



- Resistant to corrosion caused by harsh environmental conditions
- Easy to clean design
- Optional integrated position sensing
- Comprehensive range of accessories

Standard cylinders CDN, ISO 15552, Clean Design

Key features

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Design

- The cylinder series is based on ISO 15552 for standard cylinders
- The standard cylinder CDN is designed as a double-acting pneumatic cylinder with piston, piston rod and profile barrel

Easy to clean

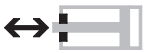
- Clean Design means smooth surfaces without slots and edges, which means fewer places where dirt can collect
- For hygiene reasons, the threads on the cylinder caps should be sealed with suitable blanking screws
- Resistant to conventional cleaning agents
- Increased corrosion protection

Easy to assemble

- Comprehensive range of mounting accessories for just about every type of installation
- Contactless position sensing via proximity sensors

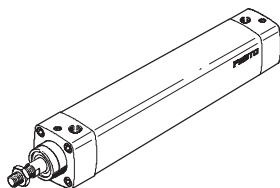
Flexible

- The variants can be configured according to individual needs thanks to the modular product system
- Greater flexibility thanks to the wide range of variants

Variants		
Symbol	Key features	Description
	A3 Unlubricated operation	Cleaning processes remove the grease from the piston rod. A special piston rod seal enables longer service life compared to the rod seal.
	S2 Through piston rod	For working at both ends with the same forces in the advance and returnstroke, for attaching external stops.
	K2 Extended male piston rod thread	–
	K3 Female piston rod thread	–
	K8 Extended piston rod	–
	S6 Heat-resistant seals	Temperature resistance up to max. 120 °C. Due to the seals and grease used this variant is not suitable for direct contact with food products.

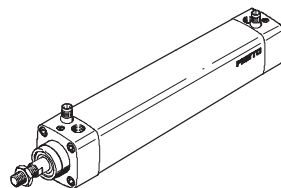
CDN-...

- Ø 32 ... 100 mm
- Without position sensing



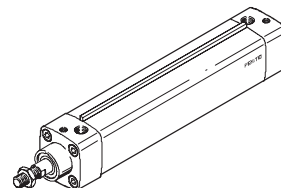
CDN-...-A...-R

- Ø 32 ... 100 mm
- With position sensing integrated in the end positions



CDN-...-A-R

- Ø 32 ... 100 mm
- With sensor mounting rail for external position sensing



Note

A combination of integrated and external position sensing is possible.

Standard cylinders

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



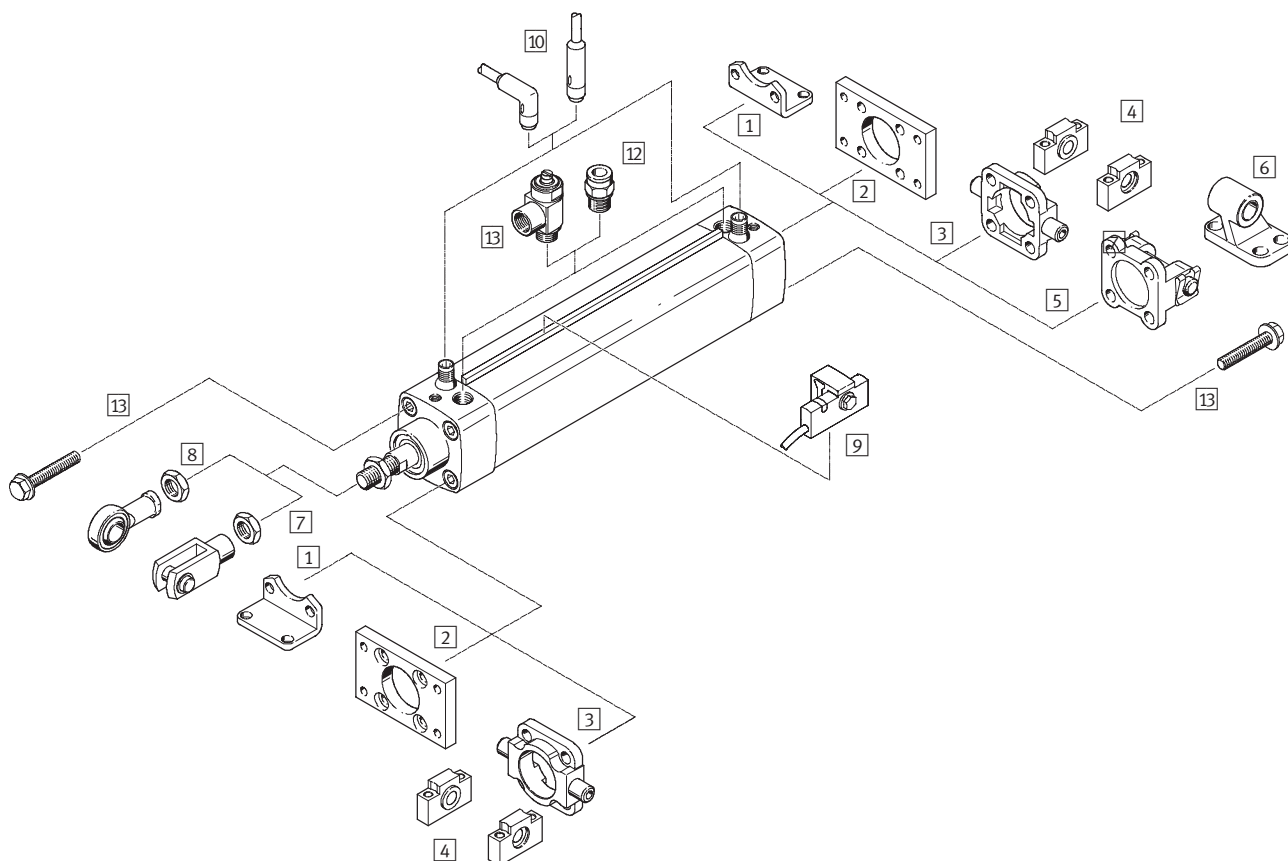
DIN



Standard cylinders CDN, ISO 15552, Clean Design

Peripherals overview

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Mounting attachments and accessories		
	Brief description	→ Page/Internet
1 Foot mounting CRHNC	For bearing and end cap	13
2 Flange mounting CRFNG	For bearing or end cap	13
3 Trunnion flange CRZNG	For bearing or end cap in combination with trunnion supports CRLNZG	14
4 Trunnion supports CRLNZG	For swivel mounting CRZNG	14
5 Swivel flange SNCB- ... -R3	For end cap	15
6 Clevis foot mounting CRLNG	For swivel flange SNCB- ... -R3	15
7 Rod clevis CRSG	Permits a swivelling movement of the cylinder in one plane	19
8 Rod eye CRSGS	With spherical bearing	19
9 Proximity sensor SMT-C1	For attachment to the sensor mounting rail	16
10 Cable with socket SIM-K- ... -CDN	– For electrical signal transmission and power supply – With food industry approval	17
11 One-way flow control valve CRGRLA	For regulating speed	19
12 Push-in fittings QS-F/QSL-F/CRQS/CRQSL	For connecting compressed air tubing with standard external diameters	18
13 Blanking screws CR	For covering unused mounting threads	19

Standard cylinders CDN, ISO 15552, Clean Design

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Type codes

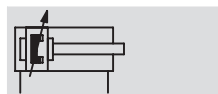
		CDN	-	50	-	200	-	PPV	-	AIB	-	SME	-		-	R	-	K2
Type																		
Double-acting																		
CDN	Standard cylinder, Clean Design																	
Piston Ø [mm]																		
Stroke [mm]																		
Cushioning																		
PPV	Pneumatic cushioning, adjustable at both ends																	
Position sensing																		
A	For proximity sensor																	
AIB	At both ends, integrated																	
AIV	Front, integrated																	
AIH	Rear, integrated																	
Proximity sensor																		
SME	Contacting (magnetic reed)																	
SMT	Contactless (magneto-resistive)																	
Wiper seal material																		
A3	Suited for unlubricated operation																	
Sensor mounting rail																		
R	For external position sensing																	
Variant																		
S2	Through piston rod																	
K2	Extended male piston rod thread																	
K3	Piston rod with female thread																	
K8	Extended piston rod																	
S6	Heat-resistant seals for temperatures up to 120 °C																	

Standard cylinders CDN, ISO 15552, Clean Design

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Technical data

Function



-  - Diameter
32 ... 100 mm
-  - Stroke length
10 ... 2,000 mm

-  - www.festo.com

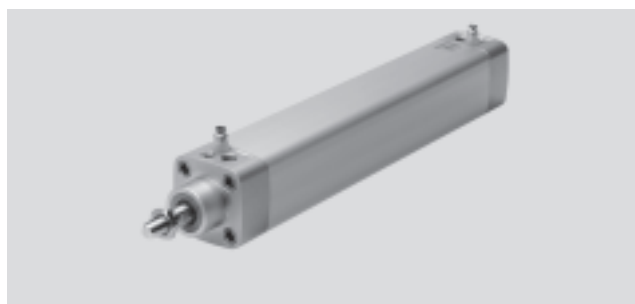
Wearing parts kits

→ 9

- 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



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					
		Cylinder barrel					
Cushioning		Pneumatic cushioning, adjustable at both ends					
Cushioning length [mm]		20	20	22	22	32	32
Position sensing	A	For proximity sensor					
	AIB	At both ends, integrated					
	AIV	Front, integrated					
	AIH	Rear, integrated					
Type of mounting		With female thread					
		Via accessories					
Mounting position		Any					

Operating and environmental conditions	
Operating medium	Filtered compressed air, lubricated or unlubricated
Operating pressure [bar]	0.6 ... 12
Ambient temperature ¹⁾ [°C]	-20 ... +80
S6 [°C]	0 ... +120
Corrosion resistance class CRC ²⁾	3

1) Note operating range of proximity sensors

2) Corrosion resistance class 3 to Festo standard 940 070

Components requiring higher corrosion resistance. External visible parts in direct contact with industrial atmospheres or media such as solvents and cleaning agents, with a predominantly functional requirement for the surface

Standard cylinders CDN, ISO 15552, Clean Design

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Technical data

Forces [N] and impact energy [J]						
Piston Ø	32	40	50	63	80	100
Theoretical force at 6 bar, advancing	483	754	1,178	1,870	3,016	4,712
Theoretical force at 6 bar, retracting	415	633	990	1,682	2,721	4,418
Max. impact energy at the end positions	0.4	0.7	1.0	1.3	1.6	1.6
S6	0.2	0.35	0.5	0.65	0.8	0.8

Permissible impact velocity:

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

$v_{perm.}$ Permissible impact velocity
 $E_{perm.}$ Max. impact energy
 m_{dead} Moving load (drive)
 m_{load} Moving work load

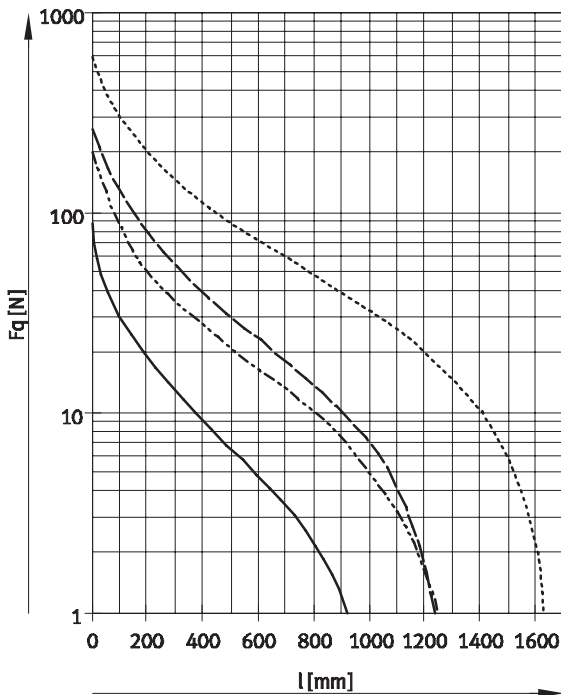
Note
 These specifications represent the maximum values which can be reached. Note the maximum permitted impact energy.

Maximum permissible load:

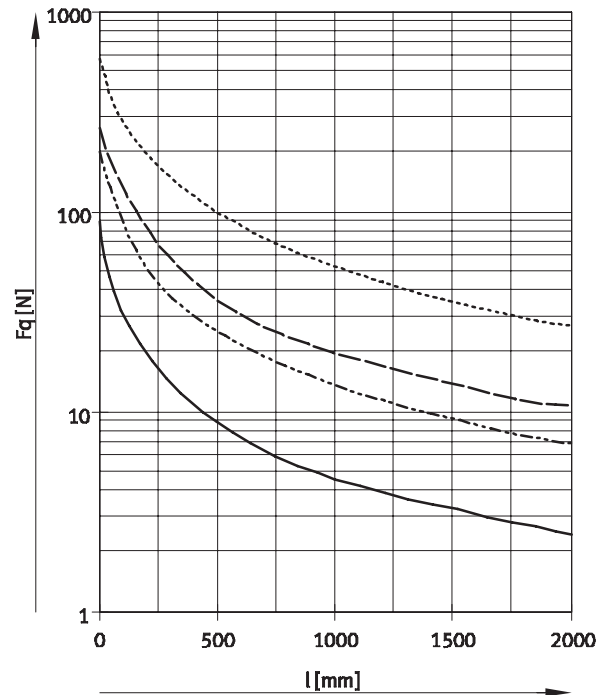
$$m_{load} = \frac{2 \times E_{perm.}}{v^2} - m_{dead}$$

Max. lateral force F_q as a function of stroke length l

Horizontal mounting



Vertical mounting



- Ø 32
- - - Ø 40
- · - Ø 50, 63
- · · Ø 80, 100

Standard cylinders CDN, ISO 15552, Clean Design

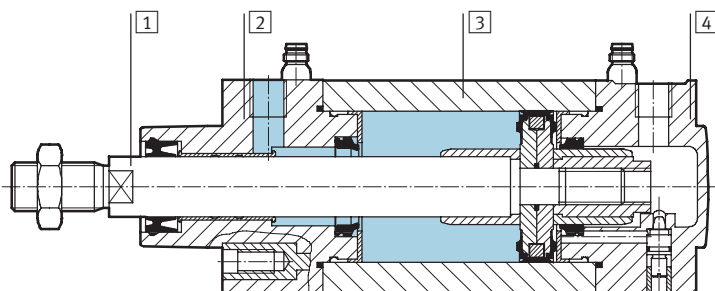
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Technical data

Weights [g]						
Piston Ø	32	40	50	63	80	100
Basic version						
Product weight with 0 mm stroke	600	920	1,530	2,140	3,151	4,820
Additional weight per 10 mm stroke	33	42	65	70	137	158
Moving load with 0 mm stroke	130	250	450	510	1,131	1,544
Additional load per 10 mm stroke	9	16	25	25	137	158
S2 – Through piston rod						
Product weight with 0 mm stroke	715	1,130	1,920	2,570	3,613	5,389
Additional weight per 10 mm stroke	42	58	90	95	175	196
Moving load with 0 mm stroke	210	420	780	860	1,392	1,872
Additional load per 10 mm stroke	18	32	50	50	76	76

Materials

Sectional view



Standard cylinder	Basic version	S6	A3
1 Piston rod	High-alloy steel		
2 Bearing cap	Anodised aluminium		
3 Cylinder barrel	Anodised aluminium		
4 End cap	Die-cast aluminium		
– Seals	Polyurethane, nitrile rubber	Fluorocarbon rubber	Polyethylene
– Note on materials	Free of copper and PTFE		

Standard cylinders CDN, ISO 15552, Clean Design

Technical data

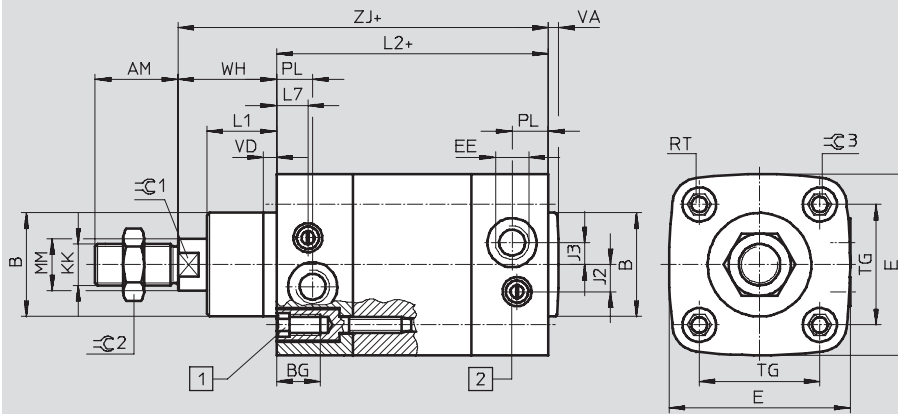
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Dimensions

Download CAD data → www.festo.com

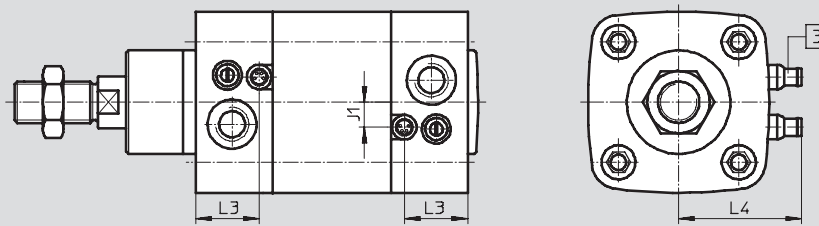
Basic version

and A3 – Unlubricated operation



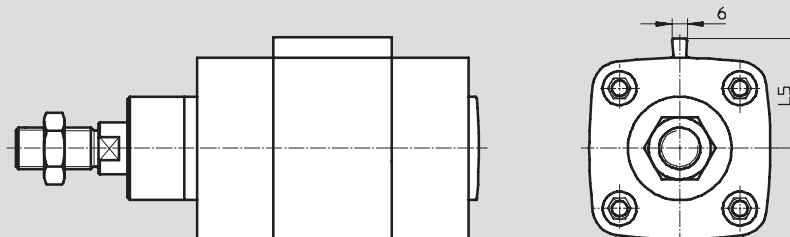
- 1 Socket head screw with female thread for mounting attachments
- 2 Regulating screw for adjustable end-position cushioning

With position sensing integrated in the end positions



- 3 Miniature plug connector, 3-pin, with integrated proximity sensor (order code SME or SMT) suitable for cable with socket SIM-K-...-CDN

With sensor mounting rail for external position sensing



Ø	AM	B	BG	E	EE	J1	J2	J3	KK	L1	L2	L3	L4
[mm]		Ø d11	min.										±2
32	22	30	16	50	G ¹ / ₈	6	6	5.5	M10x1.25	18	94 ±0.4	23.2	35
40	24	35	16	58	G ¹ / ₄	8.5	8.4	6.5	M12x1.25	21	105 ±0.4	28.2	39
50	32	40	17	70	G ¹ / ₄	9	9	8.5	M16x1.5	28	106 ±0.4	28.2	45
63	32	45	17	81	G ³ / ₈	14	14	11	M16x1.5	28.5	121 ±0.4	35.7	50
80	40	45	17	100	G ³ / ₈	21.5	14.5	8	M20x1.5	34.5	128 ±0.8	30.6	60
100	40	55	17	120	G ¹ / ₂	22	16	17.5	M20x1.5	38	138 ±1	33.5	70

Ø	L5	L7	MM	PL	RT	TG	PI	VD	WH	ZJ	⌀C1	⌀C2	⌀C3
[mm]			Ø						±1.4				
32	30	10.5	12	17	M6	32.5	4	5	26	120	10	17	6
40	34	16	16	22	M6	38	4	5	30	135	13	19	6
50	40	12	20	20	M8	46.5	4	5	37	143	17	24	8
63	45.5	17.5	20	26	M8	56.5	4	5	37	158	17	24	8
80	55	15.4	25	16.4	M10	72	4	5	46	174	22	30	6
100	65	15.8	25	19	M10	89	4	5	51	189	22	30	6

Standard cylinders CDN, ISO 15552, Clean Design

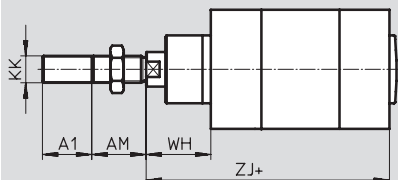
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Technical data

Dimensions – Variants

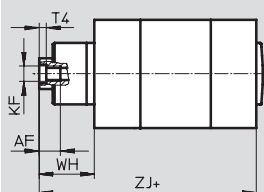
Download CAD data → www.festo.com

K2 – Extended male piston rod thread



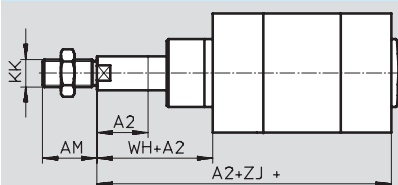
+ = plus stroke length

K3 – Piston rod with female thread



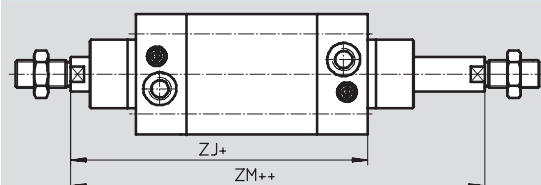
+ = plus stroke length

K8 – Extended piston rod



+ = plus stroke length

S2 – Through piston rod



+ = plus stroke length
++ = plus 2 stroke lengths

Ø	AF	AM	A1	A2	KF	KK	T4	WH	ZJ	ZM
[mm]			max.	max.				±1.4		
32	12	22	35	500	M6	M10x1.25	2.6	26	120	146.6
40	12	24	35		M8	M12x1.25	3.3	30	135	165.3
50	16	32	70		M10	M16x1.5	4.7	37	143	180.3
63	16	32	70		M10	M16x1.5	4.7	37	158	195.9
80	20	40	70		M12	M20x1.5	6.1	46	174	222
100	20	40	70		M12	M20x1.5	6.1	51	189	240

Ordering data – Wearing parts kits

Piston Ø	Part No.	Type	Piston Ø	Part No.	Type
[mm]			[mm]		
32	397 440	CDN-32-...-PPV-A ¹⁾	63	397 443	CDN-63-...-PPV-A ¹⁾
40	397 441	CDN-40-...-PPV-A ¹⁾	80	397 444	CDN-80-...-PPV-A ¹⁾
50	397 442	CDN-50-...-PPV-A ¹⁾	100	397 445	CDN-100-...-PPV-A ¹⁾

1) Assembly grease included in scope of delivery

Standard cylinders CDN, ISO 15552, Clean Design

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Technical data

Proximity sensor magnetic reed

(order code SME)

Material:

Housing: Polyamide, epoxy resin,
nickel-plated brass

Plug contacts: Gold-plated brass

Free of copper and PTFE



Note

The proximity sensor can only be ordered in conjunction with the order code AIB, AIV and AIH (integrated position sensing) in the modular product system.



Design	
Constructional design	Integrated
Switching element function	N/O contact
Switch output	Contacting, bipolar
Switching status display	Yellow LED

Technical data – N/O contact		
Sensing principle		Magnetic reed
Electrical connection		Plug, M8x1, 3-pin
Operating voltage range	[V DC]	12 ... 30
	[V AC]	12 ... 30
Max. output current	[mA]	500
Max. switching capacity	[W]	10
Voltage drop	[V]	< 2
Residual current	[mA]	0
Switch-on time	[ms]	0.5
Switch-off time	[ms]	0.5
Reproducibility of switching point	[mm]	±0.1
Protection against short circuit		No
Protection against overloading		No
Protection against polarity reversal		No
Product weight	[g]	2.7
Protection class		IP65, IP67
		IP69K only in combination with SIM-K-...-CDN

Operating and environmental conditions		
Ambient temperature	[°C]	–20 ... +60
Corrosion resistance class CRC ¹⁾		3
CE mark (see declaration of conformity)		In accordance with EU EMC directive

1) Corrosion resistance class 3 to Festo standard 940 070

Components requiring higher corrosion resistance. External visible parts in direct contact with industrial atmospheres or media such as solvents and cleaning agents, with a predominantly functional requirement for the surface

Standard cylinders CDN, ISO 15552, Clean Design

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Technical data

Proximity sensor
magneto-resistive
(order code SMT)

Material:

Housing: Polyamide, epoxy resin,
nickel-plated brass

Plug contacts: Gold-plated brass

Free of copper and PTFE



Note

The proximity sensor can only be ordered in conjunction with the order code AIB, AIV and AIH (integrated position sensing) in the modular product system.



Design	
Constructional design	Integrated
Switching element function	N/O contact
Switch output	Contacting, bipolar
Switching status display	Yellow LED

Technical data – N/O contact	
Sensing principle	Magneto-resistive
Electrical connection	Plug, M8x1, 3-pin
Operating voltage range [V DC]	5 ... 30
Max. output current [mA]	100
Max. switching capacity [W]	3
Voltage drop [V]	< 2
Residual current [μA]	10
Switch-on time [ms]	0.5
Switch-off time [ms]	0.5
Reproducibility of switching point [mm]	±0.1
Protection against short circuit	Yes
Protection against overloading	Yes
Protection against polarity reversal	Yes
Product weight [g]	2.7
Protection class	IP65, IP67
	IP69K only in combination with SIM-K-...-CDN

Operating and environmental conditions	
Ambient temperature [°C]	–20 ... +60
Corrosion resistance class CRC ¹⁾	3
CE mark (see declaration of conformity)	In accordance with EU EMC directive

1) Corrosion resistance class 3 to Festo standard 940 070

Components requiring higher corrosion resistance. External visible parts in direct contact with industrial atmospheres or media such as solvents and cleaning agents, with a predominantly functional requirement for the surface

Standard cylinders CDN, ISO 15552, Clean Design

Ordering data – Modular products

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M Mandatory data					O Options								
Module No.	Function		Stroke		Position sensing		Wiper seal material		Type of piston rod		Female thread		Temperature resistant
	Piston Ø		Cushioning		Proximity sensor		Sensor mounting rail		Male thread extended		Piston rod extended		
193 660	CDN	32	10 ...	PPV	A	SME	A3	R	S2	...K2	K3	...K8	S6
193 661		40	2,000		AIB	SMT							
193 662		50			AIV								
193 663		63			AIH								
193 664		80											
193 665		100											
Order example													
193 663	CDN	- 63	- 900	- PPV	- AIV	- SME	-	-	-	- 30K2	-	-	-

Ordering table										
Size		32	40	50	63	80	100	Condi- tions	Code	Enter code
M	Module No.	193 660	193 661	193 662	193 663	193 664	193 665			
	Function	Standard cylinder, double-acting, based on ISO 15552 (Clean Design)							CDN	CDN
	Piston Ø [mm]	32	40	50	63	80	100		-...	
	Stroke [mm]	10 ... 2,000							-...	
	Cushioning	Pneumatic cushioning adjustable at both ends							-PPV	-PPV
O	Position sensing	For proximity sensor						1	-A	
		At both ends, integrated						2	-AIB	
		Front, integrated						2	-AIV	
		Rear, integrated						2	-AIH	
	Proximity sensor	SME (contacting)						3	-SME	
		SMT (contactless)						3	-SMT	
	Wiper seal material	Suited for unlubricated operation						4	-A3	
	Sensor mounting rail	Sensor mounting rail for external position sensing						5	-R	
	Type of piston rod	Through piston rod							-S2	
	Male thread extended [mm]	Extended male piston rod thread 1 ... 35				1 ... 70			-...K2	
	Female thread	Piston rod with female thread (M6) (M8) (M10) (M12)						6	-K3	
	Piston rod extended [mm]	Extended piston rod at front 1 ... 500							-...K8	
	Temperature resistant	Heat-resistant seals max. 120 °C						7	-S6	

- | | |
|---|--|
| [1] A Only with sensor rail R | [5] R Only with position sensing A, AIB, AIV or AIH |
| [2] AIB, AIV, AIH Only with proximity sensors SME or SMT | [6] K3 Not with male thread extended K2 |
| [3] SME, SMT Only with position sensing AIB, AIV or AIH | [7] S6 Not with position sensing A, AIB, AIV or AIH |
| [4] A3 Not with temperature resistant S6 | |
| | Not with position sensing AIB, AIV or AIH |

Transfer order code

- **CDN** - - - **PPV** - - - - - - - - -

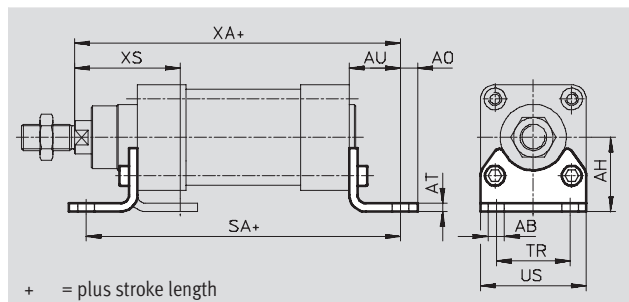
Standard cylinders CDN, ISO 15552, Clean Design

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Accessories

Foot mounting CRHNC

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

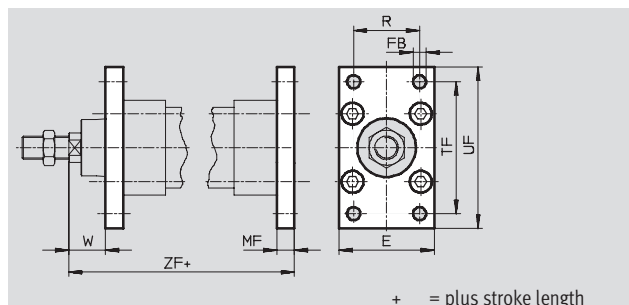
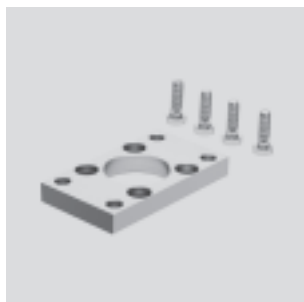


Dimensions and ordering data													
For Ø	AB Ø	AH	AO	AT	AU	SA	TR	US	XA	XS	CRC ¹⁾	Weight [g]	Part No. Type
[mm]													
32	7	32	6.5	4	24	142	32	45	144.7	45.7	4	135	176 937 CRHNC-32
40	10	36	9	4	28	160.8	36	54	163.6	53.8	4	180	176 938 CRHNC-40
50	10	45	9.5	5	31	167.9	45	64	175	63.1	4	325	176 939 CRHNC-50
63	10	50	12.5	5	32	184.9	50	75	191.5	64.6	4	405	176 940 CRHNC-63
80	12	63	15	6	41	209.9	63	93	215.5	81.6	4	820	176 941 CRHNC-80
100	14.5	71	17.5	6	41	220.1	75	110	229.6	85.5	4	1,000	176 942 CRHNC-100

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

Flange mounting CRFNG

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



Dimensions and ordering data												
For Ø	E	FB Ø	MF	R	TF	UF	W	ZF	CRC ¹⁾	Weight	Part No.	Type
[mm]										[g]		
32	45	7	10	32	64	80	16	130	4	240	161 846	CRFNG-32
40	54	9	10	36	72	90	20	145	4	300	161 847	CRFNG-40
50	65	9	12	45	90	110	25	155	4	550	161 848	CRFNG-50
63	75	9	12	50	100	120	25	170	4	710	161 849	CRFNG-63
80	93	12	16	63	126	150	30	190	4	1,680	161 850	CRFNG-80
100	110	14	16	75	150	175	35	205	4	2,450	161 851	CRFNG-100

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

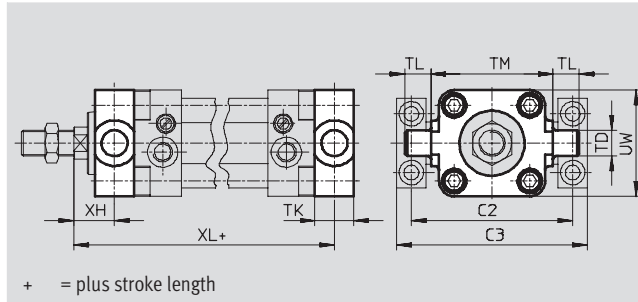
Standard cylinders CDN, ISO 15552, Clean Design

FESTO

Accessories

Trunnion flange CRZNG

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

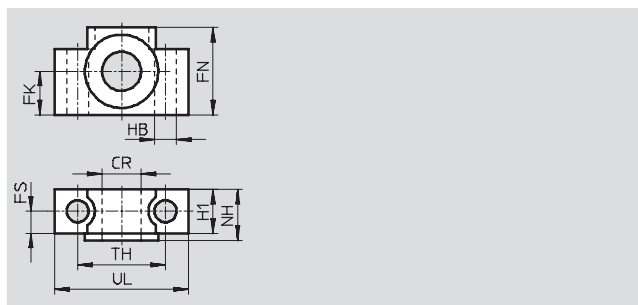
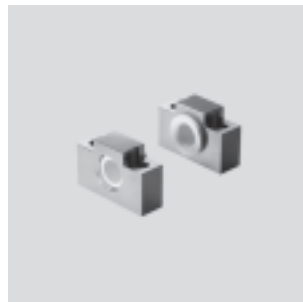


Dimensions and ordering data												
For Ø	C2	C3	TD	TK	TL	TM	UW	XH	XL	CRC ¹⁾	Weight	Part No. Type
[mm]			Ø e9								[g]	
32	71	86	12	16	12	50	50	18	128	4	150	161 852 CRZNG-32
40	87	105	16	20	16	63	55	20	145	4	260	161 853 CRZNG-40
50	99	117	16	24	16	75	65	25	155	4	430	161 854 CRZNG-50
63	116	136	20	24	20	90	75	25	170	4	640	161 855 CRZNG-63
80	136	156	20	28	20	110	100	32	188	4	1,300	161 856 CRZNG-80
100	164	189	25	38	25	132	120	32	208	4	2,400	161 857 CRZNG-100

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

Trunnion supports CRLNZG

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



Dimensions and ordering data												
For Ø	CR	FK	FN	FS	H1	HB	NH	TH	UL	CRC ¹⁾	Weight	Part No. Type
[mm]	Ø D11	Ø ±0.1				Ø H13		±0.2			[g]	
32	12	15	30	10.5	15	6.6	18	32	46	4	200	161 874 CRLNZG-32
40, 50	16	18	36	12	18	9	21	36	55	4	330	161 875 CRLNZG-40/50
63, 80	20	20	40	13	20	11	23	42	65	4	440	161 876 CRLNZG-63/80
100	25	25	50	16	24.5	14	28.5	50	75	4	740	161 877 CRLNZG-100

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

Standard cylinders CDN, ISO 15552, Clean Design

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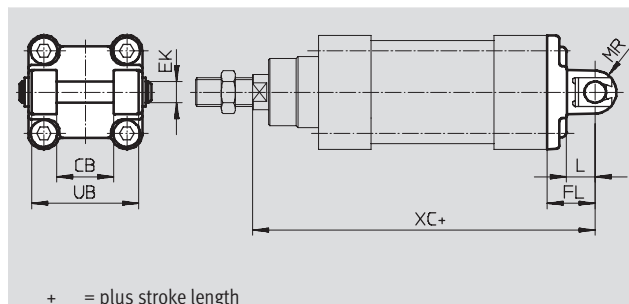
Accessories

Swivel flange SNCB- ... R3

Material:

Die-cast aluminium with protective coating

Free of copper, PTFE and silicone



Dimensions and ordering data												
For Ø	CB	EK Ø	FL	L	MR	UB	XC	CRC ¹⁾	Weight	Part No.	Type	
[mm]	H14	e8	±0.2			h14			[g]			
32	26	10	22	13	8.5	45	142.7	3	100	176 944	SNCB-32-R3	
40	28	12	25	16	12	52	160.6	3	150	176 945	SNCB-40-R3	
50	32	12	27	16	12	60	171	3	225	176 946	SNCB-50-R3	
63	40	16	32	21	16	70	191.5	3	365	176 947	SNCB-63-R3	
80	50	16	36	22	16	90	210.5	3	610	176 948	SNCB-80-R3	
100	60	20	41	27	20	110	229.6	3	925	176 949	SNCB-100-R3	

1) Corrosion resistance class 3 to Festo standard 940 070

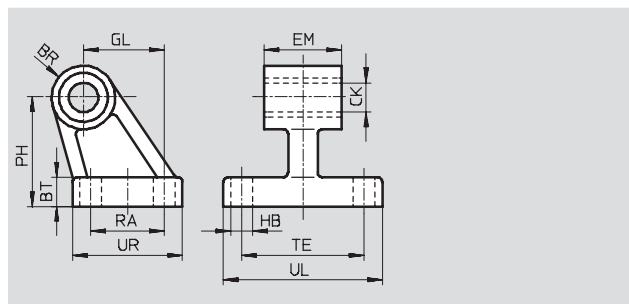
Components requiring higher corrosion resistance. External visible parts in direct contact with industrial atmospheres or media such as solvents and cleaning agents, with a predominantly functional requirement for the surface

Clevis foot mounting CRLNG

Material:

High-alloy steel

Free of copper, PTFE and silicone



Dimensions and ordering data															
For Ø	BR	BT	CK Ø	EM	GL	HB Ø	PH	RA	TE	UL	UR	CRC ¹⁾	Weight	Part No.	Type
[mm]			D11	-0.4		H13							[g]		
32	10	8	10	25.8	21	6.6	32	18	38	51	31	4	120	161 840	CRLNG-32
40	11	10	12	27.8	24	6.6	36	22	41	54	35	4	160	161 841	CRLNG-40
50	12	12	12	31.8	33	9	45	30	50	65	45	4	280	161 842	CRLNG-50
63	15	12	16	39.8	37	9	50	35	52	67	50	4	375	161 843	CRLNG-63
80	15	14	16	49.8	47	11	63	40	66	86	60	4	580	161 844	CRLNG-80
100	19	15	20	59.8	55	11	71	50	76	96	70	4	935	161 845	CRLNG-100

1) Corrosion resistance class 4 to Festo standard 940 070

Components requiring higher corrosion resistance. Parts used with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required

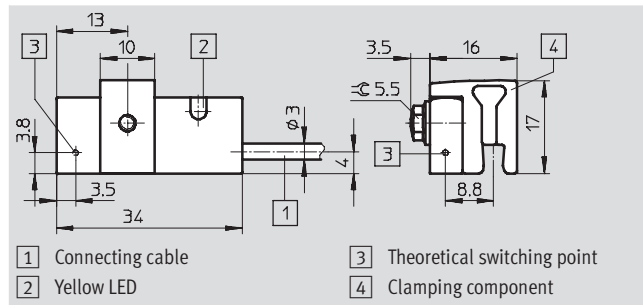
Standard cylinders CDN, ISO 15552, Clean Design

FESTO

Accessories

Proximity sensor SMT-C1

Material:
Aluminium, high-alloy steel, stainless,
polypropylene, polyurethane
Free of copper, PTFE and silicone,
halogen-free



Design	
Constructional design	Block-shaped
Type of mounting	Clamped
Connection direction	In-line
Switching status display	Yellow LED

Technical data – PNP, N/O contact	
Sensing principle	Inductive
Method of measurement	Absolute
Electrical connection	Cable, 3-wire
Cable length	[m] 5.0
Operating voltage range	[V DC] 10 ... 30
Max. output current	[mA] 200
Max. switching capacity DC	[W] 6.0
Voltage drop	[V] < 1.8
Residual current	[mA] < 0.1
Switch-on time	[ms] ≤ 0.5
Switch-off time	[ms] ≤ 0.5
Hysteresis	[mm] ≤ 2.0
Protection against short circuit	Yes
Protection against polarity reversal	For all electrical connections
Inductive protective circuit	Adapted to MZ, MY, ME coils
Protection against overloading	Yes
Product weight	[g] 60
Protection class	IP65, IP67
Conforms to	DIN EN 60 947-5-2

Operating and environmental conditions		
Cable installation	Fixed	Flexible
Ambient temperature	[°C] -20 ... +70	-20 ... +70
Corrosion resistance class CRC ¹⁾	3	
CE mark (see declaration of conformity)	In accordance with EU EMC directive	

1) Corrosion resistance class 3 to Festo standard 940 070
Components requiring higher corrosion resistance. External visible parts in direct contact with industrial atmospheres or media such as solvents and cleaning agents, with a predominantly functional requirement for the surface

Ordering data		
Cable length [m]	Part No.	Type
2.5	540 431	SMT-C1-PS-24V-2,5-OE
5.0	540 432	SMT-C1-PS-24V-5,0-OE

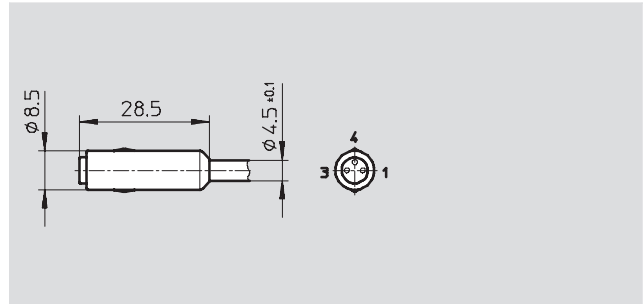
Standard cylinders CDN, ISO 15552, Clean Design

FESTO

Accessories

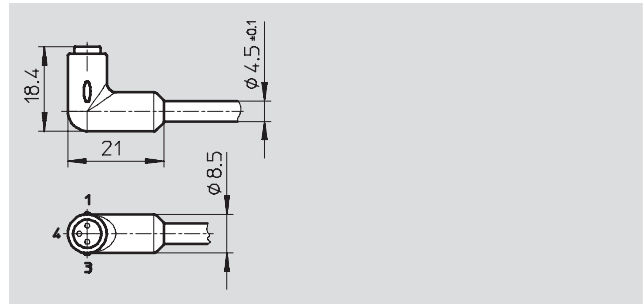
Cable with socket SIM-K-GD- ... -CDN

Material: Polyurethane;
suitable for foodstuffs, resistant to
cleaning and disinfecting agents to
DIN 11483



Cable with socket SIM-K-WD- ... -CDN

Material: Polyurethane;
suitable for foodstuffs, resistant to
cleaning and disinfecting agents to
DIN 11483



Technical data			
		SIM-K-...-2,5-CDN	SIM-K-...-5-CDN
Electrical connection		Clip-on plug socket, straight or angled, 3-pin	
Operating voltage range	AC	[V]	≤45
	DC	[V]	≤70
Current-carrying capacity	[A]	2.8	
Cable length	[m]	2.5	5
Cable composition	[mm ²]	3x 0.25	
Cable ends		Tinned	
Protection class		IP65/IP67/IP69	

Operating and environmental conditions			
Cable installation		Fixed	Flexible
Ambient temperature	[°C]	-30 ... +70	-5 ... +70

Ordering data			
Cable length [m]	Part No.	Type	Part No. Type
Connection direction	In-line		Angled
2.5	525 259	SIM-K-GD-2,5-CDN	525 261 SIM-K-WD-2,5-CDN
5	525 260	SIM-K-GD-5-CDN	525 262 SIM-K-WD-5-CDN

Standard cylinders CDN, ISO 15552, Clean Design

Accessories

FESTO

Ordering data – Push-in fittings				Technical data → Internet: quick star			
	Connection		Material	Weight [g]	Part No.	Type	PU ³⁾
	Thread	Tubing O.D.					
With external hex							
	G1/8	4	Brass, nickel- and chrome-plated	8	193 408	QS-F-G1/8-4 ¹⁾	10
		6		12	193 409	QS-F-G1/8-6 ¹⁾	10
		8		14	193 410	QS-F-G1/8-8 ¹⁾	10
	G1/4	6		16	193 411	QS-F-G1/4-6 ¹⁾	10
		8		16	193 412	QS-F-G1/4-8 ¹⁾	10
		10		22	193 413	QS-F-G1/4-10 ¹⁾	10
	G3/8	8		20	193 414	QS-F-G3/8-8 ¹⁾	10
		10		30	193 415	QS-F-G3/8-10 ¹⁾	10
		12		38	193 487	QS-F-G3/8-12 ¹⁾	10
	G1/2	10		42	193 416	QS-F-G1/2-10 ¹⁾	10
		12		46	193 417	QS-F-G1/2-12 ¹⁾	10
	R1/8	6	Stainless steel	9.9	162 862	CRQS-1/8-6 ²⁾	1
		8		13	162 863	CRQS-1/8-8 ²⁾	1
	R1/4	8		18	162 864	CRQS-1/4-8 ²⁾	1
		10		22	162 865	CRQS-1/4-10 ²⁾	1
	R3/8	10		29	162 866	CRQS-3/8-10 ²⁾	1
		12		38	162 867	CRQS-3/8-12 ²⁾	1
	R1/2	12		55	162 868	CRQS-1/2-12 ²⁾	1
		16		59	162 869	CRQS-1/2-16 ²⁾	1
With internal hex							
	G1/8	4	Brass, nickel- and chrome-plated	8.6	533 927	QS-F-G1/8-4-I ¹⁾	10
		6		13.4	533 928	QS-F-G1/8-6-I ¹⁾	10
		8		13.1	533 929	QS-F-G1/8-8-I ¹⁾	10
	G1/4	8		14.6	533 930	QS-F-G1/4-8-I ¹⁾	10
		10		21	533 931	QS-F-G1/4-10-I ¹⁾	10
	G3/8	12		34.3	533 932	QS-F-G3/8-12-I ¹⁾	10

- 1) With sealing ring
2) With PTFE coating
3) Packaging unit quantity

Ordering data – Push-in L-fittings					Technical data → Internet: qsl		
	Connection		Material	Weight [g]	Part No.	Type	PU ³⁾
	Thread	Tubing O.D.					
With external hex							
	G ¹ / ₈	4	Brass, nickel- and chrome-plated	17.6	193 418	QSL-F-G ¹ / ₈ -4 ¹⁾	10
		6		16	193 419	QSL-F-G ¹ / ₈ -6 ¹⁾	10
		8		20	193 420	QSL-F-G ¹ / ₈ -8 ¹⁾	10
	G ¹ / ₄	6		24.5	193 421	QSL-F-G ¹ / ₄ -6 ¹⁾	10
		8		24	193 422	QSL-F-G ¹ / ₄ -8 ¹⁾	10
		10		34.6	193 423	QSL-F-G ¹ / ₄ -10 ¹⁾	10
		12		49	533 853	QSL-F-G ¹ / ₄ -12 ¹⁾	10
	G ³ / ₈	8		34.2	193 424	QSL-F-G ³ / ₈ -8 ¹⁾	10
		10		36.6	193 425	QSL-F-G ³ / ₈ -10 ¹⁾	10
		12		51.1	197 486	QSL-F-G ³ / ₈ -12 ¹⁾	10
	G ¹ / ₂	10		66	193 426	QSL-F-G ¹ / ₂ -10 ¹⁾	10
		12		70	193 427	QSL-F-G ¹ / ₂ -12 ¹⁾	10

- 1) With sealing ring
3) Packaging unit quantity

Standard cylinders CDN, ISO 15552, Clean Design

FESTO

Accessories

Ordering data – Push-in L-fittings					Technical data → Internet: crqsl		
	Connection		Material	Weight [g]	Part No.	Type	PU ³⁾
	Thread	Tubing O.D.					
With external hex							
	R1/8	6	Stainless steel	20	162 872	CRQSL-1/8-6 ²⁾	1
		8		27	162 873	CRQSL-1/8-8 ²⁾	1
	R1/4	8		31	162 874	CRQSL-1/4-8 ²⁾	1
		10		46	162 875	CRQSL-1/4-10 ²⁾	1
	R3/8	10		52	162 876	CRQSL-3/8-10 ²⁾	1
		12		69	162 877	CRQSL-3/8-12 ²⁾	1
	R1/2	12		89	162 878	CRQSL-1/2-12 ²⁾	1
		16		105	162 879	CRQSL-1/2-16 ²⁾	1

2) With PTFE coating

3) Packaging unit quantity

Ordering data – Plastic tubings, standard O.D.		Technical data → Internet: tubing
		Type
	Good resistance to chemicals and hydrolysis	PLN
	Pneumatic tubing with resistance to high temperatures and chemicals	PFAN
	Approved for use in the food industry and hydrolysis-resistant	PUN-H

Ordering data – One-way flow control valves					Technical data → Internet: crgla	
	Connection		Material	Weight [g]	Part No.	Type
	Thread	For push-in fitting				
	G1/8	CRQS/CRQSL/CRQST,	Electrolytically polished stainless steel casting	44	161 404	CRGRLA-1/8-B
	G1/4	Quick Star		83	161 405	CRGRLA-1/4-B
	G3/8			150	161 406	CRGRLA-3/8-B
	G1/2			315	161 407	CRGRLA-1/2-B

Ordering data – Blanking screws, corrosion-resistant							
	For Ø	Material	CRC ¹⁾	Weight [g]	Part No.	Type	PU ³⁾
	32, 40	High-alloy steel	3	3	650 120	CR-M6x12-DIN6921-A2-70	4
	50, 63		3	6	650 121	CR-M8x16-DIN6921-A2-70	4
	80, 100		3	13	650 122	CR-M10x16-DIN6921-A2-70	4

1) Corrosion resistance class 3 to Festo standard 940 070

Components requiring higher corrosion resistance. External visible parts in direct contact with industrial atmospheres or media such as solvents and cleaning agents, with a predominantly functional requirement for the surface

Ordering data – Corrosion and acid resistant piston rod attachments					Technical data → Internet: crsg		
	For Ø	Part No.	Type		For Ø	Part No.	Type
Rod eye CRSGS					Rod clevis CRSG		
	32	195 582	CRSGS-M10x1,25			32	13 569 CRSG-M10x1,25
	40	195 583	CRSGS-M12x1,25			40	13 570 CRSG-M12x1,25
	50, 63	195 584	CRSGS-M16x1,5			50, 63	13 571 CRSG-M16x1,5
	80, 100	195 585	CRSGS-M20x1,5			80, 100	13 572 CRSG-M20x1,5