Compact cylinders ADN/AEN, to ISO 21287





A	/ A
X	W

Festo core product range

Covers 80% of your automation tasks

Worldwide:

Always in stock

Superb: Easy: Festo quality at an attractive price Simplified procurement and warehousing ★ Generally ready for dispatch from the factory within 24 hours In stock at 13 Service Centres worldwide More than 2200 products

☆ Generally ready for dispatch from the factory within 5 days Assembled for you at 4 Service Centres worldwide Up to 6 × 10¹² variants per product family

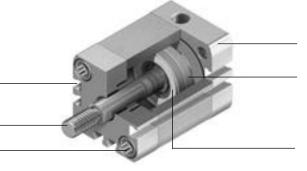
Key features

At a glance

Sensor slots on three sides for flush mounting of proximity sensors

Piston rod with choice of male or female thread

Mounting option: Female thread and through-hole



Centring hole in the end cap matches centring pins ZBS

Magnet for contactless position sensing

Integrated cushioning for absorbing residual energy

More than the standard

- The compact cylinder series ADN/ AEN comply with the standard ISO 21287
- The ADN/AEN is characterised by its compact design and broad area of application thanks to the large number of variants
- The variants can be configured according to individual needs thanks to the modular product system

Powerful

- Integrated cushioning for absorbing residual energy
- Long service life thanks to exceptional cushioning characteristics and minimal friction factors

Convenient

- Easy to mount with a comprehensive range of mounting accessories for just about every type of installation
- Highly flexible thanks to the wide range of variants
- Contactless position sensing using proximity sensors

Reliable

 Optimised manufacturing methods, patented technology and more than 40 years of experience in the field of cylinders make Festo and ADN/AEN a great team

Cushioning types

Cushioning P

Mode of operation

 The drive has elastic polymer end-position cushioning

Application

- Small loads
- Low speeds
- · Small cushioning capacity

Advantages

- · No adjustment required
- Saves time

Cushioning PPS

Mode of operation

The drive has self-adjusting, pneumatic end-position cushioning

Application

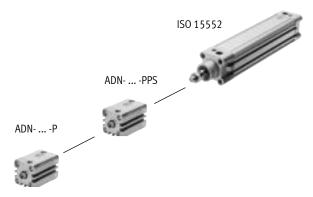
- Larger loads
- · Higher speeds
- · Larger cushioning capacity

Advantages

- · No adjustment required
- Up to 4 times bigger cushioning capacity than ADN-...-P
- · Saves time
- Reduced noise

Cushioning capacity of ISO 21287 and ISO 15552 $\,$

In terms of cushioning capacity, the compact cylinder ADN-...-PPS fills the gap between ADN-...-P and standards-based cylinders with ISO 15552.



Key features

Variants from the modular pro Symbol	oduct sys Key fea		Description
+	S1	Reinforced piston rod	Increased lateral loads. Absorbs many times more lateral load than a basic cylinder
	S2	Through piston rod	The piston rod can be used for attachments at both ends of the cylinder
	S6	Heat-resistant seals	Temperature resistance up to max. 120°C
\longleftrightarrow	S10	Constant motion (slow speed) at low piston speeds	Suitable for slow stroke movements at a constant, stick-slip-free speed over the full stroke of the cylinder. Seal contains silicone grease (not free of paint-wetting impairment substances)
\longleftrightarrow	S11	Low friction	The special seals considerably reduce system friction. This results in to a considerably lower response pressure. Seal contains silicone grease (not free of paint-wetting impairment substances)
	S20	Through, hollow piston rod	The piston rod can be used for attachments at both ends of the cylinder. The piston rod is hollow inside. This means it can be used to carry vacuum or compressed air
-	K2	Extended male piston rod thread	-
-	K5	Special piston rod thread	Metric standard thread to ISO
—	K8	Extended piston rod	-
	K10	Smooth anodised aluminium piston rod	Ideal for use in welding environments: • Protection against welding spatter • Small working loads • Harder surface compared to steel • Long service life
4	KP	With clamping unit	Integrated clamping unit on the piston rod
•	EL	With end-position locking	Positive locking in the end position as a drop guard. If there is a drop in pressure, the cylinder is secured in its end position to prevent it from dropping
— •	Q	Square piston rod	Protection against rotation. For correctly oriented feeding
1	R3	High corrosion protection	All external cylinder surfaces comply with corrosion resistance class 3 to Festo standard 940070. The piston rod is made from corrosion- and acid-resistant steel
	R8	Dust protection with wiper seal	The cylinder has a hard-chrome-plated piston rod and a hard wiper seal, which protects against dry, dusty media
	TL	Captive rating plate	Laser-etched rating plate. For easy identification of components when it comes to replacement, even after years in a harsh environment
······· *	π	Low temperature	Temperature resistance down to max. –40°C

Function	Design	Туре	Piston Ø	Stroke	Position	Cushioning								
					sensing	Fixed	Self-adjust ing							
			[mm]	[mm]		Α	P	PPS						
Double-	Basic version					<u>, </u>								
acting		ADN	12	5, 10, 15, 20, 25, 30, 40	1 300									
			16	5, 10, 15, 20, 25, 30, 40, 50	1 300									
			20, 25	5, 10, 15, 20, 25, 30, 40, 50, 60	1 300			-						
			32, 40, 50	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	1 400	•	•	Ø 20						
			63	10, 15, 20, 25, 30, 40, 50, 60, 80	1 400			100						
			80, 100	10, 15, 20, 25, 30, 40, 50, 60, 80	1 500									
			125	-	1 500									
		ADNS2	12, 16, 20, 25	-	1 300			•						
		Through piston rod	32, 40, 50, 63	-	1 400	_	-	ø 20						
			80, 100, 125	-	1 500			100						
	P	ADNS20	16, 20, 25	-	1 300			_						
		Through, hollow	32, 40, 50, 63	-	1 400	1 _	_							
		piston rod	80, 100, 125	-	1 500	-	•	Ø 20 100						
	Reinforced pist	on rod												
	· •	ADNS1	25	-	5 300									
			40, 63	-	10 400	•		_						
			100	-	10 500									
	Non-rotating with square piston rod													
	₹ .	ADNQ	12, 16, 20, 25	-	1 300									
			32, 40, 50, 63	-	1 400	•		_						
			80, 100, 125	-	1 500	_								
		ADNQ-S2	12, 16, 20, 25	-	1 300									
		Through piston rod	32, 40, 50, 63	1_	1 400	-	•							
		imough piston rou	80, 100, 125	_	1 500	-	-							
		ADN 0.500												
		ADNQ-S20	16, 20, 25	-	1 200	_	_							
		Through, hollow piston rod	32, 40, 50, 63 80, 100, 125	<u> </u>	1 300 1 400	-	•	_						
		piston rou	80, 100, 125	-	1 400									
	Standard hole	pattern, with clamping u												
		ADNKP	20, 25	-	10 300	_								
			32, 40, 50, 63	-	10 400	_ •	•	_						
			80, 100	_	10 500									
			n la akina											
	Standard hole	pattern, with end-positio		1		1								
	Standard hole	pattern, with end-positio	20, 25	-	10 300									
	Standard hole			-	10 300 10 400 10 500	•	•	_						

Туре													→ Page/Internet
	Male piston rod thread	Female piston rod thread	Extended male piston rod thread	Special piston rod thread	Extended piston rod	Smooth anodised piston rod	Heat-resistant seals max. 120°C	Slow speed (constant motion)	Low friction	High corrosion protection	Dust protection	Low temperature	
	Α	I	K2	K5	К8	K10	S6	S10	S11	R3	R8	π	
Basic version		1					1		1				T
ADN		•	•	•	•	from Ø 20	•	•	•	•	■ from Ø 20	■ Ø 20 100	13
ADNS2 Through piston rod	•	•	-	•	•	-	•	_	_	-	_	■ Ø 20 100	13
ADNS20 Through, hollow piston rod		-	•	•	•	-	•	-	-	-	_	-	13
Reinforced piston roo	d .							•			1		
ADNS1	•	•	•	•	•	-	•	-	-	•	_	-	13
Non-rotating with sq	uare nieto	n rod									1		
ADNQ		■	•	•	•	_	•	_	_	-	_	-	13
ADNQ-S2 Through piston rod	•	•	•	•	•	-	•	_	_	-	_	_	13
ADNQ-S20 Through, hollow piston rod	•	_	•	•	•	_	•	-	_	_	_	-	13
Standard hole patter	n, with cla	amping uni	t										
ADNKP	•	•	•	•	•	_	_	_	_	_	_	-	40
Standard hole patter	n. with en	d-position	locking										
ADNEL		■		•	•	-	_	-	-	-	-	-	49

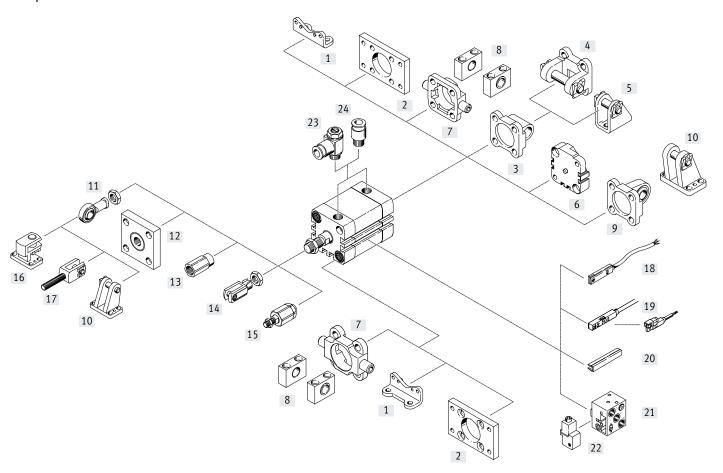
Function	Design	Туре	Piston Ø	Stroke		Position	Cushioning						
					sensing	Fixed	Self-adjust- ing						
			[mm]	[mm]	A	P	PPS						
Double-	Standard hole p	pattern, non-rotating with	ı yoke	•		'	'	<u>'</u>					
acting		ADNGF	12	5, 10, 15, 20, 25, 30, 40	1 200								
			16	5, 10, 15, 20, 25, 30, 40, 50	1 200								
	60.3		20, 25	5, 10, 15, 20, 25, 30, 40, 50, 60	3 200	1 _	_						
			32, 40, 50	5, 10, 15, 20, 25, 30, 40, 50, 60, 80	5 300	•	•	ø 20 100					
			63, 80	10, 15, 20, 25, 30, 40, 50, 60, 80	5 300	7		100					
			100	10, 15, 20, 25, 30, 40, 50, 60, 80	5 400	7							
		ADNGFS2	12, 16	-	1 200								
		Through piston rod	20, 25		3 200	_	_	ø 20					
			32, 40, 50, 63, 80, 100		5 250	•	-	100					
	Standard hole r	Standard hole pattern, high-force cylinder											
		ADNH	25	-	1 150								
			40			_	_						
			63			•	•	_					
			100										
	Standard hole p	oattern, multi-position cy	linder										
		ADNM	25	-	1 2000								
			40	7		_	_						
			63			-	_	_					
			100			1							

Туре	Male piston rod thread	Female piston rod thread	Extended male piston rod thread	Special piston rod thread	83 Extended piston rod	Heat-resistant seals max.	→ Page/Internet
Chandend hale netter		•	I\Z	N.J	NO.	30	
ADNGF	rn, non-rotating with y	оке					adngf
	-	-	-	-	-	•	
ADNGFS2 Through piston rod	-	-	-	-	-	•	adngf
Standard hole patter	rn, high-force cylinder						
ADNH	•	-	-	-	•	•	adnh
Standard hole patter	rn, multi-position cylin	der					
ADNM	•	•	•	•	•	•	adnh

Function	Design	Туре	Piston Ø	Stroke	Position sensing	Cushioning
			[mm]	[mm]	A	P
Single-	Basic version					
acting		AEN	12	1 10		
			16, 20, 25, 32, 40, 50, 63, 80, 100	1 25	•	•
		AENZ	12	1 10		
		Pulling	16, 20, 25, 32, 40, 50, 63, 80, 100	1 25	•	•
	Non-rotating with	square piston rod				
		AENQ	16	1 25		
			20, 25, 32, 40, 50, 63, 80, 100	1 25	•	•

Туре								→ Page/Internet
	Male piston rod thread	Female piston rod thread	Extended male piston rod thread	Special piston rod thread	Extended piston rod	Smooth anodised piston rod	Heat-resistant seals max. 120°C	
	A	I	К2	K5	К8	K10	S6	
Basic version								
AEN	•	•	•	•	•	■ from Ø 20	•	59
AENZ Pulling	•	•	•	•	•	■ from Ø 20	•	59
Non-rotating with so	quare piston rod							
AENQ	•	•	•	•	•	-	•	59

Peripherals overview



Peripherals overview

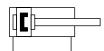
woull	ting components and accessories	Description	→ Page/Internet
[1]	Foot mounting	For bearing or end caps	72
	HNA		
[2]	Flange mounting FNC	For bearing or end caps	73
[3]	Swivel flange SNCL/SNCLR3	For end caps	74
[4]	Swivel flange SNCB/SNCBR3	For swivel flange SNCL	79
[5]	Clevis foot LBN/CRLBN	For swivel flange SNCL	78
[6]	Multi-position kit DPNA	For connecting two cylinders with identical piston diameters to form a multi-position cylinder	77
[7]	Trunnion flange ZNCF/CRZNG	For bearing caps	80
[8]	Trunnion support LNZG	For trunnion flange ZNCF/CRZNG	81
[9]	Swivel flange SNCS/CRSNCS/SNCSR3	For end caps	75
[10]	Clevis foot LBG/LBGR3	For swivel flange SNCS	76
[11]	Rod eye SGS/CRSGS	With spherical bearing	82
[12]	Coupling piece KSG/KSZ	To compensate for radial deviations	82
[13]	Adapter AD	For mounting a suction cup on a hollow piston rod	82
[14]	Rod clevis SG/CRSG	Permits a swivelling movement of the cylinder in one plane	82
[15]	Self-aligning rod coupler FK/CRFK	For compensating radial and angular deviations	82
[16]	Right-angle clevis foot LQG	For rod eye SGS	83
[17]	Rod clevis SGA	With male thread	82
[18]	Proximity sensor SME-8	Can be integrated in the cylinder profile barrel	85
[19]	Proximity sensor SME/SMT-8M	Can be integrated in the cylinder profile barrel	85
	Proximity sensor SMT-8G	Inserted in the slot lengthwise	
[20]	Slot cover ABP-5-S	For protecting the sensor cables and the sensor slots from contamination	85
[21]	Proximity sensor SMPO-8E	Pneumatic output signal	85
[22]	Mounting kit SMB-8E	For proximity sensor SMPO-8E	85
[23]	One-way flow control valve GRLA/GRLZ	For speed regulation	83
[24]	Push-in fitting QS	For connecting compressed air tubing with standard O.D.	qs

Type codes

001	Series
ADN	Compact cylinder, double-acting, based on ISO 21287
002	Piston diameter
12	12
16	16
20	20
25	25
32	32
40	40
50	50
63	63
80	80
100	100
125	125
003	Stroke
5	5
10	10
15	15
20	20
25	25
30	30
35	35
40	40
50	50
60	60
70	70
80	80
	5 80
004	Piston rod thread type
Α	Male thread
I	Female thread
005	Cushioning
P	Elastic cushioning rings/plates on both sides Pneumatic cushioning, self-adjusting at both ends
PPS	Prieumatic cusmoning, sen-adjusting at both ends
006	Position sensing
Α	For proximity sensor
007	
	None
Q	Square piston rod
008	Piston rod type
	At one end
S2	Through piston rod
S2 S20	Through hollow piston rod
320	mirough, notion piston rod

009	Special thread	
"M6"K5	M6	
"M8"K5	M8	
"M10"K5	M10	
"M10x1,25"K5	M10x1.25	
"M12"K5	M12	
"M16"K5	M16	
"M20x1,5"K5	M20x1.5	
"M5"K5	M5	
"M20"K5	M20	
010	Temperature range	
	Standard	
S6	Heat-resistant seals max. 120 °C	
011	Constant motion	
	Standard	
S10	Uniform, slow movement	
012	Running characteristics	
	Standard	
S11	Low friction	
013	Improved running performance	
	None	
K10	Smooth anodised aluminium coated piston rod	
014	Corrosion protection	
	Standard	
R3	High corrosion protection	
015	Captive rating plate	
	Rating plate, glued	
TL	Laser etched rating plate	
016	Low temperature	
010		
TT	None -40 °C +80 °C	
Π	-40 °C +80 °C	
017	Scraper variant	
	Standard	
R8	Dust protection	
018	EU certification	
	None	
EX4	II 2GD	

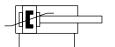
Function Elastic cushioning (P)



- **D** - Diameter 12 ... 125 mm

Stroke length 1 ... 500 mm

Self-adjusting cushioning (PPS)



Variants → page 3





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General technical data												
Piston Ø		12	16	20	25	32	40	50	63	80	100	125
Design		Piston	Piston									
		Piston ro	d				,					
		Cylinder	barrel									
Mode of operation Double-acting												
Cushioning		•										
Р		Elastic cu	Elastic cushioning rings/plates at both ends									
PPS		-		Pneum	atic cushionin	g, self-adjus	sting at both	ends				-
Cushioning length		•										,
PPS	[mm]	-		3	3.5	4	5	6	7	7.5	10	
Position sensing		Via proxi	mity sensor		,	,	·	·	·		,	,
Type of mounting		Via through-hole										
		Via female thread										
		Via accessories										
Mounting position		Any					,		,			

Technical data – Basic version and variants						
Piston Ø	12	16	20	25	32	40
Pneumatic connection						
-	M5	M5	M5	M5	G1/8	G1/8
S1	-	-	-	M5	-	M5
Female piston rod thread						•
-	M3	M4	M6	M6	M8	M8
K5	-	-	M5	M5	M6	M6
S1	-	-	-	M6	-	M10
S1-K5	-	-	-	M5	-	M8
Male piston rod thread	•					
_	M5	M6	M8	M8	M10x1.25	M10x1.25
K5	M6	M8	M10; M10x1.25	M10; M10x1.25	M10; M12	M10; M12
S1	-	-	-	M8	-	M12x1.25
S1-K5	-	-	-	M10; M10x1.25	-	M10x1.25; M12
Q-K5	M6	M8	M10; M10x1.25	M10; M10x1.25	M10	M10
Max. torsional backlash of piston rod [°]						
Q	2	1.8	1.6	1.6	1.2	1.2

Piston Ø	50	63	80			100		125	
neumatic connection	<u>'</u>	!	-						
_	G1/8	G1/8	G1/3	8		G1/8		G1/4	
S1	-	G1/8	-	-		G1/8			
emale piston rod thread	I	02/0				1 0 1 / 0			
_	M10	M10	M12)		M12		M16	
K5	M8	M8	M10			M10		_	
S1		M12	-	·		M16		1-	
S1-K5	_	M10	-			_		 -	
Male piston rod thread	I	mio							
-	M12x1.25	M12x1.25	M16	5x1.5		M16x1.5		M20x1.5	
K5	M12; M16	M12; M16		5; M20; M20x	1 5	M16; M20; M2	Ωx1 5	M20	
S1	- M12, M10	M16x1.5	- MIC	., .1120, 111201		M20x1.5		- WIZO	
S1-K5		M12x1.25; M16	_			M16x1.5; M20	1	-	
Q-K5	M12	M12X1.25; W16	M16	;		M16X1.3; M20	•	M20	
Max. torsional backlash of pistor	l l	INITZ	IMIT	,		IMIO		INIZU	
Q	1	1	0.8			0.8		0.8	
-:-									
Operating and environmental co	onaitions								
Piston Ø	12 16	20 25	32	40	50	63	80	100	125
Piston Ø Operating medium	12 16 Compressed air to IS	SO 8573-1:2010 [7:4:4]					80	100	125
Piston Ø Operating medium Note on operating/	12 16 Compressed air to IS						80	100	125
Piston Ø Degrating medium Note on operating/ pilot medium	12 16 Compressed air to IS	SO 8573-1:2010 [7:4:4]					80	100	125
Piston Ø Operating medium Note on operating/ Dilot medium Operating pressure [bar]	12 16 Compressed air to IS	SO 8573-1:2010 [7:4:4]					80	100	125
Piston Ø Degrating medium Note on operating/ pilot medium	12 16 Compressed air to IS Lubricated operatio	SO 8573-1:2010 [7:4:4] on possible (in which case					80	100	125
Piston Ø Operating medium Note on operating/ Poilot medium Operating pressure [bar] MPa]	Compressed air to IS Lubricated operatio	SO 8573-1:2010 [7:4:4] on possible (in which case		ration will alw			80	100	
Operating medium Note on operating/ Soliton medium Operating pressure [bar] MPa] PPS	Compressed air to IS Lubricated operatio	SO 8573-1:2010 [7:4:4] on possible (in which case 0.06 1 0.15 1	lubricated ope	ration will alw		quired)	80	100	125
Operating medium Note on operating/ Soliton medium Operating pressure [bar] MPa]	Compressed air to IS Lubricated operatio 0.1 1 - 0.13 1	0.06 1 0.15 1	lubricated ope	ration will alw	vays be rec	quired)			-
Operating medium Note on operating/ Soliton medium Operating pressure [bar] MPa]	12	0.06 1 0.15 1 0.1 1	0.08 1	ration will alw		quired) 0.06 1 0.1 1	80	0.1 1	
Operating medium Note on operating/ Soliton medium Operating pressure [bar] MPa]	12	0.06 1	lubricated ope	ration will alw	vays be rec	quired)			-
Operating medium Note on operating/ Soliton medium Operating pressure [bar] MPa]	12	0.06 1 0.15 1 0.1 1	0.08 1 0.1 1	0.1 1 0.1 1	vays be rec	quired) 0.06 1 0.1 1			-
Operating medium Note on operating/ Soliton medium Operating pressure [bar] MPa]	12	0.06 1 0.15 1 0.10 0.12 1 0.10 0.15 1	0.08 1	0.1 1	vays be rec	quired) 0.06 1 0.1 1			-
Operating medium Note on operating/ Soliton Medium Operating pressure [bar] MPa]	12	0.06 1	0.08 1 0.1 1	0.1 1 0.1 1	vays be rec	quired) 0.06 1 0.1 1			-
Operating medium Note on operating/ Soliton medium Operating pressure [bar] MPa]	12	0.06 1 0.15 1 0.15 1 0.15 1 0.15 1 0.15 1 0.16 1 0.17 1 0.17 1 0.17 1 0.17 1 0.17 1 0.17 1 0.17 1 0.17 1 0.17 1 0.17 1 0.17 1 0.17 1 0.18 1 0.1	0.08 1 0.1 1	0.1 1	vays be rec	quired) 0.06 1 0.1 1			-
Operating medium Note on operating/ Soliton Medium Operating pressure [bar] MPa]	12	0.06 1 0.15 1 0.15 1 0.15 1 0.16 1	0.08 1 0.1 1	0.1 1 0.1 1 1 0.1 1	vays be rec	quired) 0.06 1 0.1 1			-
Operating medium Note on operating/ Soliton work on operating/ Soliton medium Operating pressure [bar] MPa]	12	0.06 1 0.15 1 0.6 1 0.6 1 0.15 1	0.08 1 0.1 1 0.025	0.1 1 0.1 1 1 0.1 1	vays be rec	0.06 1 0.1 1 0.08 1			-
Operating medium Note on operating/ Soliton work on operating/ Soliton medium Operating pressure [bar] MPa]	12	0.06 1 0.15 1 0.15 1 0.15 1 0.16 1	0.08 1 0.1 1	0.1 1 0.1 1 1 0.1 1	vays be rec	quired) 0.06 1 0.1 1			-
Operating medium Note on operating/ Soliton work on operating/ Soliton medium Operating pressure [bar] MPa]	12	0.06 1 0.15 1 0.6 1 0.6 1 0.15 1	0.08 10 0.8 10 0.8 10	0.1 1 0.1 1 1 0.1 1	vays be rec	0.06 1 0.1 1 0.08 1			-
Operating medium Note on operating/ Soliton work on operating/ Soliton medium Operating pressure [bar] MPa]	12	0.06 1 0.15 1 0.15 1 0.16 1 0.15 1 0.16 1 0.17 1 0.18 1 0.1	0.08 10 0.8 10 0.8 10	0.1 1 1 0.1 1 1 1 10 1 10	vays be rec	0.06 1 0.08 1	-	0.1 1	
Operating medium Note on operating/ Soliton work on operating/ Soliton medium Operating pressure [bar] MPa]	12	0.06 1 0.15 1 0.15 1 0.16 1 0.15 1 0.16 1 0.17 1 0.18 1 0.1	0.08 10 0.08 10	0.1 1 1 0.1 1 1 1 10 1 10	vays be rec	0.06 1 0.08 1 0.6 10	-	0.1 1	-
Operating medium Note on operating/ Soliton operating/ Soliton medium Operating pressure [bar] MPa]	12	0.06 1 0.15 1 0.15 1 0.16 1 0.15 1 0.10 1 1	0.08 10 0.08 10	0.1 1 1 0.1 1 1 1 10 1 10 1 10	vays be rec	0.06 1 0.08 1 0.6 10	-	0.1 1	-

Corrosion resistance class CRC²⁾

S6

R3

Π

R3

ATEX

-20 ... +80

-20 ... +80

Selected types → www.festo.com

0 ... +120

2

3

-40 ... +80

¹⁾ Note operating range of proximity sensors

Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment. Corrosion resistance class CRC 3 to Festo standard FN 940070

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

Forces [N] and impact energy [J]											
Piston Ø	12	16	20	25	32	40	50	63	80	100	125
Theoretical force at 6 bar, advancing							-				
_	68	121	188	295	483	754	1178	1870	3016	4712	7363
S1	-	-	-	295	-	754	-	1870	-	4712]-
S2	51	90	141	247	415	686	1057	1750	2827	4524	7069
Theoretical force at 6 bar, retracting					•	•	•			•	
_	51	90	141	247	415	686	1057	1750	2827	4524	7069
S1	-	-	-	247	-	633	-	1681	-	4417	-
S2	51	90	141	247	415	686	1057	1750	2827	4524	7069
Max. impact energy at the end positions									,		
_	0.07	0.15	0.2	0.3	0.4	0.7	1	1.3	1.8	2.5	3.3
S1	-	-	-	0.3	-	0.7	Ī-	1.3	-	2.5	T-
S6	0.035	0.075	0.1	0.15	0.2	0.35	0.5	0.65	0.9	1.25	1.75
K10	-	-	0.16	0.24	0.32	0.56	0.8	1	1.4	2	2.6
S20	-	0.016	0.024	0.083	0.15	0.39	0.48	0.62	0.8	0.9	0.95



These specifications represent the maximum values that can be achieved. The maximum permissible impact energy must be observed.

Permissible impact speed:

$$V = \sqrt{\frac{2 \!\times\! E}{m_1 + m_2}}$$

0.65

Maximum permissible mass:

For self-adjusting cushioning (PPS)

$$=\sqrt{\frac{2\times E}{m_1+m_2}}$$

 $m_2 = \frac{2 \times E}{v^2} - m_1$

m2

1.7

Perm. impact speed

Max. impact energy Moving mass (drive)

Moving payload

2.8

4.8

8

12

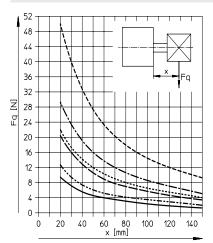
In combination with the self-adjusting cushioning (PPS), the maximum impact energy is still obtained.

Max. energy conversion capacity [J]								
Piston Ø	20	25	32	40	50	63	80	100

1

Max. lateral load Fq as a function of projection x

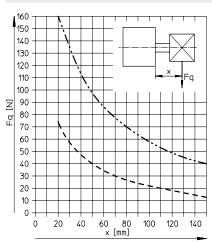
ø 12 ... 63





Ø 80 ... 125

0.8

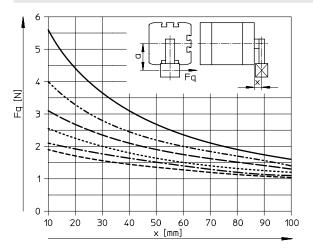


Ø 80/100 ---- ø 125

Max. lateral load Fq as a function of projection x and lever arm a

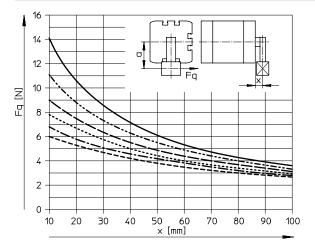
Q - Square piston rod

Ø 12



a = 5 mm
a = 10 mm
a = 15 mm
a = 20 mm
a = 25 mm
a = 30 mm
a = 30 mm

Ø 20/25

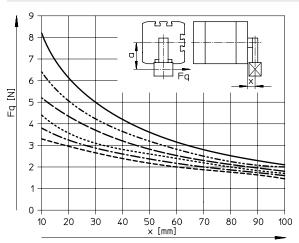


a = 5 mm
a = 10 mm
a = 15 mm
a = 20 mm
a = 25 mm
a = 25 mm
a = 30 mm

- 🖣 - Note

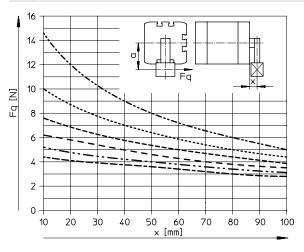
• Torques on the piston rod are to be excluded with projections greater than those shown in the graphs.

Ø 16



a = 5 mm
a = 10 mm
a = 15 mm
a = 20 mm
a = 25 mm
a = 30 mm
a = 30 mm

ø 32/40



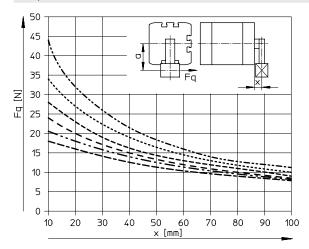
a = 10 mm
a = 20 mm
a = 30 mm
a = 40 mm
a = 50 mm
a = 60 mm

• If a = 0, the corresponding lateral load line of the basic version of the ADN can be used (→ page 15).

Max. lateral load Fq as a function of projection x and lever arm a

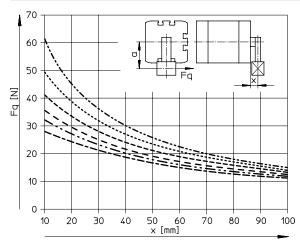
Q – Square piston rod

ø 50/63



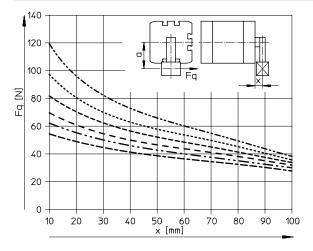
a = 10 mm
a = 20 mm
a = 30 mm
a = 40 mm
a = 50 mm
a = 60 mm

Ø 80/100



a = 10 mm
a = 20 mm
a = 30 mm
a = 40 mm
a = 50 mm
a = 60 mm

Ø 125



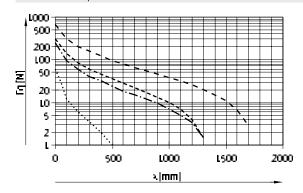
a = 10 mm
a = 20 mm
a = 30 mm
a = 40 mm
a = 50 mm
a = 60 mm

- Note

- Torques on the piston rod are to be excluded with projections greater than those shown in the graphs.
- If a = 0, the corresponding lateral load line of the basic version of the ADN can be used (→ page 15).

Max. lateral load Fq as a function of projection $\boldsymbol{\boldsymbol{x}}$

S1 – Reinforced piston rod



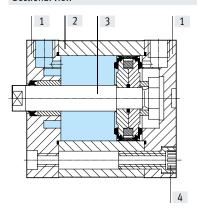


Ø 25
 Ø 40
 Ø 63
 Ø 100

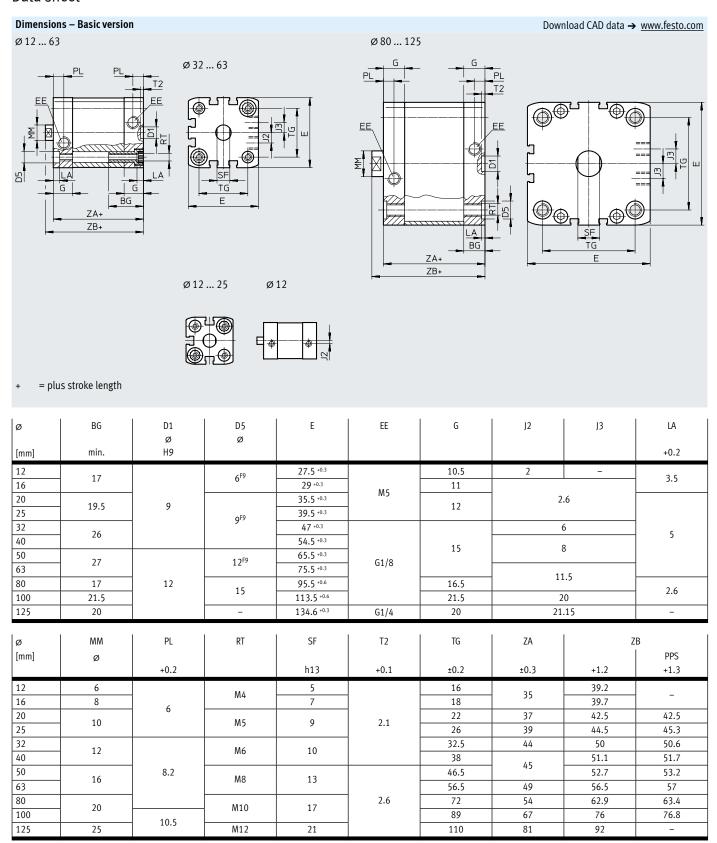
Weight [g]											
Piston Ø	12	16	20	25	32	40	50	63	80	100	125
Product weight with 0 mm stroke	77	79	131	156	265	346	540	722	1300	2154	2880
Additional weight per 10 mm stroke	12	14	21	23	30	37	51	59	79	98	117
Moving mass with 0 mm stroke	9	15	30	50	60	80	140	180	400	570	1080
Additional mass per 10 mm stroke	2	4	6	6	9	9	16	16	25	25	39

Materials

Sectional view

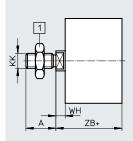


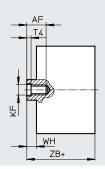
Com	pact cylinder	Basic version, Q	R8	S6, S10, S11	R3	K10
[1]	Cover				•	
	Ø 12 80	Anodised aluminium				
	Ø 100/125	Coated die-cast alumin	ium			
[2]	Cylinder barrel	Anodised aluminium				
[3]	Piston rod	High-alloy steel	Hard-chrome-plated	High-alloy steel		Anodised aluminium
			tempered steel			
[4]	Flange screws					
	Ø 12 16	High-alloy steel			High-alloy steel	-
	Ø 20 63	Galvanised steel			Tempered steel	Galvanised steel
	Ø 80 125	Standard screws, galva	nised steel		Standard screws,	Standard screws,
					high-alloy steel	galvanised steel
-	Seals	Polyurethane		Fluoro rubber	Polyurethane	
	Note on materials	RoHS-compliant				



Dimensions - Variants

Basic version

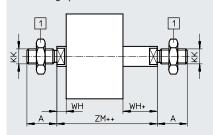


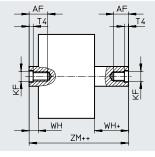


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- [1] Hex nut DIN 439-B only with Ø 32 ... 125
- + = plus stroke length

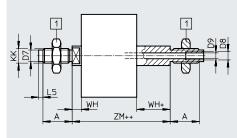
S2 – Through piston rod





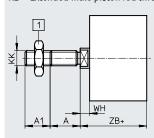
- [1] Hex nut DIN 439-B only with Ø 32 ... 125
- + = plus stroke length
- ++ = plus 2x stroke length

S20 – Through, hollow piston rod



- [1] Hex nut DIN 439-B only with Ø 32 ... 125
- + = plus stroke length
- ++ = plus 2x stroke length

K2 - Extended male piston rod thread



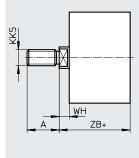


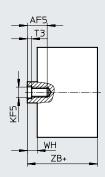
Note

In combination with variants S2/S20, the piston rod thread is extended at both ends

- [1] Hex nut DIN 439-B only with Ø 32 ... 125
- = plus stroke length

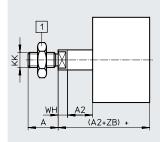
K5 - Special piston rod thread

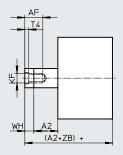




Dimensions - Variants

K8 – Extended piston rod





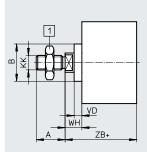
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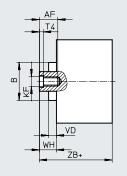
· 🚪 - Note

In combination with variants S2/S20, the piston rod thread is extended at one end

- [1] Hex nut DIN 439-B only with Ø 32 ... 125
- + = plus stroke length

R8 - Dust protection / TT - Low temperature





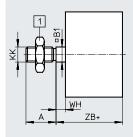
- [1] Hex nut DIN 439-B only with Ø 32 ... 125
- + = plus stroke length

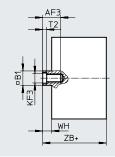
ø	A	A1	A2	AF	AF5	В	D7	D8	D9	L5	KF	KF5	KK
						ø	ø		Ø				
[mm]	-0.5			min.	min.								
12	10	1 10		8	_	_	-		-	-	M3		M5
16	12	1 10	1 300	10	_	_	4.5		3.2	3	M4	_	M6
20	16		1 500	14	12	18	6		3.8	2	M6	M5	M8
25	10			14	12	10	U	_	7.0	2	IVIO	CINI	IVIO
32	19	1 20		16	14	27	8		4.5	3	M8	M6	M10x1.25
40	17	1 20	1 400	10	14	21	· ·		4.5	,	IVIO	IVIO	MIOXI.23
50	22		1 400		16	31	10		6	3.5	M10	M8	M12x1.25
63	22			20	10)1	10		U).)	INITO	IVIO	M12X1.23
80	28	1 30		20	20	35		G1/8	8		M12	M10	M16x1.5
100	20	1 30	1 500		20	ر ر	-	01/0	0	-	10112	MITO	MITOX1.5
125	40	1 40		25	-	-		G1/4	11.7		M16	-	M20x1.5

ø	KK5	T3	T4	VD		WH			ZB		ZI	М
[mm]						PPS	R8/TT		PPS	R8/TT		PPS
					+1.3	+1.4	+1.3	+1.2	+1.3	+1.2		
12	M6		1.5		4.2			39.2			44.5 +0.5	
16	M8	_	1.5	_	4.7	-	_	39.7	_	_	45.7 +0.5	_
20	M10x1.25	2	2.6	5.2	5.5	5.5	10.5	42.5	42.5	47.5	49.5 +0.5	49.5 +0.5
25	M10	2	2.0	5.2	5.5	5.5	10.5	44.5	45.3	49.5	51.5 +0.5	51.5 +0.5
32	M10	2.6	3.3		6	6.5	12.5	50	50.6	56.5	57.5 +0.5	58.6 +0.6
40	M12	2.0).)		6.1	6.6	12.5	51.1	51.7	57.5	58.6 +0.6	59.7 +0.7
50	M12	3.3	4.7		7.7	8.2	14.7	52.7	53.2	59.7	62.0 +0.6	63.1 +0.7
63	M16).)	4.7	6.4	7.5	8	14.6	56.5	57	63.6	65.4 +0.6	66.5 +0.7
80	M16				8.9	9.4	15.4	62.9	63.4	69.4	73.2 +0.6	74.3 +0.7
100	M20x1.5 M20	4.7	6.1		9	9.8	15.5	76	76.8	82.5	86.4 +0.6	88 +0.7
125	M20	-	7	-	11	-	-	92	-	-	104.4 +0.6	-

Dimensions - Variants

Q - Square piston rod

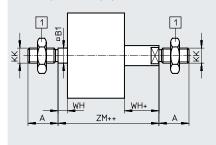


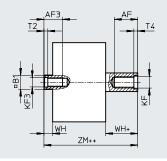


Download CAD data → www.festo.com

- [1] Hex nut DIN 439-B only with Ø 32 ... 125
- + = plus stroke length

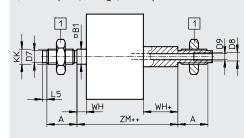
Q-S2 - Square, through piston rod





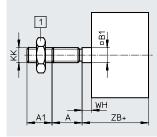
- [1] Hex nut DIN 439-B only with Ø 32 ... 125
- + = plus stroke length
- ++ = plus 2x stroke length

Q-S20 - Square, through, hollow piston rod



- [1] Hex nut DIN 439-B only with Ø 32 ... 125
- + = plus stroke length
- ++ = plus 2x stroke length

Q-K2 – Square piston rod with extended male thread



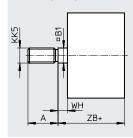


Note

In combination with variants S2/S20, the piston rod thread is extended at both ends.

- [1] Hex nut DIN 439-B only with Ø 32 ... 125
- + = plus stroke length

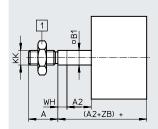
Q-K5 – Square piston rod with special thread

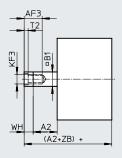


+ = plus stroke length

Dimensions – Variants

Q-K8 – Square, extended piston rod





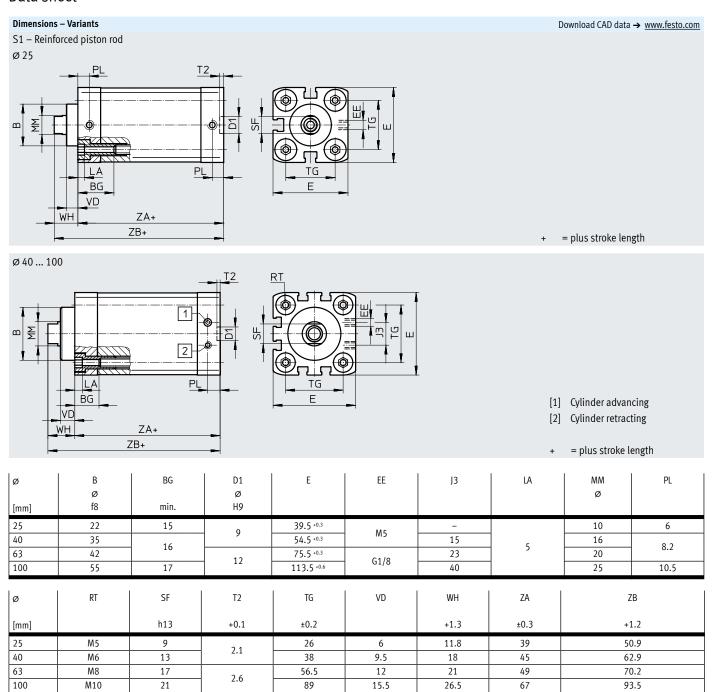
Download CAD data → www.festo.com

- 📱 - Note

In combination with variants S2/S20, the piston rod thread is extended at both ends.

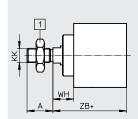
- [1] Hex nut DIN 439-B only with Ø 32 ... 125
- + = plus stroke length

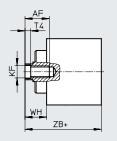
Ø	A	A1	A2	AF	AF3	B1	D7	D8	D9
							Ø		Ø
[mm]	-0.5			min.	min.				
12	10	1 10		8	8	5.5	_		_
16	12	1 10	1 300	10	10	7	4.5		3.2
20	16		1 500	14	12	9	6		3.8
25				- '				_	
32	19	1 20		16	14	10	8		4.5
40			1 400						
50 63	22			20	16	12	10		6
80									
100	28	1 30	1 500	20	20	16	_	G1/8	8
125	40	1 40	1 500	25	24	20	1	G1/4	11.7
				-				, ,	
ø	L5	KF	KF3	KK	KK5	T2	WH	ZB	ZM
[mm]							+1.3	+1.2	
12	-	M3	M3	M5	M6	4.5	4.2	39.2	44.5 +0.5
16	3	M4	M4	M6	M8	1.5	4.7	39.7	45.7 +0.5
20	2	M6	M5	M8	M10x1.25	2	5.5	42.5	49.5 +0.5
25		WIO	CINI	IVIO	M10	2		44.5	51.5 +0.5
32	3	M8	M6	M10x1.25	M10	2.6	6	50	57.5 +0.5
40			1110	MIOXILES	mio	2.0	6.1	51.1	58.6 +0.6
50	3.5	M10	M8	M12x1.25	M12	3.3	8.2	53.2	62.8 +0.6
63	1	20		=	2		8.1	57.1	66.6 +0.6
80	_	M12	M10	M16x1.5	M16	4.7	8.9	62.9	73.2 +0.6
100							9	76	86.4 +0.6
125		M16	M12	M20x1.5	M20	6.1	11	92	104.4 +0.6



Dimensions - Variants

S1 – Reinforced piston rod

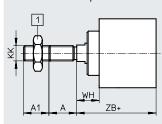




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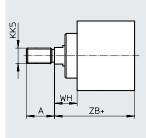
- [1] Hex nut DIN 439-B only with Ø 40 ... 100
- + = plus stroke length

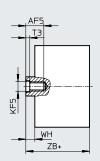
S1-K2 – Reinforced piston rod with extended male piston rod thread



- [1] Hex nut DIN 439-B only with Ø 40 ... 100
- + = plus stroke length

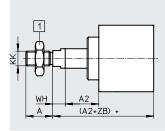
 ${\sf S1\text{-}K5-Reinforced\ piston\ rod\ with\ special\ piston\ rod\ thread}$

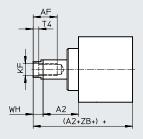




- [1] Hex nut DIN 439-B only with Ø 40 ... 100
- + = plus stroke length

S1-K8 – Reinforced piston rod with extended piston rod thread





- [1] Hex nut DIN 439-B only with Ø 40 ... 100
- = plus stroke length

ø	A	A1	A2	AF	AF5	KF	KF5	KK	KK5	T3	T4	WH	ZB
[mm]	-0.5			min.	min.							+1.3	+1.2
25	16		1 300	14	12	M6	M5	M8	M10x1.25 M10	2	2.6	11.8	50.9
40	22	1 20	1 400	20	16	M10	M8	M12x1.25	M10x1.25 M12	3.3	4.7	18	62.9
63	28		1 400	20	20	M12	M10	M16x1.5	M12x1.25 M16	4.7	6.1	21	70.2
100	40	1 30	1 500	25	-	M16	-	M20x1.5	M16x1.5 M20	-	7	26.5	93.5

★ Core product range

Ordering data				
Type	Piston Ø	Stroke	I – Piston rod with female thread	A - Piston rod with male thread
			P – Elastic cushioning rings/plates at both	P – Elastic cushioning rings/plates at both
			ends	ends
	[mm]	[mm]	Part no. Type	Part no. Type
	12	5	★ 536211 ADN-12-5-I-P-A	★ 536204 ADN-12-5-A-P-A
		10	★ 536212 ADN-12-10-I-P-A	★ 536205 ADN-12-10-A-P-A
		15	★ 536213 ADN-12-15-I-P-A	★ 536206 ADN-12-15-A-P-A
		20	★ 536214 ADN-12-20-I-P-A	★ 536207 ADN-12-20-A-P-A
		25	★ 536215 ADN-12-25-I-P-A	★ 536208 ADN-12-25-A-P-A
		30	★ 536216 ADN-12-30-I-P-A	★ 536209 ADN-12-30-A-P-A
		40	★ 536217 ADN-12-40-I-P-A	★ 536210 ADN-12-40-A-P-A
	16	5	★ 536226 ADN-16-5-I-P-A	★ 536219 ADN-16-5-A-P-A
		10	★ 536227 ADN-16-10-I-P-A	★ 536220 ADN-16-10-A-P-A
		15	★ 536228 ADN-16-15-I-P-A	★ 536221 ADN-16-15-A-P-A
		20	★ 536229 ADN-16-20-I-P-A	★ 536222 ADN-16-20-A-P-A
		25	★ 536230 ADN-16-25-I-P-A	★ 536223 ADN-16-25-A-P-A
		30	★ 536231 ADN-16-30-I-P-A	★ 536224 ADN-16-30-A-P-A
		40	★ 536232 ADN-16-40-I-P-A	★ 536225 ADN-16-40-A-P-A
		50	★ 536341 ADN-16-50-I-P-A	★ 536331 ADN-16-50-A-P-A
	20	5	★ 536242 ADN-20-5-I-P-A	★ 536234 ADN-20-5-A-P-A
	20	10	★ 536243 ADN-20-10-I-P-A	★ 536235 ADN-20-10-A-P-A
		15	★ 536244 ADN-20-15-I-P-A	★ 536236 ADN-20-15-A-P-A
		20	★ 536245 ADN-20-20-I-P-A	★ 536237 ADN-20-20-A-P-A
		25	★ 536246 ADN-20-25-I-P-A	★ 536238 ADN-20-25-A-P-A
		30	★ 536247 ADN-20-30-I-P-A	★ 536239 ADN-20-30-A-P-A
		40	★ 536248 ADN-20-40-I-P-A	★ 536240 ADN-20-40-A-P-A
		50	★ 536249 ADN-20-50-I-P-A	★ 536241 ADN-20-50-A-P-A
		60	★ 536362 ADN-20-60-I-P-A	★ 536352 ADN-20-60-A-P-A
	25	5	★ 536259 ADN-25-5-I-P-A	★ 536251 ADN-25-5-A-P-A
		10	★ 536260 ADN-25-10-I-P-A	★ 536252 ADN-25-10-A-P-A
		15	★ 536261 ADN-25-15-I-P-A	★ 536253 ADN-25-15-A-P-A
		20	★ 536262 ADN-25-20-I-P-A	★ 536254 ADN-25-20-A-P-A
		25	★ 536263 ADN-25-25-I-P-A	★ 536255 ADN-25-25-A-P-A
		30	★ 536264 ADN-25-30-I-P-A	★ 536256 ADN-25-30-A-P-A
		40	★ 536265 ADN-25-40-I-P-A	★ 536257 ADN-25-40-A-P-A
		50	★ 536266 ADN-25-50-I-P-A	★ 536258 ADN-25-50-A-P-A
		60	★ 536383 ADN-25-60-I-P-A	★ 536373 ADN-25-60-A-P-A
	32	5	★ 536278 ADN-32-5-I-P-A	★ 536268 ADN-32-5-A-P-A
		10	★ 536279 ADN-32-10-I-P-A	★ 536269 ADN-32-10-A-P-A
		15	★ 536280 ADN-32-15-I-P-A	★ 536270 ADN-32-15-A-P-A
		20	★ 536281 ADN-32-20-I-P-A	★ 536271 ADN-32-20-A-P-A
		25	★ 536282 ADN-32-25-I-P-A	★ 536272 ADN-32-25-A-P-A
		30	★ 536283 ADN-32-30-I-P-A	★ 536273 ADN-32-30-A-P-A
		40	★ 536284 ADN-32-40-I-P-A	★ 536274 ADN-32-40-A-P-A
		50	★ 536285 ADN-32-50-I-P-A	★ 536275 ADN-32-50-A-P-A
		60	★ 536286 ADN-32-60-I-P-A	★ 536276 ADN-32-60-A-P-A
		80	★ 536287 ADN-32-80-I-P-A	★ 536277 ADN-32-80-A-P-A

★ Core product range

Ordering data Type	Diete - G	Stroke	I – Piston rod with female thread	A - Piston rod with male thread
ype	Piston Ø	Sticke		
			P – Elastic cushioning rings/plates at both	P - Elastic cushioning rings/plates at both
			ends	ends
	[mm]	[mm]	Part no. Type	Part no. Type
	40	5	★ 536299 ADN-40-5-I-P-A	★ 536289 ADN-40-5-A-P-A
		10	★ 536300 ADN-40-10-I-P-A	★ 536290 ADN-40-10-A-P-A
		15	★ 536301 ADN-40-15-I-P-A	★ 536291 ADN-40-15-A-P-A
		20	★ 536302 ADN-40-20-I-P-A	★ 536292 ADN-40-20-A-P-A
		25	★ 536303 ADN-40-25-I-P-A	★ 536293 ADN-40-25-A-P-A
		30	★ 536304 ADN-40-30-I-P-A	★ 536294 ADN-40-30-A-P-A
		40	★ 536305 ADN-40-40-I-P-A	★ 536295 ADN-40-40-A-P-A
		50	★ 536306 ADN-40-50-I-P-A	★ 536296 ADN-40-50-A-P-A
		60	★ 536307 ADN-40-60-I-P-A	★ 536297 ADN-40-60-A-P-A
		80	★ 536308 ADN-40-80-I-P-A	★ 536298 ADN-40-80-A-P-A
	50	5	★ 536320 ADN-50-5-I-P-A	★ 536310 ADN-50-5-A-P-A
	100	10	★ 536321 ADN-50-10-I-P-A	★ 536311 ADN-50-10-A-P-A
		15	★ 536322 ADN-50-15-I-P-A	★ 536312 ADN-50-15-A-P-A
		20	★ 536323 ADN-50-20-I-P-A	★ 536313 ADN-50-20-A-P-A
		25	★ 536324 ADN-50-25-I-P-A	★ 536314 ADN-50-25-A-P-A
		30	★ 536325 ADN-50-30-I-P-A	★ 536315 ADN-50-30-A-P-A
		40	★ 536326 ADN-50-40-I-P-A	★ 536316 ADN-50-40-A-P-A
		50	★ 536327 ADN-50-50-I-P-A	★ 536317 ADN-50-50-A-P-A
		60	★ 536328 ADN-50-60-I-P-A	★ 536318 ADN-50-60-A-P-A
		80	★ 536329 ADN-50-80-I-P-A	★ 536319 ADN-50-80-A-P-A
	63	10	★ 536342 ADN-63-10-I-P-A	★ 536332 ADN-63-10-A-P-A
		15	★ 536343 ADN-63-15-I-P-A	★ 536333 ADN-63-15-A-P-A
		20	★ 536344 ADN-63-20-I-P-A	★ 536334 ADN-63-20-A-P-A
		25	★ 536345 ADN-63-25-I-P-A	★ 536335 ADN-63-25-A-P-A
		30	★ 536346 ADN-63-30-I-P-A	★ 536336 ADN-63-30-A-P-A
		40	★ 536347 ADN-63-40-I-P-A	★ 536337 ADN-63-40-A-P-A
		50	★ 536348 ADN-63-50-I-P-A	★ 536338 ADN-63-50-A-P-A
		60	★ 536349 ADN-63-60-I-P-A	★ 536339 ADN-63-60-A-P-A
		80	★ 536350 ADN-63-80-I-P-A	★ 536340 ADN-63-80-A-P-A
	80	10	★ 536363 ADN-80-10-I-P-A	★ 536353 ADN-80-10-A-P-A
		15	★ 536364 ADN-80-15-I-P-A	★ 536354 ADN-80-15-A-P-A
		20	★ 536365 ADN-80-20-I-P-A	★ 536355 ADN-80-20-A-P-A
		25	★ 536366 ADN-80-25-I-P-A	★ 536356 ADN-80-25-A-P-A
		30	★ 536367 ADN-80-30-I-P-A	★ 536357 ADN-80-30-A-P-A
		40	★ 536368 ADN-80-40-I-P-A	★ 536358 ADN-80-40-A-P-A
		50	★ 536369 ADN-80-50-I-P-A	★ 536359 ADN-80-50-A-P-A
		60	★ 536370 ADN-80-60-I-P-A	★ 536360 ADN-80-60-A-P-A
		80	★ 536371 ADN-80-80-I-P-A	★ 536361 ADN-80-80-A-P-A

★ Core product range

Ordering data Type	Piston Ø	Stroke	l – Piston	rod with female thread	A – Piston	rod with male thread
71	1.502			natic cushioning, self-adjusting at		natic cushioning, self-adjusting at
			both e	ŭ. , ŭ	both e	
	[mm]	[mm]	Part no.	Туре	Part no.	Type
				**		
	32	10	★ 572646	ADN-32-10-I-PPS-A	★ 572655	ADN-32-10-A-PPS-A
		15	★ 572647	ADN-32-15-I-PPS-A	★ 572656	ADN-32-15-A-PPS-A
		20	★ 572648	ADN-32-20-I-PPS-A	★ 572657	ADN-32-20-A-PPS-A
		25	★ 572649	ADN-32-25-I-PPS-A	★ 572658	ADN-32-25-A-PPS-A
		30	★ 572650	ADN-32-30-I-PPS-A	★ 572659	ADN-32-30-A-PPS-A
		40	★ 572651	ADN-32-40-I-PPS-A	★ 572660	ADN-32-40-A-PPS-A
		50	★ 572652	ADN-32-50-I-PPS-A	★ 572661	ADN-32-50-A-PPS-A
		60	★ 572653	ADN-32-60-I-PPS-A	★ 572662	ADN-32-60-A-PPS-A
		80	★ 572654	ADN-32-80-I-PPS-A	★ 572663	ADN-32-80-A-PPS-A
	40	10	★ 572664	ADN-40-10-I-PPS-A	★ 572673	ADN-40-10-A-PPS-A
		15	★ 572665	ADN-40-15-I-PPS-A	★ 572674	ADN-40-15-A-PPS-A
		20	★ 572666	ADN-40-20-I-PPS-A	★ 572675	ADN-40-20-A-PPS-A
		25	★ 572667	ADN-40-25-I-PPS-A	★ 572676	ADN-40-25-A-PPS-A
		30	★ 572668	ADN-40-30-I-PPS-A	★ 572677	ADN-40-30-A-PPS-A
		40	★ 572669	ADN-40-40-I-PPS-A	★ 572678	ADN-40-40-A-PPS-A
		50	★ 572670	ADN-40-50-I-PPS-A	★ 572679	ADN-40-50-A-PPS-A
		60	★ 572671	ADN-40-60-I-PPS-A	★ 572680	ADN-40-60-A-PPS-A
		80	★ 572672	ADN-40-80-I-PPS-A	★ 572681	ADN-40-80-A-PPS-A
	F0	10	→ 572692	ADM CO 10 L DDC A	★ 572691	ADM TO 10 A DDC A
	50	10	★ 572682	ADN 50-10-I-PPS-A	- 1	ADN 50-10-A-PPS-A
		15 20	★ 572683 ★ 572684	ADN-50-15-I-PPS-A ADN-50-20-I-PPS-A	★ 572692	ADN 50-15-A-PPS-A
		25		ADN-50-25-I-PPS-A	★ 572693 ★ 572694	ADN-50-20-A-PPS-A ADN-50-25-A-PPS-A
			★ 572685		- 1	
		30	★ 572686	ADN 50-30-I-PPS-A	★ 572695	ADN 50 40 A PRS A
		50	★ 572687	ADN-50-40-I-PPS-A ADN-50-50-I-PPS-A	★ 572696 ★ 572697	ADN 50 50 A PPS A
			★ 572688	ADN-50-60-I-PPS-A	★ 572697	ADN 50 60 A DDS A
		80	★ 572689 ★ 572600		★ 572698	ADN 50 80 A PRS A
		00	★ 572690	ADN-50-80-I-PPS-A	★ 572699	ADN-50-80-A-PPS-A
	63	10	★ 572700	ADN-63-10-I-PPS-A	★ 572709	ADN-63-10-A-PPS-A
		15	★ 572701	ADN-63-15-I-PPS-A	★ 572710	ADN-63-15-A-PPS-A
		20	★ 572702	ADN-63-20-I-PPS-A	★ 572711	ADN-63-20-A-PPS-A
		25	★ 572703	ADN-63-25-I-PPS-A	★ 572712	ADN-63-25-A-PPS-A
		30	★ 572704	ADN-63-30-I-PPS-A	★ 572713	ADN-63-30-A-PPS-A
		40	★ 572705	ADN-63-40-I-PPS-A	★ 572714	ADN-63-40-A-PPS-A
		50	★ 572706	ADN-63-50-I-PPS-A	★ 572715	ADN-63-50-A-PPS-A
		60	★ 572707	ADN-63-60-I-PPS-A	★ 572716	ADN-63-60-A-PPS-A
		80	★ 572708	ADN-63-80-I-PPS-A	★ 572717	ADN-63-80-A-PPS-A
	80	10	→ E73710	ADN 80.10 L DDS A	→ [72727	ADN-80-10-A-PPS-A
	80	10	★ 572718 ★ 572710	ADN-80-10-I-PPS-A ADN-80-15-I-PPS-A	★ 572727 ★ 572729	
		15	★ 572719 ★ 572720		★ 572728 ★ 572720	ADN-80-15-A-PPS-A ADN-80-20-A-PPS-A
		20	★ 572720 ★ 572721	ADN-80-20-I-PPS-A	★ 572729	
		25	★ 572721	ADN-80-25-I-PPS-A	★ 572730 ★ 572731	ADN-80-25-A-PPS-A
		30	★ 572722	ADN-80-30-I-PPS-A	★ 572731 ★ 572733	ADN-80-30-A-PPS-A
		40	★ 572723	ADN-80-40-I-PPS-A	★ 572732 ★ 572733	ADN 80 TO A PRS A
		50	★ 572724	ADN-80-50-I-PPS-A	★ 572733	ADN-80-50-A-PPS-A
		60	★ 572725	ADN-80-60-I-PPS-A	★ 572734	ADN-80-60-A-PPS-A
		80	★ 572726	ADN-80-80-I-PPS-A	★ 572735	ADN-80-80-A-PPS-A

Ordering data				
Туре	Piston Ø	Stroke	I – Piston rod with female thread	A - Piston rod with male thread
			P – Elastic cushioning rings/plates at both	P – Elastic cushioning rings/plates at both
			ends	ends
	[mm]	[mm]	Part no. Type	Part no. Type
	100	10	536384 ADN-100-10-I-P-A	536374 ADN-100-10-A-P-A
\rightarrow	100	15	536384 ADN-100-10-1-P-A 536385 ADN-100-15-I-P-A	536374 ADN-100-10-A-P-A 536375 ADN-100-15-A-P-A
		20	536386 ADN-100-15-I-P-A	536375 ADN-100-13-A-P-A 536376 ADN-100-20-A-P-A
		25	536387 ADN-100-25-I-P-A	536377 ADN-100-25-A-P-A
		30	536388 ADN-100-30-I-P-A	536377 ADN-100-25-A-F-A 536378 ADN-100-30-A-P-A
		40	536389 ADN-100-40-I-P-A	536379 ADN-100-30-A-F-A
		50	536390 ADN-100-50-I-P-A	536380 ADN-100-50-A-P-A
		60	536391 ADN-100-60-I-P-A	536381 ADN-100-60-A-P-A
		80	536392 ADN-100-80-I-P-A	536382 ADN-100-80-A-P-A
		80	330392 ADN-100-00-1-1-A	330362 ADN-100-60-A-F-A
Ordering data				
ype	Piston Ø	Stroke	I – Piston rod with female thread	A – Piston rod with male thread
ype	113101190	Stroke	PPS – Pneumatic cushioning, self-adjusting	PPS – Pneumatic cushioning, self-adjusting
				j , , , ,
	. ,		at both ends	at both ends
	[mm]	[mm]	Part no. Type	Part no. Type
	20	10	577158 ADN-20-10-I-PPS-A	577166 ADN-20-10-A-PPS-A
		15	577159 ADN-20-15-I-PPS-A	577167 ADN-20-15-A-PPS-A
		20	577160 ADN-20-20-I-PPS-A	577168 ADN-20-20-A-PPS-A
		25	577161 ADN-20-25-I-PPS-A	577169 ADN-20-25-A-PPS-A
		30	577162 ADN-20-30-I-PPS-A	577170 ADN-20-30-A-PPS-A
		40	577163 ADN-20-40-I-PPS-A	577171 ADN-20-40-A-PPS-A
		50	577164 ADN-20-50-I-PPS-A	577172 ADN-20-50-A-PPS-A
		60	577165 ADN-20-60-I-PPS-A	577173 ADN-20-60-A-PPS-A
	25	10	577174 ADN-25-10-I-PPS-A	577182 ADN-25-10-A-PPS-A
		15	577175 ADN-25-15-I-PPS-A	577183 ADN-25-15-A-PPS-A
		20	577176 ADN-25-20-I-PPS-A	577184 ADN-25-20-A-PPS-A
		25	577177 ADN-25-25-I-PPS-A	577185 ADN-25-25-A-PPS-A
		30	577178 ADN-25-30-I-PPS-A	577186 ADN-25-30-A-PPS-A
		40	577179 ADN-25-40-I-PPS-A	577187 ADN-25-40-A-PPS-A
		50	577180 ADN-25-50-I-PPS-A	577188 ADN-25-50-A-PPS-A
		60	577181 ADN-25-60-I-PPS-A	577189 ADN-25-60-A-PPS-A
	100	4.5	577404 ADM 400 45 LDDC A	577200 ADM 400 45 A DDC 4
	100	15	577191 ADN-100-15-I-PPS-A	577200 ADN-100-15-A-PPS-A
		20	577192 ADN-100-20-I-PPS-A	577201 ADN-100-20-A-PPS-A
		25	577193 ADN-100-25-I-PPS-A	577202 ADN-100-25-A-PPS-A
		30	577194 ADN-100-30-I-PPS-A	577203 ADN-100-30-A-PPS-A
		40	577195 ADN-100-40-I-PPS-A	577204 ADN-100-40-A-PPS-A
		50	577196 ADN-100-50-I-PPS-A	577205 ADN-100-50-A-PPS-A
		60	577197 ADN-100-60-I-PPS-A	577206 ADN-100-60-A-PPS-A
		80	577198 ADN-100-80-I-PPS-A	577207 ADN-100-80-A-PPS-A

Ordering data – Modular product system, basic sensor and variants

Ordering table											
Size		12	16	20	25	32	40	Conditions	Code	<u></u>	Enter code
Module no.		536203	536218	536233	536250	536267	536288				
Function		Compact cylin	der, double-acti	ng, based on IS	0 21287				ADN	ĺ	ADN
Piston Ø	[mm]	12	16	20	25	32	40		☆	İ	
Stroke	[mm]	1 300				1 400			☆	ĺ	
Piston rod thread		Male thread							☆ -A	İ	
		Female thread						[1]	☆ -I	İ	
Cushioning		Elastic cushio	ning rings/plate	s at both ends	ooth ends				☆ -P	ĺ	
		-	Pneumatic cushioning, self-adjusting at both ends						☆ -PPS		
Position sensing		Via proximity	sensor						☆ -A		-A

^[1] Not with piston rod type S20.

Not with extended male thread K2

→ Internet: www.festo.com/catalogue/...

^[8] PPS Not with improved running performance K10, temperature resistance S6, low temperature TT, wiper seal R8 Minimum stroke 5 mm

Ordering data – Modular product system, basic sensor and variants

Ordering table										
Size		12	16	20	25	32	40	Conditions	Code	Enter co
Piston rod type		Through pistor	n rod	[2]	☆ -S2					
		-	Through, hollo	w piston rod				[2]	-S20	
	[mm]		1 300							
Extended male thread		Extended male	piston rod thre	ead						
	[mm]	1 10		1 20					K2	
Special piston	Male thread	M6	M8	M10x1.25	M10x1.25	M10	M10		-""K5	
rod thread				M10	M10	M12	M12			
	Female thread	_	_	M5	M5	M6	M6			
Extended piston rod		Extended pisto	on rod							
	[mm]	1 300				1 400		[3]	🖈К8	
Improved running perform	nance	-	-	Smooth anod		[4]	-K10			
Temperature resistance		Heat-resistant seals max. 120°C							☆ -S6	
Corrosion protection		High corrosion protection							☆ -R3	
Captive rating plate	Laser-etched rating plate							-TL		
Low temperature	[°C]	-	40 +80					[6] [7]	-π	
Wiper seal		-	-	Dust protection	n			[6]	-R8	

 $\begin{tabular}{ll} [2] & {\bf S2,S20} & Not with improved running performance K10. \end{tabular}$

Not with corrosion protection R3.

Not with wiper seal R8

[3] **K8** The sum of the stroke length and piston rod extension must not exceed the maximum permissible stroke length

[4] $\,$ K10 $\,$ Not with extended male thread K2.

Not with special piston rod thread K5.

Not with corrosion protection R3

[5] **R3** Not with captive rating plate TL

Not with wiper seal R8

[6] **TT, R8** Not with improved running performance K10.

Not with temperature resistance ${\sf S6}$

[7] **TT** Not with wiper seal R8



Ordering data – Modular product system, basic sensor and variants

Ordering table										
Size		50	63	80	100	125	Conditions	Code		Enter code
Module no.		536309	536330	536351	536372	536393				
Function		Compact cylinder	, double-acting, bas			ADN		ADN		
Piston Ø	[mm]	50	63	80	-	-		☆		
		-	-	-	100	125				
Stroke	[mm]	1 400		1 500				☆		
Piston rod thread		Male thread						☆ -A		
		Female thread					[1]	☆ -I		
Cushioning		Elastic cushionin	g rings/plates at bo	th ends	th ends			☆ -P		
		Pneumatic cushi	ic cushioning, self-adjusting at both ends					☆ -PPS		
Position sensing		Via proximity sen	sor					☆ -A		-A

^[1] Not with piston rod type S20.

Not with extended male thread K2

^[8] **PPS** Not with improved running performance K10, temperature resistance S6, low temperature TT, wiper seal R8 Minimum stroke 5 mm

Ordering data - Modular product system, basic sensor and variants

Ordering table									
Size		50	63	80	100	125	Conditions	Code	Enter code
Piston rod type		Through pist	on rod	[2]	☆ -S2				
		Through, hol	low piston rod	[2]	-S20				
	[mm]	1 400							
Extended male thread		Extended ma	le piston rod thread	I					
	[mm]	1 20		1 30		1 40		K2	
Special piston	Male thread	M12	M12	M16	M16	M20		-""K5	
rod thread		M16	M16	M20	M20				
				M20x1.5	M20x1.5				
	Female thread	M8	M8	M10	M10	-			
Extended piston rod		Extended pis	ton rod						
	[mm]	1 400		1 500			[3]	☆ K8	
Improved running perfo	ormance	Smooth anod	dised aluminium pis	[4]	-K10				
		Restricted st	roke						
	[mm]	2 400	5 400	5 500					
Temperature resistance	9	Heat-resistar	nt seals max. 120°C					☆ -S6	
Corrosion protection	Corrosion protection		n protection	[5]	☆ -R3				
Captive rating plate	Captive rating plate		rating plate		-TL				
Low temperature	[°C]	-40 +80		[6] [7]	-П				
Wiper seal		Dust protecti	on			-	[6]	-R8	

 $\begin{tabular}{ll} [2] & {\bf S2,S20} & {\bf Not\,with\,improved\,running\,performance\,K10}. \end{tabular}$

Not with corrosion protection R3.

Not with wiper seal R8

[3] K8 The sum of the stroke length and piston rod extension must not exceed the maximum permissible stroke length

[4] $\,$ K10 $\,$ Not with extended male thread K2.

Not with special piston rod thread K5.

Not with corrosion protection R3

R3 Not with captive rating plate TL Not with wiper seal R8

[6] **TT, R8** Not with improved running performance K10.

Not with temperature resistance ${\sf S6}$

[7] **TT** Not with wiper seal R8



Ordering data – Modular product system, S10 – constant motion, S11 – low friction

Ordering table										
Size		12	16	20	25	32	40	Conditions	Code	Enter code
Module no.		536203	536218	536233	536250	536267	536288			
Function		Compact cyli	nder, double-a	cting, based on I	SO 21287				ADN	ADN
Piston Ø	[mm]	12	16	20	25	32	40			
Stroke	[mm]	1 300	,			1 400				
Piston rod thread		Male thread			•	•			-A	
		Female threa	d					[1]	-I	
Cushioning		Elastic cushi	oning rings/pla	ates at both ends					-P	-P
Position sensing		Via proximity	sensor						-A	-A
Extended male thread		Extended ma	le piston rod t	hread						
	[mm]	1 10		1 20					K2	
Special piston rod thread	Male thread	M6	M8	M10x1.25	M10x1.25	M10	M10		-""K5	
				M10	M10	M12	M12			
	Female thread	-	-	M5	M5	M6	M6		-	
Extended piston rod		Extended pis	ton rod	•						
	[mm]	1 300				1 400		[2]	К8	
Improved running perform	iance	-	-	Smooth anod	dised aluminiun	n piston rod		[3]	-K10	
Constant motion		Slow speed (constant motion at low piston speeds)							-S10	
		Restricted st	oke							
	[mm] 20 300 20 400									
Low friction		Smooth runn	ooth running						-S11	
Corrosion protection		High corrosion protection							-R3	
Captive rating plate		Laser-etched	rating plate						-TL	

1] I Not with extended male thread K2

 $[2] \quad \textbf{K8} \qquad \text{The sum of the stroke length and piston rod extension must not exceed the maximum permissible stroke length}$

[3] **K10** Not with extended male thread K2 Not with special piston rod thread K5 Not with corrosion protection R3

[4] S10 Not with low friction S11[5] S11 Not with constant motion S10

[6] **R3** Not with captive rating plate TL



Ordering data – Modular product system, S10 – constant motion, S11 – low friction

Ordering table									
Size		50	63	80	100	125	Conditions	Code	Enter code
Module no.		536309	536330	536351	536372	536393			
Function		Compact cylind	er, double-acting,		ADN	ADN			
Piston Ø	[mm]	50	63	80	100	125			
Stroke	[mm]	1 400							
Piston rod thread		Male thread						-A	
		Female thread					[1]	-1	
Cushioning		Elastic cushioni	ng rings/plates a	t both ends				-P	-P
Position sensing		Via proximity se	nsor					-A	-A
Extended male thread		Extended male	oiston rod thread						
	[mm]	1 20		1 30		1 40		K2	
Special piston rod thread Male	thread	M12	M12	M16	M16	M20		-"…"K5	
		M16	M16	M20	M20				
				M20x1.5	M20x1.5				
	le thread	M8	M8	M10	M10	-			
Extended piston rod		Extended pistor	rod						
	[mm]	1 400		1 500			[2]	К8	
Improved running performance		Smooth anodis	ed aluminium pis	[3]	-K10				
		Restricted strok							
	[mm]	2 400	5 400	5 500					
Constant motion Slow speed (constant motion at low pisto				ow piston speeds)			[4]	-S10	
		Restricted strok	е						
	[mm]	20 400		20 500					
Low friction		Smooth running					[5]	-S11	
Corrosion protection		High corrosion					[6]	-R3	
Captive rating plate		Laser-etched ra	ing plate					-TL	

[3] **K10** Not with extended male thread K2 Not with special piston rod thread K5 Not with corrosion protection R3

[4] **S10** Not with low friction S11

 $[5] \quad \textbf{S11} \quad \text{Not with constant motion } S10$

[6] **R3** Not with captive rating plate TL



^[2] K8 The sum of the stroke length and piston rod extension must not exceed the maximum permissible stroke length

Ordering data – Modular product system, Q – Square piston rod, non-rotating

Ordering table										
Size		12	16	20	25	32	40	Conditions	Code	Enter code
Module no.		536203	536218	536233	536250	536267	536288			
Function		Compact cylin	ider, double-ac	ting, based on I	SO 21287				ADN	ADN
Piston Ø	[mm]	12	16	20	25	32	40		☆	
Stroke	[mm]	1 300				1 400	•		☆	
Piston rod thread		Male thread							☆ -A	
		Female thread	d	,	•			[1]	☆ -I	
Cushioning		Elastic cushio	ning rings/plat	es at both ends					☆ -P	-P
Position sensing		Via proximity	sensor		☆ -A	-A				
Protection against rotation		Square pistor	n rod		☆ -Q	-Q				
Piston rod type		Through piston rod							☆ -S2	
		-	Through, hol	low piston rod					-S20	
		Restricted stroke								
	[mm]	1 200 1 300								
Extended male thread		Extended ma	le piston rod th							
	[mm]	1 10		1 20					K2	
Special piston rod thread Male thread	ł	M6	M8	M10x1.25	M10x1.25	M10	M10		-"…"K5	
				M10	M10					
Extended piston rod			Extended piston rod							
	[mm]		1 400					[2]	☆ K8	
Temperature resistance		Heat-resistan	Heat-resistant seals max. 120°C						☆ -S6	
Corrosion protection			igh corrosion protection						☆ -R3	
Captive rating plate		Laser-etched	rating plate						-TL	

^[1] I Not with piston rod type S20.

Not with extended male thread K2

^[3] R3 Not with captive rating plate TL



 $^{[2] \}quad \textbf{K8} \qquad \text{The sum of the stroke length and piston rod extension must not exceed the maximum permissible stroke length}$

Ordering data – Modular product system, Q – Square piston rod, non-rotating

Ordering table									
Size		50	63	80	100	125	Conditions	Code	Enter cod
Module no.		536309	536330	536351	536372	536393			
Function		Compact cylir	der, double-actin	ng, based on ISO 21	287	-		ADN	ADN
Piston Ø	[mm]	50	63	80	100	125		☆	
Stroke	[mm]	1 400	-	1 500				☆	
Piston rod thread		Male thread		·				☆ -A	
		Female threa	d				[1]	☆ -I	
Cushioning		Elastic cushio	ning rings/plates	at both ends				☆ -P	-P
Position sensing		Via proximity sensor						☆ -A	-A
Protection against rotation	l	Square pistor	ı rod		☆ -Q	-Q			
Piston rod type		Through piston rod						☆ -S2	
		Through, hollow piston rod						-S20	
		Restricted stroke							
	[mm]	1 300		1 400					
Extended male thread		Extended male piston rod thread							
	[mm]	1 20		1 30		1 40		K2	
Special piston rod thread	Male thread	M12	M12	M16	M16	M20		-""K5	
Extended piston rod		Extended pist	on rod						
	[mm] 1 400 1 500					[2]	☆ K8		
Temperature resistance		Heat-resistan	Heat-resistant seals max. 120°C					☆ -S6	
Corrosion protection High corrosion protection						-	[3]	☆ -R3	
Captive rating plate Laser-etched rating plate						-TL			

^[1] I Not with piston rod type S20.

Not with extended male thread K2

^{3]} **R3** Not with captive rating plate TL



NSF-H1 lubricants are used in combination with R3 and in combination with R3 and K2, K5 or K8.

^[2] K8 The sum of the stroke length and piston rod extension must not exceed the maximum permissible stroke length

Ordering data – Modular product system, S1 – Reinforced piston rod

Ordering table								
Size		25	40	63	100	Conditions	Code	Enter coo
Module no.		536250	536288	536330	536372			
Function		Compact cylinder, dou	uble-acting, based on	SO 21287			ADN	ADN
Piston Ø	[mm]	25	40	63	100			
Stroke	[mm]	5 300	10 400	•	10 500			
Piston rod thread		Male thread	•				-A	
		Female thread				[1]	-l	
Cushioning		Elastic cushioning rin	astic cushioning rings/plates at both ends					-P
Position sensing		Via proximity sensor			-A	-A		
Extended male thread		Extended male piston	rod thread					
	[mm]	1 20		K2				
Special piston	Male thread	M10x1.25	M10x1.25	M12x1.25	M16x1.5		-"…"K5	
rod thread		M10	M12	M16	M20			
	Female thread	M5	M8	M10	-			
Extended piston rod		Extended male piston	rod thread					
	[mm]	1 300	1 400		1 500	[2]	К8	
Temperature resistance		Heat-resistant seals n	nax. 120°C				-S6	
Increased lateral load		Reinforced piston rod or extended piston rod bearing					-S1	-S1
Captive rating plate		Laser-etched rating plate					-TL	

^[1] I Not with extended male thread K2
[2] K8 The sum of the stroke length and piston rod extension must not exceed the maximum permissible stroke length

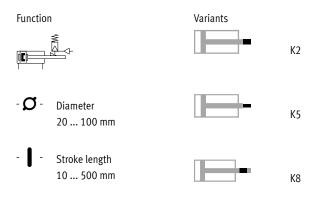
Type codes

001	Series	
ADN	Compact cylinder, double-acting, based on ISO 21287	
002	Piston diameter	
20	20	
25	25	
32	32	
40	40	
50	50	
63	63	
80	80	
100	100	
003	Stroke	
	10 500	
004	Clamping unit	
KP	Attached	
005	Piston rod thread type	
Α	Male thread	
I	Female thread	
006	Cushioning	
Р	Elastic cushioning rings/plates on both sides	

007	Position sensing	
Α	For proximity sensor	
008	Piston rod thread extension	
	None	
K2	1 30 mm	
009	Custom thread	
"M6"K5	M6	
"M8"K5	M8	
"M10"K5	M10	
"M10x- 1,25"K5	M10x1.25	
"M12"K5	M12	
"M16"K5	M16	
"M20x- 1,5"K5	M20x1.5	
"M5"K5	M5	
"M20"K5	M20	
010	Piston rod extension	
	None	
K8	1 500 mm	
011	Captive rating plate	
	Rating plate, glued	
TL	Laser etched rating plate	

Compact cylinders ADN-KP, standard hole pattern, with clamping unit

Data sheet







Note

Additional measures are required for use in safety-related applications; in Europe, for example, the standards listed under the EC Machinery Directive must be observed.

Without additional measures in accordance with legally specified minimum requirements, the product is not suitable as a safety-related component in control systems.

General technical data										
Piston Ø	20	25	32	40	50	63	80	100		
Pneumatic connection			•		•	*		*		
Cylinder	M5	M5	G1/8	G1/8	G1/8	G1/8	G1/8	G1/8		
KP	M5	M5	M5	G1/8	G1/8	G1/8	G1/8	G1/8		
Female piston rod thread		•	•		•		•			
_	M6		M8		M10	'	M12			
K5	M5		M6		M8		M10			
Male piston rod thread										
_	M8	8 M10x1.25		M12x1.25		M16x1.5				
K5	M10; M10	x1.25	M10; M12		M12; M16		M16; M20	; M20x1.5		
Axial backlash under load [mm]	0.5				0.8					
Design	Piston									
	Piston rod									
		Cylinder barrel								
Cushioning	Elastic cus	hioning rings/plat	es at both ends							
Position sensing	Via proxim	ity sensor								
Type of mounting	Via throug	Via through-hole								
	Via female	Via female thread								
	Via access	ories								
Mounting position	Any		-			-		-		
Type of clamping with effective direction	At both en	ds								

Operating and environmental conditions								
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]						
Note on operating/		ubricated operation possible (in which case lubricated operation will always be required)						
pilot medium								
Operating pressure	[MPa]	0.15 1						
	[bar]	1.5 10						
Min. release pressure	[MPa]	0.3						
	[bar]	3						
Ambient temperature ¹⁾	[°C]	10 +80						
Corrosion resistance class CRC ²⁾		2						

¹⁾ Note operating range of proximity sensors

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

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Impact energy [J]								
Piston Ø	20	25	32	40	50	63	80	100
Max. impact energy at the end positions	0.2	0.3	0.4	0.7	1	1.3	1.8	2.5



These specifications represent the maximum values that can be achieved. The maximum permissible impact energy must be observed.

Permissible impact speed:

$$V = \sqrt{\frac{2 \times E}{m_1 + m_2}}$$

٧ Perm. impact speed Ε Max. impact energy

m1 Moving mass (drive) m2 Moving payload

Maximum permissible mass:

m₂ =	2×E	_ m₁
1112 —	V ²	11111

Forces [N]

Torces [n]								
Piston Ø	20	25	32	40	50	63	80	100
Theoretical force at 6 bar, advancing	188	295	483	754	1178	1870	3016	4712
Theoretical force at 6 bar, retracting	141	247	415	633	990	1682	2721	4418
Static holding force	350	350	600	1000	1400	2000	5000	5000



The specified holding force refers to a static load. If this value is exceeded, slippage may occur. Dynamic forces occurring during operation must

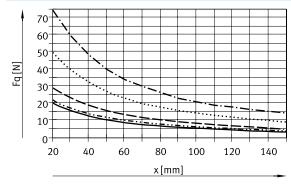
not exceed the static holding force. The clamping unit is not backlash-free in the clamped condition if varying loads are applied to the piston rod.

Control

The clamping unit may only be released if the forces at the piston have reached equilibrium. Otherwise, there is a risk of accidents due to sudden movement of the piston rod.

Blocking off the compressed air supply at both ends (e.g. with a 5/3-way valve) does not provide any safety.

Max. lateral load Fq as a function of projection x



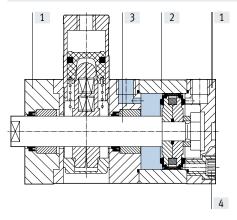


Weight [g]

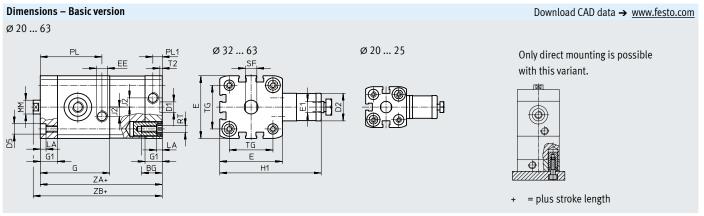
Piston Ø	20	25	32	40	50	63	80	100
Product weight with 0 mm stroke	282	344	503	789	1268	1894	3973	5497
Additional weight per 10 mm stroke	22	26	29	45	60	68	93	112
Moving mass with 0 mm stroke	£3	63	100	172	296	368	755	932
Additional mass per 10 mm stroke	6	6	0	1/3	250	25	39	39
Additional mass per 10 mm stroke	10	10	2	10	23	2 3	22	25

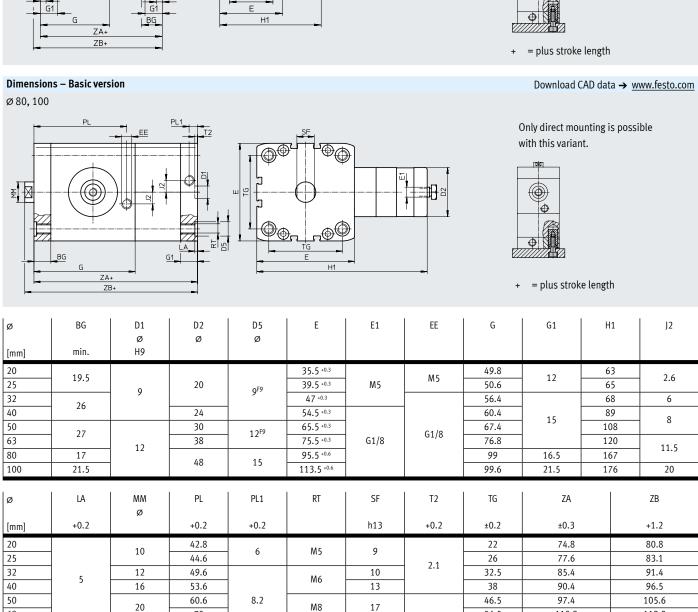
Materials

Sectional view



Comp	pact cylinder		
[1]	Cover		Anodised aluminium
[2]	Cylinder barrel		Anodised aluminium
[3]	Piston rod		High-alloy steel
[4]	Flange screws	ø 20 63	Galvanised steel
		Ø 80 100	Standard screws, galvanised steel
_	Seals		Polyurethane, nitrile rubber
	Note on materials		RoHS-compliant





2.6

25

63

80

100

17

21

M10

56.5

72

89

2.6

110.8

136.5

145.1

70

90.7

88.6

10.5

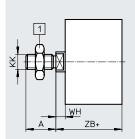
118.9

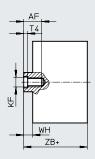
145.4

154.1

Dimensions - Variants

Basic version

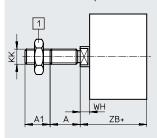




Download CAD data → www.festo.com

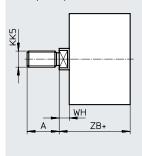
- [2] Hex nut DIN 439-B only with Ø 32 ... 100
- + = plus stroke length

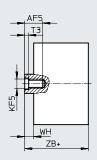
K2 – Extended male piston rod thread



- [1] Hex nut DIN 439-B only with Ø 32 ... 100
- + = plus stroke length

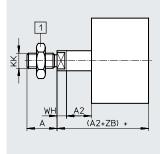
K5 - Special piston rod thread

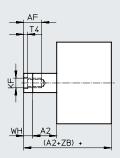




+ = plus stroke length

K8 – Extended piston rod





- [1] Hex nut DIN 439-B only with Ø 32 ... 100
- + = plus stroke length

Ø	A	A1	A2	AF	AF5	KF	KF5
[mm]	-0.5			min.	min.		
20	16		1 300	14	12	M6	M5
25 32	- 19	1 20		16	14	M8	M6
40 50	17	1 20	1 400	10	14	IMO	WIO
63	- 22			20	16	M10	M8
80 100	- 28	1 30	1 500	20	20	M12	M10
ø	KK	KK5	Т3	T4	WH	Z	В
[mm]					+1.3	+1	2
20	M8	M10x1.25	2	2.6	5.5).8
25	III.O	M10	_	2.0			3.1
32	M10x1.25	M10	2.6	3.3	6		.4
40		M12			6.1	96.5	
50 63	M12x1.25	M12 M16	3.3	4.7	8.2 8.1	105.6 118.9	
80		M16			8.9		5.4
100	M16x1.5	M20x1.5 M20	4.7	6.1	9		4.1

Compact cylinders ADN-KP, standard hole pattern, with clamping unit

Ordering data – Modular product system

Ordering table								
Size		20	25	32	40	Conditions	Code	Enter code
Module no.		548206	548207	548208	548209			
Function		Compact cylinder, d	ouble-acting, standa	rd hole pattern, with c	lamping unit		ADN	ADN
Piston Ø	[mm]	20	25	32	40			
Stroke	[mm]	10 300		10 400				
Clamping unit		Attached					-KP	-KP
Piston rod thread		Male thread					-A	
		Female thread				[1]	-1	
Cushioning		Elastic cushioning rings/plates at both ends					-P	-P
Position sensing		Via proximity sensor					-A	-A
Extended male thread	*	Extended male piston rod thread						
	[mm]	1 20					К2	
Special piston rod	Male thread	M10x1.25	M10x1.25	M10	M10		-"…"K5	
thread		M10	M10	M12	M12			
	Female thread	M5	M5	M6	M6			
Extended piston rod		Extended piston roo	l	·	·			
	[mm]	1 300		1 400		[2]	К8	
Captive rating plate		Laser-etched rating	plate	•			-TL	

^[1] I Not with extended male thread K2

^[2] **K8** The sum of the stroke length and piston rod extension must not exceed the maximum permissible stroke length

Ordering data – Modular product system

Ordering table								
Size		50	63	80	100	Conditions	Code	Enter cod
Module no.		548210	548211	548212	548213			
Function		Compact cylinder, o	louble-acting, stand		ADN	ADN		
iston Ø [mm]		50 63		80	100			
Stroke	[mm]	10 400						
Clamping unit		Attached		•			-KP	-KP
Piston rod thread		Male thread					-A	
		Female thread	[1]	-I				
Cushioning		Elastic cushioning I		-P	-P			
Position sensing		Via proximity senso		-A	-A			
Extended male thread		Extended male pist						
	[mm]	1 20		1 30			K2	
Special piston rod	Male thread	M12	M12	M16	M16		-""K5	
thread		M16	M16	M20	M20			
				M20x1.5	M20x1.5			
	Female thread	M8	M8	M10	M10			
Extended piston rod		Extended piston ro	d					
[mm]		1 400			[2]	K8		
Captive rating plate		Laser-etched rating	plate	·			-TL	

^[1] I Not with extended male thread K2

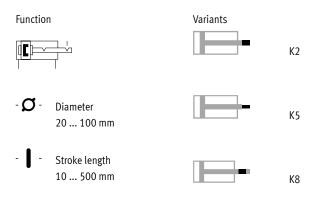
 $^{[2] \}quad \textbf{K8} \qquad \text{The sum of the stroke length and piston rod extension must not exceed the maximum permissible stroke length}$

Compact cylinders ADN-EL, standard hole pattern, with end-position locking

Type codes

001	Series
ADN	Compact cylinder, double-acting, based on ISO 21287
002	Piston diameter
20	20
25	25
32	32
40	40
50	50
63	63
80	80
100	100
003	Stroke
	10 500
004	End-position locking
ELB	Both sides
ELH	Rear
ELV	Front
005	Piston rod thread type
Α	Male thread
I	Female thread
006	Cushioning
Р	Elastic cushioning rings/plates on both sides

007	Position sensing	
Α	For proximity sensor	
008	Piston rod thread extension	
	None	
К2	1 30 mm	
009	Custom thread	
"M6"K5	M6	
"M8"K5	M8	
"M10"K5	M10	
"M10x1,25"K5	M10x1.25	
"M12"K5	M12	
"M16"K5	M16	
"M20x1,5"K5	M20x1.5	
"M5"K5	M5	
"M20"K5	M20	
010	Piston rod extension	
	None	
К8	1 500 mm	
011	Captive rating plate	
	Rating plate, glued	
TL	Laser etched rating plate	





· 🖣 - Note

Additional measures are required for use in safety-related applications; in Europe, for example, the standards listed under the EC Machinery Directive must be observed.

Without additional measures in accordance with legally specified minimum requirements, the product is not suitable as a safety-related component in control systems.

General technical data								
Piston Ø	20	25	32	40	50	63	80	100
Pneumatic connection	M5	M5	G1/8	G1/8	G1/8	G1/8	G1/8	G1/8
Female piston rod thread								
-	M6		M8		M10		M12	
K5	M5		M6		M8		M10	
Male piston rod thread			·				'	
_	M8		M10x1.25		M12x1.25		M16x1.5	
K5	M10; M10	(1.25	M10; M12		M12; M16		M16; M20	M20x1.5
Max. axial backlash with end [mm] position locked	1.3						2.1	
Design	Piston						•	
	Piston rod							
	Cylinder ba	rrel						
End-position locking								
ELB	At both end	ls						
ELV	At front							
ELH	At rear							
Cushioning		nioning rings/plat	es at both ends					
Position sensing	Via proximi							
Type of mounting	Via female	thread						
	Via accesso	ories						
Mounting position	Any							

. 🛔 -

Note

- No screws with a head or similar may be used in place of end-position locking, as there is a risk that the function will be impaired if they are screwed in too deeply.
- The exhaust hole must not be closed.
- The piston rod can be locked in any stroke position once the drive is brought mechanically into its end position.
- End-position locking has been designed to prevent the load from dropping in case of pressure failure.
- Operation of the cylinder in conjunction with a 3-way valve (especially with the function "mid-position closed" and those with "metallic sealing") should be avoided. The residual pressure that is enclosed on the locking side of the cylinder can release the locking function.
- The cylinder must not be operated with external stops (e.g. shock absorber, buffer, oil brake, etc.):
 - It may not be possible to reliably reach the internal end position.
 - The locking mechanism can wear out prematurely. (In the event of pressure drop in the opposite chamber to less than the locking pressure, the locking piston will

prematurely fall to its lower end position.)

Compact cylinders ADN-EL, standard hole pattern, with end-position locking

Data sheet

Operating and environmental condi	itions									
Piston Ø		20 25 32 40 50 63 80 100								
Operating medium		Compressed air	to ISO 8573-1:20	10 [7:4:4]						
Note on operating/ pilot medium		Lubricated opera	ition possible (in i	which case lubrica	ated operation wil	l always be requir	ed)			
Operating pressure	[MPa]	0.25 1				0.15 1				
	[bar]	2.5 10				1.5 10				
Ambient temperature ¹⁾	[°C]	-20 +80								
Corrosion resistance class CRC ²⁾		2								

Note operating range of proximity sensors

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Forces [N]								
Piston Ø	20	25	32	40	50	63	80	100
Theoretical force at 6 bar, advancing	188	295	483	754	1178	1870	3016	4712
Theoretical force at 6 bar, retracting	141	247	415	686	1057	1750	2827	4524
Static holding force	250	500	•		2000		5000	

Sizing example



Note

When sizing pneumatic cylinders it is recommended as a basic principle that only 50% of the indicated theoretical forces (see above) be used

Assuming:

Mounting position = vertical Workpiece load = 44 kg $= m \times g = 44 \text{ kg} \times 9.81 \text{ m/s}^2$ = 431.6 N

To be calculated:

Suitable piston diameter

Example with 32 mm piston diameter:

Theoretical force at 6 bar, advancing = 483 N 50% of the theoretical force = 241.5 N

Static holding force with 32 mm piston diameter = 500 N

The static holding force of end-position locking is within the permissible range (max. 500 N) for a workpiece load of 44 kg (431.6 N); however, the cylinder would be at 89% capacity.

Result:

A cylinder with a piston diameter of 40 mm is therefore recommended for this application.

Impact energy [J]									
Piston Ø	20	25	32	40	50	63	80	100	
Max. impact energy at the end positions	0.2	0.3	0.4	0.7	1	1.3	1.8	2.5	



Note

These specifications represent the maximum values that can be achieved. The maximum permissible impact energy must be observed.

Permissible impact speed:

$$V = \sqrt{\frac{2 \times E}{m_1 + m_2}}$$

Maximum permissible mass:

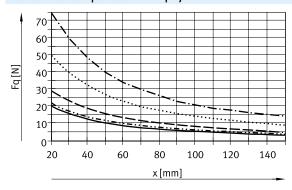
$$V = \sqrt{\frac{2 \times E}{m_1 + m_2}}$$

 $m_2 = \frac{2 \times E}{v^2} - m_1$

m1 Moving mass (drive) Moving payload

m2

Max. lateral load Fq as a function of projection x

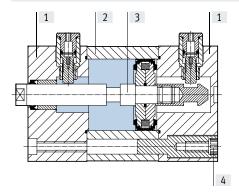


Ø 20 Ø 25 Ø 32/40 •••• ø 50/63 ---- Ø 80/100

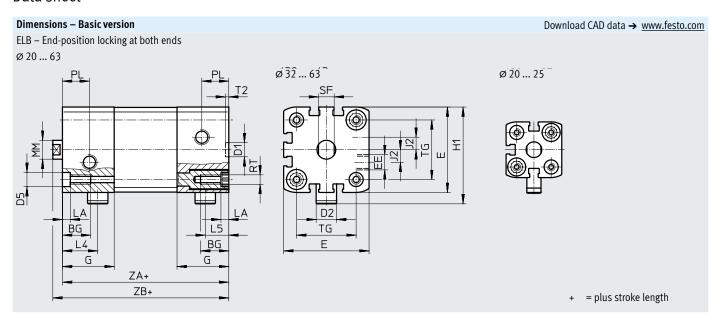
Weight [g]								
Piston Ø	20	25	32	40	50	63	80	100
End-position locking at both ends								
Product weight with 0 mm stroke	234	339	518	665	1334	1734	3300	4735
Additional weight per 10 mm stroke	22	26	29	38	51	59	79	98
Moving mass with 0 mm stroke	43	53	85	101	199	248	475	637
Additional mass per 10 mm stroke	6	6	9	9	16	16	25	25
End-position locking at front								
Product weight with 0 mm stroke	177	248	387	498	922	1228	2296	3448
Additional weight per 10 mm stroke	22	26	29	38	51	59	79	98
Moving mass with 0 mm stroke	35	46	75	98	175	225	464	626
Additional mass per 10 mm stroke	6	6	9	9	16	16	25	25
End-position locking at rear								
Product weight with 0 mm stroke	181	252	380	505	920	1217	2233	3409
Additional weight per 10 mm stroke	22	26	29	38	51	59	79	98
Moving mass with 0 mm stroke	37	45	73	89	168	217	413	582
Additional mass per 10 mm stroke	6	6	9	9	16	16	25	25

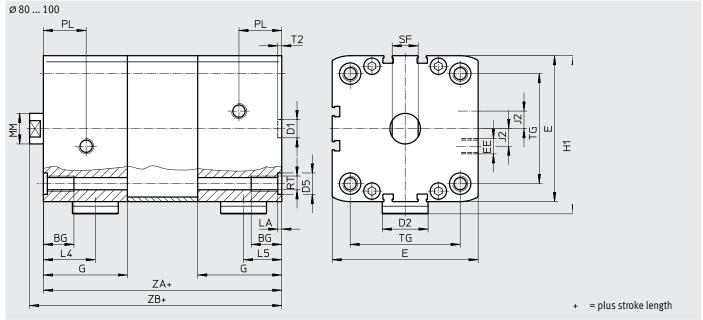
Materials

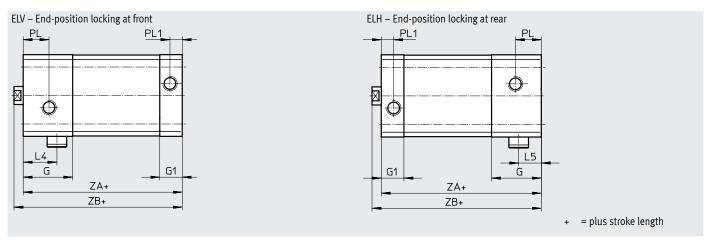
Sectional view



Comp	pact cylinder		
[1]	Cover		Anodised aluminium
[2]	Cylinder barrel		Anodised aluminium
[3]	Piston rod		High-alloy steel
[4]	Flange screws	ø 20 63	Galvanised steel
		Ø 80 100	Standard screws, galvanised steel
-	Seals		Polyurethane, nitrile rubber
	Note on materials		RoHS-compliant RoHS-compliant







ø	BG	D1	D2	D5	E	EE	G	G1	H1	J2	L4	L5
	min.	Ø	Ø	Ø								
[mm]		Н9										
20			9		35.5 +0.3	ME	25	12	45.5	2.6	18.5	12.5
25	18	9		9 ^{F9}	39.5 +0.3	M5	29.5	12	53.3	2.0	20.8	14
32	7 10	9	13	9.7	47 +0.3		33		58	6	22.5	15
40	7				54.5 +0.3)))	15	61.8	8	22.5	15
50			20	12 ^{F9}	65.5 +0.3	G1/8	43	1 15	77] °	27.5	20.5
63	20	12	20	12.7	75.5 +0.3	01/8	45		82	11.5	27.5	21.7
80	7 20	12	30	15	95.5 +0.6		55	16.5	103.5	111.5	34	25
100))0	1)	113.5 +0.6		57	21.5	113.5	20	35	27
ø	LA	MM	PL	PL1	RT	SF	T2	TG	Ž	'A	Ž	ľB
Ø	LA	MM Ø	PL	PL1	RT	SF	T2	TG		/A).3		′B 1.2
Ø [mm]	LA +0.2		PL	PL1	RT	SF h13	T2 +0.1	TG ±0.2				
		ø				h13			±().3	+1	1.2
[mm]			PL 6	PL1	RT M5		+0.1	±0.2	±(ELB).3 ELV, ELH	+: ELB	1.2 ELV, ELH
[mm] 20	+0.2	Ø 10	6		M5	h13		±0.2	ELB 63	50 ELV, ELH	ELB 68.8	1.2 ELV, ELH 55.5
[mm] 20 25		ø				h13	+0.1	±0.2 22 26	£LB 63 74	50 50 56.5	ELB 68.8 79.5	1.2 ELV, ELH 55.5 62
[mm] 20 25 32	+0.2	10 12	6 16		M5 M6	h13 9 10	+0.1	±0.2 22 26 32.5	±(ELB 63 74 80	50 56.5 62	ELB 68.8 79.5 86	1.2 ELV, ELH 55.5 62 68
[mm] 20 25 32 40	+0.2	Ø 10	6	6	M5	h13	+0.1	±0.2 22 26 32.5 38	±(ELB 63 74 80 81	50 56.5 62 63	+: ELB 68.8 79.5 86 87.1	1.2 ELV, ELH 55.5 62 68 69
[mm] 20 25 32 40 50	+0.2	10 12	6 16	6	M5 M6	h13 9 10	+0.1	±0.2 22 26 32.5 38 46.5	±(ELB 63 74 80 81 101	50 56.5 62 63 73	+: ELB 68.8 79.5 86 87.1 109.2	1.2 ELV, ELH 55.5 62 68 69 81.2

Dimensions - Variants Download CAD data → www.festo.com Basic version [1] Hex nut DIN 439-B only with Ø 32 ... 100 = plus stroke length K2 – Extended male piston rod thread [1] Hex nut DIN 439-B only with Ø 32 ... 100 + = plus stroke length K5 - Special piston rod thread + = plus stroke length K8 – Extended piston rod [1] Hex nut DIN 439-B only with Ø 32 ... 100 (A2+ZB) = plus stroke length

Ø	A	A1	A2	AF	AF5	KF	KF5
[mm]	-0.5			min.	min.		
20 25	- 16		1 300	14	12	M6	M5
32 40	19	1 20	1 400	16	14	M8	M6
50 63	22		1 400	20	16	M10	M8
80 100	- 28	1 30	1 500	20	20	M12	M10
Ø	KK	KK5	Т3	Т4	WH	ZB +1.2	
[mm]					+1.3	ELB	ELV, ELH
20 25	- M8	M10x1.25 M10	2	2.6	5.5	68.8 79.5	55.5 62
32	M10x1.25	M10	2.6	3.3	6	86	68
40	WIOXI.23	M12	2.0	J.J	6.1	87.1	69
50	M12x1.25	M12	3.3	4.7	8.2	109.2	81.2
63	W112X1.25	M16	(4./	8.1	113.1	85.1
80		M16			8.9	139.9	101.4
		-					

Compact cylinders ADN-EL, standard hole pattern, with end-position locking

Ordering data – Modular product system

Ordering table								
Size		20	25	32	40	Conditions	Code	Enter code
Module no.		548214	548215	548216	548217			
Function		Compact cylinder, double-acting, standard hole pattern, with end-position locking					ADN	ADN
Piston Ø	[mm]	20	25	32	40			
Stroke	[mm]	10 300		10 400				
End-position locking		At both ends			-ELB			
		At front			-ELV			
		At rear			-ELH			
Piston rod thread		Male thread			-A			
		Female thread		[1]	-l			
Cushioning		Elastic cushioning	g rings/plates at both e		-P	-P		
Position sensing		Via proximity sens	sor			-A	-A	
Extended male thread		Extended male pi	ston rod thread					
	[mm]	1 20					K2	
Special piston rod	Male thread	M10x1.25	M10x1.25	M10	M10		-""K5	
thread		M10	M10	M12	M12			
	Female thread	M5	M5	M6	M6			
Extended piston rod		Extended piston r	od	•	·			
	[mm]	1 300		1 400		[2]	К8	
Captive rating plate		Laser-etched ratir	ng plate				-TL	

Not with extended male thread K2

^[1] **I** [2] **K8** The sum of the stroke length and piston rod extension must not exceed the maximum permissible stroke length

Ordering data – Modular product system

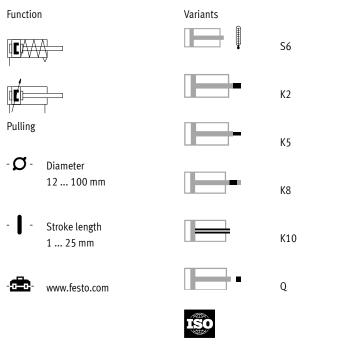
Ordering table								
Size		50	63	80	100	Conditions	Code	Enter code
Module no.		548218	548219	548220	548221			
Function		Compact cylinder with end-position	, double-acting, stand locking	dard hole pattern,			ADN	ADN
Piston Ø	[mm]	50	63	80	100			
Stroke	[mm]	10 400	•	10 500				
End-position locking		At both ends			-ELB			
		At front			-ELV			
		At rear			-ELH			
Piston rod thread		Male thread			-A			
		Female thread		[1]	-l			
Cushioning		Elastic cushioning		-P	-P			
Position sensing		Via proximity sen	sor				-A	-A
Extended male thread		Extended male pi	ston rod thread					
	[mm]	1 20		1 30			K2	
Special piston rod	Male thread	M12	M12	M16	M16		-""K5	
thread		M16	M16	M20	M20			
				M20x1.5	M20x1.5			
	Female thread	M8	M8	M10	M10			
Extended piston rod		Extended piston i	od					
	[mm]	1 400		1 500		[2]	К8	
Captive rating plate		Laser-etched ratio	ng plate				-TL	

^[1] I Not with extended male thread K2
[2] K8 The sum of the stroke length and piston rod extension must not exceed the maximum permissible stroke length

Type codes

001	Series	
AEN	Compact cylinder, single-acting, based on ISO 21287	
002	Piston diameter	
12	12	
16	16	
20	20	
25	25	
32	32	
40	40	
50	50	
63	63	
80	80	
100	100	
l	Louis	ı
003	Stroke	
	1 25	
004	Piston rod thread type	
	Male thread	
F	Female thread	
005	Cushioning	
Р	Elastic cushioning rings/plates on both sides	
006	Position sensing	
Α	For proximity sensor	
007	Active direction	
Z	Single-acting, pulling	
	Single-acting, pushing	

008	Piston rod thread extension	
	None	
K2	1 30 mm	
	I a v v v	
009	Custom thread	
"M6"K5	M6	
"M8"K5	M8	
"M10"K5	M10	
"M10x1,25"K5	M10x1.25	
"M12"K5	M12	
"M16"K5	M16	
"M20x1,5"K5	M20x1.5	
"M5"K5	M5	
"M20"K5	M20	
1		
010	Piston rod extension	
	None	
K8	1 25 mm	
011	Improved running performance	
	None	
K10	Smooth anodised aluminium coated piston rod	
012	Temperature resistance	
	Standard	
S6	Heat-resistant seals max. 120 °C	
013	Captive rating plate	
	Rating plate, glued	
TL	Laser etched rating plate	\Box
	1	







General technical data											
Piston Ø	12	16	20	25	32	40	50	63	80	100	
Design	Piston										
	Piston rod	Piston rod									
	Cylinder barrel										
Cushioning	Elastic cus	shioning	rings/plate	s at both er	ıds						
Position sensing	Via proxin	nity sense	or								
Type of mounting	Via throug	h-hole									
	Via female	thread									
	Via access	ories									
Mounting position	Any										

Technical data — Basic version and	i variants				
Piston Ø	12	16	20	25	32
Pneumatic connection	M5	M5	M5	M5	G1/8
emale piston rod thread	<u>, </u>		·		•
-	M3	M4	M6	M6	M8
K5	-	-	M5	M5	M6
Male piston rod thread					
_	M5	M6	M8	M8	M10x1.25
K5	M6	M8	M10; M10x1.25	M10; M10x1.25	M10; M12
Q-K5	-	M8	M10; M10x1.25	M10; M10x1.25	M10
Piston Ø	40	50	63	80	100
Dogumatic connection	C1 /0	C1/9	C1/0	C1 /0	C1/9

Piston Ø	40	50	63	80	100
Pneumatic connection	G1/8	G1/8	G1/8	G1/8	G1/8
Female piston rod thread					
-	M8	M10	M10	M12	M12
K5	M6	M8	M8	M10	M10
Male piston rod thread					
-	M10x1.25	M12x1.25	M12x1.25	M16x1.5	M16x1.5
K5	M10; M12	M12; M16	M12; M16	M16; M20; M20x1.5	M16; M20; M20x1.5
Q-K5	M10	M12	M12	M16	M16

Operating and environmental condition	ons									
Piston Ø	12	16	20	25	32	40	50	63	80	100
Operating medium	Compressed	air to ISO 857	'3-1:2010 [7:4:	4]						
Note on operating/	Lubricated o	peration poss	ible (in which ca	ase lubricate	d operation wil	l always be re	equired)			
pilot medium										
Operating pressure [bar]									·	
[MPa]									,	
_	0.15 1		0.1 1							
Z	0.17 1	0.22 1	0.13 1		0.07 1	0.06 1				
Q	0.15 1	•	0.1 1							
[bar]			·							
_	1.5 10		1 10							
Z	1.7 10	2.2 10	1.3 10		0.7 10	0.6 10				
Q	1.5 10	,	1 10							
Ambient temperature ¹⁾ [°C]			,							
_	-20 +80									
S6	0 +120								,	
Corrosion resistance class CRC ²⁾	2			,					,	

- Note operating range of proximity sensors
- Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Forces [N] and impact energy [J]										
Piston Ø	12	16	20	25	32	40	50	63	80	100
AEN										,
Theoretical force at 6 bar, advancing	56	95	162	259	441	702	1098	1783	2899	4511
AENZ, pulling	,		,		,	,	,	,	,	
Theoretical force at 6 bar, retracting	39	65	115	211	373	634	977	1663	2610	4323
Max. impact energy at the end positions	0.04	0.04	0.04	0.08	0.1	0.15	0.18	0.28	0.35	0.7



Note

These specifications represent the maximum values that can be achieved. The maximum permissible impact energy must be observed.

Permissible impact speed:

Maximum permissible mass:

$$V = \sqrt{\frac{2 \times E}{m_1 + m_2}}$$

 $m_2 = \frac{2 \times E}{v^2} - m_1$

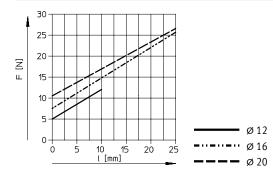
m1

Perm. impact speed Max. impact energy Moving mass (drive)

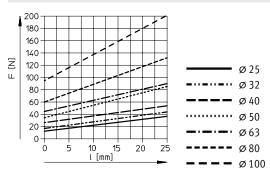
m2 Moving payload

Spring return force F as a function of stroke l

Ø 12 ... 20



ø 25 ... 100

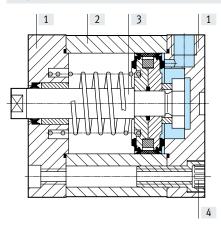


The degree of friction depends on the mounting position and the type of load involved. Single-acting cylinders should as far as possible be operated without lateral loads.

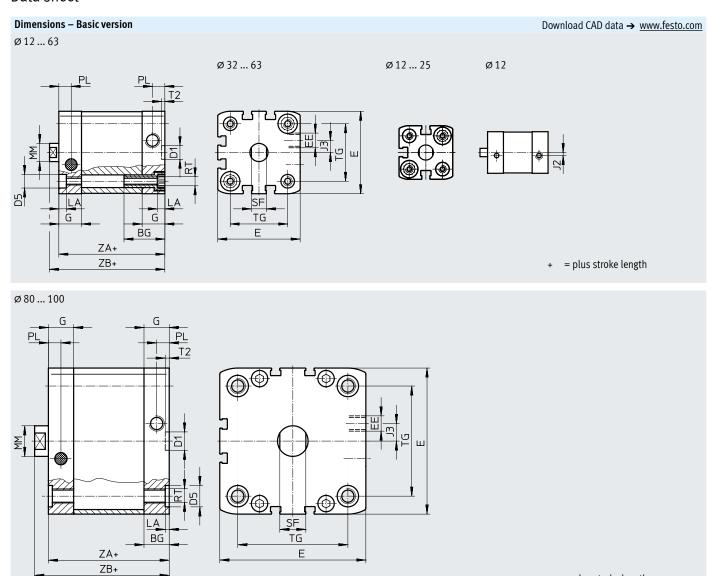
Weight [g]										
Piston Ø	12	16	20	25	32	40	50	63	80	100
Product weight with 0 mm stroke	77	79	131	156	265	346	540	722	1300	2154
Additional weight per 10 mm stroke	12	14	21	23	30	37	51	59	79	98
Moving mass with 0 mm stroke	9	15	30	50	60	80	140	180	400	570
Additional mass per 10 mm stroke	2	4	6	6	9	9	16	16	25	25

Materials

Sectional view



Comp	oact cylinder		Basic version	S6
[1]	Cover	Ø 12 80	Anodised aluminium	
		Ø 100	Coated die-cast aluminium	
[2]	Cylinder barrel		Anodised aluminium	
[3]	Piston rod		High-alloy steel	
[4]	Flange screws	Ø 12 16	High-alloy steel	
		ø 20 63	Galvanised steel	
		Ø 80 100	Standard screws, galvanised steel	
-	Seals		Polyurethane	Fluoro rubber
	Note on materials		RoHS-compliant	

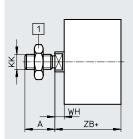


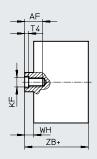
+ = plus stroke length

ø	BG	D1 Ø	D5 Ø	E	EE	G	J2	J3	LA
[mm]	min.	H9	~						+0.2
12	17		6 ^{F9}	27.5 +0.3		10.5	2	_	2.5
16	17		6.7	29 +0.3	M5	11			3.5
20	19.5	9		35.5 +0.3	I INIO	12	2	.6	
25	19.5	9	9 ^{F9}	39.5 +0.3		12			
32	26		9.	47 +0.3				6	5
40				54.5 ^{+0.3}		15		8	,
50	27		12 ^{F9}	65.5 +0.3	G1/8	15			
63		12	12	75.5 +0.3	01/0		1.	1.5	
80	17		15	95.5 +0.6		16.5			2.6
100	21.5		19	113.5 +0.6		21.5	2	20	2.0
	1	1		1		1	1	1	
Ø	MM	PL	RT	SF	T2	TG	ZA	Z	В
	Ø	0.2		142	0.4	0.2	0.2		
[mm]		+0.2		h13	+0.1	±0.2	±0.3		1.2
12	6		M4	5		16	35		9.2
16	8	6	W-4	7		18		<u> </u>	9.7
20	10		M5	9	2.1	22	37		2.5
25	10		5	ĺ	2	26	39		4.5
1 2 2						32.5	44	5	0
32	12		M6	10			I		
40	12		M6	10		38	45		1.1
40 50	-	8.2				38 46.5	45	53	3.2
40 50 63	12 - 16	8.2	M6 M8	10	2.6	38 46.5 56.5	49	53 57	7.1
40 50	-	8.2			2.6	38 46.5		53 57 62	3.2

Dimensions - Variants

Basic version

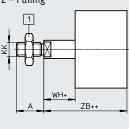


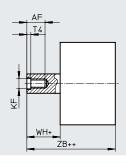


Download CAD data → www.festo.com

- [1] Hex nut DIN 439-B only with Ø 32 ... 100
- + = plus stroke length

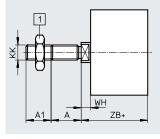
Z – Pulling





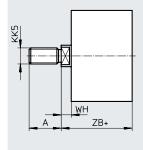
- [1] Hex nut DIN 439-B only with Ø 32 ... 100
- + = plus stroke length ++ = plus 2x stroke length

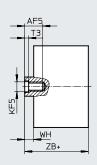
K2 – Extended male piston rod thread



- [1] Hex nut DIN 439-B only with Ø 32 ... 100
- + = plus stroke length

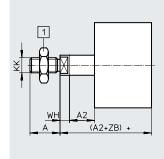
K5 - Special piston rod thread

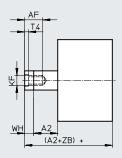




+ = plus stroke length

K8 – Extended piston rod



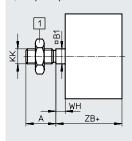


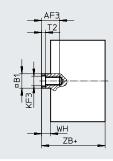
- [1] Hex nut DIN 439-B only with Ø 32 ... 100
- + = plus stroke length

Ø	А	A1	A2	AF	AF5	KF	KF5
[mm]	-0.5			min.	min.		
12	10	1 10		8		M3	
16	12	1 10	1 300	10	_	M4	_
20	16		1 500	14	12	M6	M5
25	10			14	12	IVIO	CIMI
32	19	1 20		16	14	M8	M6
40	17	1 20	1 400		17	Mo	Mo
50	22		1 400		16	M10	M8
63				20			
80	28	1 30	1 500		20	M12	M10
100							
ø	KK		KK5	Т3	T4	WH	ZB
[mm]						+1.3	+1.2
12	M5		M6		4.5	4.2	39.2
16	M6		M8	_	1.5	4.7	39.7
20	M8		M10x1.25	2	2.6	5.5	42.5
25	IVI8		M10	2	2.6	5.5	44.5
32	M10x1.25		M10	2.6	3.3	6	50
40	WITOX1.25		M12	2.0	5.5	6.1	51.1
50	M12x1.25		M12	3.3	4.7	8.2	53.2
63	W12X1.25		M16		4.7	8.1	57.1
80			M16			8.9	62.9
100	M16x1.5		M20x1.5 M20	4.7	6.1	9	76

Dimensions - Variants

Q - Square piston rod

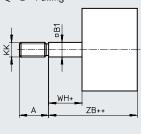


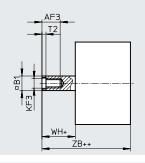


Download CAD data → www.festo.com

- [1] Hex nut DIN 439-B only with Ø 32 ... 100
- + = plus stroke length
- ++ = plus 2x stroke length

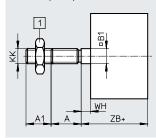
Q – Z – Pulling





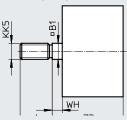
- [1] Hex nut DIN 439-B only with Ø 32 ... 100
- = plus stroke length

Q-K2 – Square piston rod with extended male thread



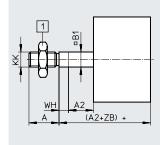
- [1] Hex nut DIN 439-B only with Ø 32 ... 100
- + = plus stroke length

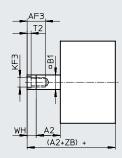
Q-K5 – Square piston rod with special thread



+ = plus stroke length

Q-K8 – Square, extended piston rod





- [1] Hex nut DIN 439-B only with Ø 32 ... 100
- = plus stroke length

Ø	A	A1		A2	AF3	B1	KF3
[mm]	-0.5				min.		
16	12	1	10		10	7	M4
20	16			1 300	12	9	M5
25						,	5
32 40	19	1	20		14	10	M6
50				1 400			
63	22				16	12	M8
80	20			4 500			
100	28	1 30		1 500	20	16	M10
Ø	KK			KK5	T2	WH	ZB
[mm]						+1.3	+1.2
16	M6			M8	1.5	4.7	39.7
20	140			M10x1.25			42.5
25	M8			M10	2	5.5	44.5
32	M10v1 25			M10	2.6	6	50
40	M10x1.25			MIO	2.0	6.1	51.1
50	M12x1.25			M12	3.3	8.2	53.2
63	WIIZXI.ZJ	M17X1.52		11117	J.5	8.1	57.1
80	M16x1.5			M16	4.7	8.9	62.9
100	MIOXI.5		MIU		7.7	9	76

Ordering data – Modular product system, basic sensor and variants

Ordering table									
Size		12	16	20	25	32	Conditions	Code	Enter code
Module no.		536414	536415	536416	536417	536418			
Function		Compact cylin	der, single-acting	, based on ISO 2128	87			AEN	AEN
Piston Ø	[mm]	12	16	20	25	32			
Stroke	[mm]	1 10	1 25						
Thread type		Male thread						-A	
		Female thread					[1]	-l	
Cushioning	,	Elastic cushio	ning rings/plates	at both ends				-P	-P
Position sensing		Via proximity sensor						-A	-A
Effective direction		Single-acting, pulling						-Z	
Extended male thread		Extended male piston rod thread							
	[mm]	1 10		1 20			[2]	K2	
Special piston rod thread	Male thread	M6	M8	M10x1.25 M10	M10x1.25 M10	M10 M12	[2]	-""K5	
	Female thread	-	-	M5	M5	M6			
Extended piston rod		Extended piston rod							
	110 125						К8		
Improved running performance		- Smooth anodised aluminium piston rod						-K10	
Temperature resistance		Heat-resistant seals max. 120°C						-S6	
Captive rating plate		Laser-etched rating plate						-TL	

^[1] Not with extended male thread K2

^[2] **K2, K5** Not with improved running performance K10

Ordering data – Modular product system, basic sensor and variants

Ordering table									
Size		40	50	63	80	100	Conditions	Code	Enter cod
Module no.		536419	536420	536421	536422	536423			
Function		Compact cylind	er, single-acting,	based on ISO 212	87	-		AEN	AEN
Piston Ø	[mm]	40	50	63	80	100			
Stroke	[mm]	1 25			-				
Thread type		Male thread						-A	
		Female thread					[1]	-I	
Cushioning		Elastic cushion	ing rings/plates a	at both ends				-P	-P
Position sensing		Via proximity s	ensor					-A	-A
Effective direction		Single-acting, pulling						-Z	
Extended male thread		Extended male piston rod thread							
	[mm]	1 20			1 30		[2]	K2	
Special piston Male	e thread	M10	M12	M12	M16	M16	[2]	-""K5	
rod thread		M12	M16	M16	M20	M20			
					M20x1.5	M20x1.5			
Fema	ale thread	M6	M8	M8	M10	M10			
Extended piston rod		Extended piston rod							
	1 25						K8		
Improved running performance		Smooth anodised aluminium piston rod						-K10	
Temperature resistance		Heat-resistant seals max. 120°C						-S6	
Captive rating plate		Laser-etched rating plate						-TL	

^[1] Not with extended male thread K2

^[2] **K2, K5** Not with improved running performance K10

Ordering data – Modular product system, Q – Square piston rod, non-rotating

Ordering table								
Size		16	20	25	32	Conditions	Code	Enter coo
Module no.		536415	536416	536417	536418			
Function		Compact cylinder,	single-acting, based o	on ISO 21287			AEN	AEN
Piston Ø	[mm]	16	20	25	32			
Stroke	[mm]	1 25	•	·				
Thread type		Male thread					-A	
		Female thread				[1]	-1	
Cushioning		Elastic cushioning	rings/plates at both e	ends			-P	-P
Position sensing		Via proximity sense	or		-A	-A		
Effective direction		Single-acting, pulli	ng				-Z	
Protection against rotatio	n	Square piston rod					-Q	-Q
Extended male thread		Extended male pis	ton rod thread					
	[mm]	1 10	1 20				K2	
Special piston	Male thread	M8	M10x1.25	M10x1.25	M10		-""K5	
rod thread			M10	M10				
Extended piston rod		Extended piston ro	d					
	[mm]	1 25					K8	
Temperature resistance		Heat-resistant seal	s max. 120°C				-S6	
Captive rating plate		Laser-etched rating	g plate	-	-		-TL	

^[1] Not with extended male thread K2

Ordering data – Modular product system, Q – Square piston rod, non-rotating

Ordering table									
Size		40	50	63	80	100	Conditions	Code	Enter co
Module no.		536419	536420	536421	536422	536423			
Function		Compact cylinder	, single-acting, ba	sed on ISO 212	37	-		AEN	AEN
Piston Ø	[mm]	40	50	63	80	100			
Stroke	[mm]	1 25			-				
Thread type		Male thread						-A	
		Female thread					[1]	-l	
Cushioning		Elastic cushionin	g rings/plates at b	oth ends				-P	-P
Position sensing		Via proximity ser	sor					-A	-A
Effective direction		Single-acting, pu	lling		-	-		-Z	
Protection against rotation	on	Square piston ro	d					-Q	-Q
Extended male thread		Extended male p	iston rod thread						
	[mm]	1 20			1 30			K2	
Special piston	Male thread	M10	M12	M12	M16	M16		-""K5	
rod thread									
Extended piston rod		Extended piston	rod						
	[mm]	1 25						К8	
Temperature resistance		Heat-resistant se	als max. 120°C					-S6	
Captive rating plate		Laser-etched rati	ng plate	-				-TL	

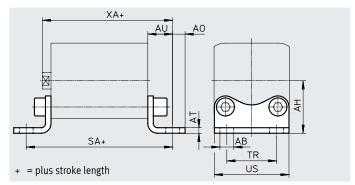
^[1] Not with extended male thread K2

Accessories

Foot mounting HNA/HNA-...-R3

Material: HNA: galvanised steel HNA-...-R3: steel, with protective coating Free of copper and PTFE ROHS-compliant





Dimensions	and ordering data								
For Ø	AB	АН	AO	AT	AU	SA	TR	US	XA
	Ø								
[mm]	H14	JS14		±0.5	±0.2		±0.2	-0.5	
12	5.8	21	5	3	13	61	16	26	52.2
16	3.0	22	4.75)	15	01	18	27.5	52.9
20		27	6.25			69	22	34.5	58.7
25	7	29	0.23	4	16	71	26	38.5	60.7
32		33.5	7	4		76	32	46	66.2
40		38	9		18	81	36	54	69.2
50	10	45	8	5	21	87	45	64	74.2
63		50	°	2	21	91	50	75	78.2
80	12	63	10.5	6	26	106	63	93	89
100	14.5	74	12.5	U	27	121	75	110	103

For Ø	Basic version	1			R3 – High co	R3 – High corrosion protection				
[mm]	CRC ¹⁾	Weight [g]	Part no.	Туре	CRC ¹⁾	Weight [g]	Part no.	Туре		
12	1	39	537237	HNA-12	3	39	537252	HNA-12-R3		
16	1	42	537238	HNA-16	3	42	537253	HNA-16-R3		
20	1	84	537239	HNA-20	3	84	537254	HNA-20-R3		
25	1	90	537240	HNA-25	3	90	537255	HNA-25-R3		
32	1	123	537241	HNA-32	3	123	537256	HNA-32-R3		
40	1	157	537242	HNA-40	3	157	537257	HNA-40-R3		
50	1	278	537243	HNA-50	3	278	537258	HNA-50-R3		
63	1	328	537244	HNA-63	3	328	537259	HNA-63-R3		
80	1	634	537249	HNA-80	3	634	537260	HNA-80-R3		
100	1	814	537250	HNA-100	3	814	537261	HNA-100-R3		

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

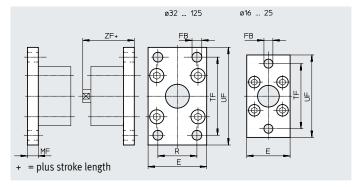
Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind coverings, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions). Corrosion resistance class CRC 3 to Festo standard FN 940070

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

Flange mounting FNC

Material: Galvanised steel Free of copper and PTFE ROHS-compliant





Dimension	s and ordering	g data									
For Ø	E	FB	MF	R	TF	UF	ZF	CRC ¹⁾	Weight	Part no.	Туре
		Ø									
[mm]						±1			[g]		
12	28	5.5			40	50	47.2	1	79	537245	FNC-12
16	29	1 5.5	8		43	55	47.9	1	88	537246	FNC-16
20	36	6.6	l °	_	55	70	50.7	1	141	537247	FNC-20
25	40	0.0			60	76	52.7	1	165	537248	FNC-25
32	45	7	10	32	64	80	60.2	1	221	★ 174376	FNC-32
40	54		10	36	72	90	61.2	1	291	★ 174377	FNC-40
50	65	9	12	45	90	110	65.2	1	536	★ 174378	FNC-50
63	75		12	50	100	120	69.2	1	679	★ 174379	FNC-63
80	93	12	16	63	126	150	79	1	1495	★ 174380	FNC-80
100	110	14	10	75	150	175	92	1	2041	174381	FNC-100
125	132	16	20	90	180	210	112	1	3775	174382	FNC-125

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

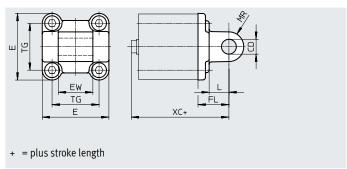
Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind coverings, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Swivel flange SNCL/SNCL-...-R3

RoHS-compliant

Material:
SNCL 12 ... 25:
Wrought aluminium alloy
SNCL 32 ... 125:
Die-cast aluminium
SNCL-...-R3: wrought aluminium alloy
with protective coating
Free of copper and PTFE





Dimensions	and ordering data							
For Ø	CD	E	EW	FL	L	MR	TG	XC
	Ø							
[mm]	H9			±0.2				
12	6	25-0.6	12	16	10	6	16	55.2
16		27.5-0.6	12 _{h12}	10	10	0	18	55.9
20	. 8	34.5-0.6	16	20	14	8	22	62.7
25] °	38.5-0.6	16 _{h12}	20	14	0	26	64.7
32	10	45+0.2/-0.5	26 _{-0.2/-0.6}	22	13	10	32.5	72.2
40	12	54 _{-0.5}	28 _{-0.2/-0.6}	25	16	12	38	75.2
50] 12	64-0.6	32_0.2/-0.6	27	10	12	46.5	80.2
63	16	75 _{-0.6}	40_0.2/-0.6	32	21	16	56.5	89.2
80	10	93 _{-0.8}	50_0.2/-0.6	36	22	10	72	99
100	20	110_+0.3/-0.8	60_0.2/-0.6	41	27	20	89	117
125	25	131-0.8	70_0.2/-0.6	50	30	25	110	142

For Ø	Basic version				R3 – High corrosion	protection	
	CRC ¹⁾	Weight	Part no.	Туре	CRC ¹⁾	Weight	Part no. Type
[mm]		[g]				[g]	
12	2	20	537790	SNCL-12	3	20	537794 SNCL-12-R3
16	2	21	537791	SNCL-16	3	21	537795 SNCL-16-R3
20	2	38	537792	SNCL-20	3	38	537796 SNCL-20-R3
25	2	41	537793	SNCL-25	3	41	537797 SNCL-25-R3
32	1	71	* 174404	SNCL-32	-	-	-
40	1	95	★ 174405	SNCL-40	-	-	-
50	1	158	★ 174406	SNCL-50	-	-	-
63	1	225	★ 174407	SNCL-63	-	-	-
80	1	436	★ 174408	SNCL-80	-	-	-
100	1	606	174409	SNCL-100	-	-	-
125	1	1135	174410	SNCL-125	_	-	-

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

Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind coverings, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions). Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment. Corrosion resistance class CRC 3 to Festo standard FN 940070

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

Swivel flange SNCS/CRSNCS/SNCS-...-R3

Material:

SNCS 32 ... 50: Die-cast aluminium SNCS 63 ... 125: Wrought aluminium alloy

CRSNCS 32 ... 80:

High-alloy stainless steel

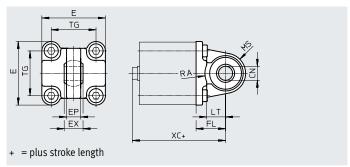
SNCS-...-R3 100 ... 125:

Wrought aluminium alloy with

protective coating

RoHS-compliant





Dimension	s and ordering data						
For Ø		CN Ø		E	EP	EX	FL
[mm]	ADN	ADNR3	ADN	ADNR3	±0.2		±0.2
32	10+0.013	10+0.015/-0.04	45+0.2/-0.5	45-0.5	10.5	14	22
40	12+0.015	12+0.018/-0.04	54-0.5	54-0.5	12	16	25
50	16+0.015	16+0.018/-0.04	64_0.6	64-0.6	15	21	27
63	16+0.015	16+0.018/-0.04	74.5±0.5	75_0.6	15	21	32
80	20+0.018	20+0.021/-0.04	92.2±0.8	93_0.8	18	25	36
100	20+0.018	20+0.021/-0.04	109+1/-0.7	109+1/-0.7	18	25	41
125	30+0.018	30+0.021/-0.04	132+1/-0.7	132+1/-0.7	25	37	50

For Ø	LT	N	IS	R	A	TG	XC
		ADN	ADNR3	ADN	ADNR3		
[mm]				+1	+1		
32	13	15+0.5	15+0.5	14.5	14.5	32.5	72.2
40	16	17+0.5	17+0.5	17.5	17.5	38	75.2
50	16	20+0.5	20+0.5	18.5	19	46.5	80.2
63	21	23-0.5	22+0.5	23	23	56.5	89.2
80	22	28-0.5	27+0.5	25	25	72	99
100	27	30±0.5	30±0.5	95	100	89	117
125	30	39±0.5	39±0.5	100	100	110	142

For Ø	Basic version				High corrosion protect	ction		
	CRC ¹⁾	Weight	Part no.	Туре	CRC ¹⁾	Weight	Part no.	Туре
[mm]		[g]				[g]		
32	1	86	★ 174397	SNCS-32	4	161	2895920	CRSNCS-32
40	1	122	174398	SNCS-40	4	239	2895921	CRSNCS-40
50	1	216	★ 174399	SNCS-50	4	403	2895922	CRSNCS-50
63	2	281	★ 174400	SNCS-63	4	576	2895923	CRSNCS-63
80	2	557	★ 174401	SNCS-80	4	1173	2895924	CRSNCS-80
100	2	683	174402	SNCS-100	3	684	2895925	SNCS-100-R3
125	2	1369	174403	SNCS-125	3	1369	2895926	SNCS-125-R3

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

Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind coverings, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions). Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment. Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment. 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, e.g. in the chemical or food industries. Such applications may need to be safeguarded by means of special testing (

also FN 940082), using appropriate media.

Festo core product range

×

Generally ready for dispatch from the factory within 24 hours

Generally ready for dispatch from the factory within 5 days

Clevis foot LBG/LBG-...-R3

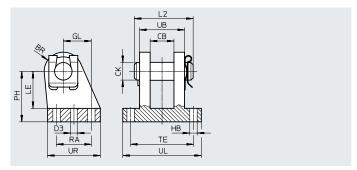
The pivot pin is secured against rotation with a spring pin.

Material:

LBG 32 ... 63: Stainless steel casting LBG 80 ... 125: Spheroidal graphite cast iron

LBG-...-R3: High-alloy stainless steel Free of copper and PTFE RoHS-compliant





Dimensions a	nd ordering d	ata												
Forø	CL	CM	EK	FL	GL	НВ	L2	LE	MR	RF	RG	S1	UK	UX
[mm]			Ø			Ø						Ø		
32	28	14.1	10	32	16	6.8	35	24	12	42	20	4.8	56	36
40	30	16.1	12	36	20	6.8	39	26	14	44	26	5.8	58	41.5
50	40	21.1	16	45	25	9.2	50	33	15	56	31	5.8	70	47
63	40	21.1	16	50	25	9	50	38	17	56	31	7.8	70	49
80	50	25.1	20	63	30	11	60	49	18	70	36	7.8	89	55
100	50	25.1	20	71	41	11	60	56	22	70	46	9.8	89	65
125	80	37.2	30	90	60	14	89	70	26	106	70	11.8	128	96

For Ø	Basic version				R3 – High cor	R3 – High corrosion protection					
	CRC ¹⁾	Weight	Part no.	Туре	CRC ¹⁾	Weight	Part no.	Туре			
[mm]		[g]				[g]					
32	2	220	31761	LBG-32	3	220	2078790	LBG-32-R3			
40	2	300	31762	LBG-40	3	300	2078792	LBG-40-R3			
50	2	540	31763	LBG-50	3	540	2078794	LBG-50-R3			
63	2	580	31764	LBG-63	3	580	2078795	LBG-63-R3			
80	2	1050	31765	LBG-80	3	1050	2078797	LBG-80-R3			
100	2	1375	31766	LBG-100	3	1375	2078799	LBG-100-R3			
125	2	4140	31767	LBG-125	3	4140	2078837	LBG-125-R3			

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

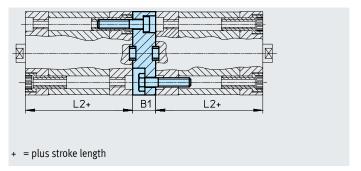
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment. Corrosion resistance class CRC 3 to Festo standard FN 940070

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

Multi-position kit DPNA

Material: Flange: Wrought aluminium alloy Screws: Galvanised steel Free of copper and PTFE ROHS-compliant





	â		
-	İ	-	Note

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

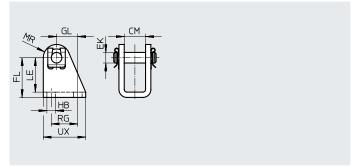
Dimension	ns and ordering (data					
For Ø [mm]	L2	B1	Max. overall stroke length [mm]	CRC ¹⁾	Weight [g]	Part no.	Type ¹⁾
12	2.5		600	2	28	537263	DPNA-12
16	35	13			33	537264	DPNA-16
20	37	15			50	537265	DPNA-20
25	39				60	537266	DPNA-25
32	44		800	1	99	537267	DPNA-32
40	45	15			129	537268	DPNA-40
50	7 45	15			16	537269	DPNA-50
63	49				249	537270	DPNA-63
80	54	17	1000		474	537271	DPNA-80
100	67	19.5			712	537272	DPNA-100

Corrosion resistance class CRC 2 to Festo standard FN 940070
 Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Clevis foot LBN

Material: Galvanised steel Free of copper and PTFE ROHS-compliant





Dimensions an	ıd ordering d	lata											
For Ø	CM	EK	FL	GL	HB	LE	MR	RG	UX	CRC ¹⁾	Weight	Part no.	Туре
		ø			Ø								
[mm]											[g]		
12/16	12.1	6	27 +0.3/-0.2	13	5.5	24	7	15	25	1	40	★ 6058	LBN-12/16
20/25	16.1	8	30 +0.4/-0.2	16	6.6	26	10	20	32	1	84	★ 6059	LBN-20/25

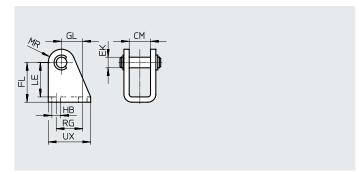
¹⁾ Corrosion resistance class CRC 1 to Festo standard FN 940070

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

Clevis foot CRLBN, stainless steel

Material: High-alloy steel Free of copper and PTFE ROHS-compliant





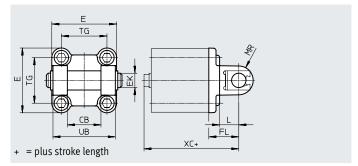
Dimensions an	d ordering d	ata											
Forø	CM	EK Ø	FL	GL	НВ	LE	MR	RG	UX	CRC ¹⁾	Weight	Part no.	Туре
[mm]											[g]		
12/16	12.1	6	27 +0.3/-0.2	13	5.5	24	7	15	25	4	39	161862	CRLBN-12/16
20/25	16.1	8	30 +0.4/-0.2	16	6.6	26	10	20	32	4	82	161863	CRLBN-20/25

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, e.g. in the chemical or food industries. Such applications may need to be safeguarded by means of special testing (also FN 940082), using appropriate media.

Swivel flange SNCB/SNCB-...-R3

Material: SNCB: Die-cast aluminium SNCB-...-R3: Die-cast aluminium with protective coating Free of copper and PTFE ROHS-compliant





Dimensions	Dimensions and ordering data										
Forø	СВ	E	EK Ø	FL	L	MR	TG	UB	XC		
[mm]	H14		H9/e8	±0.2		-0.5		h14			
32	26	45+0.2/-0.5	10	22	13	8.5	32.5	45	72		
40	28	54-0.5	12	25	16	12	38	52	76		
50	32	64_0.6	12	27	16	12	46.5	60	80		
63	40	75_0.6	16	32	21	16	56.5	70	89		
80	50	93_0.8	16	36	22	16	72	90	99		
100	60	110+0.3/-0.8	20	41	27	20	89	110	117		
125	70	131_0.8	25	50	30	25	110	130	142		

Forø	Basic versio	Basic version			R3 – High co	R3 – High corrosion protection				
[mm]	CRC ¹⁾	Weight [g]	Part no.	Туре	CRC ¹⁾	Weight [g]	Part no.	Туре		
32	1	103	★ 174390	SNCB-32	3	100	176944	SNCB-32-R3		
40	1	155	* 174391	SNCB-40	3	151	176945	SNCB-40-R3		
50	1	233	* 174392	SNCB-50	3	228	176946	SNCB-50-R3		
63	1	375	★ 174393	SNCB-63	3	371	176947	SNCB-63-R3		
80	1	636	* 174394	SNCB-80	3	632	176948	SNCB-80-R3		
100	1	1035	174395	SNCB-100	3	986	176949	SNCB-100-R3		
125	1	1860	174396	SNCB-125	3	1776	176950	SNCB-125-R3		

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

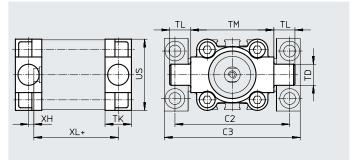
Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind coverings, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions). Corrosion resistance class CRC 3 to Festo standard FN 940070

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

Trunnion flange ZNCF/CRZNG

Material: ZNCF: Stainless steel casting CRZNG: Electropolished stainless steel casting Free of copper and PTFE ROHS-compliant





Dimension	Dimensions and ordering data										
For Ø	C2	С3	TD	TK	TL	TM	US	XH	XL		
			Ø								
[mm]			e9								
32	71	86	12	16	12	50	45	2	58		
40	87	105	16	20	16	63	54	4	61.1		
50	99	117	16	24	16	75	64	4	64.7		
63	116	136	20	24	20	90	75	4	68.5		
80	136	156	20	28	20	110	93	5	76.9		
100	164	189	25	38	25	132	110	10	95		
125	192	217	25	50	25	160	131	14	117		

For Ø	Basic version	Basic version				R3 – High corrosion protection			
	CRC ¹⁾	Weight	Part no.	Туре	CRC ¹⁾	Weight	Part no.	Туре	
[mm]		[g]				[g]			
32	2	150	174411	ZNCF-32	4	150	161852	CRZNG-32	
40	2	285	174412	ZNCF-40	4	285	161853	CRZNG-40	
50	2	473	174413	ZNCF-50	4	473	161854	CRZNG-50	
63	2	687	174414	ZNCF-63	4	687	161855	CRZNG-63	
80	2	1296	174415	ZNCF-80	4	1296	161856	CRZNG-80	
100	2	2254	174416	ZNCF-100	4	2254	161857	CRZNG-100	
125	2	3484	174417	ZNCF-125	4	3484	185362	CRZNG-125	

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

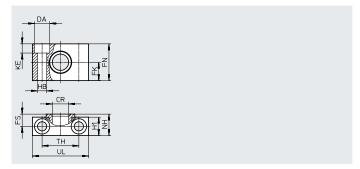
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by means of special testing (+> also FN 940082), using appropriate media.

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment. Corrosion resistance class CRC 4 to Festo standard FN 940070

Trunnion support LNZG

Material: Trunnion support: Anodised aluminium Plain bearing: Plastic Free of copper and PTFE ROHS-compliant





Dimensions and	Dimensions and ordering data														
For Ø	CR	DA	FK	FN	FS	H1	НВ	KE	NH	TH	UL	CRC ¹⁾	Weight	Part no.	Туре
	Ø	Ø	Ø				Ø								
[mm]	D11	H13	±0.1				H13			±0.2			[g]		
32	12	11	15	30	10.5	15	6.6	6.8	18	32	46	2	83	32959	LNZG-32
40, 50	16	15	18	36	12	18	9	9	21	36	55	2	129	32960	LNZG-40/50
(2.00	20	18	20	40	13	20	11	11	23	42	65	2	178	32961	LNZG-63/80
63, 80	20														

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

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Designation	For Ø	Part no.	Туре
Rod eye SGS			
	16	★ 9254	SGS-M6
	20, 25	★ 9255	SGS-M8
	32, 40	★ 9261	SGS-M10x1.25
	50, 63	★ 9262	SGS-M12x1.25
	80, 100	★ 9263	SGS-M16x1.5
	125	★ 9264	SGS-M20x1.5
		77 - 1	-
Rod clevis SG			
	12	-	
	16	★ 3110	SG-M6
(976)	20, 25	★ 3111	SG-M8
(I)	32, 40	★ 6144	SG-M10x1.25
	50, 63	★ 6145	SG-M12x1.25
	80, 100	★ 6146	SG-M16x1.5
	125	★ 6147	SG-M20x1.5
(GO)			
C!:	VCC		
Coupling piece		1	
0	12, 16, 20, 25	22062	VCC M40-4 2F
	32, 40	32963	KSG-M10x1.25
()	50, 63	32964	KSG-M12x1.25
	80, 100	32965	KSG-M16x1.5
	125	32966	KSG-M20x1.5
A.I A.D.			
Adapter AD	12	1	
	12	-	AD 114 M-
	16	157328	AD-M6-M5
		157329	AD-M6-1/8
	1	157330	AD-M6-1/4
	20	157331	AD-M8-1/8
	25	157332	AD-M8-1/4
	32	157333	AD-M10x1.25-1/8
	40	157334	AD-M10x1.25-1/4
	50	160256	AD-M12x1.25-1/4
	63	160257	AD-M12x1.25-3/8

Designation	For Ø	Part no.	Туре
Rod clevis SGA	for rod eye SGS		
(2a)	12, 16, 20, 25	_	
	32, 40	32954	SGA-M10x1.25
	50,63	10767	SGA-M12x1.25
	80, 100	10768	SGA-M16x1.25
	125	10769	SGA-M20x1.25
Self-aligning ro			
	12	30984	FK-M5
	16	★ 2061	FK-M6
	20, 25	★ 2062	FK-M8
	32, 40	★ 6140	FK-M10x1.25
	50, 63	★ 6141	FK-M12x1.25
	80, 100	★ 6142	FK-M16x1.5
	125	† 6143	FK-M20x1.5
	·		TR III. SALLY
	KSZ 12	T -	THE THE THE THE THE THE THE THE THE THE
Coupling piece		- 36123	KSZ-M6
	12		
	12 16	- 36123	KSZ-M6
	12 16 20, 25	- 36123 36124	KSZ-M6 KSZ-M8
	12 16 20, 25 32, 40	- 36123 36124 36125	KSZ-M6 KSZ-M8 KSZ-M10x1.25
Coupling piece	12 16 20, 25 32, 40 50, 63	- 36123 36124 36125 36126	KSZ-M6 KSZ-M8 KSZ-M10x1.25 KSZ-M12x1.25

Ordering data – Pi	Ordering data - Piston rod attachments, corrosion-resistant							
Designation	For Ø	Part no.	Туре					
Rod eye CRSGS								
	12	-						
	16	195580	CRSGS-M6					
	20, 25	195581	CRSGS-M8					
	32, 40	195582	CRSGS-M10x1.25					
	50, 63	195583	CRSGS-M12x1.25					
	80, 100	195584	CRSGS-M16x1.5					
	125	195585	CRSGS-M20x1.5					
Self-aligning rod	coupler CRFK							
	32, 40	2305778	CRFK-M10x1.25					
	50, 63	2305779	CRFK-M12x1.25					
	80, 100	2490673	CRFK-M16x1.5					
	125	2545677	CRFK-M20x1.5					

For Ø	Data sheet Part no.	s → Internet: piston rod attachme Type
ĵ		· ·
12	_	
16, 20	13567	CRSG-M6
20, 25	13568	CRSG-M8
32, 40	13569	CRSG-M10x1.25
50, 63	13570	CRSG-M12x1.25
80, 100	13571	CRSG-M16x1.5
125	13572	CRSG-M20x1.5
	12 16, 20 20, 25 32, 40 50, 63 80, 100	For Ø Part no. 3 12 - 16, 20 13567 20, 25 13568 32, 40 13569 50, 63 13570 80, 100 13571

Ordering data – Mounting components							
Designation	Forø	Part no.	Туре				
Right-angle clevis fo	oot LQG for rod eye S	GGS					
	32, 40	31761	LBG-32				
\	50,63	31762	LBG-40				
	80, 100	31763	LBG-50				
		31764	LBG-63				
	125	31765	LBG-80				
		31766	LBG-100				

Designation	Forø	Part no.	Data sheets → Internet: clevis foot Type
Right-angle clevis f	oot LQG for rod eye S	GS	
	32, 40	31768	LQG-32
\ \	50, 63	31769	LQG-40
	80, 100	31770	LQG-50
		31771	LQG-63
	125	31772	LQG-80
		31773	LQG-100

Ordering data – M	ounting components, high corrosion protection		Data sheets → Internet: clevis foot
Designation	Forø	Part no.	Туре
Clevis foot LBG-R3	for rod eye CRSGS		
	32, 40	2078790	LBG-32-R3
	50, 63	2078792	LBG-40-R3
	80, 100	2078794	LBG-50-R3
600		2078795	LBG-63-R3
	125	2078797	LBG-80-R3
		2078799	LBG-100-R3

Ordering data – 0	One-way flow control valves				Data sheets → Internet: grla
	Connection		Material	Part no.	Туре
	Forø	For tubing O.D.			
For exhaust air					
	12, 16, 20, 25	3	Metal design	★ 193137	GRLA-M5-QS-3-D
		4		± 193138	GRLA-M5-QS-4-D
		6		± 193139	GRLA-M5-QS-6-D
	32, 40, 50, 63, 80, 100	3		★ 193142	GRLA-1/8-QS-3-D
		4		★ 193143	GRLA-1/8-QS-4-D
		6		★ 193144	GRLA-1/8-QS-6-D
		8		± 193145	GRLA-1/8-QS-8-D
	125	6		± 193146	GRLA-1/4-QS-6-D
		8		★ 193147	GRLA-1/4-QS-8-D
		10		★ 193148	GRLA-1/4-QS-10-D

Festo core product range

Generally ready for dispatch from the factory within 24 hours

Generally ready for dispatch from the factory within 5 days

Ordering data	a – One-way flow control valves						Data sheets → Internet: g
	Connection			Material		Part no.	Туре
	For Ø	For tubing O.	D.				
For supply air	•						
(<u>O</u>)	12, 16, 20, 25	3	3		Metal design		GRLZ-M5-QS-3-D
		4				★ 193154	GRLZ-M5-QS-4-D
		6				* 193155	GRLZ-M5-QS-6-D
	32, 40, 50, 63, 80, 100	3				193156	GRLZ-1/8-QS-3-D
		4				193157	GRLZ-1/8-QS-4-D
		6				193158	GRLZ-1/8-QS-6-D
		8				193159	GRLZ-1/8-QS-8-D
	125	-				151195	GRLZ-1/4-B
Ordering data	a – One-way flow control valves for cy	/linders ADNH and AD	NM				Data sheets → Internet: gr
	Connection			Material		Part no.	Туре
	Forø	For tubing O.	D.				71
For exhaust ai	ir	<u> </u>		'		1	
(S)	25, 40	3		Metal design		193137	GRLA-M5-QS-3-D
		4					GRLA-M5-QS-4-D
	63, 100	4				193143	GRLA-1/8-QS-4-D
		· .		1			
		6		1		193144	GRLA-1/8-QS-6-D
Ordering data	a – Proximity sensors for T-slot, magr	8 neto-resistive				193145	GRLA-1/8-QS-6-D GRLA-1/8-QS-8-D Data sheets → Internet: st
	a – Proximity sensors for T-slot, magn	8	Electrical conne	ection	Cable length		GRLA-1/8-QS-8-D
	Type of mounting	8 neto-resistive Switching output		ection	[m]	193145 Part no.	GRLA-1/8-QS-8-D Data sheets → Internet: si Type
	Type of mounting Insertable in the slot from above	8 neto-resistive Switching output	Cable, 3-wire		[m]	193145 Part no. ★ 574335	GRLA-1/8-QS-8-D Data sheets → Internet: st Type SMT-8M-A-PS-24V-E-2.5-OE
	Type of mounting Insertable in the slot from about flush with the cylinder profile,	8 neto-resistive Switching output	Cable, 3-wire Plug M8x1, 3-p	in	[m] 2.5 0.3	Part no. ★ 574335 ★ 574334	GRLA-1/8-QS-8-D Data sheets → Internet: st Type SMT-8M-A-PS-24V-E-2.5-OE SMT-8M-A-PS-24V-E-0.3-M8D
	Type of mounting Insertable in the slot from above	8 neto-resistive Switching output Ve, PNP	Cable, 3-wire Plug M8x1, 3-p Plug M12x1, 3-	in	[m] 2.5 0.3 0.3	Part no. ★ 574335 ★ 574334 ★ 574337	GRLA-1/8-QS-8-D Data sheets → Internet: st Type SMT-8M-A-PS-24V-E-2.5-OE SMT-8M-A-PS-24V-E-0.3-M8D SMT-8M-A-PS-24V-E-0.3-M12
	Type of mounting Insertable in the slot from about flush with the cylinder profile,	8 neto-resistive Switching output	Cable, 3-wire Plug M8x1, 3-p Plug M12x1, 3- Cable, 3-wire	in pin	[m] 2.5 0.3 0.3 2.5	Part no. ★ 574335 ★ 574334 ★ 574337 ★ 574338	GRIA-1/8-QS-8-D Data sheets → Internet: st Type SMT-8M-A-PS-24V-E-2.5-OE SMT-8M-A-PS-24V-E-0.3-M8D SMT-8M-A-PS-24V-E-0.3-M12 SMT-8M-A-NS-24V-E-2.5-OE
	Type of mounting Insertable in the slot from about flush with the cylinder profile,	8 neto-resistive Switching output Ve, PNP	Cable, 3-wire Plug M8x1, 3-p Plug M12x1, 3-	in pin	[m] 2.5 0.3 0.3	Part no. ★ 574335 ★ 574334 ★ 574337	GRLA-1/8-QS-8-D Data sheets → Internet: st Type SMT-8M-A-PS-24V-E-2.5-OE SMT-8M-A-PS-24V-E-0.3-M8D SMT-8M-A-PS-24V-E-0.3-M12
N/O contact	Type of mounting Insertable in the slot from about flush with the cylinder profile,	8 neto-resistive Switching output Ve, PNP	Cable, 3-wire Plug M8x1, 3-p Plug M12x1, 3- Cable, 3-wire	in pin	[m] 2.5 0.3 0.3 2.5	Part no. ★ 574335 ★ 574334 ★ 574337 ★ 574338	GRIA-1/8-QS-8-D Data sheets → Internet: st Type SMT-8M-A-PS-24V-E-2.5-OE SMT-8M-A-PS-24V-E-0.3-M8D SMT-8M-A-PS-24V-E-0.3-M12 SMT-8M-A-NS-24V-E-2.5-OE
Ordering data N/O contact N/C contact	Type of mounting Insertable in the slot from about flush with the cylinder profile,	8 neto-resistive Switching output ve, PNP NPN	Cable, 3-wire Plug M8x1, 3-p Plug M12x1, 3- Cable, 3-wire	in pin	[m] 2.5 0.3 0.3 2.5	Part no. ★ 574335 ★ 574334 ★ 574337 ★ 574338	GRIA-1/8-QS-8-D Data sheets → Internet: st Type SMT-8M-A-PS-24V-E-2.5-OE SMT-8M-A-PS-24V-E-0.3-M8D SMT-8M-A-PS-24V-E-0.3-M12 SMT-8M-A-NS-24V-E-2.5-OE
N/O contact N/C contact	Insertable in the slot from about flush with the cylinder profile, short design Insertable in the slot from about flush with the cylinder profile,	8 neto-resistive Switching output Ve, PNP NPN Ve, PNP	Cable, 3-wire Plug M8x1, 3-p Plug M12x1, 3- Cable, 3-wire Plug M8x1, 3-p	in pin	[m] 2.5 0.3 0.3 2.5 0.3	Part no. ★ 574335 ★ 574334 ★ 574337 ★ 574338 ★ 574339	GRLA-1/8-QS-8-D Data sheets → Internet: st Type SMT-8M-A-PS-24V-E-2.5-OE SMT-8M-A-PS-24V-E-0.3-M8D SMT-8M-A-PS-24V-E-0.3-M12 SMT-8M-A-NS-24V-E-0.3-M8D SMT-8M-A-NS-24V-E-0.3-M8D
N/O contact N/C contact	Insertable in the slot from above flush with the cylinder profile, short design Insertable in the slot from above flush with the cylinder profile, short design - Proximity sensors for round slot,	8 neto-resistive Switching output ve, PNP NPN ve, PNP	Cable, 3-wire Plug M8x1, 3-p Plug M12x1, 3- Cable, 3-wire Plug M8x1, 3-p Cable, 3-wire	in pin in	[m] 2.5 0.3 0.3 2.5 0.3	Part no. ★ 574335 ★ 574334 ★ 574337 ★ 574338 ★ 574339	GRIA-1/8-QS-8-D Data sheets → Internet: st Type SMT-8M-A-PS-24V-E-2.5-OE SMT-8M-A-PS-24V-E-0.3-M8D SMT-8M-A-PS-24V-E-0.3-M12 SMT-8M-A-NS-24V-E-0.3-M8D SMT-8M-A-NS-24V-E-0.3-M8D SMT-8M-A-NS-24V-E-0.3-M8D
N/O contact N/C contact	Insertable in the slot from above flush with the cylinder profile, short design Insertable in the slot from above flush with the cylinder profile, short design	8 neto-resistive Switching output Ve, PNP NPN Ve, PNP	Cable, 3-wire Plug M8x1, 3-p Plug M12x1, 3- Cable, 3-wire Plug M8x1, 3-p Cable, 3-wire	in pin	[m] 2.5 0.3 0.3 2.5 0.3	193145 Part no. ★ 574335 ★ 574334 ★ 574337 ★ 574338 ★ 574339	GRLA-1/8-QS-8-D Data sheets → Internet: st Type SMT-8M-A-PS-24V-E-2.5-OE SMT-8M-A-PS-24V-E-0.3-M8D SMT-8M-A-PS-24V-E-0.3-M12 SMT-8M-A-NS-24V-E-0.3-M8D SMT-8M-A-NS-24V-E-0.3-M8D
N/O contact N/C contact Ordering data	Insertable in the slot from above flush with the cylinder profile, short design Insertable in the slot from above flush with the cylinder profile, short design - Proximity sensors for round slot,	8 neto-resistive Switching output ve, PNP NPN we, PNP magneto-resistive Electrical connection	Cable, 3-wire Plug M8x1, 3-p Plug M12x1, 3- Cable, 3-wire Plug M8x1, 3-p Cable, 3-wire	in pin in	[m] 2.5 0.3 0.3 2.5 0.3 7.5	193145 Part no. ★ 574335 ★ 574334 ★ 574337 ★ 574338 ★ 574339	GRIA-1/8-QS-8-D Data sheets → Internet: st Type SMT-8M-A-PS-24V-E-2.5-OE SMT-8M-A-PS-24V-E-0.3-M8D SMT-8M-A-PS-24V-E-0.3-M12 SMT-8M-A-NS-24V-E-0.3-M8D SMT-8M-A-NS-24V-E-0.3-M8D SMT-8M-A-NS-24V-E-0.3-M8D
N/O contact N/C contact Ordering data	Insertable in the slot from above flush with the cylinder profile, short design Insertable in the slot from above flush with the cylinder profile, short design - Proximity sensors for round slot,	8 neto-resistive Switching output ve, PNP NPN we, PNP magneto-resistive Electrical connection outlet direction of	Cable, 3-wire Plug M8x1, 3-p Plug M12x1, 3- Cable, 3-wire Plug M8x1, 3-p Cable, 3-wire	in pin in	[m] 2.5 0.3 0.3 2.5 0.3 7.5	193145 Part no. ★ 574335 ★ 574334 ★ 574337 ★ 574338 ★ 574339	GRIA-1/8-QS-8-D Data sheets → Internet: st Type SMT-8M-A-PS-24V-E-2.5-OE SMT-8M-A-PS-24V-E-0.3-M8D SMT-8M-A-PS-24V-E-0.3-M12 SMT-8M-A-NS-24V-E-0.3-M8D SMT-8M-A-NS-24V-E-0.3-M8D SMT-8M-A-NS-24V-E-0.3-M8D
N/O contact N/C contact Ordering data	Insertable in the slot from above flush with the cylinder profile, short design Insertable in the slot from above flush with the cylinder profile, short design Insertable in the slot from above flush with the cylinder profile, short design Insertable in the slot from above flush with the cylinder profile, short design	8 neto-resistive Switching output ve, PNP NPN we, PNP magneto-resistive Electrical connection outlet direction of	Cable, 3-wire Plug M8x1, 3-p Plug M12x1, 3- Cable, 3-wire Plug M8x1, 3-p Cable, 3-wire	in pin in Switching output	[m] 2.5 0.3 0.3 2.5 0.3 7.5 Cable length [m]	Part no. ★ 574335 ★ 574334 ★ 574337 ★ 574338 ★ 574339 ★ 574340 Part no.	GRIA-1/8-QS-8-D Data sheets → Internet: si Type SMT-8M-A-PS-24V-E-2.5-OE SMT-8M-A-PS-24V-E-0.3-M8D SMT-8M-A-NS-24V-E-0.3-M12 SMT-8M-A-NS-24V-E-0.3-M8D SMT-8M-A-NS-24V-E-0.3-M8D Data sheets → Internet: si Type
N/O contact N/C contact	Insertable in the slot from above flush with the cylinder profile, short design Insertable in the slot from above flush with the cylinder profile, short design Insertable in the slot from above flush with the cylinder profile, short design Insertable in the slot from above flush with the cylinder profile, short design	8 neto-resistive Switching output ve, PNP NPN NPN Electrical connection outlet direction of Cable, 3-wire, later	Cable, 3-wire Plug M8x1, 3-p Plug M12x1, 3- Cable, 3-wire Plug M8x1, 3-p Cable, 3-wire	in pin in Switching output	[m] 2.5 0.3 0.3 2.5 0.3 7.5 Cable length [m]	Part no. ★ 574335 ★ 574334 ★ 574337 ★ 574338 ★ 574339 ★ 574340 Part no.	GRIA-1/8-QS-8-D Data sheets → Internet: st Type SMT-8M-A-PS-24V-E-2.5-OE SMT-8M-A-PS-24V-E-0.3-M8D SMT-8M-A-NS-24V-E-0.3-M12 SMT-8M-A-NS-24V-E-0.3-M8D SMT-8M-A-NS-24V-E-0.3-M8D Data sheets → Internet: st Type SMT-8G-PS-24V-E-2,5Q-OE

→ Internet: www.festo.com/catalogue/...

						Data sheets → Internet: sm
	Type of mounting	Switching	Electrical connection	Cable length	Part no.	Туре
		output		[m]		
N/O contact						
	Inserted in the slot from above, flush with	Contacting	Cable, 3-wire	2.5	★ 543862	SME-8M-DS-24V-K-2.5-0E
	the cylinder profile			5.0	★ 543863	SME-8M-DS-24V-K-5.0-0E
			Cable, 2-wire	2.5	★ 543872	SME-8M-ZS-24V-K-2.5-0E
			Plug M8x1, 3-pin	0.3	★ 543861	SME-8M-DS-24V-K-0.3-M8D
	Inserted in the slot lengthwise, flush with	Contacting	Cable, 3-wire	2.5	150855	SME-8-K-LED-24
	the cylinder profile		Plug M8x1, 3-pin	0.3	150857	SME-8-S-LED-24
N/C contact						
v/C comact	Inserted in the slot lengthwise, flush with	Contacting	Cable, 3-wire	7.5	160251	SME-8-0-K-LED-24
	the cylinder profile	Contacting	Cable, 5-wife	7.5	160251	SME-8-U-R-LED-24
	the cylinder profile					
*						
Ordering data –	Connecting cables					Data sheets → Internet: neb
	Electrical connection, left	Electrical con	nection, right	Cable length	Part no.	Type
				[m]		
0	Straight socket, M8x1, 3-pin	Cable, open e	end 3-wire	2.5	★ 541333	NEBU-M8G3-K-2.5-LE3
	Straight Socket, Mox1, 5 pm	cubic, open	siid, 5 mile	5	★ 541334	NEBU-M8G3-K-5-LE3
	Straight socket, M12x1, 5-pin	Cable, open e	and 3-wire	2.5	★ 541363	NEBU-M12G5-K-2.5-LE3
	Straight socket, M12x1, 5-pm	Cable, open e	ind, J-wile	5	★ 541364	NEBU-M12G5-K-5-LE3
	Angled socket, M8x1, 3-pin					NEBU-M8W3-K-2.5-LE3
	Angled Socket, Mox1, 5-pill	Cable, open end, 3-wire		5	★ 541338	NEBU-M8W3-K-5-LE3
	Andread sectors MA 201 Finis	Cabla anan			★ 541341	NEBU-M8W3-K-5-LE3
	Angled socket, M12x1, 5-pin	Cable, open e	enu, 5-wire	2.5	541367 541370	NEBU-M12W5-K-5-LE3
				,	341370	
0	Post in the second seco				341370	
Ordering data –	Proximity sensor in block design, pneumatic					Data sheets → Internet: sm
	Pneumatic connection			J	Part no.	
	Pneumatic connection			3		Data sheets → Internet: sm
3/2-way valve, r	Pneumatic connection			J		Data sheets → Internet: sm
	Pneumatic connection				Part no.	Data sheets → Internet: sm Type
3/2-way valve, r	Pneumatic connection				Part no.	Data sheets → Internet: sm Type
3/2-way valve, r	Pneumatic connection				Part no.	Data sheets → Internet: sm Type
3/2-way valve, r	Pneumatic connection normally closed Female thread M5				Part no.	Data sheets → Internet: smp Type SMPO-8E
3/2-way valve, r	Pneumatic connection normally closed Female thread M5 Mounting kit for proximity sensors SMPO-8E				Part no. 178563	Data sheets → Internet: smp Type SMPO-8E Data sheets → Internet: smp
3/2-way valve, r	Pneumatic connection normally closed Female thread M5 Mounting kit for proximity sensors SMPO-8E Mounting			Į	Part no. 178563 Part no.	Data sheets → Internet: smp Type SMPO-8E Data sheets → Internet: smp Type
3/2-way valve, r	Pneumatic connection normally closed Female thread M5 Mounting kit for proximity sensors SMPO-8E				Part no. 178563	Data sheets → Internet: sm Type SMPO-8E Data sheets → Internet: sm
3/2-way valve, r	Pneumatic connection normally closed Female thread M5 Mounting kit for proximity sensors SMPO-8E Mounting				Part no. 178563 Part no.	Data sheets → Internet: sm Type SMPO-8E Data sheets → Internet: sm
3/2-way valve, r	Pneumatic connection normally closed Female thread M5 Mounting kit for proximity sensors SMPO-8E Mounting				Part no. 178563 Part no.	Data sheets → Internet: sm. Type SMPO-8E Data sheets → Internet: sm. Type
3/2-way valve, r	Pneumatic connection normally closed Female thread M5 Mounting kit for proximity sensors SMPO-8E Mounting				Part no. 178563 Part no.	Data sheets → Internet: sm. Type SMPO-8E Data sheets → Internet: sm. Type
3/2-way valve, r	Pneumatic connection normally closed Female thread M5 Mounting kit for proximity sensors SMPO-8E Mounting Clamped in T-slot				Part no. 178563 Part no.	Data sheets → Internet: sm Type SMPO-8E Data sheets → Internet: sm
3/2-way valve, r	Pneumatic connection formally closed Female thread M5 Mounting kit for proximity sensors SMPO-8E Mounting Clamped in T-slot Slot cover for T-slot				Part no. 178563 Part no. 178230	Data sheets → Internet: smp Type SMPO-8E Data sheets → Internet: smp Type SMB-8E
3/2-way valve, r	Pneumatic connection formally closed Female thread M5 Mounting kit for proximity sensors SMPO-8E Mounting Clamped in T-slot Slot cover for T-slot Mounting Length				Part no. 178563 Part no. 178230 Part no.	Data sheets → Internet: smi Type SMPO-8E Data sheets → Internet: smi Type SMB-8E
3/2-way valve, r	Pneumatic connection formally closed Female thread M5 Mounting kit for proximity sensors SMPO-8E Mounting Clamped in T-slot Slot cover for T-slot				Part no. 178563 Part no. 178230	Data sheets → Internet: smp Type SMPO-8E Data sheets → Internet: sm Type SMB-8E
3/2-way valve, r	Pneumatic connection formally closed Female thread M5 Mounting kit for proximity sensors SMPO-8E Mounting Clamped in T-slot Slot cover for T-slot Mounting Length				Part no. 178563 Part no. 178230 Part no.	Data sheets → Internet: sm Type SMPO-8E Data sheets → Internet: sm Type SMB-8E

Festo core product range

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Generally ready for dispatch from the factory within 24 hours

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Generally ready for dispatch from the factory within 5 days