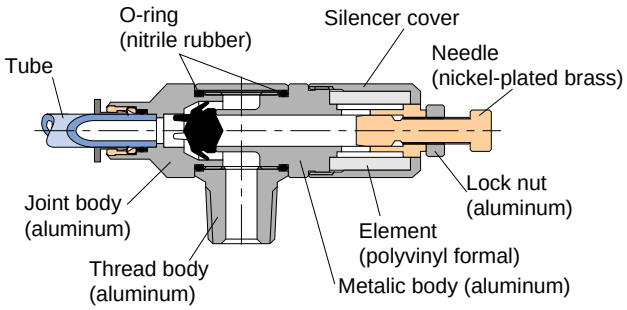
Quick Fitting Type Quick Exhaust Valve

Quick Exhaust Valve

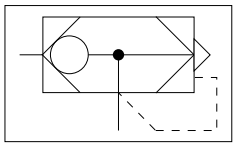
Features

- In response to high-speed drive cylinder.
- The valve serves also as a shuttle valve.
  [Standard type (EQ□-C, EQ□-P), Mini-type (EQY)]
- Model with exhaust needle valve is capable of hgih-speed control of the cylinder.
  [Standard type (EQ□-C□E), Mini-type (EQE)]
- Standard type with exhaust needle valve comes with silencer. The silencer element can be replaced without removing the slide valve, so that it is not necessary to readjust the needle.

Construction



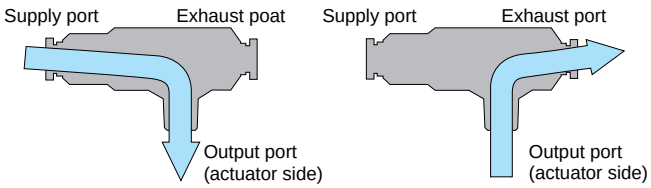
Graphical representation



Specification

Fluid admitted	Air	
Service pressure range	0~120psi	0.1 ~ 0.7MPa
Proof pressure	196psi	1.35MPa
Service temperature range	41~140˚F	5 ~ 60°C
Min. Operating pressure	7.25psi	0.05MPa

Control direction



Model Designation (Example)

EQ (1) 01 (2) - C (3) 04 (4) P (5) 01 (6) C (7) 08 (8)

(1)Type

(2)Size

Code	01	02	03
Eff.A.	8mm²	16mm²	30mm²
Cv factor	0.43	0.87	1.63

(3)Intake-side

C : Quick-fitting joint type

P : Taper pipe thread type

(4)Tube size

■Intake-side tube, thread size (Standard type)

	Tube dia (mm)					Taper pipe thread			
Code	04	06	08	10	12	01	02	03	04
Size	ϕ4	ϕ6	ϕ8	ϕ10	ϕ12	R1/8	R1/4	R3/8	R1/2

■Tube size (Mini type)

	Tube dia	
Code	4	6
Size (mm)	ϕ4	ϕ6

(5)Output-side type

C : Quick-fitting joint type

P : Taper pipe thread type

(6)Output-side tube, thread size

	Tube dia					Taper pipe thread			
Code	04	06	08	10	12	01	02	03	04
Size	ϕ4	ϕ6	ϕ8	ϕ10	ϕ12	R1/8	R1/4	R3/8	R1/2

(7)Exhaust-side type

C : Quick-fitting joint type

E : Exhaust needle valve type

(8)Exhaust-side tube dia

	Tube dia		
Code	08	10	12
Size(mm)	ϕ8	ϕ10	ϕ12

*No code for the type with exhaust needle valve

* Enter (1) and (4) for mini type.

Detailed Safety Instruction

Before using the PISCO device, be sure to read the "Safety Instructions", "Common Safety Instructions for Products Listed in This Manual" on pages 23~24 and "Common Safety Instructions for Controllers" on pages 167~168.

⚠ Warning

1. With the exhaust needle valve type, adjust the speed of the actuator by opening the needle gradually from the fully closed position. With the needle open, there are chances of the actuator flying out. With the other types, operate after confirming safety.
2. Do not subject the product with a rotatable resin body to forcible swinging or rotation. Otherwise the body may suffer damage or develop leakage.

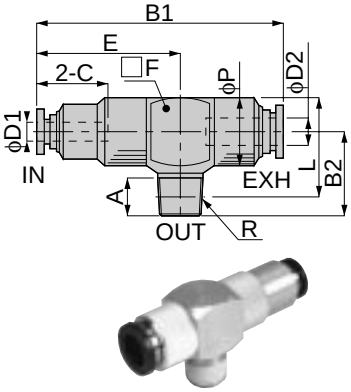
⚠ Caution

1. Clogging of the element of Quick Exhaust Valve raises resistance to exhaust, thus lowering the performance of the system as a whole.
2. When you use the Quick Exhaust Valve as a shuttle valve, be sure to provide a differential pressure. No differential pressure may lead to malfunction.
3. After replacing the element, secure the silencer cover by manually tightening. Note, however, that the element can not be replaced with small Quick Exhaust Valves.
4. Before installing the valve, read ⚠ Caution 3 in the Common Safety Instructions for Controllers and perform the connection using a proper tool applied to the hexagonal or square part.
5. Adjust the lead-out direction of piping from the product with nonrotable resin body within specified range of tightening torque.

unit:mm

EQ

Cylinder Direct Mounting
Union Straight
Concentrated Exhaust

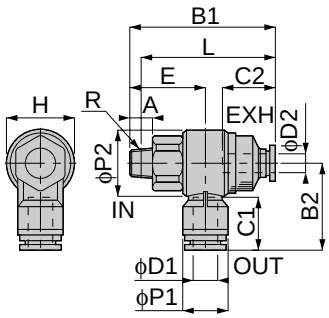


Model	Tube dia. φD1	Tube dia. φD2	R	A	B1	B2	L	φP	C	E	□F	Mass (g)	Eff. a. (mm²) IN→OUT	Eff. a. (mm²) OUT→EX
EQ 01-C04P01C08	4	8	R1/8	8	46.5	18	21.5	15	15	24	15	23	4	9
EQ 01-C06P01C08	6				47				17			22	6	
EQ 02-C06P01C10	6	10	R1/8	8	57	20	25	18	17	31	18	31	9	16
EQ 02-C06P02C10			R1/4	11		22						33		
EQ 02-C08P01C10	8		R1/8	8	59.5	20	25		18.5	34			12	
EQ 02-C08P02C10			R1/4	11		22						34		
EQ 03-C10P02C12	10	12	R1/4	11	74.5	28	34.5	24	21	43	25	70	24	34
EQ 03-C10P03C12			R3/8	12			34					72	25	35
EQ 03-C10P04C12			R1/2	15		30	34.5					76	27	37
EQ 03-C12P02C12	12		R1/4	11	76	28			23.5	44.5			25	34
EQ 03-C12P03C12			R3/8	12			34					79	26	35
EQ 03-C12P04C12			R1/2	15		30	34.5					82	28	37

unit:mm

EQ

Straight
Concentrated Exhaust



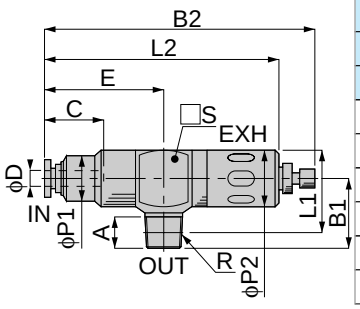
Model	Tube dia. φD1	Tube dia. φD2	R	A	B1	B2	L	φP1	φP2	C1	C2	E	H	Mass (g)
EQ 01-P01C06C08	4	8	R1/8	8	43	25.5	39	12.5	18.5	17	18.5	19	14	24
EQ 02-P01C06C10	6	10	R1/8	8	50.5	29	46.5	14.5	22	17	21	22.5	17	33
EQ 02-P01C08C10	8									18.5				34
EQ 02-P02C06C10	6		R1/4	11	53.5		47.5			17		25.5		35
EQ 02-P02C08C10	8									18.5				36
EQ 03-P03C10C12	10	12	R3/8	12	64.5	34	58	17.5	28	20.5	23.5	29	22	73
EQ 03-P03C12C12	12					36.5		21		23.5		30.5		76
EQ 03-P04C10C12	10		R1/2	15	67.5	34	59.5	17.5		20.5		32		79
EQ 03-P04C12C12	12					36.5		21		23.5		33.5		82

Model	Eff. a. (mm²) IN→OUT	Eff. a. (mm²) OUT→EX
EQ 01-P01C06C08	5.5	6.5
EQ 02-P01C06C10	8	9
EQ 02-P01C08C10	10	12
EQ 02-P02C06C10	8	9
EQ 02-P02C08C10	10	12
EQ 03-P03C10C12	21	24
EQ 03-P03C12C12	22	27
EQ 03-P04C10C12	21	24
EQ 03-P04C12C12	22	27

unit:mm

EQ

Cylinder Direct Mounting
Straight Exhaust Throttle
Open to Atmosphere

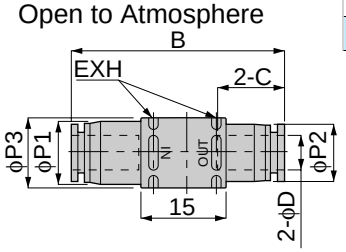


Model	Tube dia. φD	R	A	B2	B1 max	B1 min	L1	L2	φP1	φP2	C	E	□F	Mass (g)	Eff. a. (mm²) IN→OUT	Eff. a. (mm²) OUT→EX
EQ 01-C04P01E	4	R1/8	8	25.5	67	62	21.5	54.5	12	15	15	24	15	25	4	8
EQ 01-C06P01E	6										17				6	
EQ 02-C06P01E	6	R1/8	8	29	81	74.5	25	66	14	18	17	31	18	39	9	15
EQ 02-C06P02E		R1/4	11	31										41		
EQ 02-C08P01E	8	R1/8	8	29	84	77	25	68.5	16		18.5	33.5		40	12	
EQ 02-C08P02E		R1/4	11	31										42		
EQ 03-C10P02E	10	R1/4	11	40.5	112.5	105.5	34.5	96	18	25	21	43	25	94	24	31
EQ 03-C10P03E		R3/8	12				34							96	25	
EQ 03-C10P04E		R1/2	15	42.5			34.5							100	27	34
EQ 03-C12P02E	12	R1/4	11	40.5	114.5	107	34	97.5	21		23.5	44.5			25	31
EQ 03-C12P03E		R3/8	12											103	26	
EQ 03-C12P04E		R1/2	15	42.5			34.5							106	28	34

Control Series Quick Exhaust Valve

EQU MINI TYPE

Union Straight
Open to Atmosphere

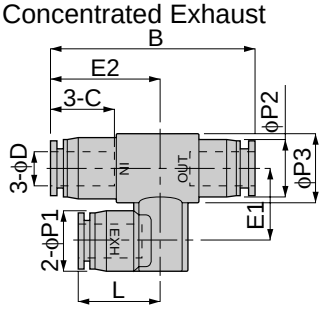


unit:mm

Model	Tube dia. ϕD	B	ϕP1	ϕP2	ϕP3	C	Mass (g)	Eff. a. (mm²)	
								IN→OUT	OUT→EX
EQU-4	4	35	9	8.5	10	11.5	3.5	1.8	1.8
EQU-6	6	37.5	11	10.5	12	12	5	4	4

EQY MINI TYPE

Union Straight
Concentrated Exhaust

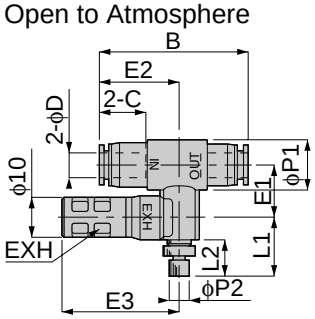


unit:mm

Model	Tube dia. ϕD	B	L	ϕP1	ϕP2	ϕP3	C	E1	E2	Mass (g)	Eff. a. (mm²)	
											IN→OUT	OUT→EX
EQY-4	4	35	14	9	8.5	10	11.5	11	22.5	5	1.8	1.8
EQY-6	6	37.5	15.5	11	10.5	12	12	13	24.5	7.5	4	4

EQE MINI TYPE

Union Straight
Exhaust Throttle
Open to Atmosphere

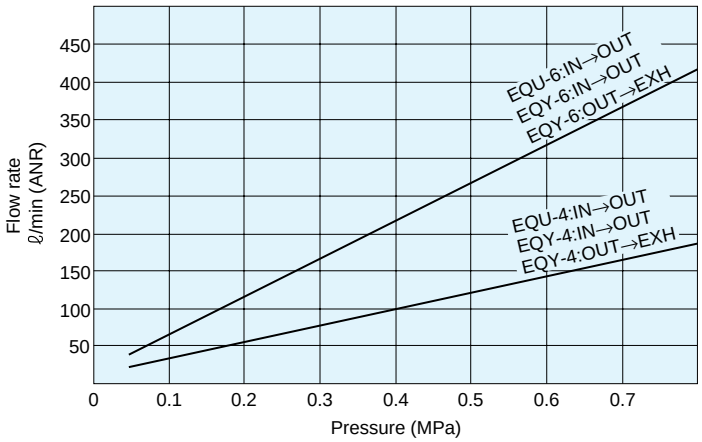


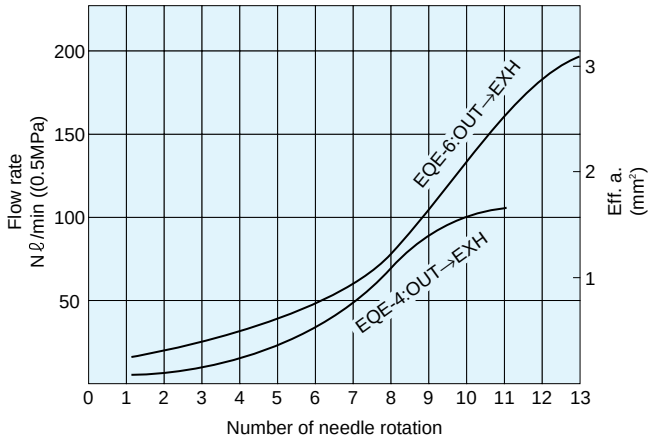
unit:mm

Model	Tube dia. ϕD	B	L1		L2		ϕP1	ϕP2	C	E1	E2	E3	Mass (g)	Eff. a. (mm²)	
			max	min	max	min								IN→OUT	OUT→EX
EQE-4	4	35	17.5	13.5	13	9	10	4	11.5	11	22.5	28.5	7	1.8	1.7
EQE-6	6	37.5	19	14.5	13.5	9	12	5	12	13	24.5	29.5	10	4	3.2

Flow characteristics

Mini type





Standard type