

SPEED CONTROLLERS

Application

- Valve used for controlling the operation speed of a driving device.
- Used for movement of machines such as cylinder, pneumatic finger, etc.

Feature

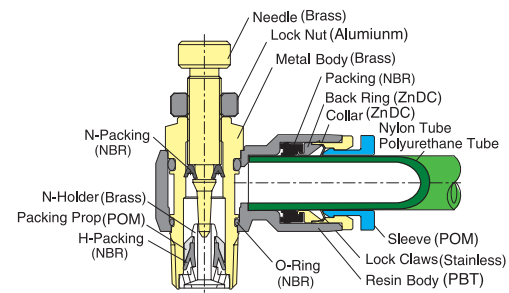
- Precisely permit the optimal rate of airflow for the smooth cylinder movement of driving devices.
- The Compact and light body permits use in confined space.
- Uni-directional airflow is available for either exhaust or inlet flow control methods.
- The compact design provides a comparable range of speed as the conventional speed controllers do.

Specification

Fluid	Air(No other gases or liquids)	
Working Pressure Range	0~150PSI	0~9Kgf/cm ² (0~900kPa)
Negative Pressure	7.5PSI	0.5Kgf/cm ² (50kPa)
Temperature Range	32~140° F	0~60° C
Applicable Tube Material	Polyurethane and Nylon	



Structural Diagram



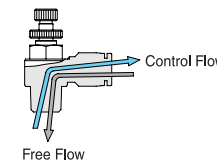
Speed Controllers



Fitting with G Thread (O-Ring)

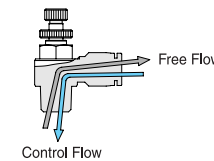


Case In Use



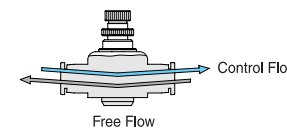
►Out-Type

- The way to control of airflow from the thread to the sleeve.
- Air passes freely from the sleeve to the thread.



►In-Type

- The way to control of airflow from the sleeve to the thread.
- Air passes freely from the thread to the sleeve.



►Flat-Type

- The way to control of Free Flow or Control Flow upon piping in accordance with the signal on the body.
- Air flows from each side of sleeve.

⚠ CAUTION

- Be sure to read "Common Precautions" and "Using Precautions of Fitting Series"(P6) before using.
- Never remove the needle by force. It causes separation of the needle from the body.
- There can be a slight leakage, therefore do not use in applications requiring zero air flow rate.

⚠ WARNING

- Be sure to use after confirming structural diagram and control direction of each controller, otherwise fittings may result in damage.
- Never roll or turn the body by force.
- When controlling the objective machine's speed, slowly open the needle of speed controller from the closed position.

Product Code System

NSE O8-O2 O U

① ② ③ ④ ⑤

① Type

② Tube Dia(∅D)

Code	Metric Size						Inch Size						
	03	04	06	10	12	16	1/8	5/32	3/16	1/4	5/16	3/8	1/2
Dia	∅3	∅4	∅6	∅8	∅10	∅12	∅1/8	∅5/32	∅3/16	∅1/4	∅5/16	∅3/8	∅1/2

③ Thread Size(T)

* Metric Thread & R(PT) Thread

Code	Metric Size			Taper Pipe Thread			
	M3	M5	01	02	03	04	
Size	M3×0.5	M5×0.8	R1/8	R1/4	R3/8	R1/2	

* Inch Thread (UNF & NPT)

Code	Unified Fine Thread		American Standard Taper Pipe Thread			
	U10U	N01U	N02U	N03U	N04U	
Size	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2	

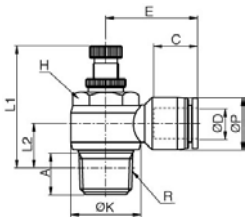
④ Control Method

Type	Meter out		Meter in	
	Standard Blue	Compact Black	Standard Red	Compact Red
Symbol				

⑤U : Hexagon flat-to-flat inch specification.(NPT)

NSE

Elbow



MODEL [ØD-T]

Tube (Metric) - Thread(R)

MODEL	ØD	R
NSE 04-M5	4	M5
NSE 04-01	4	R1/8
NSE 04-02	4	R1/4
NSE 06-M5	6	M5
NSE 06-01	6	R1/8
NSE 06-02	6	R1/4
NSE 06-03	6	R3/8
NSE 08-01	8	R1/8
NSE 08-02	8	R1/4
NSE 08-03	8	R3/8
NSE 08-04	8	R1/2
NSE 10-02	10	R1/4
NSE 10-03	10	R3/8
NSE 10-04	10	R1/2
NSE 12-02	10	R1/4
NSE 12-03	12	R3/8
NSE 12-04	12	R1/2

Tube (Inch) - Thread(R)

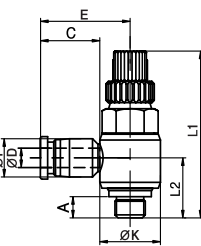
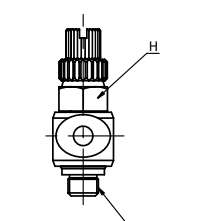
MODEL	ØD	R
NSE 1/4-M5	1/4	M5
NSE 1/4-R01	1/4	R1/8
NSE 1/4-R02	1/4	R1/4
NSE 1/4-R03	1/4	R3/8
NSE 5/16-R01	5/16	R1/8
NSE 5/16-R02	5/16	R1/4
NSE 5/16-R03	5/16	R3/8
NSE 3/8-R02	3/8	R1/4
NSE 3/8-R03	3/8	R3/8

Tube (Inch) - Thread (NPT)

MODEL	ØD	R
NSE 5/32-U10U	5/32	UNF10 *32
NSE 5/32-N01U	5/32	NPT1/8
NSE 3/16-N10U	3/16	UNF10 *32
NSE 3/16-N01U	3/16	NPT1/8
NSE 3/16-N02U	3/16	NPT1/4
NSE 3/16-N03U	3/16	NPT3/8
NSE 1/4-U10U	1/4	UNF10 *32
NSE 1/4-N01U	1/4	NPT1/8
NSE 1/4-N02U	1/4	NPT1/4
NSE 1/4-N03U	1/4	NPT3/8
NSE 5/16-N01U	5/16	NPT1/8
NSE 5/16-N02U	5/16	NPT1/4
NSE 5/16-N03U	5/16	NPT3/8
NSE 5/16-N04U	5/16	NPT1/2
NSE 3/8-N02U	3/8	NPT1/4
NSE 3/8-N03U	3/8	NPT3/8
NSE 3/8-N04U	3/8	NPT1/2
NSE 1/2-N03U	1/2	NPT3/8
NSE 1/2-N04U	1/2	NPT1/2

NSE-C

Mini Elbow



MODEL [ØD-T]

Tube (Metric) - Thread(R)

MODEL	ØD	R
NSE 03-M3C	3	M3
NSE 03-M5C	3	M5
NSE 04-M3C	4	M3
NSE 04-M5C	4	M5
NSE 04-01C	4	R1/8
NSE 06-M3C	6	M3
NSE 06-M5C	6	M5
NSE 06-01C	6	R1/8
NSE 06-02C	6	R1/4

Tube (Inch) - Thread(R)

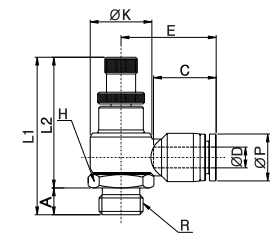
MODEL	ØD	R
NSE 1/8-M3C	1/8	M3
NSE 1/8-M5C	1/8	M5
NSE 5/32-M3C	5/32	M3
NSE 5/32-M5C	5/32	M5
NSE 5/32-01C	5/32	R1/8
NSE 1/4-M5C	1/4	M5
NSE 1/4-01C	1/4	R1/8

Tube (Inch) - Thread (NPT)

MODEL	ØD	R
NSE 1/8-U10UC	1/8	UNF 10 *32
NSE 5/32-U10UC	5/32	UNF 10 *32
NSE 5/32-N01C	5/32	NPT1/8
NSE 1/4-U10UC	1/4	UNF 10 *32
NSE 1/4-N01C	1/4	NPT1/8

NSE-G

Elbow G-Thread



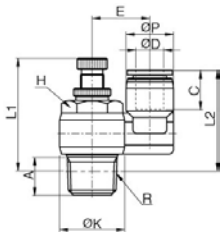
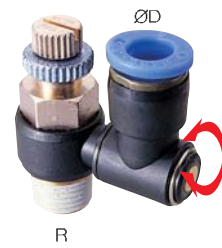
MODEL [ØD-T]

Tube (Metric) - Thread(G)

MODEL	ØD	R
NSE 04-G01	4	G1/8
NSE 04-G02	4	G1/4
NSE 06-G01	6	G1/8
NSE 06-G02	6	G1/4
NSE 06-G03	6	G3/8
NSE 08-G01	8	G1/8
NSE 08-G02	8	G1/4
NSE 08-G03	8	G3/8
NSE 08-G04	8	G1/2
NSE 10-G02	10	G1/4
NSE 10-G03	10	G3/8
NSE 10-G04	10	G1/2
NSE 12-G03	12	G3/8
NSE 12-G04	12	G1/2

NSS

Straight



MODEL [ØD-T]

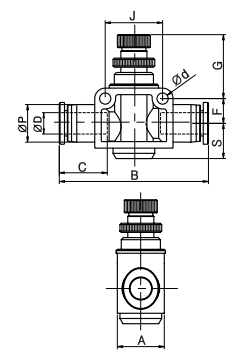
Tube (Metric) - Thread(R)		
MODEL	ØD	R
NSS 04-M5	4	M5
NSS 04-01	4	R1/8
NSS 04-02	4	R1/4
NSS 06-M5	6	M5
NSS 06-01	6	R1/8
NSS 06-02	6	R1/4
NSS 06-03	6	R3/8
NSS 08-01	8	R1/8
NSS 08-02	8	R1/4
NSS 08-03	8	R3/8
NSS 08-04	8	R1/2
NSS 10-02	10	R1/4
NSS 10-03	10	R3/8
NSS 10-04	10	R1/2
NSS 12-02	10	R1/4
NSS 12-03	12	R3/8
NSS 12-04	12	R1/2

Tube (Metric) - Thread(R)		
MODEL	ØD	R
NSS 1/4-M5	1/4	M5
NSS 1/4-R01	1/4	R1/8
NSS 1/4-R02	1/4	R1/4
NSS 5/16-R01	5/16	R1/8
NSS 5/16-R02	5/16	R1/4
NSS 5/16-R03	5/16	R3/8
NSS 3/8-R02	3/8	R1/4
NSS 3/8-R03	3/8	R3/8

Tube (Inch) - Thread (NPT)		
MODEL	ØD	R
NSS 5/32-U10U	5/32	UNF10 *32
NSS 5/32-N01U	5/32	NPT1/8
NSS 3/16-N10U	3/16	UNF10 *32
NSS 3/16-N01U	3/16	NPT1/8
NSS 3/16-N02U	3/16	NPT1/4
NSS 3/16-N03U	3/16	NPT3/8
NSS 1/4-U10U	1/4	UNF10 *32
NSS 1/4-N01U	1/4	NPT1/8
NSS 1/4-N02U	1/4	NPT1/4
NSS 1/4-N03U	1/4	NPT3/8
NSS 5/16-N01U	5/16	NPT1/8
NSS 5/16-N02U	5/16	NPT1/4
NSS 5/16-N03U	5/16	NPT3/8
NSS 5/16-N04U	5/16	NPT1/2
NSS 3/8-N02U	3/8	NPT1/4
NSS 3/8-N03U	3/8	NPT3/8
NSS 3/8-N04U	3/8	NPT1/2
NSS 1/2-N03U	1/2	NPT3/8
NSS 1/2-N04U	1/2	NPT1/2

NSF

Union Straight



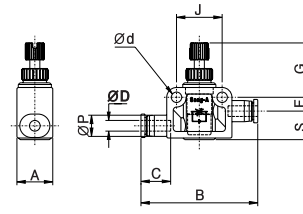
MODEL [ØD-T]

Tube (Metric) - Thread(R)	
MODEL	ØD
NSF 03	3
NSF 04	4
NSF 06	6
NSF 08	8
NSF 10	10
NSF 12	12

Tube (Inch) - Thread (NPT)	
MODEL	ØD
NSF N5/32	5/32
NSF N3/16	3/16
NSF N1/4	1/4
NSF N5/16	5/16
NSF N3/8	3/8
NSF N1/2	1/2

NSF-C

Mini Union Straight



MODEL [ØD-T]

Tube (Metric) - Thread(R)	
MODEL	ØD
NSF 03C	3