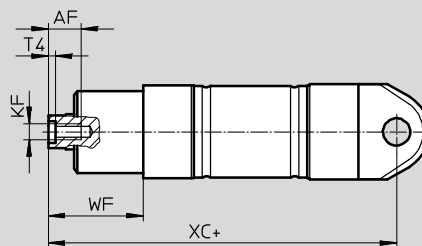
MG – Bearing cap without mounting thread



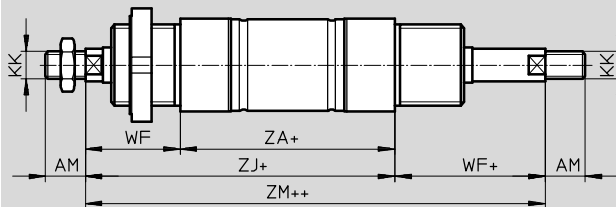
MQ-K3 – Short end cap without swivel mounting, with female piston rod thread



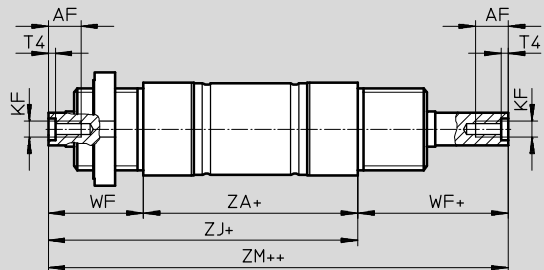
MG-K3 – Bearing cap without mounting thread, with female piston rod thread



S2 – Through piston rod



S2-K3 – Through piston rod, with female thread



+ = plus stroke length

++ = plus 2x stroke length

Ø	AF	AM	B	BA	KF	KK
[mm]			Ø h9	h9		
32	12	22	30	30	M6	M10x1.25
40	12	24	38	38	M8	M12x1.25
50	16	32	45	45	M10	M16x1.5
63	16	32	45	45	M10	M16x1.5

Ø	T4	VA	WF	XC	ZA	ZJ	ZM
[mm]				±1			
32	2.6	3	34	118	69.5	104	138
40	3.3	4	39	140	84.6	124	163
50	4.7	4	44	147	86.2	130	175
63	4.7	4	44	156	94.2	139	183

Round cylinders CRDSNU, stainless steel

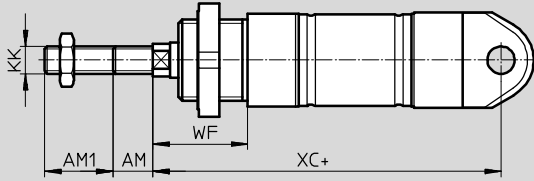
Technical data

FESTO

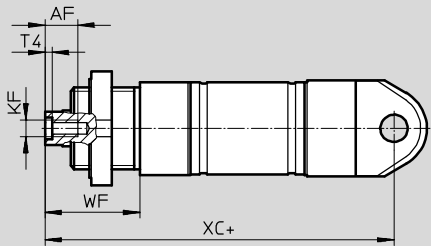
Dimensions

Download CAD data → www.festo.com

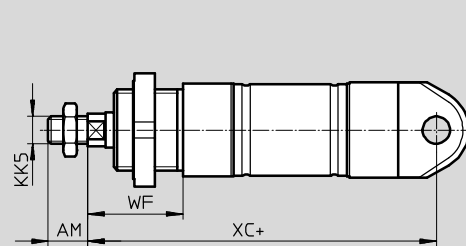
K2 – Extended male piston rod thread



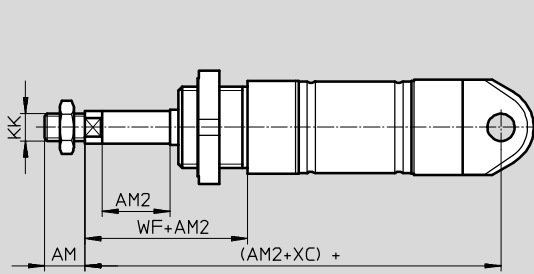
K3 – Female piston rod thread



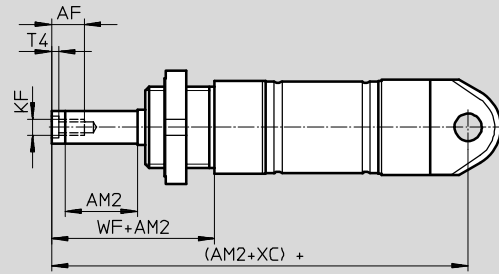
K5 – Special piston rod thread



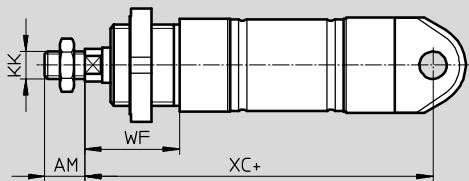
K8 – Extended piston rod



K3-K8 – Extended piston rod, with female thread



TT – Low temperature / A2 – Hard wiper seal



+ = plus stroke length

Ø	AF	AM	AM1	AM2	KF
[mm]			max.	max.	
32	12	22	1 ... 35	1 ... 500	M6
40	12	24	1 ... 35	1 ... 500	M8
50	16	32	1 ... 70	1 ... 500	M10
63	16	32	1 ... 70	1 ... 500	M10

Ø	KK	KK5	T4	WF	XC
[mm]					±1
32	M10x1.25	M10	2.6	34	118
40	M12x1.25	M12	3.3	39	140
50	M16x1.5	M16	4.7	44	147
63	M16x1.5	M16	4.7	44	156

Round cylinders CRDSNU, stainless steel

Ordering data – Modular products

FESTO

Ordering code				
Type	Piston Ø	Stroke	PPS – Pneumatic cushioning, self-adjusting at both ends	
			A – Via proximity sensor	
			MG – Bearing cap without mounting thread	
			A1 – Wiper seal variant: For increased chemical resistance	
	[mm]	[mm]	Part No.	Type
	32	10	2176399	CRDSNU-B-32-10-PPS-A-MG-A1
		25	2176400	CRDSNU-B-32-25-PPS-A-MG-A1
		40	2176401	CRDSNU-B-32-40-PPS-A-MG-A1
		50	2176402	CRDSNU-B-32-50-PPS-A-MG-A1
		80	2176403	CRDSNU-B-32-80-PPS-A-MG-A1
		100	2176404	CRDSNU-B-32-100-PPS-A-MG-A1
		125	2176405	CRDSNU-B-32-125-PPS-A-MG-A1
		160	2176406	CRDSNU-B-32-160-PPS-A-MG-A1
		200	2176407	CRDSNU-B-32-200-PPS-A-MG-A1



Note

The bearing cap on stock products is made of one piece.

The bearing cap is made of two pieces when ordered using the modular product system. This means that the wiper seal can be replaced if repairs are required.

Ordering table									
Size		32	40	50	63	Condi- tions	Code		Enter code
[M]	Module No.	552791	552792	552793	552794				
	Version	Stainless steel					CR		CR
	Function	Round cylinder, double-acting					DSNU		DSNU
	Piston Ø [mm]	32	40	50	63		-...		
	Stroke [mm]	1 ... 500					-...		
	Cushioning	Flexible cushioning rings/pads at both ends					-P		
		Pneumatic cushioning, self-adjusting				[1]	-PPS		
		Pneumatic cushioning, adjustable at both ends					-PPV		
[O]	Position sensing	Via proximity sensor					-A		
	Cylinder cap	Short end cap without swivel mounting					-MQ		
		Bearing cap without mounting thread					-MG		
	Wiper seal variant	Increased chemical resistance				[1]	-A1		
		Hard wiper seal				[2]	-A2		
		Unlubricated operation				[1]	-A3		
	Type of piston rod	Through piston rod				[3]	-S2		
	Extended male thread [mm]	Piston rod with extended male thread 1 ... 35		1 ... 70			-...K2		
	Female thread	Female piston rod thread M6 M8 M10 M10				[4]	-K3		
	Special thread	Piston rod with special thread M10 M12 M16 M16					-“...”K5		
	Extended piston rod [mm]	1 ... 500					-...K8		
	Temperature resistance	Heat-resistant seals up to max. 120 °C					-S6		
	Low temperature	Seals and lubricating grease from –40 °C ... +80 °C				[5]	-TT		
	Certification EU	II 2GD				[6]	-EX4		

- [1]** PPS, A1, A3 Not with S6, TT
[2] A2 Not with MG, S6, TT
[3] S2 Not with MQ, MG

- [4]** K3 Not with K2, K5
[5] TT Not with MG, S6
[6] EX4 Not with S6, TT

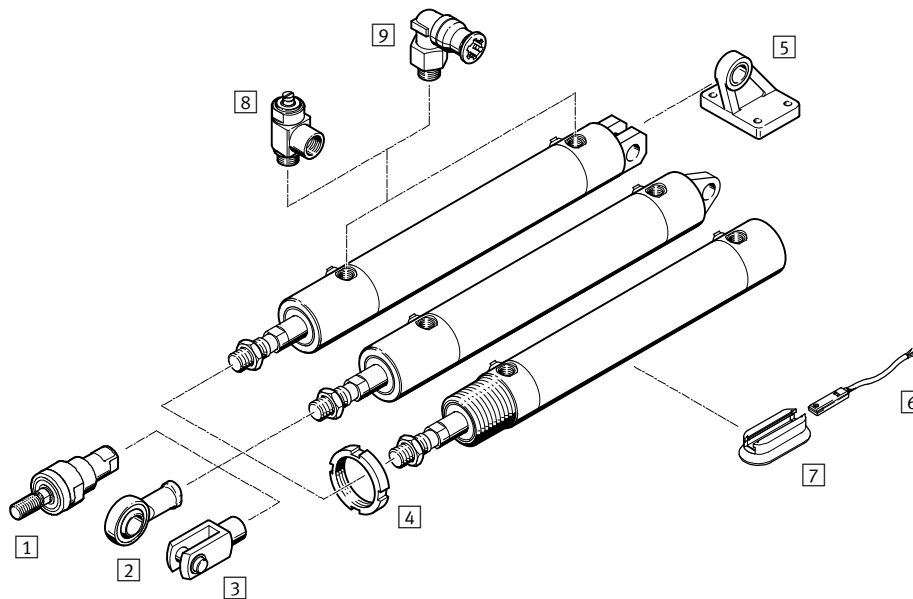
Transfer order code

– **CR** **DSNU** – – – – – – – – – – – – – –

Round cylinders CRHD, stainless steel

Peripherals overview

FESTO



Mounting components and accessories					
	Description	CRHD-MQ	CRHD-MC	CRHD-MS	→ Page/Internet
1	Self-aligning rod coupler CRFK	■	■	■	49
2	Rod eye CRSGS	■	■	■	49
3	Rod clevis CRSG	■	■	■	49
4	Nut CR	■	–	–	48
5	Clevis foot CRLMC	–	■	–	48
6	Proximity sensor CRSMT	■	■	■	49
7	Mounting kit CRSMB-8-32/100	■	■	■	50
8	One-way flow control valve CRGRLA	■	■	■	50
9	Push-in fittings CRQS	■	■	■	qs

Round cylinders CRHD, stainless steel

FESTO

Type codes

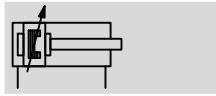
		CRHD	–	50	–	80	–	PPV	–	A	–	MQ	–	S6
Type														
Double-acting														
CRHD	Round cylinder													
Piston Ø [mm]														
Stroke [mm]														
Cushioning														
PPV	Pneumatic cushioning, adjustable at both ends													
Position sensing														
A	Via proximity sensor													
Cover variant														
MQ	Bearing cap with male thread													
MC	End cap with clevis													
MS	End cap with lug													
Variant														
S6	Heat-resistant up to 120 °C													

Round cylinders CRHD, stainless steel

Technical data

FESTO

Function



- Diameter
32 ... 100 mm
- Stroke length
10 ... 500 mm

- - www.festo.com

Variants



S6

The variant S6 is not suitable for direct contact with food products because of the seals and the grease used.



General technical data						
Piston Ø	32	40	50	63	80	100
Pneumatic connection	G $\frac{1}{8}$	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{3}{8}$	G $\frac{3}{8}$
Piston rod thread	M10x1.25	M12x1.25	M16x1.5	M16x1.5	M20x1.5	M20x1.5
Constructional design	Piston					
	Piston rod					
	Cylinder barrel					
Cushioning	Pneumatic cushioning, adjustable at both ends					
Cushioning length	17	19.5	21	21	31	31
Position sensing	Via proximity sensor					
Type of mounting	Via accessories					
Mounting position	Any					

Operating and environmental conditions		
Variant	CRHD	S6
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	1 ... 10 bar	
Ambient temperature ¹⁾ [°C]	-20 ... +80	0 ... +120
Food-safe ²⁾	See supplementary material information	
Corrosion resistance class CRC ³⁾	3	

1) Note operating range of proximity sensors

2) Additional information www.festo.com/sp → Certificates.

3) Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

Force [N]						
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

Weight [g]						
Piston Ø	32	40	50	63	80	100
Basic weight with 10 mm stroke	676	1196	1849	2977	5172	8472
Additional weight per 10 mm stroke	26	42	57	65	100	115
Moving load with 10 mm stroke	106	198	340	398	717	968
Additional load per 10 mm stroke	9	16	25	25	38	38

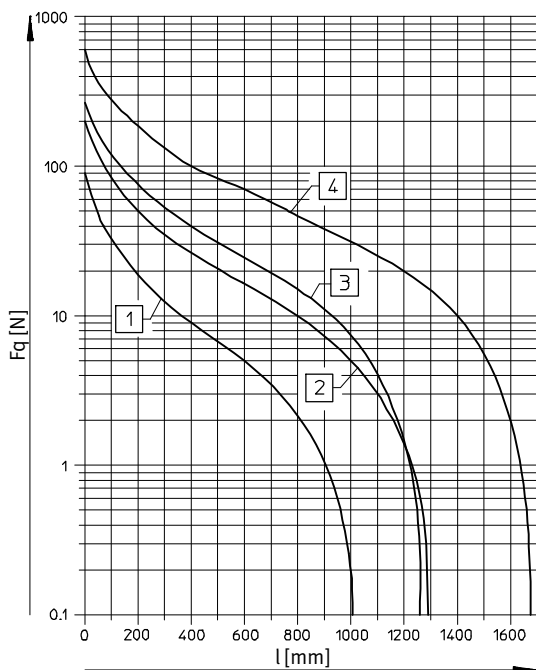
Round cylinders CRHD, stainless steel

Technical data

FESTO

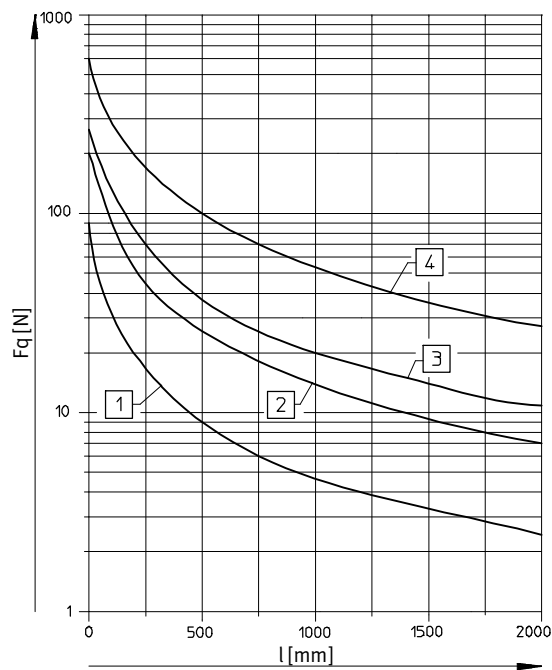
Permissible lateral force F_q as a function of stroke length l

Horizontal mounting



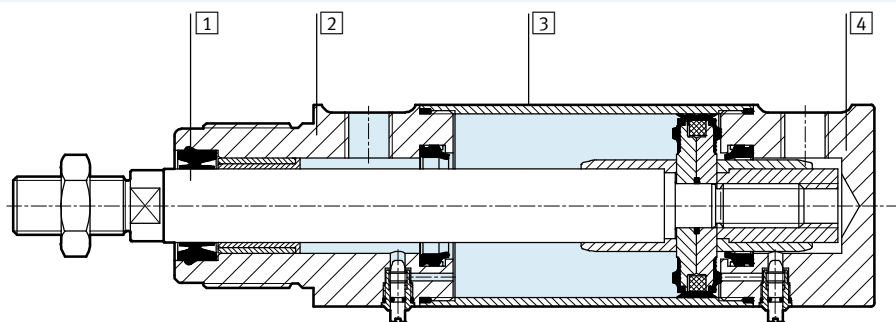
- 1 Ø 32
- 2 Ø 40
- 3 Ø 50, 63
- 4 Ø 80, 100

Vertical mounting



Materials

Sectional view



Round cylinder	Basic version	S6
1 Piston rod	High-alloy stainless steel	
2 Bearing cap	High-alloy stainless steel	
3 Cylinder barrel	High-alloy stainless steel	
4 End cap	High-alloy stainless steel	
– Seals	NBR, TPE-U (PUR) media sealing (modified for resistance to hydrolysis and cleaning agents)	FPM

Round cylinders CRHD, stainless steel

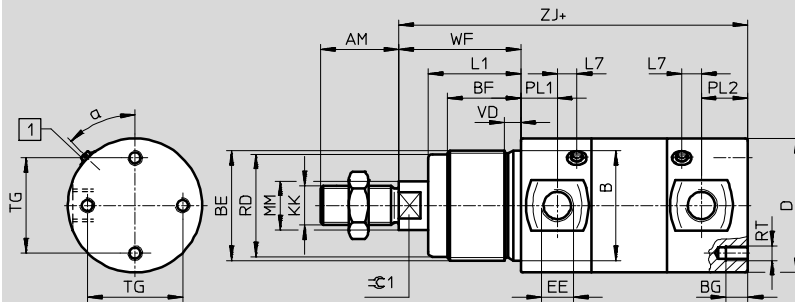
Technical data

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Dimensions CRHD- ... -MQ

Download CAD data → www.festo.com

Bearing cap with male thread



1 Regulating screw
for end-position cushioning

+ = plus stroke length

Ø [mm]	α	AM	B Ø h9	BE	BF	BG	D Ø	EE	KK	L1
32	50°	22	30	M30x1.5	25	8	36	G1/8	M10x1.25	30
40	45°	24	38	M38x1.5	29	8	45	G1/8	M12x1.25	35
50	45°	32	45	M45x1.5	30	8	55	G1/4	M16x1.5	38
63	45°	32	45	M45x1.5	30	10	68	G3/8	M16x1.5	38
80	45°	40	50	M50x2	30	15	86	G3/8	M20x1.5	38
100	45°	40	50	M50x2	30	15	106	G3/8	M20x1.5	38

Ø [mm]	L7	MM Ø	RD Ø	RT	PL1	PL2	TG	VD	WF	ZJ	⌀1
32	5	12	27	M5	13	21	22	7	38	120	10
40	8	16	35	M6	15	18	30	7	45	135	13
50	5	20	42	M6	15	19	39	6.25	50	143	17
63	8	20	42	M8	17	24	49	6.25	50	158	17
80	9	25	47	M10	18	31	65	7.5	50	174	22
100	13	25	47	M10	22	30	82	7.5	50	189	22

Round cylinders CRHD, stainless steel

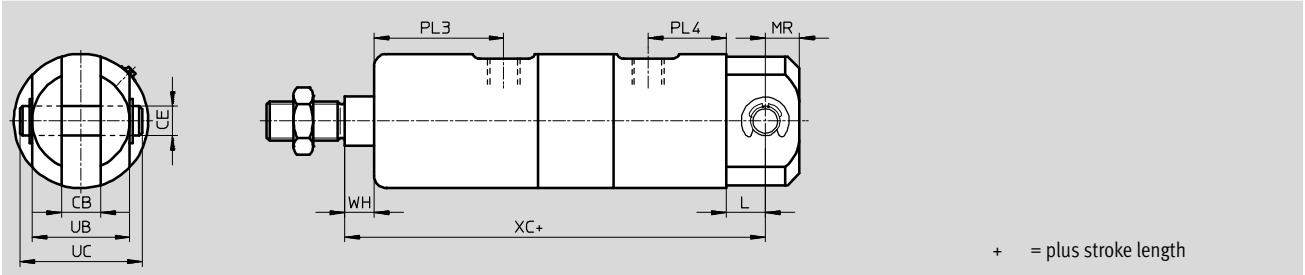
Technical data

FESTO

Dimensions CRHD- ... -MC

Download CAD data → www.festo.com

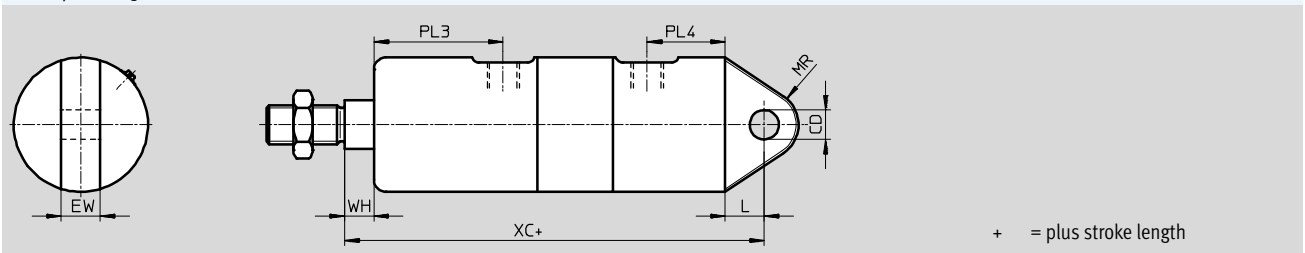
End cap with clevis



Dimensions CRHD- ... -MS

Download CAD data → www.festo.com

End cap with lug



Ø	CB	CD	CE	EW	L	MR	PL3	PL4	UB	UC	WH	XC
[mm]	+0.2/+0.1	Ø H9	Ø e8	-0.1/-0.2					-0.1/-0.2			
32	10	10	10	10	15	12	43	28	26	35	8	142
40	12	12	12	12	16	14	50	27	32	43	10	160
50	16	12	12	16	16	14	53	30	40	51	12	170
63	16	16	16	16	22	18	55	34	40	53	12	190
80	20	16	16	20	22	20	56	45	60	73	12	210
100	20	20	20	20	27	25	60	43.5	60	73	12	230

Round cylinders CRHD, stainless steel

Technical data

FESTO

Ordering data				
Type	Piston Ø [mm]	Stroke [mm]	Part No.	Type
MQ – Bearing cap with male thread				
	32	10 ... 500	195507	CRHD-32-...-PPV-A-MQ
	40		195508	CRHD-40-...-PPV-A-MQ
	50		195509	CRHD-50-...-PPV-A-MQ
	63		195510	CRHD-63-...-PPV-A-MQ
	80		195511	CRHD-80-...-PPV-A-MQ
	100		195512	CRHD-100-...-PPV-A-MQ
S6 – Heat-resistant up to 120°C				
 	32	10 ... 500	195543	CRHD-32-...-PPV-A-MQ-S6
	40		195544	CRHD-40-...-PPV-A-MQ-S6
	50		195545	CRHD-50-...-PPV-A-MQ-S6
	63		195546	CRHD-63-...-PPV-A-MQ-S6
	80		195547	CRHD-80-...-PPV-A-MQ-S6
	100		195548	CRHD-100-...-PPV-A-MQ-S6
MC – End cap with clevis (pivot pin and lock included in the scope of delivery)				
	32	10 ... 500	195513	CRHD-32-...-PPV-A-MC
	40		195514	CRHD-40-...-PPV-A-MC
	50		195515	CRHD-50-...-PPV-A-MC
	63		195516	CRHD-63-...-PPV-A-MC
	80		195517	CRHD-80-...-PPV-A-MC
	100		195518	CRHD-100-...-PPV-A-MC

Round cylinders CRHD, stainless steel

Technical data

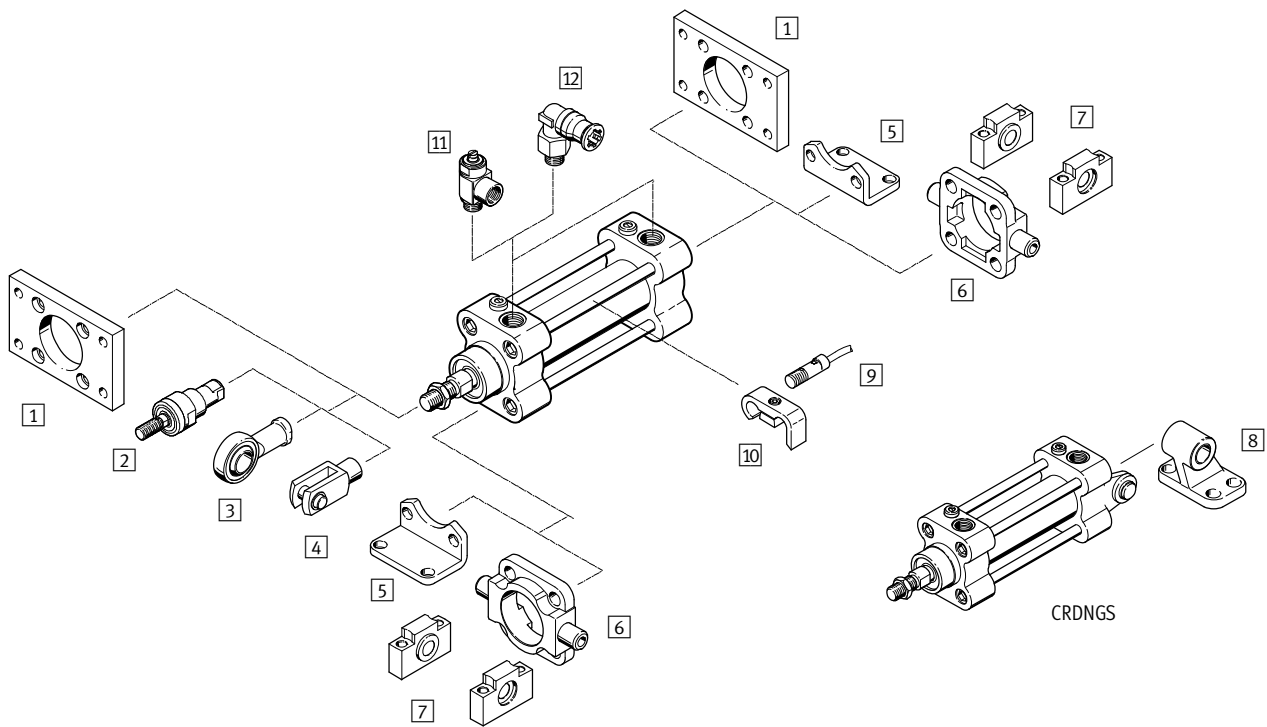
FESTO

Ordering data				
Type	Piston Ø [mm]	Stroke [mm]	Part No.	Type
S6 – Heat-resistant up to 120°C				
	32	10 ... 500	195549	CRHD-32-...-PPV-A-MC-S6
	40		195550	CRHD-40-...-PPV-A-MC-S6
	50		195551	CRHD-50-...-PPV-A-MC-S6
	63		195552	CRHD-63-...-PPV-A-MC-S6
	80		195553	CRHD-80-...-PPV-A-MC-S6
	100		195554	CRHD-100-...-PPV-A-MC-S6
MS – End cap with lug				
	32	10 ... 500	195519	CRHD-32-...-PPV-A-MS
	40		195520	CRHD-40-...-PPV-A-MS
	50		195521	CRHD-50-...-PPV-A-MS
	63		195522	CRHD-63-...-PPV-A-MS
	80		195523	CRHD-80-...-PPV-A-MS
	100		195524	CRHD-100-...-PPV-A-MS
S6 – Heat-resistant up to 120 °C				
	32	10 ... 500	195555	CRHD-32-...-PPV-A-MS-S6
	40		195556	CRHD-40-...-PPV-A-MS-S6
	50		195557	CRHD-50-...-PPV-A-MS-S6
	63		195558	CRHD-63-...-PPV-A-MS-S6
	80		195559	CRHD-80-...-PPV-A-MS-S6
	100		195560	CRHD-100-...-PPV-A-MS-S6

Standard cylinders CRDNG to ISO 15552, stainless steel

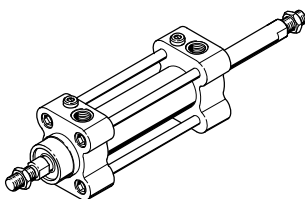
Peripherals overview

FESTO



Variant

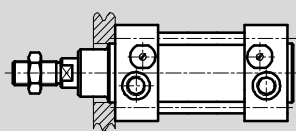
CRDNG-S2



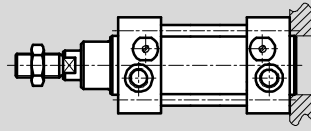
Mounting options

CRDNG

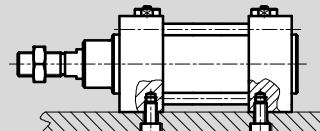
Mounting at front



Mounting at rear

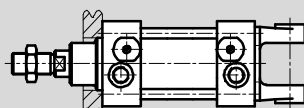


Mounting from below

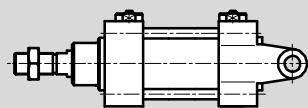


CRDNGS

Mounting at front



Mounting on swivel flange



Standard cylinders CRDNG to ISO 15552, stainless steel

Peripherals overview

Mounting components and accessories				
	Description	CRDNG	CRDNKS	→ Page/Internet
1	Flange mounting CRFNG	■	–	45
2	Self-aligning rod coupler CRFK	■	■	49
3	Rod eye CRSGS	■	■	49
4	Rod clevis CRSG	■	■	49
5	Foot mounting CRHNC	■	–	43
6	Trunnion flange CRZNG	■	–	46
7	Trunnion support CRLNZG	■	–	46
8	Clevis foot CRLNG	–	■	47
9	Proximity sensor CRSME0-4	■	■	49
10	Mounting kit CRSMB	■	■	49
11	One-way flow control valve CRGRLA	■	■	50
12	Order confirmation CRQS	■	■	qs

Standard cylinders CRDNG to ISO 15552, stainless steel

FESTO

Type codes

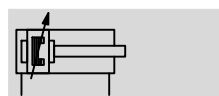
		CRDNG	–	50	–	80	–	PPV	–	A	–	S2
Type												
Double-acting												
CRDNG	Standard cylinder											
CRDNGS	Standard cylinder with swivel flange											
Piston Ø [mm]												
Stroke [mm]												
Cushioning												
PPV	Pneumatic cushioning, adjustable at both ends											
Position sensing												
A	Via proximity sensor											
Variant												
S2	Through piston rod											
S6	Heat-resistant up to 120 °C											

Standard cylinders CRDNG to ISO 15552, stainless steel

FESTO

Technical data

Function

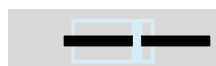


-  Diameter
32 ... 125 mm
-  Stroke length
10 ... 2000 mm

-  www.festo.com

Wearing parts kits
→ 41

Variants



S2



S6

The variant S6 is not suitable for direct contact with food products because of the seals and the grease used.



CRDNG

CRDNGS

Conforms to

- ISO 15552
- ISO 6431
- VDMA 24562
- NFE 49003.1
- UNI 10290



DIN



General technical data							
Piston Ø	32	40	50	63	80	100	125
Pneumatic connection	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{1}{2}$
Piston rod thread	M10x1.25	M12x1.25	M16x1.5	M16x1.5	M20x1.5	M20x1.5	M27x2
Constructional design	Piston						
	Piston rod						
	Cylinder barrel						
Cushioning	Pneumatic cushioning, adjustable at both ends						
Cushioning length [mm]	20	20	23	23	30	30	40
Position sensing	Via proximity sensor						
Type of mounting	Via accessories						
	Via female thread						
Mounting position	Any						

Operating and environmental conditions	
Variant	CRDNG/CRDNGS S6
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	0.6 ... 10 bar
Ambient temperature ¹⁾ [°C]	-20 ... +80 0 ... +120
Corrosion resistance class CRC ²⁾	4

1) Note operating range of proximity sensors

2) 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.

Force [N]							
Piston Ø	32	40	50	63	80	100	125
Theoretical force at 6 bar, advancing	482	753	1178	1870	3015	4712	7360
Theoretical force at 6 bar, retracting	415	633	990	1682	2720	4418	6880

Standard cylinders CRDNG to ISO 15552, stainless steel

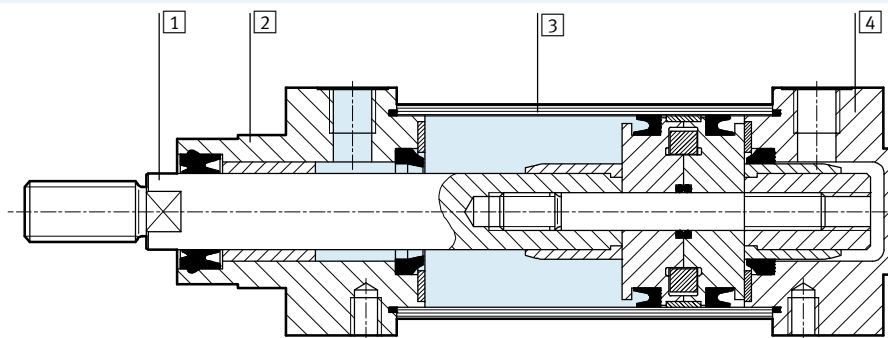
FESTO

Technical data

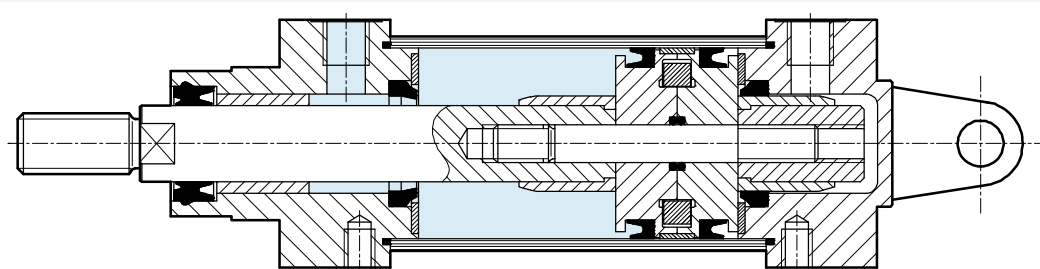
Weight [g]							
Piston Ø	32	40	50	63	80	100	125
CRDNG							
Basic weight with 0 mm stroke	1045	1360	2160	3455	5935	8070	
Additional weight per 10 mm stroke	20	30	60	60	100	110	
CRDNGS							
Basic weight with 0 mm stroke	1070	1460	2330				
Additional weight per 10 mm stroke	20	30	60				

Materials

Sectional view CRDNG



Sectional view CRDNGS

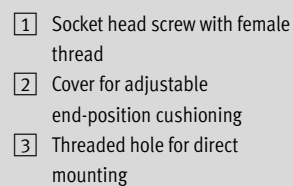


Standard cylinder	Basic version	S6
1 Piston rod	High-alloy stainless steel	
2 Bearing cap	Stainless steel casting	
3 Cylinder barrel	High-alloy stainless steel	
4 End cap	Stainless steel casting	
– Tie rod	High-alloy stainless steel	
– Seals	NBR, TPE-U (PUR) media sealing (modified for resistance to hydrolysis and cleaning agents)	FPM

Technical data

Download CAD data → www.festo.com

Basic version



+ = plus stroke length

Technical drawing of a hydraulic cylinder. The drawing shows a side view of the cylinder with two mounting brackets. The dimension $ZJ+$ is indicated for the distance between the mounting brackets. The dimension $ZM++$ is indicated for the distance between the mounting brackets, including the mounting brackets.

+ = plus stroke length

++ = plus 2x stroke length

Ø [mm]	A	B Ø e11	BG	D1	D4 Ø	D5 Ø	E	EE	J2	J3	KK	L2	L3
32	22	30	16	M6	33.6	6	50	G1/8	7	5.7	M10x1.25	16	13
40	24	35	16	M6	41.6	6	55	G1/4	10	6.5	M12x1.25	18	16.5
50	32	40	16	M8	52.4	8	65	G1/4	11.5	8.6	M16x1.5	25	21
63	32	45	16	M10	65.4	8	75	G3/8	14.5	12	M16x1.5	25	22
80	40	45	23	M10	82.8	10	100	G3/8	15	13	M20x1.5	31	22.5
100	40	55	23	M12	102.8	10	120	G1/2	23	14	M20x1.5	36	22.5
125	54	60	23	M12	128.6	12	145	G1/2	28.5	8	M27x2	46	23.5

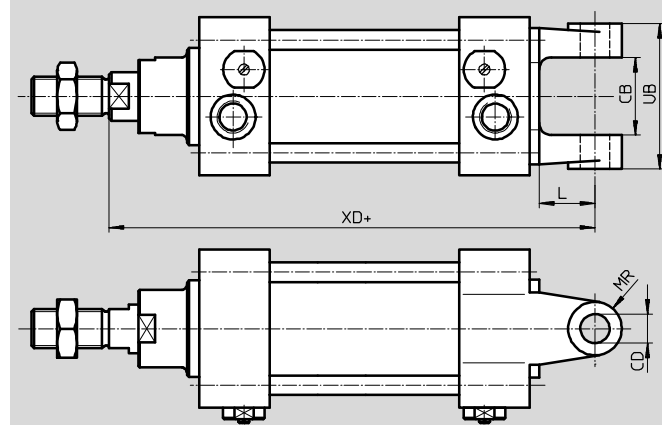
Ø	L7	L8	MM Ø	PL	RT	T1	TG	VA	VD	WH	ZJ	ZM	≈C1	≈C2	≈C3
[mm]															
32	5.3	94 +0.4	12	13	M6	9	32.5	4	6	26	120	148	10	26	6
40	2.5	105 +0.4/−0.6	16	14	M6	9	38	4	6	30	135	167	13	30	6
50	4.5	106 +0.4/−0.6	20	14	M8	10	46.5	4	6	37	143	183	17	34	8
63	5	121 +0.4/−0.6	20	18	M8	12	56.5	4	6	37	158	199	17	36	8
80	6	128 +0.4/−0.6	25	17	M10	15	72	4	7	46	174	222	22	41	10
100	9	138 +0.4/−0.6	25	18	M10	18	89	4	7	51	189	240	22	41	10
125	4.5	160 +0.4/−0.6	32	27	M12	18	110	6	6	66	226	292	27	50	12

Standard cylinders CRDNG to ISO 15552, stainless steel

Technical data

FESTO

Dimensions – CRDNGS



+ = plus stroke length

Ø	CB	CD	L	MR	UB	XD
[mm]	H14	Ø H9				
32	26	10	18	9	45	142
40	28	12	21	10	52	160
50	32	12	23	11	60	170
63	40	16	28	13	70	190
80	50	16	32	13	90	210
100	60	20	37	17	110	230
125	70	25	44	23	130	276

Standard cylinders CRDNG to ISO 15552, stainless steel

FESTO

Technical data

Ordering data				
Variant	Piston Ø [mm]	Stroke [mm]	Part No.	Type
CRDNG				
	32	10 ... 2000	160884	CRDNG-32-...-PPV-A
	40	10 ... 2000	160885	CRDNG-40-...-PPV-A
	50	10 ... 2000	160886	CRDNG-50-...-PPV-A
	63	10 ... 2000	160887	CRDNG-63-...-PPV-A
	80	10 ... 2000	160888	CRDNG-80-...-PPV-A
	100	10 ... 2000	160889	CRDNG-100-...-PPV-A
	125	10 ... 2000	185280	CRDNG-125-...-PPV-A
S6 – Heat-resistant up to 120 °C				
	32	10 ... 2000	185293	CRDNG-32-...-PPV-A-S6
	40	10 ... 2000	185294	CRDNG-40-...-PPV-A-S6
	50	10 ... 2000	185295	CRDNG-50-...-PPV-A-S6
	63	10 ... 2000	185296	CRDNG-63-...-PPV-A-S6
	80	10 ... 2000	185297	CRDNG-80-...-PPV-A-S6
	100	10 ... 2000	185298	CRDNG-100-...-PPV-A-S6
	125	10 ... 2000	185299	CRDNG-125-...-PPV-A-S6
S2 – Through piston rod				
	32	10 ... 2000	185282	CRDNG-32-...-PPV-A-S2
	40	10 ... 2000	185283	CRDNG-40-...-PPV-A-S2
	50	10 ... 2000	185284	CRDNG-50-...-PPV-A-S2
	63	10 ... 2000	185285	CRDNG-63-...-PPV-A-S2
	80	10 ... 2000	185286	CRDNG-80-...-PPV-A-S2
	100	10 ... 2000	185287	CRDNG-100-...-PPV-A-S2
	125	10 ... 2000	185288	CRDNG-125-...-PPV-A-S2
CRDNGS				
	32	10 ... 2000	160890	CRDNGS-32-...-PPV-A
	40	10 ... 2000	160891	CRDNGS-40-...-PPV-A
	50	10 ... 2000	160892	CRDNGS-50-...-PPV-A
	63	10 ... 2000	160893	CRDNGS-63-...-PPV-A
	80	10 ... 2000	160894	CRDNGS-80-...-PPV-A
	100	10 ... 2000	160895	CRDNGS-100-...-PPV-A
	125	10 ... 2000	185281	CRDNGS-125-...-PPV-A
S6 – Heat-resistant up to 120 °C				
	32	10 ... 2000	185300	CRDNGS-32-...-PPV-A-S6
	40	10 ... 2000	185301	CRDNGS-40-...-PPV-A-S6
	50	10 ... 2000	185302	CRDNGS-50-...-PPV-A-S6
	63	10 ... 2000	185303	CRDNGS-63-...-PPV-A-S6
	80	10 ... 2000	185304	CRDNGS-80-...-PPV-A-S6
	100	10 ... 2000	185305	CRDNGS-100-...-PPV-A-S6
	125	10 ... 2000	185306	CRDNGS-125-...-PPV-A-S6

Ordering data – Wearing parts kits				
Piston Ø [mm]	Part No.	Type	Piston Ø [mm]	Part No. Type
32	125713	CRDNG/S-32-...-PPV-A¹⁾	63	125716 CRDNG/S-63-...-PPV-A¹⁾
40	125714	CRDNG/S-40-...-PPV-A¹⁾	80	125717 CRDNG/S-80-...-PPV-A¹⁾
50	125715	CRDNG/S-50-...-PPV-A¹⁾	100	125718 CRDNG/S-100-...-PPV-A¹⁾

1) Assembly grease included in the scope of delivery

Accessories for stainless steel cylinders

FESTO

Technical data

Foot mounting CRHBN

Scope of delivery:

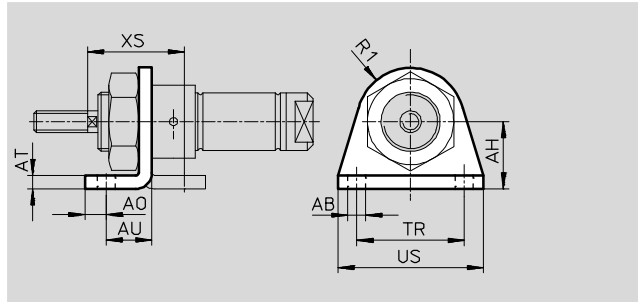
CRHBN-... x1: 1 foot

CRHBN-... x2: 2 feet, 1 nut

Material:

High-alloy steel

Free of copper and PTFE



Dimensions and ordering data													
For Ø	AB Ø	AH	AO	AT	AU	R1	TR	US	XS	CRC ¹⁾	Weight	Part No.	Type
[mm]											[g]		
12	5.5	20	6	4	14	13	32	42	32	4	40	161866	CRHBN-12/16x1
16	5.5	20	6	4	14	13	32	42	32	4	97	162999	CRHBN-12/16x2
20	6.6	25	8	5	17	20	40	54	36	4	55	161867	CRHBN-20/25x1
25	6.6	25	8	5	17	20	40	54	40	4	100	162998	CRHBN-20/25x2

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

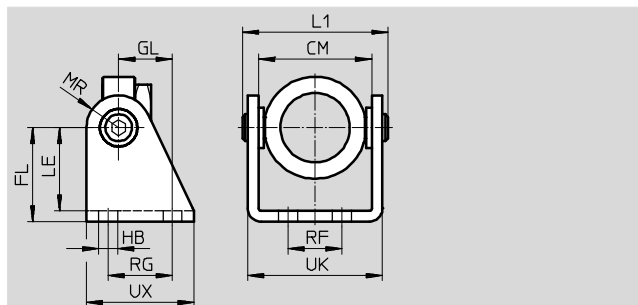
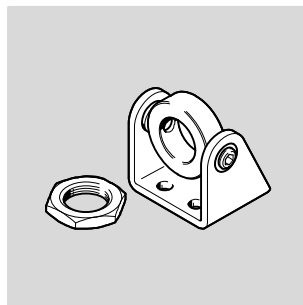
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

Swivel mounting CRSBN

Material:

High-alloy steel

Free of copper and PTFE



Dimensions and ordering data												Weight [g]	Part No.	Type
For Ø	CM	FL	GL	HB Ø	L1	LE	MR	RF	RG	UK	UX	CRC ¹⁾		
[mm]														
20	38.1	35	20	7	55	31	12	20	24	50.1	40	4	230	552904 CRSBN-20/25
25														

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.

Accessories for stainless steel cylinders

Technical data

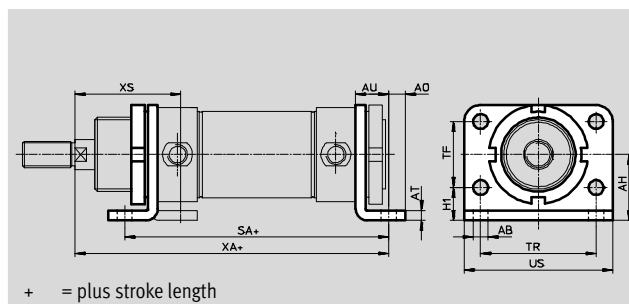
FESTO

Foot mounting CRH

Material:

High-alloy steel

Free of copper and PTFE



Dimensions and ordering data

For Ø	AB Ø	AH	AO	AT	AU	H1	SA	TF	TR	US	XA	XS	CRC ¹⁾	Weight [g]	Part No.	Type
[mm]																
32	7	28	7	4	14	14	124	28	52	66	148	48	4	237	162951	CRH-32
40	9	33	10	5	20	18	153	30	60	80	178	60	4	341	162952	CRH-40
50	9	40	10	6	20	20	160	40	70	90	190	64	4	559	162953	CRH-50
63	9	45	10	6	20	20	164	50	76	96	195	64	4	680	162954	CRH-63

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

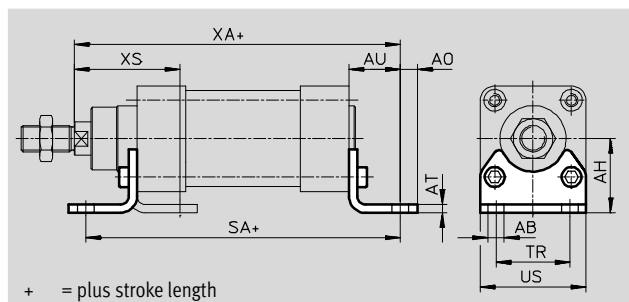
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (➔ also FN 940082) using appropriate media.

Foot mounting CRHNC

Material:

High-alloy steel

Free of copper and PTFE



Dimensions and ordering data

For Ø	AB Ø	AH	AO	AT	AU	SA	TR	US	XA	XS	CRC ¹⁾	Weight [g]	Part No.	Type
[mm]														
32	7	32	6.5	4	24	142	32	45	144.7	45.7	4	139	176937	CRHNC-32
40	10	36	9	4	28	160.8	36	54	163.6	53.8	4	188	176938	CRHNC-40
50	10	45	9.5	5	31	167.9	45	64	175	63.1	4	341	176939	CRHNC-50
63	10	50	12.5	5	32	184.9	50	75	191.5	64.6	4	424	176940	CRHNC-63
80	12	63	15	6	41	209.9	63	93	215.5	81.6	4	810	176941	CRHNC-80
100	14.5	71	17.5	6	41	220.1	75	110	229.6	85.5	4	990	176942	CRHNC-100
125	16.5	90	22	8	45	250	90	131	270	102	4	1920	176943	CRHNC-125

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.

Accessories for stainless steel cylinders

FESTO

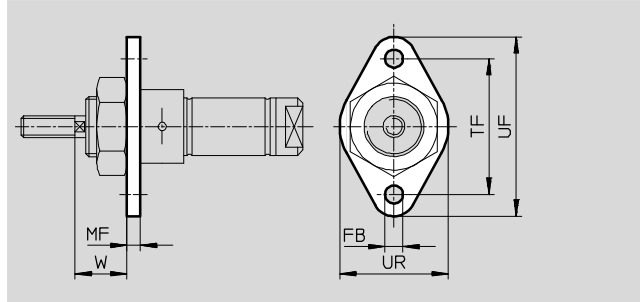
Technical data

Flange mounting CRFBN

Material:

High-alloy steel

Free of copper and PTFE



Dimensions and ordering data										
For Ø	FB	MF	TF	UF	UR	W	CRC ¹⁾	Weight	Part No.	Type
[mm]	Ø							[g]		
12, 16	5.5	4	40	53	30	18	4	25	161864	CRFBN-12/16
20	6.6	5	50	66	40	19	4	45	161865	CRFBN-20/25
25	6.6	5	50	66	40	23	4	45	161865	CRFBN-20/25

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

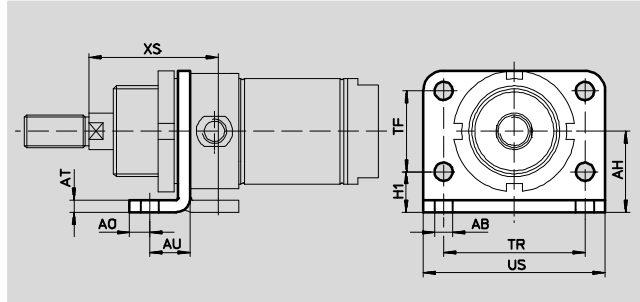
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

Foot mounting CRFV

Material:

High-alloy steel

Free of copper and PTFE



Dimensions and ordering data												Weight	Part No.	Type
For Ø	AB	AH	AO	AT	AU	H1	TF	TR	US	XS	CRC ¹⁾			
[mm]	Ø											[g]		
32	7	28	7	4	14	14	28	52	66	48	4	102	161858	CRFV-32
40	9	33	10	5	20	18	30	60	80	60	4	190	161859	CRFV-40
50	9	40	10	6	20	20	40	70	90	64	4	290	161860	CRFV-50
63	9	45	10	6	20	20	50	76	96	64	4	365	161861	CRFV-63

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.

Accessories for stainless steel cylinders

FESTO

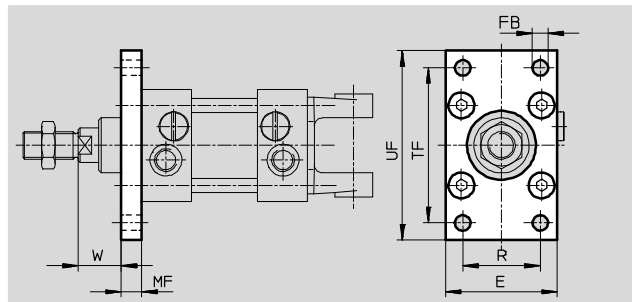
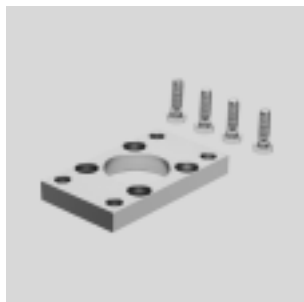
Technical data

Flange mounting CRFNG

Material:

High-alloy steel

Free of copper and PTFE



Dimensions and ordering data										
For Ø	E	FB Ø	MF	R	TF	UF	W	CRC ¹⁾	Weight [g]	Part No. Type
[mm]										
32	45	7	10	32	64	80	16	4	220	161846 CRFNG-32
40	54	9	10	36	72	90	20	4	291	161847 CRFNG-40
50	65	9	12	45	90	110	25	4	526	161848 CRFNG-50
63	75	9	12	50	100	120	25	4	680	161849 CRFNG-63
80	93	12	16	63	126	150	30	4	1508	161850 CRFNG-80
100	110	14	16	75	150	175	35	4	2054	161851 CRFNG-100
125	132	16	20	90	180	210	45	4	3787	185363 CRFNG-125

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.

Accessories for stainless steel cylinders

FESTO

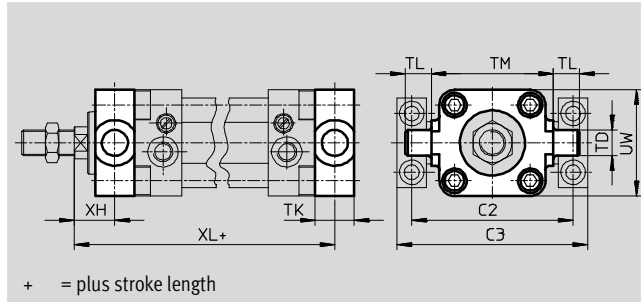
Technical data

Trunnion flange CRZNG

Material:

High-alloy steel

Free of copper and PTFE



Dimensions and ordering data													
For Ø	C2	C3	TD Ø e9	TK	TL	TM	UW	XH	XL	CRC ¹⁾	Weight	Part No.	Type
[mm]											[g]		
32	71	86	12	16	12	50	50	18	128	4	150	161852	CRZNG-32
40	87	105	16	20	16	63	55	20	145	4	285	161853	CRZNG-40
50	99	117	16	24	16	75	65	25	155	4	473	161854	CRZNG-50
63	116	136	20	24	20	90	75	25	170	4	687	161855	CRZNG-63
80	136	156	20	28	20	110	100	32	188	4	1296	161856	CRZNG-80
100	164	189	25	38	25	132	120	32	208	4	2254	161857	CRZNG-100
125	192	217	25	50	25	160	150	40	250	4	3484	185362	CRZNG-125

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

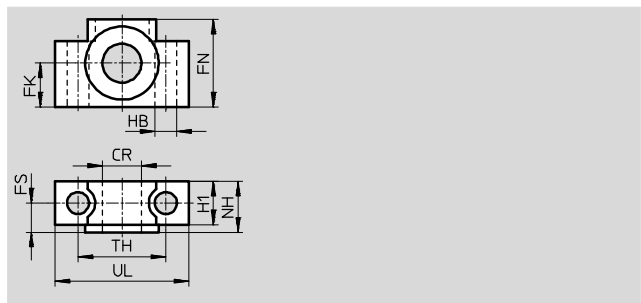
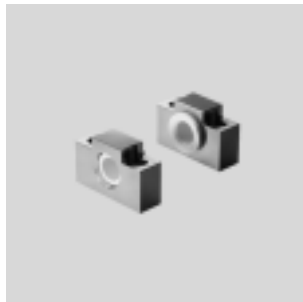
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

Trunnion supports CRLNZG

Material:

High-alloy steel

Free of copper and PTFE



Dimensions and ordering data													
For Ø	CR Ø	FK Ø	FN	FS	H1	HB Ø	NH	TH	UL	CRC ¹⁾	Weight	Part No.	Type
[mm]	D11	±0.1				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
100/125	25	25	50	16	24.5	14	28.5	50	75	4	739	161877	CRLNZG-100/125

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.

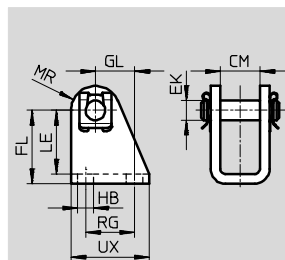
Accessories for stainless steel cylinders

Technical data

FESTO

Clevis foot CRLBN

Material:
High-alloy steel
Free of copper and PTFE

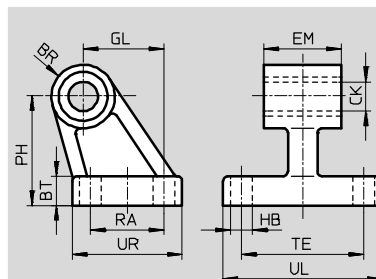


Dimensions and ordering data													
For Ø	CM	EK Ø	FL	GL	HB	LE	MR	RG	UX	CRC ¹⁾	Weight [g]	Part No.	Type
[mm]													
12, 16	12.1	6	27 +0.3/-0.2	13	5.5	24	7	15	25	4	39	161862	CRLBN-12/16
20, 25	16.1	8	30 +0.4/-0.2	16	6.6	26	10	20	32	4	82	161863	CRLBN-20/25
32	16.1	10	35 +0.4/-0.2	18.5	6.6	31	11	24	35	4	106	195866	CRLBN-32
40	18.1	12	40 +0.4/-0.2	24.5	9	35	13	30	45	4	185	195867	CRLBN-40
50, 63	21.1	16	45 +0.5/-0.2	28	9	39	14	34	50	4	293	195868	CRLBN-50/63

- 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.

Clevis foot CRLNG

Material:
High-alloy steel
Free of copper and PTFE



Dimensions and ordering data															
For Ø	BR	BT	CK Ø	EB Ø	EM	GL	HB Ø	OF	PH	RA	TE	UL	UR	CRC ¹⁾	Weight [g]
[mm]			D11	H13	-0.4		H13								
32	10	8	10	-	25.8	21	6.6	-	32	18	38	51	31	4	133
40	11	10	12	-	27.8	24	6.6	-	36	22	41	54	35	4	161
50	12	12	12	-	31.8	33	9	-	45	30	50	65	45	4	281
63	15	12	16	15	39.8	37	9	10.8	50	35	52	67	50	4	370
80	15	14	16	18	49.8	47	11	12.7	63	40	66	86	60	4	562
100	19	15	20	18	59.8	55	11	13.7	71	50	76	96	70	4	915
125	22	20	25	20	69.8	70	14	18.6	90	60	94	124	90	4	2539

- 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.

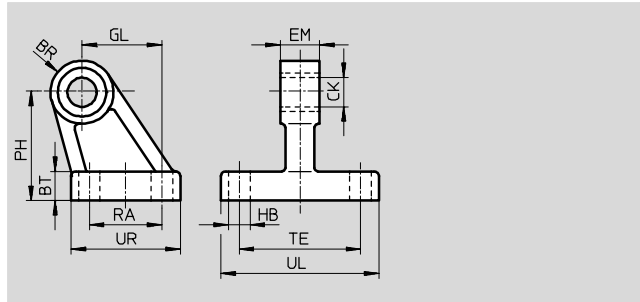
Accessories for stainless steel cylinders

FESTO

Technical data

Clevis foot CRLMC

Material:
High-alloy steel
Free of copper and PTFE

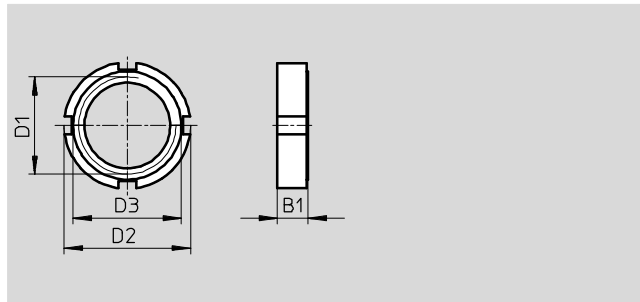
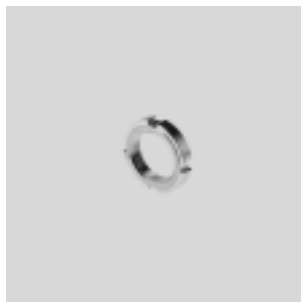


Dimensions and ordering data																	
For Ø	BR	BT	CK Ø	EB Ø	EM	GL	HB Ø	OF	PH	RA	TE	UL	UR	CRC ¹⁾	Weight	Part No.	Type
[mm]			D11	H13	−0.4		H13								[g]		
32	10	8	10	–	10	21	6.6	–	32	18	38	51	31	4	112	197320	CRLMC-32
40	11	10	12	–	12	24	6.6	–	36	22	41	54	35	4	144	197321	CRLMC-40
50	12	12	12	–	16	33	9	–	45	30	50	65	45	4	254	197322	CRLMC-50
63	15	12	16	15	16	37	9	10.8	50	35	52	67	50	4	306	197323	CRLMC-63
80	15	14	16	18	20	47	11	12.7	63	40	66	86	60	4	482	197324	CRLMC-80
100	19	15	20	18	20	55	11	13.7	71	50	76	96	70	4	722	197325	CRLMC-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.

Ring nut CR

Material:
High-alloy steel
Free of copper and PTFE



Dimensions and ordering data								
For Ø	B1	D1	D2	D3	CRC ¹⁾	Weight	Part No.	Type
[mm]						[g]		
32	8	M30x1.5	42	36	4	40	197326	CR-M30x1,5
40	10	M38x1.5	50	48	4	61	197327	CR-M38x1,5
50, 63	10	M45x1.5	60	56	4	89	197328	CR-M45x1,5
80, 100	13	M50x2	75	67	4	228	197329	CR-M50x2

- 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.

Accessories for stainless steel cylinders

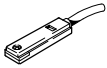
Technical data

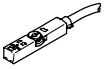
FESTO

Ordering data – Piston rod attachments				Technical data → Internet: crsg			
	For Ø	Part No.	Type		For Ø	Part No.	Type
Rod eye CRSGS				Rod clevis CRSG			
	12, 16	195580	CRSGS-M6		12, 16	13567	CRSG-M6
	20	195581	CRSGS-M8		20	13568	CRSG-M8
	32	195582	CRSGS-M10x1,25		32	13569	CRSG-M10x1,25
	40	195583	CRSGS-M12x1,25		40	13570	CRSG-M12x1,25
	50, 63	195584	CRSGS-M16x1,5		50, 63	13571	CRSG-M16x1,5
	80, 100	195585	CRSGS-M20x1,5		80, 100	13572	CRSG-M20x1,5
	125	195586	CRSGS-M27x2		125	185361	CRSG-M27x2
Self-aligning rod coupler CRFK							
	25, 32	2305778	CRFK-M10x1,25				
	40	2305779	CRFK-M12x1,25				
	50, 63	2490673	CRFK-M16x1,5				
	80, 100	2545677	CRFK-M20x1,5				

Ordering data – Proximity sensors, magnetic reed CRSME0				Technical data → Internet: crsmeo			
	Electrical connection	Cable length		Part No.	Type		
	Cable	[m]					
	N/O contact						
	Corrosion resistant						
	3-wire	2.5		161 775	CRSME0-4-K-LED-24		

Ordering data – Mounting kits				Technical data → Internet: crsmb			
	For Ø	Part No.	Type		For Ø	Part No.	Type
Mounting kit CRSMBR				Mounting kit CRSMB			
	12	164581	CRSMBR-12		32	161763	CRSMB-32
	16	164582	CRSMBR-16		40	161764	CRSMB-40
	20	164583	CRSMBR-20		50	161765	CRSMB-50
	25	164584	CRSMBR-25		63	161766	CRSMB-63
	32	163888	CRSMBR-32		80	161767	CRSMB-80
	40	163889	CRSMBR-40		100	161768	CRSMB-100
	50	163890	CRSMBR-50		125	185365	CRSMB-125
	63	163891	CRSMBR-63				

Ordering data – Proximity sensors for T-slot, magneto-resistive, CRSMT-8				Technical data → Internet: crsmt			
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part No.	Type	
N/O contact							
	Insertable in the slot lengthwise, flush with the cylinder profile	PNP	Cable, 3-wire	2.5	525563	CRSMT-8-PS-K-LED-24	
			Cable, 3-wire	5.0	525564	CRSMT-8-PS-K5-LED-24	

Ordering data – Proximity sensors for T-slot, magneto-resistive, CRSMT-8M				Technical data → Internet: crsmt			
	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	5.0	574380	CRSMT-8M-PS-24V-K-5,0-OE	
			Cable, 3-wire	10.0	574381	CRSMT-8M-PS-24V-K-10,0-OE	
			Plug M8x1, 3-pin	0.3	574383	CRSMT-8M-PS-24V-K-0,3-M8D	
			Plug M8x1, 3-pin	0.3	574382	CRSMT-8M-PS-24V-K-0,3-M12	

Accessories for stainless steel cylinders

Technical data

FESTO

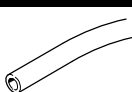
Ordering data – Connecting cables				Technical data → Internet: nebu	
	Electrical connection, left	Electrical connection, right	Cable length [m]	Part No.	Type
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541333	NEBU-M8G3-K-2.5-LE3
			5	541334	NEBU-M8G3-K-5-LE3
	Straight socket, M12x1, 5-pin	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 – Mounting kit SMBR			Technical data → Internet: smbr	
			Part No.	Type
	For standard cylinder CRDSNU		538937	SMBR-8-8/100-S6

Ordering data – Mounting kit CRSMB			Technical data → Internet: crsmb	
			Part No.	Type
	For round cylinder CRHD		525565	CRSMB-8-32/100

Ordering data – One-way flow control valves CRGRLA				Technical data → Internet: crgrla	
	Connection		Material	Part No.	Type
	Thread	For push-in fitting			
	M5	CRQS/CRQSL/CRQST	Electrolytically polished stainless steel casting	161403	CRGRLA-M5-B
	G1/8			161404	CRGRLA-1/8-B
	G1/4			161405	CRGRLA-1/4-B
	G3/8			161406	CRGRLA-3/8-B
	G1/2			161407	CRGRLA-1/2-B

Ordering data – Air reservoirs CRVZS				Technical data → Internet: crvzs	
	Connection		Material	Part No.	Type
	Thread	Volume [l]			
	G1/8	0.1	High-alloy stainless steel	160233	CRVZS-0,1
	G1/4	0.4		160234	CRVZS-0,4
	G1/4	0.75		160235	CRVZS-0,75
	G1/2	2		160236	CRVZS-2
	G1, G3/8	5		192159	CRVZS-5
	G1, G3/8	10		160237	CRVZS-10

Ordering data – Tubing			Technical data → Internet: tubing	
	Standard outside diameter		PLN, PFAN	