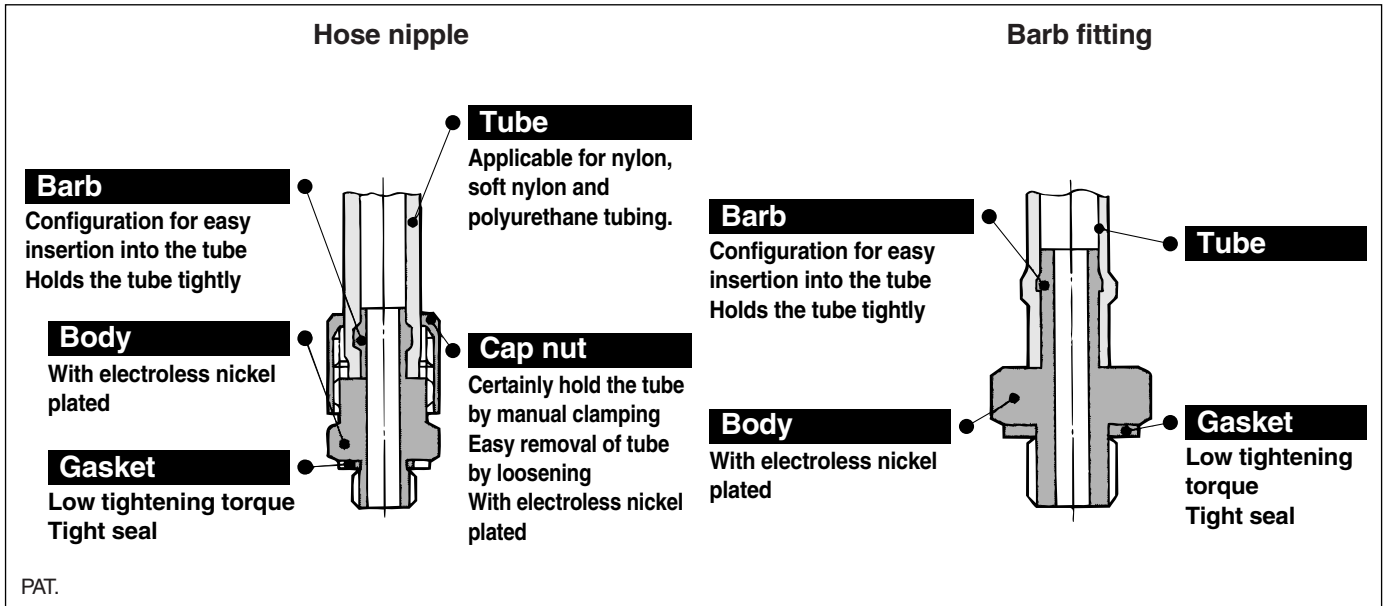


Miniature Fittings

M3, M5, R 1/8

Series M



Compact piping space

Hose nipple tubing connection/disconnection is simple while keeping a large retaining force.

Line up various styles

For air connection in confined areas.

Accepts many styles of plastic tubing

Hose nipple and hose elbow accepts nylon, soft nylon, and polyurethane tubing.



Specifications

Applicable tubing material		Nylon	Soft nylon	Polyurethane
Applicable tubing	M3	—	ø3.18/ø2.18	ø3.18/ø2, ø4/ø2.5
	M5-R 1/8	ø4/ø2.5 ø6/ø4	ø4/ø2.5 ø6/ø4	ø3.18/ø2 ø4/ø2.5, ø6/ø4
Max. operating pressure (at 20°C)		1.5 MPa	1.0 MPa	0.8 MPa
Connection size		M3, M5, R 1/8		
Thread		JIS B 0209 Class 2 (Metric coarse thread), JIS B 0203 (Taper pipe thread)		

Principal Parts Material

Material	Body	C3604BD (Nipple M-3N, M-5N: Stainless steel 303)
	Gasket	PVC, Nylon 66: GF30%, Stainless steel 304, NBR










Fitting Markings for Applicable Tubing Material (Barb fitting, Barb elbow, Barb elbow (H))







Tubing material determines the compatible fittings. (Refer to the table below.)

Connection	Tubing	Fitting marking for applicable tubing material			Surface treatment (Color)
		Barb fittings	Barb elbow	Barb elbow (H)	
M3	Soft nylon tubing Polyurethane tubing		—		Electroless nickel plated (Silver color)
	Nylon tubing				Electroless nickel plated (Silver color)
R 1/8, M5	Soft nylon tubing Polyurethane tubing	Marking	Marking	Marking	Electroless nickel plated (Black color) [Except stud]
	Nylon tubing				Electroless nickel plated (Silver color)























* Body of M-5E, M-5ER, M-5M is not surface-treated.
Electroless nickel plate treated is available as option -X2.














Series M3, R 1/8

Series	Model	Description	Application	Note
M3	M-3AU-3	Barb fitting for soft tube 	For soft nylon tubing	ø3.18/2.18 x M3
	M-3AU-4		For polyurethane tubing	ø3.18/2 x M3
	M-3ALU-3	Barb elbow for soft tubing 	For soft nylon tubing	ø3.18/2.18 x M3
	M-3ALU-4		For polyurethane tubing	ø3.18/2 x M3
	M-3UL	Universal elbow 	Body rotates at 360° around the stud axis	M3 female x M3 male
	M-3UT	Universal tee 	Body rotates at 360° around the stud axis	M3 female x M3 female x M3 male
	M-3N	Nipple 	Fitting to workpiece and fitting to fitting connection	M3 male x M3 male
	M-3P	Plug 	Use to plug unused M3 port	
	M-3G	Gasket 	To seal M3 thread	

Series	Model	Description	Application	Note
R 1/8	M-01AN-4	Barb fitting for nylon tubing 	For nylon tubing	ø4/2.5 x R 1/8
	M-01AN-6			ø6/4 x R 1/8
	M-01AU-4	Barb fitting for soft tubing 	For soft nylon and polyurethane tubing	ø4/2.5 x R 1/8
	M-01AU-6			ø6/4 x R 1/8
	M-01H-4	Hose nipple 	For nylon, soft nylon and polyurethane tubing	ø4/2.5 x R 1/8
	M-01H-6			ø6/4 x R 1/8

Series M5

Series	Model	Description	Application	Note
M5	M-5AN-4	Barb fitting for nylon tubing 	For nylon tubing	ø4/2.5 x M5
	M-5AN-6			ø6/4 x M5
	M-5AU-3	Barb fitting for soft tubing 	For soft nylon tubing	ø3.18/2.18 x M5
	M-5AU-4		For polyurethane tubing	ø3.18/2 x M5
	M-5AU-6		For soft nylon and polyurethane tubing	ø4/2.5 x M5
	M-5ALN-4	Barb elbow for nylon tubing 	• For nylon • Body rotates at 360° around the stud axis	ø4/2.5 x M5
	M-5ALN-6			ø6/4 x M5
	M-5ALU-3	Barb elbow for soft tubing 	Body rotates at 360° around the stud axis	For soft nylon tubing ø3.18/2.18 x M5
	M-5ALU-4			For polyurethane tubing ø3.18/2 x M5
	M-5ALU-6			For soft nylon and polyurethane tubing ø4/2.5 x M5
M5	M-5ALHN-4	Barb elbow (H) for nylon tubing 	Body rotates at 360° around the stud axis	For nylon tubing ø4/2.5 x M5
	M-5ALHN-6			ø6/4 x M5
	M-5ALHU-3	Barb elbow (H) for soft tubing 	Body rotates at 360° around the stud axis	For soft nylon tubing ø3.18/2.18 x M5
	M-5ALHU-4			For polyurethane tubing ø3.18/2 x M5
	M-5ALHU-6			For soft nylon and polyurethane tubing ø4/2.5 x M5
	M-5H-4	Hose nipple 	For nylon, soft nylon and polyurethane tubing	ø4/2.5 x M5
	M-5H-6			ø6/4 x M5
	M-5HL-4	Hose elbow 	• For nylon, soft nylon and polyurethane tubing • Body rotates at 360° around the stud axis	ø4/2.5 x M5
	M-5HL-6			ø6/4 x M5
	M-5HLH-4	Hose elbow (H) 		ø4/2.5 x M5
M-5HLH-6			ø6/4 x M5	
M5	M-5L	Elbow 	One-sided 90° elbow	M5 female x M5 female

Series	Model	Description	Application	Note
M5	M-5T	tee 	Both sides allow 90° connection	M5 female x M5 female x M5 female
	M-5UL	Universal elbow 	Body rotates at 360° around the stud axis	M5 female x M5 male
	M-5UT	Universal tee 	Body rotates at 360° around the stud axis	M5 female x M5 female x M5 male
	M-5J	Extension fitting 	Solid piece moves fitting up from workpiece	M5 male x M5 female
	M-5N	Nipple 	Fitting to workpiece and fitting to fitting connection	M5 male x M5 male
	M-5UN	Universal nipple 	Body rotates at 360° around the stud axis	M5 male x M5 male PAT.
	M-5E	Bulkhead union 	Panel-mount connection	M5 female x M5 female
	M-5ER	Bulkhead reducer 	Reduction from Rc 1/8 to M5 including panel or bracket mounting	Rc 1/8 x M5 female
	M-5M	Manifold 	For reducing Rc 1/8 female be diverted to up to 9, M5 stations, including panel or bracket mounting	Rc 1/8 x M5 female (9 stations)
	M-5B	Bushing 	For reducing R 1/8 female to M5.	R 1/8 x M5 female
M5	M-5P	Plug 	Use to plug unused M5 port.	
	M-5G1	Gasket 	To seal M5 thread	Material: PVC
	M-5GH	Gasket (H) 	M-5AL□-6 M-5ALH□-6 M-5HL-4, 6 M-5HLH-4, 6	Material: Nylon66 GF30%

- K□
- M□
- H□
- D□
- MS
- T□
- VMG

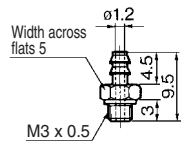
* Gaskets are prepared for other items than the above, too.

Part no.	Application	Material
M-5G2	For M5 thread for Series KQ2, KJ	Stainless steel 304,
M-6G	For M6 thread for Series KQ2	NBR
M-10/32G	For 10-32UNF thread for Series KQ2	

Series M

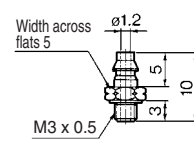
Series M3

Barb Fitting for Soft Tubing: M-3AU-3



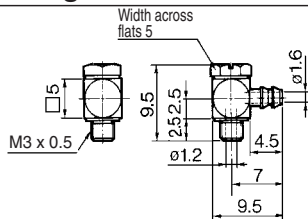
Effective area: 0.9 mm² Weight: 0.6 g

Barb Fitting for Soft Tubing: M-3AU-4



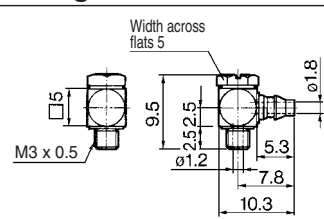
Effective area: 0.9 mm² Weight: 0.7 g

Barb Elbow for Soft Tubing: M-3ALU-3



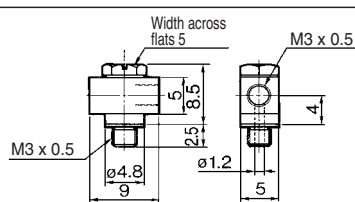
Effective area: 0.6 mm² Weight: 0.8 g

Barb Elbow for Soft Tubing: M-3ALU-4



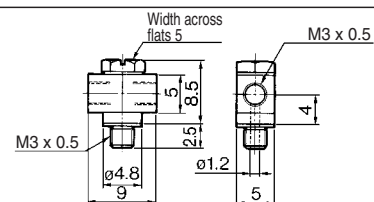
Effective area: 0.6 mm² Weight: 0.9 g

Universal Elbow: M-3UL



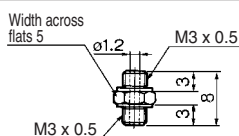
Effective area: 0.6 mm² Weight: 1.6 g

Universal Tee: M-3UT



Effective area: 0.6 mm² Weight: 1.4 g

Nipple: M-3N



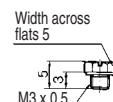
Weight: 0.6 g
Effective area: 0.9 mm²

Gasket: M-3G



Weight: 0.005 g

Plug: M-3P



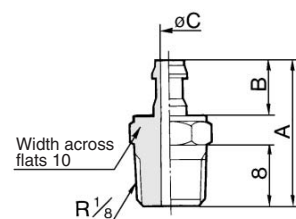
Weight: 0.5 g

Series R 1/8

Barb Fitting for Nylon Tubing, Soft Tubing: M-01A□-4/-6



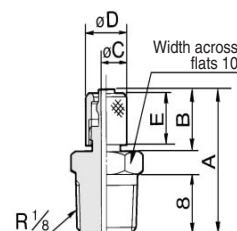
Applicable tubing	Model	A	B	øC	Effective area (mm ²)	Weight (g)
Nylon tubing	M-01AN-4	16	5	1.8	2.1	6.4
	M-01AN-6	18	7	2.5	4.0	6.6
Soft tubing	M-01AU-4	16	5	1.8	2.1	6.5
	M-01AU-6	18	7	2.5	4.0	6.7



Hose Nipple: M-01H-4/-6



Model	A	B	øC	øD	E	Effective area (mm ²)	Weight (g)
M-01H-4	19.5	8.5	1.8	6.5	7	2.1	7.1
M-01H-6	20.5	9.5	3	8.5	8	5.5	7.7

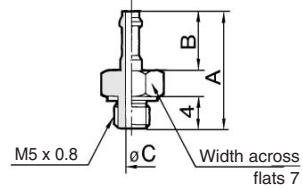


Series M5

Barb Fitting for Nylon Tubing: M-5AN-4/-6



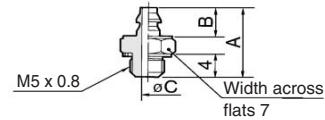
Model	A	B	øC	Effective area (mm ²)	Weight (g)
M-5AN-4	12	5	1.8	2.1	1.6
M-5AN-6	14	8	2.5	4.0	1.7



Barb Fitting for Soft Tubing: M-5AU-3/-4/-6



Model	A	B	øC	Effective area (mm ²)	Weight (g)
M-5AU-3	11.5	4.5	1.6	1.7	1.5
M-5AU-4	12	5	1.8	2.1	1.6
M-5AU-6	14	7	2.5	4.0	1.8

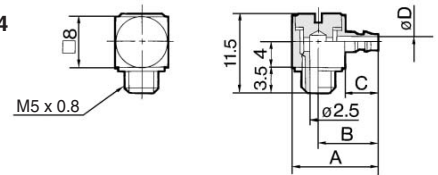


Barb Elbow for Nylon Tubing: M-5ALN-4/-6 Barb Elbow for Soft Tubing: M-5ALU-3/-4/-6

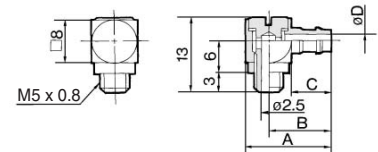


Model	A	B	C	øD	Effective area (mm ²)	Weight (g)
M-5ALN-4	13	9	5	1.8	1.4	4.0
M-5ALN-6	15	11	7	2.5	2.4	4.4
M-5ALU-3	12.5	8.5	4.5	1.6	1.1	4.0
M-5ALU-4	13.3	9.3	5	1.8	1.4	4.1
M-5ALU-6	15.3	11.3	7	2.5	2.4	4.5

M-5ALN-4
M-5ALU-3/-4



M-5ALN-6
M-5ALU-6

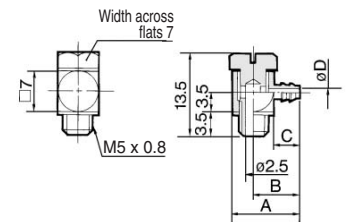


Barb Elbow for Nylon Tubing: M-5ALHN-4/-6 Barb Elbow for Soft Tubing: M-5ALHU-3/-4/-6

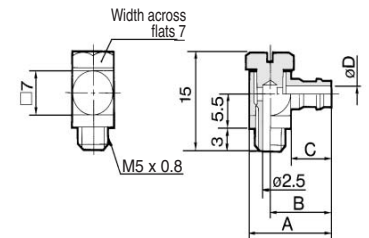


Model	A	B	C	øD	Effective area (mm ²)	Weight (g)
M-5ALHN-4	12	8.5	5	1.8	1.4	3.2
M-5ALHN-6	14	10.5	7	2.5	2.4	3.7
M-5ALHU-3	11.5	8	4.5	1.6	1.1	3.2
M-5ALHU-4	12.3	8.8	5	1.8	1.4	3.3
M-5ALHU-6	14.3	10.8	7	2.5	2.4	3.9

M-5ALHN-4
M-5ALHU-3/-4



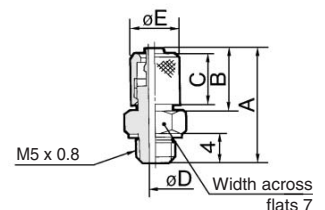
M-5ALHN-6
M-5ALHU-6



Hose Nipple: M-5H-4/-6



Model	A	B	C	øD	øE	H	Effective area (mm ²)	Weight (g)
M-5H-4	15.5	8.5	7	1.8	6.5	7	2.1	2.7
M-5H-6	16.5	9.5	8	2.5	8.5	8	4.0	3.9



K□

M□

H□

D□

MS

T□

VMG

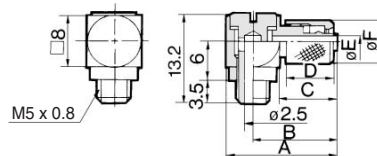
Series M

Series M5

Hose Elbow: M-5HL-4/-6



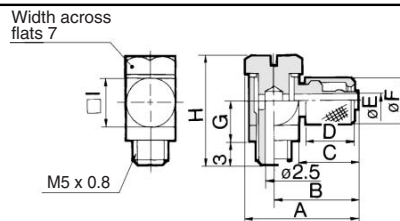
Model	A	B	C	D	øE	øF	Effective area (mm ²)	Weight (g)
M-5HL-4	16.5	12.5	8.5	7	1.8	6.5	1.4	4.4
M-5HL-6	17.5	13.5	9.5	8	2.5	8.5	2.4	5.2



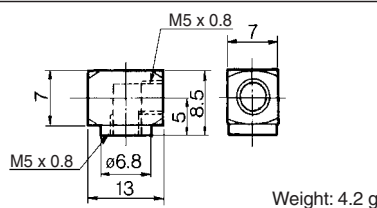
Hose Elbow: M-5HLH-4/-6



Model	A	B	C	D	øE	øF	G	H	I	Effective area (mm ²)	Weight (g)
M-5HLH-4	15.5	12	8.5	7	1.8	6.5	5.5	15	7	1.4	4.5
M-5HLH-6	17.5	13.5	9.5	8	2.5	8.5	6	16	8	2.4	6.6

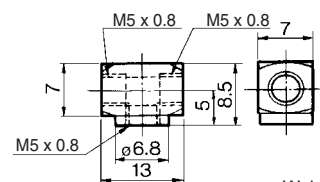


Elbow: M-5L



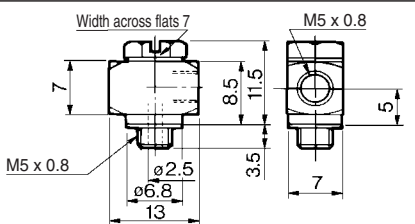
Weight: 4.2 g

Tee: M-5T



Weight: 3.5 g

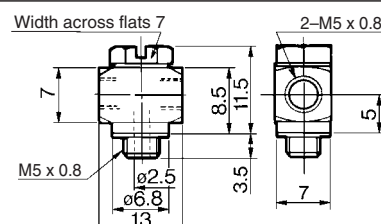
Universal Elbow: M-5UL



Effective area: 2.4 mm²

Weight: 5.3 g

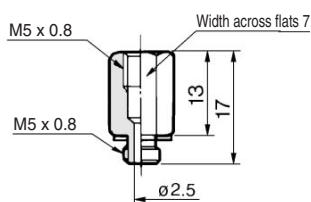
Universal Tee: M-5UT



Effective area: 2.4 mm²

Weight: 4.8 g

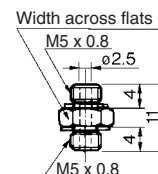
Extension Fitting: M-5J



Effective area: 4.0 mm²

Weight: 3.6 g

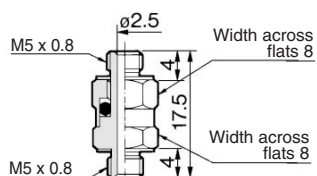
Nipple: M-5N



Effective area: 4.0 mm²

Weight: 1.5 g

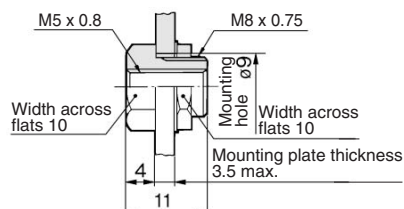
Universal Nipple: M-5UN



Effective area: 4.0 mm²

Weight: 3.9 g

Bulkhead Union: M-5E

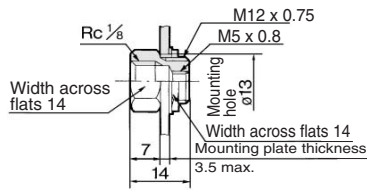


For the plate thickness 3.5 to 6 mm, give the plate tapping M8 x 0.75, and then screw-in.

Weight: 4.6 g

Series M5

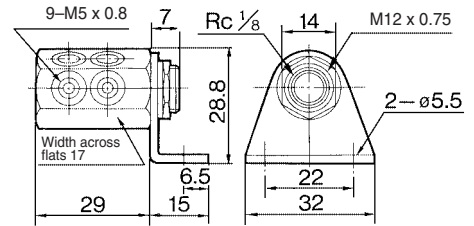
Bulkhead Reducer: M-5ER



For the plate thickness 3.5 to 6 mm, give the plate tapping M12 x 0.75, and then screw-in.

Weight: 12 g

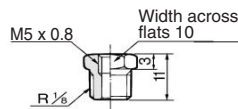
Manifold: M-5M



Panel mounting plate thickness max. 3.5 mm
For the plate thickness 3.5 to 6 mm, give the plate tapping M12 x 0.75, and then screw-in.

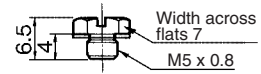
Weight: 59 g

Bushing: M-5B



Weight: 5.8 g

Plug: M-5P



Weight: 1.3 g

Gasket: M-5G1



Weight: 0.01 g

Gasket: M-5GH



Weight: 0.04 g

- K
- M
- H
- D
- MS
- T
- VMG

⚠ Precautions

Refer to pages 15-18-3 to 15-18-4 in the front matter for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to pages 15-1-10 to 15-1-11 for Precautions on every series.

Tightening of M3/M5 Threads

⚠ Caution

1. Tighten by hand, and give it an additional 1/4 rotation with wrench. (The additional rotation should be doubled to 1/2 when using the universal elbow, universal tee, etc. which have two gaskets.) If tightened excessively, thread portion may be damaged and gasket may be deformed. This will cause air leakage. On the contrary, if tightened insufficiently, thread may loosen causing air leakage.

Use of Tube with Hose Nipple

⚠ Caution

1. Cut the tube perpendicularly to the tube axis to a little longer than required length. (Use tube cutter "TK-1", "TK-2" or "TK-3".)
2. Pass the tube through the cap nut.
3. Push the tube until it comes to the end of the barb portion, or it may cause air leakage or hose releasing.
4. Tighten the cap nut firmly by hand on the fitting.

Use of Tube with Barb Fitting

⚠ Caution

1. Cut the tube perpendicularly to the tube axis to a little longer than required length. (Use tube cutter "TK-1", "TK-2" or "TK-3".)
2. Push the tube until it comes to the end of the barb portion, or it may cause air leakage or release hose.