

Compact cylinders CDC, ISO 21287, Clean Design

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Compact cylinders CDC, ISO 21287, Clean Design

Key features

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Design

- With the CDC (Clean Design Compact) cylinder series, the ADN modular system has been expanded to include an easy to clean compact cylinder variant
- It is based on ISO 21287 for compact cylinders and, like the compact cylinder ADN, features short strokes and a compact design
- The compact cylinder CDC 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

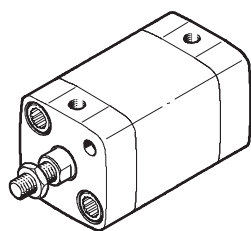
Versatile

- 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

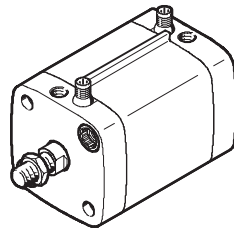
CDC-...

- Ø 20, 25 mm
- Without position sensing



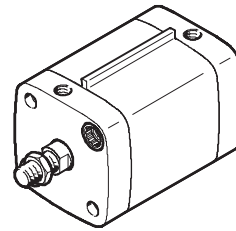
CDC-...-A...-R

- Ø 32 ... 80 mm
- With position sensing integrated in the end positions



CDC-...-A-R

- Ø 32 ... 80 mm
- With sensor mounting rail for external position sensing

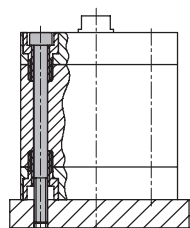


Note

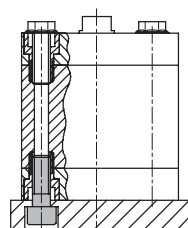
A combination of integrated and external position sensing is possible.

Mounting options

With through screws

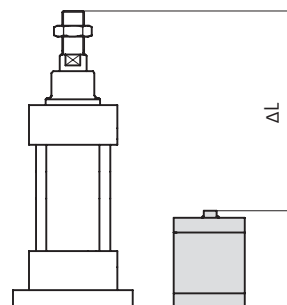


Direct mounting



Size

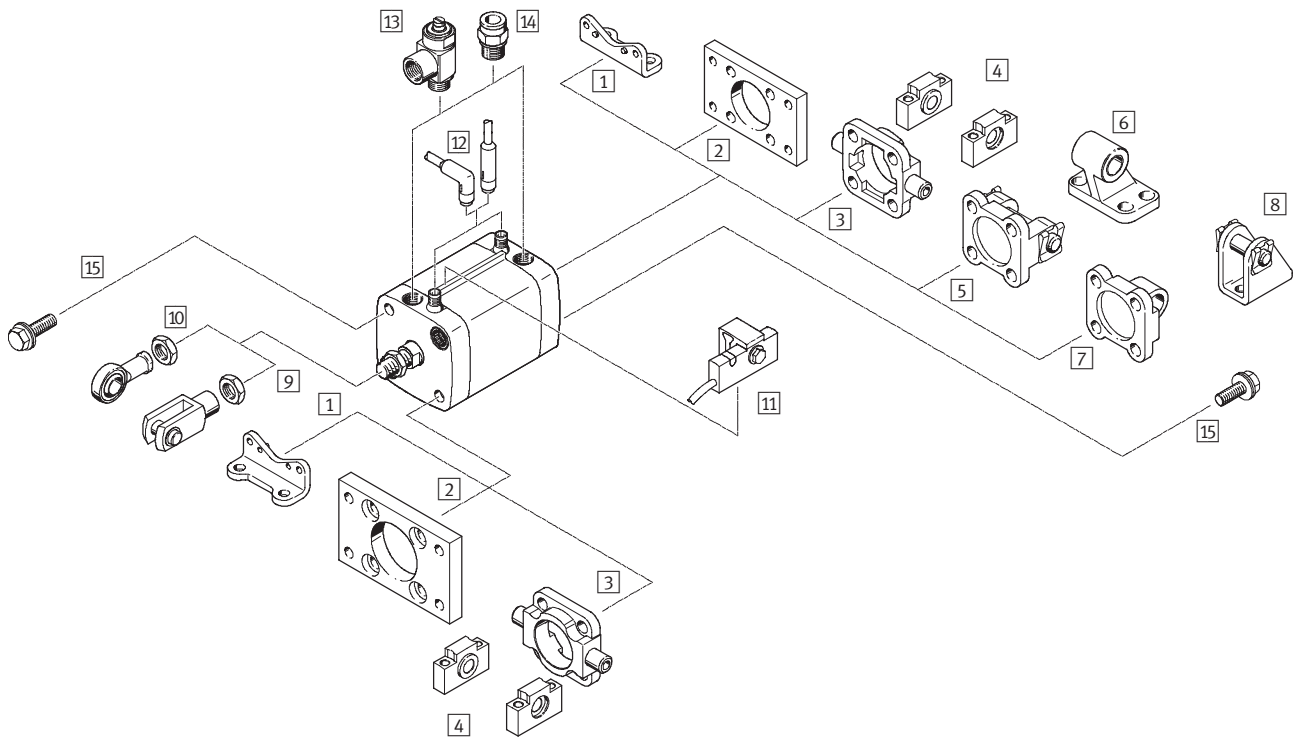
Space savings of up to 50% compared with cylinders to standard ISO 15552



Compact cylinders CDC, ISO 21287, Clean Design

Peripherals overview

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Mounting attachments and accessories		
	Brief description	→ Page/Internet
1	Foot mounting HNA-...-R3	For bearing and end cap 16
2	Flange mounting CRFNG	For bearing or end cap 16
3	Trunnion flange CRZNG	For bearing or end cap in combination with trunnion supports CRLNZG 17
4	Trunnion supports CRLNZG	For trunnion flange CRZNG 17
5	Swivel flange SNCB- ... -R3	For end cap 18
6	Clevis foot mounting CRLNG	For swivel flange SNCB- ... -R3 18
7	Swivel flange SNCL- ... -R3	For end cap 19
8	Clevis foot mounting CRLBN	For swivel flange SNCL- ... -R3 19
9	Rod clevis CRSG	Permits a swivelling movement of the cylinder in one plane 23
10	Rod eye CRSGS	With spherical bearing 23
11	Proximity sensor SMT-C1	For attachment to the sensor mounting rail 20
12	Cable with socket SIM-K- ... -CDN	– For electrical signal transmission and power supply – With food industry approval 21
13	One-way flow control valve CRGRLA	For regulating speed 22
14	Push-in fittings QS-F/QL-F/CRQS/CRQSL	For connecting compressed air tubing with standard external diameters 22
15	Blanking screws DAMD-P- ...	For covering unused mounting threads 23

Compact cylinders CDC, ISO 21287, Clean Design

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Type codes

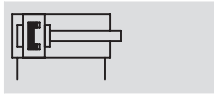
		CDC	-	32	-	50	-	A	-	P	-	AIB	-	SME	-	R	-	K2
Type																		
Double-acting																		
CDC	Compact cylinder, Clean Design																	
Piston Ø [mm]																		
Stroke [mm]																		
Piston rod thread																		
A	Male thread																	
I	Female thread																	
Cushioning																		
P	Flexible cushioning rings/pads 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)																	
Sensor mounting rail																		
R	For external position sensing (only with Ø 32 ... 80 mm)																	
Variant																		
S2	Through piston rod																	
K2	Extended male piston rod thread																	
K5	Piston rod with special thread																	
K8	Extended piston rod																	
S6	Heat-resistant seals for temperatures up to 120 °C																	

Compact cylinders CDC, ISO 21287, Clean Design

Technical data

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Function



- Ø - Diameter
20 ... 80 mm

- I - Stroke length
1 ... 500 mm

- T - www.festo.com

Variants



S2



K2



K5



K8



S6



CDC-...-A-P



CDC-...-A-P-R

General technical data							
Piston Ø	20	25	32	40	50	63	80
Pneumatic connection	M5	M5	G¼	G¼	G¼	G¼	G¼
Piston rod thread	M8	M8	M10x1.25	M10x1.25	M12x1.25	M12x1.25	M16x1.5
Design	Piston						
	Piston rod						
	Cylinder barrel						
Cushioning	Flexible cushioning rings/pads at both ends						
Position sensing	A	For proximity sensor					
	AIB	At both ends, built-in					
	AIV	Front, built-in					
	AIH	Rear, built-in					
Type of mounting	Via through-hole						
	With female thread						
	Via accessories						
Mounting position	Any						

Operating and environmental conditions								
Piston Ø		20	25	32	40	50	63	80
Operating medium		Filtered compressed air, lubricated or unlubricated						
Operating pressure		[bar]	0.8 ... 10		0.6 ... 10			
	S2	[bar]	1.2 ... 10				0.8 ... 10	
	S6	[bar]	1 ... 10	0.6 ... 10				
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

Compact cylinders CDC, ISO 21287, Clean Design

Technical data

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Forces [N] and impact energy [J]							
Piston Ø	20	25	32	40	50	63	80
Theoretical force at 6 bar, advancing	188	295	483	754	1,178	1,870	3,016
S2	141	247	415	686	1,057	1,750	2,827
Theoretical force at 6 bar, retracting	141	247	415	686	1,057	1,750	2,827
Max. impact energy at the end positions	0.2	0.3	0.4	0.7	1	1.3	1.8
S6	0.1	0.15	0.2	0.35	0.5	0.65	0.9

Permissible impact velocity:

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

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

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

m_{dead} Moving load (drive)

m_{load} Moving work load

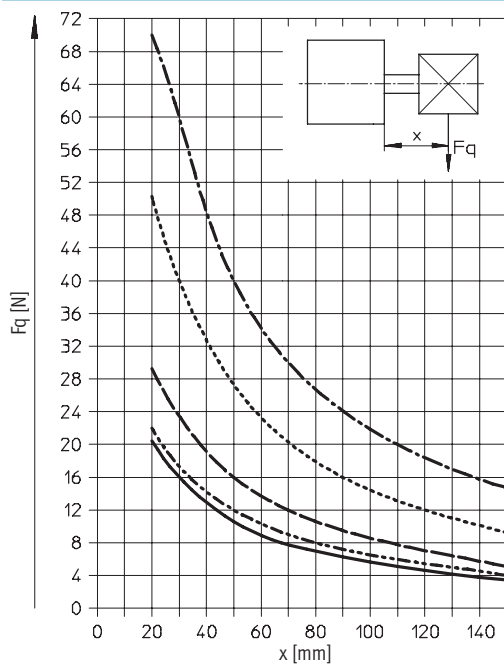
Maximum permissible load:

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

 **Note**

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

Max. lateral force F_q as a function of projection x



- Ø 20
- - - Ø 25
- — — Ø 32/40
- · · · · Ø 50/63
- · - · - Ø 80

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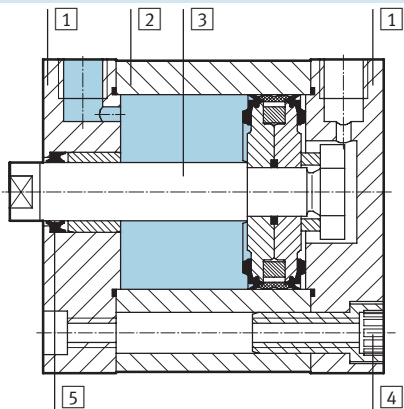
Technical data

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Weights [g]							
Piston Ø	20	25	32	40	50	63	80
Basic version							
Product weight with 0 mm stroke	133	170	277	377	567	790	1,475
Additional weight per 10 mm stroke	20	23	31	35	52	59	84
Moving load with 0 mm stroke	24	33	53	82	128	177	367
Additional load per 10 mm stroke	6	6	9	9	16	16	25
S2 – Through piston rod							
Product weight with 0 mm stroke	150	183	296	386	600	827	1,507
Additional weight per 10 mm stroke	26	29	40	44	67	74	109
Moving load with 0 mm stroke	34	40	64	81	144	195	367
Additional load per 10 mm stroke	12	12	18	18	32	32	49

Materials

Sectional view



Compact cylinder	Basic version	S6
1 End cap	Anodised aluminium	
2 Cylinder barrel	Anodised aluminium	
3 Piston rod	High-alloy steel	
4 Flange screws	Corrosion-resistant steel	
- Seals	Polyurethane, nitrile rubber	Fluorocarbon rubber
- Note on materials	Free of copper and PTFE	

Compact cylinders CDC, ISO 21287, Clean Design

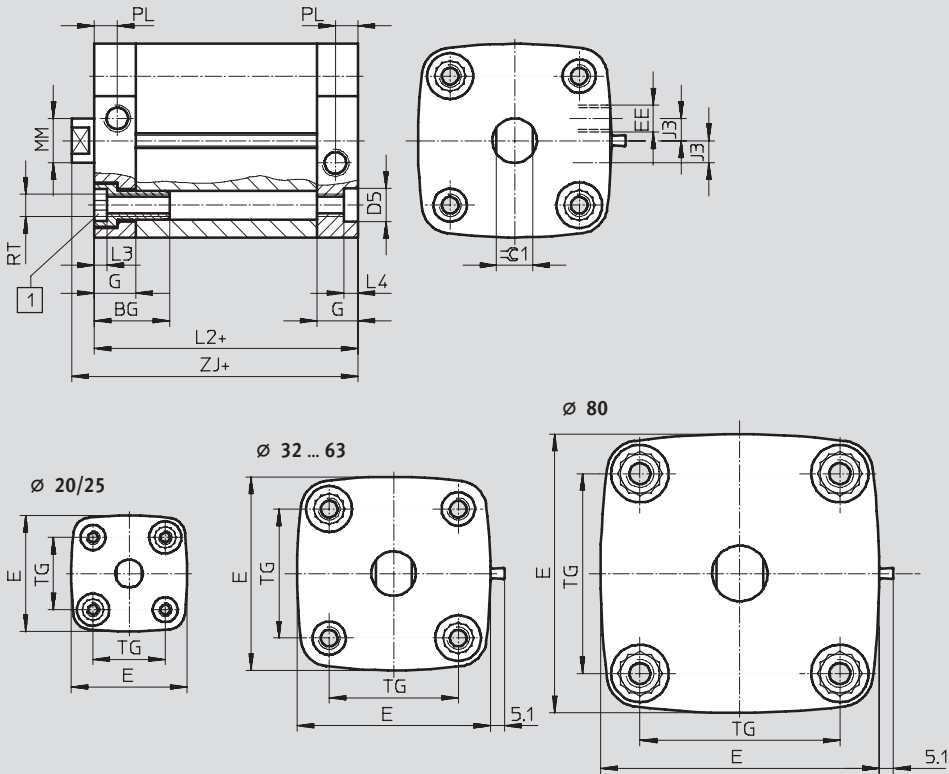
Technical data

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Dimensions

Download CAD data → www.festo.com

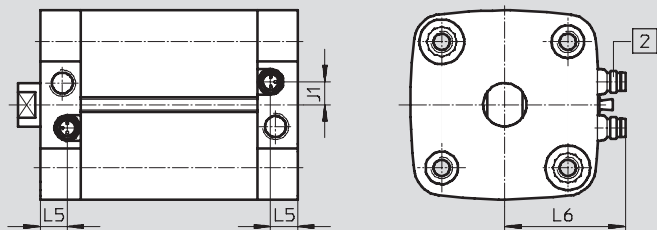
Basic version



1 Socket head screw with female thread for mounting attachments

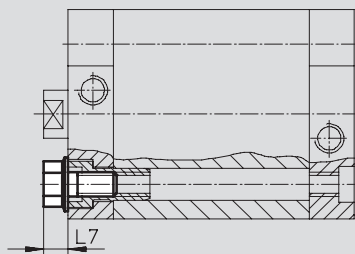
+ = plus stroke length

With position sensing integrated in the end positions



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

Projection of blanking screw



Compact cylinders CDC, ISO 21287, Clean Design

Technical data

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Ø	BG	D5	E	EE	G	J1	J3	L2	L3	L4
[mm]		F9				±0.1	±0.1			
20	19.5	9	36.8	M5	12	–	–	37	4.4	5
25			41.8			39				
32	26		49.8	G¼	15	5.8	7	44		
40			57.8			8	8	45		
50	27	12	69.7			8.5		49		
63			81.3			12		54		
80			–		100.4	16.5		15		54

Ø	L5	L6	L7	MM Ø h8	PL	RT	TG	ZJ	≈G1
[mm]		±2			±0.1			+1	h13
20	–	–	7	10	6	M5	22	42.7	9
25							26	44.7	
32	10	35	8.7	12	8.2	M6	32.5	50.2	10
40		39					38	51.2	
50		45	10.3	16		M8	46.5	53.2	13
63		50					56.5	57.2	
80	11.5	60	11.9	20		M10	72	63	17

 - Note

The following maximum stroke lengths apply in combination with a swivel mounting on the end cap:

Ø [mm]	20	25	32	40	50	63	80
Max. stroke length	50		100				150

Compact cylinders CDC, ISO 21287, Clean Design

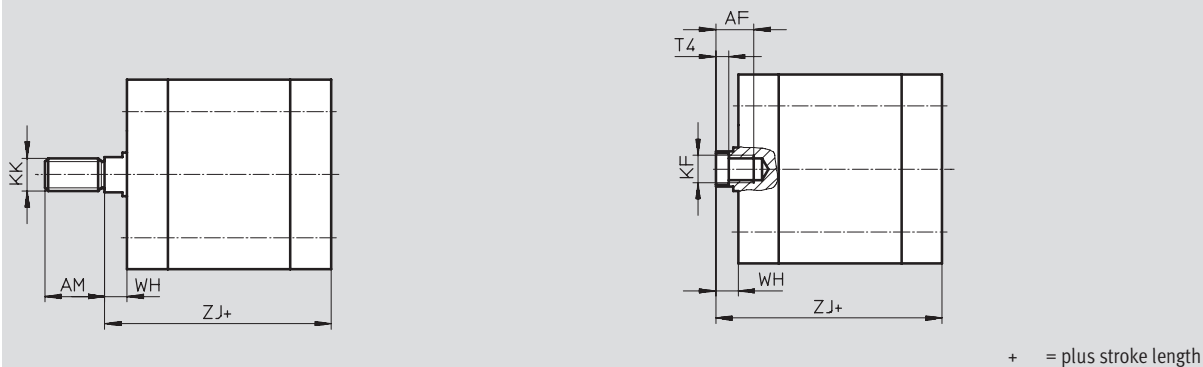
Technical data

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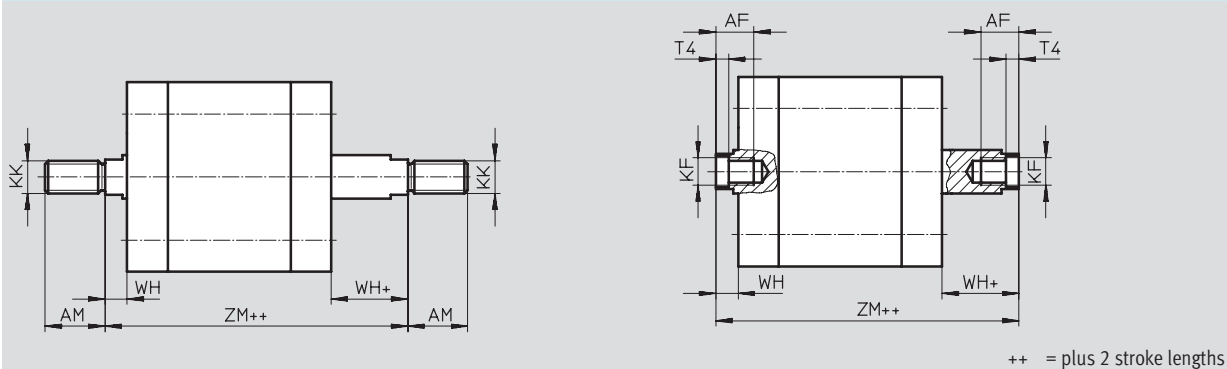
Dimensions – Variants

Download CAD data → www.festo.com

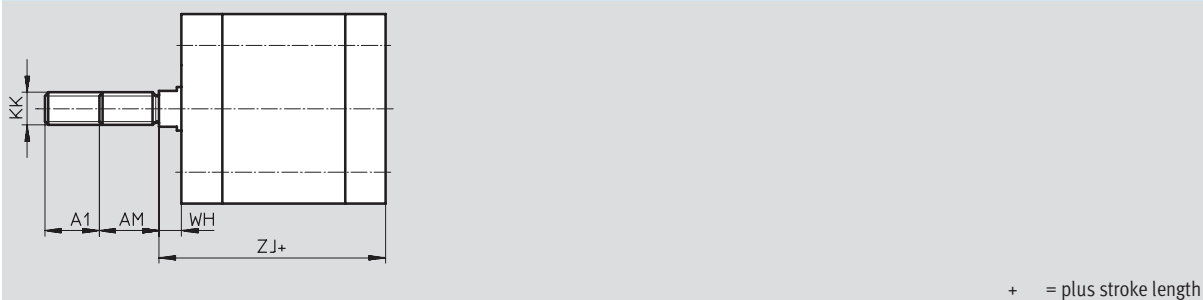
Basic version



S2 – Through piston rod



K2 – Extended male piston rod thread



Ø	A1	AF	AM	KF	KK	T4	WH	ZJ	ZM
[mm]		min.	−0.5				+1	+1	
20	1 ... 20	14	16	M6	M8	2.6	5.7	42.7	49.8
25								44.7	51.8
32		16	19	M8	M10x1.25	3.3	6.2	50.2	57.8
40								51.2	58.9
50		20	22	M10	M12x1.25	4.7	8.2	53.2	63.1
63								57.2	66.9
80	1 ... 30							28	M12

Compact cylinders CDC, ISO 21287, Clean Design

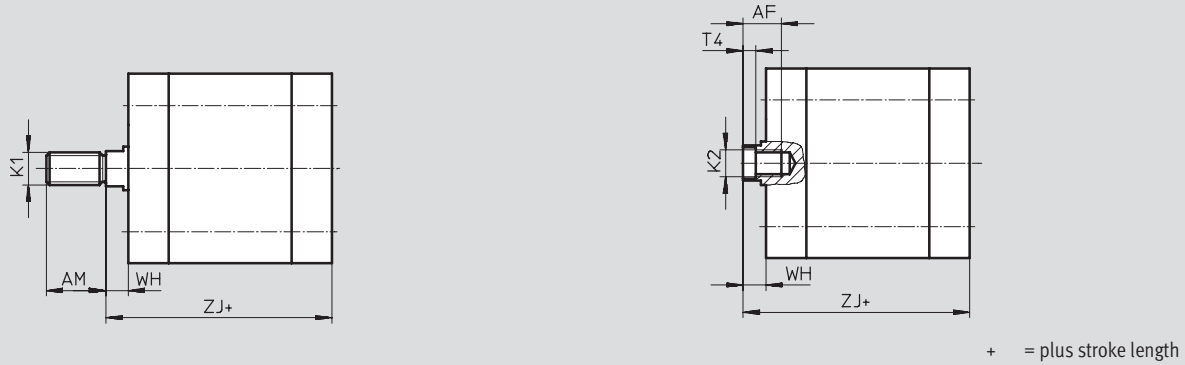
Technical data

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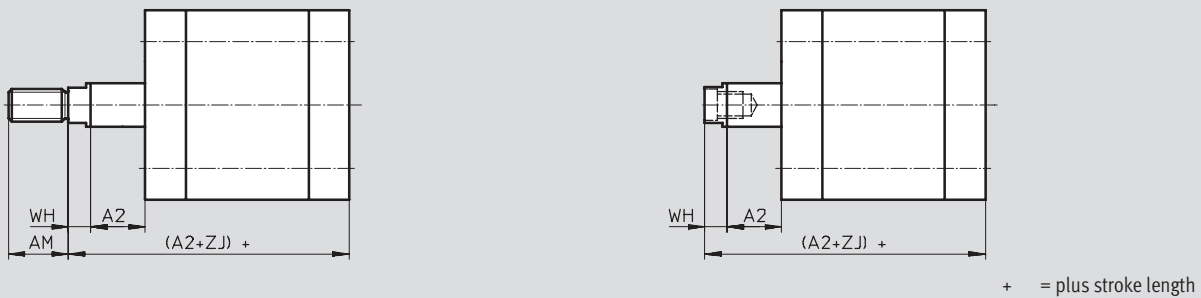
Dimensions – Variants

Download CAD data → www.festo.com

K5 – Special thread on piston rod



K8 – Extended piston rod



Ø	AF	A2	AM	K1	K2	T4	WH	ZJ
[mm]	min.		-0.5				+1	+1
20	14	1 ... 300	16	M10, M10x1.25	M5	2.6	5.7	42.7
25								44.7
32	16	1 ... 400	19	M10, M12	M6	3.3	6.2	50.2
40								51.2
50	20	1 ... 500	22	M12, M12	M8	4.7	8.2	53.2
63								57.2
80								63

Compact cylinders CDC, ISO 21287, Clean Design

Technical data

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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 combination 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		
Measuring 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

Compact cylinders CDC, ISO 21287, Clean Design

Technical data

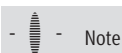
**Proximity sensor
magneto-resistive**
(order code SMT)

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 combination 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	
Measuring 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

Compact cylinders CDC, ISO 21287, Clean Design

Ordering data – Modular products

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Mandatory data →

Module No.	Function	Stroke	Cushioning
	Piston Ø	Piston rod thread	Position sensing
543 305	CDC	20	1 ... 500
543 306		25	A
543 307		32	I
543 308		40	
543 309		50	
543 310		63	
543 311		80	
Order example			
543 306	CDC	- 25	- 225 - A - P

Ordering table										
Size	20	25	32	40	50	63	80	Condi- tions	Code	Enter code
M	Module No.	543 305	543 306	543 307	543 308	543 309	543 310	543 311		
↓	Function	Standard cylinder, double-acting, based on ISO 21287 (Clean Design)								CDC
	Piston Ø [mm]	20	25	32	40	50	63	80	-...	
	Stroke [mm]	1 ... 300		1 ... 400				1 ... 500	-...	
	Piston rod thread	Male thread								-A
		Female thread							1	-I
	Cushioning	Flexible cushioning rings/pads at both ends								-P
	Position sensing	Without position sensing		-	-	-	-	-		
		-	-	For proximity sensor						-A
		-	-	At both ends, integrated					2	-AIB
		-	-	Front, integrated					2	-AIV
-		-	Rear, integrated					2	-AIH	

[1] I Not with extended male thread K2

[2] AIB, AIV, AIH Only with proximity sensor SME, SMT

Transfer order code

	CDC	-		-		-		-	P
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Compact cylinders CDC, ISO 21287, Clean Design

Ordering data – Modular products

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Options						
Proximity sensor		Type of piston rod		Special thread		Temperature resistance
Sensor mounting rail		Male thread extended		Piston rod extended		
SME SMT	R	S2	...K2	"..."K5	K8	S6
-	-	- S2	- 20K2	- "M10"K5	- 75K8	- S6

Ordering table											
Size		20	25	32	40	50	63	80	Condi- tions	Code	Enter code
0	Proximity sensor	–	–	SME (contacting)					3	-SME	
		–	–	SMT (contactless)					4	-SMT	
	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 ... 20						1 ... 30		-...K2	
	Piston rod with special thread	Male thread	M10x1.25	M10		M12		M16		-“...”K5	
			M10	M12		M16		M20			
		Female thread	M5	M6		M8		M10			
	Piston rod extended [mm]	Extended piston rod 1 ... 300						1 ... 400	1 ... 500	6	
Temperature resistance	Heat-resistant seals for temperatures up to 120 °C								7	-S6	

- 3 SME Only with position sensing AIB, AIV, AIH
Minimum stroke 15 mm
- 4 SMT Only with position sensing AIB, AIV, AIH
Minimum stroke 10 mm

- 5 R Must be selected with size 32, 40, 50, 63, 80
- 6 K8 The sum of the stroke length and piston rod extension must not exceed the maximum permissible stroke length
- 7 S6 Not with position sensing AIB, AIV, AIH

Transfer order code

- - - - - - - -

Compact cylinders CDC, ISO 21287, Clean Design

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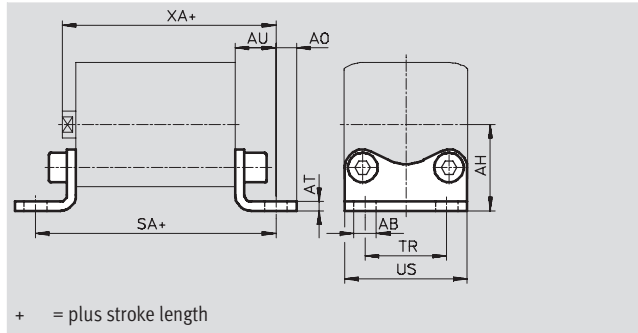
Accessories

Foot mounting HNA-...-R3

Material:

Steel with protective coating

Free of copper, PTFE and silicone



Dimensions and ordering data													
For Ø	AB Ø	AH	AO	AT	AU	SA	TR	US	XA	CRC ¹⁾	Weight	Part No.	Type
[mm]	H14	JS14		±0.5	±0.2		±0.2	−0.5			[g]		
20	7	27	6.25	4	16	69	22	34.5	59	3	50	537 254	HNA-20-R3
25		29				71	26	38.5	61	3	55	537 255	HNA-25-R3
32		33.5				76	32	46	66	3	70	537 256	HNA-32-R3
40	10	38	9	5	21	81	36	54	69	3	90	537 257	HNA-40-R3
50		45	8			87	45	64	74	3	160	537 258	HNA-50-R3
63		50				91	50	75	78	3	180	537 259	HNA-63-R3
80	12	63	10.5	6	26	106	63	63	89	3	380	537 260	HNA-80-R3

1) Corrosion resistance class 3 to Festo standard 940 070

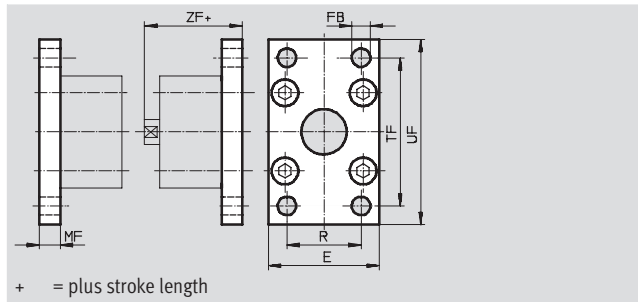
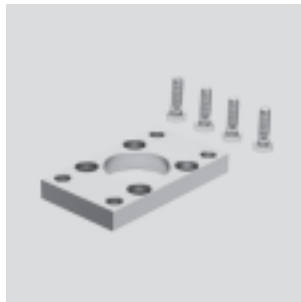
Components requiring higher corrosion resistance. External visible parts in direct contact with industrial atmospheres or media such as solvents and cleaning agents, with a predominantly functional requirement for the surface

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	ZF	CRC ¹⁾	Weight
[mm]		H13							[g]
32	45	7	10	32	64	80	54	4	240
40	54	9	10	36	72	90	55	4	300
50	65	9	12	45	90	110	57	4	550
63	75	9	12	50	100	120	61	4	710
80	93	12	16	63	126	150	70	4	1,680

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

Compact cylinders CDC, ISO 21287, Clean Design

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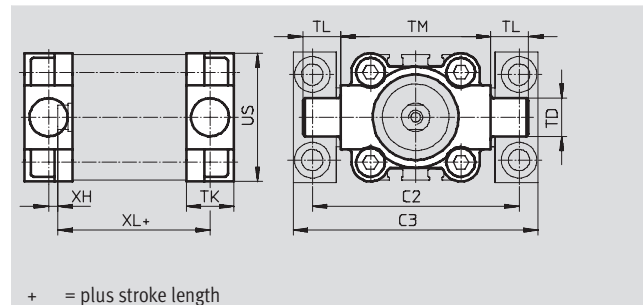
Accessories

Trunnion flange CRZNG

Material:

CRZNG: Electrolytically polished stainless steel casting

Free of copper, PTFE and silicone



Dimensions and ordering data													
For Ø	C2	C3	TD Ø e9	TK	TL	TM	US	XH	XL	CRC ¹⁾	Weight	Part No.	Type
[mm]													
32	71	86	12	16	12	50	45	2	52	4	150	161 852	CRZNG-32
40	87	105	16	20	16	63	54	4	55	4	260	161 853	CRZNG-40
50	99	117	16	24	16	75	64	4	57	4	430	161 854	CRZNG-50
63	116	136	20	24	20	90	75	4	61	4	640	161 855	CRZNG-63
80	136	156	20	28	20	110	93	5	81	4	1,300	161 856	CRZNG-80

1) Corrosion resistance class 4 to Festo standard 940 070

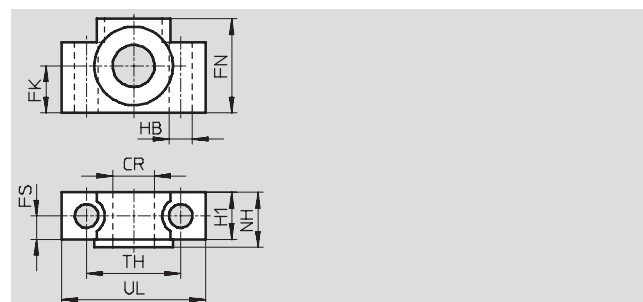
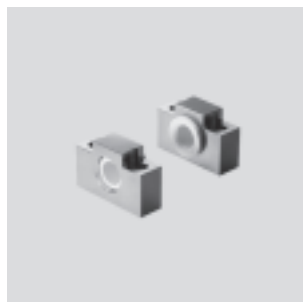
Components requiring higher corrosion resistance. Parts used with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required

Trunnion supports CRLNZG

Material:

High-alloy steel

Free of copper, PTFE and silicone



Dimensions and ordering data													
For Ø	CR Ø D11	FK Ø ±0.1	FN	FS	H1	HB Ø H13	NH	TH ±0.2	UL	CRC ¹⁾	Weight [g]	Part No.	Type
[mm]													
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

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

Compact cylinders CDC, ISO 21287, Clean Design

Accessories

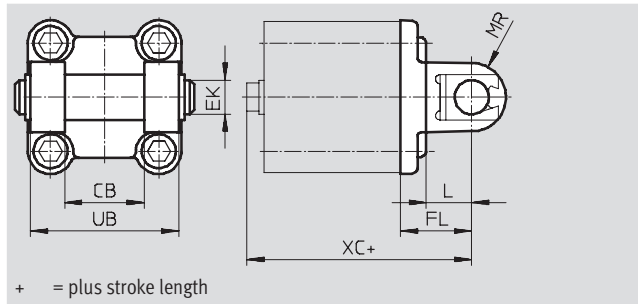
FESTO

Swivel flange SNCB-...-R3

Material:

Die-cast aluminium with protective coating, high corrosion protection

Free of copper, PTFE and silicone



Dimensions and ordering data											
For Ø	CB	EK Ø	FL ±0.2	L	MR	UB h14	XC	CRC ¹⁾	Weight [g]	Part No.	Type
[mm]	H14	e8									
32	26	10	22	13	8.5	45	72	3	100	176 944	SNCB-32-R3
40	28	12	25	16	12	52	76	3	150	176 945	SNCB-40-R3
50	32	12	27	16	12	60	80	3	225	176 946	SNCB-50-R3
63	40	16	32	21	16	70	89	3	365	176 947	SNCB-63-R3
80	50	16	36	22	16	90	99	3	610	176 948	SNCB-80-R3

1) Corrosion resistance class 3 to Festo standard 940 070

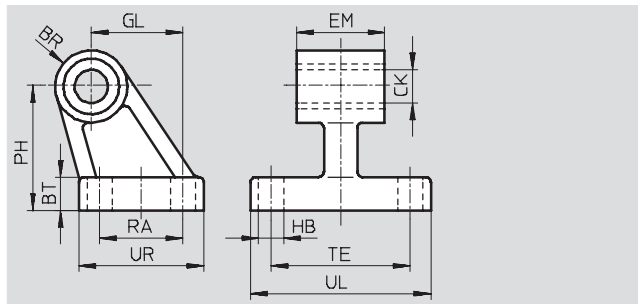
Components requiring higher corrosion resistance. External visible parts in direct contact with industrial atmospheres or media such as solvents and cleaning agents, with a predominantly functional requirement for the surface

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

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

Compact cylinders CDC, ISO 21287, Clean Design

Accessories

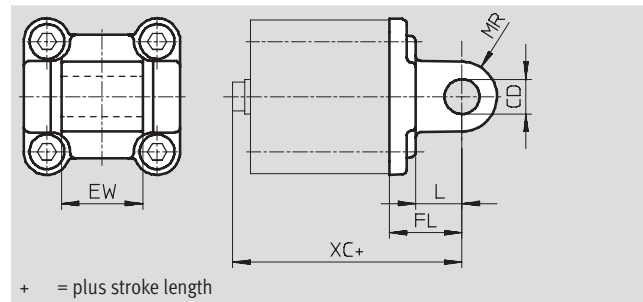
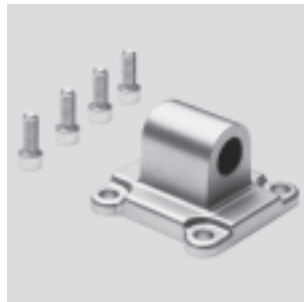
FESTO

Swivel flange SNCL-...-R3

Material:

SNCL-...-R3: Die-cast aluminium with protective coating

Free of copper, PTFE and silicone



Dimensions and ordering data										
For Ø	CD	EW	FL	L	MR	XC	CRC ¹⁾	Weight	Part No.	Type
[mm]	Ø	h12	±0.2					[g]		
20	8	16	20	14	8	63	3	40	537 796	SNCL-20-R3
25						65	3	45	537 797	SNCL-25-R3

1) Corrosion resistance class 3 to Festo standard 940 070

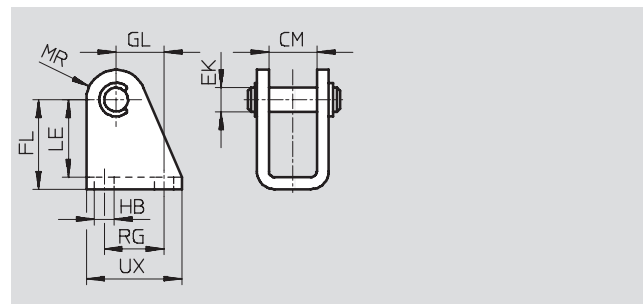
Components requiring higher corrosion resistance. External visible parts in direct contact with industrial atmospheres or media such as solvents and cleaning agents, with a predominantly functional requirement for the surface.

Clevis foot mounting CRLBN, stainless steel

Material:

High-alloy steel

Free of copper, PTFE and silicone



Dimensions and ordering data												
For Ø	CM	EK	FL	GL	HB	LE	MR	RG	UX	CRC ¹⁾	Weight	Part No. Type
[mm]		Ø									[g]	
20/25	16.1	8	30 +0.4/-0.2	16	6.6	26	10	20	32	4	62	161 863 CRLBN-20/25

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

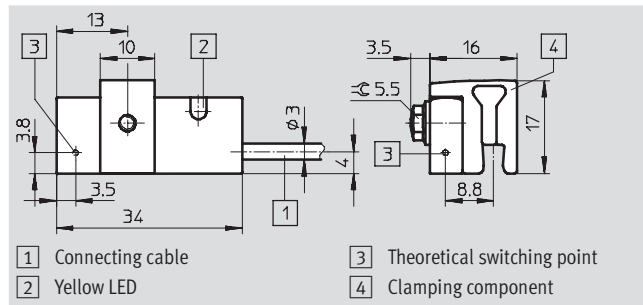
Compact cylinders CDC, ISO 21287, Clean Design

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	
Measuring 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

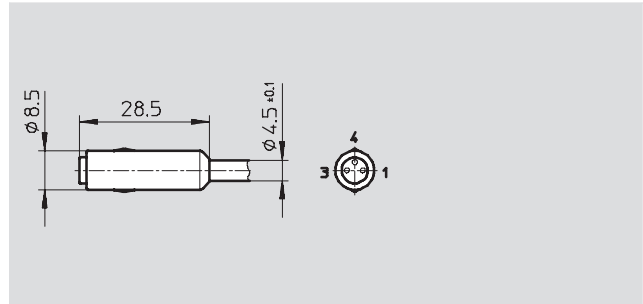
Compact cylinders CDC, ISO 21287, Clean Design

Accessories

FESTO

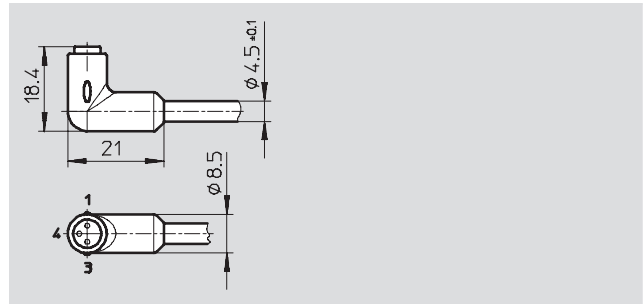
Cable with socket SIM-K-GD- ... -CDN

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 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	
Wire ends		Tin-coated	
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
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

Compact cylinders CDC, ISO 21287, 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							
	M5	4	Brass, nickel- and chrome-plated	6.1	533 844	QS-F-M5-4 ¹⁾	10
		6		9.3	533 845	QS-F-M5-6 ¹⁾	10
	G1/8	4		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
	M5	4	Stainless steel	6	162 860	CRQS-M5-4 ¹⁾	1
		6		8.4	162 861	CRQS-M5-6 ¹⁾	1
	R1/8	6		9.9	162 862	CRQS-1/8-6 ²⁾	1
		8		13	162 863	CRQS-1/8-8 ²⁾	1
With internal hex							
	M5	4	Brass, nickel- and chrome-plated	6	533 924	QS-F-M5-4-I ¹⁾	10
		6		9	537 014	QS-F-M5-6-I ¹⁾	10
	G1/8	4		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

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

Ordering data – Push-in L-fittings					Technical data → Internet: quick star			
	Connection		Material	Weight [g]	Part No.	Type	PU ³⁾	
	Thread	Tubing O.D.						
With external hex								
	M5	4	Brass, nickel- and chrome-plated	10.1	533 849	QSL-F-M5-4 ¹⁾	10	
		6		14.7	533 850	QSL-F-M5-6 ¹⁾	10	
	G1/8	4		17.6	193 418	QSL-F-G1/8-4 ¹⁾	10	
		6		16	193 419	QSL-F-G1/8-6 ¹⁾	10	
		8		20	193 420	QSL-F-G1/8-8 ¹⁾	10	
	M5	4	Stainless steel	13	162 870	CRQSL-M5-4 ¹⁾	1	
		6		19	162 871	CRQSL-M5-6 ¹⁾	1	
	R1/8	6		20	162 872	CRQSL-1/8-6 ²⁾	1	
		8		27	162 873	CRQSL-1/8-8 ²⁾	1	

- 1) With sealing ring
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			
	M5	CRQS/CRQSL/CRQST,	Electrolytically polished stainless steel casting	14	161 403 CRGRLA-M5-B
	G1/8	Quick Star		44	161 404 CRGRLA-1/8-B

Compact cylinders CDC, ISO 21287, Clean Design

Accessories

FESTO

Ordering data – Blanking screws, corrosion-resistant							
	For Ø	Material	CRC ¹⁾	Weight [g]	Part No.	Type	PU ³⁾
	20, 25	High-alloy steel	3	5.5	543 714	DAMD-P-M5-10-R1²⁾	4
	32, 40			9	543 715	DAMD-P-M6-12-R1²⁾	4
	50, 63			17.5	543 716	DAMD-P-M8-16-R1²⁾	4
	80			30	543 717	DAMD-P-M10-16-R1²⁾	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

2) With sealing ring

3) Packaging unit quantity

Ordering data – Corrosion and acid resistant piston rod attachments				Technical data → Internet: crsg			
Designation	For Ø	Part No.	Type	Designation	For Ø	Part No.	Type
Rod eye CRSGS				Rod clevis CRSG			
	20, 25	195 581	CRSGS-M8		20, 25	13 568	CRSG-M8
	32, 40	195 582	CRSGS-M10x1,25		32, 40	13 569	CRSG-M10x1,25
	50, 63	195 583	CRSGS-M12x1,25		50, 63	13 570	CRSG-M12x1,25
	80	195 584	CRSGS-M16x1,5		80	13 571	CRSG-M16x1,5