

Series ACP

Standard Type/Double Acting : Single Rod

Bore Size(mm) : Ø6, Ø10, Ø16



- STAINLESS STEEL BODY
- HIGH CYCLE LIFE
- LOW BREAKAWAY
- BUMPERS STANDARD
- BUILT IN MAGNET
- COMPACT LIGHT DESIGN

Symbol

Double Acting/Single Rod



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

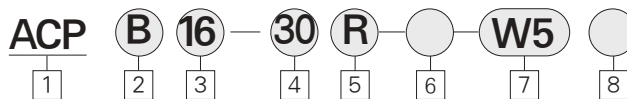
AST

ASTH

NLCD

NLCS

How to Order



1 Air Cylinder

Built-in magnet, Rubber cushions are standard

2 Mounting

- B : Standard type
- L : Axial foot type
- F : Rod side flange type
- D : Double clevis type (Except for φ6)

3 Bore Size(mm)

- 6 : φ6
- 10 : φ10
- 16 : φ16

4 Stroke(mm)

- φ6 : φ5,10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 75, 100
- φ10 : φ5,10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 75, 100, 125, 150
- φ16 : φ5,10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 75, 100, 125, 150, 175, 200

5 Port Location on Head Cover

Symbol	Bore size	
	φ6	φ10, φ16
R	-	in-line
Blank	in-line	90°

6 Special Options

- Blank : Standard
- XC16 : Copper-free

7 Auto Switch

- (Band mounted type)
- W5 : Reed switch, 0.5m Lead Wire
- ※ W5L : Reed Switch, 3m Lead Wire

8 Number of Auto Switches

- Blank : 2 pcs
- S : 1 pc
- N : N pcs

PART No. of Mounting Bracket

Mounting bracket	Bore Size(mm)		
	φ6	φ10	φ16
Foot	TC1P006-19	TC1P010-19	TC1P016-19
Flange	TC1P006-20	TC1P010-20	TC1P016-20

PART No. of Auto Switch Mounting Band

Bore size	PART No. of Auto Switch Mounting Band	Note
φ6	TC1P006	Common use to all of W5 types
φ10	TC1P010	
φ16	TC1P016	

* Standard Type/Single Acting : Single Rod/Series ACPS

Series ACP

Notices for products

Please fully understand the notices prior to utilization, and refer to safety notice and common notice.

Warning

Assembly/Disassembly of Snap Ring

- Please use proper flyer (Attached tool of C-type snap ring) for assembly / disassembly.
- Please be cautious all the time that there is a possible damage to human body or vicinity equipments owing to projection of snap ring at the end of flyer (C-type snap ring) in spite of using proper flyer (Attached tool of C-type snap ring).
After checking full connection of snap ring during attachment, supply air.

Specifications

Operation Type	Double Acting Single Rod	
Fluid	Air	
Proof Pressure	1.05MPa (149.34psi)	
Max. Operating Pressure	0.7MPa (99.5psi)	
Lubri cation	None (Non-Lube)	
Stoke length Tolerance	+1.0 0	
Piston Speed	50~750mm/s (2~29.5in/s)	
Min. Operating Pressure	φ 6	0.12MPa (17.06psi)
	φ 10, φ 16	0.06MPa (8.53psi)
Ambinent and Fluid Temperature	40~140°F (5°C~60°C)	
Cushion	Rubber Cushion (Standard)	

Mounting Accessories

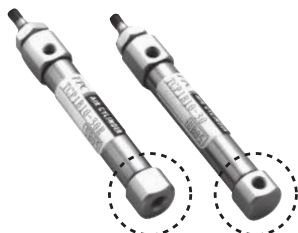
	Mounting	Basic type	Axial foot type	Rod side flange type	Double clevis type
Standard	Mounting nut	○	○	○	—
	Rod end nut	○	○	○	○
	Clevis pin	—	—	—	○
Option	Single knuckle joint	○	—	○	○
	Double knuckle joint (with pin)	○	○	○	○
	T mounting	—	—	—	○

Rear Port Location On Head Cover

Perpendicular to the cylinder axis or in-line with the cylinder axis locations are available for basic type.

(φ 6 is not available in perpendicular type)

In-line 90°



Auto Switch Specification

Mounting	Bore Size	Reed Switch
		Grommet
Band Mounted Type	φ 6, φ 10, φ 16	W5 Type

Weight Table

gf (oz)

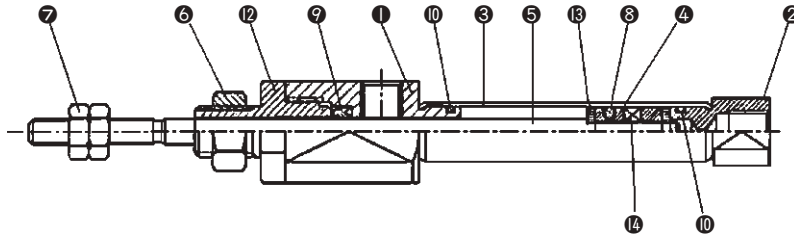
Bore size(mm)		φ 6	φ 10	φ 16
※ Basic Weight		15(0.52)	24(0.84)	54(1.94)
Additional Weight for each 15mm of stroke		2(0.07)	4(0.14)	6.5(0.23)
Mounting bracket Weight	Foot type	7(0.25)	7(0.25)	19(0.67)
	Rod side flange type	5(0.18)	5(0.18)	13(0.45)
	※ ※ Double clevis type (with pin)	—	2(0.08)	8(0.28)

※ Including the weights of mounting nut and rod end nut in the reference weight.
 ※ ※ Double clevis type is not included with mounting nut.

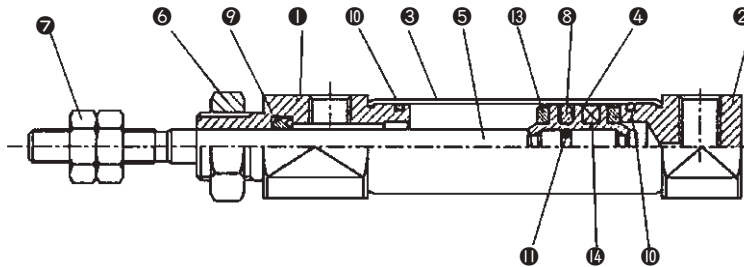
Series ACP

Construction/Parts List

ACPB 6



ACPB 10, 16



Parts List

No.	Description	Material	Note	No.	Description	Material	Note
1	Rod cover	Aluminum Alloy	White Alumite	⊙	Rod Packing	NBR	-
2	Head cover	Aluminum Alloy	White Alumite	10	Tube Gasket	NBR	-
3	Cylinder tube	Stainless Steel	-	11	Piston Gasket	NBR	-
4	Piston	Brass	-	12	Packing Retainer	Aluminum Alloy	-
5	Piston rod	Stainless Steel	-	13	Bumper	Urethane	-
6	Mounting nut	Brass	Nickel Plated	14	Magnet	Neodim	-
7	Rod end nut	Rolled Steel	Nickel Plated				
⊙	Piston packing	NBR	-				

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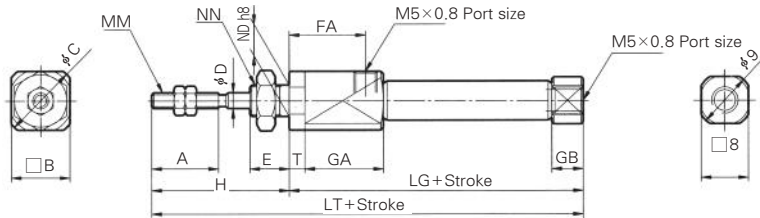
NLCS

Series ACP

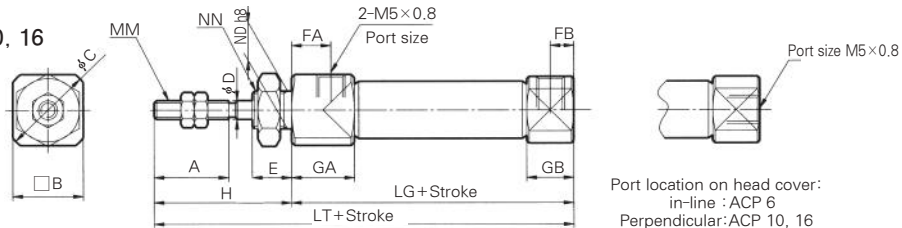
Standard Type (ACPB)

ACPB Bore size Stroke Port Location on Head Cover

ACPB 6



ACPB 10, 16



Port location on head cover:
in-line : ACP 6
Perpendicular: ACP 10, 16

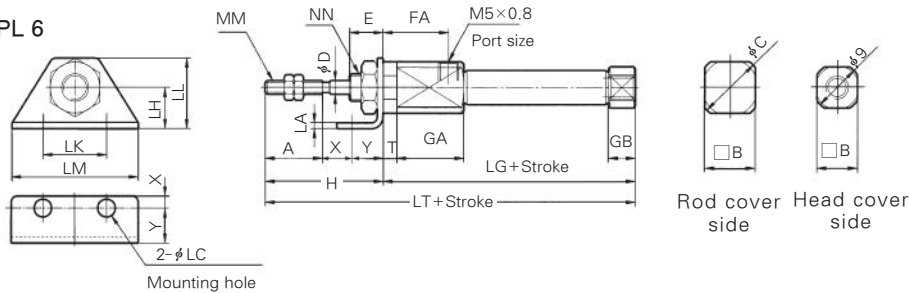
(mm)

Bore size	A	B	C	D	E	FA	FB	H	MM	GA	GB	ND h8	NN	LG	T	LT
φ 6	15	12	14	3	8	14.5	-	28	M3×0.5	16	7	6 ⁰ _{-0.018}	M6×1.0	49	3	77
φ 10	15	12	14	4	8	8	5	28	M4×0.7	12.5	9.5	8 ⁰ _{-0.022}	M8×1.0	45	-	73
φ 16	15	18	20	5	8	8	5	28	M5×0.8	12.5	9.5	10 ⁰ _{-0.022}	M10×1.0	45	-	73

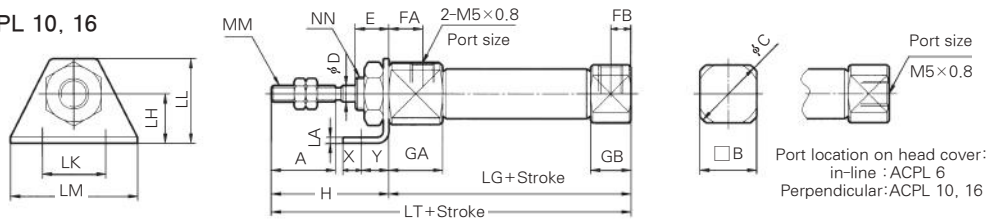
Axial Foot (ACPL)

ACPL Bore size Stroke Port Location on Head Cover

ACPL 6



ACPL 10, 16



Port location on head cover:
in-line : ACPL 6
Perpendicular: ACPL 10, 16

(mm)

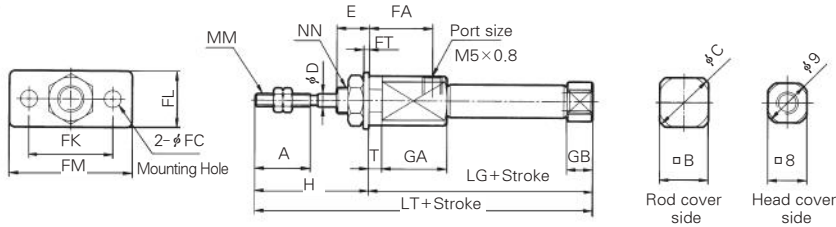
Bore size	A	B	C	D	E	FA	FB	H	LC	LH	LA	LK	LL	LM	MM	GA	GB	NN	LG	T	X	Y	LT
φ 6	15	12	14	3	8	14.5	-	28	4.5	9	1.6	24	16.5	32	M3×0.5	16	7	M6×1.0	49	3	5	7	77
φ 10	15	12	14	4	8	8	5	28	4.5	9	1.6	24	16.5	32	M4×0.7	12.5	9.5	M8×1.0	45	-	5	7	73
φ 16	15	18	20	5	8	8	5	28	5.5	14	2.3	33	25	42	M5×0.8	12.5	9.5	M10×1.0	45	-	6	9	73

Series ACP

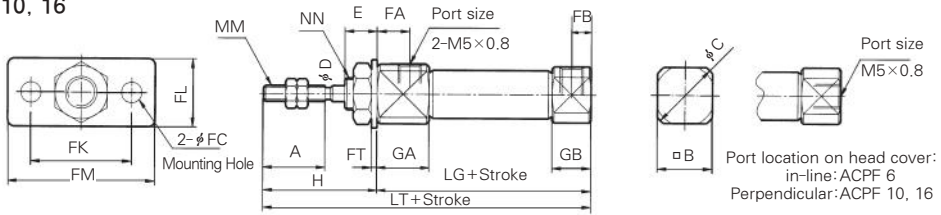
Rod Side Flange Type (ACPF)

ACPF Bore size Stroke Port Location on Head Cover

ACPF 6



ACPF 10, 16



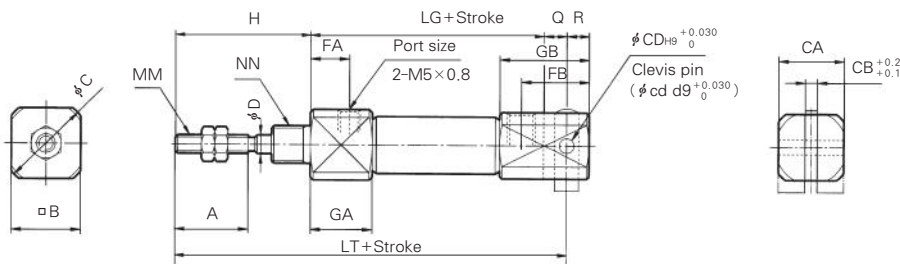
(mm)

Bore size	A	B	C	D	E	FC	FT	FK	FL	FM	FA	FB	H	MM	GA	GB	NN	LG	T	LT
φ 6	15	12	14	3	8	4.5	1.6	24	14	32	14.5	-	28	M3×0.5	16	7	M6×1.0	49	3	77
φ 10	15	12	14	4	8	4.5	1.6	24	14	32	8	5	28	M4×0.7	12.5	9.5	M8×1.0	45	-	73
φ 16	15	18	20	5	8	5.5	2.3	33	20	42	8	5	28	M5×0.8	12.5	9.5	M10×1.0	45	-	73

Double Clevis Type (ACPD)

ACPD Bore size Stroke

ACPD 10, 16



(mm)

Bore size	A	B	C	CD(cc)	CB	CA	D	FA	FB	H	MM	GA	GB	NN	R	LG	Q	LT
φ 10	15	12	14	3.3	3.2	12	4	8	18	28	M4×0.7	12.5	22.5	M8×1.0	5	45	8	81
φ 16	15	18	20	5	6.5	18	5	8	23	28	M5×0.8	12.5	27.5	M10×1.0	8	45	10	83

ACP

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ALX

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ADQ

AQ2

ADQ2

AJ

AJM

ABK

ACK1

NSK

AG

NGQ

AGX

GX

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NLCD

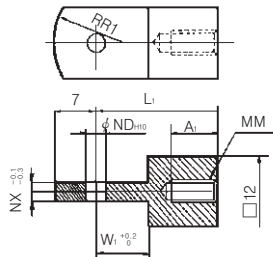
NLCS

Series ACP

Accessories/Parts List

(mm)

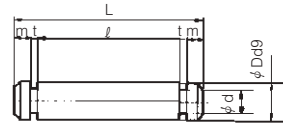
Single Knuckle Joint



Material: Stainless steel

PART No.	Bore	A _t	L ₁	MM	ND ^{H10}	NX	R ₁	W ₁
TC1P010-17	φ 10	8	21	M4×0.7	3.3 ^{+0.048} ₀	3.1	8	9
TC1P016-17	φ 16	8	25	M5×0.8	5 ^{+0.048} ₀	6.4	12	14

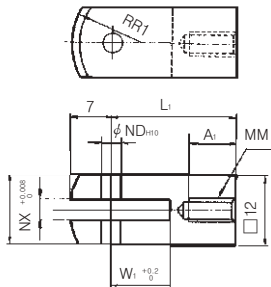
Knuckle Pin



Material: Stainless steel

PART No.	Bore	D ₀₉	d	L	ℓ	m	t	Clib
TC1P010-23A	φ 10	3.3 ^{-0.030} _{-0.060}	3	16.2	12.2	1.7	0.3	Cltype:3.2
TC1P016-23A	φ 16	5 ^{-0.033} _{-0.060}	4.8	16.6	12.2	1.5	0.7	Cltype:5

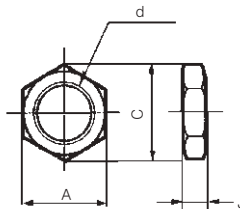
Double Knuckle Joint



Material: Rolled steel

PART No.	Bore	A _t	L ₁	MM	ND ^{H10}	NX	W ₁	R ₁
TC1P010-18	φ 10	8	21	M4×0.7	3.3 ^{+0.048} ₀	3.2	10	8
TC1P016-18	φ 16	11	21	M5×0.8	5 ^{+0.048} ₀	6.5	10	12

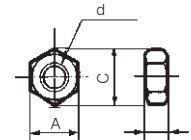
Mounting Nut



Material: Brass

PART No.	Bore	A	C	d	J
TC1P006-13A	φ 6	8	9.2	M6×1.0	4
TC1P010-13A	φ 10	11	12.7	M8×1.0	4
TC1P016-13A	φ 16	14	16.2	M10×1.0	4

Rod End Nut



Material: Steel

PART No.	Bore	A	C	d	J
TC1P006-13B	φ 6	5.5	6.4	M3×0.5	2.4
TC1P010-13B	φ 10	7	8.1	M4×0.7	3.2
TC1P016-13B	φ 16	8	9.2	M5×0.8	4

Series ACPW

Standard Type/Double Acting : Double Rod

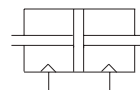
Bore Size(mm) : $\varnothing 6$, $\varnothing 10$, $\varnothing 16$



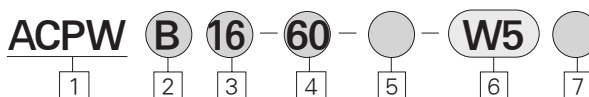
- STAINLESS STEEL BODY FOR HIGH CYCLE LIFE & LOW BREAKAWAY
- EASY MOUNTING
- BUMPERS STANDARD
- BUILT-IN MAGNET
- LIGHT COMPACT DESIGN

Symbol

Double Acting/Double Rod



How to Order



1 Air Cylinder

Built-in magnet, Rubber cushions are standard

2 Mounting

B : Standard type
L : Axial foot type
F : Rod side flange type

3 Bore Size(mm)

6 : $\varnothing 6$
10 : $\varnothing 10$
16 : $\varnothing 16$

4 Stroke(mm)

$\varnothing 6$: 10, 15, 20, 25, 30, 35, 40, 45, 50, 60
 $\varnothing 10$: 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 75, 100
 $\varnothing 16$: 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 75, 100

5 Special Option

Blank : Standard
XC16 : Copper-free

6 Auto Switch

(Band mounted type)
W5 : Reed Switch
0.5m Lead wire
※ W5L : Reed Switch, 3m Lead wire

7 Number of Auto Switches

Blank : 2 pcs
S : 1 pc
N : N pcs

ACP

APM

AS

AX

AM2

AM

AL
ALXAQ
ADQAQ2
ADQ2AJ
AJM

ABK

ACK1

NSK

AG

NGQ

AGX
GX

NP

ADR

AMR

NDM

ARD

NST

AST

ASTH

NLCD

NLCS

Series ACPW

● ACPW Series

Assembled a tube and a cover in a cocking way.

● Double Rod Cylinder

A cylinder with 2 rods at each side.

Notices for products

Please fully understand the notices prior to utilization, and refer to safety notice and common notice.

⚠ Warning

Assembly/Disassembly of Snap Ring

- During installation, secure the rod cover and tighten by applying an appropriate tightening force to the retaining nut or to the rod cover body. If the head cover is secured or the head cover body is tightened, the rod could rotate, leading to a deviation.
- Tighten the retaining screws to an appropriate tightening torque within the range given below.
 $\varnothing 6$: 2.1~2.5Nm, $\varnothing 10$: 5.9 to 6.4Nm,
 $\varnothing 16$: 10.8 to 11.8Nm
- To remove and install the snap ring for the knuckle pin or the clevis pin, use an appropriate pair of pliers (tool for installing a C type snap ring). In particular, use a pair of ultra-mini pliers for removing and installing the snap rings on the $\varnothing 10$ cylinders.

PART No. of Mounting Bracket

Mounting Bracket	Bore size(mm)		
	$\varnothing 6$	$\varnothing 10$	$\varnothing 16$
Foot	TC1P006-19	TC1P010-19	TC1P016-19
Flange	TC1P006-20	TC1P010-20	TC1P016-20

PART No. of Auto Switch Mounting Band

Bore Size	PART No. of auto Switch Mounting Band	Note
$\varnothing 6$	TC1P006	Common use to all of W5□ types
$\varnothing 10$	TC1P010	
$\varnothing 16$	TC1P016	

Standard Type/Double Acting : Double Rod/Series ACPW

Specifications

Action	Double Acting Single Rod	
Fluid	Air	
Proof Pressure	1.05MPa (150psi)	
Max. Operating Pressure	0.7MPa (100psi)	
Min. Operating Pressure	$\varnothing 6$	0.15MPa (17psi)
	$\varnothing 10, \varnothing 16$	0.1MPa (9psi)
Ambient and Fluid Temperature	40~140 °F (5 ~ 60℃)	
Cushion	Rubber cushion (Standard)	
Lubrication	None (Non-Lube)	
Piston Speed	50~750 mm/sec	
Stroke length Tolerance	$\begin{matrix} +1.0 \\ 0 \end{matrix}$	
Piston Speed	50~750mm/s	

Auto Switch Specifications

Mounting	Bore Size	Reed Switch
		Grommet
Band mounted type	$\varnothing 6, \varnothing 10, \varnothing 16$	W5 type

Mounting Accessories

Mounting		Basic Type	Foot Type	Flange Type
Standard	Mounting Nut	○	○	○
	Rod End Nut	○	○	○
Option	Single Knuckle Joint	○	○	○
	Double Knuckle Joint(With Pin)	○	○	○

Weight Table

		gf(ozf)		
Bore Size (mm)		$\varnothing 6$	$\varnothing 10$	$\varnothing 16$
※Basic Weight		27(0.95)	35(1.33)	70(2.40)
Additional Weight for each 15 of Stroke		3(0.11)	6(0.21)	9(0.32)
Mounting Bracket Weight	Foot Type	14(0.49)	14(0.43)	38(1.34)
	Flange Type	5(0.15)	5(0.15)	13(0.46)

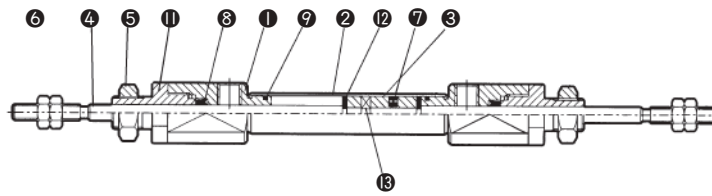
※ Including the weights of mounting nut and rod end nut in the reference weight.

※ Double clevis type is not included with mounting nut.

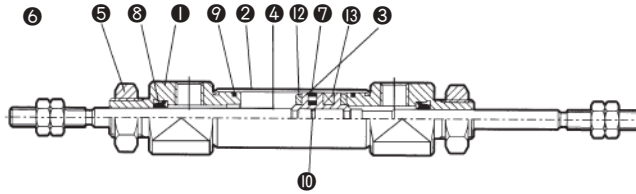
Series ACPW

Construction/Parts List

ACPWB 6



ACPWB 10, 16



Parts List

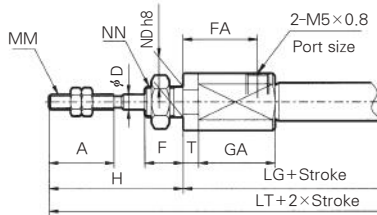
No.	Description	Material	Note
1	Rod Cover	Aluminum Alloy	White Alumite
2	Cylinder Tube	Stainless Steel	
3	Piston	Brass	
4	Piston Rod	Stainless Steel	
5	Mounting Nut	Brass	Nickel Plated
6	Rod end Nut	Rolled Steel	Nickel Plated
7	Piston Packing	NBR	

No.	Description	Material	Note
8	Rod packing	NBR	
9	Tube gasket	NBR	
10	Piston gasket	NBR	
11	Packing retainer	Aluminum alloy	White Alumite
12	Bumper	Urethane	
13	Magnet	-	

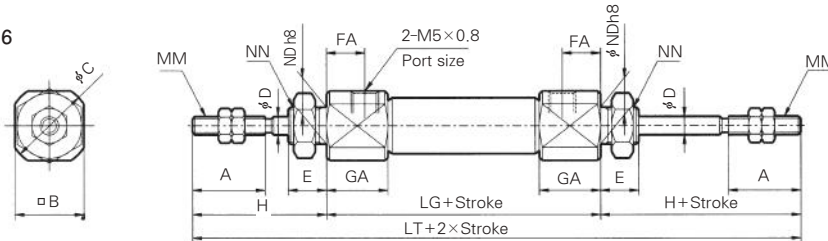
Standard Type (ACPWB)

ACPWB (Bore size) (Stroke)

ACPWB6
Rod Cover



ACPWB10,16



(mm)

Bore size	A	B	C	D	E	FA	H	MM	ND h8	GA	NN	LG	T	LT
φ 6	15	12	14	3	8	14.5	28	M3×0.5	6 ⁰ _{-0.018}	16	M6×1.0	68.5	3	124.5
φ 10	15	12	14	4	8	8	28	M4×0.7	8 ⁰ _{-0.022}	12.5	M8×1.0	48	-	104
φ 16	15	8	20	5	8	8	28	M5×0.8	10 ⁰ _{-0.022}	12.5	M10×1.0	48	-	104

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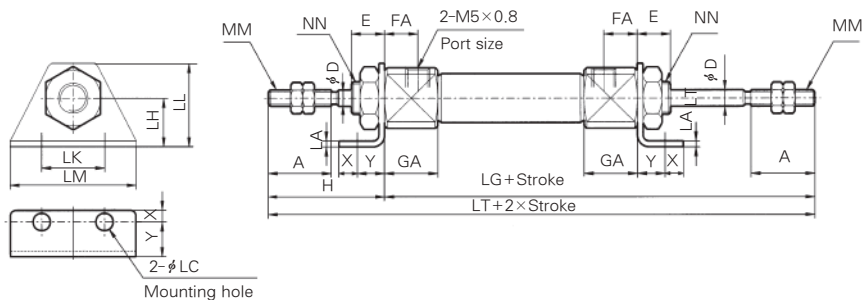
NLCS

Series ACPW

Foot Type (ACPWL)

ACPWL (Bore size) (Stroke)

ACPWL10,16



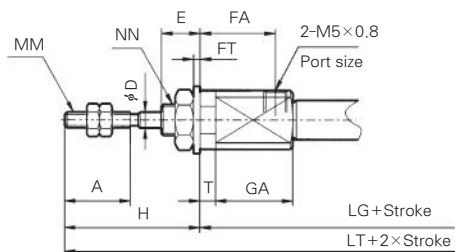
(mm)

Bore size	A	D	E	FA	H	LC	LH	LA	LK	LL	LM	MM	GA	NN	LG	T	X	Y	LT
φ6	15	3	8	14.5	28	4.5	9	1.6	24	16.5	32	M3×0.5	16	M6×1.0	68.5	3	5	7	124.5
φ10	15	4	8	8	28	4.5	9	1.6	24	16.5	32	M4×0.7	12.5	M8×1.0	48	-	5	7	104
φ16	15	5	8	8	28	5.5	14	2.3	33	25	42	M5×0.8	12.5	M10×1.0	48	-	6	9	104

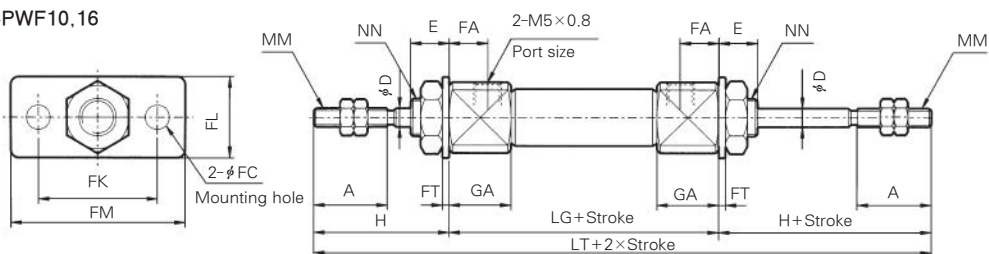
Flange Type (ACPWF)

ACPWF (Bore size) (Stroke)

ACPWF 6
Rod Cover



ACPWF10,16



(mm)

Bore size	A	D	E	FC	FT	FK	FL	FM	FA	H	MM	GA	NN	LG	T	LT
φ6	15	3	8	4.5	1.6	24	14	32	14.5	28	M3×0.5	16	M6×1.0	68.5	3	124.5
φ10	15	4	8	4.5	1.6	24	14	32	8	28	M4×0.7	12.5	M8×1.0	48	-	104
φ16	15	5	8	5.5	2.3	33	20	42	8	28	M5×0.8	12.5	M10×1.0	48	-	104

Series ACPS

Standard Type/Single Acting Spring Return, Spring Extended

Bore Size(mm) : $\varnothing 6$, $\varnothing 10$, $\varnothing 16$

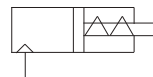


- STAINLESS STEEL BODY
- HIGH CYCLE LIFE
- BUILT - IN MAGNET
- COMPACT LIGHT DESIGN

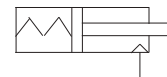
Symbol

Single Acting/Single Rod

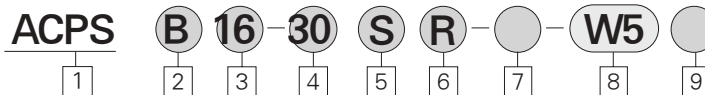
• Spring Return



• Spring Extended



How to Order



1 Air Cylinder

Built-in magnet, Rubber cushions are standard

2 Mounting

B : Standard type
L : Axial foot type
F : Rod side flange type
D : Double clevis type
(Except for $\varnothing 6$)

3 Bore Size(mm)

6 : $\varnothing 6$
10 : $\varnothing 10$
16 : $\varnothing 16$

4 Stroke (mm)

$\varnothing 6$: 15, 30, 45, 60
 $\varnothing 10$: 15, 30, 45, 60
 $\varnothing 16$: 15, 30, 45, 60

5 Action

S : Single acting spring return
T : Single acting spring extended
(Not available for $\varnothing 6$)

6 Port Location on Head Cover

Symbol	Bore size	$\varnothing 6$	$\varnothing 10$, $\varnothing 16$
R	-	in-line	
Blank	in-line		90°

7 Special Options

Blank : Standard
XC16 : Copper-free

8 Auto switch

(Band mounted type)
W5 : Reed Switch, 0.5m Lead Wire
W5L : Reed Switch, 3m Lead Wire

9 Number of Auto Switches

Blank : 2 pcs
S : 1 pc
N : N pcs

ACP

APM

AS

AX

AM2

AM

AL
ALXAQ
ADQAQ2
ADQ2AJ
AJM

ABK

ACK1

NSK

AG

NGQ

AGX
GX

NP

ADR

AMR

NDM

ARD

NST

AST

ASTH

NLCD

NLCS

Series ACPS

PART No. of Mounting Bracket

Mounting Bracket	Bore Size		
	φ 6	φ 10	φ 16
Foot	TC1P006-19	TC1P010-19	TC1P016-19
Flange	TC1P006-20	TC1P010-20	TC1P016-20
※T Mounting	-	TC1P010-42B	TC1P016-42B

※T Mounting : Double clevis type(D)

PART No. of Auto Switch Mounting Band

Bore Size	PART No. of Auto Switch Mounting Band	Note
φ 6	TC1P006	W5
φ 10	TC1P010	
φ 16	TC1P016	

Standard Type/Single Acting : Single Rod/Series ACPS

Specifications

Action	Spring Return	Spring Extended
Fluid	Air	
Proof Pressure	1.05MPa(149Psi)	
Max. Operating Pressure	0.7MPa(99Psi)	
Min. Operating Pressure	φ 6	0.2MPa(28Psi) 0.25MPa(36Psi)
	φ 10, φ 16	0.15MPa(21Psi)
Ambient and Fluid Temperature	40~140 °F (5~60℃)	
Cushion	Rubber cushion (Standard)	
Lubrication	None (Non-Lube)	
Piston Speed	50~750 mm/sec, (2~29.5 in/sec)	

Auto Switch Specifications

Mounting	Bore Size	Reed Switch
		Grommet
Band Mounted Type	φ 6, φ 10, φ 16	W5

Spring Retracting Force

Bore Size	kgf (lbf)	
	Extended Position	Retracted Position
φ 6	0.38(0.84)	0.18(0.40)
φ 10	0.70(1.54)	0.36(0.79)
φ 16	1.45 (3.20)	0.70(1.54)

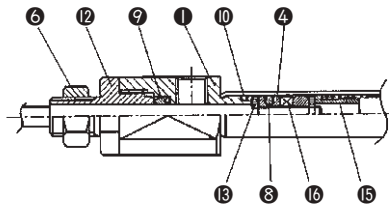
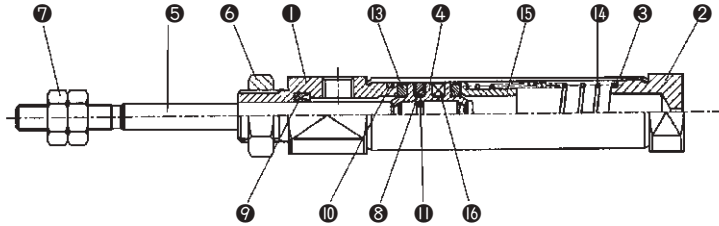
Mounting Accessories

Mounting		Basic Type	Axial Foot Type	Rod Side Flange Type	Double Clevis Type
Standard	Mounting Nut	○	○	○	-
	Rod end Nut	○	○	○	○
	Clevis Pin	-	-	-	○
Option	Single Knuckle Joint	○	○	○	○
	Double Knuckle Joint(With Pin)	○	○	○	○
	T Mounting	-	-	-	○

Series ACPS

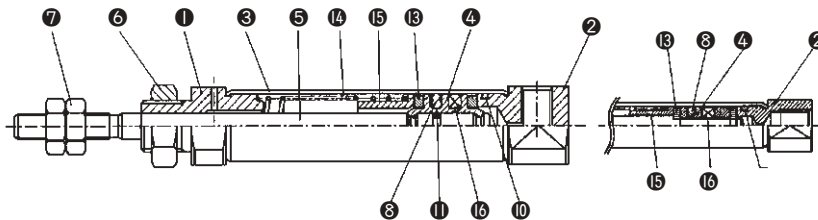
Construction/Parts List

Single Acting/Spring Extended
ACP□□ - □T



ACPS6 Rod Cover, Piston

Single Acting/Spring Return
ACP□□ - □S



ACPS6 Head Cover, Piston

Parts List

No.	Description	Material	Note
①	Rod Cover	Aluminum Alloy	White Alumite
②	Head Cover	Aluminum Alloy	White Alumite
③	Cylinder Tube	Stainless Steel	-
④	Piston	Brass	-
⑤	Piston Rod	Stainless Steel	-
⑥	Mounting Nut	Brass	Nickel Plated
⑦	Rod end Nut	Rolled Steel	Nickel Plated
⑧	Piston Packing	NBR	-

No.	Description	Material	Note
⑨	Rod packing	NBR	-
⑩	Tube gasket	NBR	-
⑪	Piston gasket	NBR	-
⑫	Packing retainer	Aluminum Alloy	White Alumite
⑬	Bumper	Urethane	-
⑭	Return spring	Piano Wire	-
⑮	Spring seat	Brass	-
⑯	Magnet	-	-

Standard Type/Single Acting : Single Rod/Series ACPSB

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

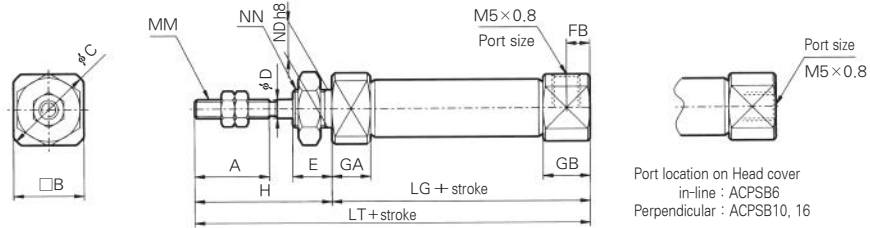
NLCD

NLCS

Series ACPS

Spring Return/Standard Type(ACPB)

ACPB Bore Size Stroke S Port Location on Head Cover

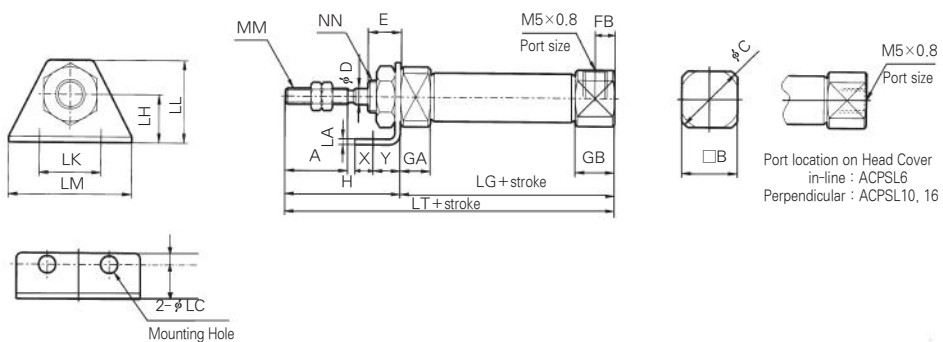


(mm)

Bore size	A	B	C	D	E	FB	H	MM	GA	GB	ND h8	NN	LG				LT			
													5~15 ST	16~30 ST	31~45 ST	46~60 ST	5~15 ST	16~30 ST	31~45 ST	46~60 ST
φ6	15	8	9	3	8	-	28	M3×0.5	3	7	6 ⁰ _{-0.018}	M6×1.0	39.5	48.5	52.5	66.5	67.5	76.5	80.5	94.5
φ10	15	12	14	4	8	5	28	M4×0.7	5.5	9.5	8 ⁰ _{-0.022}	M8×1.0	46.5	54	66	78	74.5	82	94	106
φ16	15	18	20	5	8	5	28	M5×0.8	5.5	9.5	10 ⁰ _{-0.022}	M10×1.0	46	54.5	66.5	78.5	74	82.5	94.5	106.5

Spring Return/Axial Foot Type(ACPL)

ACPL Bore Size Stroke S Port Location on Head Cover



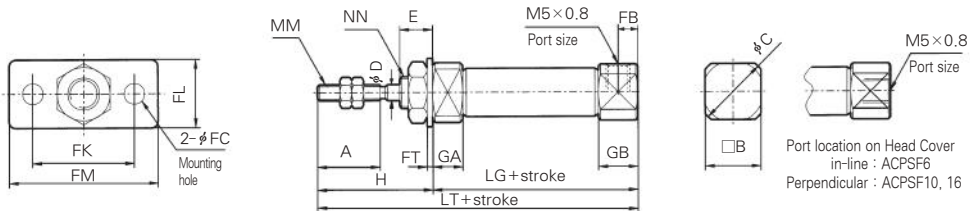
(mm)

Bore size	A	B	C	D	E	FB	H	LC	LH	LA	LK	LL	MM	GA	GB	NN	X	Y	LG				LT				
																			5~15 ST	16~30 ST	31~45 ST	46~60 ST	5~15 ST	16~30 ST	31~45 ST	46~60 ST	
φ6	15	8	9	3	8	-	28	4.5	9	1.6	24	16.5	32	M3×0.5	3	7	M6×1.0	5	7	39.5	48.5	52.5	66.5	67.5	76.5	80.5	94.5
φ10	15	12	14	4	8	5	28	4.5	9	1.6	24	16.5	32	M4×0.7	5.5	9.5	M8×1.0	5	7	46.5	54	66	78	74.5	82	94	106
φ16	15	18	20	5	8	5	28	5.5	14	2.3	33	25	42	M5×0.8	5.5	9.5	M10×1.0	6	9	46	54.5	66.5	78.5	74	82.5	94.5	106.5

Series ACPS

Spring Return/Rod Side Flange Type(ACPF)

ACPF Bore Size Stroke S Port Location on Head Cover

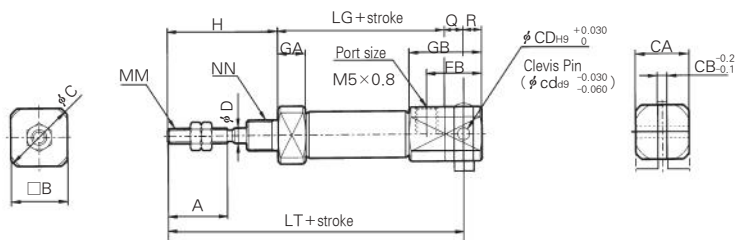


Bore size	A	B	C	D	E	FC	FT	FK	FL	FM	FB	H	MM	GA	GB	NN	LG				LT			
																	5~15ST	16~30ST	31~45ST	46~60ST	5~15ST	16~30ST	31~45ST	46~60ST
φ6	15	8	9	3	8	4.5	1.6	24	14	32	-	28	M3×0.5	3	7	M6×1.0	39.5	48.5	52.5	66.5	67.5	76.5	80.5	94.5
φ10	15	12	14	4	8	4.5	1.6	24	14	32	5	28	M4×0.7	5.5	9.5	M8×1.0	46.5	54	66	78	74.5	82	94	106
φ16	15	18	20	5	8	5.5	2.3	33	20	42	5	28	M5×0.8	5.5	9.5	M10×1.0	46	54.5	66.5	78.5	74	82.5	94.5	106.5

(mm)

Spring Return/Double Clevis Type(ACPD)

ACPD Bore Size Stroke S Port location on head cover



Bore size	A	B	C	CA	CB	CD (cd)	D	FB	GA	GB	H	MM	Q	R	LG				LT			
															5~15ST	16~30ST	31~45ST	46~60ST	5~15ST	16~30ST	31~45ST	46~60ST
φ10	15	12	14	12	3.2	3.3	4	18	5.5	22.5	28	M4×0.7	8	5	46.5	54	66	78	82.5	90	102	114
φ16	15	18	20	18	6.5	5	5	23	5.5	27.5	28	M5×0.8	10	8	46	54.5	66.5	78.5	84	92.5	104.5	116.5

(mm)

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

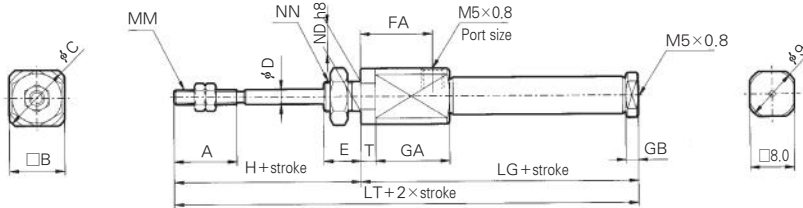
NLCS

Series ACPS

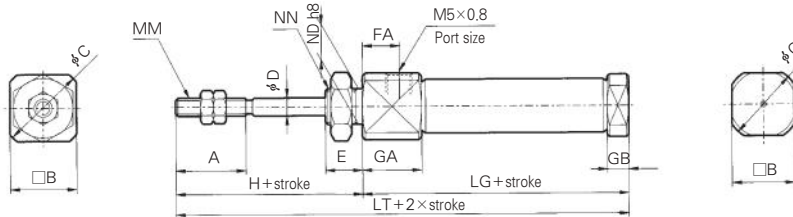
Spring Extended/Standard Type (ACPSB)

ACPB Bore size Stroke T

ACPB6 - □T



ACPB 10 - □T
16



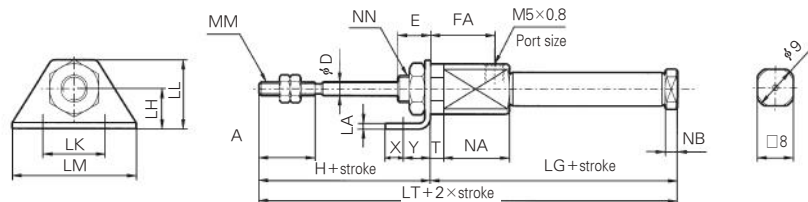
(mm)

Bore size	A	B	C	D	E	FA	H	MM	GA	GB	NDh8	T	NN	LG				LT			
														5~15 ST	6~30 ST	31~45 ST	46~60 ST	5~15 ST	6~30 ST	31~45 ST	46~60 ST
φ6	15	12	14	3	8	14.5	28	M3×0.5	16	3	6 ⁰ _{-0.018}	3	M6×1.0	51.5	60.5	64.5	78.5	79.5	88.5	92.5	106.5
φ10	15	12	14	4	8	5	28	M4×0.7	12.5	5.5	8 ⁰ _{-0.022}	-	M8×1.0	49.5	57	69	81	77.5	85	97	109
φ16	15	18	20	5	8	5	28	M5×0.8	12.5	5.5	10 ⁰ _{-0.022}	-	M10×1.0	49	57.5	69.5	81.5	77	85.5	97.5	109.5

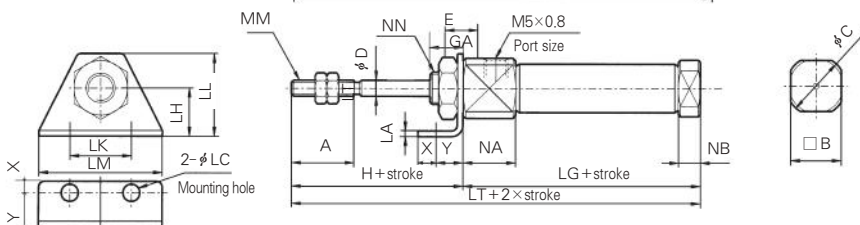
Spring Extended/Axial Foot Type (ACPL)

ACPL Bore size Stroke T

ACPL6 - □T



ACPB 10 - □T
16

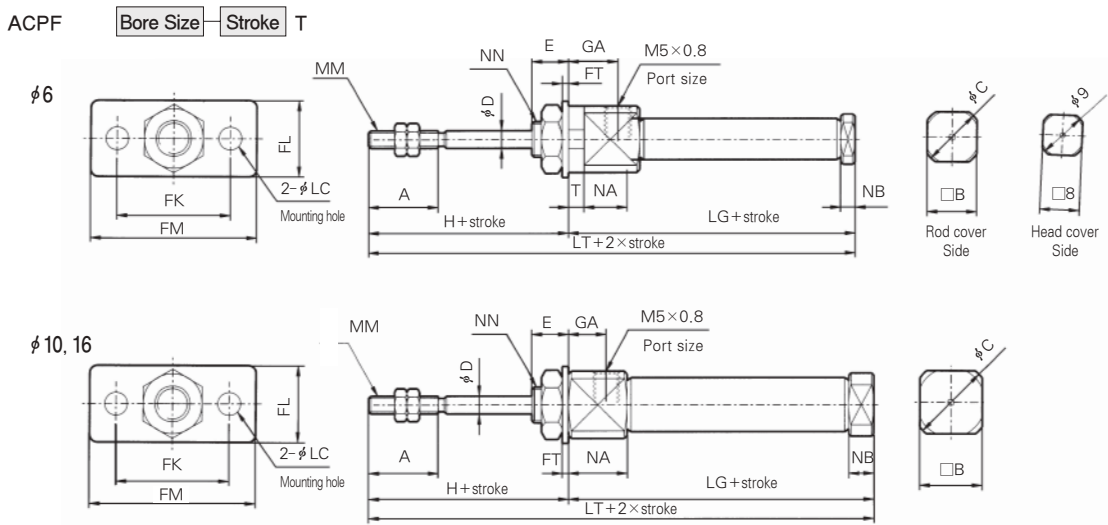


(mm)

Bore size	A	B	C	D	E	GA	H	LC	LH	LA	LL	LM	MM	NA	NB	T	X	Y	NN	LG				LT				
																				5~15ST	16~30ST	31~45ST	46~60ST	5~15ST	16~30ST	31~45ST	46~60ST	
φ6	15	12	14	3	8	14.5	28	4.5	9	1.6	24	16.5	32	M3×0.5	16	3	3	5	7	M6×1.0	51.5	60.5	64.5	78.5	79.5	88.5	92.5	106.5
φ10	15	12	14	4	8	8	28	4.5	9	1.6	24	16.5	32	M4×0.7	12.5	5.5	-	5	7	M8×1.0	49.5	57	69	81	77.5	85	97	109
φ16	15	18	20	5	8	8	28	5.5	14	2.3	33	25	42	M5×0.8	12.5	5.5	-	6	9	M10×1.0	49	57.5	69.5	81.5	77	85.5	97.5	109.5

Series ACPs

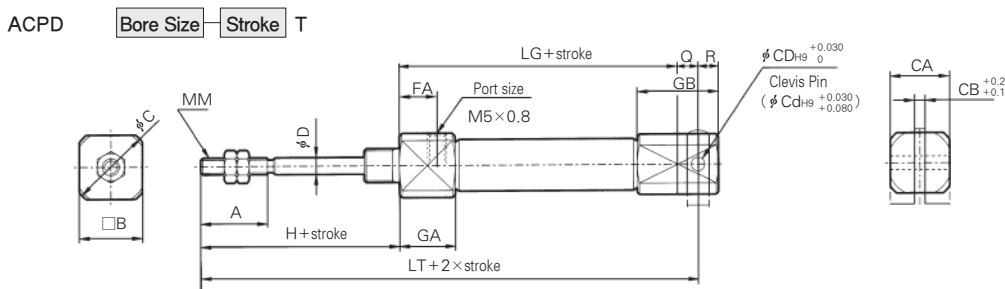
Spring Extended/Rod Side Flange Type (ACPF)



Bore size	A	B	C	D	E	FC	FK	FL	FM	GA	H	MM	NA	NB	T	NN	LG				LT				
																	5~15ST	16~30ST	31~45ST	46~60ST	5~15ST	16~30ST	31~45ST	46~60ST	
φ6	15	12	14	3	8	4.5	1.6	24	14	32	14.5	28	M3×0.5	16	3	M6×1.0	51.5	60.5	64.5	78.5	79.5	88.5	92.5	106.5	
φ10	15	12	14	4	8	4.5	1.6	24	14	32	8	28	M4×0.7	12.5	5.5	-	M8×1.0	49.5	57	69	81	77.5	85	97	109
φ16	15	18	20	5	8	5.5	2.3	33	20	42	8	28	M5×0.8	12.5	5.5	-	M10×1.0	49	57.5	69.5	81.5	77	85.5	97.5	109.5

(mm)

Spring Extended/Double Clevis Type (ACPD)



Bore size	A	B	C	CA	CB	CD (cd)	D	FB	GA	GB	H	MM	Q	R	LG				LT			
															5~15ST	16~30ST	31~45ST	46~60ST	5~15ST	16~30ST	31~45ST	46~60ST
φ10	15	12	14	12	3.2	3.3	4	8	12.5	22.5	28	M4×0.7	8	5	53.5	61	73	85	89.5	97	109	121
φ16	15	18	20	18	6.5	5	5	8	12.5	27.5	28	M5×0.8	10	8	53	61.5	73.5	85.5	91	99.5	111.5	123.5

(mm)

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

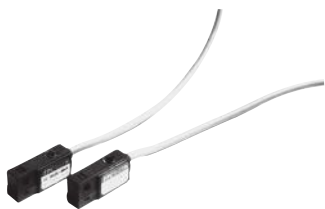
AST

ASTH

NLCD

NLCS

Reed Switch Type / Band Mounted Type Series W5

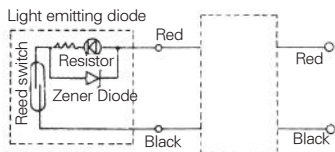


Specifications W5 Type(With indicator lamp)

Auto Switch Model	W5	
Application	Relay, Sequence Control	
Load Voltage	DC24V	AC110V
Max. Load Current/Range of Load Current	5~40mA	5~20mA
Protection Circuit for Contact Breaker Point	None	
Internal Voltage Drop	2.4V or less	
Indicator Lamp	ON:Red light emitting diode	

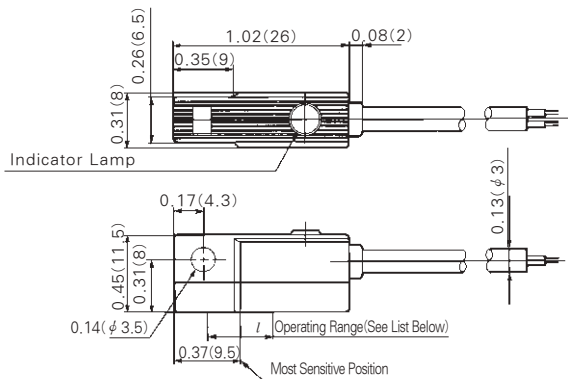
- Leakage Current – None
 - Response Time – 1.2ms
 - Lead Wire – Oil proof vinyl, ϕ 3.4 0.2mm², 2 Wire(red, black), 0.5m(18in)
 - Impact Resistance – 30G
 - Insulation Resistance – 50M Ω or more under the test voltage 500VDC (Between case and cable)
 - Withstand Voltage – 1500VAC 1min (between case and cable)
 - Ambient Temperature – 14~140^oF (-10~60^oC)
 - Protection Structure – IEC spec IP67, Water-proof(JISCO920), oil-proof.
- ※ If 118inch lead wire is required, L is put at the end of numbers.
Example : W5L

Auto Switch/Internal Circuit



Auto Switch Dimensions

inch(mm)



Operating Range(/ Dimension)

(mm)

Series	Bore size		
	ϕ 6	ϕ 10	ϕ 16
ACP	6	7	7

Series UACP

Standard Type/Double Acting : Single Rod

Bore Size mm(inch) : Ø6(1/4 Nom.), Ø10(3/8 Nom.), Ø16(5/8 Nom.)



- STAINLESS STEEL CYLINDER TUBE
- HIGH CYCLE LIFE
- LOW BREAKAWAY
- BUMPERS STANDARD
- BUILT-IN MAGNET
- COMPACT LIGHT DESIGN

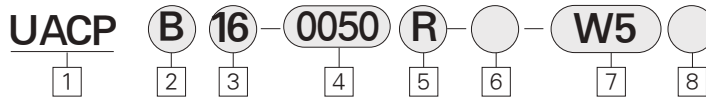
Symbol

Double Acting/Single Rod



- 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

How to Order



1 Air cylinder
Built-in magnet, Rubber cushion are standard.

2 Mounting
B : Standard type
L : Axial foot type
F : Rod side flange type
D : Double clevis type
(Except for Ø6)

3 Bore Size mm(inch)
6 : Ø6 (1/4 Nom.)
10 : Ø10 (3/8 Nom.)
16 : Ø16 (5/8 Nom.)

4 Stroke/Hundredth of an Inch
Ø6 : 0.050 0.100 0.150 0.200
Ø10 : 0.050 0.100 0.150 0.200 0.300
0.400 0.500 0.600
Ø16 : 0.050 0.100 0.150 0.200 0.300
0.400 0.500 0.600 0.700 0.800

5 Port Location on Head Cover

Symbol	Bore size	Ø6	Ø10, Ø16
		-	in-line
R			
Blank		in-line	90°

6 Special Options

Blank : Standard
XC16 : Copper-free

7 Auto Switch

(Band mounted type)
W5 : Reed switch, 0.5m Lead Wire
W5L : Reed Switch, 3m Lead Wire

8 Number of Auto Switches

Blank : 2 pcs
S : 1 pc
N : N pcs

PART No. of Mounting Bracket

Mounting bracket	Bore Size mm(inch)		
	Ø6 (1/4 Nom.)	Ø10 (3/8 Nom.)	Ø16 (5/8 Nom.)
Foot	TC1P006-19	TC1P010-19	TC1P016-19
Flange	TC1P006-20	TC1P010-20	TC1P016-20
※Double Clevis	-	TC1P010-42B	TC1P016-42B

※ T Mounting : Double Clevis Type(D)

PART No. of Auto Switch Mounting Band

Bore size	PART No. of Auto Switch Mounting Band	Note
Ø6 (1/4 Nom.)	TC1P006	Common use to all of W5 types
Ø10 (3/8 Nom.)	TC1P010	
Ø16 (5/8 Nom.)	TC1P016	

Standard Type/Single Acting / Single Rod/Series UACPS

Series UACP

Specifications

Action	Double Acting Single Rod	
Fluid	Air	
Proof Pressure	1.05 MPa(150 Psi)	
Max. Operating Pressure	0.7 MPa(100 Psi)	
Min. Operating Pressure	φ 6	0.12 MPa(17 Psi)
	φ 10, φ 16	0.06 MPa(9 Psi)
Ambient and Fluid Temperature	5~60℃(40~140 ° F)	
Cushion	Rubber Cushion (Standard)	
Lubrication	None (Non-Lube)	
Piston Speed	50~750 mm/s, (2~29.5 in/s)	

Auto Switch Specifications

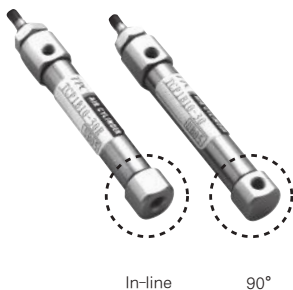
Mounting	Bore Size (2~29.5 in/s)	Reed Switch
		Grommet
Band mounted Type	φ 6(1/4 Nom.), φ 10(3/8 Nom.), φ 16(5/8 Nom.)	W5 Type

Mounting Accessories

	Mounting	Basic type	Axial foot type	Rod side flange type	Double clevis type
Standard	Mounting nut	○	○	○	—
	Rod end nut	—	—	—	—
	Clevis pin	—	—	—	○
Option	Single knuckle joint	○	○	○	○
	Double knuckle joint(with pin)	○	○	○	○
	T Mounting	—	—	—	○

Rear Port Location on Head Cover

Perpendicular to the cylinder axis or in-line with the cylinder axis locations are available for basic type.
(φ 6 is not available in perpendicular type)



Weight Table

gf(ozf)

Bore size mm(Inch)		φ 6(1/4 Nom.)	φ 10(3/8 Nom.)	φ 16(3/8 Nom.)
※ Basic Weight		15(0.52)	24(0.84)	54(1.94)
Additional Weight for each 1/2" of stroke		2(0.08)	4(0.14)	6.5(0.23)
Mounting bracket Weight	Foot type	7(0.25)	7(0.25)	19(0.67)
	Rod side flange type	5(0.18)	5(0.18)	13(0.45)
	※ ※ Double clevis type(with pin)	—	2(0.08)	8(0.28)

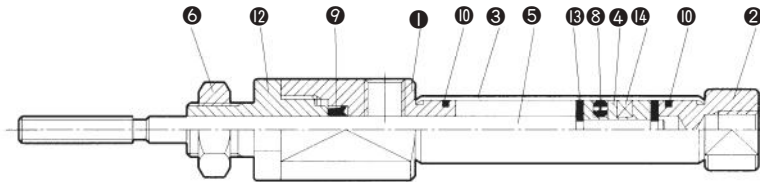
※ Including the weights of mounting nut and rod end nut in the reference weight.

※ ※ Double clevis type is not included with mounting nut.

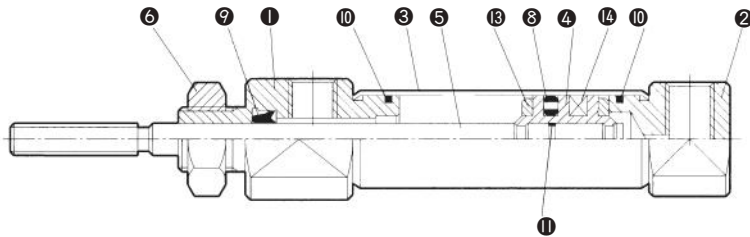
Series UACP

Construction/Parts List

UACPB 6



UACPB 10, 16



Parts List

No.	Description	Material	Note	No.	Description	Material	Note
1	Rod cover	Aluminum Alloy	White Alumite	7	Rod Packing	NBR	-
2	Head cover	Aluminum Alloy	White Alumite	10	Tube Gasket	NBR	-
3	Cylinder tube	Stainless Steel	-	11	Piston Gasket	NBR	-
4	Piston	Brass	-	12	Packing Retainer	Aluminum Alloy	White Alumite
5	Piston rod	Stainless Steel	-	13	Bumper	Urethane	-
6	Mounting nut	Brass	Nickel Plated	14	Magnet	-	-
7	Piston packing	NBR	-				

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

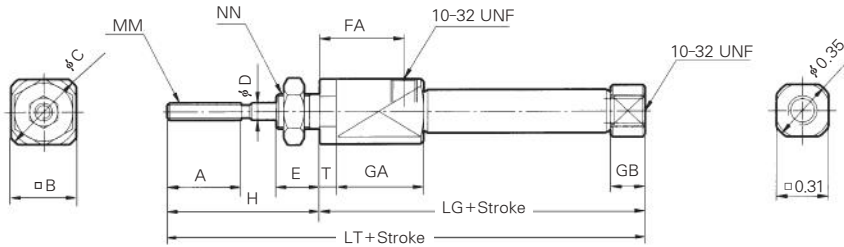
NLCS

Series UACP

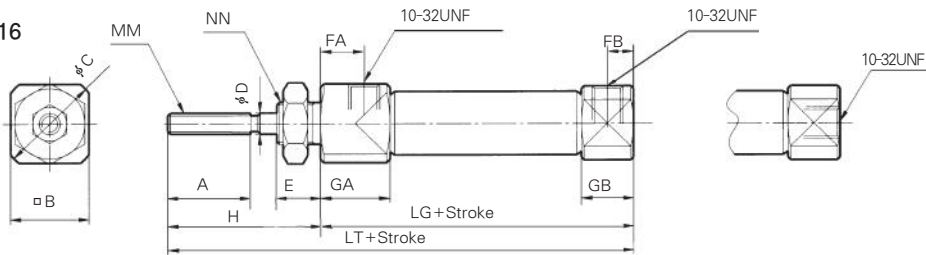
Standard Type (UACPB)

UACPB

UACPB 6



UACPB 10, 16



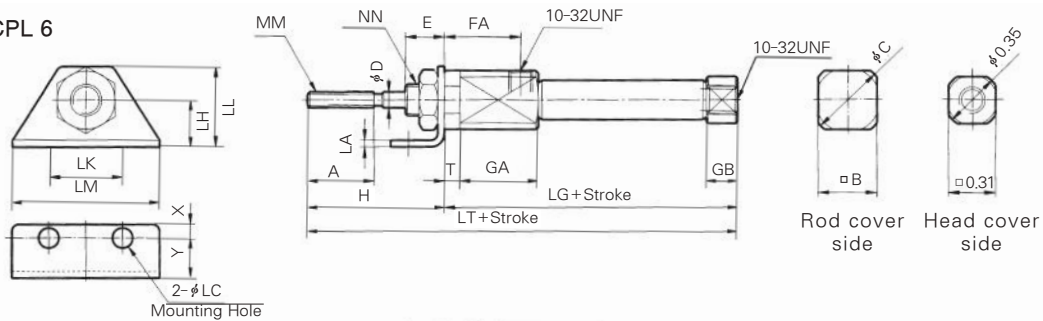
Bore size (inch)	A	B	C	D	E	FA	FB	H	MM	GA	GB	NN	LG	T	LT
φ6(1/4 Nom.)	0.59	0.47	0.55	0.12	0.31	0.57	-	1.10	5-40 UNC	0.63	0.28	1/4-28 UNF	1.93	0.12	3.03
φ10(3/8 Nom.)	0.59	0.47	0.55	0.16	0.31	0.31	0.20	1.10	6-40 UNF	0.49	0.37	5/16-24 UNF	1.77	-	2.87
φ16(5/8 Nom.)	0.59	0.71	0.79	0.20	0.31	0.31	0.20	1.10	10-32 UNF	0.49	0.37	3/8-24 UNF	1.77	-	2.87

(inch)

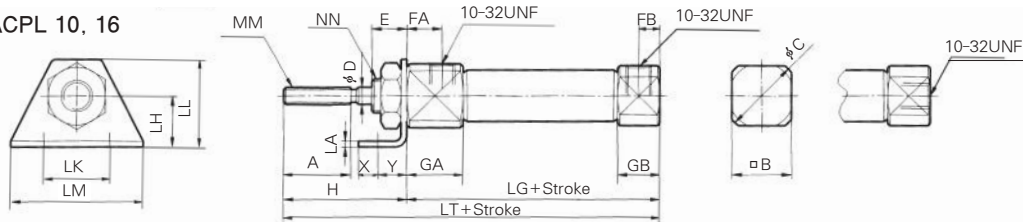
Axial Foot Type (UACPL)

UACPL

UACPL 6



UACPL 10, 16



Bore size (inch)	A	B	C	D	E	FA	FB	H	LC	LH	LA	LK	LL	LM	MM	GA	GB	NN	LG	T	X	Y	LT
φ6(1/4 Nom.)	0.59	0.47	0.55	0.12	0.31	0.57	-	1.10	0.18	0.35	0.06	0.95	0.65	1.26	5-40 UNF	0.63	0.28	1/4-28 UNF	1.93	0.12	0.20	0.28	3.03
φ10(3/8 Nom.)	0.59	0.47	0.55	0.16	0.31	0.57	0.20	1.10	0.18	0.35	0.06	0.95	0.65	1.26	6-40 UNF	0.49	0.37	5/16-24 UNF	1.77	-	0.20	0.28	2.87
φ16(5/8 Nom.)	0.59	0.71	0.79	0.20	0.31	0.57	0.20	1.10	0.22	0.55	0.09	1.30	0.98	1.65	10-32 UNF	0.49	0.37	3/8-24 UNF	1.77	-	0.24	0.35	2.87

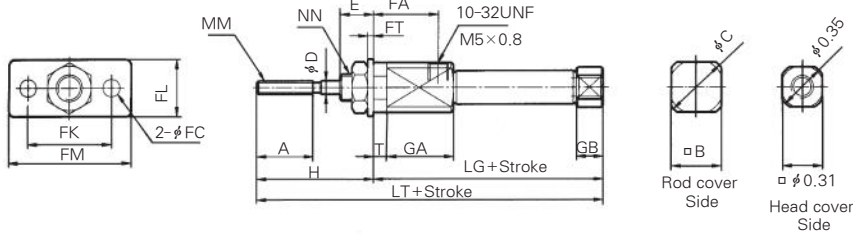
(inch)

Series UACP

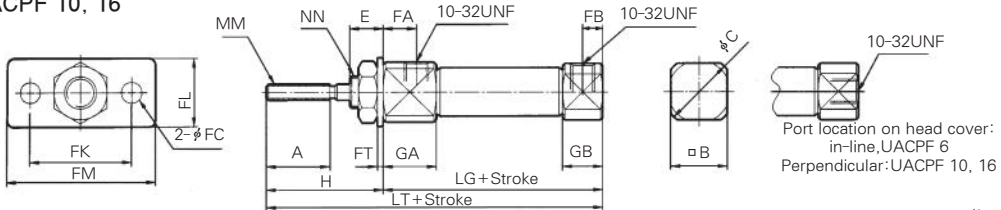
Rod Side Flange Type (UACPF)

UACPF

UACPF 6



UACPF 10, 16



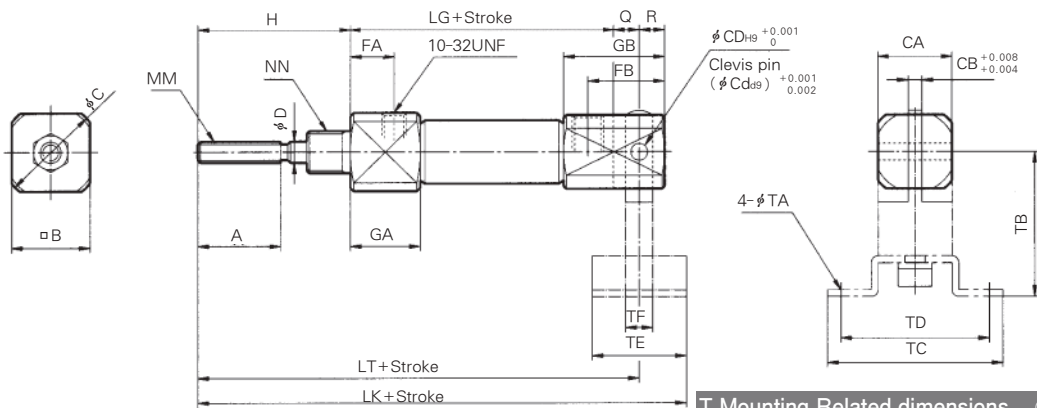
Bore size (inch)	A	B	C	D	E	FC	FT	FK	FL	FM	FA	FB	H	MM	GA	GB	NN	LG	T	LT
φ 6(1/4 Nom.)	0.59	0.47	0.55	0.12	0.31	0.18	0.06	0.95	0.55	1.26	0.57	-	1.10	5-40 UNC	0.63	0.28	1/4-28 UNF	1.93	0.12	3.03
φ 10(3/8 Nom.)	0.59	0.47	0.55	0.16	0.31	0.18	0.06	0.95	0.55	1.26	0.31	0.2	1.10	6-40 UNF	0.49	0.37	5/16-24 UNF	1.77	-	2.87
φ 16(5/8 Nom.)	0.59	0.71	0.79	0.20	0.31	0.22	0.09	1.30	0.79	1.65	0.31	0.2	1.10	10-32 UNF	0.49	0.37	3/8-24 UNF	1.77	-	2.87

(inch)

Double Clevis Type (UACPD)

UACPD

UACPD 10, 16



T Mounting Related dimensions (inch)

Bore size (inch)	TA	TB	TC	TD	TE	TF
φ 10(3/8 Nom.)	0.18	1.14	1.58	1.26	0.87	0.47
φ 16(5/8 Nom.)	0.22	1.38	1.89	1.5	1.10	0.63

Bore size (inch)	A	B	C	CD(cd)	CB	CA	D	FA	FB	H	MM	GA	GB	NN	R	LG	Q	LT	LK
φ 10(3/8 Nom.)	0.59	0.47	0.55	0.13	0.13	0.47	0.16	0.32	0.71	1.10	6-40 UNF	0.49	0.89	5/16-24 UNF	0.20	1.77	0.31	3.09	3.62
φ 16(5/8 Nom.)	0.59	0.71	0.79	0.20	0.26	0.71	0.20	0.32	0.91	1.10	10-32 UNF	0.49	1.08	3/8-24 UNF	0.31	1.77	0.39	3.27	3.82

(inch)

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

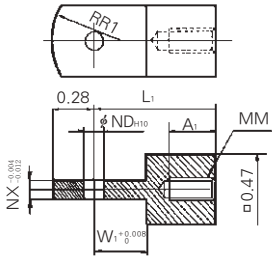
NLCS

Series UACP

Accessories/Parts List

inch

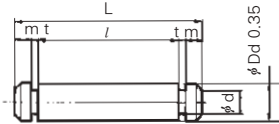
Single Knuckle Joint



Material: Rolled steel

PART No	Bore	A ₁	L ₁	MM	ND ^{#10}	NX	R ₁	W ₁
UACP 010-17	#10	8.13	21.08	6-40 UNF	3.3 ^{+0.051} ₀	3.05	21.08	8.88
UACP 016-17	#16	8.13	24.83	10-32 UNF	5.08 ^{+0.051} ₀	6.35	11.94	13.97

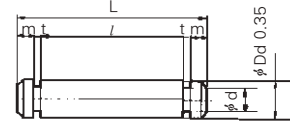
Clevis Pin



Material: Stainless steel

PART No	Bore	Ddg(9)	d	L	l	m	t	Clib
ACP 010-23A	#10	3.30 ^{-0.025} _{-0.051}	3.3	3.05	15.24	12.2	1.27	CType0.25
ACP 016-23A	#16	5.08 ^{-0.025} _{-0.051}	5.08	4.83	22.61	18.29	1.524	CType0.76

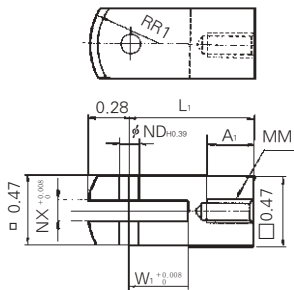
Knuckle Pin



Material: Stainless steel

PART No	Bore	Ddg(9)	d	L	l	m	t	Clib
ACP 010-23B	#10	3.30 ^{-0.025} _{-0.051}	3.3	3.05	16.26	12.2	1.78	CType0.11
ACP 016-23B	#16	5.08 ^{-0.025} _{-0.051}	5.08	4.83	21.59	12.2	1.52	CType0.103

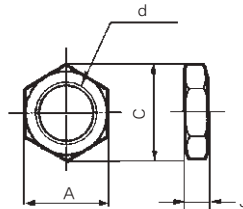
Double Knuckle Joint



Material: Rolled steel

PART No.	Bore	A ₁	L ₁	MM	ND ^{#10}	NX	W ₁	R ₁
UACP 010-18	#10	0.32	0.93	6-40 UNF	0.13 ^{-0.045} ₀	0.13	0.39	10.32
UACP 016-18	#16	0.43	0.83	10-32 UNF	0.20 ^{+0.045} ₀	0.13	0.39	0.47

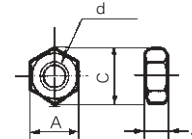
Mounting Nut



Material: Brass

PART No.	Bore	A	C	d	J
UACP 006-13A	#6	0.44	0.50	1/4-28 UNF	0.16
UACP 010-13A	#10	0.50	0.58	5/16-24 UNF	0.19
UACP 016-13A	#16	0.56	0.65	3/8-24 UNF	0.23

Rod End Nut



Material: Steel

PART No.	Bore	A	C	d	J
UACP 006-13B	#6	0.31	0.11	5-40 UNC	0.11
UACP 010-13B	#10	0.31	0.36	6-40 UNF	0.11
UACP 016-13B	#16	0.38	0.43	10-32 UNF	0.13

Series UACPW

Standard Type/Double Acting : Double Rod

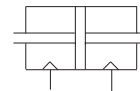
Bore Size(mm(inch)) : Ø6(1/4 " Nom.), Ø10(3/8 " Nom.), Ø16(5/8 " Nom.)



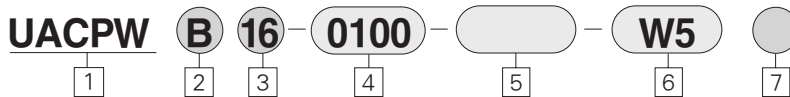
- STAINLESS STEEL BODY FOR HIGH CYCLE LIFE & LOW BREAKAWAY
- BUMPERS STANDARD
- EASY MOUNTING
- LOW BREAKAWAY
- LIGHT COMPACT DESIGN

Symbol

Double Acting/Double Rod



How to Order



1 Air Cylinder

Built-in magnet, Rubber cushions are standard

2 Mounting

B : Standard type
L : Axial foot type
F : Rod side flange type

3 Bore Size/mm(inch)

6 : Ø6(1/4 Nom.)
10 : Ø10(3/8 Nom.)
16 : Ø16(5/8 Nom.)

4 Stroke (mm)

6 : 5, 10, 15, 20
10 : 5, 10, 15, 20
16 : 5, 10, 15, 20, 30, 40

5 Special Option

Blank : Standard
XC16 : Copper-free

6 Auto Switch

(Band mounted type)
W5 : Reed Switch, 0.5m Lead Wire
※ W5L : Reed Switch, 3m Lead Wire

7 Number of Auto Switches

Blank : 2 pcs
S : 1 pc
N : N pcs

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 UACPW

PART No. of Mounting Bracket

Mounting Bracket	Bore size mm(inch)		
	6(1/4 Nom.)	10(3/8 Nom.)	16(5/8 Nom.)
Foot	TC1P006-19	TC1P010-19	TC1P016-19
Flange	TC1P006-20	TC1P010-20	TC1P016-20

PART No. of Auto Switch Mounting Band

Bore Size (inch)	PART No. of auto switch mounting band	Note
6(1/4 Nom.)	TC1P006	Common use to all of W5 types
10(3/8 Nom.)	TC1P010	
16(5/8 Nom.)	TC1P016	

Standard Type/Double Acting: Double Rod/Series UACPW

Specifications

Action	Double Acting Single Rod	
Fluid	Air	
Proof Pressure	1.05MPa(150 Psi)	
Max. Operating Pressure	0.70MPa(100 Psi)	
Min. Operating Pressure	φ6(0.24)	0.15MPa(17 Psi)
	φ10(0.39), φ16(0.63)	0.1MPa(8.5 Psi)
Ambient and Fluid Temperature	40~140 ° F (5℃ ~ 60℃)	
Cushion	Rubber Cushion (Standard)	
Lubrication	None (Non-Lube)	
Piston Speed	50~750 mm/sec. (2~29.5 in/sec)	

Auto Switch Specifications

Mounting	Bore Size(inch)	Reed Switch
		Grommet
Band Mounted type	φ6(1/4 Nom.), φ10(3/8 Nom.), φ16(5/8 Nom.)	W5

Mounting and Accessories

Mounting		Basic type	Foot type	Flange type
Standard	Mounting nut	○	○	○
	Rod end nut	-	-	-
Option	Single knuckle joint	○	○	○
	Double knuckle joint(with pin)	○	○	○

Weight Table

gf(oz)

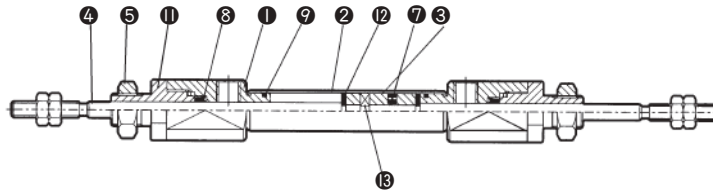
Bore Size mm(inch)		φ6(1/4 Nom.)	φ10(1/4 Nom.)	φ16(5/8 Nom.)
※Basic Weight		27(0.95)	35(1.33)	70(2.40)
Additional Weight for each 1/2" of stroke		3(0.08)	6(0.17)	9(0.26)
Mounting Bracket Weight	Foot type	14(0.49)	14(0.49)	38(1.34)
	Flange type	5(0.15)	5(0.15)	13(0.46)

※ Including the weights of mounting nut and rod end nut.

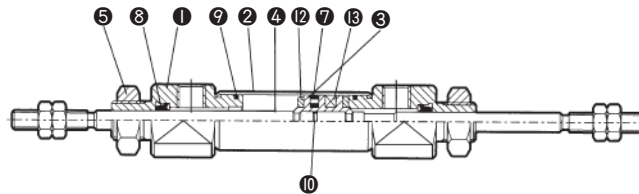
Series UACPW

Construction/Parts List

UACPWB 6



UACPWB 10, 16



Parts List

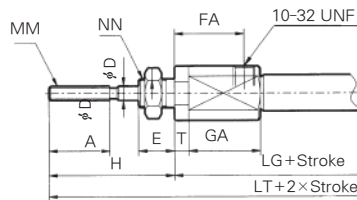
No.	Description	Material	Note
1	Rod Cover	Aluminum Alloy	White Alumite
2	Cylinder Tube	Stainless Steel	
3	Piston	Brass	
4	Piston Rod	Stainless Steel	
5	Mounting Nut	Brass	Nickel Plated
7	Piston Packing	NBR	

No.	Description	Material	Note
8	Rod Packing	NBR	
9	Tube Gasket	NBR	
10	Piston Gasket	NBR	
11	Packing Retainer	Aluminum alloy	
12	Bumper	Urethane	
13	Magnet	-	

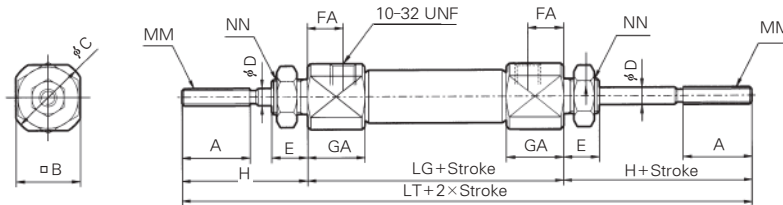
Standard Type (UACPWB)

UACPWB (Bore Size) (Stroke)

UACPWB6
Rod Cover



UACPWB10,16



Bore size (inch)	A	B	C	D	E	FA	H	MM	GA	NN	LG	T	LT
φ6(1/4 Nom.)	0.59	0.47	0.55	0.12	0.31	0.57	1.10	5-40 UNC	0.63	1/4-28 UNF	2.70	0.12	4.90
φ10(3/8 Nom.)	0.59	0.47	0.55	0.16	0.31	0.32	1.10	6-40 UNF	0.49	5/16-24 UNF	1.89	-	4.09
φ16(5/8 Nom.)	0.59	0.71	0.79	0.20	0.31	0.32	1.10	10-32 UNF	0.49	3/8-24 UNF	1.89	-	4.09

(inch)

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

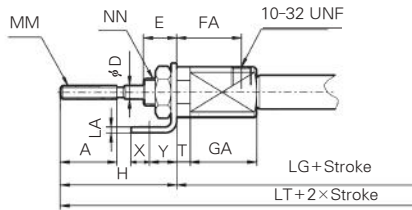
NLCS

Series UACPW

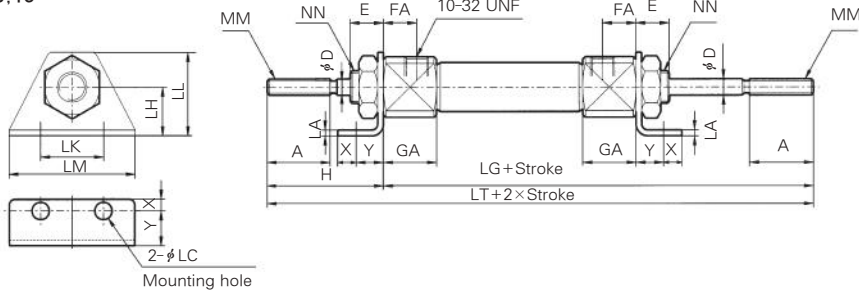
Foot Type (UACPWL)

UACPWL (Bore Size) (Stroke)

UACPWL6
Rod Cover



UACPWL10.16



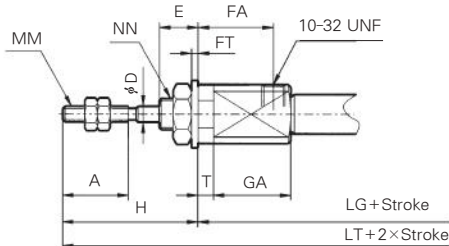
(inch)

Bore size(inch)	A	D	E	FA	H	LC	LH	LA	LK	LL	LM	MM	GA	NN	LG	T	X	Y	LT
φ6(1/4 Nom.)	0.59	0.12	0.31	0.57	1.10	0.18	0.35	0.06	0.95	0.65	1.26	5-40 UNC	0.63	1/4-28 UNF	2.70	0.12	0.20	0.28	4.90
φ10(3/8 Nom.)	0.59	0.16	0.31	0.32	1.10	0.18	0.35	0.06	0.95	0.65	1.26	6-40 UNF	0.49	5/16-24 UNF	1.89	-	0.20	0.28	4.09
φ16(5/8 Nom.)	0.59	0.20	0.31	0.32	1.10	0.22	0.55	0.09	1.30	0.98	1.65	10-32 UNF	0.49	3/8-24 UNF	1.89	-	0.24	0.35	4.09

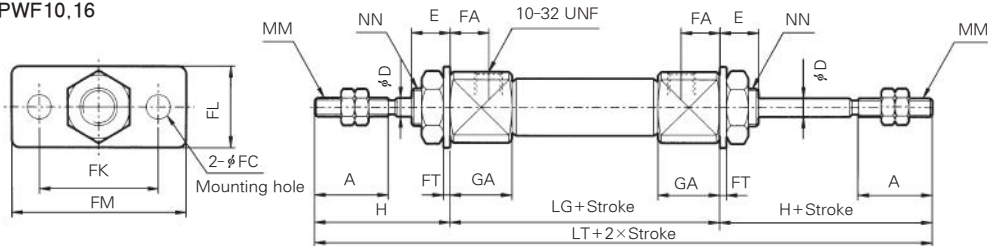
Flange Type (UACPWF)

ACPWF (Bore Size) (Stroke)

UACPWF 6
Rod Cover



UACPWF10.16



(inch)

Bore size(inch)	A	D	E	FC	FT	FK	FL	FM	FA	H	MM	GA	NN	LG	T	LT
6(1/4 Nom.)	0.59	0.12	0.31	0.18	0.06	0.95	0.55	1.26	0.57	1.10	5-40 UNC	0.63	1/4-28 UNF	2.70	0.12	4.90
10(3/8 Nom.)	0.59	0.16	0.31	0.18	0.06	0.95	0.55	1.26	0.32	1.10	6-40 UNF	0.49	5/16-24 UNF	1.89	-	4.09
16(5/8 Nom.)	0.59	0.20	0.31	0.22	0.09	1.30	0.79	1.65	0.32	1.10	10-32 UNF	0.49	3/8-24 UNF	1.89	-	4.09

Series UACPS

Standard Type/Single Acting Spring Return, Spring Extended

Bore Size(mm(inch)) : Ø6(1/4Nom.), Ø10(3/8Nom.), Ø16(5/8Nom.)

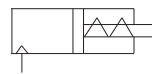


- STAINLESS STEEL BODY
- HIGH CYCLE LIFE
- BUMPERS STANDARD
- BUILT - IN MAGNET
- COMPACT LIGHT DESIGN

Symbol

Single Acting/Single Rod

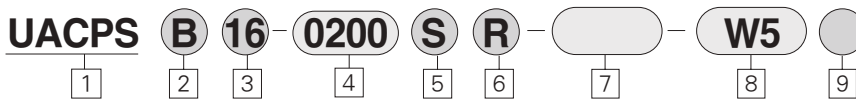
• Spring Return



• Spring Extended



How to Order



1 Air Cylinder

Built-in magnet, Rubber cushions are standard.

2 Mounting

B : Basic type
L : Axial foot type
F : Rod side flange type
D : Double Clevis type
(Except for Ø6)

3 Bore Size(inch)

6 : Ø6(1/4 Nom.)
10 : Ø10(3/8 Nom.)
16 : Ø16(5/8 Nom.)

4 Stroke(mm)

6 : 6, 10, 15, 20
10 : 6, 10, 15, 20
16 : 6, 10, 15, 20

5 Action

S : Single Acting Spring Return
T : Single Acting Spring Extended

6 Port Location on Head Cover

Symbol	Bore size	Ø6	Ø10, Ø16
R	-	in-line	
Blank	in-line	90°	

7 Special Options

Blank : Standard
XC16 : Copper-free

8 Auto Switch

(Band mounted type)
W5 : Reed Switch, 0.5m Lead Wire
※ W5L : Reed Switch, 3m Lead Wire

9 Number of Auto Switches

Blank : 2 pcs
S : 1 pc
N : N pcs

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 UACPS

PART No. of Mounting Bracket

Mounting Bracket	Bore Size(inch)		
	φ 6(1/4 Nom.)	φ 10(3/8 Nom.)	φ 16(5/8 Nom.)
Foot	TC1P006-19	TC1P010-19	TC1P016-19
Flange	TC1P006-20	TC1P010-20	TC1P016-20
※T Mounting	-	TC1P010-42B	TC1P016-42B

※T Mounting : Double clevis type(D)

PART No. of Auto Switch Mounting Band

Bore Size mm(inch)	PART No. of Auto Switch Mounting Band	Note
φ 6(1/4 Nom.)	TC1P006	Common use to all of W5□ types
φ 10(3/8 Nom.)	TC1P010	
φ 16(5/8 Nom.)	TC1P016	

Standard Type/Single Acting : Single Rod/Series UACPS

Specifications

Action	Spring Return	Spring Extended
Fluid	Air	
Proof Pressure	1.05MPa(149 Psi)	
Max. Operating Pressure	0.70MPa(100 Psi)	
Min. Operating Pressure	φ 0.24	0.2MPa(28 Psi) 0.25MPa(36 Psi)
	φ 0.39, φ 0.63	0.15MPa(21 Psi)
Ambient and Fluid Temperature	40~140 ° F (5~60℃)	
Cushion	Rubber cushion (Standard)	
Lubrication	None (Non-Lube)	
Piston Speed	50~750 mm/sec. (2~29.5 in/sec)	

Auto Switch Specifications

Mounting	Bore Size mm(inch)	Reed Switch
		Grommet
Band Mounted Type	φ 6(1/4 Nom.), φ 10(3/8 Nom.), φ 16(5/8 Nom.)	W5

Spring Retracting Force (lbs)

Bore Size mm(inch)	Extended Position	Retracted Position
φ 6(1/4 Nom.)	0.84	0.40
φ 10(3/8 Nom.)	1.54	0.79
φ 16(5/8 Nom.)	3.20	1.54

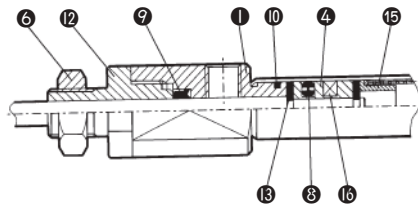
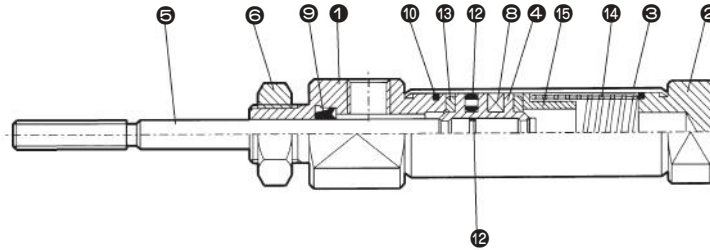
Mounting and Accessories

Mounting		Basic Type	Axial Foot Type	Rod Side Flange Type	Double Clevis Type
Standard	Mounting Nut	○	○	○	-
	Rod end Nut	-	-	-	-
	Clevis Pin	-	-	-	○
Option	Single Knuckle Joint	○	○	○	○
	Double Knuckle Joint(with pin)	○	○	○	○
	T Mounting	-	-	-	○

Series UACPS

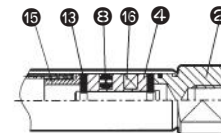
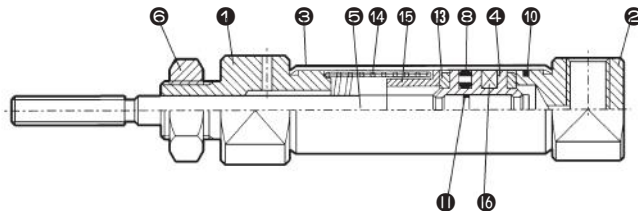
Construction/Parts List

Single Acting/Spring Extended
UACP□□ - □□□ T



UACPS6 Rod Cover, Piston

Single Acting/Spring Return
UACP□□ - □□□ S



UACPS6 Head cover, Piston

Parts List

No.	Description	Material	Note
1	Rod Cover	Aluminum Alloy	White Alumite
2	Head Cover	Aluminum Alloy	White Alumite
3	Cylinder Tube	Stainless Steel	-
4	Piston	Brass	-
5	Piston Rod	Stainless Steel	-
6	Mounting Nut	Brass	Nickel Plated
8	Piston Packing	NBR	-

No.	Description	Material	Note
9	Rod packing	NBR	-
10	Tube gasket	NBR	-
11	Piston gasket	NBR	-
12	Packing retainer	Aluminum Alloy	White Alumite
13	Bumper	Urethane	-
14	Return spring	Piano Wire	-
15	Spring seat	Brass	-
16	Magnet	-	-

Standard Type/Single Acting : Single Rod/Series UACPSB

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

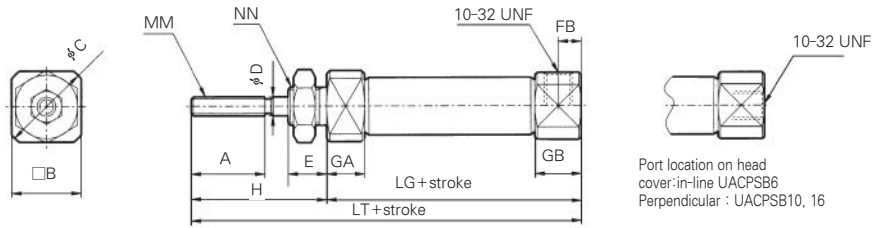
NLCD

NLCS

Series UACPS

Spring Return/Standard Type(UACPB)

UACPB S

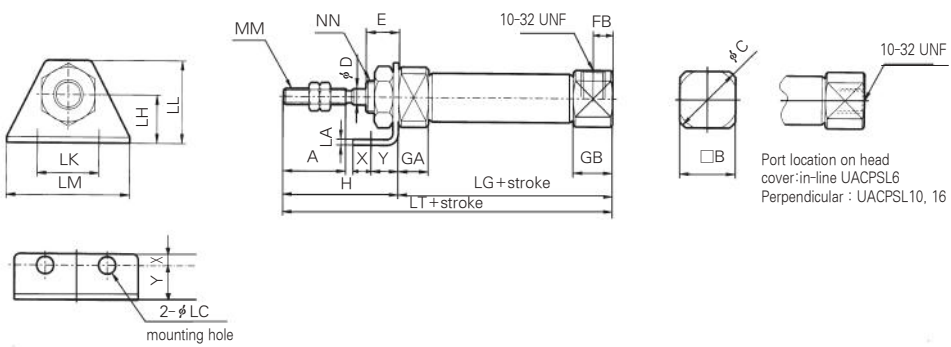


(inch)

Bore size	A	B	C	D	E	FB	H	MM	GA	GB	NN	LG				LT			
												5~15 ST	16~30 ST	31~45 ST	46~60 ST	5~15 ST	16~30 ST	31~45 ST	46~60 ST
#6(1/4 Nom.)	0.59	0.31	0.35	0.12	0.32	-	1.10	No.5-40 UNC	0.12	0.28	1/4-28 UNC	1.56	1.91	2.07	2.62	2.66	3.01	3.17	3.72
#10(3/8 Nom.)	0.59	0.47	0.55	0.16	0.32	0.20	1.10	No.6-40 UNF	0.22	0.37	5/16-24 UNC	1.83	2.13	2.60	3.07	2.93	3.23	3.70	4.17
#16(5/8 Nom.)	0.59	0.71	0.79	0.20	0.32	0.20	1.10	No.10-32 UNF	0.22	0.37	3/8-24 UNC	1.81	2.16	2.62	3.09	2.91	3.25	3.72	4.19

Spring Return/Axial Foot Type (UACPL)

UACPL S



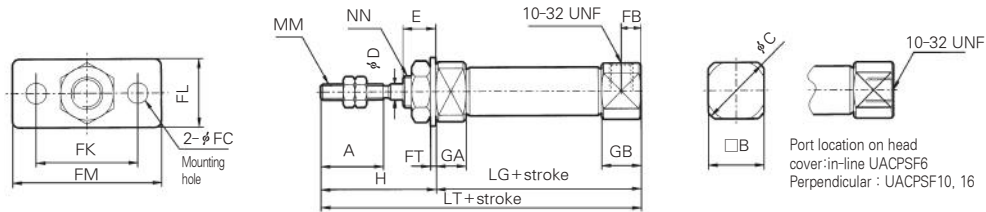
(inch)

Bore size	A	B	C	D	E	FB	H	LC	LH	LA	LK	LL	LM	MM	GA	GB	NN	X	Y	LG				LT			
																				5~15 ST	16~30 ST	31~45 ST	46~60 ST	5~15 ST	16~30 ST	31~45 ST	46~60 ST
#6(1/4 Nom.)	0.59	0.31	0.35	0.12	0.31	-	1.10	0.18	0.36	0.06	0.95	0.65	1.26	No.5-40 UNC	0.12	0.28	1/4-28 UNF	0.20	0.28	1.56	1.91	2.07	2.62	2.66	3.01	3.17	3.72
#10(3/8 Nom.)	0.59	0.47	0.55	0.16	0.31	0.20	1.10	0.18	0.36	0.06	0.95	0.65	1.26	No.6-40 UNF	0.22	0.37	5/16-24 UNF	0.20	0.28	1.83	2.13	2.60	3.07	2.93	3.23	3.70	4.17
#16(5/8 Nom.)	0.59	0.71	0.79	0.20	0.31	0.20	1.10	0.22	0.55	0.09	1.30	0.98	1.65	No.10-32 UNF	0.22	0.37	3/8-24 UNF	0.24	0.35	1.81	2.16	2.62	3.09	2.91	3.25	3.72	4.19

Series UACPS

Spring Return/Rod Side Flange Type (UACPF)

UACPF S



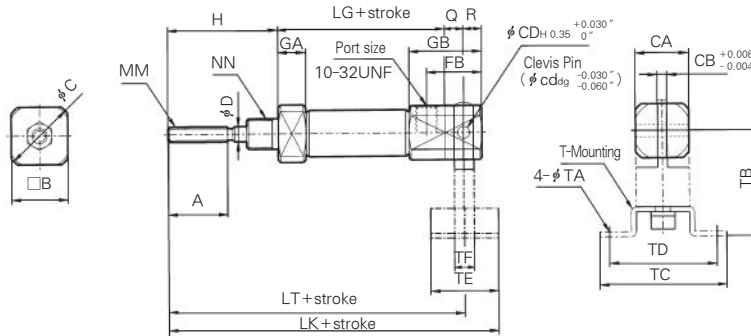
Port location on head cover: in-line UACPSF6
Perpendicular : UACPSF10, 16

(inch)

Bore size	A	B	C	D	E	FC	FT	FK	FL	FM	FB	H	MM	GA	GB	NN	LG				LT			
																	5~15 ST	16~30 ST	31~45 ST	46~60 ST	5~15 ST	16~30 ST	31~45 ST	46~60 ST
#6(1/4 Nom.)	0.59	0.32	0.35	0.12	0.31	0.18	0.06	0.95	0.55	1.26	-	1.10	No.5-40 UNC	0.12	0.28	1/4-28 UNF	1.56	1.91	2.07	2.62	2.66	3.01	3.17	3.72
#10(3/8 Nom.)	0.59	0.47	0.55	0.16	0.31	0.18	0.06	0.95	0.55	1.26	0.20	1.10	No.6-40 UNF	0.22	0.37	5/16-24 UNF	1.83	2.13	2.60	3.07	2.93	3.23	3.70	4.17
#16(5/8 Nom.)	0.59	0.71	0.79	0.29	0.31	0.22	0.09	1.30	0.78	1.65	0.20	1.10	No.10-32 UNF	0.22	0.37	3/8-24 UNF	1.81	2.16	2.62	3.09	2.91	3.25	3.72	4.19

Spring Return/Double Clevis Type (UACPD)

UACPD S



T Mounting (inch)

Bore size	TA	TB	TC	TD	TE	TF
#10(3/8 Nom.)	0.18	1.42	1.58	1.26	0.87	0.47
#16(5/8 Nom.)	0.22	1.38	1.89	1.50	1.10	0.63

(inch)

Bore size	A	B	C	CA	CB	CD (cd)	D	FB	GA	GB	H	MM	Q	R	LG				LT				LK			
															5~15 ST	16~30 ST	31~45 ST	46~60 ST	5~15 ST	16~30 ST	31~45 ST	46~60 ST	5~15 ST	16~30 ST	31~45 ST	46~60 ST
#10(3/8 Nom.)	0.59	0.47	0.55	0.47	0.13	0.13	0.16	0.71	0.22	0.89	1.10	No.6-40 UNF	0.32	0.20	1.83	2.13	2.60	3.07	3.25	3.54	4.02	4.49	3.68	3.98	4.45	4.92
#16(5/8 Nom.)	0.59	0.71	0.79	0.71	0.26	0.20	0.20	0.91	0.22	1.08	1.10	No.10-32 UNF	0.39	0.32	1.81	2.16	2.62	3.09	3.31	3.64	4.11	4.59	3.86	4.19	4.67	5.14

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

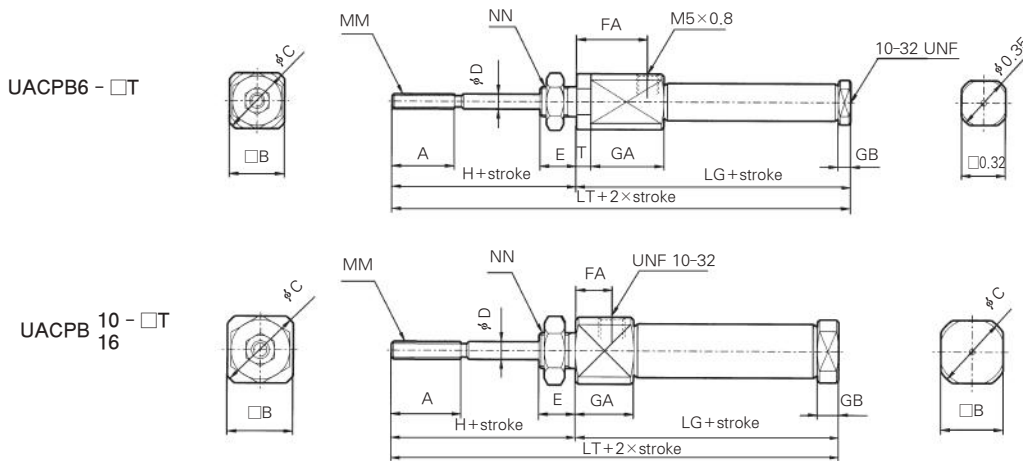
NLCD

NLCS

Series UACPS

Spring Extended/Basic Type(UACPB)

UACPB Bore size Stroke T

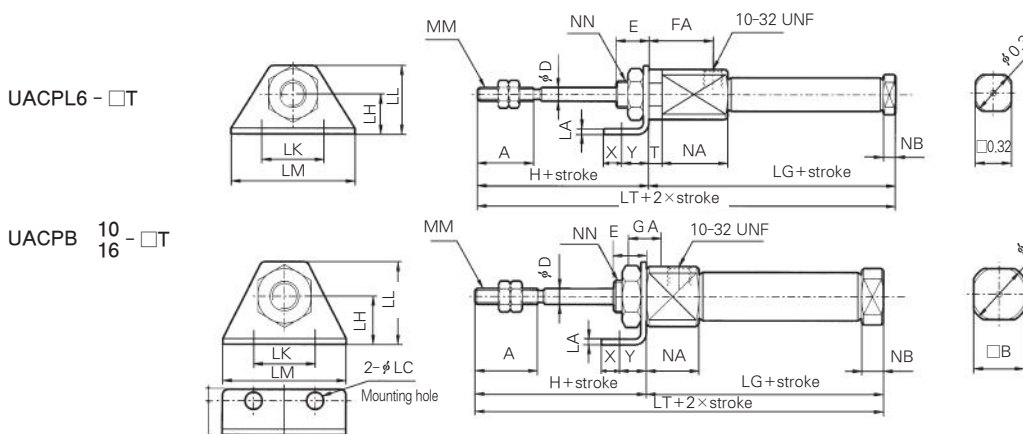


(inch)

Bore size	A	B	C	D	E	FA	H	MM	GA	GB	NDh8	T	NN	LG				LT			
														5~15ST	16~30ST	31~45ST	46~60ST	5~15ST	16~30ST	31~45ST	46~60ST
#6(1/4 Nom.)	0.59	0.47	0.55	0.12	0.31	0.57	1.10	No.5-40 UNC	0.63	0.12	0.24 ⁰ _{-0.018}	0.12	1/4-28 UNF	2.03	2.38	2.54	3.09	3.13	3.48	3.64	4.19
#10(3/8 Nom.)	0.59	0.47	0.55	0.16	0.31	0.20	1.10	No.6-40 UNF	0.49	0.22	0.32 ⁰ _{-0.022}	-	5/16-24 UNF	1.95	2.24	2.72	3.19	3.05	3.35	3.82	4.29
#16(5/8 Nom.)	0.59	0.71	0.79	0.20	0.31	0.20	1.10	No.10-32 UNF	0.49	0.22	0.39 ⁰ _{-0.022}	-	3/8-24 UNF	1.93	2.26	2.74	3.21	3.03	3.37	3.84	4.31

Spring Extended/Axial Foot Type(UACPL)

UACPL Bore size Stroke T



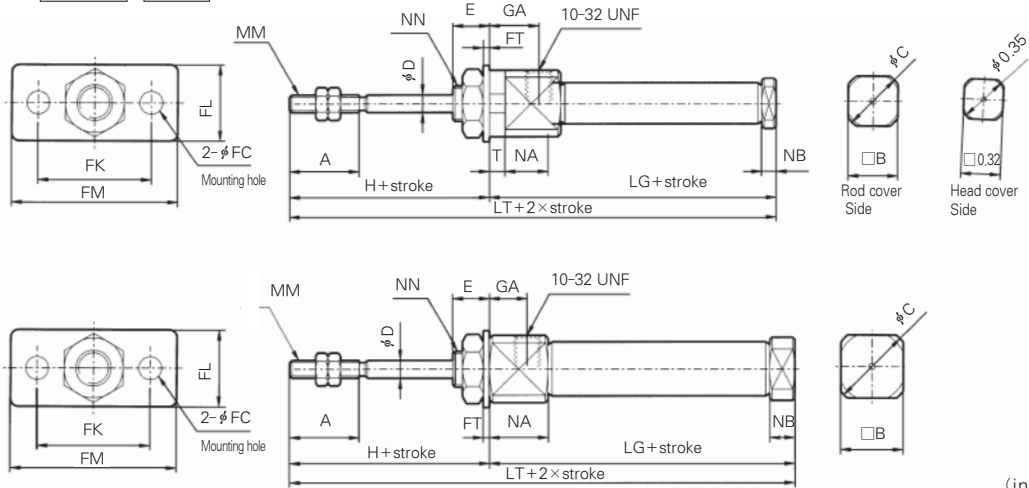
(inch)

Bore size	A	B	C	D	E	GA	H	LC	LH	LA	LK	LL	LM	MM	NA	NB	T	X	Y	NN	LG				LT			
																					5~15ST	16~30ST	31~45ST	46~60ST	5~15ST	16~30ST	31~45ST	46~60ST
#6(1/4 Nom.)	0.59	0.47	0.55	0.12	0.31	0.57	1.10	0.18	0.35	0.06	0.95	0.65	1.26	No.5-40 UNC	0.63	0.12	0.12	0.20	0.28	1/4-28 UNF	2.03	2.38	2.54	3.09	3.13	3.48	3.64	4.19
#10(3/8 Nom.)	0.59	0.47	0.55	0.16	0.31	0.32	1.10	0.18	0.35	0.06	0.95	0.65	1.26	No.6-40 UNF	0.49	0.22	-	0.20	0.28	5/16-24 UNF	1.95	2.24	2.72	3.19	3.05	3.35	3.82	4.29
#16(5/8 Nom.)	0.59	0.71	0.79	0.20	0.31	0.32	1.10	0.22	0.55	0.09	1.30	0.98	1.65	No.10-32 UNF	0.49	0.22	-	0.24	0.35	3/8-24 UNF	1.93	2.26	2.74	3.21	3.03	3.37	3.84	4.31

Series UACPS

Spring Extended/Rod Side Flange Type (UACPF)

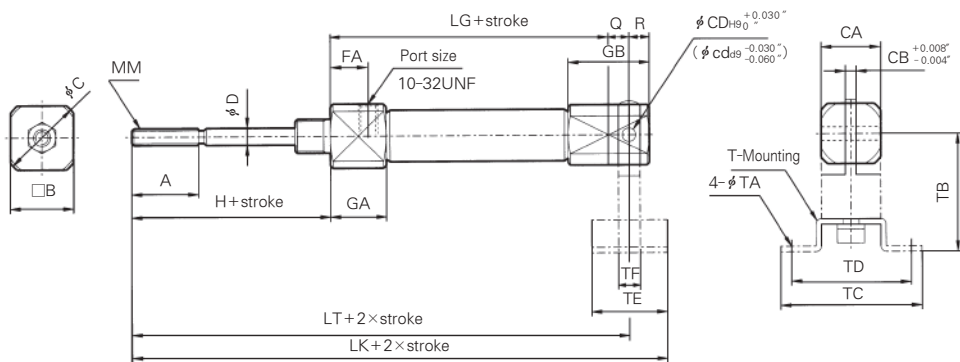
UACPF **Bore Size** **Stroke** T



Bore size	A	B	C	D	E	FC	FT	FK	FL	FM	GA	H	MM	NA	NB	T	NN	LG				LT			
																		5~15 ST	16~30 ST	31~45 ST	46~60 ST	5~15 ST	16~30 ST	31~45 ST	46~60 ST
φ6(1/4 Nom.)	0.59	0.47	0.55	0.12	0.31	0.18	0.06	0.95	0.55	1.26	0.57	1.10	No.6-40 UNC	0.24	0.12	0.12	1/4-28 UNF	2.03	2.38	2.54	3.09	3.13	3.48	3.64	4.19
φ10(3/8 Nom.)	0.59	0.47	0.55	0.16	0.31	0.18	0.06	0.95	0.55	1.26	0.32	1.10	No.6-40 UNF	0.49	0.22	-	5/16-24 UNF	1.95	2.24	2.72	3.19	3.05	3.35	3.82	4.29
φ16(5/8 Nom.)	0.59	0.71	0.79	0.20	0.31	0.22	0.09	1.30	0.79	1.65	0.32	1.10	No.10-32 UNF	0.49	0.22	-	3/8-24 UNF	1.93	2.26	2.74	3.21	3.03	3.37	3.84	4.31

Spring Extended/Double Clevis Type (UACPD)

UACPD **Bore size** **Stroke** T



T Mounting (inch)

Bore size	TA	TB	TC	TD	TE	TF
φ10(3/8 Nom.)	0.18	1.14	1.58	1.26	0.87	0.47
φ16(5/8 Nom.)	0.22	1.38	1.89	1.50	1.10	0.63

Bore size	A	B	C	CA	CB	CD (cd)	D	FB	GA	GB	H	MM	Q	R	LG				LT				LK			
															15~15 ST	16~30 ST	31~45 ST	46~60 ST	15~15 ST	16~30 ST	31~45 ST	46~60 ST	15~15 ST	16~30 ST	31~45 ST	46~60 ST
φ10(3/8 Nom.)	0.59	0.47	0.55	0.47	0.13	0.13	0.16	0.32	0.49	0.89	1.10	No.6-40 UNF	0.32	0.20	2.11	2.40	2.87	3.35	3.52	3.82	4.29	4.76	3.96	4.25	4.72	5.20
φ16(5/8 Nom.)	0.59	0.71	0.79	0.71	0.26	0.20	0.20	0.32	0.49	1.08	1.10	No.10-32 UNF	0.39	0.32	2.09	2.42	2.89	3.37	3.58	3.92	4.39	4.86	4.13	4.47	4.94	5.41

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

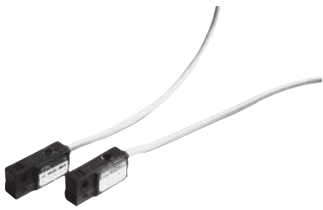
AST

ASTH

NLCD

NLCS

Series UACPS

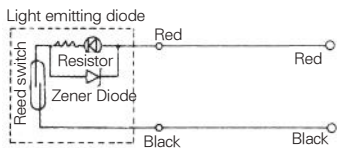


Specifications W5 (With indicator lamp)

Auto Switch Model	W5	
Application	Relay, Sequence Control	
Load Voltage	DC24V	AC110V
Max. Load Current/Range of Load Current	5~40mA	5~20mA
Protection Circuit for Contact Breaker Point	None	
Internal Voltage Drop	2.4V or less	
Indicator Lamp	ON:Red light emitting diode	

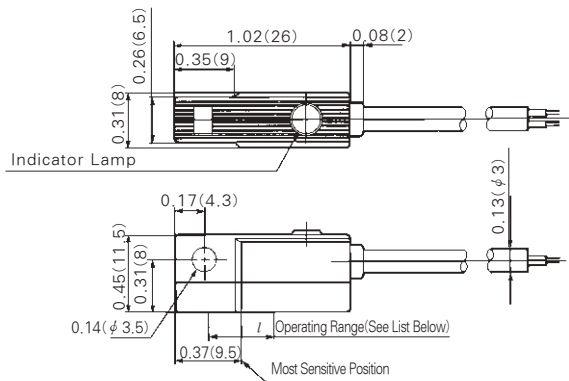
- Leakage Current – None
 - Response Time – 1.2ms
 - Lead Wire – Oil proof vinyl, ϕ 3.4 0.2mm ϕ , 2 Wire(red, black), 0.5m(18in)
 - Impact Resistance – 30G
 - Insulation Resistance – 50M Ω or more under the test voltage 500VDC (Between case and cable)
 - Withstand Voltage – 1500VAC 1min (between case and cable)
 - Ambient Temperature – 14~140 $^{\circ}$ F (-10~60 $^{\circ}$ C)
 - Protection Structure – IEC spec IP67, Water-proof(JISCO920), oil-proof.
- ※ If 118 inch lead wire is required, L is put at the end of numbers.
Example : W5L

Auto Switch/Internal Circuit



Auto Switch Dimensions

inch(mm)



Operating Range (/ Dimension)

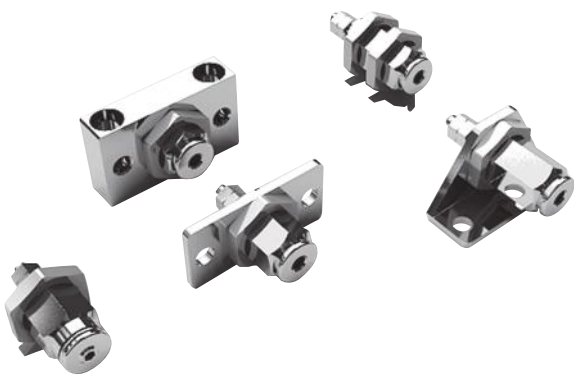
inch(mm)

Series	Bore size		
	ϕ 6 (1/4Nom.)	ϕ 10 (3/8Nom.)	ϕ 16 (5/8Nom.)
UACP	0.28 (7)	0.31 (8)	0.31 (8)

Series **APM**

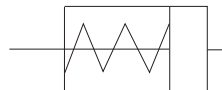
Bulkhead Mounted Mini Cylinder

Bore Size(mm) : Ø6, Ø10, Ø16



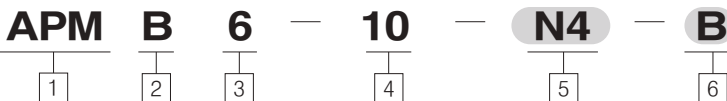
- HIGHER SHOCK-ABSORBENCY WITH SPECIAL COATING ON THE CYLINDER TUBE
- OUTSTANDING DURABILITY WITH A BRONZE ALLOY WITH HIGH WEAR RESISTANCE ON THE ROD COVER
- VARIOUS SPECIAL HOSE NIPPLE OPTIONS

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		Ø4	Ø2
H5	Cap Type	Ø4	Ø2.5
H6		Ø6	Ø4
N4		Ø4	Ø2
N5	Barb Type	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 ²)		
Max. Supply Pressure	0.7Mpa(7.1kgf/cm ²)		
Min. Operation Pressure	0.2Mpa(2.0kgf/cm ²)	0.15Mpa(1.5kgf/cm ²)	
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

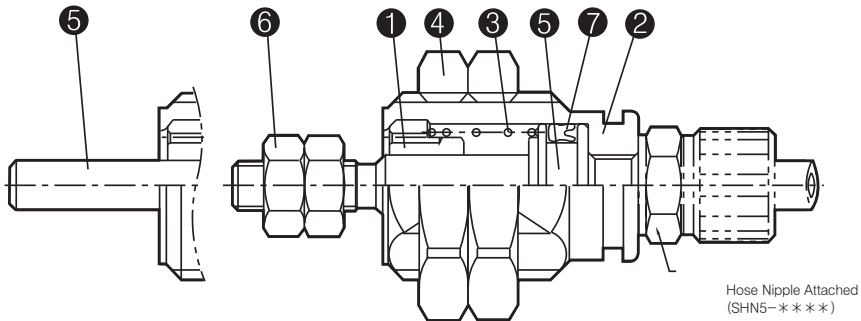
Type	Bore Size	Operation Direction	Pressure (Mpa)				
			0.2	0.3	0.4	0.5	0.6
APM 6	6	Retract(Spring Return)	Max. (Start) 4.33 ~Min. (End) 1.47				
		Extend	1.2	4.0	6.7	9.5	12.3
APM 10	10	Retract(Spring Return)	Max. (Start) 7.55 ~Min. (End) 2.45				
		Extend	7.8	15.5	23.2	30.9	38.6
APM 15	15	Retract(Spring 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/cm²

The OUT value bears the maximum load in the retrieval.

Series APM

Construction

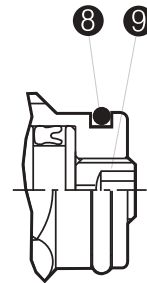


Hose Nipple Attached (SHN5-****)

Components

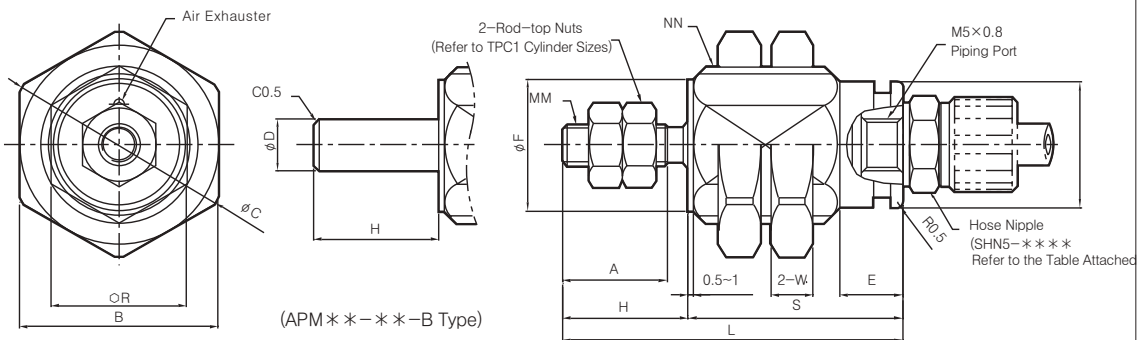
No	Parts	Counts	Materials	Remarks
1	Rod Cover	1	Bronze Alloy	Non-conductive Nickel Coating
2	Cylinder Tube	1	Bronze Alloy	Non-conductive Nickel Coating
3	Return Spring	1	Spring Steel	Zinc Coating
4	Nut	2	Bronze Alloy	Non-conductive Nickel Coating
5	Piston & Piston Rod	1	Stainless Steel	Lightweight Chrome 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)

(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

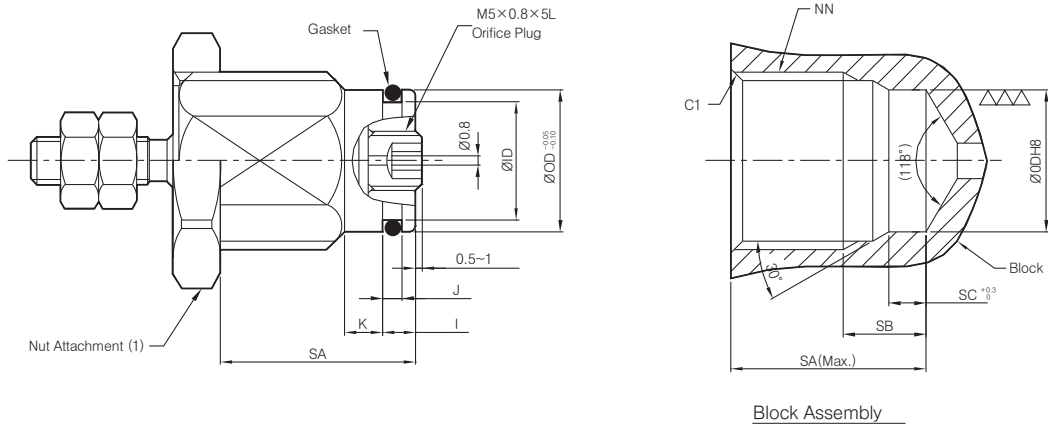
ASTH

NLCD

NLCS

Series APM

APMS** (Block Insertion Type) Cylinder Dimensions

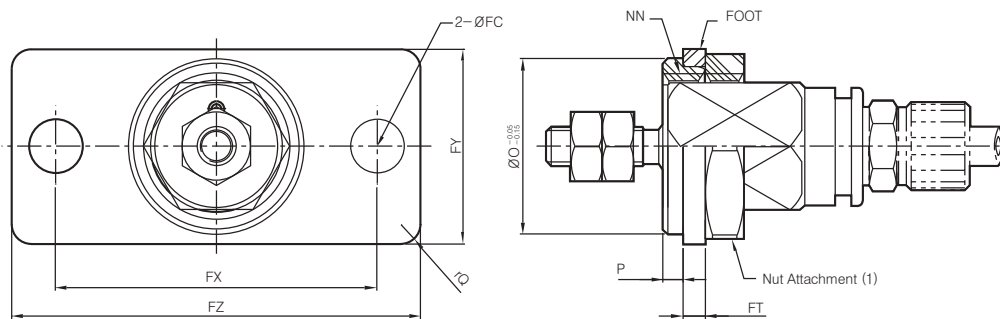


Note) The indications and the cylinder size is identical to those of APMB**.

(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



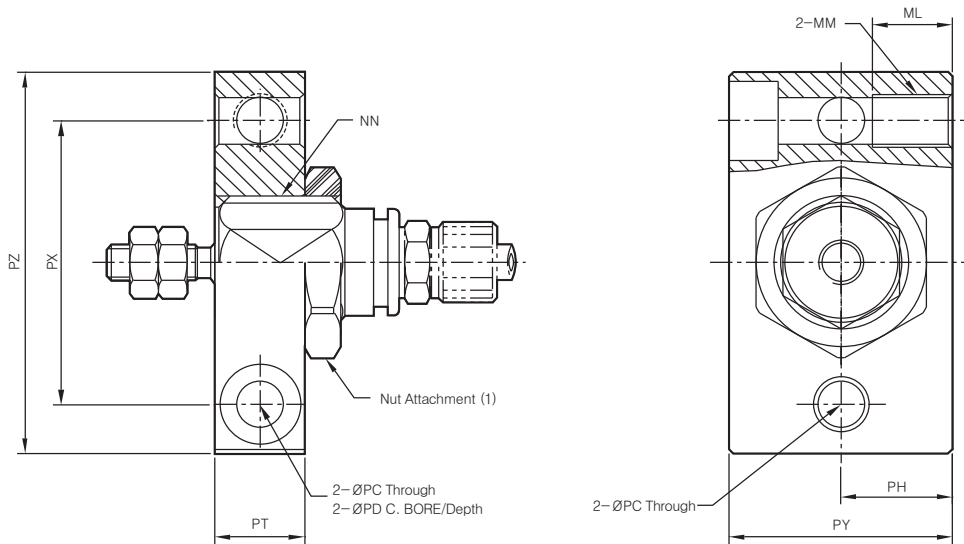
Note) The indications and the cylinder size is identical to those of APMB**.

(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



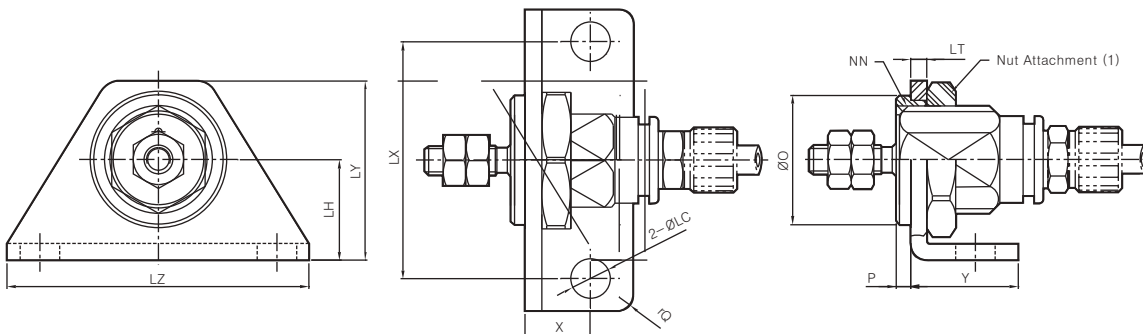
Note) The indications and the cylinder size is identical to those of APMB**.

(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

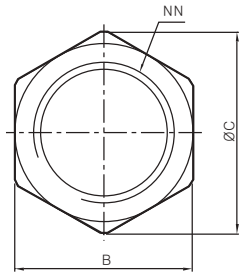
ASTH

NLCD

NLCS

Series APM

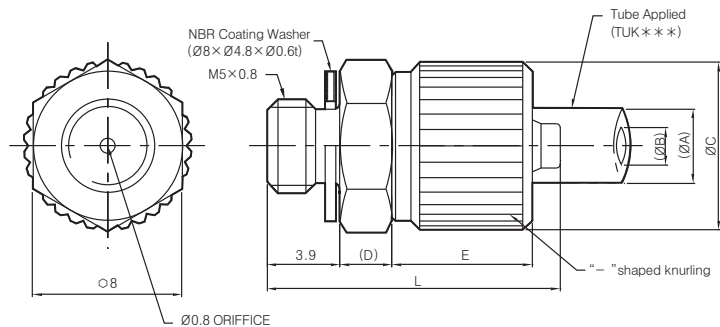
APM**Cylinder's Nut Attachment Dimensions



(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

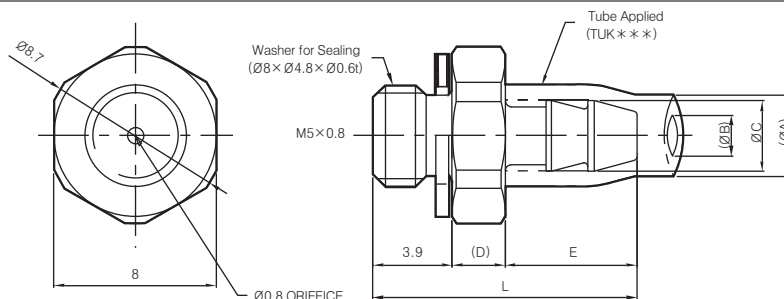
Cap-type Hose Nipple Dimensions



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				
SHN5-20604	TUK0604	6	4			8.5	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				
SHN5-10604	TUK0604	6	4	5.2	3	8	15