DPSCGF Compact Cylinder, Standard Hole Pattern

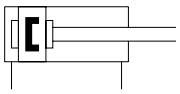
Overview

This series is to ISO 21287, with diameter ranging from ϕ12 to ϕ100, featuring its low friction, good cushioning, long service life and easiness to mount.

Feature

· Larger loads and higher speed
· Larger cushioning capacity
· No adjustment required
·A wide range of fixed or non-fixed brackets are available for customers to select.

Graphical symbol



Elastic cushioning（p）

How to order

DPSCGF	-32	×50	-P	-A	--F
Compact cylinder	①	②	③	④	⑤
①	- Piston diameter :12 16 20 25 32 40 50 63 80 100				
②	× Stroke length :1...400				
③	- Cushioning： P=Elastic cushioning rings/ plates at both ends				
④	- Position sensing: A=with magnetic ring, blank=without magnetic ring				
⑤	- Variants				

Piston rod type		Temperature range		Piston rod thread type	
At one end	-	Standard	-	Female thread	F
Through piston rod	2	-40-80°C	T	-	-
		Heat-resis-tant seals, max120 °C	R	-	-

Datasheet

General technical data											
Diameter ϕmm		12	16	20	25	32	40	50	63	80	100
Operating mode		Double acting									
Cushioning	P	Elastic cushioning rings/plates at both ends									
Pneumatic connection		M5				G1/8					
Position sensing		Via proximity switch									
Type of mounting		Via through-hole / With female thread /With accessories[1)]									
Mounting position		Any									
Female piston rod thread		M3	M4	M6		M8		M10		M12	

1):Accessory mounting dimensions are consistent with DPSC.

Operating and environmental conditions										
Operating medium	Compressed air (filtered through 40um or more)									
Operating pressure [MPa]	0.1~1		0.06~1							
Ambient and fluid temperature[1)] ℃	-20～80									
Corrosion resistance class [2)]	2									
Force [N]and impact energy [J]										
Theoretical force at 6 bar advancing	68	121	188	295	483	754	1178	1870	3016	4712
Theoretical force at 6 bar retracting	51	90	141	247	415	686	1057	1750	2827	4524
Max. impact energy in the end positions	0.07	0.15	0.2	0.3	0.4	0.7	1	1.3	1.8	2.5
For adjustable cushioning (PPS)	-	-	0.65	0.8	1	1.7	2.8	4.8	8	12

1)Note operating range of proximity switches

2)Corrosion resistance class:

[1]Slight protection for components subject to low corrosion stress, such as transport and storage protection, and parts without primarily decorative surface requirements such as in non-visible internal areas or behind coverings.

[2]Medium protection for components subject to moderate corrosion stress such as externally visible parts with primarily decorative surface requirements and direct contact with a normal industrial environment or media such as coolants or lubricating agents.

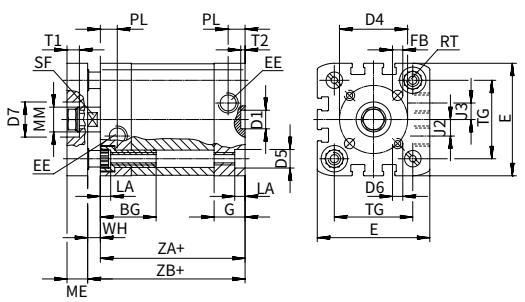
[3]Strong protection for components subject to high corrosion stress such as external, visible parts in direct contact with a normal industrial environment or media such as solvents and cleaning agents, and primarily functional surface requirements.

Data sheet

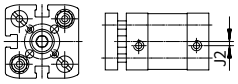
Dimensions -Basic version

ϕ12...63

ϕ32...63

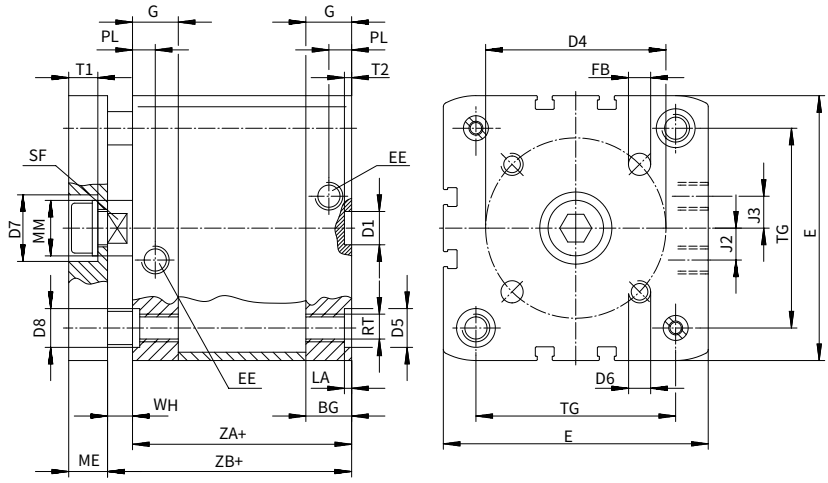


ϕ12...25 ϕ12



\+ =plus stroke length

ϕ80...100



\+ =plus stroke length

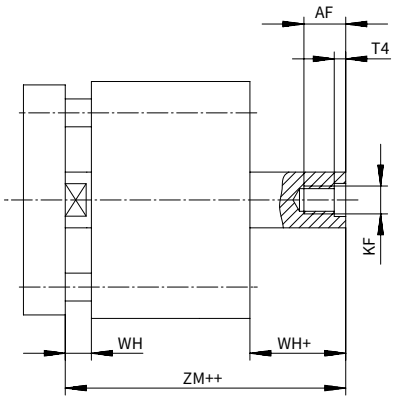
ϕ[mm]	BG min.	D1ϕ H9	D4±0.1	D5ϕ	D6	D7ϕH9	D8	E	EE	FBϕH8	G	J2	J3
12	17	9	12	6^{F9}	M3	-	-	$27.5^{+0.3}$	M5	3	10.5	2	-
16			14					$29^{+0.3}$			11	2.6	
20	19.5		17	9^{F9}	M4			$35.5^{+0.3}$		4	12		
25			22		M5	14		$39.5^{+0.3}$		5			
32	26		28			17		$47^{+0.3}$	G1/8		15	6	
40			33					$54.5^{+0.3}$				8	
50	27	12	42	12^{F9}	M6	22		$65.5^{+0.3}$		6			
63			50					$75.5^{+0.3}$				11.5	
80	17		65	15	M8	24	15	$95.5^{+0.3}$		8	16.5		
100	21.5		80		M10			$113.5^{+0.3}$		10	21.5	20	

Data sheet

ϕ[mm]	LA+0.2	ME	MMϕHB	PL+0.2	RT	ST H13	T1	T2+0.1	TG±0.2	WH		ZA±0.6	ZB	
										+1.3	PPS+1.4		+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		M5	9	5		22	5.5	5.5	37	42.5	42.5
25									26		5.5	39	44.5	45.3
32		10	12	8.2	M6	10	6		32.5	6	6.5	44	50	50.6
40									38	6.1	6.6	45	51.1	51.7
50		12	16		M8	13	7.5	2.6	46.5	7.7	8.8		52.7	53.2
63									56.5	7.5	8	49	56.5	57
80	2.6	14	20		M10	17	10.5		72	8.9	9.4	54	62.9	63.4
100				10.5					89	9	9.8	67	76	76.8

Dimensions -- Variants

S2-Through piston rod



\+ =plus stroke length

++ =plus 2x stroke length

ϕ[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		M12	6.1	8.9	9.4	$73.2^{+0.6}$	$74.3^{+0.7}$
100				9	9.8	$86.4^{+0.6}$	$88^{+0.7}$