

Compact cylinders ADNGF, standard hole pattern

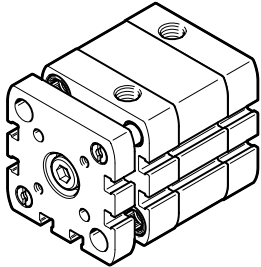
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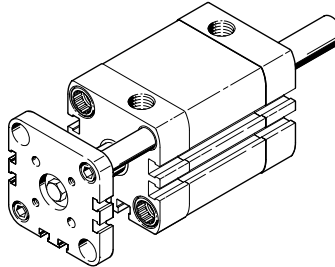
Characteristics and type codes

At a glance

With guide rod and yoke plate
ADNGF-...



With guide rod, yoke plate and through piston rod
ADNGF-...S2



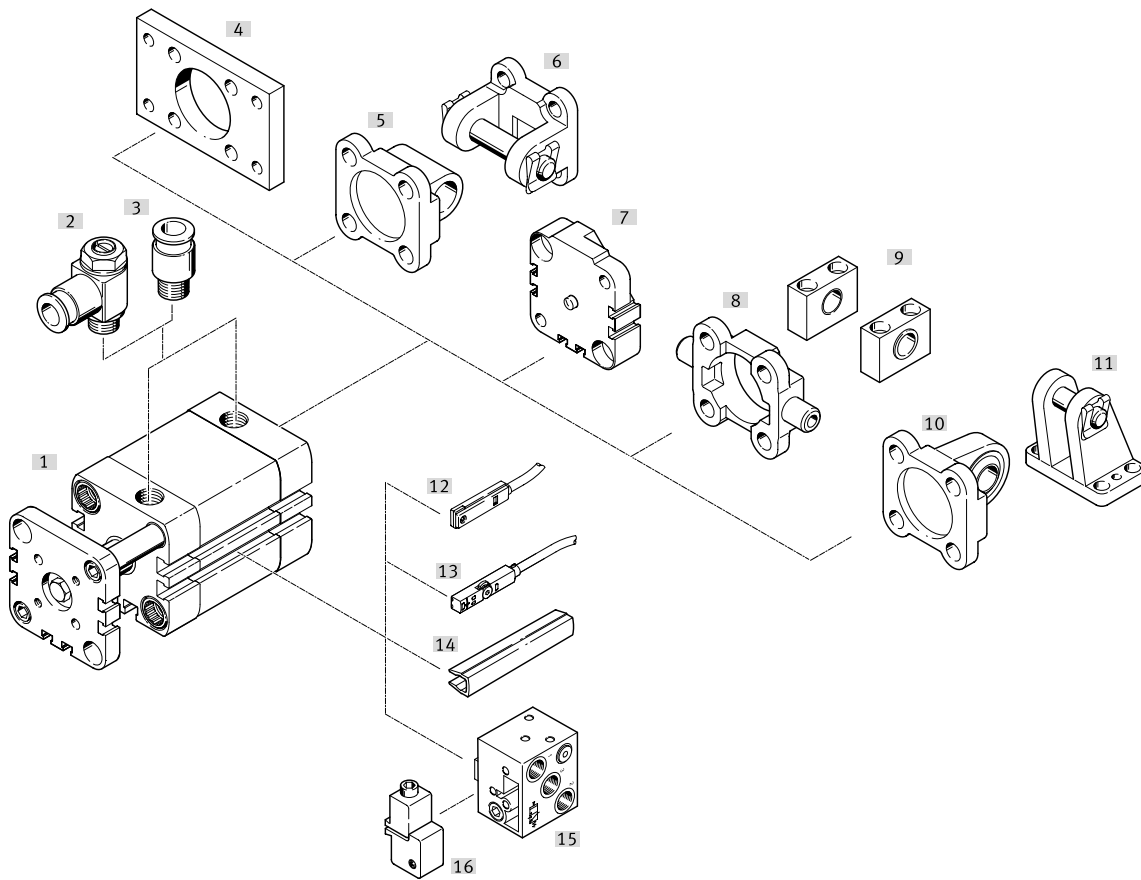
Cushioning types

	Cushioning P	Cushioning PPS
Mode of operation	<ul style="list-style-type: none"> The drive has elastic polymer flexible end-position cushioning 	<ul style="list-style-type: none"> The drive has self-adjusting, pneumatic end-position cushioning
Application	<ul style="list-style-type: none"> Small loads Low speeds Small cushioning capacity 	<ul style="list-style-type: none"> Larger loads Higher speeds Larger cushioning capacity
Advantages	<ul style="list-style-type: none"> No adjustment required Time-saving 	<ul style="list-style-type: none"> No adjustment required Up to 4 times bigger cushioning capacity than ADNGF-...-P Time-saving Reduced noise

Type codes

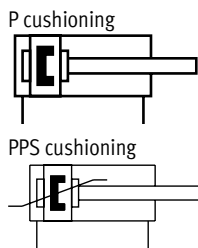
001	Series		
ADNGF	Compact cylinder, double-acting, standard hole pattern		
002	Piston diameter		
12	12		
16	16		
20	20		
25	25		
32	32		
40	40		
50	50		
63	63		
80	80		
100	100		
003	Stroke		
...	1 ... 400		
004	Cushioning		
P	Elastic cushioning rings/plates on both sides		
PPS	Pneumatic cushioning, self-adjusting at both ends		
005	Position sensing		
A	For proximity sensor		
006	Piston rod type		
	At one end		
S2	Through piston rod		
007	Temperature range		
	Standard		
S6	Heat-resistant seals max. 120 °C		
008	Captive rating plate		
	Rating plate, glued		
TL	Laser etched rating plate		

Peripherals overview



Mounting components and accessories		Description	→ Page/Internet
[1]	Compact cylinder ADNGF	Double-acting	4
[2]	One-way flow control valve GRLA/GRLZ	For regulating speed	21
[3]	Push-in fitting QS	For connecting tubing with standard O.D.	qs
[4]	Flange mounting FNC	For end caps	13
[5]	Swivel flange SNCL/SNCL...-R3	For end caps	14
[6]	Swivel flange SNCB/SNCB...-R3	For end caps	18
[7]	Multi-position kit DPNA	For connecting two cylinders with identical piston diameters to form a multi-position cylinder	17
[8]	Trunnion flange ZNCF/CRZNG	For end caps	19
[9]	Trunnion support LNZG	For trunnion flange ZNCF/CRZNG	20
[10]	Swivel flange SNCS/CRSNCS/SNCS...-R3	For end caps	15
[11]	Clevis foot LBG/LBG...-R3	For swivel flange SNCS	16
[12]	Proximity switch SME-8	Can be integrated in the cylinder profile barrel	22
[13]	Proximity switch SME/SMT-8M	Can be integrated in the cylinder profile barrel	22
[14]	Slot cover ABP-5-S	For protecting the sensor cables and the sensor slots from contamination	23
[15]	Proximity switch SMPO-8E	Pneumatic output signal	23
[16]	Mounting kit SMB-8E	For proximity switch SMPO-8E	23

Data sheet



- - Diameter
12 ... 100 mm
- - Stroke length
1 ... 400 mm
- - www.festo.com



General technical data										
Piston \varnothing	12	16	20	25	32	40	50	63	80	100
Pneumatic connection	M5	M5	M5	M5	G1/8	G1/8	G1/8	G1/8	G1/8	G1/8
Design	Piston									
	Piston rod									
	Cylinder barrel									
Mode of operation	Double-acting									
Cushioning										
P	Elastic cushioning rings/pads at both ends									
PPS	Pneumatic cushioning, self-adjusting at both ends									
Cushioning length										
PPS	[mm]	-	3	3.5	4	5	6	7	7.5	10
Position sensing	Via proximity switch									
Type of mounting	With through-hole / female thread / accessories									
Mounting position	Any									

Operating and environmental conditions										
Piston \varnothing	12	16	20	25	32	40	50	63	80	100
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]									
Note on operating/ pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)									
Operating pressure										
in [MPa]										
-	0.15 ... 1		0.1 ... 1							
PPS	-		0.19 ... 1			0.14 ... 1				
S2	0.15 ... 1		-			0.1 ... 1				
in [bar]										
-	1.5 ... 10		1 ... 10							
PPS	-		1.9 ... 10			1.4 ... 10				
S2	1.5 ... 10		-			1 ... 10				
in [psi]										
-	21.76 ... 145		14.5 ... 145							
PPS	-		27.56 ... 145			20.31 ... 145				
S2	21.76 ... 145		-			14.5 ... 145				
Ambient temperature ¹⁾ [°C]										
-	-20 ... +80									
S6	0 ... +120									
Corrosion resistance class CRC ²⁾										
2 - moderate corrosion stress										

1) Note operating range of proximity switches
 2) More information: www.festo.com/x/topic/kbk

Data sheet

Weight [g]										
Piston \varnothing	12	16	20	25	32	40	50	63	80	100
ADNGF...										
Product weight with 0 mm stroke	76	88	153	203	310	432	656	930	1465	2205
Additional weight per 10 mm stroke	14	16	26	30	37	46	63	72	97	116
Moving mass with 0 mm stroke	23	31	58	73	125	174	291	400	761	1066
Additional mass per 10 mm stroke	4	6	11	11	17	17	28	28	43	43
ADNGF...-S2										
Product weight with 0 mm stroke	78	92	160	214	313	435	667	941	1466	2212
Additional weight per 10 mm stroke	16	19	31	35	43	52	74	83	115	134
Moving mass with 0 mm stroke	26	36	67	79	131	173	296	406	775	1071
Additional mass per 10 mm stroke	10	16	26	26	40	40	67	67	103	103
ADNGF...-PPS										
Product weight with 0 mm stroke	–	–	150	218	317	442	672	947	1474	2228
Additional weight per 10 mm stroke	–	–	26	30	37	46	63	72	97	116
Moving mass with 0 mm stroke	–	–	57	95	132	185	307	417	770	1089
Additional mass per 10 mm stroke	–	–	11	11	17	17	28	28	43	43

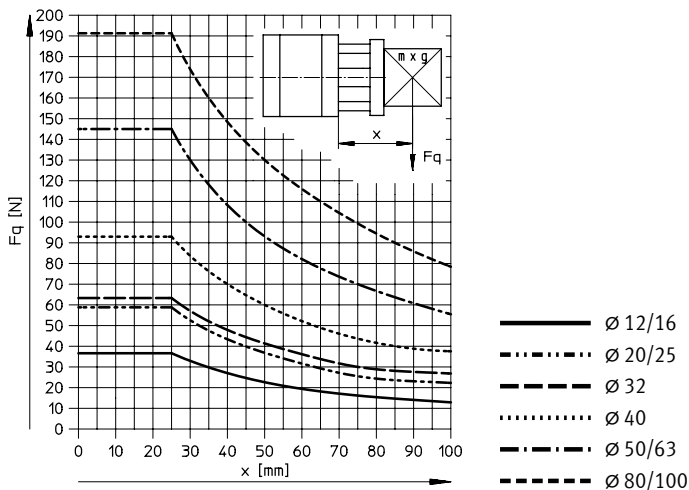
Data sheet

Forces [N] and impact energy [J]										
Piston \varnothing	12	16	20	25	32	40	50	63	80	100
Theoretical force at 6 bar, advancing										
–	68	121	188	295	483	754	1178	1870	3016	4712
S2	51	90	141	247	415	686	1057	1750	2827	4524
Theoretical force at 6 bar, retracting										
–	51	90	141	247	415	686	1057	1750	2827	4524
S2	51	90	141	247	415	686	1057	1750	2827	4524
Max. impact energy at the end positions										
–	0.07	0.15	0.2	0.3	0.4	0.7	1.0	1.3	1.8	2.5
S6	0.035	0.075	0.1	0.15	0.2	0.35	0.5	0.65	0.9	1.25

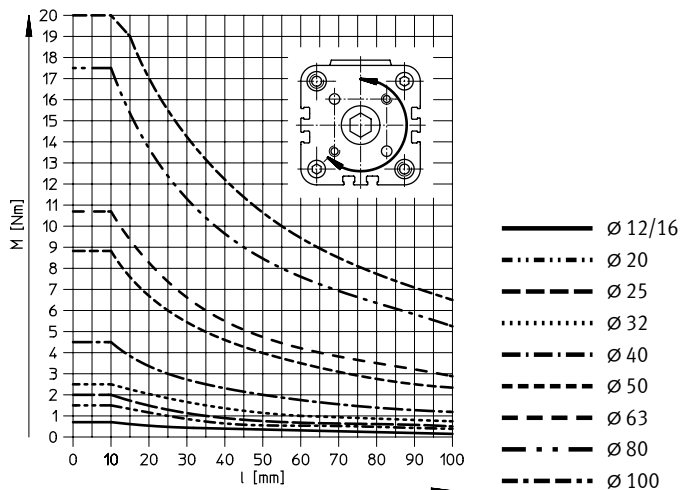
Note
 In combination with the self-adjusting cushioning (PPS), the maximum impact energy is still obtained.

Max. energy conversion capacity [J]								
Piston \varnothing	20	25	32	40	50	63	80	100
For self-adjusting cushioning (PPS)	0.65	0.8	1	1.7	2.8	4.8	8	12

Max. lateral force F_q as a function of the projection x

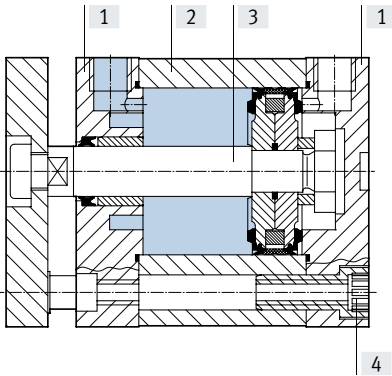


Torque M as a function of stroke length l



Data sheet

Materials



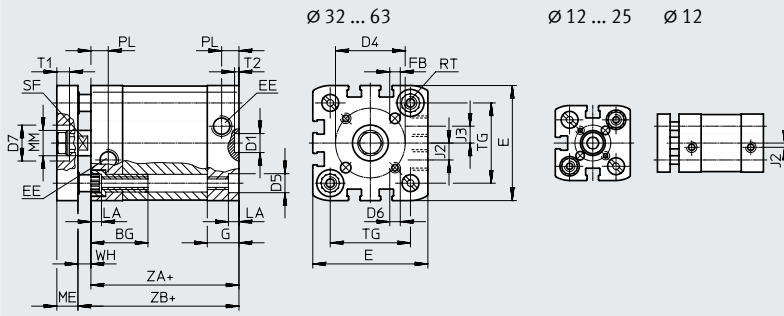
Compact cylinder	Basic version	S6
[1] Cover		
	∅ 12 ... 80	Anodised aluminium
	∅ 100	Coated die-cast aluminium
[2] Cylinder barrel		Anodised aluminium
[3] Piston rod		High-alloy steel
[4] Flange screws		
	∅ 12 ... 16	High-alloy steel
	∅ 20 ... 63	Galvanised steel
	∅ 80 ... 100	Standard screws, galvanised steel
- Seals	Polyurethane	Fluoro rubber

Data sheet

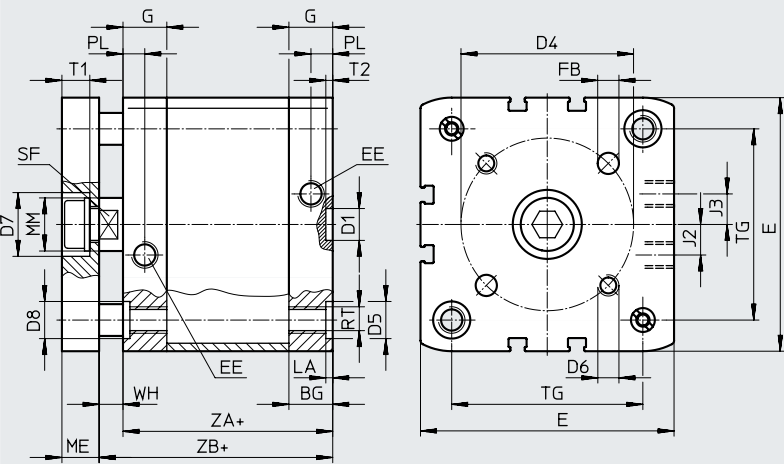
Dimensions – Basic version

Download CAD data → www.festo.com

∅ 12 ... 63



∅ 80 ... 100



∅ [mm]	BG min.	D1 ∅ H9	D4 ±0.1	D5 ∅	D6	D7 ∅ H9	D8	E	EE	FB ∅ H8	G	J2	J3
12	17	9	12	6 ^{F9}	M3	-	-	27.5 ^{+0.3}	M5	3	10.5	2	-
16	19.5		14		9 ^{F9}			M4			29 ^{+0.3}		
20		17	M5	14		35.5 ^{+0.3}	12						
25	22	17		17	22	39.5 ^{+0.3}	15	6					
32	26		28	15		47 ^{+0.3}			8				
40	27	12	33		12 ^{F9}	M6	22	6		11.5			
50			42	15					M8		24	15	65.5 ^{+0.3}
63	50	8	M10		24	15	75.5 ^{+0.3}	16.5					
80	17			65			10		M8	24	15	95.5 ^{+0.6}	
100	21.5	80	80	M10	24	15		113.5 ^{+0.6}				20	

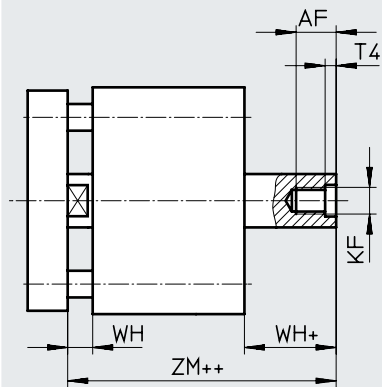
∅ [mm]	LA +0.2	ME	MM ∅ H8	PL +0.2	RT	ST H13	T1	T2 +0.1	TG ±0.2	WH +1.3	PPS +1.4	ZA ±0.6	ZB +1.2	PPS +1.3
12	3.5	6	6	6	M4	5	-	2.1	16	4.2	-	35	39.2	-
16			8			7			18	4.7			39.7	
20	5	8	10	8.2	M5	9	5	2.6	22	5.5	5.5	37	42.5	42.5
25			10			12			10	6	26	6	6.5	39
32	10	12	16	8.2	M6	10	6	2.6	32.5	6	6.5	44	50	50.6
40						38			6.1	6.6	45	51.1	51.7	
50	12	16	20	8.2	M8	13	7.5	2.6	46.5	7.7	8.2	49	56.5	57
63						56.5			7.5	8	54	62.9	63.4	
80	2.6	14	20	10.5	M10	17	10.5	2.6	72	8.9	9.4	54	62.9	63.4
100						89			9	9.8	67	76	76.8	

Data sheet

Dimensions – Variants

Download CAD data → www.festo.com

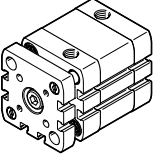
S2 – Through piston rod



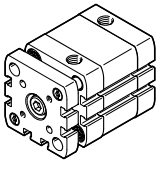
+ = plus stroke length
++ = plus 2x stroke length

∅ [mm]	AF min.	KF	T4	WH		ZM	
				+1.3	PPS +1.4		PPS
12	8	M3	1.5	4.2	–	44.5 ^{+0.5}	–
16	10	M4		4.7		45.7 ^{+0.5}	
20	14	M6	2.6	5.5	5.5	49.5 ^{+0.5}	49.5 ^{+0.5}
25					5.5	51.5 ^{+0.5}	51.5 ^{+0.5}
32	16	M8	3.3	6	6.5	57.5 ^{+0.5}	58.6 ^{+0.6}
40				6.1	6.6	58.6 ^{+0.6}	59.7 ^{+0.7}
50	20	M10	4.7	8.2	8.2	62.0 ^{+0.6}	63.1 ^{+0.7}
63				8.1	8	65.4 ^{+0.6}	66.5 ^{+0.7}
80				8.9	9.4	73.2 ^{+0.6}	74.3 ^{+0.7}
100				9	9.8	86.4 ^{+0.6}	88 ^{+0.7}

Data sheet

Ordering data		Piston ø		Stroke [mm]		P – Elastic cushioning rings/plates at both ends		PPS – Pneumatic cushioning, self-adjusting at both ends	
Type	[mm]	[mm]	Part no.	Type	Part no.	Type	Part no.	Type	
	12	5	554205	ADNGF-12-5-P-A	–				
		10	554206	ADNGF-12-10-P-A					
		15	554207	ADNGF-12-15-P-A					
		20	554208	ADNGF-12-20-P-A					
		25	554209	ADNGF-12-25-P-A					
		30	554210	ADNGF-12-30-P-A					
		40	554211	ADNGF-12-40-P-A					
	16	5	554212	ADNGF-16-5-P-A	–				
		10	554213	ADNGF-16-10-P-A					
		15	554214	ADNGF-16-15-P-A					
		20	554215	ADNGF-16-20-P-A					
		25	554216	ADNGF-16-25-P-A					
		30	554217	ADNGF-16-30-P-A					
		40	554218	ADNGF-16-40-P-A					
	20	5	554220	ADNGF-20-5-P-A	–				
		10	554221	ADNGF-20-10-P-A					
		15	554222	ADNGF-20-15-P-A					
		20	554223	ADNGF-20-20-P-A					
		25	554224	ADNGF-20-25-P-A					
		30	554225	ADNGF-20-30-P-A					
		40	554226	ADNGF-20-40-P-A					
		50	554227	ADNGF-20-50-P-A					
		60	554228	ADNGF-20-60-P-A					
		25	5	554229					
	10		554230	ADNGF-25-10-P-A					
	15		554231	ADNGF-25-15-P-A					
	20		554232	ADNGF-25-20-P-A					
	25		554233	ADNGF-25-25-P-A					
30	554234		ADNGF-25-30-P-A						
40	554235		ADNGF-25-40-P-A						
50	554236		ADNGF-25-50-P-A						
60	554237		ADNGF-25-60-P-A						
32	5		554238	ADNGF-32-5-P-A	–				
	10	554239	ADNGF-32-10-P-A						
	15	554240	ADNGF-32-15-P-A						
	20	554241	ADNGF-32-20-P-A						
	25	554242	ADNGF-32-25-P-A						
	30	554243	ADNGF-32-30-P-A						
	40	554244	ADNGF-32-40-P-A						
	50	554245	ADNGF-32-50-P-A						
	60	554246	ADNGF-32-60-P-A						
	80	554247	ADNGF-32-80-P-A						
					577209	ADNGF-20-15-PPS-A			
					577210	ADNGF-20-20-PPS-A			
					577211	ADNGF-20-25-PPS-A			
					577212	ADNGF-20-30-PPS-A			
					577213	ADNGF-20-40-PPS-A			
					577214	ADNGF-20-50-PPS-A			
					577215	ADNGF-20-60-PPS-A			
					577216	ADNGF-25-10-PPS-A			
					577217	ADNGF-25-15-PPS-A			
					577218	ADNGF-25-20-PPS-A			
					577219	ADNGF-25-25-PPS-A			
					577220	ADNGF-25-30-PPS-A			
					577221	ADNGF-25-40-PPS-A			
					577222	ADNGF-25-50-PPS-A			
					577223	ADNGF-25-60-PPS-A			
					574022	ADNGF-32-10-PPS-A			
					574023	ADNGF-32-15-PPS-A			
					574024	ADNGF-32-20-PPS-A			
					574025	ADNGF-32-25-PPS-A			
					574026	ADNGF-32-30-PPS-A			
					574027	ADNGF-32-40-PPS-A			
					574028	ADNGF-32-50-PPS-A			
					574029	ADNGF-32-60-PPS-A			
					574030	ADNGF-32-80-PPS-A			

Data sheet

Ordering data		Piston ø [mm]	Stroke [mm] [mm]	P – Elastic cushioning rings/plates at both ends		PPS – Pneumatic cushioning, self-adjusting at both ends	
Type	Part no.			Type	Part no.	Type	
	40	5	554248	ADNGF-40-5-P-A	–	–	
		10	554249	ADNGF-40-10-P-A	574031	ADNGF-40-10-PPS-A	
		15	554250	ADNGF-40-15-P-A	574032	ADNGF-40-15-PPS-A	
		20	554251	ADNGF-40-20-P-A	574033	ADNGF-40-20-PPS-A	
		25	554252	ADNGF-40-25-P-A	574034	ADNGF-40-25-PPS-A	
		30	554253	ADNGF-40-30-P-A	574035	ADNGF-40-30-PPS-A	
		40	554254	ADNGF-40-40-P-A	574036	ADNGF-40-40-PPS-A	
		50	554255	ADNGF-40-50-P-A	574037	ADNGF-40-50-PPS-A	
		60	554256	ADNGF-40-60-P-A	574038	ADNGF-40-60-PPS-A	
		80	554257	ADNGF-40-80-P-A	574039	ADNGF-40-80-PPS-A	
	50	5	554258	ADNGF-50-5-P-A	–	–	
		10	554259	ADNGF-50-10-P-A	574040	ADNGF-50-10-PPS-A	
		15	554260	ADNGF-50-15-P-A	574041	ADNGF-50-15-PPS-A	
		20	554261	ADNGF-50-20-P-A	574042	ADNGF-50-20-PPS-A	
		25	554262	ADNGF-50-25-P-A	574043	ADNGF-50-25-PPS-A	
		30	554263	ADNGF-50-30-P-A	574044	ADNGF-50-30-PPS-A	
		40	554264	ADNGF-50-40-P-A	574045	ADNGF-50-40-PPS-A	
		50	554265	ADNGF-50-50-P-A	574046	ADNGF-50-50-PPS-A	
		60	554266	ADNGF-50-60-P-A	574047	ADNGF-50-60-PPS-A	
		80	554267	ADNGF-50-80-P-A	574048	ADNGF-50-80-PPS-A	
	63	10	554268	ADNGF-63-10-P-A	574049	ADNGF-63-10-PPS-A	
		15	554269	ADNGF-63-15-P-A	574050	ADNGF-63-15-PPS-A	
		20	554270	ADNGF-63-20-P-A	574051	ADNGF-63-20-PPS-A	
		25	554271	ADNGF-63-25-P-A	574052	ADNGF-63-25-PPS-A	
		30	554272	ADNGF-63-30-P-A	574053	ADNGF-63-30-PPS-A	
		40	554273	ADNGF-63-40-P-A	574054	ADNGF-63-40-PPS-A	
		50	554274	ADNGF-63-50-P-A	574055	ADNGF-63-50-PPS-A	
		60	554275	ADNGF-63-60-P-A	574056	ADNGF-63-60-PPS-A	
	80	10	554277	ADNGF-80-10-P-A	574058	ADNGF-80-10-PPS-A	
		15	554278	ADNGF-80-15-P-A	574059	ADNGF-80-15-PPS-A	
		20	554279	ADNGF-80-20-P-A	574060	ADNGF-80-20-PPS-A	
		25	554280	ADNGF-80-25-P-A	574061	ADNGF-80-25-PPS-A	
		30	554281	ADNGF-80-30-P-A	574062	ADNGF-80-30-PPS-A	
		40	554282	ADNGF-80-40-P-A	574063	ADNGF-80-40-PPS-A	
		50	554283	ADNGF-80-50-P-A	574064	ADNGF-80-50-PPS-A	
		60	554284	ADNGF-80-60-P-A	574065	ADNGF-80-60-PPS-A	
	100	10	554286	ADNGF-100-10-P-A	–	–	
		15	554287	ADNGF-100-15-P-A	577225	ADNGF-100-15-PPS-A	
		20	554288	ADNGF-100-20-P-A	577226	ADNGF-100-20-PPS-A	
		25	554289	ADNGF-100-25-P-A	577227	ADNGF-100-25-PPS-A	
		30	554290	ADNGF-100-30-P-A	577228	ADNGF-100-30-PPS-A	
		40	554291	ADNGF-100-40-P-A	577229	ADNGF-100-40-PPS-A	
		50	554292	ADNGF-100-50-P-A	577230	ADNGF-100-50-PPS-A	
		60	554293	ADNGF-100-60-P-A	577231	ADNGF-100-60-PPS-A	
80	554294	ADNGF-100-80-P-A	577232	ADNGF-100-80-PPS-A			

Ordering data – Modular product system

Ordering table													
Size	12	16	20	25	32	40	50	63	80	100	Condi- tions	Code	Enter code
Module no.	537123	537124	537125	537126	537127	537128	537129	537130	537131	537132			
Function	Compact cylinder, double-acting, standard hole pattern											ADNGF	ADNGF
Size [mm]	12	16	20	25	32	40	50	63	80	100		-...	
Stroke [mm]	1 ... 200		3 ... 200		5 ... 300			5 ... 400				-...	
Cushioning	Elastic cushioning rings/pads at both ends											-P	
	-		Pneumatic cushioning, self-adjusting at both ends								[1]	-PPS	
Position sensing	Via proximity switch											-A	-A
Piston rod type	Through piston rod										[2]	-S2	
Temperature resistance	Heat-resistant seals max. 120°C										[3]	-S6	
Captive rating plate	Laser-etched rating plate											-TL	

[1] PPS Not with temperature resistance S6
Minimum stroke 5 mm

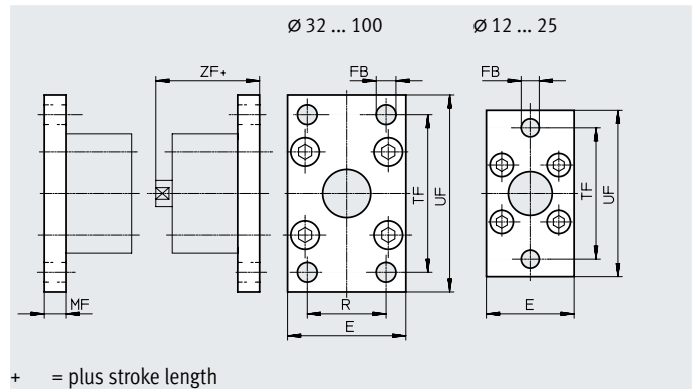
[2] S2 Minimum stroke 5 mm from size 25 onwards
Max. stroke 250 mm

[3] S6 Max. stroke 250 mm

Accessories

Flange mounting FNC

Material:
Galvanised steel
RoHS-compliant



Dimensions and ordering data

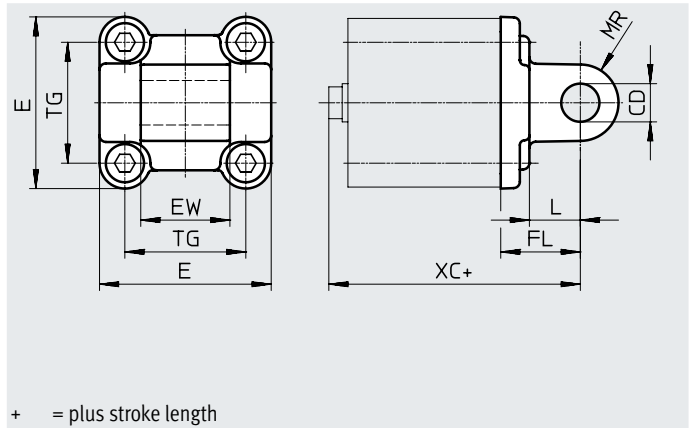
For \varnothing [mm]	E	FB \varnothing	MF	R	TF	UF ± 1	ZF	CRC ¹⁾	Weight [g]	Part no.	Type
12	28	5.5	8	-	40	50	48	1 - low	79	537245	FNC-12
16	29				43			55	1 - low	88	537246
20	36	6.6			55	70	51	1 - low	141	537247	FNC-20
25	40				60	76	53	1 - low	165	537248	FNC-25
32	45	7	10	32	64	80	60	1 - low	221	174376	FNC-32
40	54	9		36	72	90	61	1 - low	291	174377	FNC-40
50	65		12	45	90	110	65	1 - low	536	174378	FNC-50
63	75			50	100	120	69	1 - low	679	174379	FNC-63
80	93	12	16	63	126	150	79	1 - low	1495	174380	FNC-80
100	110	14		75	150	175	92	1 - low	2041	174381	FNC-100

1) More information: www.festo.com/x/topic/kbk

Accessories

Swivel flange
SNCL/SNCL-...-R3

Material:
SNCL 12 ... 25:
Wrought aluminium alloy
SNCL 32 ... 100:
Die-cast aluminium
SNCL-...-R3:
Wrought aluminium alloy with
protective coating
RoHS-compliant



+ = plus stroke length

Dimensions and ordering data

For \varnothing [mm]	CD \varnothing H9	E	EW	FL ± 0.2	L	MR	TG	XC
12	6	25 _{-0.6}	12 _{H12}	16	10	6	16	56
16		27.5 _{-0.6}					18	
20	8	34.5 _{-0.6}	16 _{H12}	20	14	8	22	63
25		38.5 _{-0.6}					26	
32	10	45 _{+0.2/-0.5}	26 _{-0.2/-0.6}	22	13	10	32.5	72
40	12	54 _{-0.5}	28 _{-0.2/-0.6}	25	16	12	38	76
50		64 _{-0.6}					32 _{-0.2/-0.6}	
63	16	75 _{-0.6}	40 _{-0.2/-0.6}	32	21	16	56.5	89
80		93 _{-0.8}					50 _{-0.2/-0.6}	
100	20	110 _{+0.3/-0.8}	60 _{-0.2/-0.6}	41	27	20	89	117

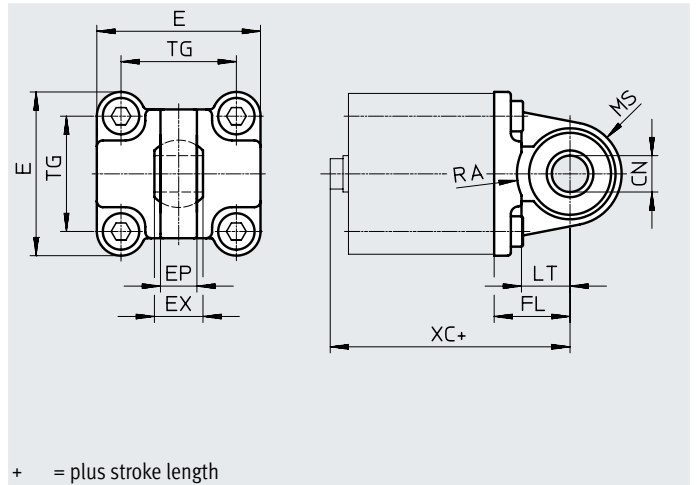
For \varnothing [mm]	Basic version				R3 – High corrosion protection			
	CRC ¹⁾	Weight [g]	Part no.	Type	CRC ¹⁾	Weight [g]	Part no.	Type
12	2 - moderate	20	537790	SNCL-12	3 - high	20	537794	SNCL-12-R3
16	2 - moderate	21	537791	SNCL-16	3 - high	21	537795	SNCL-16-R3
20	2 - moderate	38	537792	SNCL-20	3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

1) More information: www.festo.com/x/topic/kbk

Accessories

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

Material:
SNCS 32 ... 50:
Die-cast aluminium
SNCS 63 ... 100:
Wrought aluminium alloy
CRSNCS 32 ... 80:
High-alloy stainless steel
SNCS-...-R3 100:
Wrought aluminium alloy with
protective coating
RoHS-compliant



Dimensions and ordering data							
For \varnothing	CN \varnothing		E		EP	EX	FL
[mm]	ADNGF-...	ADNGF-...-R3	ADNGF-...	ADNGF-...-R3	± 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

For \varnothing	LT	MS		RA		TG	XC
		ADNGF-...	ADNGF-...-R3	ADNGF-... +1	ADNGF-...-R3 +1		
[mm]							
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

For \varnothing	Basic version				High corrosion protection			
	CRC ¹⁾	Weight [g]	Part no.	Type	CRC ¹⁾	Weight [g]	Part no.	Type
[mm]								
32	1 - low	86	174397	SNCS-32	4 - particularly high	161	2895920	CRSNCS-32
40	1 - low	122	174398	SNCS-40	4 - particularly high	239	2895921	CRSNCS-40
50	1 - low	216	174399	SNCS-50	4 - particularly high	403	2895922	CRSNCS-50
63	2 - moderate	281	174400	SNCS-63	4 - particularly high	576	2895923	CRSNCS-63
80	2 - moderate	557	174401	SNCS-80	4 - particularly high	1173	2895924	CRSNCS-80
100	2 - moderate	683	174402	SNCS-100	3 - high	684	2895925	SNCS-100-R3

1) More information: www.festo.com/x/topic/kbk

Accessories

Clevis foot LBG/LBG-...-R3

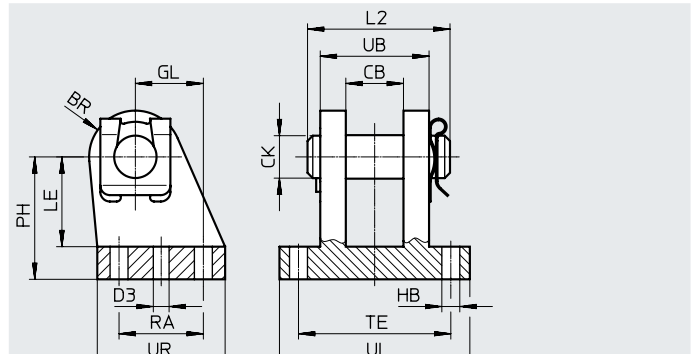
The pivot pin is secured against rotation with a spring pin.

Material:

LBG 32 ... 63: Stainless steel casting

LBG 80 ... 100: Spheroidal graphite cast iron

LBG-...-R3: High-alloy stainless steel
RoHS-compliant



Dimensions and ordering data

For \varnothing [mm]	CL	CM	EK \varnothing	FL	GL	HB \varnothing	L2	LE	MR	RF	RG	S1 \varnothing	UK	UX
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	9.2	50	38	17	56	31	7.8	70	49
80	50	25.1	20	63	30	11	60	49	17	70	36	7.8	89	55
100	50	25.1	20	71	41	11	60	56	20	70	46	9.8	89	65

For \varnothing [mm]	Basic version				R3 – High corrosion protection			
	CRC ¹⁾	Weight [g]	Part no.	Type	CRC ¹⁾	Weight [g]	Part no.	Type
32	2 - moderate	220	31761	LBG-32	3 - high	220	2078790	LBG-32-R3
40	2 - moderate	300	31762	LBG-40	3 - high	300	2078792	LBG-40-R3
50	2 - moderate	540	31763	LBG-50	3 - high	540	2078794	LBG-50-R3
63	2 - moderate	580	31764	LBG-63	3 - high	580	2078795	LBG-63-R3
80	1 - low	1050	31765	LBG-80	3 - high	1050	2078797	LBG-80-R3
100	1 - low	1375	31766	LBG-100	3 - high	1375	2078799	LBG-100-R3

1) More information: www.festo.com/x/topic/kbk

Accessories

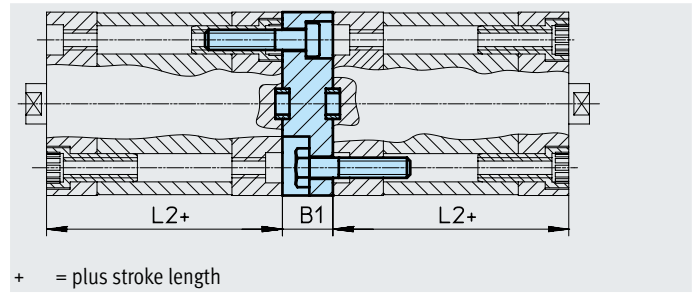
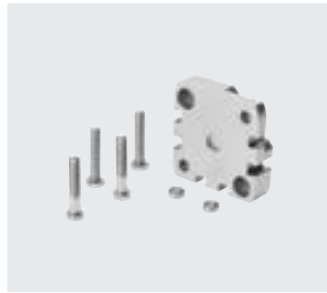
Multi-position kit DPNA

Material:

Flange: Wrought aluminium alloy


Screws: Galvanised steel

RoHS-compliant



Dimensions and ordering data							
For \varnothing [mm]	L2	B1	Max. overall stroke length [mm]	CRC ¹⁾	Weight [g]	Part no.	Type
12	35	13	600	2 - moderate	28	537263	DPNA-12
16	35				33	537264	DPNA-16
20	37				50	537265	DPNA-20
25	39				60	537266	DPNA-25
32	44	15	800		99	537267	DPNA-32
40	45				129	537268	DPNA-40
50	45				196	537269	DPNA-50
63	49				249	537270	DPNA-63
80	54				474	537271	DPNA-80
100	67				712	537272	DPNA-100
		17	1000				
		19.5					

1) More information: www.festo.com/x/topic/kbk

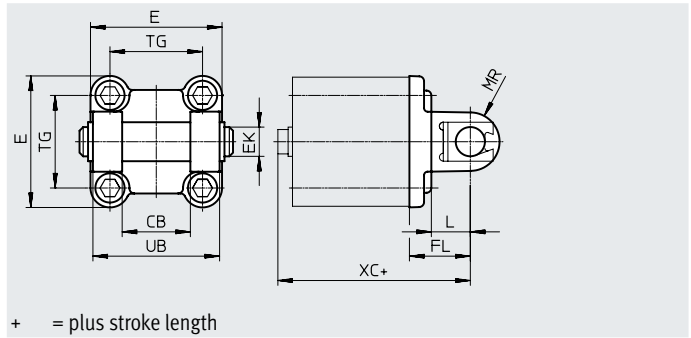
 **Note**

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

Accessories

Swivel flange
SNCB/SNCB-...-R3

Material:
SNCB: Die-cast aluminium
SNCB-...-R3: Die-cast aluminium with
protective coating
RoHS-compliant



Dimensions and ordering data

For \varnothing	CB	E	EK \varnothing	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

For \varnothing	Basic version				R3 – High corrosion protection			
	CRC ¹⁾	Weight [g]	Part no.	Type	CRC ¹⁾	Weight [g]	Part no.	Type
32	1 - low	103	174390	SNCB-32	3 - high	100	176944	SNCB-32-R3
40	1 - low	155	174391	SNCB-40	3 - high	151	176945	SNCB-40-R3
50	1 - low	233	174392	SNCB-50	3 - high	228	176946	SNCB-50-R3
63	1 - low	375	174393	SNCB-63	3 - high	371	176947	SNCB-63-R3
80	1 - low	636	174394	SNCB-80	3 - high	632	176948	SNCB-80-R3
100	1 - low	1035	174395	SNCB-100	3 - high	986	176949	SNCB-100-R3

1) More information: www.festo.com/x/topic/kbk

Accessories

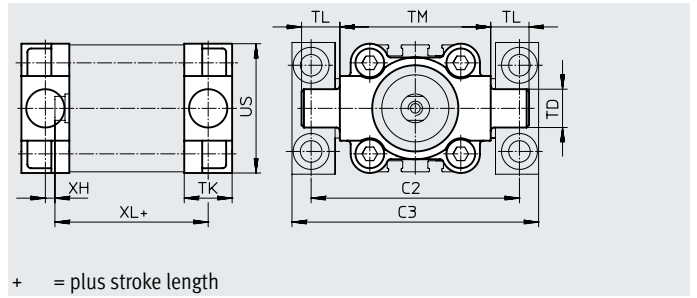
Trunnion flange ZNCF/CRZNG

Material:

ZNCF: Stainless steel casting

CRZNG: Electropolished stainless steel casting

RoHS-compliant



Dimensions and ordering data									
For \varnothing	C2	C3	TD \varnothing e9	TK	TL	TM	US	XH	XL
[mm]									
32	71	86	12	16	12	50	45	2	52
40	87	105	16	20	16	63	54	4	55
50	99	117	16	24	16	75	64	4	57
63	116	136	20	24	20	90	75	4	61
80	136	156	20	28	20	110	93	5	81
100	164	189	25	38	25	132	110	10	86

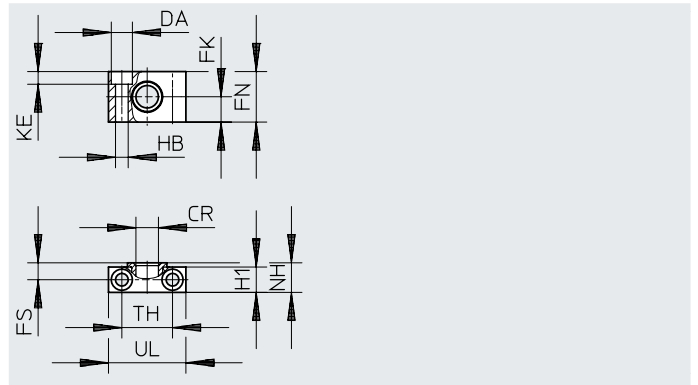
For \varnothing	Basic version				R3 – High corrosion protection			
	CRC ¹⁾	Weight [g]	Part no.	Type	CRC ¹⁾	Weight [g]	Part no.	Type
[mm]								
32	2 - moderate	150	174411	ZNCF-32	4 - particularly high	150	161852	CRZNG-32
40	2 - moderate	285	174412	ZNCF-40	4 - particularly high	285	161853	CRZNG-40
50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

1) More information: www.festo.com/x/topic/kbk

Accessories

Trunnion support LNZZ

Material:
 Trunnion support: Anodised aluminium
 Plain bearing: Polymer
 RoHS-compliant





Dimensions and ordering data








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

1) More information: www.festo.com/x/topic/kbk




Accessories

Ordering data – One-way flow control valves				Data sheets → Internet: grl			
	Connection		Material	Part no.	Type		
	For ø	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		
	For supply air						
		12, 16, 20, 25		3	Metal design	193153	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			

Accessories

Ordering data – Proximity switch for T-slot, magneto-resistive						Data sheets → Internet: smt	
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part no.	Type	
N/O contact							
	Inserted in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-wire	2.5	574335	SMT-8M-A-PS-24V-E-2.5-OE	
			Plug M8x1, 3-pin	0.3	574334	SMT-8M-A-PS-24V-E-0.3-M8D	
			Plug M12x1, 3-pin	0.3	574337	SMT-8M-A-PS-24V-E-0.3-M12	
		NPN	Cable, 3-wire	2.5	574338	SMT-8M-A-NS-24V-E-2.5-OE	
Plug M8x1, 3-pin	0.3		574339	SMT-8M-A-NS-24V-E-0.3-M8D			
N/C contact							
	Inserted in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-wire	7.5	574340	SMT-8M-A-PO-24V-E-7.5-OE	
Ordering data – Proximity switch for T-slot, magnetic reed						Data sheets → Internet: sme	
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part no.	Type	
N/O contact							
	Inserted in the slot from above, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	543862	SME-8M-DS-24V-K-2.5-OE	
				5.0	543863	SME-8M-DS-24V-K-5.0-OE	
			Plug M8x1, 3-pin	Cable, 2-wire	2.5	543872	SME-8M-ZS-24V-K-2.5-OE
				0.3	543861	SME-8M-DS-24V-K-0.3-M8D	
	Inserted in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	150855	SME-8-K-LED-24	
			Plug M8x1, 3-pin	0.3	150857	SME-8-S-LED-24	
N/C contact							
	Inserted in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	7.5	160251	SME-8-O-K-LED-24	
Ordering data – Connecting cables						Data sheets → Internet: nebu	
	Electrical connection, left	Electrical connection, right	Cable length [m]	Part no.	Type		
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541333	NEBU-M8G3-K-2.5-LE3		
			5	541334	NEBU-M8G3-K-5-LE3		
	Straight socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541363	NEBU-M12G5-K-2.5-LE3		
			5	541364	NEBU-M12G5-K-5-LE3		
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541338	NEBU-M8W3-K-2.5-LE3		
			5	541341	NEBU-M8W3-K-5-LE3		
	Angled socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541367	NEBU-M12W5-K-2.5-LE3		
			5	541370	NEBU-M12W5-K-5-LE3		

Accessories

Ordering data – Proximity switch in block design, pneumatic			Data sheets → Internet: smpo	
	Pneumatic connection		Part no.	Type
3/2-way valve, normally closed				
	M5 female thread		178563	SMPO-8E
Ordering data – Mounting kit for proximity switch SMPO-8E			Data sheets → Internet: smb	
	Mounting		Part no.	Type
	Clamped in T-slot		178230	SMB-8E
Ordering data – Slot cover for T-slot				
	Mounting	Length	Part no.	Type
	Insertable	2x 0.5 m	151680	ABP-5-S