

Accessories—One-Touch Fittings

One-touch fittings—threaded type

MOTIONUSA



Ordering code

NBB 1/8 - 1/8

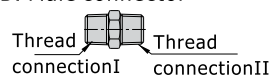
① ② ③

BB 01 01

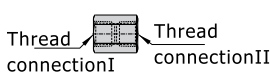
① ② ③

① Model

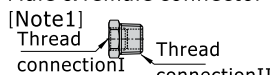
NBB: Male connector



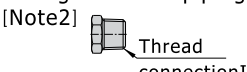
NBU: Double female connector



NBD: Male & female connector

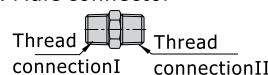


NBZ: Hexagon head cap plug

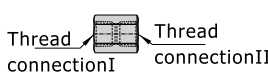


① Model

BB: Male connector



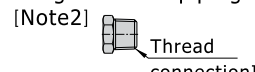
BU: Double female connector



BD: Male & female connector



BZ: Hexagon head cap plug



② Thread connection I

1/8: NPT1/8
1/4: NPT1/4
3/8: NPT3/8
1/2: NPT1/2

③ Thread connection II

1/8: NPT1/8
1/4: NPT1/4
3/8: NPT3/8
1/2: NPT1/2

② Thread connection I

01: PT1/8
02: PT1/4
03: PT3/8
04: PT1/2

③ Thread connection II

01: PT1/8
02: PT1/4
03: PT3/8
04: PT1/2

[Note1] For NBD series, Thread I is Female thread, Thread II is male thread;

[Note2] For NBZ series, no thread II and thread I is male thread.

Table for interface port and tube O.D.

Product series	Thread connection I	Thread connection II			
		NPT1/8	NPT1/4	NPT3/8	NPT1/2
NBB	NPT1/8	●	●	●	
	NPT1/4		●	●	●
	NPT3/8			●	●
	NPT1/2				●
NBU	NPT1/8	●			
	NPT1/4		●		
	NPT3/8			●	
	NPT1/2				●
NBD	NPT1/8		●	●	●
	NPT1/4			●	●
	NPT3/8				●
	NPT1/2				●

Product series	Thread connection			
	NPT1/8	NPT1/4	NPT3/8	NPT1/2
NBZ	●	●	●	●

Product series	Thread connection I	Thread connection II			
		PT1/8	PT1/4	PT3/8	PT1/2
BB	PT1/8	●	●	●	
	PT1/4		●	●	●
	PT3/8			●	●
	PT1/2				●
BD	PT1/8		●	●	●
	PT1/4			●	●
	PT3/8				●
	PT1/2				
BU	PT1/8	●			
	PT1/4		●		
	PT3/8			●	
	PT1/2				●

Product series	Thread connection			
	PT1/8	PT1/4	PT3/8	PT1/2
BZ	●	●	●	●

Specification

Operating pressure range	0~145psi(0~1.0MPa)
Negative pressure	10Torr(-750mmHg)
Proof pressure	215psi(1.5MPa)
Ambient and fluid temperature	32~302°F (0~150°C)

Product feature

1. Variable models can be widely used in every kind of pneumatic systems.
2. High circulation performance bear the same flow with the volume of the tube inner diameter.
3. The nickel plated body is anti-corrosion and anti-pollution, which allows a broader application.
4. Metal fittings can be used in high temperature environment.

Accessories—One-Touch Fittings

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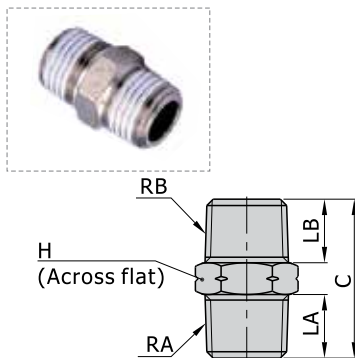
One-touch fittings—threaded type

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Dimensions

NBB Series

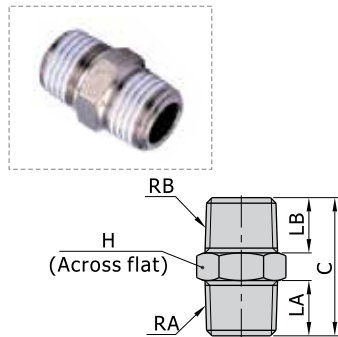
[Unit: inch]



Model\Item	RA	RB	LA	LB	C	H	Weight(g)
NBB1/8-1/8	NPT1/8	NPT1/8	0.30	0.30	0.77	7/16	7.3
NBB1/8-1/4	NPT1/4	NPT1/8	0.39	0.30	0.89	9/16	12.4
NBB1/8-3/8	NPT3/8	NPT1/8	0.43	0.30	0.94	11/16	18.9
NBB1/4-1/4	NPT1/4	NPT1/4	0.39	0.39	0.98	9/16	14.9
NBB1/4-3/8	NPT3/8	NPT1/4	0.43	0.39	1.04	11/16	20.9
NBB1/4-1/2	NPT1/2	NPT1/4	0.55	0.39	1.18	7/8	36.6
NBB3/8-3/8	NPT3/8	NPT3/8	0.43	0.43	1.08	11/16	23.8
NBB3/8-1/2	NPT1/2	NPT3/8	0.55	0.43	1.22	7/8	38.5
NBB1/2-1/2	NPT1/2	NPT1/2	0.55	0.55	1.34	7/8	45.1

BB Series

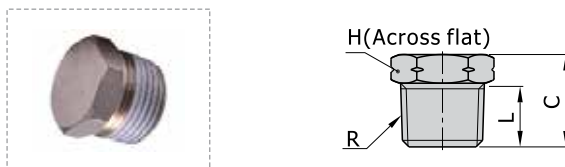
[Unit: mm]



Model\Item	RA	RB	LA	LB	C	H	Weight(g)
BB0101	PT1/8	PT1/8	7.5	7.5	19.5	10	6.6
Bb0102	PT1/4	PT1/8	10	7.5	22.5	14	12.1
BB0103	PT3/8	PT1/8	11	7.5	24	17	18.3
BB0202	PT1/4	PT1/4	10	10	25	14	14.6
BB0203	PT3/8	PT1/4	11	10	26.5	17	20.3
BB0204	PT1/2	PT1/4	14	10	30	21	34.3
BB0303	PT3/8	PT3/8	11	11	27.5	17	23.2
BB0304	PT1/2	PT3/8	14	11	31	21	36.2
BB0404	PT1/2	PT1/2	14	14	34	21	42.8

NBZ Series

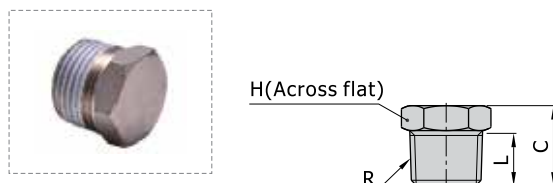
[Unit: inch]



Model\Item	R	L	C	H	Weight(g)
NBZ1/8	NPT1/8	0.30	0.43	7/16	5.1
NBZ1/4	NPT1/4	0.39	0.57	9/16	11.1
NBZ3/8	NPT3/8	0.43	0.63	11/16	18.0
NBZ1/2	NPT1/2	0.55	0.77	7/8	35.2

BZ Series

[Unit: mm]



Model\Item	R	L	C	H	Weight(g)
BZ01	PT1/8	7.5	11	10	4.6
BZ02	PT1/4	10	14.5	14	10.8
BZ03	PT3/8	11	16	17	17.4
BZ04	PT1/2	14	19.5	21	33

Accessories—One-Touch Fittings

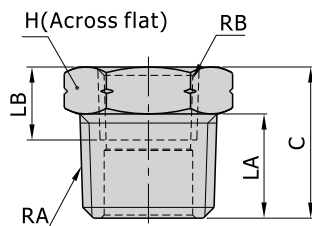
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NBD Series

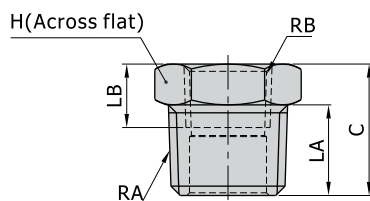
[Unit: inch]



Model\Item	RA	RB	LA	LB	C	H	Weight(g)
NBD1/8-1/4	NPT1/4	NPT1/8	0.39	0.31	0.57	9/16	9.1
NBD1/8-3/8	NPT3/8	NPT1/8	0.43	0.31	0.63	11/16	17.7
NBD1/8-1/2	NPT1/2	NPT1/8	0.55	0.31	0.77	7/8	35.3
NBD1/4-3/8	NPT3/8	NPT1/4	0.43	0.43	0.63	11/16	13.3
NBD1/4-1/2	NPT1/2	NPT1/4	0.55	0.43	0.77	7/8	32.1
NBD3/8-1/2	NPT1/2	NPT3/8	0.55	0.47	0.77	7/8	24.7

BD Series

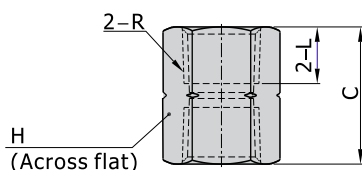
[Unit: mm]



Model\Item	RA	RB	LA	LB	C	H	Weight(g)
BD0102	PT1/4	PT1/8	10	8	14.5	14	8.8
Bd0103	PT3/8	PT1/8	11	8	16	17	17.1
BD0104	PT1/2	PT1/8	14	8	19.5	21	33.1
BD0203	PT3/8	PT1/4	11	11	16	17	12.7
BD0204	PT1/2	PT1/4	14	11	19.5	21	29.9
BD0304	PT1/2	PT3/8	14	12	19.5	21	22.5

NBU Series

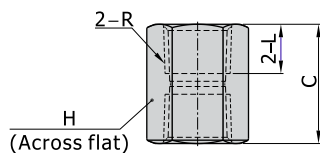
[Unit: inch]



Model\Item	R	L	C	H	Weight(g)
NBU1/8-1/8	NPT1/8	0.31	0.67	7/16	5.1
NBU1/4-1/4	NPT1/4	0.43	0.91	9/16	8.9
NBU3/8-3/8	NPT3/8	0.47	0.98	11/16	15.8
NBU1/2-1/2	NPT1/2	0.53	1.10	7/8	19.3

BU Series

[Unit: mm]



Model\Item	R	L	C	H	Weight(g)
BU0101	PT1/8	8	17	14	4.7
Bu0202	PT1/4	11	23	17	8.1
BU0303	PT3/8	12	25	21	12.7
BU0404	PT1/2	13.5	28	25	18.0

Accessories—One-Touch Fittings

One-touch fittings—threaded type

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Ordering code

NBKC 1/4 - 1/8

1

2

3

① Model

NBKC: Straight locknut connector



② Tubing outer diameter

5/32: $\Phi 5/32$

1/4: $\Phi 1/4$

5/16: $\Phi 5/16$

3/8: $\Phi 3/8$

1/2: $\Phi 1/2$

③ Thread connection

U10: #10-32UNF

1/8: NPT1/8

1/4: NPT1/4

3/8: NPT3/8

1/2: NPT1/2

BKC 06 04 - 01

1

2

3

4

① Model

BKC: Straight locknut connector



② Tubing outer diameter

04: $\Phi 4\text{mm}$

06: $\Phi 6\text{mm}$

08: $\Phi 8\text{mm}$

10: $\Phi 10\text{mm}$

12: $\Phi 12\text{mm}$

③ Tubing inner diameter

25: $\Phi 2.5\text{mm}$

04: $\Phi 4\text{mm}$

05: $\Phi 5\text{mm}$

06: $\Phi 6\text{mm}$

65: $\Phi 6.5\text{mm}$

75: $\Phi 7.5\text{mm}$

08: $\Phi 8\text{mm}$

09: $\Phi 9\text{mm}$

④ Thread connection

M3: M3X0.5

M5: M5X0.8

01: PT1/8

02: PT1/4

03: PT3/8

04: PT1/2

Note: When using the tubing $\Phi 8 \times \Phi 5.5$, the straight lock nut connector of BKC0806 can be used.

Table for interface port and tube O.D.

Product series	Tubing O.D.	Tubing I.D.	Thread connection				
			#10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2
NBKC	5/32	5/32	●	●			
	1/4	5/32		●	●	●	
	5/16	1/5		●	●	●	
	3/8	1/4			●	●	●
	1/2	1/3			●	●	●

Product series	Tubing outer diameter	Tubing inner diameter	Thread connection					
			M3	M5	PT1/8	PT1/4	PT3/8	PT1/2
BKC	04	25	●	●	●			
	06	04			●	●	●	
	08	05			●	●	●	
		06			●	●	●	
	10	65				●	●	●
		75				●	●	●
	12	08				●	●	●
		09				●	●	●

Specification

Operating pressure range	0~145psi(0~1.0MPa)
Negative pressure	10Torr(-750mmHg)
Proof pressure	435psi(3.0MPa)
Ambient and fluid temperature	32~302°F (0~150°C)

Note: The temperature resistance level of the tubing should be confirmed first when used in high temperature environments.

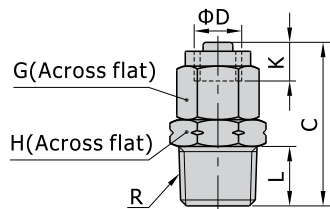
Product feature

1. Variable models can be widely used in every kind of pneumatic systems.
2. High circulation performance bear the same flow with the volume of the tube inner diameter.
3. The nickel plated body is anti-corrosion and anti-pollution, which allows a broader application.
4. Metal fittings can be used in high temperature environments.

Dimensions

NBKC Series

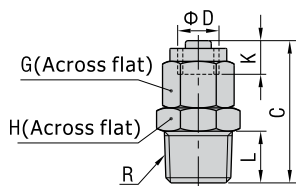
[Unit: inch]



Model\Item	Tube dim. ΦD		R	L	C	K	G	H	Weight(g)
	O.D.	I.D.							
NBKC5/32-U10	5/32	3/32	#10-32UNF	0.14	0.69	0.20	5/16	5/16	4.8
NBKC5/32-1/8			NPT1/8	0.30	0.81			7/16	8.2
NBKC1/4-1/8	1/4	5/32	NPT1/8	0.30	0.87	0.22	7/16	7/16	11.0
NBKC1/4-1/4			NPT1/4	0.39	1.00			9/16	16.3
NBKC1/4-3/8	1/4	5/32	NPT3/8	0.43	1.06	0.26	1/2	11/16	23.7
NBKC5/16-1/8			NPT1/8	0.30	0.94			1/2	13.7
NBKC5/16-1/4	5/16	1/5	NPT1/4	0.39	1.08	0.30	5/8	9/16	17.7
NBKC5/16-3/8			NPT3/8	0.43	1.14			11/16	24.9
NBKC3/8-1/4	3/8	1/4	NPT1/4	0.39	1.18	0.30	11/16	5/8	27.1
NBKC3/8-3/8			NPT3/8	0.43	1.24			11/16	30.3
NBKC3/8-1/2	1/2	1/3	NPT1/2	0.55	1.40	0.30	11/16	7/8	48.7
NBKC1/2-1/4			NPT1/4	0.39	1.18	0.30	11/16	11/16	31.6
NBKC1/2-3/8			NPT3/8	0.43	1.24			11/16	33.3
NBKC1/2-1/2	1/2	1/3	NPT1/2	0.55	1.40	0.30	11/16	7/8	51.4

BKC Series

[Unit: mm]



Model\Item	Tubing diameter ΦD		R	L	C	K	G	H	Weight(g)
	O.D.	I.D.							
BKC0425-M3	4	2.5	M3×0.5	3	17	5	8	8	4.4
BKC0425-M5			M5×0.8	3.5	17.5			8	4.8
BKC0425-01			PT1/8	7.5	20.5			10	7.1
BKC0604-01	6	4	PT1/8	7.5	22	5.5	10	10	9.9
BKC0604-02			PT1/4	10	25.5			14	15.8
BKC0604-03			PT3/8	11	27			17	22.5
BKC0805-01	8	5	PT1/8	7.5	24	6.5	12	12	12.8
BKC0805-02			PT1/4	10	27.5			14	17.2
BKC0805-03			PT3/8	11	29			17	23.7
BKC0806-01	8	5.5or6	PT1/8	7.5	24	6.5	12	12	13.1
BKC0806-02			PT1/4	10	27.5			14	17.2
BKC0806-03			PT3/8	11	29			17	23.6
BKC1065-02	10	6.5	PT1/4	10	30	7.5	15	15	25.3
BKC1065-03			PT3/8	11	31.5			17	29.1
BKC1065-04			PT1/2	14	35.5			21	44
BKC1075-02	10	7.5 or 8	PT1/4	10	30	7.5	15	15	24.1
BKC1075-03			PT3/8	11	31.5			17	28.9
BKC1075-04			PT1/2	14	35.5			21	43.6
BKC1208-02	12	8	PT1/4	10	30	7.5	17	17	30.5
BKC1208-03			PT3/8	11	31.5			17	32.1
BKC1208-04			PT1/2	14	35.5			21	46.7
BKC1209-02	12	9 or 10	PT1/4	10	30	7.5	17	17	30.6
BKC1209-03			PT3/8	11	31.5			17	31.9
BKC1209-04			PT1/2	14	35.5			21	46.4

Installation and application

1. Method of inserting or removal a tubing

1.1 Inserting a tubing

Place the locking cap over the tubing, and insert the tubing into the body, then tighten the locking cap. (As figure 1)

1.2 Removing a tubing

Loosen the locking cap first, then remove the tubing. (As figure 2)

2. Method of tightening the connector thread

Tighten the connector with a hex wrench, as shown right.

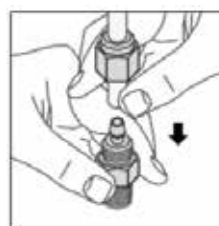


Figure 1

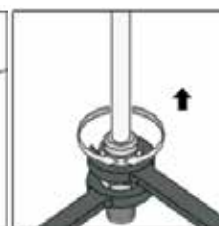


Figure 2

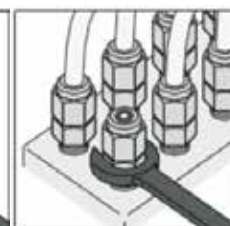


Figure 3