

# Series ADQCP

## Compact Cylinder for Intense-Magnetism Resistant

Bore Size (mm) :  $\phi 50$ ,  $\phi 63$



- FOR WELDING MACHINE/INTENSE MAGNETIC FIELD
- SAVE SPACING COMPACT DESIGN
- MANUFACTURING CERTIFIED TO ISO 9001/9002 STANDARDS

### Symbol

Double Acting /  
Single Rod Type



## How to Order

ADQCP 50 40 D Y W  Z S

1
2
3
4
5
6
7
8

**1 Series : Compact Cylinder for Intense-Magnetism Resistant**

**2 Bore Size (mm)**  
50 :  $\phi 50$   
63 :  $\phi 63$

**3 Standard Stroke (mm)**  
50 : 25, 30, 35, 40, 45, 50  
63 : 25, 30, 35, 40, 45, 50

**4 Double Acting : D**

**5 Rod End Options**  
Blank : Without attachment  
Y : With double knuckle joint pin, flat washer, split pin

**6 Reed Auto Switch**  
Blank : Without auto switch  
W6 : 120VAC, OFF lighting  
W7 : 24VDC, 120VDC, ON lighting  
For Details, Please refer to Page A-203

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

**8 Number of Switches**  
Blank : 2 pcs.  
S : 1 pc.

### PART No. of Auto Switch Fittings

Switch	Part No.	
	$\phi 50$	$\phi 63$
W6, W7	BQP1T-050	

### Cylinder Specifications

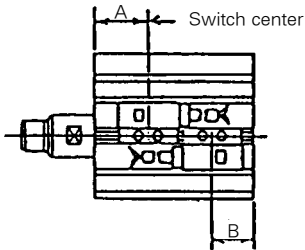
Type	ADQCP
Fluid	Air
Bore Size (mm)	$\phi 50$ , $\phi 63$
Max. Operating Pressure	9.9kgf/cm <sup>2</sup> {1.0 MPa}
Proof Pressure	15kgf/cm <sup>2</sup> {1.5 MPa}
Ambient Fluid Temperature	5~60°c
Thread end Tolerance	KS Grade 2
Stroke Tolerance	+1.0

# Series ADQCP

## Minimum stroke for mounting intense-magnetism resistant switch. (mm)

Switch Mounting Position	With 1 Switch	With 2 Switches		
		Same surface	Different Surfaces	Different Surfaces
Cylinder Type Bore				
ADQCP50,63	25	30	25	

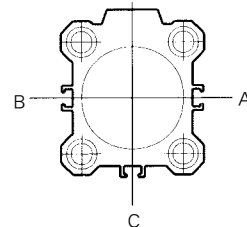
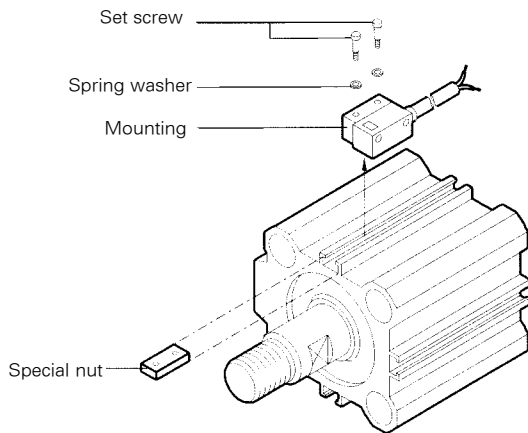
## Auto Switch Mounting Position (Stroke End) (mm)



Type	Bore	φ 50		φ 63	
		A	B	A	B
ADQCP		33.5	22.5	37.5	24

## Auto Switch Mounting

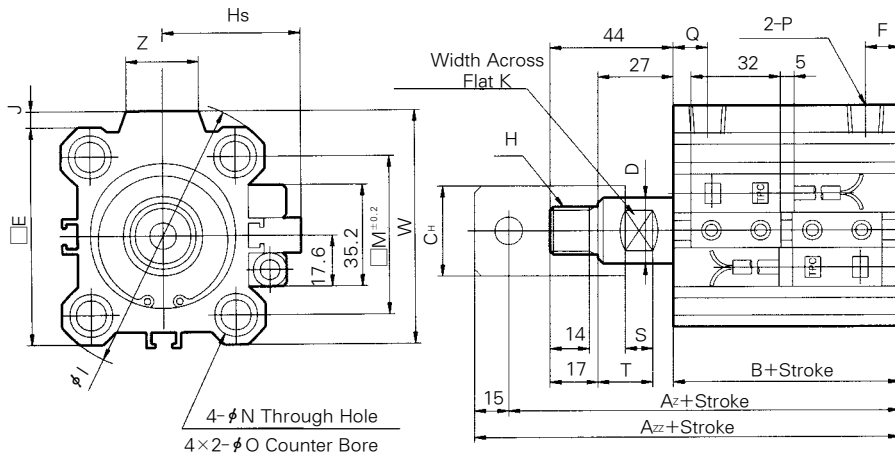
Using the special nut shown below, fix the auto switch in the specified position with two screws. (The proper tightening torque of set screws is 6 kgf · cm.)



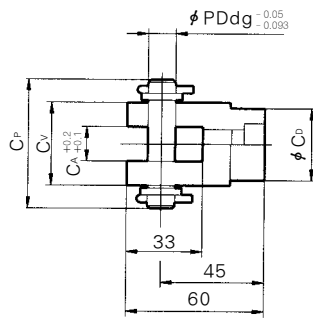
The auto switch can be mounted in three positions-A, B and C-shown above.

Dimensions

φ 50, φ 63



Double Knuckle Joint



(Unit : mm)

Bore size (mm)	A	A <sub>z</sub>	A <sub>zz</sub>	B	φD	E	F	H	φI	J	K	M	φN	φO	P	Q	W	Z	T	S	H <sub>s</sub>	C <sub>p</sub>	C <sub>v</sub>	C <sub>A</sub>	P <sub>D</sub>	C <sub>H</sub>	C <sub>D</sub>
φ 50	99.5	117.5	132.5	55.5	20	64	10.5	M16×1.5	86	7	17	50	6.6	11Depth 8	NPT1/4	10.5	71	22	20	10	49	55	36	16	12	30	30
φ 63	105	123	138	61	20	77	10.5	M16×1.5	103	7	17	60	9	14Depth 10.5	NPT1/4	15	84	22	20	10	55.5	55	36	16	12	30	30

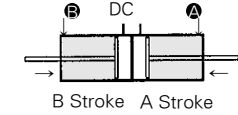
# Special Option

## Dual Stroke Cylinder/Double Rod Type

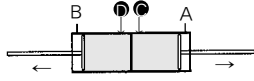
AQB **Bore** - **Stroke A** + **Stroke B** D(C)(M)-XC10

Two cylinders are constructed as one cylinder in a back-to-back configuration allowing the cylinder stroke to be controlled in the three steps.

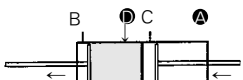
### Symbol function



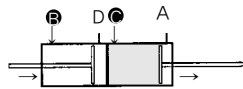
When air pressure is supplied to ports ① and ②, both A and B stroke retract.



When air pressure is supplied to ports ③ and ④, A and B strokes extend.



When air pressure is supplied to ports ⑤ and ⑥, B stroke extends and A retracts strokes.

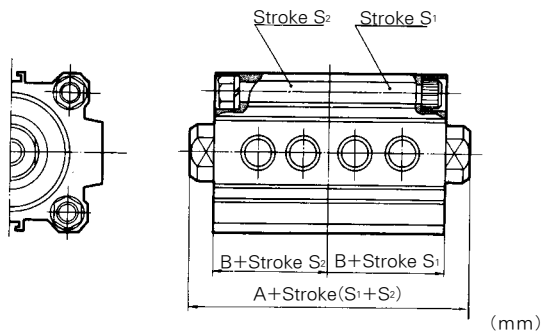


When air pressure is supplied to ports ⑦ and ⑧, A stroke extends and B stroke retracts.

### Specifications

Type	Non-Lub
Bore(mm)	φ 12~φ 100
Action	Double acting
Fluid	Air
Mounting style	Through hole

### Dimensions



Bore (mm)	Stroke adjustable range	A		B	
		50 stroke or less	75, 100	50 stroke or less	75, 100
φ 12	5~30	41(63)	-	17(28)	-
φ 16		44(68)	-	18.5(30.5)	-
φ 20	5~50	48(72)	-	19.5(31.5)	-
φ 25		55(75)	-	22.5(32.5)	-
φ 32	5~100	60(80)	80(80)	23(33)	33(33)
φ 40		73(93)	93(93)	29.5(39.5)	39.5(39.5)
φ 50		77(97)	97(97)	30.5(40.5)	40.5(40.5)
φ 63		88(108)	108(108)	36(46)	46(46)
φ 80	10~100	107(127)	127(127)	43.5(53.5)	53.5(53.5)
φ 100		130(150)	150(150)	53(63)	63(63)

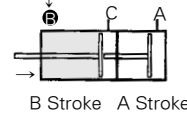
※ ( ) : With auto switch

## Dual Stroke Cylinder/Single Rod Type

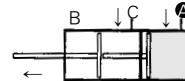
AQB **Bore** - **Stroke A** + **Stroke B-A** D(C)(M)-XC11

Two cylinders are constructed in serial as one cylinder. It is possible control the cylinder stroke in two steps to obtain double the cylinder output force.

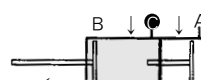
### Symbol function



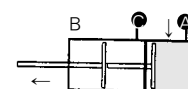
When air pressure is supplied to the ① port, both A and B stroke retract.



When air pressure is supplied to the ② port, the rod extends by the A stroke length.



When air pressure is supplied to the ③ port, the rod operates a further length equal, to B+C stroke.

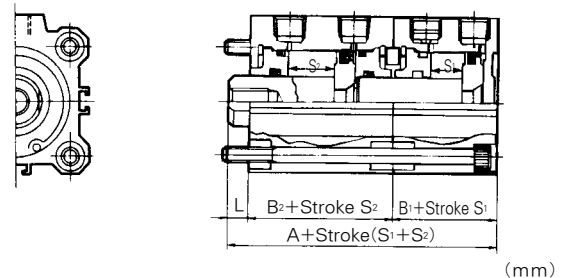


When air pressure is supplied to both ports ④ and ⑤, double output force is obtainable in the range of the A stroke length.

### Specifications

Type	Non-Lub
Bore(mm)	φ 20~φ 100
Action	Double acting
Fluid	Air
Mounting style	Through hole

### Construction · Major Dimensions



Bore (mm)	A	B <sup>1</sup>	B <sup>2</sup>	L
φ 20	50(74)	19.5(31.5)	26(38)	4.5
φ 25	56.5(76.5)	22.5(32.5)	29(39)	5
φ 32	60.5(80.5)	23(33)	30.5(40.5)	7
φ 40	76.5(96.5)	29.5(39.5)	40(50)	7
φ 50	79(99)	30.5(40.5)	40.5(50.5)	8
φ 63	88(106)	36(46)	42(52)	8
φ 80	104.5(124.5)	43.5(53.5)	51(61)	10
φ 100	125.5(145.5)	53(63)	60.5(70.5)	12

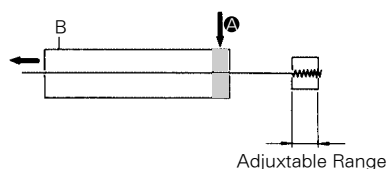
※ ( ) : With auto switch

## Adjustable Stroke Cylinder/Extension Adjustable Type

AQB **Bore** **Stroke** D-XC8

The stroke at extension of the cylinder can be adjusted by the stopper in the head side from full stroke 0~10mm(0.39 inch).

### Symbol

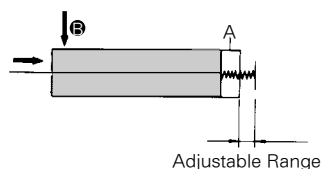


## Adjustable Stroke Cylinder/Retraction Adjustable Type

AQ **Mounting** **Bore** **Stroke** D(M)-XC9

The stroke at retraction of the cylinder can be adjusted from 0~10mm(0.39 inch) by the adjusting bolt.

### Symbol



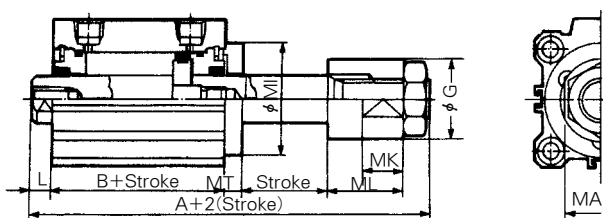
## Specifications

Type	Non-Lub
Bore	φ 16~φ 100
Action	Double Acting
Fluid	Air
Stroke Adjustment System	Adjusting Bolt
Stroke Adjustment Range	10mm(0.39inch)
Mounting Style	Through Hole

## Specifications

Type	Non-Lub
Bore size (inch)	φ 20~φ 100
Action	Double Acting
Fluid	Air
Stroke Adjustment System	Adjusting Bolt
Stroke Adjustment Range	10mm(0.39 inch)
Mounting Style	Through Hole(standard), Both ends Tapped

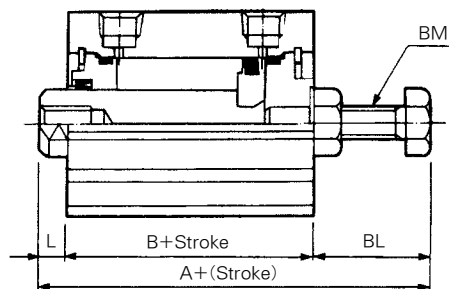
## Construction · Major Dimensions



Bore(mm)	(mm)									
	A	B	L	MT	MI	MA	MK	φG	ML	Standard Stroke Range
φ 16	58.5	26	3.5	5	□28	11	7	14	19	30
φ 20	67.5	26	4.5	8	□36	17	10	20	22.5	
φ 25	71	29	5	8	□40	17	10	20	22.5	50
φ 32	78.5	30.5	7	6	φ38	24	14	27	26	
φ 40	88	40	7	6	φ46	24	14	27	26	
φ 50	100.5	40.5	8	8	φ57	30	16	35	30	
φ 63	102	42	8	10	φ68	30	16	35	30	10~50
φ 80	125	51	10	12	φ90	41	20	48	38	
φ 100	138.5	60.5	12	14	φ110	41	20	48	38	

※ Order dimensions are the same as for standard type.

## Dimensions



Bore(mm)	(mm)					
	A	B	L	BL	BM	Standard Stroke Range
φ 20	61(73)	26(38)	4.5	30.5	M8×1.25	5~50
φ 25	63.5(73.5)	29(39)	5	29.5	M8×1.25	
φ 32	65.5(75.5)	30.5(40.5)	7	28	M8×1.25	
φ 40	84(94)	40(50)	7	37	M8×1.5	
φ 50	84.5(94.5)	40.5(50.5)	8	36	M8×1.25	10~50
φ 63	88.5(98.5)	42(52)	8	38.5	M8×1.5	
φ 80	109.5(119.5)	51(61)	10	48.5	M8×1.5	
φ 100	125(135)	60.5(70.5)	12	52.5	M8×1.5	

※ Order dimensions are the same as for standard type.

※ ( ) : With auto switch

# Auto-Switch Type/Grommet Type Series W4

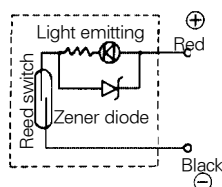


## Auto Switch Specifications

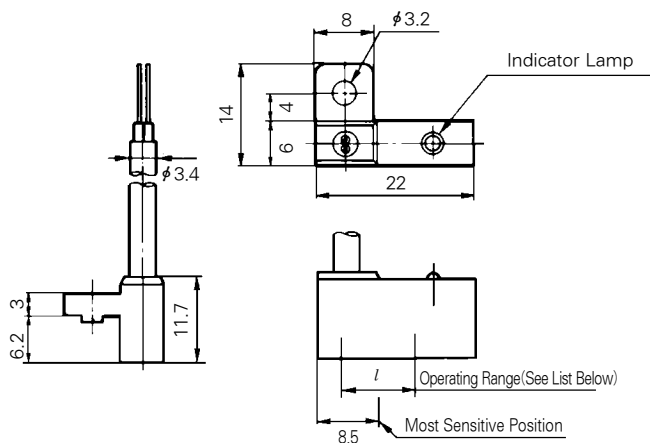
Auto Switch Model	W4	
Application	Relay, Sequence Control	
Voltage	DC24V	AC110V
Range of Load Current	5~40mA	5~20mA
Protection Circuit for Contact Breaker Point	None	
Internal Voltage Drop	2.4V or less	
Indicator Lamp	ON:Red light emitting diode	

- Leakage current - None
  - Response time - 1.2 ms
  - Lead Wire - Oil proof vinyl.  $\phi 3.4$ , 0.2mm<sup>2</sup>, 2 wire(red, black), 0.5 m
  - Impact Resistance - 30G
  - Insulation Resistance - 50M $\Omega$  or more under the test voltage 500VDC (Between case and cable)
  - Withstand Voltage - 1500VAC 1min.(between case and cable)
  - Ambient Temperature - 5~60° F(5~60° C)
  - Protection Structure - IEC spec IP67, Water-proof(JISCO920), oil-proof.
- ※ If 3m lead wire is required, L is put at end of model numbers.  
(Example) W4L

## Auto Switch/Internal Circuit



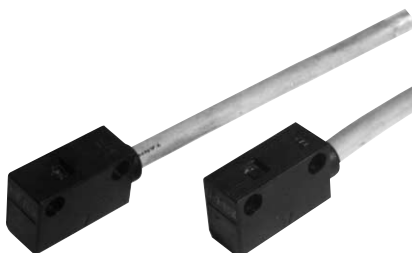
## Auto Switch Dimensions



## Operating Range ( l Dimensions)

Series	Bore Size (mm)									
	$\phi 12$	$\phi 16$	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$	$\phi 50$	$\phi 63$	$\phi 80$	$\phi 100$
ADQ	10	8	9	9	11	11	10	12	12	13

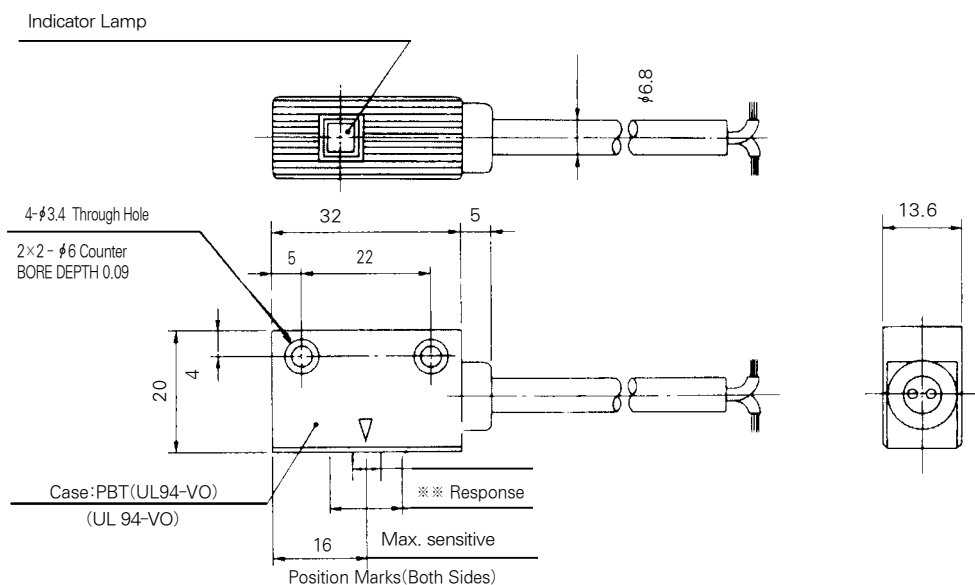
# Automatic Reed Switch / Intense-Magnetism-Resistant Type Series W6/W7



## Auto Switch Specifications

Auto Switch model	W6(L)(Z)	W7(L)(Z)	
Operating Voltage	AC120V	DC24V	AC100V
Operating Current Range	20mA	5~40mA	5~20mA
Internal Voltage Drop	0V	Max 2.4V	
Operating Time	1.2m/sec		
Impact Resistance	30G		
Protection Structure	IEC STandard IP67		
Pilot Lamp	OFF Lighting(Red LED)	ON Lighting(red LED)	
Leakage Current	MAX. 1.8mA	0	
Ambient Temperature Range	-10~60℃		
Insulation Resistance	50MΩ/500V DC		
Application	Relay, Sequence Controller		

## Auto Switch Dimensions



## Operation Range ( / Dimension)

Series	Bore Size (mm)	
	φ 50	φ 63
ADQCP	8	8
AMD□P	9	9
AJCP	8	8