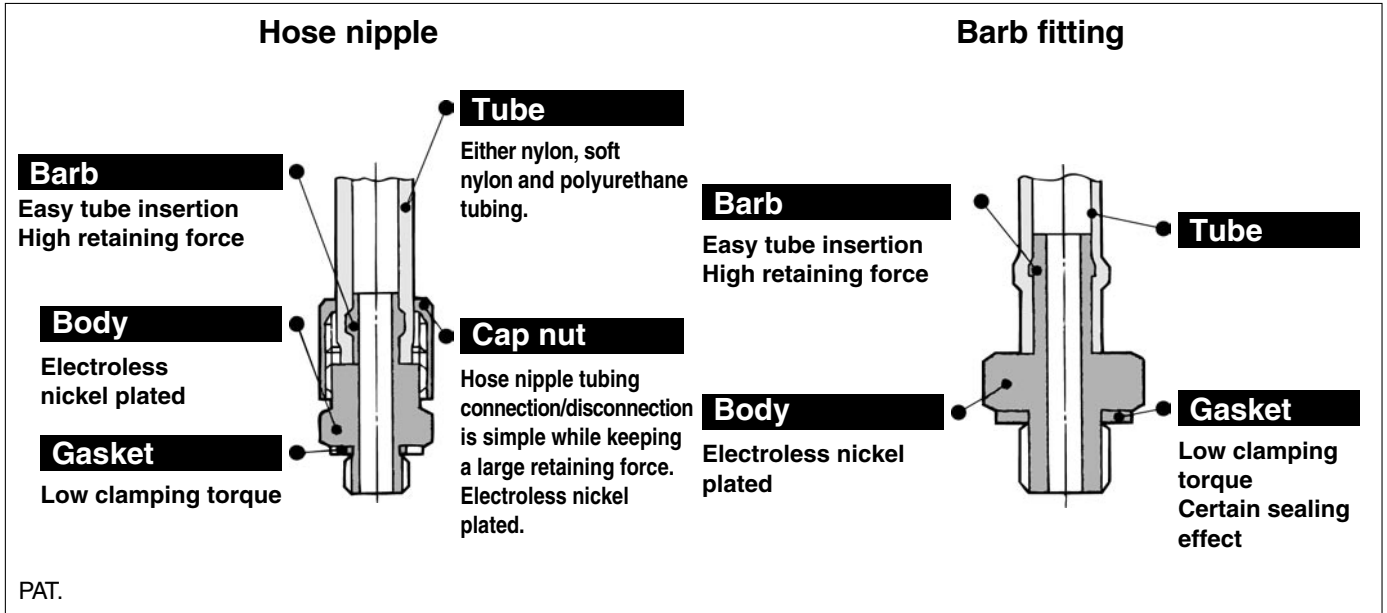


# Miniature Fittings

M3, M5, R(PT)1/8

# Series M



## Simple Connection/Disconnection

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

## Miniature Size

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 tube material	Nylon	Soft nylon	Polyurethane
Applicable tube dia.	M3	—	—
	M5-R(PT) 1/8	ø4/ø2.5 ø6/ø4	ø3.18/ø2.18 ø4/ø2.5 ø6/ø4
Max. operating pressure (at 20°C)	1.5MPa	1.0MPa	0.8MPa
Port size	M3, M5, R(PT) 1/8		
Thread	JIS B0209 Class 2 (Metric coarse thread), JIS B0203 (Taper pipe thread)		

## Component Materials

Material	Body	Gasket
	C3604BD (Nipple M-3N, M-5N: Stainless steel (SUS 303))	PVC, Nylon66: GF30%

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

Tube material determines the compatible fittings. (See diagram below.)

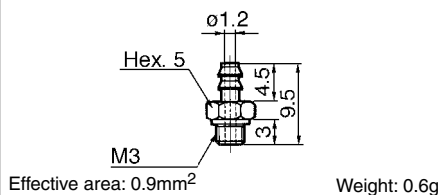
Connection	Tube	Fitting marking for applicable tube material			Surface treatment (Color)
		Barb fitting	Barb elbow	Barb elbow (H)	
M3	Soft nylon tube		—		Electroless nickel plated (Silver color)
	Polyurethane tube		—		
R(PT) 1/8, M5	Nylon tube				Electroless nickel plated (Silver color)
	Soft nylon tube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

# Miniature Fittings *Series M*

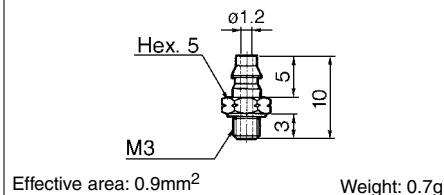
Series M3, R(PT)1/8				Series M5									
Series/Model	Style	Application	Note	Series/Model	Style	Application	Note	Series/Model	Style	Application	Note		
M3	M-3AU-3	Barb fitting	For soft nylon tube	ø3.18/2.18 X M3	M-5AN-4	Barb fitting	For nylon tube	ø4/2.5 X M3	M-5T	Tee	Both sides allows 90° connection	M5 female X M5 female X M5 female	
			For polyurethane tube	ø3.18/2 X M3									M-5UL
	M-3AU-4	Barb fitting	For soft nylon and polyurethane tube	ø4/2.5 X M3	M-5AU-3	Barb fitting	For soft nylon tube	ø3.18/2.18 X M5	M-5UT	Universal tee	Body rotates at 360° around the stud axis	M5 female X M5 female X M5 male	
													M-3ALU-3
	M-3ALU-4	Barb fitting	Body rotates 360° around the stud axis.	polyurethane	ø3.18/2 X M3	M-5AU-6	Barb fitting	For soft nylon and polyurethane tube	ø4/2.5 X M5				
										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-5ALN-6	Barb elbow	Body rotates at 360° around stud	ø6/4 X M5	M-5N				
										M-3N	Nipple	Fitting to workpiece and fitting - fitting connection possible	M3 male X M3 male
	M-3P	Plug	To plug unused M3 port		M-5ALU-4	Barb elbow	Body rotates at 360° around the stud axis	polyurethane	ø3.18/2 X M5				
										M-3G	Gasket	To seal M3 thread	
R(PT)1/8	M-01AN-4	Barb fitting	For nylon tube	ø4/2.5 X R(PT)1/8	M-5ALHN-4	Barb elbow (H)	Body rotates at 360° around the stud axis	For nylon tube	ø4/2.5 X M5				
										M-01AN-6	Barb fitting	For soft nylon and polyurethane tube	ø4/2.5 X R(PT)1/8
	M-01AU-4	Barb fitting	For soft nylon and polyurethane tube	ø4/2.5 X R(PT)1/8	M-5ALHU-3	Barb elbow (H)	Body rotates at 360° around the stud axis	polyurethane	ø3.18/2 X M5				
										M-01AU-6	Barb fitting	For soft nylon and polyurethane tube	ø4/2.5 X R(PT)1/8
	M-01H-4	Hose nipple	For nylon, soft nylon and polyurethane tube	ø4/2.5 X R(PT)1/8	M-5ALHU-6	Barb elbow (H)	Body rotates at 360° around the stud axis	soft nylon and polyurethane	ø6/4 X M5				
										M-01H-6	Hose nipple	For nylon, soft nylon and polyurethane tube	ø6/4 X R(PT)1/8
	M-5H-6	Hose nipple	For nylon, soft nylon, and polyurethane tube	ø6/4 X M5	M-5HL-6	Hose elbow	●Body rotates at 360° around the stud axis	ø6/4 X M5	M-5HLH-4				
										M-5L	Elbow	One-sided 90° elbow	M5 female X M5 female
	M-5HL-4	Hose elbow	●For nylon, soft nylon, and polyurethane tube	ø4/2.5 X M5	M-5HLH-4	Hose elbow (H)	●Body rotates at 360° around the stud axis	ø4/2.5 X M5	M-5HLH-6				
										M-5HL-6	Hose elbow	●For nylon, soft nylon, and polyurethane tube	ø6/4 X M5
M-5HLH-4	Hose elbow (H)	●Body rotates at 360° around the stud axis	ø4/2.5 X M5	M-5HLH-6	Hose elbow (H)	●Body rotates at 360° around the stud axis	ø6/4 X M5	M-5HLH-4	Hose elbow (H)				
										M-5HLH-6	Hose elbow (H)	●Body rotates at 360° around the stud axis	ø6/4 X M5
M-5L	Elbow	One-sided 90° elbow	M5 female X M5 female	M-5HLH-4	Hose elbow (H)	●Body rotates at 360° around the stud axis	ø4/2.5 X M5	M-5HLH-6	Hose elbow (H)				
										M-5L	Elbow	One-sided 90° elbow	M5 female X M5 female

## Series M3

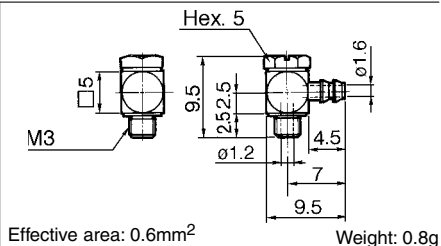
### Barb fitting for soft tube: M-3AU-3



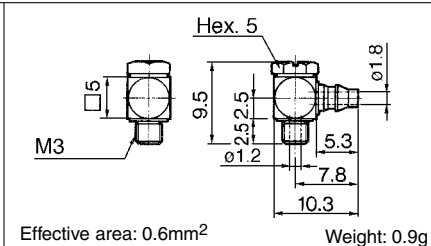
### Barb fitting for soft tube: M-3AU-4



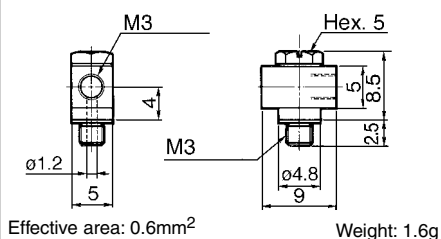
### Barb elbow for soft tube: M-3ALU-3



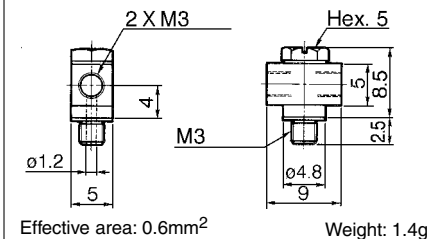
### Barb elbow for soft tube: M-3ALU-4



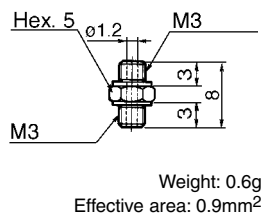
### Universal elbow: M-3UL



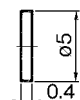
### Universal tee: M-3UT



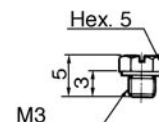
### Nipple: M-3N



### Gasket: M-3G



### Plug: M-3P

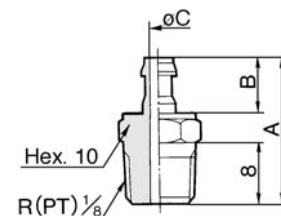


## Series R(PT)1/8

### Barb fitting for nylon tube, soft tube: M-01A□-4, -6



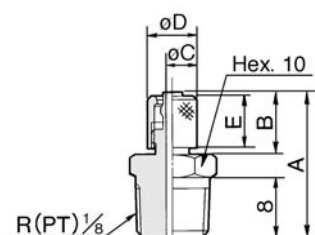
Tube	Part No.	A	B	$\phi C$	Effective area (mm <sup>2</sup> )	Weight (g)
Nylon tube	M-01AN-4	16	5	1.8	2.1	6.4
	M-01AN-6	18	7	2.5	4.0	6.6
Soft tube	M-01AU-4	16	5	1.8	2.1	6.5
	M-01AU-6	18	7	2.5	4.0	6.7



### Hose nipple: M-01H-4, -6



Part No.	A	B	$\phi C$	$\phi D$	E	Effective area (mm <sup>2</sup> )	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



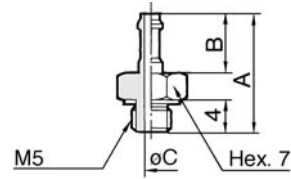
# Miniature Fittings *Series M*

## Series M5

### Barb fitting for nylon tube: M-5AN-4, -6



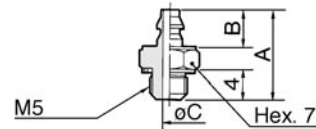
Part No.	A	B	øC	Effective area (mm <sup>2</sup> )	Weight (g)
M-5AN-4	12	5	1.8	2.1	1.6
M-5AN-6	14	8	2.5	4.0	1.7



### Barb fitting for soft tube: M-5AU-3, -4, -6



Part No.	A	B	øC	Effective area (mm <sup>2</sup> )	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

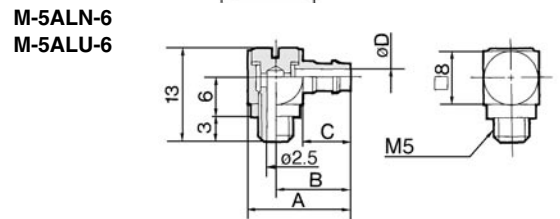
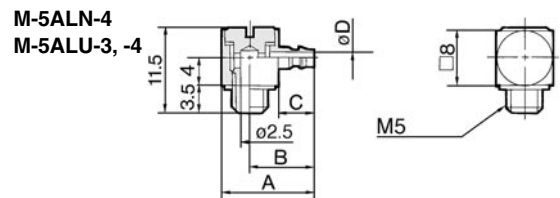


### Barb elbow for nylon tube: M-5ALN-4, -6

### Barb elbow for soft tube: M-5ALU-3, -4, -6



Part No.	A	B	C	øD	Effective area (mm <sup>2</sup> )	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

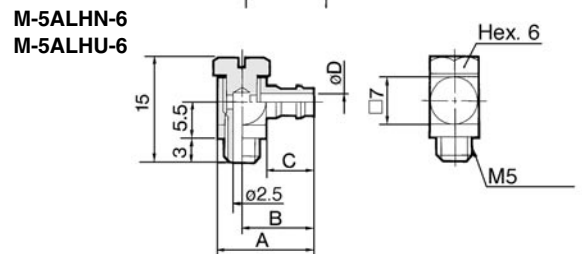
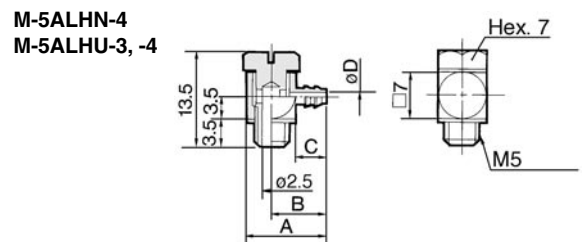


### Barb elbow for nylon tube: M-5ALHN-4, -6

### Barb elbow for soft tube: M-5ALHU-3, -4, -6



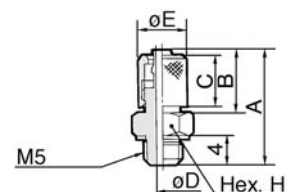
Part No.	A	B	C	øD	Effective area (mm <sup>2</sup> )	Weight (g)
M-5ALHN-4	12	8.5	5	1.8	1.4	3.2
M-5ALHN-6	14	10.5	7	2.5	2.4	3.7
M-5ALHU-3	11.5	8	4.5	1.6	1.1	3.2
M-5ALHU-4	12.3	8.8	5	1.8	1.4	3.3
M-5ALHU-6	14.3	10.8	7	2.5	2.4	3.9



### Hose nipple: M-5H-4, -6



Part No.	A	B	C	øD	øE	H	Effective area (mm <sup>2</sup> )	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

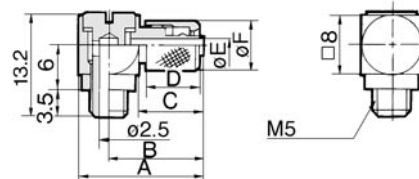


## Series M5

### Hose elbow: M-5HL-4, -6



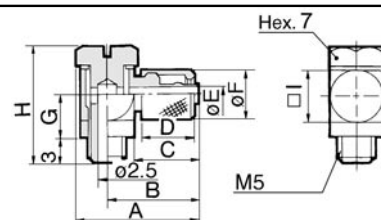
Part No.	A	B	C	D	øE	øF	Effective area (mm <sup>2</sup> )	Weight (g)
M-5HL-4	16.5	12.5	8.5	7	1.8	6.5	1.4	4.4
M-5HL-6	17.5	13.5	9.5	8	2.5	8.5	2.4	5.2



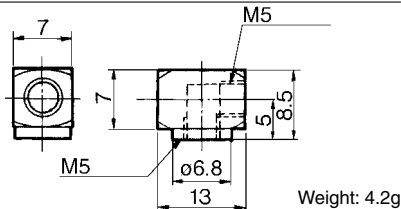
### Hose elbow: M-5HLH-4, -6



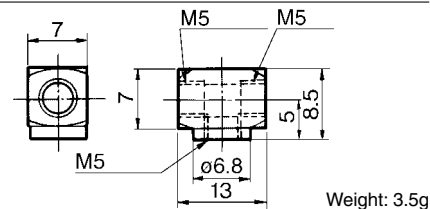
Part No.	A	B	C	D	øE	øF	G	H	□	Effective area (mm <sup>2</sup> )	Weight (g)
M-5HLH-4	15.5	12	8.5	7	1.8	6.5	5.5	15	7	1.4	4.5
M-5HLH-6	17.5	13.5	9.5	8	2.5	8.5	6	16	8	2.4	6.6



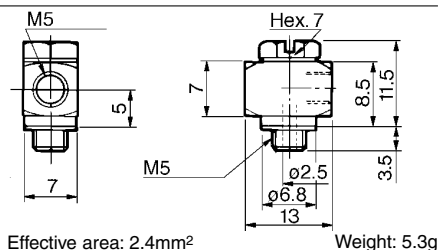
### Elbow: M-5L



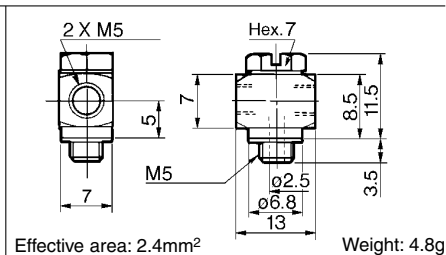
### Tee: M-5T



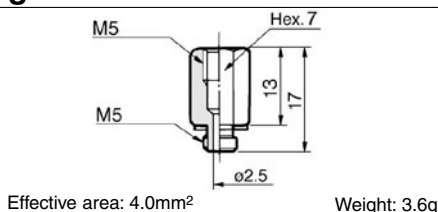
### Universal elbow: M-5UL



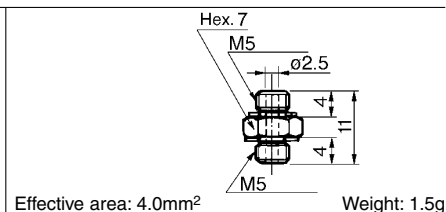
### Universal tee: M-5UT



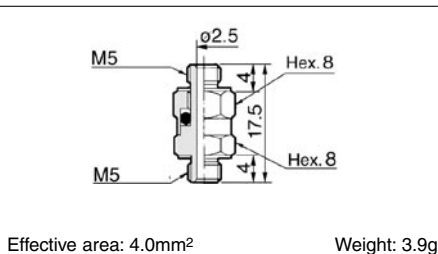
### Extension fitting: M-5J



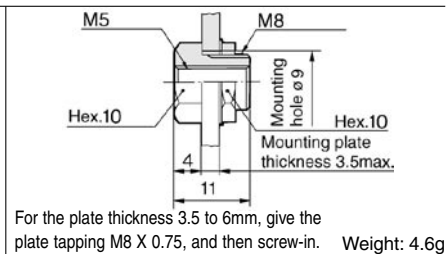
### Nipple: M-5N



### Universal nipple: M-5UN

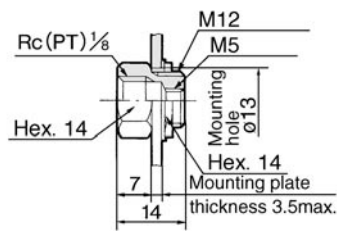


### Bulkhead union: M-5E



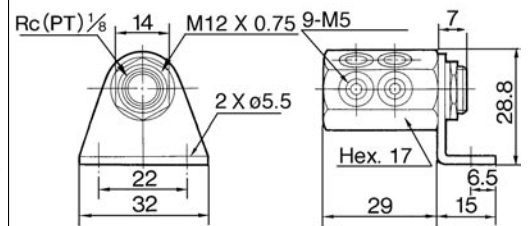
## Series M5

### Bulkhead reducer: M-5ER



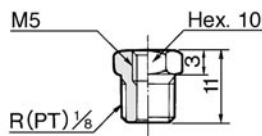
For the plate thickness 3.5 to 6mm, give the plate tapping M12 X 0.75, and then screw-in. Weight: 12g

### Manifold: M-5M



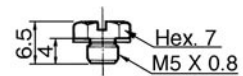
Panel mounting plate thickness max. 3.5mm  
For the plate thickness 3.5 to 6mm, give the plate tapping M12 X 0.75, and then screw-in. Weight: 59g

### Bushing: M-5B



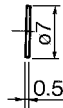
Weight: 5.8g

### Plug: M-5P



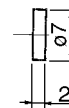
Weight: 1.3g

### Gasket: M-5G1



Weight: 0.01g

### Gasket: M-5GH



Weight: 0.04g

## ⚠ Precautions

### Tightening of M3 or M5 thread

#### ⚠ 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 too much, thread portion may be damaged and gasket may be deformed. This will cause air leakage. On the contrary, if tightening is not sufficient, thread may loosen causing air leakage.

### Use of tubing with hose nipple

#### ⚠ Caution

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