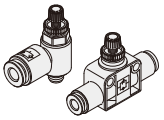


Safety notice / common caution

CHELIC PNEUMATIC

Please read this safety notice carefully , pay attention to safety item while using this product , in order to prevent injury to human body and damage of property ; thus , there are divided into three classes of “ **Danger** ” , “ **Warning** ” , and “ **Caution** ” according to the extend of prevention。

⚠ **Danger**	Obvious situated at " **Danger** " state, may cause casualty if not avoided; take special safety protection and management to prevent the occurrence of " **Danger** "

⚠ **Warning**	Condition of operation is situated at " **Warning** " state, may cause casualty if not avoided ; take special safety protection and manager to prevent the occurrence of " **Warning** "

⚠ **Caution**	Condition of operation is situated at " **Caution** " state, may cause minor or moderate injury and damage of property if not avoided; take special safety protection and management.

- For safety protection and prevention of accident, please understand the condition of application and know the design, installation, procedure of usage and essential safety condition before using this product.
- Please use within the specification and requirement of this product; application beyond the specification may cause hazard. In case of special condition of application, take the confirmation of safety into account and then use it; in case of doubt in reading this information and related data, contact us before using.
- It is hazardous in error assemble and operation of compressed air and its accessories; so, while selecting the product, the related personnel of design, assemble, operating and service should possess sufficient knowledge and experience, and follow normal operating procedure, in order to maintain safe operation and good effect.
- The safety notice is made according to **ISO 4414** ; pneumatic fluid power and **JSI B 8370** general requirement of air system.

※ The safety notice , we do not notify if change anything。

Please read the safety notice carefully before using and pay attention to the safety caution of this product。

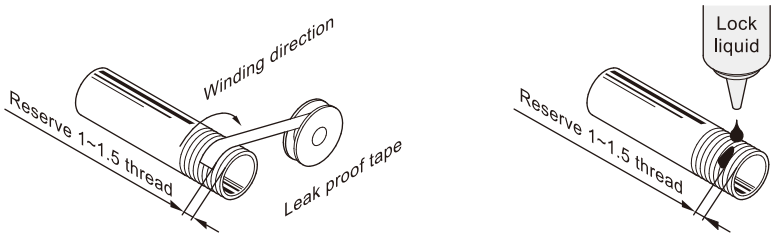
- Pay attention to the individual caution for carious model series (read the caution and safety notice in P.01 for common cautions)。

Caution for design , selection

Warning

Prevent debris and dust from entering the pipe and joint while laying, keep clean。

- Pay attention to the direction of the air source while installing, never used in reversed air direction。
- Prevent debris and leak proof tape residue from entering the pipe while pipe laying and assembling the connector. Reserve 1~1.5 thread not wound with tape while winding the tape。

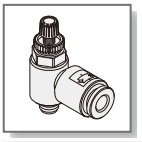


- If the connector is locked by using fluid fixing glue (anoxic glue), avoid excessive amount and fluid glue from flowing in the body, which may cause jammed and poor movement。
- Follow the torque in table below while laying the pipe (tighten the connector), never exceed the range of application to avoid damage of product。

Torque chart for piping

Size of piping	Appropriate turning torque N • m (kgf • cm)
M5	1.5 ~ 2 (15 ~ 20)
Rc (PT) 1/8	7 ~ 9 (70 ~ 90)
Rc (PT) 1/4	12 ~ 14 (120 ~ 140)
Rc (PT) 3/8	22 ~ 24 (220 ~ 240)
Rc (PT) 1/2	28 ~ 30 (280 ~ 300)

- Avoid to supply fast and high pressure at initial supply of compressed air after completion of pipe laying , prevent incomplete pipe laying , pipe loosen and fly off affect the safety ; leakage check of the piping may us leakage detection liuid to smear of the pipe and check。
- The rotating adjusting of the governor at initial supply of compressed air after completion of pipe laying should be started from full close or small amount to large amount to the flow required, and then secured ; avoid start at large amount position which will cause impulsive hazard。
- For the caution for quick joint types, please read the warning and caution for connectors。

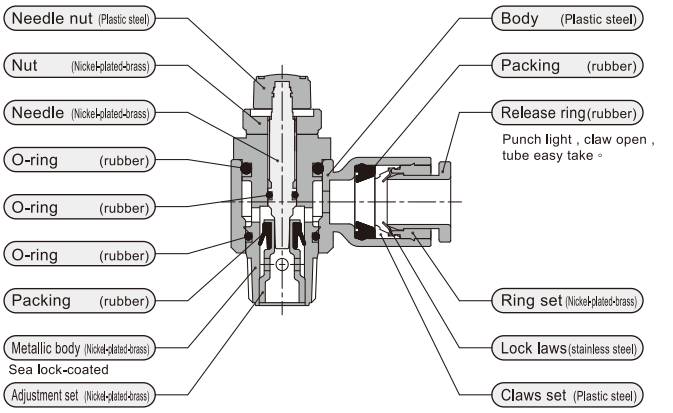


QSC SERIES Speed control

Specification and order expression

CHELIC PNEUMATIC

Internal structure



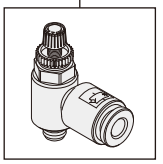
Specification

Item		Model	Ø4 , Ø6 , Ø8 , Ø10 , Ø12 , 5/32" , 1/4" , 5/16" , 3/8" , 1/2"
Fluid			Air
Pressure range		kgf/cm² (kpa)	0 ~ 9 (0 ~ 900)
Maintain pressure		kgf/cm² (kpa)	10 (1000)
Number of needle rotation			10 (8) round
Service temperature		°C	(0 ~ 60)
Material	Body		Nickel-plated brass
	Plastic		NYLON , PBT , PP
Connection port		Rc (PT)	M3x0.5p ,M5x0.8p (10/32") , 1/8" , 1/4" , 3/8" , 1/2"
Male			Sealock-coated

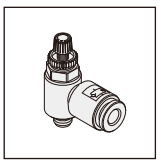
How to order

QSC – 6 – 01 – A

Model



QSC : Speed control



QSM: Mini type Speed control

Tube size

Metric

4 – Ø 4 mm
6 – Ø 6 mm
8 – Ø 8 mm
10 – Ø 10 mm
12 – Ø 12 mm

Inch

5/32" – Ø 3.97 mm
1/4" – Ø 6.35 mm
5/16" – Ø 7.94 mm
3/8" – Ø 9.53 mm
1/2" – Ø 12.7 mm

Thread

Metric

M3 – M3x0.5p
M5 – M5x0.8p
01 – PT 1/8"
02 – PT 1/4"
03 – PT 3/8"
04 – PT 1/2"

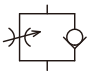
Inch

10/32" – NR 10/32"
01 – NPT 1/8"
02 – NPT 1/4"
03 – NPT 3/8"
04 – NPT 1/2"

M3 is the specific item for QSM ◦

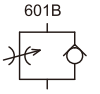
Control direction

QSC 601A

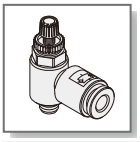


A : Mater-out control (standard)

QSC 601B



B : Mater-in control (special)



QSC SERIES Speed control

Specification and flow characte

Specification

Metric specification

Unit : mm

Model	Tube size	Thread size (PT)				
		M5	1/8"	1/4"	3/8"	1/2"
QSC 4 – □	Ø4	●	●	●		
QSC 6 – □	Ø6	●	●	●	●	
QSC 8 – □	Ø8		●	●	●	
QSC 10 – □	Ø10			●	●	●
QSC 12 – □	Ø12				●	●

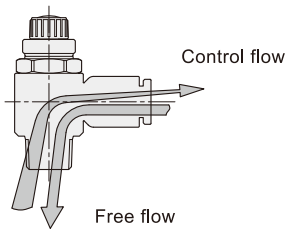
Inch specification

Unit : Inch

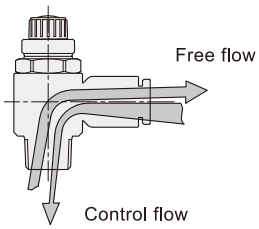
Model	Tube size	Thread size (PT)				
		10/32"	1/8"	1/4"	3/8"	1/2"
QSC 5/32" – □	5/32"	●	●	●		
QSC 1/4" – □	1/4"	●	●	●	●	
QSC 5/16" – □	5/16"		●	●	●	
QSC 3/8" – □	3/8"			●	●	●
QSC 1/2" – □	1/2"				●	●

Control direction for speed control

– A A Meter-out control (standard)

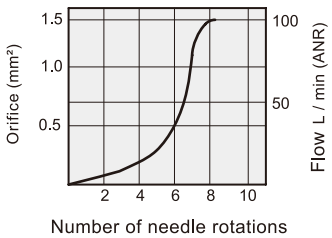


– B Meter-in control

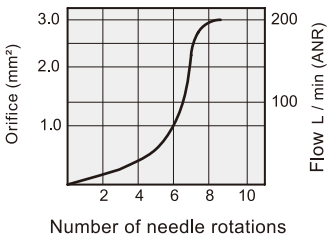


Flow characteristics

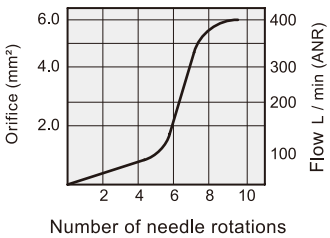
QSC 4 – M5



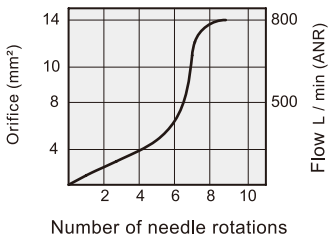
QSC 6 – 01



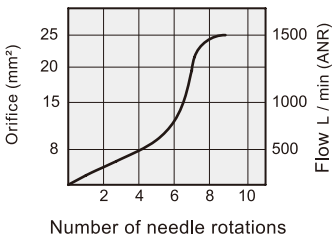
QSC 8 – 02

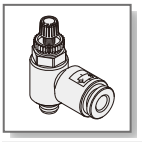


QSC 10 – 03



QSC 12 – 04





QSC SERIES Speed control

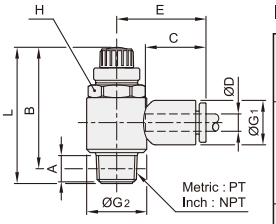
External dimension

CHELIC PNEUMATIC

QSC series Speed control

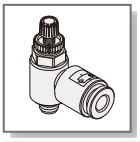
Metric specification

Port size ØD	Thread size Rc (PT)	Model	A	B max	B min	C	E	L max	L min	ØG1	ØG2	Opposite dim H	Effective Area mm²	Weight (g)
Ø4	M5	QSC 4 – M5	3.8	27.8	24.8	14.8	19.9	29.7	26.7	10.5	10	8	4	10
	1/8"	QSC 4 – 01	6	35.4	31.6	14.6	21.6	38.4	34.6	10.5	14.2	12	5.5	20
	1/4"	QSC 4 – 02	9	37	33.4	14.6	21.6	41.5	37.9	10.5	18.6	17	12.5	34
Ø6	M5	QSC 6 – M5	3.8	27.8	24.8	17.1	21.8	29.7	26.7	12.4	10	8	4	10
	1/8"	QSC 6 – 01	6	35.4	31.6	17.1	23.7	38.4	34.6	12.4	14.2	12	5.5	20
	1/4"	QSC 6 – 02	9	37	33.4	17.1	25.9	41.5	37.9	12.4	18.6	17	12.5	36
	3/8"	QSC 6 – 03	10	45.3	40.2	17.1	28	50.3	45.2	12.4	23	19	20	60
Ø8	1/8"	QSC 8 – 01	6	35.4	31.6	18.9	25.5	38.4	34.6	14.3	14.2	12	5.5	20
	1/4"	QSC 8 – 02	9	37	33.4	18.9	27.7	41.5	37.9	14.3	18.6	17	12.5	36
	3/8"	QSC 8 – 03	10	45.3	40.2	18.9	29.9	50.3	45.2	14.3	23	19	20	60
Ø10	1/4"	QSC 10 – 02	9	37	33.4	20.4	29.6	41.5	37.9	17.8	18.6	17	12.5	40
	3/8"	QSC 10 – 03	10	45.3	40.2	20.4	31.7	50.3	45.2	17.8	23	19	20	64
	1/2"	QSC 10 – 04	14	55	46.6	20.3	34.6	62	53.6	17.8	28.8	24	35	98
Ø12	3/8"	QSC 12 – 03	10	45.3	40.2	22.8	35	50.3	45.2	21.5	21.2	19	20	68
	1/2"	QSC 12 – 04	14	55	46.6	22.8	37.2	62	53.6	21.5	28.8	24	35	102



Inch specification

Port size ØD	Thread size Rc (PT)	Model	A	B max	B min	C	E	L max	L min	ØG1	ØG2	Opposite dim H	Effective Area mm²	Weight (g)
5/32"	NR 10/32"	QSC 5/32 – 10/32	3.8	27.8	24.8	14.8	19.9	29.7	26.7	10.5	10	8	4	10
	1/8"	QSC 5/32 – 01	6	35.4	31.6	14.6	21.6	38.4	34.6	10.5	14.2	12	5.5	20
	1/4"	QSC 5/32 – 02	9	37	33.4	14.6	21.6	41.5	37.9	10.5	18.6	17	12.5	34
1/4"	NR 10/32"	QSC 1/4 – 10/32	3.8	27.8	24.8	17.1	21.8	29.7	26.7	12.4	10	8	4	10
	1/8"	QSC 1/4 – 01	6	35.4	31.6	17.1	23.7	38.4	34.6	12.4	14.2	12	5.5	20
	1/4"	QSC 1/4 – 02	9	37	33.4	17.1	25.9	41.5	37.9	12.4	18.6	17	12.5	36
	3/8"	QSC 1/4 – 03	10	45.3	40.2	17.1	28	50.3	45.2	12.4	23	19	20	60
5/16"	1/8"	QSC 5/16 – 01	6	35.4	31.6	18.9	25.5	38.4	34.6	14.3	14.2	12	5.5	20
	1/4"	QSC 5/16 – 02	9	37	33.4	18.9	27.7	41.5	37.9	14.3	18.6	17	12.5	36
	3/8"	QSC 5/16 – 03	10	45.3	40.2	18.9	29.9	50.3	45.2	14.3	23	19	20	60
3/8"	1/4"	QSC 3/8 – 02	9	37	33.4	20.4	29.6	41.5	37.9	17.8	18.6	17	12.5	40
	3/8"	QSC 3/8 – 03	10	45.3	40.2	20.4	31.7	50.3	45.2	17.8	23	19	20	64
	1/2"	QSC 3/8 – 04	14	55	46.6	20.3	34.6	62	53.6	17.8	28.8	24	35	98
1/2"	3/8"	QSC 1/2 – 03	10	45.3	40.2	22.8	35	50.3	45.2	21.5	21.2	19	20	68
	1/2"	QSC 1/2 – 04	14	55	46.6	22.8	37.2	62	53.6	21.5	28.8	24	35	102



QSM SERIES Mini type Speed control

New

Specification and flow character

CHELIC PNEUMATIC

Specification

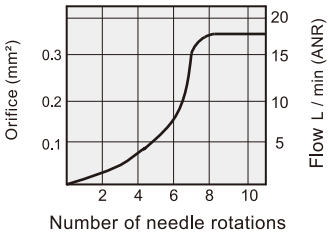
● Metric specification

Unit : mm

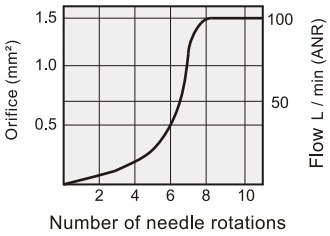
Model	Tube size	Thread size (PT)		
		M3	M5	1/8"
QSM 4 – □	Ø4	●	●	●
QSM 6 – □	Ø6		●	●

Flow characteristics

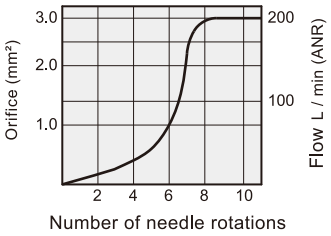
● QSM 4 – M3



● QSC 4 – M5



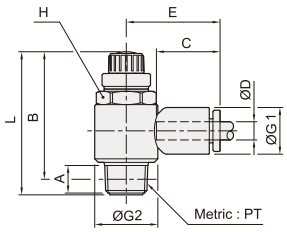
● QSC 6 – 01

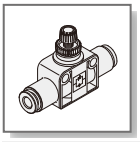


QSM series Mini type Speed control

Metric specification

Port size ØD	Thread size PT	Model	A	B max	B min	C	E	L max	L min	ØG1	ØG2	Opposite dim H	Effective Area mm²	Weight (g)
Ø4	M3	QSM 4-M3	3.3	24.5	23.5	10.5	15.5	26.3	25.3	9	10	8	0.3	3.7
	M5	QSM 4-M5	3	24.6	23.6	10.5	15.5	26.2	25.3		10	8	1.5	4
	PT 1/8"	QSM 4-01	6.5	29.1	27.6	10.4	17.5	32.8	31.4		13.2	12	3.5	7.9
Ø6	M5	QSM 6-M5	3	24.6	23.6	12.6	17.3	26.2	25.3	11.4	10	8	1.5	7.1
	PT 1/8"	QSM 6-01	6.5	29.1	27.6	11.9	18.5	32.5	31.4		13.2	12	3.5	7.8



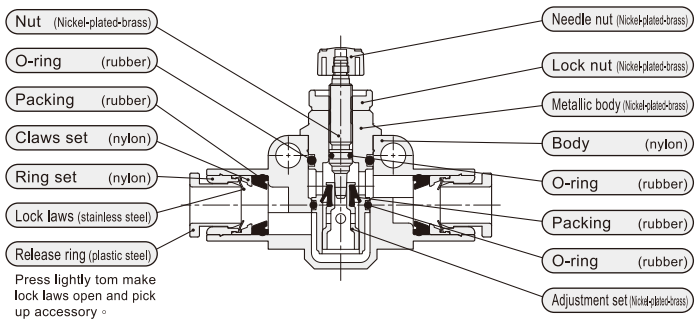


QSN SERIES Speed control

Specification and order expression

CHELIC PNEUMATIC

Internal structure



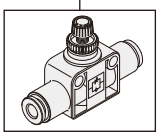
Specification

Item		Model	Ø4 , Ø6 , Ø8 , Ø10 , Ø12 , 5/32" , 1/4" , 5/16" , 3/8" , 1/2"
Fluid			Air
Pressure range		kgf/cm² (kpa)	0 ~ 9 (0 ~ 900)
Maintain pressure		kgf/cm² (kpa)	10 (1000)
Number of needle rotation			10 (8) round
Service temperature		°C	5 ~ 60
Material	Body		Nickel-plated brass
	Plastic		NYLON , PBT , PP
Connection port		Rc (PT)	1/8" , 1/4" , 3/8"
Male			Sealock-coated

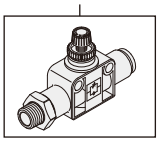
How to order

QSN – 6 – 01 – A

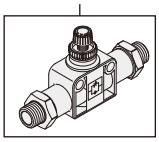
Model



QSN : Speed control



QSMN : Speed control



QSNN : Speed control

Tube size

Metric

- 4 – Ø 4 mm
- 6 – Ø 6 mm
- 8 – Ø 8 mm
- 10 – Ø 10 mm
- 12 – Ø 12 mm

Inch

- 5/32" – Ø 3.97 mm
- 1/4" – Ø 6.35 mm
- 5/16" – Ø 7.94 mm
- 3/8" – Ø 9.53 mm
- 1/2" – Ø 12.7 mm

Thread

Metric

- 01 – PT 1/8"
- 02 – PT 1/4"
- 03 – PT 3/8"

Inch

- 01 – NPT 1/8"
- 02 – NPT 1/4"
- 03 – NPT 3/8"

※ No code : No option for QSN

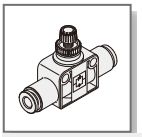
Control direction

QSN 601A

A : Mater-out control (standard)

QSN 601B

B : Mater-in control (special)



QSN SERIES Speed control

Control direction for speed control and flow character

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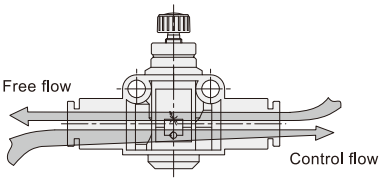
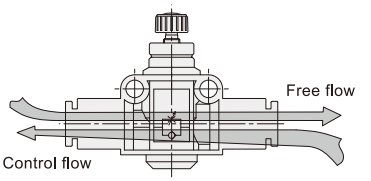
Control direction for speed control

– A Meter-out control (standard)

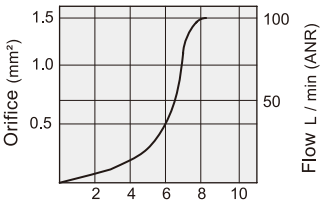


– B Meter-in control

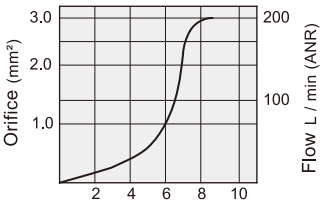


Flow characteristics

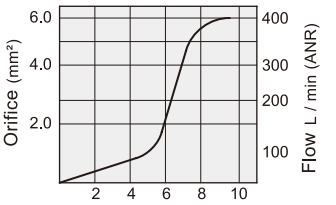
QSN 4 , 5/32”



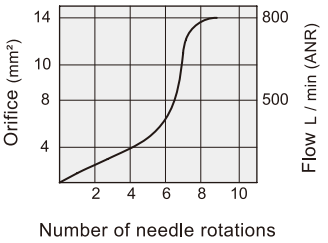
QSN 6 , 1/4”



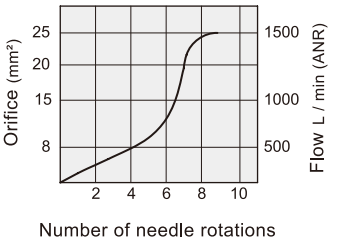
QSN 8 , 5/16”

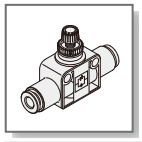


QSN 10 , 3/8”



QSN 12 , 1/2”





QSN SERIES Speed control

External dimension

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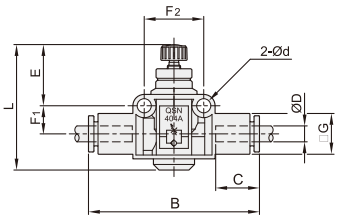
QSN series Speed control



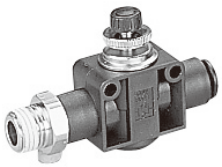
Metric specification

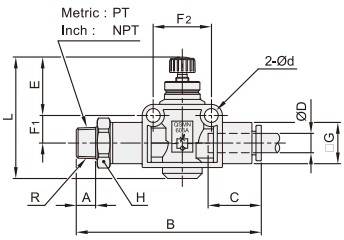
Tube size ØD1	Tube size ØD2	Model	B	C	Ød	E max	E min	F1	F2	L max	L min	ØG	Effective Area mm²	Weight (g)
Ø4	Ø4	QSN 4	41.4	14.6	3.2	14.2	11	6.9	14	26.5	25.3	10.5	4	12
Ø6	Ø6	QSN 6	49.2	16.6	4.3	19.7	14.9	8.5	18	39.3	34.5	12.8	5.5	26
Ø8	Ø8	QSN 8	55.1	17.9	4.3	21.3	18.5	9.6	22	45	42.2	14.5	12.5	42
Ø10	Ø10	QSN 10	62.9	19.3	4.3	23.7	18.8	11.6	26	45.2	43.3	17.8	20	70
Ø12	Ø12	QSN 12	73.5	21.8	4.3	28.9	22.3	11.7	32	54.8	48.2	21.2	35	115

Inch specification

Tube size ØD1	Tube size ØD2	Model	B	C	Ød	E max	E min	F1	F2	L max	L min	ØG	Effective Area mm²	Weight (g)
5/32"	5/32"	QSN 5/32	41.4	14.6	3.2	14.2	11	6.9	14	26.5	25.3	10.5	4	12
1/4"	1/4"	QSN 1/4	49.2	16.6	4.3	19.7	14.9	8.5	18	39.3	34.5	12.8	5.5	26
5/16"	5/16"	QSN 5/16	55.1	17.9	4.3	21.3	18.5	9.6	22	45	42.2	14.5	12.5	42
3/8"	3/8"	QSN 3/8	62.9	19.3	4.3	23.7	18.8	11.6	26	45.2	43.3	17.8	20	70
1/2"	1/2"	QSN 1/2	73.5	21.8	4.3	28.9	22.3	11.7	32	54.8	48.2	21.2	35	115

QSMN series Speed control





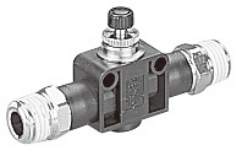
Metric specification

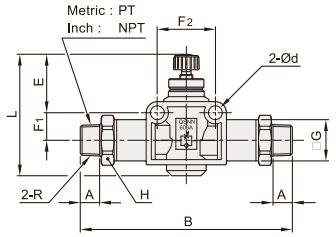
Tube size	Thread size Rc(PT)	Model	A	B	C	Ød	E max	E min	F1	F2	L max	L min	ØG	Opposite dim H	Effective Area mm²	Weight (g)
Ø4	1/8"	QSMN 4－01	6	49	14.6	3.2	14.2	11	6.9	14	28.5	25.3	10.5	14	5.5	22
	1/4"	QSMN 4－02	9	52										14		26
Ø6	1/8"	QSMN 6－01	6	56.9	16.6	4.3	19.7	14.9	8.5	18	39.3	34.5	12.8	14	12	34
	1/4"	QSMN 6－02	9	60.3										14		36
Ø8	1/4"	QSMN 8－02	9	66.7	17.9	4.3	21.3	18.5	9.6	22	45	42.2	14.5	19	16	62
	3/8"	QSMN 8－03	9	66.7										19		70

Inch specification

Tube size	Thread size NPT	Model	A	B	C	Ød	E max	E min	F1	F2	L max	L min	ØG	Opposite dim H	Effective Area mm²	Weight (g)
5/32"	1/8"	QSMN 5/32－01	6	49	14.6	3.2	14.2	11	6.9	14	28.5	25.3	10.5	14	5.5	22
	1/4"	QSMN 5/32－02	9	52										14		26
1/4"	1/8"	QSMN 1/4－01	6	56.9	16.6	4.3	19.7	14.9	8.5	18	39.3	34.5	12.8	14	12	34
	1/4"	QSMN 1/4－02	9	60.3										14		36
5/16"	1/4"	QSMN5/16－02	9	66.7	17.9	4.3	21.3	18.5	9.6	22	45	42.2	14.5	19	16	62
	3/8"	QSMN5/16－03	9	66.7										19		70

QSNN series Speed control





Metric specification

Port size	Thread size Rc(PT)	Model	A	B	Ød	E max	E min	F1	F2	L max	L min	ØG	Opposite dim H	Effective Area mm²	Weight (g)
Ø4	1/8"	QSNN 4－01	6	56.9	3.2	14.2	11	6.9	14	29.8	27.4	10.5	14	5.5	30
	1/4"	QSNN 4－02	9	62.9									14		38
Ø6	1/8"	QSNN 6－01	6	64.2	4.3	19.7	14.9	8.5	18	41.9	37.7	12.8	14	12	42
	1/4"	QSNN 6－02	9	71.4									14		48
Ø8	1/4"	QSNN 8－02	9	78.3	4.3	21.3	18.5	9.6	22	47.6	40.3	14.5	19	16	78
	3/8"	QSNN 8－03	9	78.3									19		82

Inch specification

Port size	Thread size NPT	Model	A	B	Ød	E max	E min	F1	F2	L max	L min	ØG	Opposite dim H	Effective Area mm²	Weight (g)
5/32"	1/8"	QSNN 5/32－01	6	56.9	3.2	14.2	11	6.9	14	29.8	27.4	10.5	14	5.5	30
	1/4"	QSNN 5/32－02	9	62.9									14		38
1/4"	1/8"	QSNN 1/4－01	6	64.2	4.3	19.7	14.9	8.5	18	41.9	37.7	12.8	14	12	42
	1/4"	QSNN 1/4－02	9	71.4									14		48
5/16"	1/4"	QSNN 5/16－02	9	78.3	4.3	21.3	18.5	9.6	22	47.6	40.3	14.5	19	16	78
	3/8"	QSNN 5/16－03	9	78.3									19		82

QST SERIES Panel type speed control

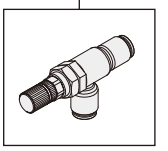
Specification and order expression

CHELIC PNEUMATIC

How to order

QST – 6 – 6

Model



QST : Panel type speed control

Tube size (Metric)

4 – Ø4 mm
6 – Ø6 mm
8 – Ø8 mm
10 – Ø10 mm

Tube size (Metric)

4 – Ø4 mm
6 – Ø6 mm
8 – Ø8 mm
10 – Ø10 mm

Inch

5/32" – Ø3.97 mm
1/4" – Ø6.35 mm
5/16" – Ø7.94 mm
3/8" – Ø9.53 mm

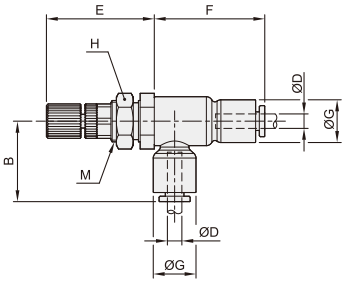
Inch

5/32" – Ø3.97 mm
1/4" – Ø6.35 mm
5/16" – Ø7.94 mm
3/8" – Ø9.53 mm

Specification

Tube size		Ø4 , Ø6 , Ø8 , Ø10 , 5/32" , 1/4" , 5/16" , 3/8"
Fluid		Air
Pressure range kgf/cm² (kPa)		0 ~ 9 (900)
Maintain pressure kgf/cm² (kPa)		10 (1000)
Number of needle rotation		10 (8) round
Service temperature °C		5 ~ 60
Material	Body	Nickel-plated brass
	Plastic	NYLON , PBT , PP

QST series Ball valve



Metric specification

Tube size ØD	Tube size ØD	Model	B	E	F	ØG	M	Opposite dim H	Effective Area mm²	Weight (g)
Ø4	Ø4	QST 4 – 4	23.4	31.3	32.1	12.4	M12x1.0p	14	3.4	35
Ø6	Ø6	QST 6 – 6	23.7	31.3	32.4	12.4	M12x1.0p	14	7.2	35
Ø8	Ø8	QST 8 – 8	29.5	36.5	37.6	17.8	M14x1.0p	17	8.7	70
Ø10	Ø10	QST 10 – 10	30.1	36.5	38.2	17.8	M14x1.0p	17	17.4	75

Inch specification

Tube size ØD	Tube size ØD	Model	B	E	F	ØG	M	Opposite dim H	Effective Area mm²	Weight (g)
5/32"	5/32"	QST 5/32 – 5/32	23.4	31.3	32.1	12.4	M12x1.0p	14	3.4	35
1/4"	1/4"	QST 1/4 – 1/4	23.7	31.3	32.4	12.4	M12x1.0p	14	7.2	35
5/16"	5/16"	QST 5/16 – 5/16	29.5	36.5	37.6	17.8	M14x1.0p	17	8.7	70
3/8"	3/8"	QST 3/8 – 3/8	30.1	36.5	38.2	17.8	M14x1.0p	17	17.4	75