

# Series AJ

## Clamp Cylinder/Double Acting

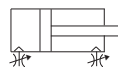
Bore Size(mm) : Ø50, Ø63



PAT

- TWO TYPES OF CLEVIS WIDTH ARE AVAILABLE(16.5mm, 19.5mm)
- THE PIPING ENTRY ORIENTATION CAN BE SELECTED
- EVEN MORE COMPACT AND LIGHT WEIGHT
- NON LUBE TYPE
- POSSIBLE TO DISASSEMBLE
- BUILT-IN SPEED CONTROLLER

Symbol



### How to Order



**1** Clamp Cylinder

**2** Magnet

Blank : None  
G : Built-in Magnet

**3** Clevis Width

A : 16.5 <sup>+3.0</sup>/<sub>-0.3</sub>mm  
B : 19.5mm

**4** Bore Size(mm)-Stroke(mm)

50 : φ 50 : 50, 75, 100, 125, 150  
63 : φ 63 : 50, 75, 100, 125, 150

**5** Accessories

Blank : None  
Y : Double knuckle joint

**6** Mount

B : Limit switch mount  
N : Length of Rod end is different  
D : Cam mount  
19 : Foot mount

**7** Auto Switch

Blank : None  
Solid State Switch  
W2 : 24VDC, For welding machine, intense magnetic field(except φ 80)  
Reed Switch  
W3 : 24VDC, 100 · 200VAC  
W2PZ : 5m Magnetic auto switch (DC24V Only)  
\*Refer to auto switch specification

**8** 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
<b>AJ AJM</b>
ABK
ACK1
NSK
AG
NGQ
AGX GX
NP
ADR
AMR
NDM
ARD
NST
AST
ASTH
NLCD
NLCS

## Series AJ

### Specifications

Clevis width	16.5mm	Series AJA
	19.5mm	Series AJB
Fluid	Air	
Proof pressure	1.5MPa(213psi)	
Max. operating pressure	1.0Mpa(140psi)	
Min. operating pressure	0.05Mpa(7psi)	
Ambient and fluid temperature. °C(°F)	5~60°C(41°F~140°F)	
Piston velocity	50~500 mm/sec	
Cushion	Air-cushion (Both side)	
Lubrication	Non-lube	
Screw tolerance	KS 2 class	
Stroke length tolerance	$\begin{matrix} +0.1 \\ 0 \end{matrix}$	
Speed controller	Built in (Standard)	
Mounting style	Double clevis (Basic type only)	

### Accessories (Option)

Description	Series AJA	Series AJB
Double knuckle joint (With pin and split pin)	TCKA40-18-206A	TCKB40-18-207A
Limit switch mount	TCKAM040-48-16070A	
Cam	TCKAM040-42-16070	

※  $\phi$ 32: Double Knuckle Joint - AC1K032-18-1887  
Clevis Pin - AC1K032-23-1887

### Weight table(The basic weight is for 0 stroke.)

(kgf)

Bore Size		$\phi$ 50	$\phi$ 63
Cylinder	Basic weight	0.96	1.23
	Additional weight per 50 stroke	0.11	0.13
Double knuckle joint (With pin)		0.28	
Limit switch mount		0.22	
Cam		0.12	
Special bracket		2.2	

### Calculation Method

Example : AJ $\phi$ 50-04Y

- Basic weight ... 0.96( $\phi$  50)
- Additional weight ... 0.01/25g stroke
- Cylinder stroke ... 100mm stroke
- Double knuckle joint ... 0.28(r)

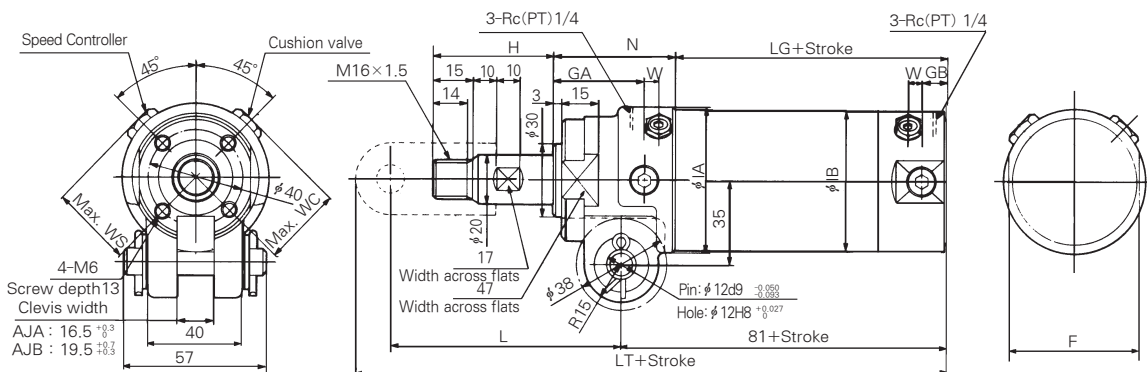
$$0.96 + 0.10 \times 100 / 250.28 = 1.64\text{kgf}$$

# Series AJ

## Dimensions/Series AJ

(Unit:mm)

AJ○50, AJ○63



(Unit:mm)

Bore Size(mm)	F	GA	GB	H	φIA	φIB	L	N	LG	W	WC	WS	LT
φ 50	55	32	10	50	60	58	97	47	58	7	38	39	193
φ 63	69	34	12	50	74	72	97	47	58	5.5	44	45	193

## N

(Unit:mm)

Sign	H					L					LT					
	Stroke	50	75	100	125	150	50	75	100	125	150	50	75	100	125	150
Bore Size(mm)	φ 50	52	62	70	83	83	97	107	115	128	128	194	204	212	225	225
	φ 63	52	62	70	83	83	97	107	115	128	128	194	204	212	225	225

- 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

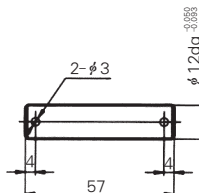
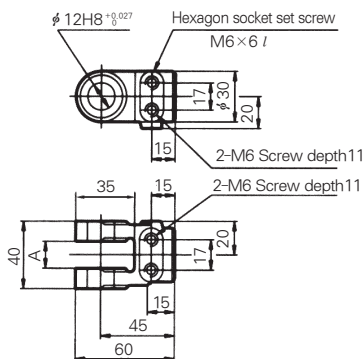
# Series AJ

## Accessories

(Unit:mm)

### Double knuckle joint

Pin : TC1K040-23-54806

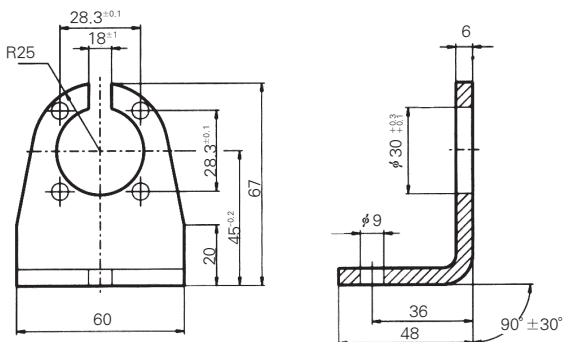


Material:Cast iron

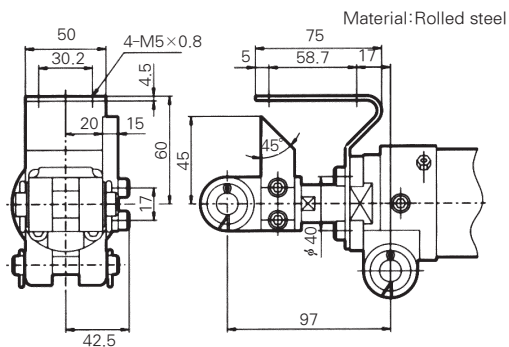
Material:Carbon steel

Part No.	A	Applicable clamp cylinder
TCKA40-18-206A	16.5 <sup>+0.2</sup> <sub>0</sub>	Series AJA
TCKB40-18-207A	19.5 <sup>+0.2</sup> <sub>0</sub>	Series AJB

## Foot Dimensions



## Limit Switch Mount : Cam Mount



Material:Rolled steel

- Note 1)** The limit switch mount and the cam fitting are possible to change to optional positions by removing the hexagon socket head cap bolts.
- Note 2)** The cam fitting can be used when the mounting hole dimension is 97mm.

# Series **AJM**

## Clamp Cylinder / With intense-magnetism resistant auto switch

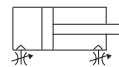
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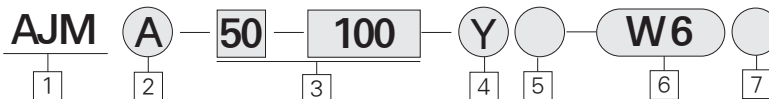
PAT

- TWO TYPES OF CLEVIS WIDTH ARE AVAILABLE(16.5mm, 19.5mm EXCEPT φ32)
- GAITER IS UNNECESSARY BECAUSE A HEAVY DUTY COIL SCRAPER IS PROVIDED AS A COUNTER MEASURE AGAINST SPATTER, ROD BOOT IS UNNECESSARY
- BUILT-IN MAGNET

Symbol



### How to Order



**1** Clamp Cylinder  
With intense - magnetism  
resistant auto switch

**2** Clevis Width  
A : 16.5mm(φ50, φ63)  
B : 19.5mm(φ50, φ63)

**3** Bore Size / Stroke(mm)  
50 : φ50 - 50, 75, 100, 125, 150  
63 : φ63 - 50, 75, 100, 125, 150

**4** Accessories  
Blank : None  
Y : Double knuckle joint

**5** Mount  
B : Limit switch mount  
D : Cam mount

N : Rod end is different in  
length  
19 : Foot mount

**6** Auto Switch  
W6 : 24VDC, OFF lighting  
W7 : 24VDC, 100VAC,  
ON lighting  
※ Refer to auto switch specification

**7** Lead Wire Length  
L : 3m  
Z : 5m

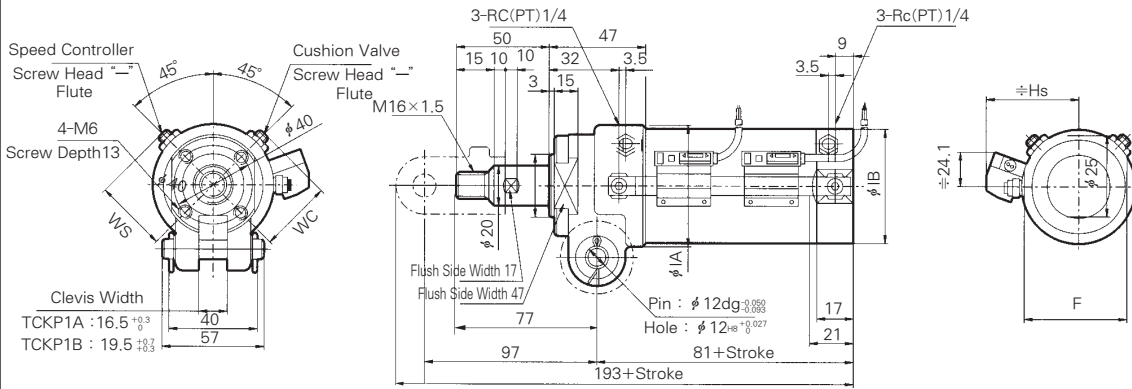
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# Series AJM

## Dimensions/Series AJM

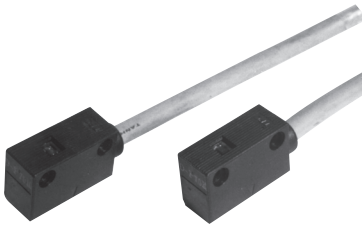
(Unit: mm)

AJM $\phi$ 50, AJM $\phi$ 63



Bore	F	$\phi 1A$	$\phi 1B$	WC	WS	Hs
$\phi 50$	55	60	58	38	39	49
$\phi 63$	69	74	72	44	45	54.5

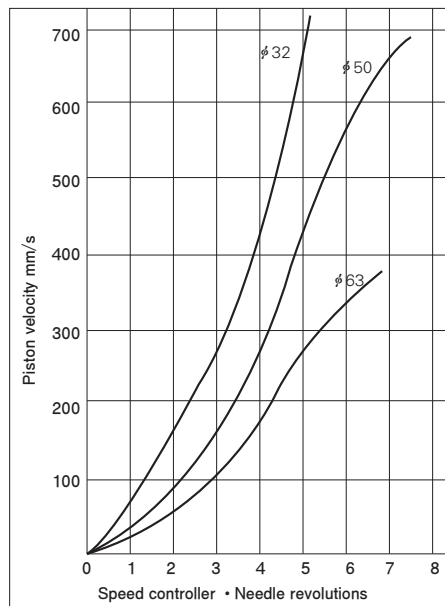
## Series AJM



Auto Switch Specifications			
Switch model NO.	W6(L), (Z)	W7(L), (Z)	
Switch type	Reed switch		
Operating voltage	AC100V	DC24V	AC100V
Operating Current circuit	20mA	5~40mA	5~20mA
Operating time	1.2mS		
Internal drop voltage	Nil	2.4V	
Leakge current Polarity	Max. 1.8mA	0	
Impact resistance	Operating	Present	
Pilot lamp	30G		
Type of lead wire	Oilproof, fire-resistant vinyl captype cord : 0.75mm <sup>2</sup> × 2		
Lead wire length	0.5m, (3m), (5m)		
Ambient and fluid temperature	40° F ~ 140° F		
Insulation resistance	50MΩ max. at DC 500V		
Protective construction	IEC : IP67 JIS CO920 (Watertight)		
Application	Sequence controller relay		

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### Speed Controller Needle Revolutions And Corresponding Cylinder Speed



Conditions : OUT side supply pressure 5kgf/cm<sup>2</sup>, No-load