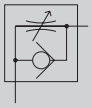
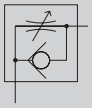
Speed controller with adjusting dial

DSC Series

● Port size: M5, R1/8 to R1/2

JIS symbol  (meter-out)  (meter-in)

RoHS CAD

Structure and material restriction

	Structure/treatment	Material restriction			Model No.
P7 Series	Dust generation preventing				– P70
	Dust generation preventing	Copper-based materials prohibited	Silicon-based materials prohibited	Halogen-based materials prohibited (fluorine, chlorine, bromine)	– P74

Specifications

● Compact

Descriptions			DSC-C-M5		DSC-C-6		
Applicable tube O.D.		mm	ø4	ø6	ø4	ø6	ø8
Port size			M5		R1/8		
Working fluid			Compressed air				
Max. working pressure		MPa	1.0				
Min. working pressure		MPa	0.05				
Proof pressure		MPa	1.5				
Fluid temperature		°C	5 to 60 (no freezing *2)				
Ambient temperature		°C	0 to 60 (no freezing)				
Needle control range			1 to 7 rotation				
Weight		g	11.5	12	22	23	24
Free flow	Flow rate	L/min (ANR)	100		210	270	
	Effective cross-sectional area	mm^2	1.5		3.2	4	
Control flow (standard flow rate)	Flow rate	L/min (ANR)	60		160	200	
	Effective cross-sectional area	mm^2	0.9		2.4	3	
Control flow (low flow rate)	Flow rate	L/min (ANR)	20		60		
	Effective cross-sectional area	mm^2	0.3		0.9		
Control flow (Ultra-low flow)	Flow rate	L/min (ANR)	6.7		13		–
	Effective cross-sectional area	mm^2	0.1		0.2		–

● Standard

Descriptions			DSC-6			DSC-8			DSC-10				DSC-15	
Applicable tube O.D.		mm	ø4	ø6	ø8	ø6	ø8	ø10	ø6	ø8	ø10	ø12	ø10	ø12
Port size			R1/8			R1/4			R3/8				R1/2	
Working fluid			Compressed air											
Max. working pressure		MPa	1.0											
Min. working pressure		MPa	0.05											
Proof pressure		MPa	1.5											
Fluid temperature		°C	5 to 60 (no freezing *2)											
Ambient temperature		°C	0 to 60 (no freezing)											
Needle control range			1 to 10 rotation											
Weight		g	33	34	35	45	46	48	60	61	64	65	95	97
Free flow	Flow rate	L/min (ANR)	210	270		470	530		670	1000	1070		1470	1600
	Effective cross-sectional area	mm^2	3.2	4		7	8		10	15	16		22	24
Control flow (standard flow rate)	Flow rate	L/min (ANR)	160	200		320	400		400	700	800		1120	1200
	Effective cross-sectional area	mm^2	2.4	3		5	6		6	10.5	12		17	17.5
Control flow (low flow rate)	Flow rate	L/min (ANR)	60			130			270				400	
	Effective cross-sectional area	mm^2	0.9			2			4				6	

*1: The flow is expressed by the atmospheric pressure conversion value at 0.5 MPa.
*2: Freezing could occur by adiabatic expansion depending on the air quality (dew point).

How to order

DSC -C - 6 - 6 - I L - P70

- A Product size
- B Port size
- C Applicable tube O.D.
- D Control method
- E Flow type
- F Clean room specifications

Code	Content
A Product size	
Blank	Standard
-C	Compact
B Port size	
M5	M5
6	R1/8
8	R1/4
10	R3/8
15	R1/2
C Applicable tube outer diameter	
4	ø4
6	ø6
8	ø8
10	ø10
12	ø12
D Control method	
Blank	Meter-out
I	Meter-in (Push ring color: Black)
E Flow type	
Blank	Standard flow rate
L	Low flow rate
F	Ultra-low flow (compact only)

F Clean room specifications

	Structure/treatment	Material restriction
P70	Dust generation preventing	–
P74	Dust generation preventing	Copper-based/silicon-based/ halogen-based materials (fluorine, chlorine, bromine) are prohibited

*No sealant is applied.

Combinations of Port size, Applicable tube O.D. and Flow type

Product size	Compact		Standard			
Port size	**M5**	**R1/8**	**R1/8**	**R1/4**	**R3/8**	**R1/2**
ø4	◎	◎	○			
ø6	◎	◎	○	○	○	
ø8		○	○	○	○	
ø10				○	○	○
ø12					○	○

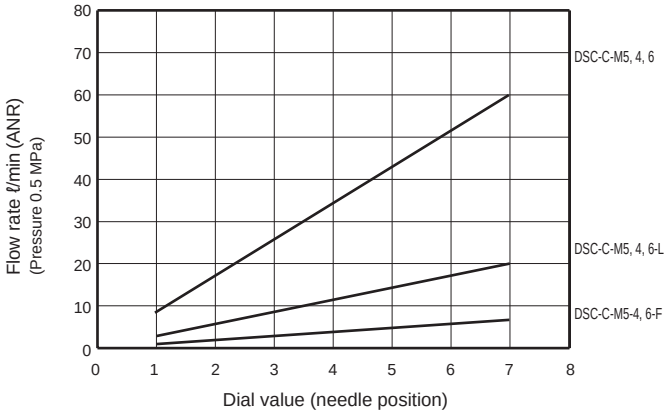
○: Flow type "F (ultra-low flow)" selection not allowed
◎: Flow type "F (ultra-low flow)" selection allowed

Flow characteristics

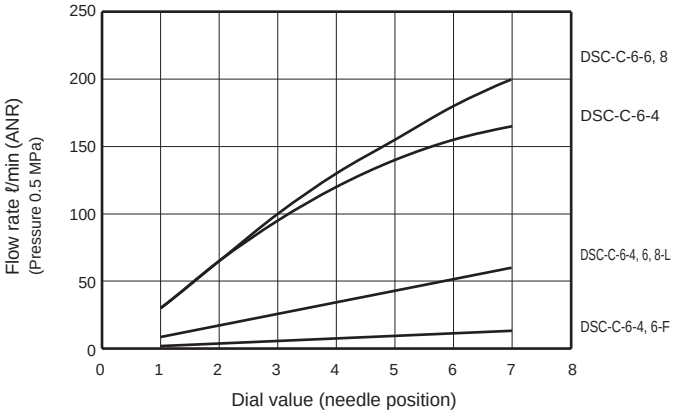
*The flow rate characteristics graph indicates reference values and does not guarantee the values.

● Compact

● DSC-C-M5-*-P7*

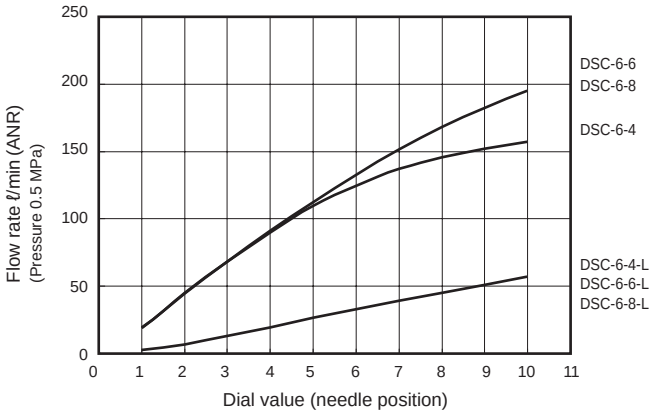


● DSC-C-6-*-P7*

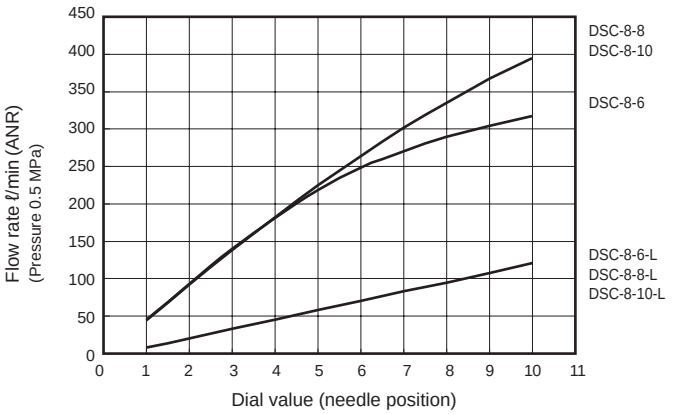


● Standard

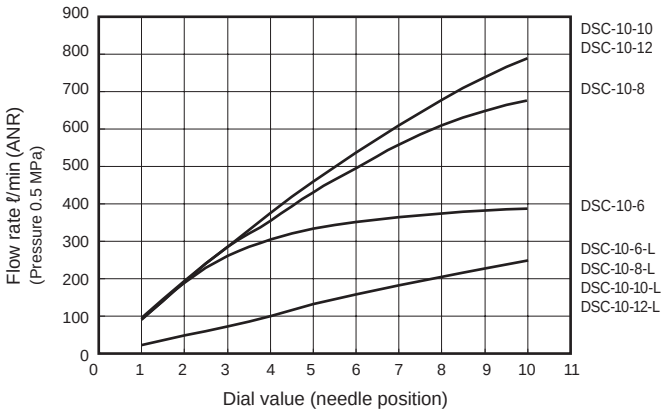
● DSC-6-*-P7*



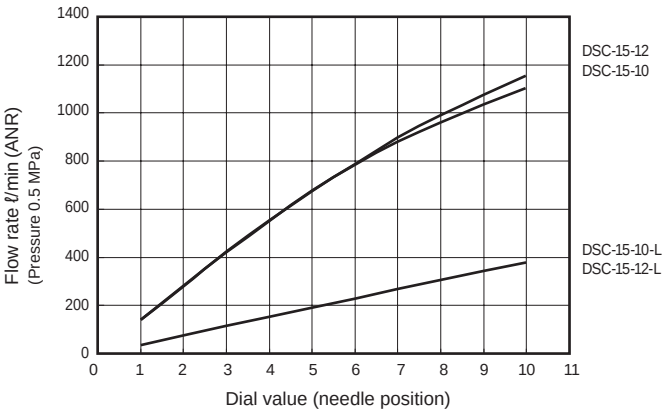
● DSC-8-*-P7*



● DSC-10-*-P7*



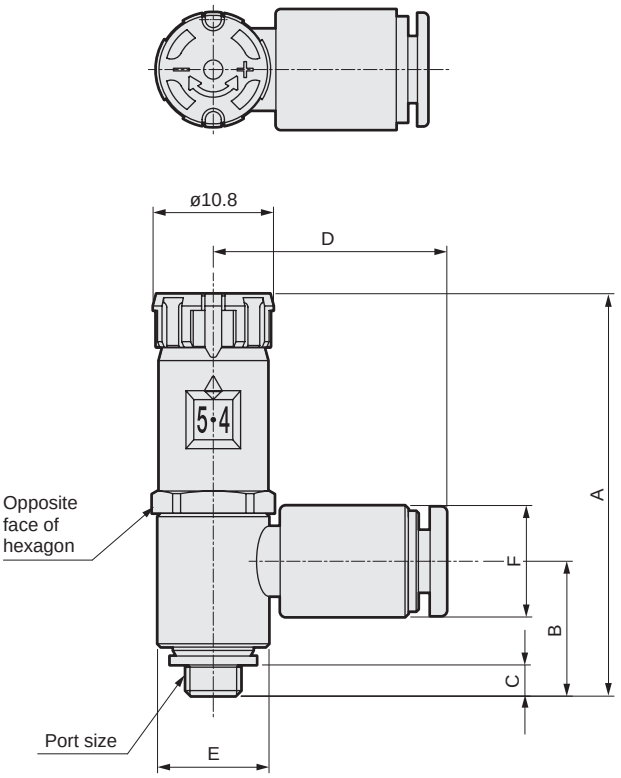
● DSC-15-*-P7*



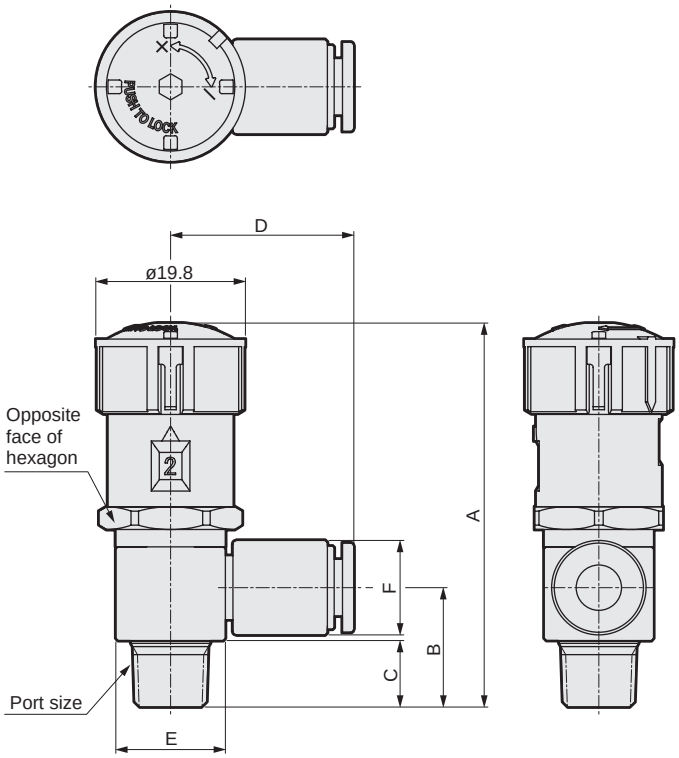
Note: The flow characteristics may differ depending on the piping conditions around the unit and the temperature change.

Dimensions

● Compact



● Standard



Model No.	Product size	Port size	Applicable tube O.D.	A		B	C	D	E	F	Opposite face of hexagon
				Locked	During adjustment						
DSC-C-M5-4-P7*	Compact	M5 × 0.8	ø4	36	37.5	11.9	3	21	10	10	10
DSC-C-M5-6-P7*			ø6			11.7		22.5		12.5	
DSC-C-6-4-P7*		R1/8	ø4	41.9	43.4	16.2	8.7	23.5	14.5	10	13
DSC-C-6-6-P7*			ø6			15.7		24.5		12.5	
DSC-C-6-8-P7*			ø8			15.4		26		14.5	
DSC-6-4-P7*	Standard	R1/8	ø4	51	54	16.2	8.7	23.5	14.5	10	17
DSC-6-6-P7*			ø6			15.7		24.5		12.5	
DSC-6-8-P7*			ø8			15.4		26		14.5	
DSC-8-6-P7*		R1/4	ø6	55.5	58.5	20	11.7	26	18	12.5	17
DSC-8-8-P7*			ø8			19		27.5		14.5	
DSC-8-10-P7*			ø10			19		30.5		17.5	
DSC-10-6-P7*		R3/8	ø6	58	61	23.1	12.7	28.5	22.5	12.5	19
DSC-10-8-P7*			ø8			21.3		30		14.5	
DSC-10-10-P7*			ø10			21.8		32		17.5	
DSC-10-12-P7*			ø12			21.7		33.5		20	
DSC-15-10-P7*		R1/2	ø10	63	66	25.2	15.7	34.5	27.5	17.5	24
DSC-15-12-P7*			ø12			25.7		36		20	