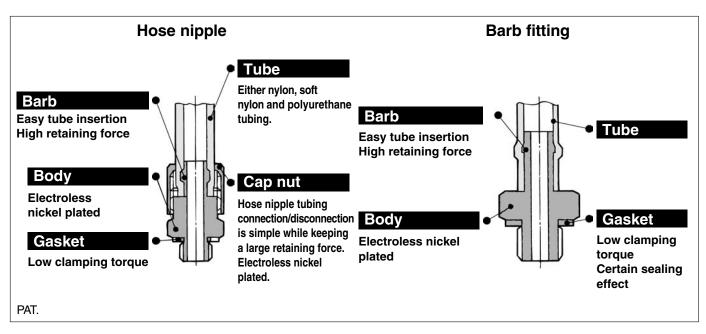
# Miniature Fittings M3, M5, R(PT)1/8 Series M



#### 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 tub	e material	Nylon	Soft r	nylon	Polyurethane	
Appliachla	M3	-		ø4/ø2.5	ø3.18/ø2, ø4/ø2.5	
Applicable tube dia.	M5-R(PT)	ø4/ø2.5	ø3.18/ø2.18	ø4/ø2.5	ø3.18/ø2,	
tube dia. $1/8$		ø6/ø4		ø6/ø4	ø4/ø2.5, ø6/ø4	
Max. operating p	ressure (at 20°C)	1.5MPa	1.0N	<i>I</i> Pa	0.8MPa	
Port size			M3, M5,	R(PT)1/8		
Thread		JIS B0209 Class 2 (Metric coarse thread), JIS B0203 (Taper pipe th				

### **Component Materials**

Matavial	Body	C3604BD (Nipple M-3N, M-5N: Stainless steel (SUS 303))
Material	Gasket	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 mark	ing for applicable t	ube material	Surface
CONNECTION	Tube	Barb fitting	Barb elbow	Barb elbow (H)	treatment (Color)
MЗ	Soft nylon tube Polyurethane tube				Electroless nickel plated (Silver color)
R(PT) <sup>1</sup> /8,	Nylon tube			₽ ₽	Electroless nickel plated (Silver color)
M5	Soft nylon tube Polyurethane tube		Marking		Electroless nickel plated (Black color) [Except stud]

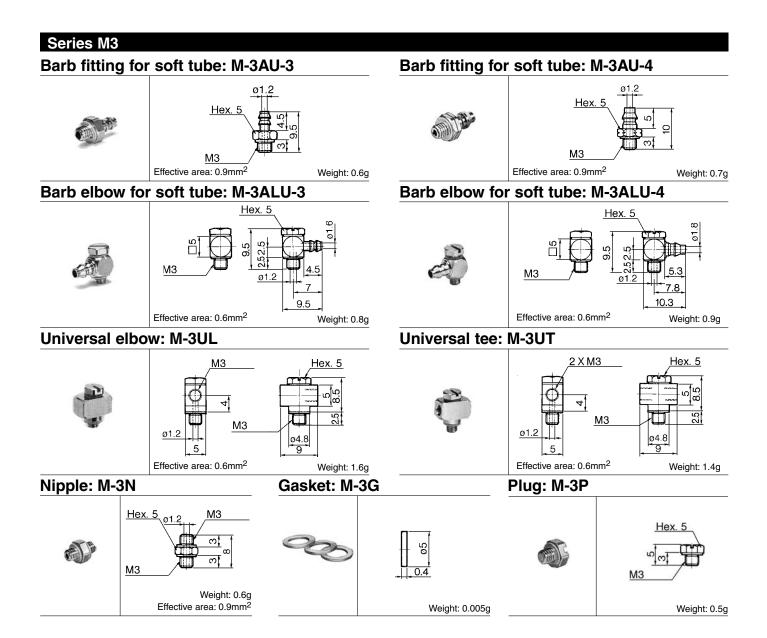


# Miniature Fittings Series M

## Series M3, R(PT)1/8

Series M5

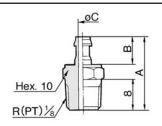
Series/Model	Style	Appli	cation	Note	Series/Model	Style	Appl	ication	Note	Series/Model	Style	Application	Note
M-3AU-3	Barb fitting	tube	t nylon	ø3.18/2.18 X M3	M-5AN-4	Barb fitting	For ny	/lon	ø4/2.5 X M3		Tee	Both sides	M5 fema X M5
		For pol thane t For sof	-	ø3.18/2 X M3	M-5AN-6		tube		ø6/4 X M5	M-5T	P.7-57	allows 90° connection	female X M5 female
M-3AU-4	P.7-55	and po	lyure-	ø4/2.5 X M3		P.7-56 Barb fitting	For so tube	ft nylon	ø3.18/2.18 X M5		Universal elbow	Body rotates	M5 fema
M-3ALU-3	Barb fitting		Soft nylon tube	ø3.18/2.18 X M3	M-5AU-3		For po thane		ø3.18/2 X M5	M-5UL	P.7-57	at 360° around the stud axis	X M5 male
	à	Body rotates 360° around	poly- urethane	ø3.18/2 X M3	M-5AU-4		and po	-	ø4/2.5 X M5 ø6/4		Universal tee	Body rotates	M5 fema X M5
M-3ALU-4		the stud axis.	nylon and poly-	ø4/2.5 X M3	M-5AU-6 M-5ALN-4	P.7-56 Barb elbow	thane •For m	/lon tube	X M5 ø4/2.5	M-5UT	P.7-57	at 360° around the stud axis	femal X M5 male
	Universal elbow	Body r		M3 female	M-5ALN-6	P.7-56	Body at 360 arour		X M5 ø6/4 X M5	M-5J	Extention fitting	Solid piece moves fitting	M5 ma X M5
M-3UL	Ċ.	at 360 around stud as	l the	X M3 male	M-5ALU-3	Barb elbow	Body	soft nylon	ø3.18/2.18 X M5		P.7-57 Nipple	up from workpiece	femal
13 M-3UT	P.7-55 Universal tee	Body r at 360		M3 female	M-5ALU-3	0	rotates at 360 around the	ourethane soft	ø3.18/2 X M5 ø4/2.5	M-5N	S)	Fitting to workpiece and fitting - fitting	M5 ma X M5 m
M-301	P.7-55	around stud as	the	X M3 female X M3 male	M-5ALU-6	P.7-56	stud axis	nylon and poly- urethane	X M5 ø6/4 X M5		P.7-57 Union nipple	connection Body	M5 ma
M-3N	Nipple	Fitting to piece ar fitting		M3 male	M-5ALHN-4	Barb elbow (H)	rotates	For nylon	ø4/2.5	M-5UN	<b>S</b>	rotates at 360° around the stud axis	X M5 male PAT
	P.7-55	, v	connec- sible	X M3 male	M5 <sub>M-5ALHN-6</sub>	P.7-56	the stud axis	tube	ø6/4 X M5	M5	P.7-57 Bulkhead union	Panel	M5 fem
M-3P	Plug	To plug M3 port			M-5ALHU-3	Barb elbow (H)	Body rotates	soft nylon poly- urethane	ø3.18/2.18 X M5 ø3.18/2	M-5E	P.7-57	mount connection	X M5 femal
	P.7-55 Gasket				M-5ALHU-4		around the stud axis	soft nylon and poly-	X M5 ø4/2.5 X M5	M-5ER	Bulkhead reducer	Reduction from Rc(PT)1/8 to M5 and	Rc(PT)1
M-3G	20	To sea thread	I M3		M-5ALHU-6	P.7-56 Hose nipple		urethane	ø6/4 X M5		P.7-58 Manifold	includes panel mounting	femal
	P.7-55				M-5H-4		nylon, a	on, soft and poly-	ø4/2.5 X M5	M-5M	Mannoid	Rc(PT)1/8 can be diverted in up to 9, M5 stations,	Rc(PT)1 X M5
Series/Model	Style	Appli	cation	Note	M-5H-6	P.7-56	urethar	ie tube	ø6/4 X M5		P.7-58	includes panel or bracket mounting	femal (9 statio
M-01AN-4	Barb fitting	For nyl	on tube	ø4/2.5 X R(PT)1/8	M-5HL-4	Hose elbow	•For n		ø4/2.5 X M5	M-5B	Reducer bushing	For reducing Rc(PT)1/8 female to	Rc(PT)1 X M5
M-01AN-6	P.7-55			ø6/4 X R(PT)1/8	M-5HL-6	P.7-57	polyu tube	ylon, and rethane	ø6/4 X M5		P.7-58 Plug	M5 female	femal
R M-01AU-4	Barb fitting	For soft and poly	nylon rurethane	ø4/2.5 X R(PT)1/8	M-5HLH-4	Hose elbow (H)	at 36 arou	nd the	ø4/2.5 X M5	M-5P	P.7-58	To plug unused M5 port	
8 M-01AU-6	P.7-55	tube		ø6/4 X R(PT)1/8	M-5HLH-6	P.7-57	stud	axis	ø6/4 X M5	M-5G1	Gasket	To seal M5 thread	Materi PVC
M-01H-4	Hose nipple	For nylon al		ø4/2.5 X R(PT)1/8	M-5L	Elbow		ded 90°	M5 female		P.7-58 Gasket (H)	M-5AL□-6	Materi
M-01H-6	P.7-55	urethan		ø6/4 X R(PT)1/8	IN OL	P.7-57	elbow		X M5 female	M-5GH	0 P.7-58	M-5ALH□-6 M-5HL-4, 6 M-5HLH-4, 6	Nylone GF309



#### Series R(PT)1/8

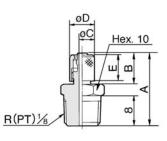
Barb fitting for nylon tube, soft tube: M-01AD-4, -6

	Tube	Part No.	А	В	øC	Effective area (mm <sup>2</sup> )	Weight (g)
CUM D	Nylon tubo	M-01AN-4	16	5	1.8	2.1	6.4
• •	Nylon tube	M-01AN-6	18	7	2.5	4.0	6.6
	Soft tube	M-01AU-4	16	5	1.8	2.1	6.5
	Son tube	M-01AU-6	18	7	2.5	4.0	6.7
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#### Hose nipple: M-01H-4, -6

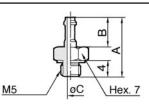
	Part No.	А	В	øC	øD	E	Effective area (mm <sup>2</sup> )	Weight (g)
	M-01H-4	19.5	8.5	1.8	6.5	7	2.1	7.1
Willing	M-01H-6	20.5	9.5	3	8.5	8	5.5	7.7



#### Series M5

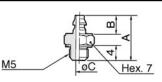
#### Barb fitting for nylon tube: M-5AN-4, -6

	Part No.	А	В	øC	Effective area (mm <sup>2</sup> )	Weight (g)	
- Est	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

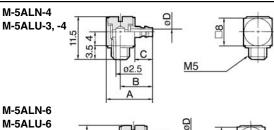
	Part No.	А	В	øC	Effective area (mm <sup>2</sup> )	Weight (g)
D.	M-5AU-3	11.5	4.5	1.6	1.7	1.5
-	M-5AU-4	12	5	1.8	2.1	1.6
	M-5AU-6	14	7	2.5	4.0	1.8

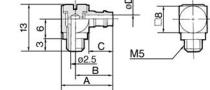


#### Barb elbow for nylon tube: M-5ALN-4, -6 Barb elbow for soft tube: M-5ALU-3, -4, -6



Part No.	А	В	с	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	

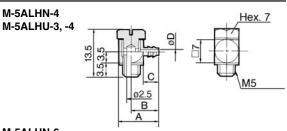


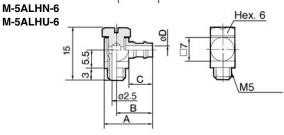


#### Barb elbow for nylon tube: M-5ALHN-4, -6 Barb elbow for soft tube: M-5ALHU-3, -4, -6



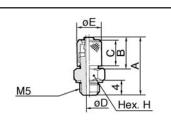
Part No.	А	В	С	øD	Effective area (mm <sup>2</sup> )	Weight (g)
M-5ALHN-4	12	8.5	5	1.8	1.4	3.2
M-5ALHN-6	14	10.5	7	2.5	2.4	3.7
M-5ALHU-3	11.5	8	4.5	1.6	1.1	3.2
M-5ALHU-4	12.3	8.8	5	1.8	1.4	3.3
M-5ALHU-6	14.3	10.8	7	2.5	2.4	3.9





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

- Alth	Part No.	А	В	С	øD	øE	н	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



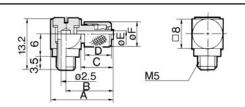


#### Series M5

Elbow: M-5L

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

Part No.	А	В	С	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

**Universal elbow: M-5UL** 

**Extension fitting: M-5J** 

7

M5

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Effective area: 2.4mm<sup>2</sup>

M5

M5

Effective area: 4.0mm<sup>2</sup>

7

M5

Part No.	A	в	С	D	øE	øF	G	Н		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
	-										

М5

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<u>Hex. 7</u>

02.5 06.8

13

Hex.7

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Weight: 4.2g

8.5

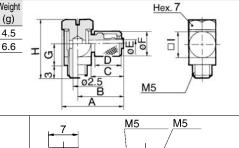
3.5

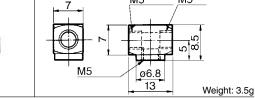
Weight: 5.3g

Weight: 3.6g

ø6.8

13

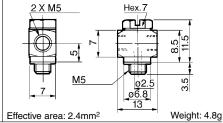




#### **Universal tee: M-5UT**

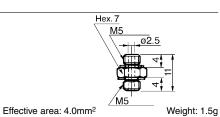


Tee: M-5T

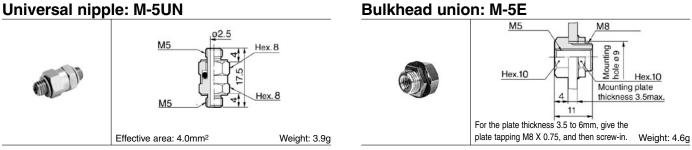


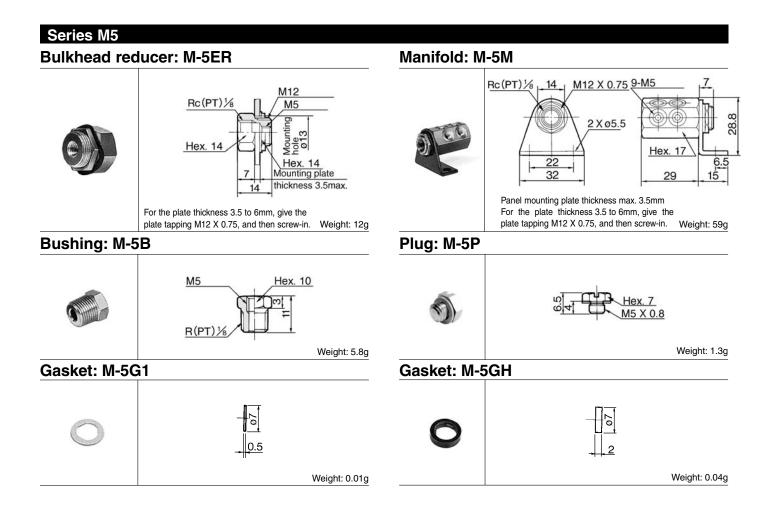
#### Nipple: M-5N





#### **Bulkhead union: M-5E**





# A Precautions

#### Tightening of M3 or M5 thread ▲ Caution

<sup>(1)</sup>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

#### A Caution

- ①Cut 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.
- ③Push 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

- ①Cut 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".)
- ②Push the tube in until it comes to the end of the barb portion, or it may cause air leakage or hose releasing.