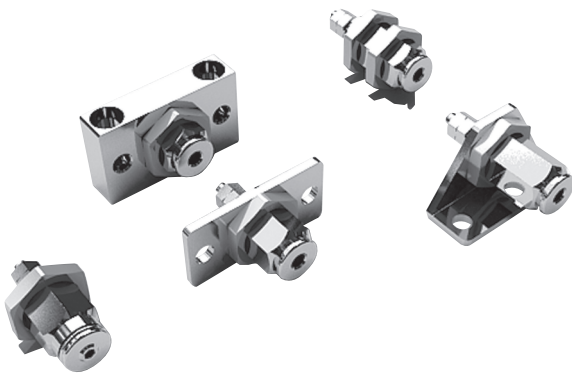


# Series APM

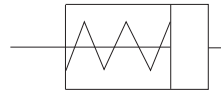
## Bulkhead Mounted Mini Cylinder

Bore Size(mm) : Ø6, Ø10, Ø16



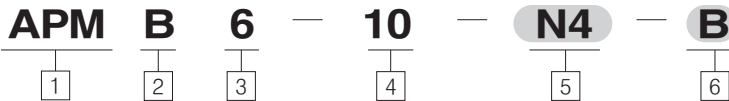
- HIGHER SHOCK-ABSORBENCY WITH SPECIAL COATING ON THE CYLINDER TUBE
- OUTSTANDING DURABILITY WITH A BRONZE ALLOY WITH HIGH WEAR RESISTANCE ON THE ROD COVER
- VARIOUS SPECIAL HOSE NIPPLE OPTIONS

Symbol



Cylinder KS Symbol

### How to Order



1 Panel Mounting Cylinder

2 Mounting

- B : Standard
- S : Block Insertion
- L : Foot Mount
- F : Flange Mount
- P : Plate Mount

3 Bore Size(mm)

- 6 : Ø6
- 10 : Ø10
- 15 : Ø15

4 Stroke (mm)

- 5 : 5mm
- 10 : 10mm
- 15 : 15mm

※ Note) Hose (tube) nipple attachment is not available for the block insertion type.

5 Hose (Tube) Nipple Attachment

Blank : No Nipple

Category	TYPE	Tube O.D	Tube I.D
H4	Cap Type	Ø4	Ø2
H5		Ø4	Ø2.5
H6		Ø6	Ø4
N4	Barb Type	Ø4	Ø2
N5		Ø4	Ø2.5
N6		Ø6	Ø4

※ Refer to the table attached for specific properties and sizes.

6 Rod End Shape

- Blank : Male Thread
- B : No Thread

ACP

**APM**

AS

AX

AM2

AM

AL  
ALX

AQ  
ADQ

AQ2  
ADQ2

AJ  
AJM

ABK

ACK1

NSK

AG

NGQ

AGX  
GX

NP

ADR

AMR

NDM

ARD

NST

AST

ASTH

NLCD

NLCS

## Series APM

### Specifications

Category	Bore Size(mm)		
	Ø6	Ø10	Ø15
Fluid	Air		
Acting	Single Acting(Spring Return)		
Proof Pressure	1.05Mpa(10.7kgf/cm <sup>2</sup> )		
Max. Supply Pressure	0.7Mpa(7.1kgf/cm <sup>2</sup> )		
Min. Operation Pressure	0.2Mpa(2.0kgf/cm <sup>2</sup> )	0.15Mpa(1.5kgf/cm <sup>2</sup> )	
Ambient and Fluid Temperature	-10~70°C (No Freeze)		
Rod End Shape	Male Thread(Standard)		
Thread Tolerance	KS Class 2		
Standard Stroke Tolerance	5, 10, 15mm / 0~+1.0mm		
Lubrication	Not required(Non-lube)		
Piston Speed	50~500mm/sec		
Cushion	N/A		

### Spring Force

Bore Size(mm)	Strokes (mm)		
	5	10	15
Ø6	4.36/1.47	4.33/1.47	4.21/1.47
Ø10	6.66/2.94	7.55/2.94	7.45/2.45
Ø15	11.86/6.57	12.35/5.40	12.70/5.78

Note) The retrieval of spring is indicated as start of retrieval / end of retrieval of the piston.

### Theoretical Force

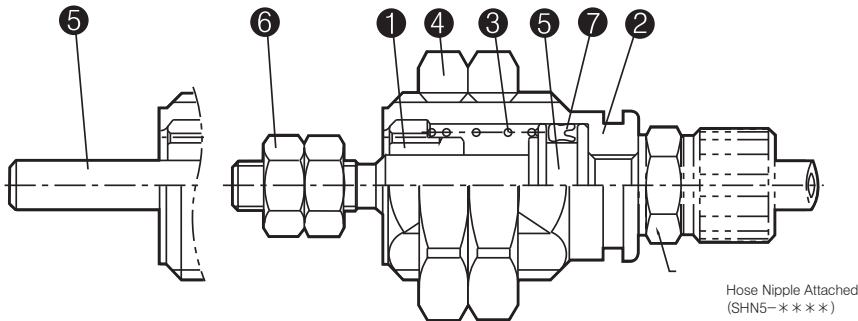
Type	Bore Size	Operation Direction	Pressure (Mpa)				
			0.2	0.3	0.4	0.5	0.6
APM 6	6	Retract(Spring Return)	Max. (Start) 4.33 ~Min. (End) 1.47				
		Extend	1.2	4.0	6.7	9.5	12.3
APM 10	10	Retract(Spring Return)	Max. (Start) 7.55 ~Min. (End) 2.45				
		Extend	7.8	15.5	23.2	30.9	38.6
APM 15	15	Retract(Spring Return)	Max. (Start) 12.7 ~Min. (End) 5.4				
		Extend	21.9	39.2	56.5	73.8	91.2

Note 1N≒0.102kgf, 1MPa≒10.2kgf/cm<sup>2</sup>

The OUT value bears the maximum load in the retrieval.

# Series APM

## Construction

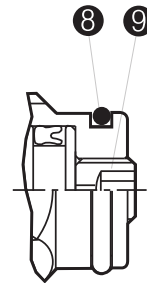


Hose Nipple Attached (SHN5-\*\*\*\*)

## Components

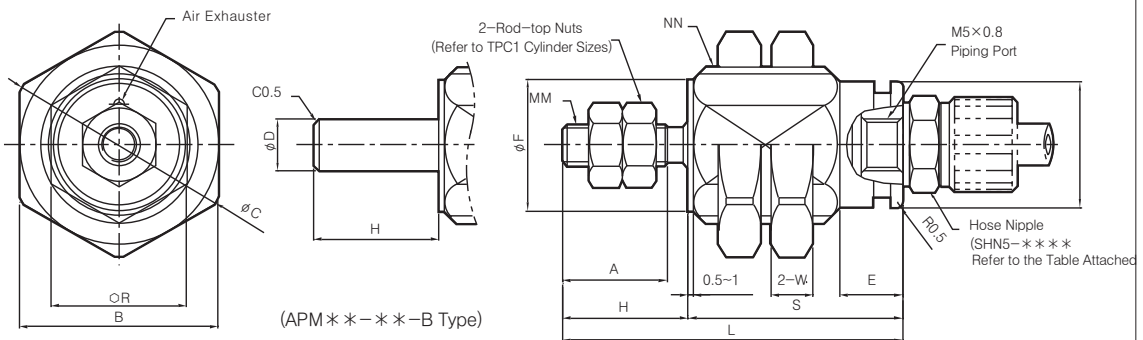
No	Parts	Counts	Materials	Remarks
1	Rod Cover	1	Bronze Alloy	Non-conductive Nickel Coating
2	Cylinder Tube	1	Bronze Alloy	Non-conductive Nickel Coating
3	Return Spring	1	Spring Steel	Zinc Coating
4	Nut	2	Bronze Alloy	Non-conductive Nickel Coating
5	Piston & Piston Rod	1	Stainless Steel	Lightweight Chrome Coating
6	Nut	2	Mild Steel	Nickel Coating
7	Piston Packing	1	Rubber	
8	Gasket	1	Rubber	
9	Orifice Plug	1	Carbon Steel	Nickel Coating

Note) Non Repairable Cylinder.



Block Insertion Type (APMS\*\*\*-\*\*\* Type)

## APMB\*\* Standard Cylinder Dimensions



(APM\*\*\*-\*\*\*-B Type)

Hose Nipple (SHN5-\*\*\*\*) Refer to the Table Attached

(Unit: mm)

Bore Size (Ø. mm)	A	B	ØC	ØD	E	ØF	ØG	H	L			MM	NN	R	S			W
									5 Strokes	10 Strokes	15 Strokes				5 Strokes	10 Strokes	15 Strokes	
6	7	12	13.9	3	4	8.5	8.5	9	27.5	34.5	41.5	M3×0.5	M10×1.0	9	18.5	25.5	32.5	3
10	10	19	21.5	5	5.5	12.5	12	12	32.5	39	46	M4×0.7	M15×1.5	13	20.5	27	34	4
15	12	27	30.5	6	6	18.5	19	14	37.5	43.5	50	M5×0.8	M22×1.5	20	23.5	29.5	36	5

ACP

APM

AS

AX

AM2

AM

AL

ALX

AQ

ADQ

AQ2

ADQ2

AJ

AJM

ABK

ACK1

NSK

AG

NGQ

AGX

GX

NP

ADR

AMR

NDM

ARD

NST

AST

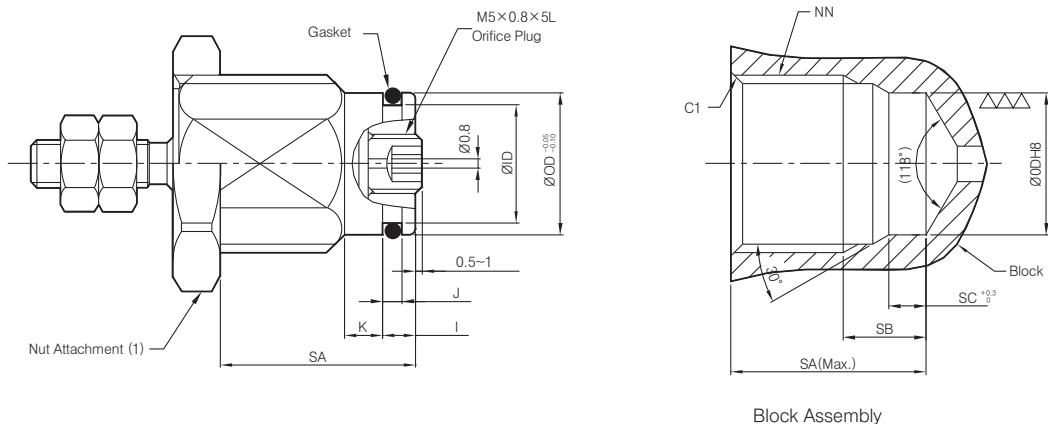
ASTH

NLCD

NLCS

## Series APM

### APMS\*\* (Block Insertion Type) Cylinder Dimensions

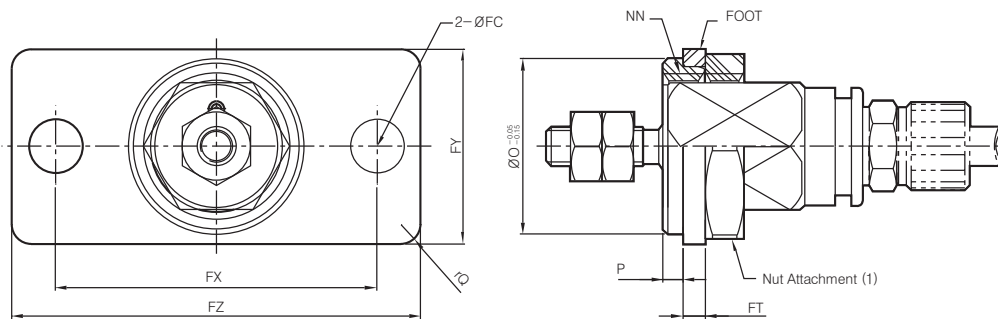


Note) The indications and the cylinder size is identical to those of APMB\*\*.

(Unit: mm)

Bore Size (Ø. mm)	Gasket & Plug Kit No.	I	J	K	ØID	ØOD	SA			SB	SC	NN
							5 Strokes	10 Strokes	15 Strokes			
6	APMS6-CK	2.5	1.4	3	6.7	8.5	15.5	22.5	29.5	5.5	3	M10×1.0
10	APMS10-CK	2.8	1.6	3.2	9.9	12	16.5	23	30	7	3.3	M15×1.5
15	APMS15-CK	3	1.8	4	16.8	19	18.5	24.5	31	7.5	3.5	M22×1.5

### APMF\*\* (Flange Attachment Type) Cylinder Dimensions



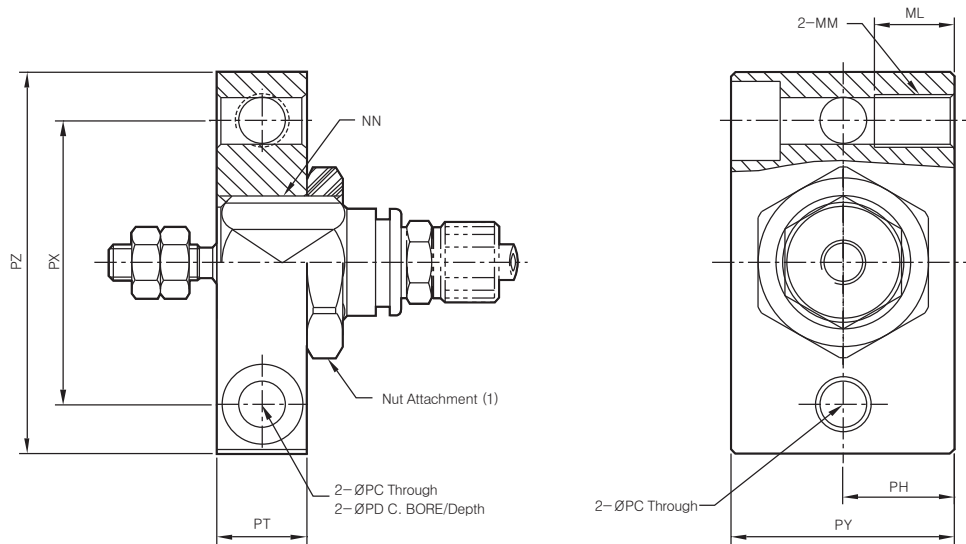
Note) The indications and the cylinder size is identical to those of APMB\*\*.

(Unit: mm)

Cylinder	Flange No.	ØO	P	rQ	ØFC	FT	FX	FY	FZ	NN
APM6	APM6-20A	12	1.5	1.5	4.5	1.6	24	14	32	M10×1.0
APM10	APM10-20A	18	2	2	5.5	2.3	33	20	42	M15×1.5
APM15	APM15-20A	26	2.4	3	7	4	60	34	75	M22×1.5

# Series APM

## APMP\*\* (Plate Attachment Type) Cylinder Dimensions



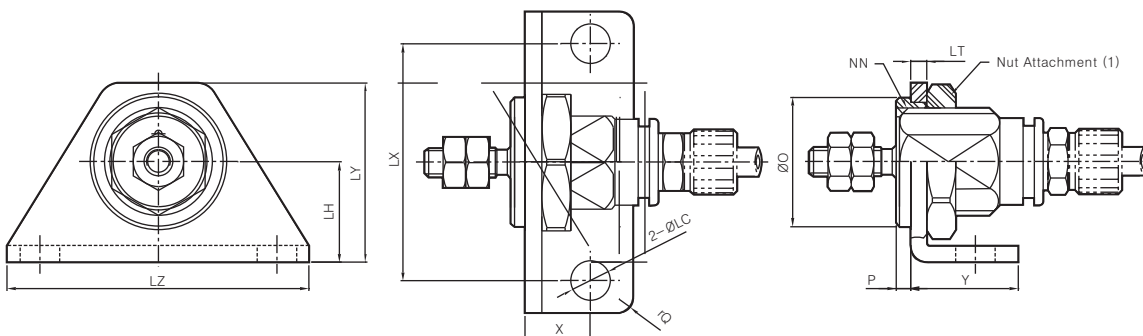
Note) The indications and the cylinder size is identical to those of APMB\*\*.

(Unit: mm)

Cylinder	Plate No.	PH	PT	PX	PY	PZ	ØPC	ØPD / Depth	MM	NN	ML
APM6	APM6-21A	10	9	22	20	32	4.3	7.5 / 4.5	M5×0.8	M10×1.0	7
APM10	APM10-21A	12.5	10	32	25	43	5.2	9 / 5.5	M6×1.0	M15×1.5	9
APM15	APM15-21A	17	12	42	34	56	6.8	10.5 / 6.5	M8×1.25	M22×1.5	13

(\* Material: Aluminum Alloy)

## APML\*\* (Foot Attachment) Cylinder Dimensions



Note) The indications and the cylinder size is identical to those of APMB\*\*.

(Unit: mm)

Cylinder	Foot No.	ØO	P	rQ	X	Y	ØLC	LH	LT	LX	LY	LZ	NN
APM6	APM6-19A	12	1.5	1.5	7	12	4.5	9	1.6	24	16.5	32	M10×1.0
APM10	APM10-19A	18	2	2	9	15	5.5	14	2.3	33	25	42	M15×1.5
APM15	APM15-19A	26	2.4	3	20	28	6.8	23	3.2	40	40	55	M22×1.5

(\* Material: Cold-rolled Steel)

ACP

**APM**

AS

AX

AM2

AM

AL

ALX

AQ

ADQ

AQ2

ADQ2

AJ

AJM

ABK

ACK1

NSK

NGQ

NGQ

AGX

GX

NP

ADR

AMR

NDM

ARD

NST

AST

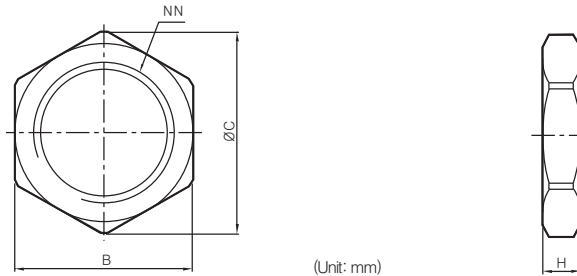
ASTH

NLCD

NLCS

# Series APM

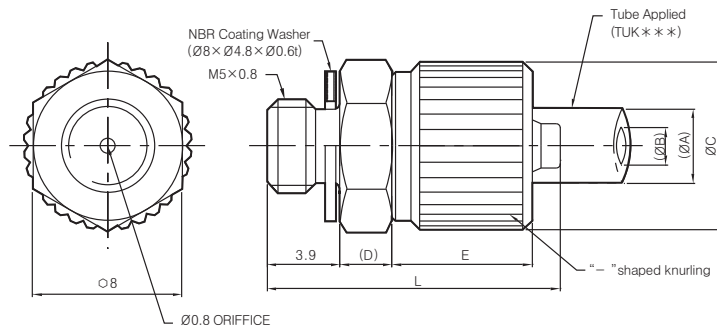
## APM\*\*Cylinder's Nut Attachment Dimensions



(Unit: mm)

Applicable Bore Size(mm)	Item No.	B	ØC	H	NN
6	APM6-13A	12	13.9	3	M10×1.0
10	APM10-13A	19	21.5	4	M15×1.5
15	APM15-13A	27	30.5	5	M22×1.5

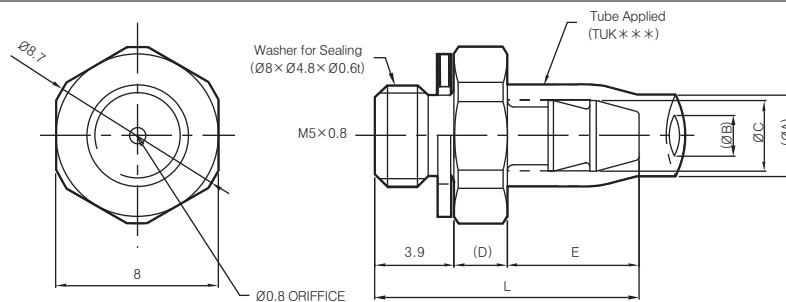
## Cap-type Hose Nipple Dimensions



Note) The nipple and the cap are made of bronze alloy and are coated with nickel on the surface. (Unit: mm)

Item No.	Tube Applied	DEMENSION					
		(ØA)	(ØB)	ØC	D	E	L
SHN5-20402	TUK0402	4	2	9	2.8	7.5	15.7
SHN5-20425	TUK0425		2.5			8.5	
SHN5-20604	TUK0604	6	4			16.7	

## Barb-type Hose Nipple Dimensions



Note) The nipple is made of bronze alloy and is coated with nickel on the surface. (Unit: mm)

Item No.	Tube Applied	DEMENSION					
		(ØA)	(ØB)	ØC	(D)	E	L
SHN5-10402	TUK0402	4	2	2.9	2.5	6.3	12.8
SHN5-10425	TUK0425		2.5	3.5		6.5	
SHN5-10604	TUK0604	6	4	5.2	3	8	15