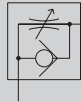


Speed controller with adjusting dial

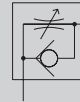
DSC Series

● Port size: M5, R1/8 to R1/2

JIS symbol



(Meter-out)



(Meter-in)



Specifications

● Compact

Item	DSC-C-M5				DSC-C-6		
	mm	ø3.2	ø4	ø6	ø4	ø6	ø8
Compatible tube O.D.	mm	ø3.2	ø4	ø6	ø4	ø6	ø8
Port size		M5			R1/8		
Working fluid		Compressed air					
Max. working pressure	MPa	1.0 (≈150 psi, 10 bar)					
Min. working pressure	MPa	0.05 (≈7.3 psi, 0.5 bar)					
Proof pressure	MPa	1.5 (≈220 psi, 15 bar)					
Fluid temperature	°C	5 (41°F) to 60 (140°F) (no freezing. *2)					
Ambient temperature	°C	0 (32°F) to 60 (140°F) (no freezing)					
Needle control range		1 to 7 rotations					
Weight	g	10.5	11.5	12	22	23	24
Free flow	Flow rate ℓ/min(ANR)	87	100		210	270	
	Eff. X-sectional area mm ²	1.3	1.5		3.2	4	
Controlled flow (Standard flow rate)	Flow rate ℓ/min(ANR)	60			160	200	
	Eff. X-sectional area mm ²	0.9			2.4	3	
Controlled flow (Low flow rate)	Flow rate ℓ/min(ANR)	20			60		
	Eff. X-sectional area mm ²	0.3			0.9		
Controlled flow (fine flow rate)	Flow rate ℓ/min(ANR)	-	6.7		13	-	
	Eff. X-sectional area mm ²	-	0.1		0.2	-	

● Standard

Item	DSC-6			DSC-8			DSC-10				DSC-15		
	mm	ø4	ø6	ø8	ø6	ø8	ø10	ø6	ø8	ø10	ø12	ø10	ø12
Compatible 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 (≈150 psi, 10 bar)											
Min. working pressure	MPa	0.05 (≈7.3 psi, 0.5 bar)											
Proof pressure	MPa	1.5 (≈220 psi, 15 bar)											
Fluid temperature	°C	5 (41°F) to 60 (140°F) (no freezing. *2)											
Ambient temperature	°C	0 (32°F) to 60 (140°F) (no freezing)											
Needle control range		1 to 10 rotations											
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
	Eff. X-sectional area mm ²	3.2	4		7	8		10	15	16		22	24
Controlled flow (Standard flow rate)	Flow rate ℓ/min(ANR)	160	200		320	400		400	700	800		1120	1200
	Eff. X-sectional area mm ²	2.4	3		5	6		6	10.5	12		17	17.5
Controlled flow (Low flow rate)	Flow rate ℓ/min(ANR)	60			130			270				400	
	Eff. X-sectional area mm ²	0.9			2			4				6	

*1: Flow rate is the atmospheric pressure conversion value at pressure 0.5 MPa.

*2: Freezing may occur due to adiabatic expansion depending on the air quality (dew point).

Specifications for rechargeable battery

● Structure suitable for use in general assembly during the rechargeable battery manufacturing process.

DSC - - **P4**

Clean-room specifications

● Anti-dust generation structure for use in clean rooms.

DSC - - **P70**

How to order



A Product size

B Port size

C Compatible tube O.D.

D Control method

E Flow rate

Code	Description
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 Compatible tube O.D.	
3	ø3.2
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 rate	
Blank	Standard flow rate
L	Low flow rate
F	Fine flow rate (compact only)

Port size - Compatible tube O.D. - flow rate combination

A Product size	Compact		Standard			
	B Port size M5	R1/8	R1/8	R1/4	R3/8	R1/2
ø3.2	○					
ø4	◎	◎	○			
ø6	◎	◎	○	○	○	
ø8		○	○	○	○	
ø10				○	○	○
ø12					○	○

○: Flow rate "F" (fine flow rate) cannot be selected

◎: Flow rate "F" (fine flow rate) can be selected

F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain Separ
Mech Press SW
Res press exh valve
SlowStart
Anti-bac/Bac-remove Filtr
Film Resist FR
Oil-ProhR
Med Press FR
No Cu/ PTFE FRL
Outdrs FRL
Adapter Joiner Press Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PrecsCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
WaterRSens
TotAirSys (Total Air)
TotAirSys (Gamma)
Gas generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

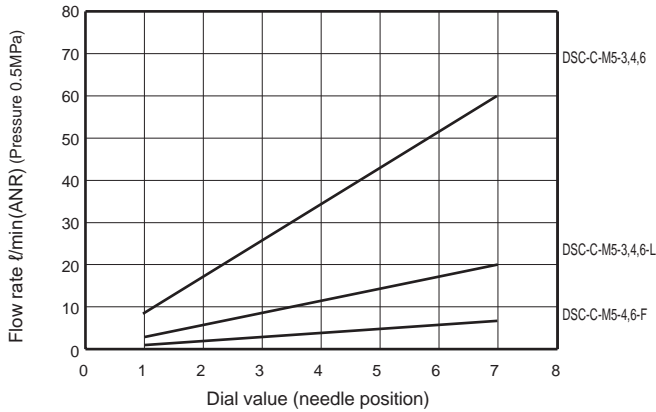
F.R.L. Flow characteristics

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

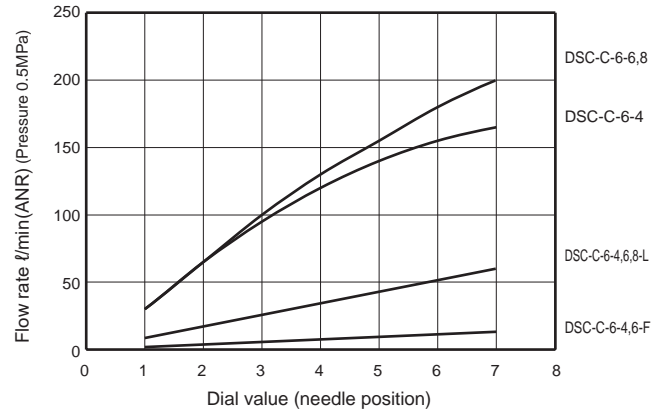
- F.R.
- F (Filtr)
- R (Reg)
- L (Lub)
- Drain Separ
- Mech Press SW
- Res press exh valve
- SlowStart
- Anti-bac/Bac-remove Filtr
- Film Resist FR
- Oil-Prohr
- Med Press FR
- No Cu/PTFE FRL
- Outdrs FRL
- Adapter Joiner Press Gauge
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneur
- AirBoost
- Speed Ctrl**
- Silncr**
- CheckV/other
- Fit/Tube
- Nozzle
- Air Unit
- PrecsCompn
- Electro Press SW
- ContactSW
- AirSens
- PresSW Cool
- Air Flo Sens/Ctrl
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- Gas generator
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

● Compact

● DSC-C-M5-*

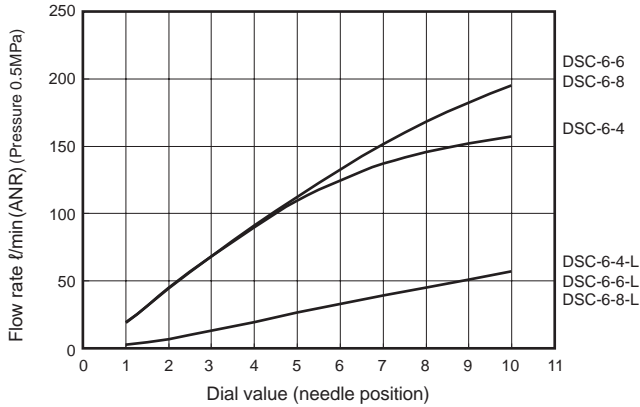


● DSC-C-6-*

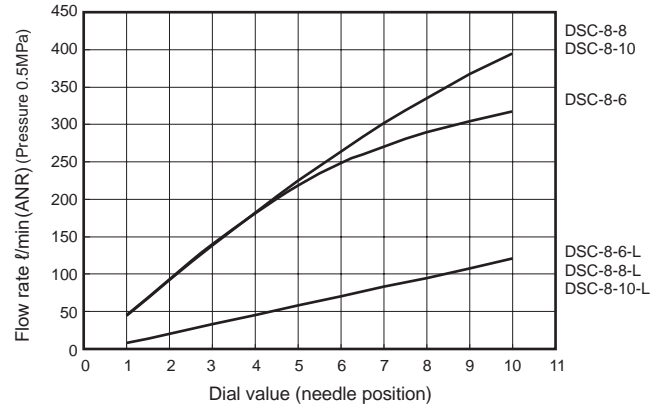


● Standard

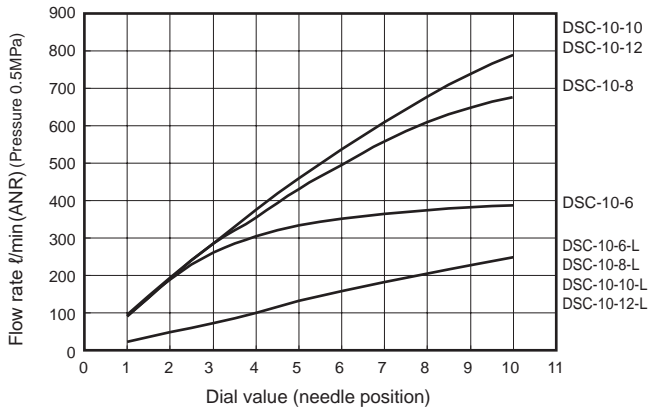
● DSC-6-*



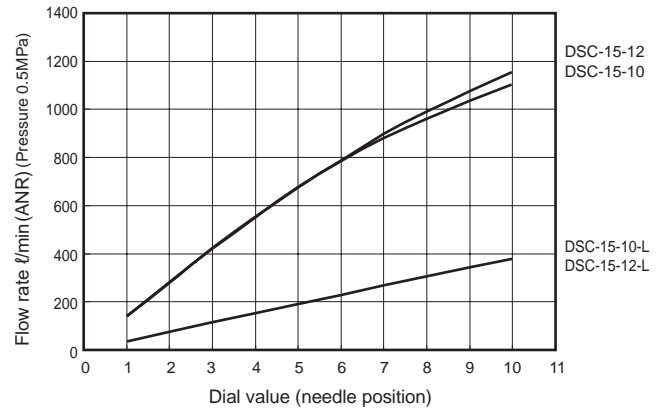
● DSC-8-*



● DSC-10-*



● DSC-15-*

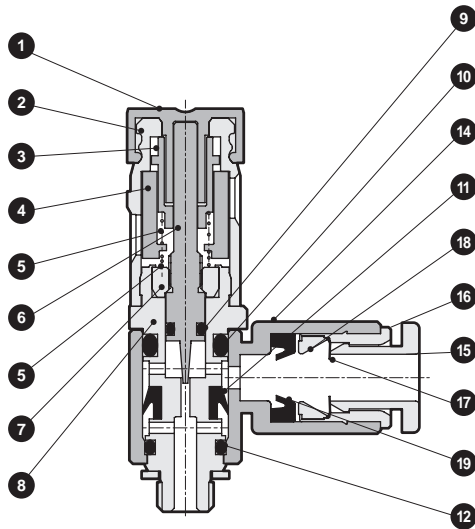


Note: The flow characteristics may differ depending on the piping conditions around the unit and the temperature change.

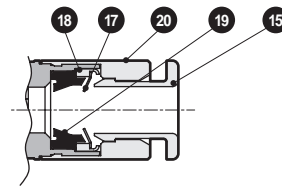
Internal structure and parts list

● Compact

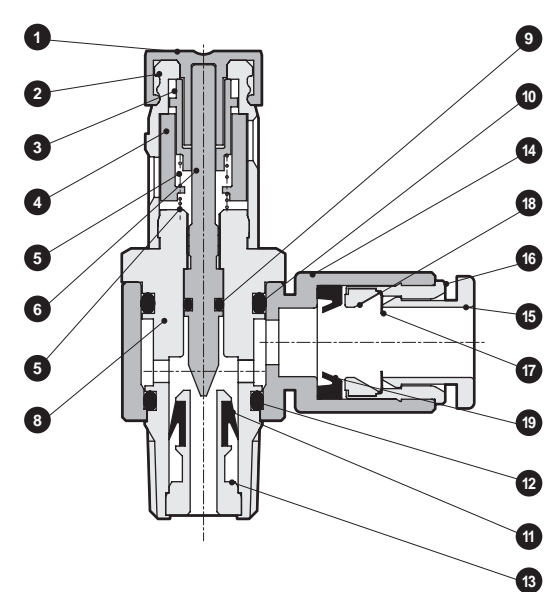
● DSC-C-M5-4,6



● DSC-C-M5-3



● DSC-C-6*

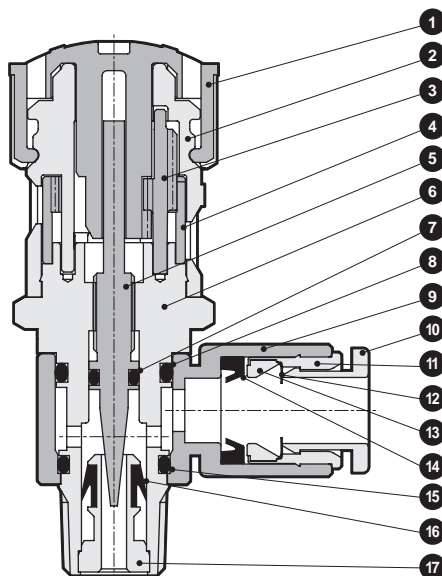


Part No.	Part name	Material	Part No.	Part name	Material
1	Knob	Polyacetal	11	Packing	Hydrogenated nitrile rubber
2	Gear cover	Polybutylene terephthalate	12	O-ring	Nitrile rubber
3	Slide gear	Polybutylene terephthalate	13	Check part	Brass
4	Indication ring	Polybutylene terephthalate	14	Rotor	Polybutylene terephthalate
5	Spring	Stainless steel	15	Push ring	Polybutylene terephthalate
6	Needle	Stainless steel	16	Outer ring	Brass
7	Gland nut	Brass	17	Chuck	Stainless steel
8	Rotary shaft	Brass	18	Chuck holder	Polyethersulfone (brass) *1
9	O-ring	Nitrile rubber	19	Packing	Nitrile rubber
10	O-ring	Nitrile rubber	20	Fitting body	Copper alloy

*1: Values shown in () are when DSC-C-M5-3 is selected

*2: All the brass parts have electroless nickel plating.

● Standard



Part No.	Part name	Material
1	Knob	Polyacetal
2	Gear cover	Polybutylene terephthalate
3	Gear	Stainless steel
4	Indication ring	Polyacetal
5	Needle	Stainless steel
6	Rotary shaft	Brass
7	O-ring	Nitrile rubber
8	O-ring	Nitrile rubber
9	Rotor	Polybutylene terephthalate
10	Push ring	Polybutylene terephthalate
11	Outer ring	Brass
12	Chuck	Stainless steel
13	Chuck holder	polyether sulfone
14	Packing	Nitrile rubber
15	O-ring	Nitrile rubber
16	Packing	Hydrogenated nitrile rubber
17	Check part	Brass

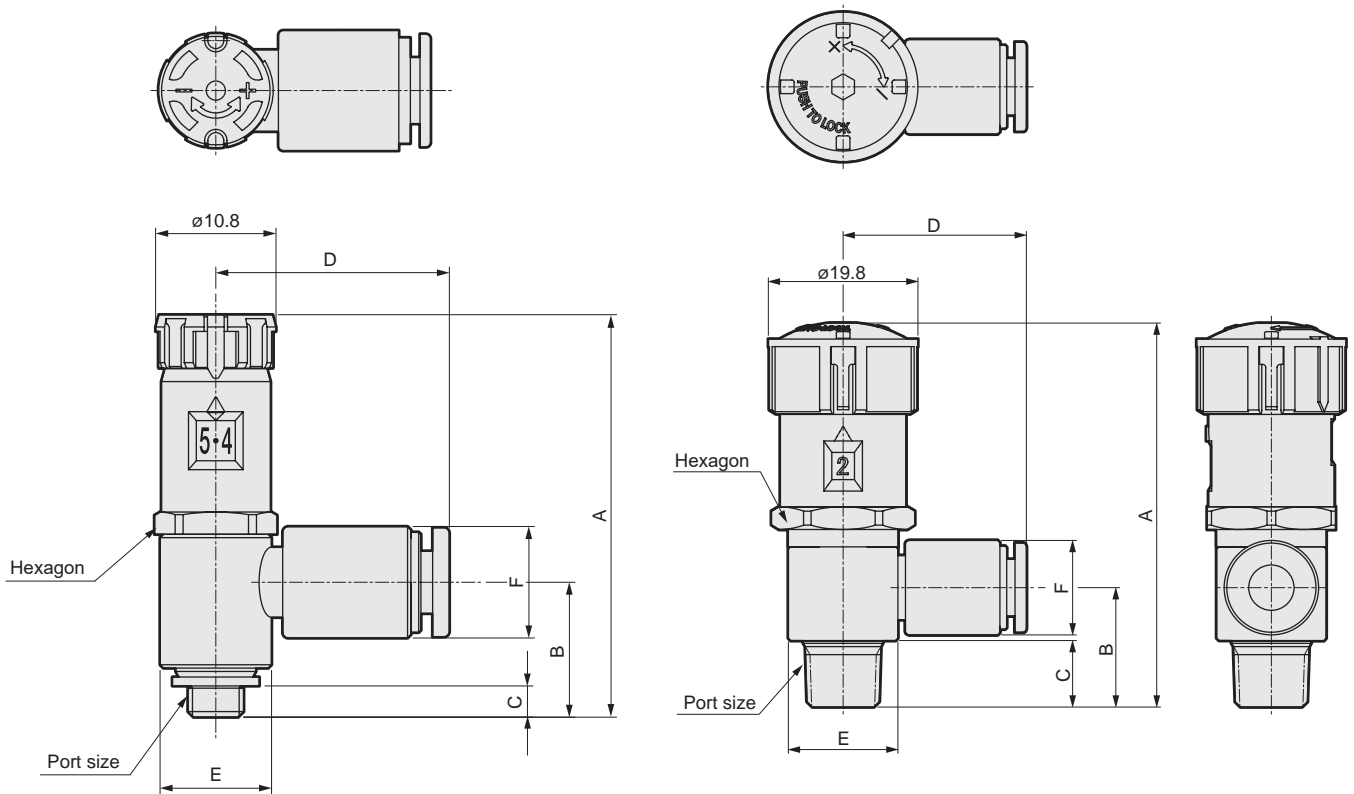
*1: All the brass parts have electroless nickel plating.

F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain
Separ
Mech
Press SW
Res press
exh valve
SlowStart
Anti-bac/Bac-
remove Filtr
Film
Resist FR
Oil-ProhR
Med
Press FR
No Cu/
PTFE FRL
Outdrs FRL
Adapter
Joiner
Press
Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/
other
Fit/Tube
Nozzle
Air Unit
PresCompn
Electro
Press SW
ContactSW
AirSens
PresSW
Cool
Air Flo
Sens/Ctrl
WaterRISens
TotAirSys
(Total Air)
TotAirSys
(Gamma)
Gas
generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg
etc
Ending

F.R.L. Dimensions

F.R. ● Compact ● Standard

- F (Filtr)
- R (Reg)
- L (Lub)
- Drain Separ
- Mech Press SW
- Res press exh valve
- SlowStart
- Anti-bac/Bac-remove Filtr
- Film Resist FR
- Oil-ProhR
- Med Press FR
- No Cu/PTFE FRL
- Outdrs FRL
- Adapter Joiner Press Gauge
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneUR
- AirBoost
- Speed Ctrl
- Silncr
- CheckV/other
- Fit/Tube
- Nozzle
- Air Unit
- PrecsCompn
- Electro Press SW
- ContactSW
- AirSens
- PresSW Cool
- Air Flo Sens/Ctrl
- WaterRiSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- Gas generator
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending



Model No.	Product size	Port size	Compatible tube O.D.	A		B	C	D	E	F	Hexagon					
				When locked	At adjustment											
DSC-C-M5-3	Compact Type	M5x0.8	ø3.2	36	37.5	11.9	3	16.5	10	7.5	10					
DSC-C-M5-4			ø4			11.9		21		10						
DSC-C-M5-6			ø6			11.7		22.5		12.5						
DSC-C-6-4		R1/8	ø4	41.9	43.4	16.2	8.7	23.5	14.5	10	13					
DSC-C-6-6			ø6			15.7		24.5		12.5						
DSC-C-6-8			ø8			15.4		26		14.5						
DSC-6-4	Standard Type	R1/8	ø4	51	54	16.2	8.7	23.5	14.5	10	17					
DSC-6-6			ø6			15.7		24.5		12.5						
DSC-6-8			ø8			15.4		26		14.5						
DSC-8-6		R1/4	ø6	55.5	58.5	20	11.7	26	18	12.5	17					
DSC-8-8			ø8			19		27.5		14.5						
DSC-8-10			ø10			19		30.5		17.5						
DSC-10-6	R3/8	ø6	58	61	23.1	12.7	28.5	22.5	12.5	19						
DSC-10-8		ø8			21.3		30		14.5							
DSC-10-10		ø10			21.8		32		17.5							
DSC-10-12		ø12			21.7		33.5		20							
DSC-15-10		R1/2			ø10		63		66		25.2	15.7	34.5	27.5	17.5	24
DSC-15-12					ø12						25.7		36		20	

MEMO

F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain Separ
Mech Press SW
Res press exh valve
SlowStart
Anti-bac/Bac- remove Filtr
Film Resist FR
Oil-ProhR
Med Press FR
No Cu/ PTFE FRL
Outdrs FRL
Adapter Joiner
Press Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PressCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
Gas generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

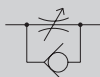


Inline speed controller with adjusting dial

DSC-S Series

● Port size: $\varnothing 4$, $\varnothing 6$, $\varnothing 8$, $\varnothing 10$, $\varnothing 12$

JIS symbol



Specifications

1 MPa \approx 145.0 psi, 1 MPa = 10 bar

Item		DSC-S□-06		DSC-S□-08		DSC-S□-10		
		$\varnothing 4$	$\varnothing 6$	$\varnothing 6$	$\varnothing 8$	$\varnothing 8$	$\varnothing 10$	$\varnothing 12$
Compatible tube O.D.	mm	$\varnothing 4$	$\varnothing 6$	$\varnothing 6$	$\varnothing 8$	$\varnothing 8$	$\varnothing 10$	$\varnothing 12$
Working fluid		Compressed air						
Max. working pressure	MPa	1.0 (\approx 145 psi, 10 bar)						
Min. working pressure	MPa	0.1 (\approx 15 psi, 1 bar)						
Proof pressure	MPa	1.5 (\approx 217 psi, 15 bar)						
Fluid temperature	$^{\circ}\text{C}$	5 (41 $^{\circ}\text{F}$) to 60 (140 $^{\circ}\text{F}$) (no freezing. *2)						
Ambient temperature	$^{\circ}\text{C}$	0 (32 $^{\circ}\text{F}$) to 60 (140 $^{\circ}\text{F}$) (no freezing)						
Needle control range		1 to 7 rotations						
Weight	g	24	18	30	31	52	57	60
Free flow	Flow rate L/min (ANR)	170	300	400	550	900	1100	1200
	Effective cross-sectional area mm^2	2.5	4.5	6	8	13.5	16.5	18
Controlled flow (Standard flow rate)	Flow rate L/min (ANR)	160	200	360	400	710	780	780
	Effective cross-sectional area mm^2	2.4	3	5	6	10.5	12	12
Controlled flow (Low flow rate)	Flow rate L/min (ANR)	60		130		270		
	Effective cross-sectional area mm^2	0.9	0.9	2	2	4	4	4
Controlled flow (fine flow rate)	Flow rate L/min (ANR)	13		-	-	-	-	-
	Effective cross-sectional area mm^2	0.2	0.2	-	-	-	-	-

*1: Flow rate is the atmospheric pressure conversion at 0.5 MPa.

*2: Freezing may occur due to adiabatic expansion depending on the air quality (dew point).

How to order

DSC - **S** **1** - **06** - **H66** - **L**

A Product

B Dial direction

C Body size

D Compatible tube O.D.

E Flow rate

Code	Description
A Product	
-S	Inline
B Dial direction	
1	Side
2	IN/OUT direction
C Body size	
06	1/8 thread equivalent
08	1/4 thread equivalent
10	3/8 thread equivalent
D Compatible tube O.D.	
H44	$\varnothing 4$
H66	$\varnothing 6$
H88	$\varnothing 8$
H1010	$\varnothing 10$
H1212	$\varnothing 12$
E Flow rate	
Blank	Standard flow rate
L	Low flow rate
F	Fine flow rate

Combination of body, compatible tube O.D., and flow rate

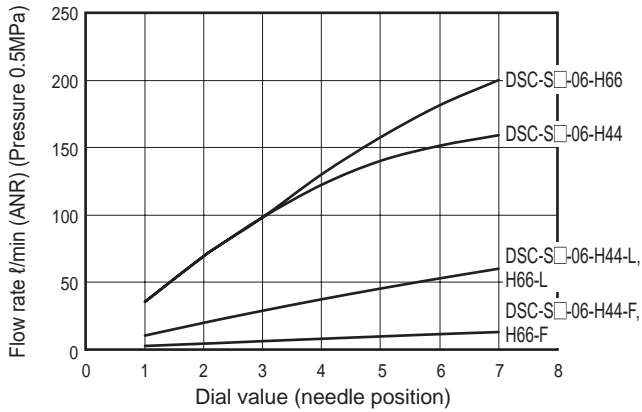
	C Body size						
	06		08		10		
D Compatible tube O.D.	H44	H66	H66	H88	H88	H1010	H1212
E Flow rate							
Blank	●	●	●	●	●	●	●
L	●	●	●	●	●	●	●
F	●	●					

Flow characteristics

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

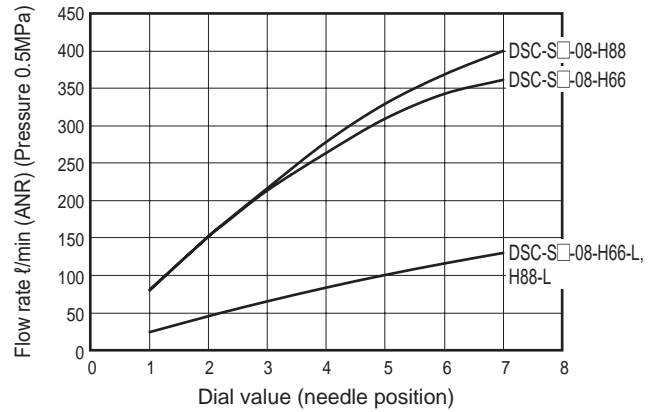
●DSC-S□-06-*

Standard flow rate, low flow rate, flow rate



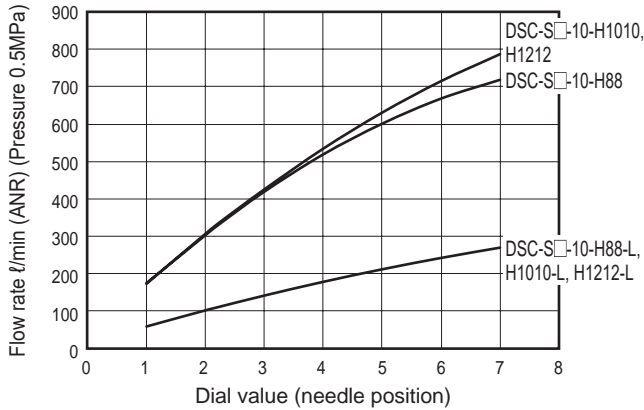
●DSC-S□-08-*

Standard flow rate, low flow rate



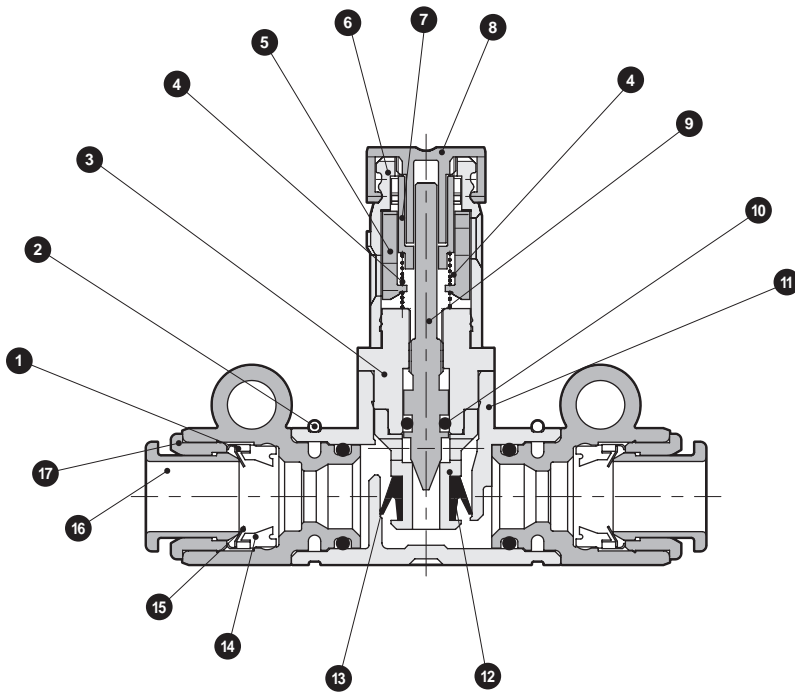
●DSC-S□-10-*

Standard flow rate, low flow rate



F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain Separ
Mech Press SW
Res press exh valve
SlowStart
Anti-bac/Bac-remove Filtr
Film Resist FR
Oil-ProhR
Med Press FR
No Cu/ PTFE FRL
Outdrs FRL
Adapter Joiner
Press Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PresCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
Gas generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

F.R.L. Internal structure and parts list

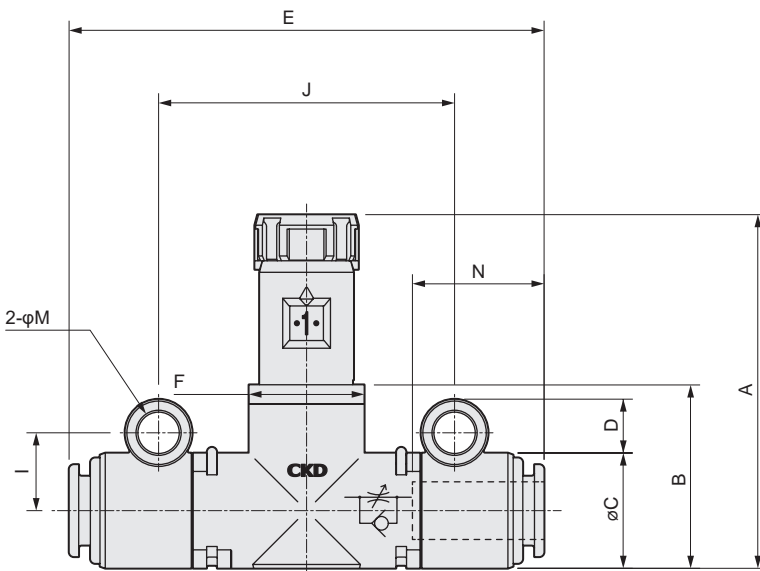


Part No.	Part name	Material
1	Holder	Brass or polyether sulfone
2	Stopper ring	Stainless steel
3	Needle guide	Brass
4	Spring	Stainless steel
5	Indication ring	Polybutylene terephthalate
6	Gear cover	Polybutylene terephthalate
7	Slide gear	Polybutylene terephthalate
8	Knob	Polyacetal
9	Needle	Stainless steel
10	O-ring	Nitrile rubber
11	Body	Polybutylene terephthalate
12	Check bracket	Brass
13	Check packing	Hydrogenated nitrile rubber
14	Packing	Nitrile rubber
15	Chuck	Stainless steel
16	Push ring	Polybutylene terephthalate
17	Outer ring	Brass

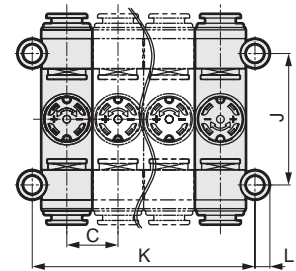
*1: All the brass parts have electroless nickel plating.

Dimensions

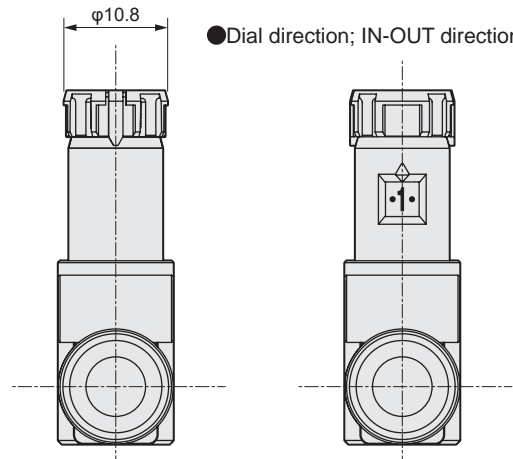
● Dial direction; Side surface (S1)



● Installation spacing dimensions for manifolds



● Dial direction; IN-OUT direction (S2)



Model No.	Connection tube O.D.	A		B	C	D	E	F	I	J	K	L	M (Mounting hole diameter)	N (Tube insertion length)
		When locked	During adjustment											
DSC-S□-06-H44	ø4	36.8	38.3	19.1	12	5.6	54.6	12	8.1	30.8	12xn+4.2	3.5	4.3	12.9
DSC-S□-06-H66	ø6						49.4							13.7
DSC-S□-08-H66	ø6	41.9	43.4	24.2	15	5.6	63.1	15	9.5	40.8	15xn+4	3.6	4.3	18
DSC-S□-08-H88	ø8						66.3							19
DSC-S□-10-H88	ø8	48.4	49.9	30.7	20	5.1	70.8	19.4	11.5	47	20xn+3	3.6	4.3	19
DSC-S□-10-H1010	ø10						75.4							21
DSC-S□-10-H1212	ø12						79.6							22