

Series ADQ

With Auto Switch/Double Acting Type, Single Acting Type

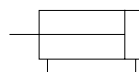
Bore Size (mm) : $\phi 12$, $\phi 16$, $\phi 20$, $\phi 25$, $\phi 32$, $\phi 40$, $\phi 50$, $\phi 63$, $\phi 80$, $\phi 100$



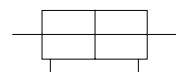
- SPACE SAVING DESIGN
- LIGHT WEIGHT
- 10 BORE SIZES
- AUTO SWITCH CAPABLE
- CYLINDERS FOR SPECIAL APPLICATIONS
- MANUFACTURING CERTIFIED TO ISO 9001&9002 STANDARDS

Symbol

Double Acting /
Single Rod Type



Double Acting /
Double Rod Type



How to Order

For details, please refer to Page.A-161

Model/Standard Stroke

Bore Size (mm)	Double acting				Single acting		Applicable Auto Switch
	Single Rod Type	Double Rod Type	Non-Rotating Rod Type	Rear Boss Mount Type	Spring Return Type	Spring Extended Type	
							Reed Switch
Standard Stroke(mm)					Standard Stroke(mm)		Grommet Type W4
$\phi 12$	5, 10, 15	—	—	5, 10, 15	—	—	
$\phi 16$	20, 25, 30	—	—	20, 25, 30	—	—	
$\phi 20$	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75	5, 10, 15, 20, 25, 30, 35, 40, 45, 50	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75	5, 10	5, 10	
$\phi 25$	—	—	—	—	—	—	
$\phi 32$	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100, 125, 150	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100, 125, 150	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100, 125, 150	5, 10	5, 10	
$\phi 40$	—	—	—	—	—	—	
$\phi 50$	—	—	—	—	—	—	
$\phi 63$	10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100, 125, 150	10, 15, 20, 25, 25, 30, 35, 40, 45, 50, 75, 100	10, 15, 20, 25, 25, 30, 35, 40, 45, 50, 75, 100	10, 15, 20, 25, 25, 30, 35, 40, 45, 50, 75, 100, 125, 150	10	10	
$\phi 80$	—	—	—	—	—	—	
$\phi 100$	—	—	—	—	—	—	

Intermediate Stroke

A Spacer of 5, 10, 15 and 20mm is used for intermediate stroke between 55 and 100mm stroke(55, 60, 65...).
(Example) AQB50-55D is produced by installing 20mm spacer in AQB50-75.

Standard/Specifications

Fluid	Air
Max. Operating Pressure	1.0MPa (9.9kgf/cm ²)
Min. Operating Pressure	0.5kgf/cm ² { ϕ 12 ϕ 16: 0.7kgf/cm ² }
Ambient and Fluid Temperature	-10~60℃
Lubrication	Not Required
Cushion	None
Rod End Thread	Female (Standard Type)
Stroke Tolerance	$^{+1.0}_0$ mm
Mounting	Through Hole (Standard)
Piston Speed	50~500mm/sec

Body Optional

Name	Applicable Type
Cushion	Rubber Cushion
Rod End Male Thread	Option
Boss Mount	Rear Boss Mount Type (Optional)
Non-Rotating Rod Type	Double Acting/Single Rod Type Only

Non - Rotating Rod Accuracy (Non-Rotating Piston Rod Type)

Bore Size mm	ϕ 20	ϕ 32	ϕ 40	ϕ 50	ϕ 63
Non-Rotating Rod Accuracy	$\pm 1^\circ$			$\pm 0.8^\circ$	

Min. Auto Switch Mountable Stroke

No. of Auto Switch	Min. Auto Switch Mountable Stroke
With 1pc	5mm
With 2pcs	10mm

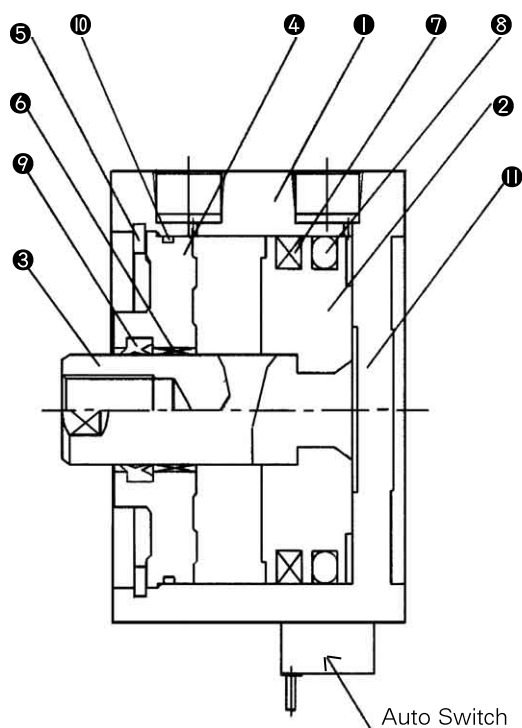
Auto Switch Specification

Reed Switch Type (Please Refer to Page A-202)

Auto Switch Model	W4
Application	Relay, Sequence Control
Load Voltage	120VAC, 24VDC
Range of Load Current	5~40 mA 5~20 mA
Protection Circuit for Contact Braker Point	Non
Internal Voltage Drop	2.4V or Less
Indicator Lamp	ON : Red Light Emitting Diode

- Leak Current - Non
 - Response Time - 1.2ms
 - Lead Wire - Oil Proof vinyl, ϕ 3.4, 0.2mm 2wire(red, black), ※
 - Impact Resistance - 30G
 - Insulation Resistance - 50M Ω or more under the test voltage 500VDC(between case and cable)
 - Dielectric Resistance - 1500VAC 1min(between case and cable)
 - Ambient Temperature
 - Protection Structure - IEC spec IP67, Water-proof, Oil-proof.
- ※ If 300mm lead wire is required, L is put at the end of model numbers.
(Example) W4L

Construction/Parts List



Parts LIST

No.	Description	Material	Note
①	Cylinder Tube	Aluminum Alloy	-
②	Piston	Aluminum Alloy	Chromate
③	Piston Rod	Stainless Steel	φ 12 ~ φ 25
		Carbon Steel	φ 32 ~ φ 100
④	Collar	Aluminum Bearing Alloy	φ 12 ~ φ 40
		Aluminum Alloy Casting	φ 50 ~ φ 100
⑤	Retaining Ring	Carbon Steel	Black Zinc Chromate
⑥	Bushing	Lead Bronze Casting	Only Above Bore:50
⑦	Rubber Magnet	-	-

Seals List

No.	Description	Material	Parts No.									
			12	16	20	25	32	40	50	63	80	100
⑧	Piston Packing	NBR	NLP-12	NLP-16A	NLP-20A	NLP-25A	NLP-32A	NLP-40A	NLP-50A	NLP-63A	NLP-80A	NLP-100A
⑨	Rod Packing	NBR	DYR-6K	DYR-8K	DYR-10SK	DYR-12	DYR-16	PDU-16Z	PDU-20Z	PDU-20Z	PDU-25Z	PDU-30Z
⑩	Gasket	NBR	SO-013-6	C14	C18	C22	C29	C36	C46	C60	C75	C95

ACP

AX

AS

AM

AM2

AL
ALX

ARD

AJ

AQ

AG

AGX
GX

ADM

ADR

AMR

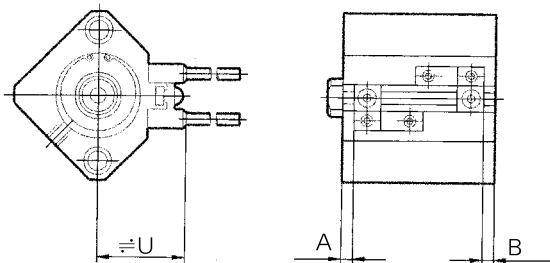
AST

NLCD

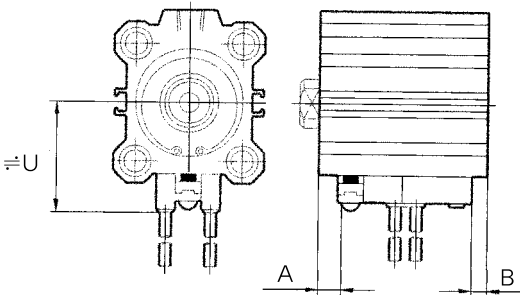
Auto Switch Mounting Date

W4

Bore size: $\varnothing 12 \sim \varnothing 25$



Bore Size: $\varnothing 32 \sim \varnothing 100$



Auto Switch Mounting Position

Bore size (mm)	A (mm)	B (mm)	U (mm)
$\varnothing 12$	5	6	19.5
$\varnothing 16$	8	5.5	22.5
$\varnothing 20$	8	7	24.5
$\varnothing 25$	8	7.5	27.5
$\varnothing 32$	9.5	6.5	31.5
$\varnothing 40$	13.5	9	35
$\varnothing 50$	11.5	12	41
$\varnothing 63$	14	15	47.5
$\varnothing 80$	18	18.5	57.5
$\varnothing 100$	21.5	24.5	67.5

Weight/Double Acting, Single Rod

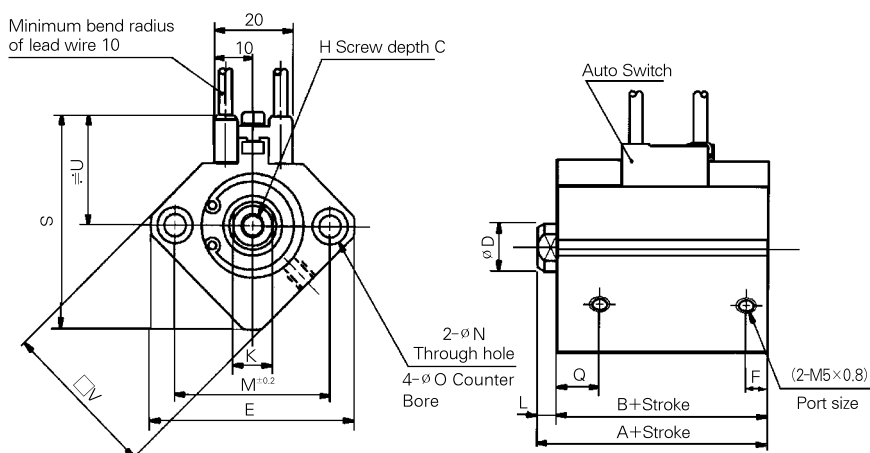
(kgf)

Bore Size	Stroke (mm)												Additional Weight for Male Thread
	5	10	15	20	25	30	35	40	45	50	75	100	
$\varnothing 12$	40	47	54	61	68	75	-	-	-	-	-	-	2
$\varnothing 16$	61	72	83	94	105	116	-	-	-	-	-	-	3
$\varnothing 20$	91	112	132	152	173	193	213	234	254	274	-	-	7
$\varnothing 25$	118	139	160	181	203	224	245	266	287	309	-	-	17
$\varnothing 32$	157	180	202	225	248	270	292	316	339	362	522	636	40
$\varnothing 40$	272	294	316	338	360	382	404	426	448	470	623	733	40
$\varnothing 50$	-	401	439	476	514	551	589	626	663	701	958	1102	80
$\varnothing 63$	-	647	687	727	767	807	847	987	927	967	1257	1464	80
$\varnothing 80$	-	1443	1534	1624	1714	1804	1894	1985	2076	2166	2830	3296	160
$\varnothing 100$	-	2208	2314	2420	2526	2632	2738	2844	2950	3056	3801	4318	270

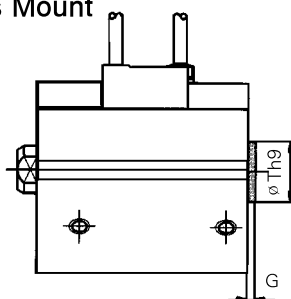
With Auto Switch : Double Acting/Single Rod Type : Dimensions

Bore Size: $\phi 12 \sim \phi 25$

For the Dimension of
"A" type (Both End Tapped)
Please refer to Page A-196



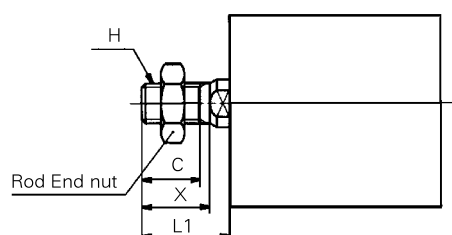
Rear Boss Mount



Rear Boss Mount

Bore size (mm)	G	Th9
$\phi 12$	1.5	$15 \begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$
$\phi 16$	1.5	$20 \begin{smallmatrix} 0 \\ -0.052 \end{smallmatrix}$
$\phi 20$	2	$13 \begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$
$\phi 25$	2	$15 \begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$

Rod End Male Thread



Rod End Male Thread

Bore size (mm)	C	X	H	L1
$\phi 12$	9	10.5	M5×0.8	14
$\phi 16$	10	12	M6×1.0	15.5
$\phi 20$	12	14	M8×1.25	18.5
$\phi 25$	15	17.5	M10×1.25	22.5

Standard Type

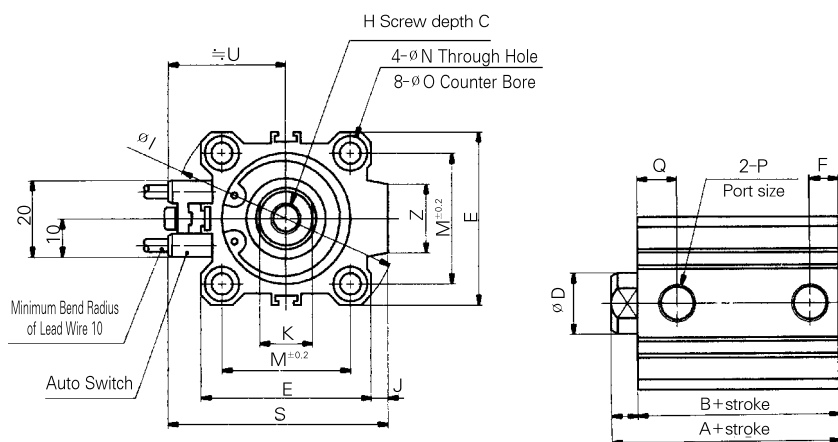
(unit:mm)

Bore size (mm)	Stroke range (mm)	A	B	C	D	E	F	H	K	L	M	N	φO	Q	S	U	V
$\phi 12$	5~30	31.5	28	6	6	32	6.5	M3×0.5	5	3.5	22	3.5	6.5 Depth 3.5	11	35.5	19.5	25
$\phi 16$	5~30	34	30.5	8	8	38	5.5	M4×0.7	6	3.5	28	3.5	6.5 Depth 3.5	10	41.5	22.5	29
$\phi 20$	5~50	36	31.5	7	10	47	5.5	M5×0.8	8	4.5	36	6.5	9 Depth 7	10.5	48	24.5	36
	75	55.5	41							14.5							
$\phi 25$	5~50	37.5	32.5	12	12	52	5.5	M6×1.0	10	5	40	5.5	9 Depth 7	11	53.5	27.5	40

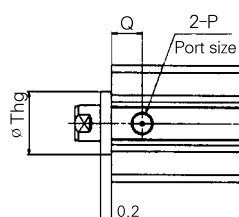
With Auto Switch : Double Acting/Single Rod Type : Dimensions

Bore Size : $\phi 32 \sim \phi 100$

For the Dimension of
"A" type (Both End Tapped)
Please refer to Page A-196

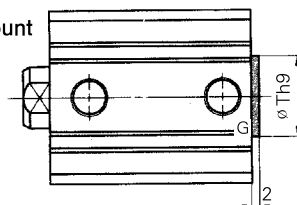


Long Stroke(125st or more) (mm)

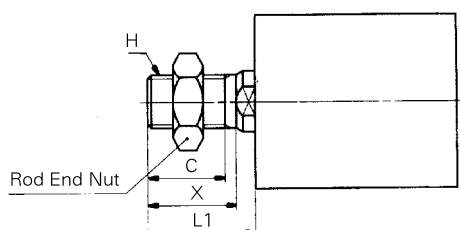


Bore size	T
32	22 ⁰ _{-0.052}
40	28 ⁰ _{-0.052}
50・63	35 ⁰ _{-0.062}
80	43 ⁰ _{-0.062}
100	59 ⁰ _{-0.074}

Rear Boss Mount



Rod End Male Thread



Rear Boss Mount (Unit : mm)

Bore size (mm)	Th9
φ32	21 ⁰ _{-0.052}
φ40	28 ⁰ _{-0.052}
φ50	35 ⁰ _{-0.062}
φ63	35 ⁰ _{-0.062}
φ80	43 ⁰ _{-0.062}
φ100	59 ⁰ _{-0.074}

Rod End Male Thread (Unit : mm)

Bore size (mm)	C	X	H	L1
φ32	20.5	23.5	M14×1.5	28.5
φ40	20.5	23.5	M14×1.5	28.5
φ50	26	28.5	M18×1.5	33.5
φ63	26	28.5	M22×1.5	33.5
φ80	32.5	35.5	M22×1.5	43.5
φ100	32.5	35.5	M26×1.5	43.5

Standard

(Unit : mm)

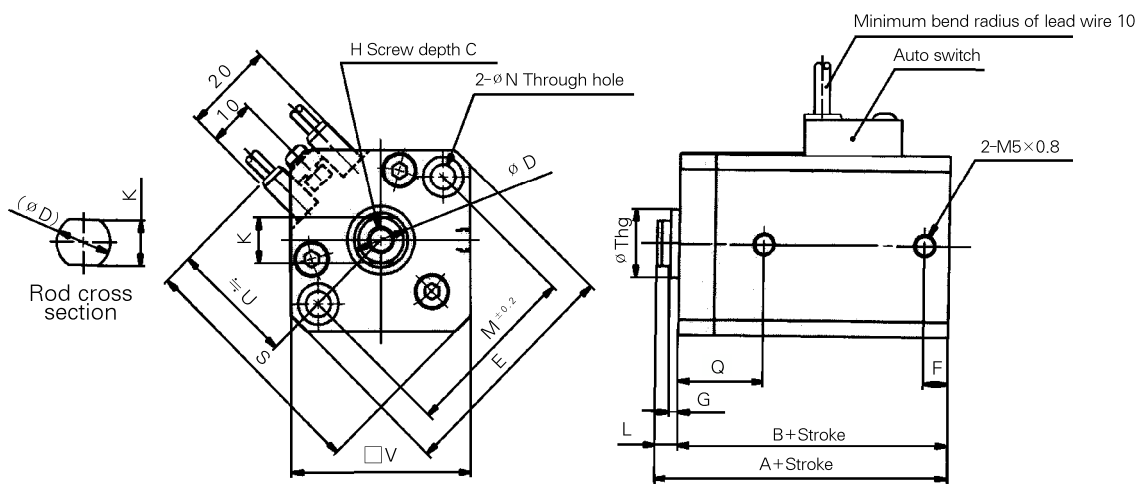
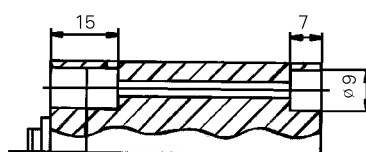
Bore size (mm)	Stroke range (mm)	A	B	C	D	E	F	H	I	J	K	L	M	N	φO	P	Q	S	U	Z
φ32	5~50	40	33	13	16	45	7.5	M8×1.25	60	4.5	14	7	34	5.5	9 Depth 7	Rc(PT) 1/8	10.5	58.5	53.1	18
	75, 100	62.5	45.5				12.5					17					12.5			
	125, 150	62.5	45.5				12.5					17					12.5			
φ40	5~50	46.5	39.5	13	16	52	8	M8×1.25	69	5	14	7	40	5.5	9 Depth 7	Rc(PT) 1/8	11	66	35	18
	75, 100	72	55				14					17					14			
	125, 150	72	55				14					17					14			
φ50	10~50	48.5	40.5	15	20	64	10.5	M10×1.5	86	7	17	8	50	6.6	11 Depth 8	Rc(PT) 1/4	10.5	80	41	22
	75, 100	73.5	55.5				14					18					14			
	125, 150	73.5	55.5				14					18					14			
φ63	10~50	54	46	15	20	77	10.5	M10×1.5	103	7	17	8	60	9	14 Depth 10.5	Rc(PT) 1/4	15	93	47.5	22
	75, 100	75	57				16.5					18					16.5			
	125, 150	75	57				16.5					18					16.5			
φ80	10~50	63.5	53.5	21	25	98	12.5	M16×2.0	132	6	22	10	77	11	17.5 Depth 13.5	Rc(PT) 3/8	16	112.5	57.5	26
	75, 100	86	66				19					20					19			
	125, 150	86	66				19					20					19			
φ100	10~50	75	63	27	30	117	13	M20×2.5	156	6.5	27	12	94	11	17.5 Depth 13.5	Rc(PT) 3/8	23	132.5	67.5	26
	75, 100	97.5	75.5				23					22					23			
	125, 150	97.5	75.5				23					22					23			

With Auto Switch: Double Acting/Non-Rotating Rod/Single Rod Type: Dimensions

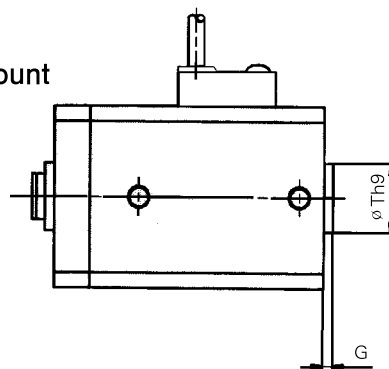
Bore Size : $\phi 20$, $\phi 25$

For the Dimension of
"A" type (Both End Tapped)
Please refer to Page A-196

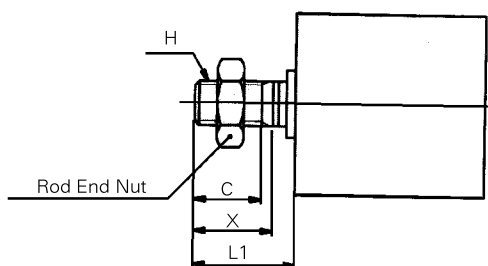
Through Hole



Rear Boss Mount



Rod End Male Thread



Rod End Male Thread

Bore size (mm)	C	H	L1	X
$\phi 20$	12	M5×1.25	18.5	14
$\phi 25$	12	M10×1.25	18.5	14

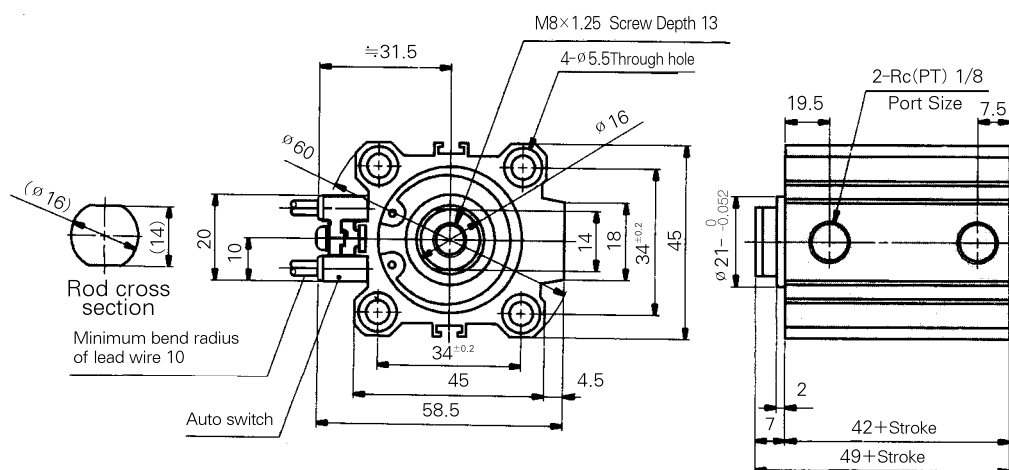
Standard

Bore size (mm)	Stroke range (mm)	A	B	C	D	E	F	G	H	K	L	M	N	Q	S	Th9	U	V
$\phi 20$	5~50	44	39.5	7	10	47	5.5	2	M5×0.8	8	4.5	36	5.5	18.5	48	13 _{-0.043} ⁰	24.5	36
$\phi 25$	5~50	45.5	40.5	12	12	52	5.5	2	M6×1.0	10	5	40	5.5	19	53.5	15 _{-0.043} ⁰	27.5	40

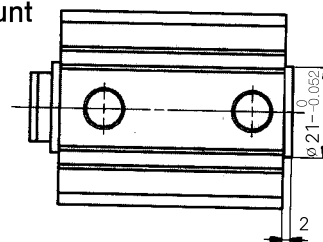
With Auto Switch: Double Acting/Non-Rotating Rod/Single Rod Type: Dimensions

Bore Size : $\phi 32$

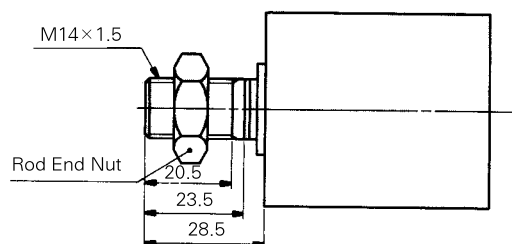
For the Dimension of
"A" type (Both End Tapped)
Please refer to Page A-196



Rear Boss Mount



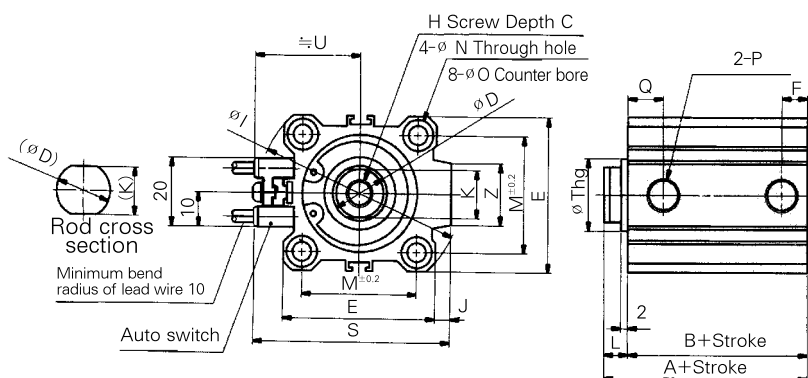
Rod End Male Thread



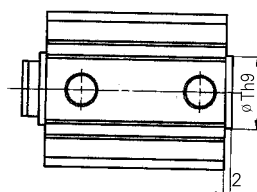
With Auto Switch:Double Acting/Non-Rotating Rod/Single Rod Type:Dimensions

Bore Size : $\phi 40 \sim \phi 63$

For the Dimension of
"A" type (Both End Tapped)
Please refer to Page A-196



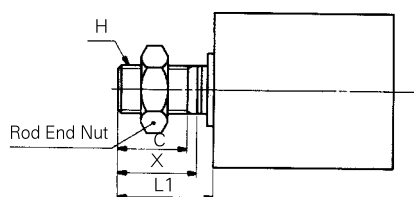
Rear Boss Mount



Rear Boss Mount (mm)

Bore size mm	Th9
$\phi 40$	28 ⁰ _{-0.052}
$\phi 50$	35 ⁰ _{-0.062}
$\phi 63$	35 ⁰ _{-0.062}

Rod End Male Thread



Rod End Male Thread (mm)

Bore size (mm)	C	H	L1	X
$\phi 40$	20.5	M14×1.5	28.5	23.5
$\phi 50$	26	M18×1.5	33.5	28.5
$\phi 63$	26	M18×1.5	33.5	28.5

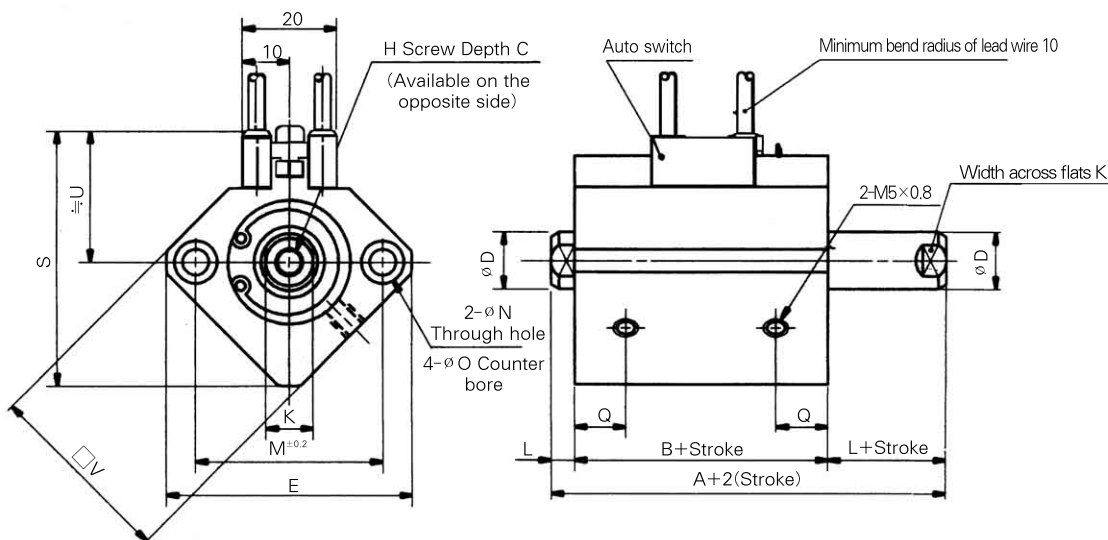
Standard

Bore size (mm)	Stroke range (mm)	A	B	C	D	E	F	H	I	J	K	L	M	N	φ O	P	Q	S	Thg	U	Z
$\phi 40$	5~50	46.5	39.5	13	16	52	8	M8×1.25	69	5	14	7	40	5.5	9 Depth7	Rc(PT) 1/8	11	66	28 ⁰ _{-0.052}	35	18
	75, 100																				
$\phi 50$	10~50	48.5	40.5	15	20	64	10.5	M10×1.5	86	7	18	8	50	6.6	11 Depth8	Rc(PT) 1/4	10.5	80	35 ⁰ _{-0.062}	41	22
	75, 100																				
$\phi 63$	10~50	54	46	15	20	77	10.5	M10×1.5	103	7	18	8	60	9	14 Depth10.5	Rc(PT) 1/4	15	93	35 ⁰ _{-0.062}	47.5	22
	75, 100																				

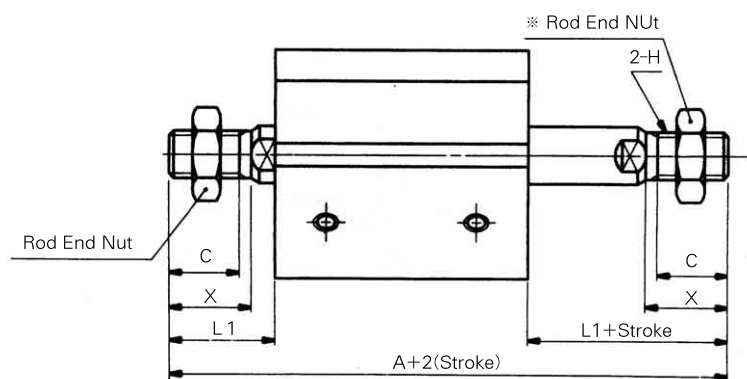
With Auto Switch: Double Acting/Double Rod Type: Dimensions (inch)

Bore Size : $\varnothing 20$ (3/4 Nom.), $\varnothing 25$ (1 Nom.)

For the Dimension of "A" type (Both End Tapped) Please refer to Page A-196



Rod End Male Thread



Rod End Male Thread (mm)					
Bore size (mm)	A	C	H	L1	X
$\varnothing 20$	75	12	M8×1.25	18.5	14
$\varnothing 25$	84	15	M10×1.25	22.5	17.5

Standard (Unit : mm)

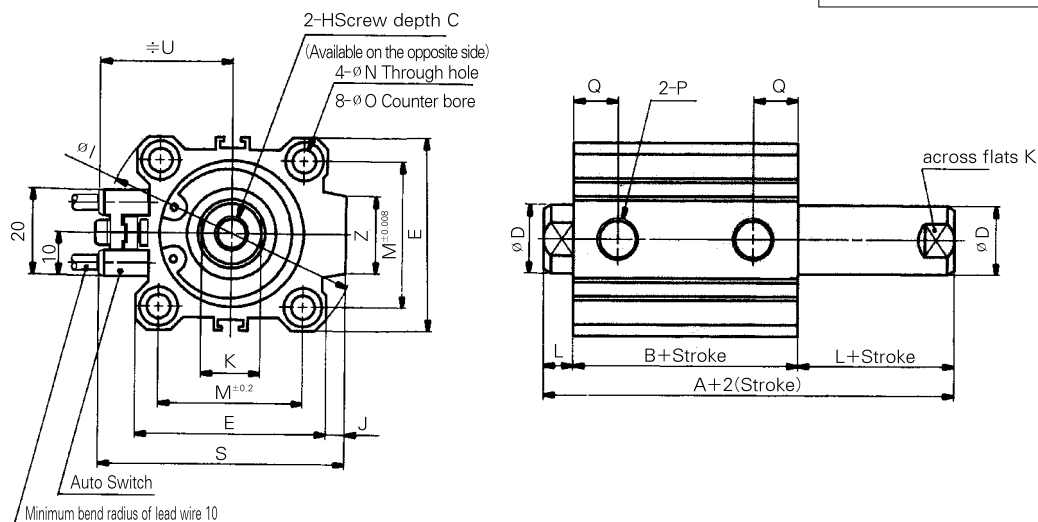
Bore size (mm)	Stroke range (mm)	A	B	C	D	E	H	K	L	M	N	$\varnothing O$	Q	S	U	V
$\varnothing 20$	5~75	47	38	7	10	47	M5×0.8	8	4.5	36	5.5	9 Depth7	10.5	48	24.5	36
$\varnothing 25$	5~50	49	39	12	12	52	M6×1.0	10	5	40	5.5	9 Depth7	11	53.5	27.5	40

With Auto Switch: Double Acting/Double Rod Type: Dimensions

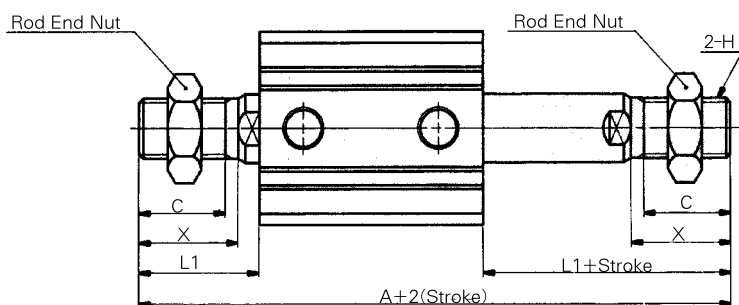
(mm)

Bore Size : $\phi 32 \sim \phi 100$

For the Dimension of
"A" type (Both End Tapped)
Please refer to Page A-196



Rod End Male Thread



Rod End Male Thread

(mm)

Bore size (mm)	A	C	H	L1	X
$\phi 32$	97.5	20.5	M14 $\times$ 1.5	28.5	23.5
$\phi 40$	107	20.5	M14 $\times$ 1.5	28.5	23.5
$\phi 50$	117.5	26	M18 $\times$ 1.5	33.5	28.5
$\phi 63$	119	26	M18 $\times$ 1.5	33.5	28.5
$\phi 80$	148	32.5	M22 $\times$ 1.5	43.5	35.5
$\phi 100$	157.5	32.5	M26 $\times$ 1.5	43.5	35.5

Standard

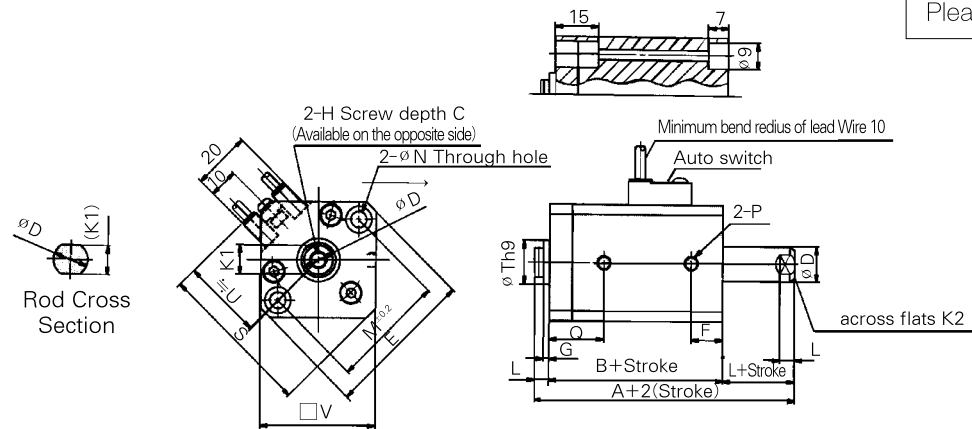
(mm)

Bore size (mm)	Stroke range (mm)	A	B	C	D	E	H	I	J	K	L	M	N	ϕO	P	Q	S	U	Z
$\phi 32$	5~75	54.5	40.5	13	16	45	M8 $\times$ 1.25	60	4.5	14	7	34	5.5	9 Depth 7	Rc(PT) 1/8	12.5	58.5	31.5	18
$\phi 40$	5~75	64	50	13	16	52	M8 $\times$ 1.25	69	5	14	7	40	5.5	9 Depth 7	Rc(PT) 1/8	14	66	35	18
$\phi 50$	10~75	66.5	50.5	15	20	64	M10 $\times$ 1.5	86	7	17	8	50	6.6	11 Depth 8	Rc(PT) 1/4	14	80	41	22
$\phi 63$	10~75	68	52	15	20	77	M10 $\times$ 1.5	103	7	17	8	60	9	14 Depth 10.5	Rc(PT) 1/4	15.5	93	47.5	22
$\phi 80$	10~75	81	61	21	25	98	M16 $\times$ 2.0	132	6	22	10	77	11	17.5 Depth 13.5	Rc(PT) 3/8	18	112.5	57.5	26
$\phi 100$	10~75	94.5	70.5	27	30	117	M20 $\times$ 2.5	156	6.5	27	12	94	11	17.5 Depth 13.5	Rc(PT) 3/8	22	132.5	67.5	26

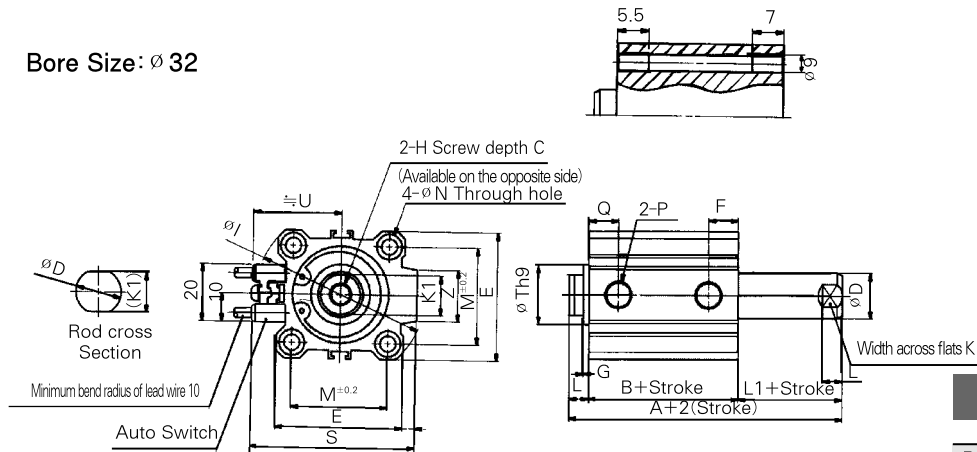
With Auto Switch: Double Acting / Double Rod / Non-rotating Rod / Dimensions

Bore Size : $\phi 20 \sim \phi 25$

For the Dimension of "A" type (Both End Tapped) Please refer to Page A-196



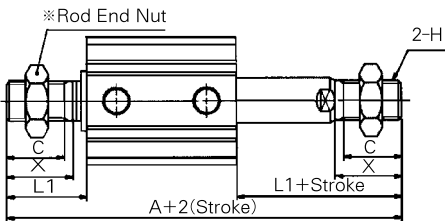
Bore Size : $\phi 32$



Rod End Male Thread

Rod End Male Thread (mm)

Bore size (mm)	A	C	H
$\phi 20$	83	12	M8×1.25
$\phi 25$	92	15	M10×1.25
$\phi 32$	106.5	20.5	M14×1.25



Bore size (mm)	L1	X
$\phi 20$	18.5	14
$\phi 25$	22.5	17.5
$\phi 32$	28.5	23.5

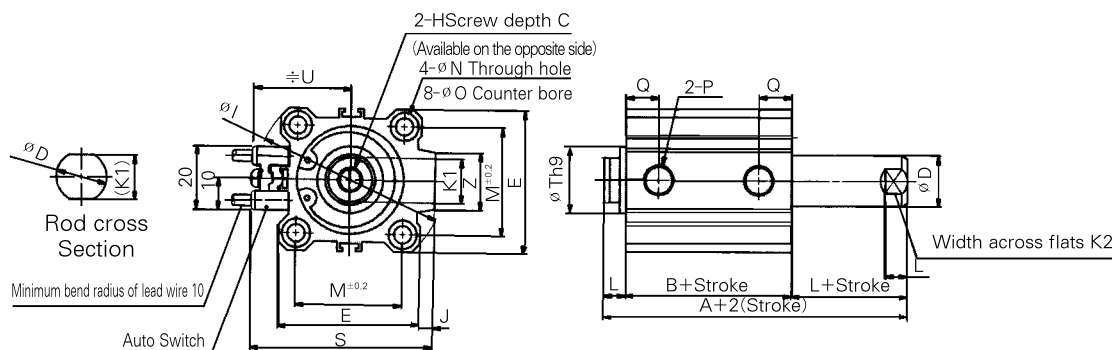
Standard (Unit : mm)

Bore size (mm)	Stroke range (mm)	A	B	C	D	E	F	G	H	I	J	K1	K2	L	M	N	P	Q	S	Th9	U	V	Z
$\phi 20$	5~50	55	46	7	10	47	10.5	2	M5×0.8	-	-	8	8	4.5	36	5.5	M5×0.8	18.5	48	13 ⁰ _{-0.043}	24.5	36	-
$\phi 25$	5~50	57	47	12	12	52	11	2	M6×1.0	-	-	10	10	5	40	5.5	M5×0.8	19	53.5	15 ⁰ _{-0.043}	27.5	40	-
$\phi 32$	5~75	63.5	49.5	13	16	45	12.5	2	M8×1.25	60	4.5	14	14	7	34	5.5	Rc(PT)1/8	21.5	58.5	21 ⁰ _{-0.052}	31.5	-	18

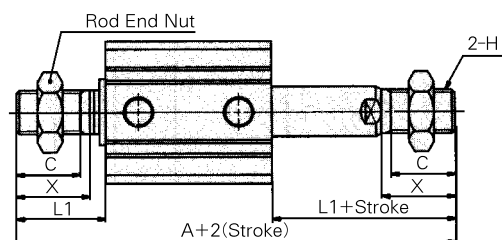
With Auto Switch: Double Acting / Double Rod / Non-rotating Piston Rod 1 : Dimensions

Bore Size : $\phi 40 \sim \phi 63$

For the Dimension of
"A" type (Both End Tapped)
Please refer to Page A-196



Rod End Male Thread



Rod End Male Thread (mm)

Bore size (mm)	A	C	H	L1	X
$\phi 40$	107	20.5	M14×1.5	28.5	23.5
$\phi 50$	117.5	26	M18×1.5	33.5	28.5
$\phi 63$	119	26	M18×1.5	33.5	28.5

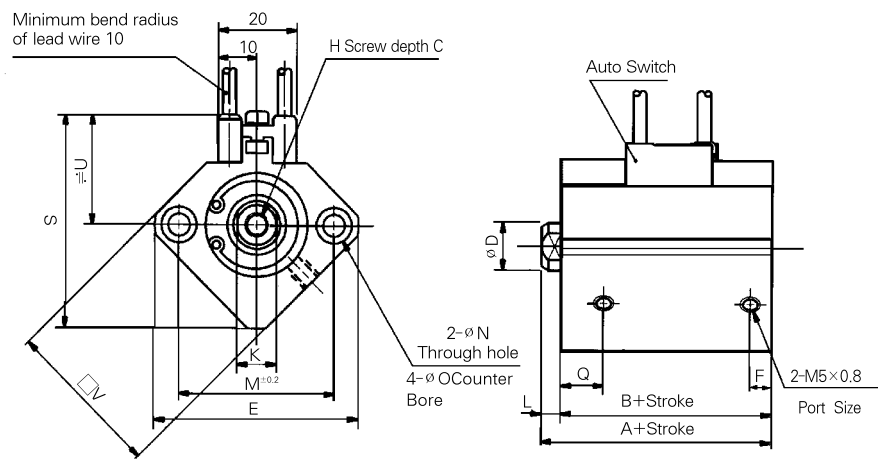
Standard (mm)

Bore size (mm)	Stroke range (mm)	A	B	C	D	E	H	I	J	K1	K2	L	M	N	ϕO	P	Q	S	Th9	U	Z
$\phi 40$	5~75	64	50	13	16	52	M8×1.25	69	5	14	14	7	40	5.5	9Depth7	Rc(PT)1/8	14	66	28 ⁰ _{-0.052}	35	18
$\phi 50$	10~75	66.5	50.5	15	20	64	M10×1.5	86	7	18	17	8	50	6.5	11Depth8	Rc(PT)1/4	14	80	35 ⁰ _{-0.062}	41	22
$\phi 63$	10~75	68	52	15	20	77	M10×1.5	103	7	18	17	8	60	9	14Depth10.5	Rc(PT)1/4	15.5	93	35 ⁰ _{-0.062}	47.5	22

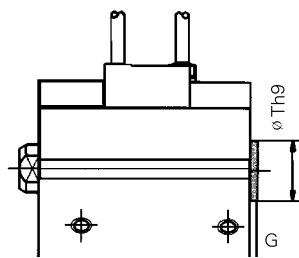
With Auto Switch : Single Acting/Single Rod/Spring Return Type

Bore Size : $\varnothing 20$

For the Dimension of
"A" type (Both End Tapped)
Please refer to Page A-196

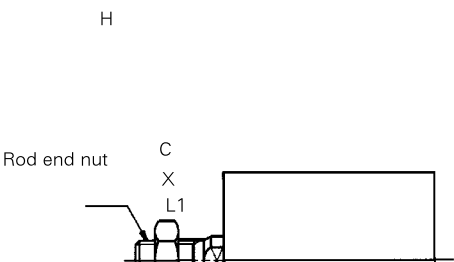


Rear Boss Mount



Rear Boss Mount (mm)		
Bore size (mm)	G	Th9
$\varnothing 20$	2	13 _{0.043}

Rod End Male Thread



Rod End Male Thread (mm)				
Bore size (mm)	C	X	H	L1
				5st
$\varnothing 20$	12	14	M8×1.25	18.5

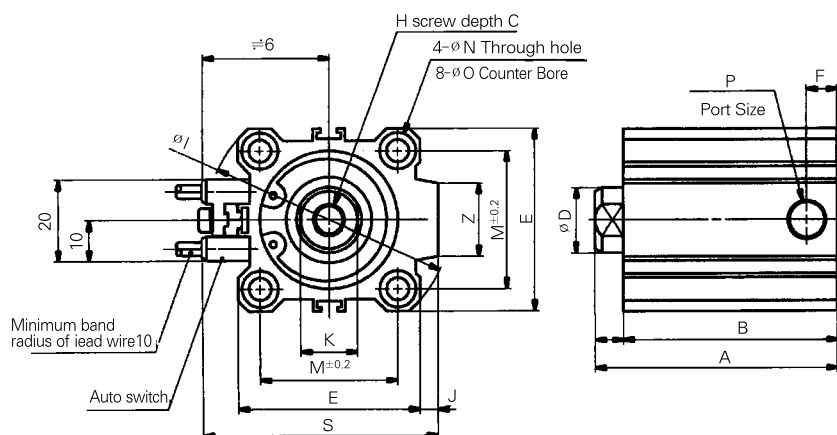
Standard (mm)

Bore size (mm)	A		B		C	D	E	F	H	K	L	M	N	$\varnothing O$	S	U	V
	5st	10st	5st	10st													
$\varnothing 20$	41	46	36.5	41.5	7	10	47	5.5	M5×0.8	8	4.5	36	5.5	9 Depth 7	48	24.5	36

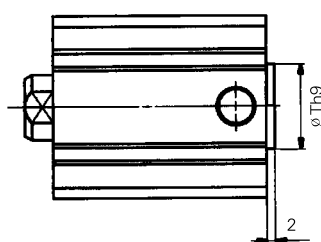
With Auto Switch : Single Acting/Single Rod /Spring Return Type : Dimensions

Bore Size : $\phi 32 \sim \phi 50$

For the Dimension of
"A" type (Both End Tapped)
Please refer to Page A-196

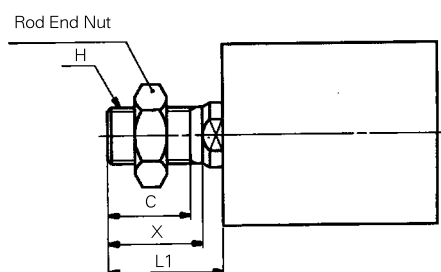


Rear Boss Mount



Rear Boss Mount (mm)	
Bore size (mm)	Th9
$\phi 32$	21 ^{0.00} _{-0.052}
$\phi 40$	28 ^{0.00} _{-0.052}
$\phi 50$	35 ^{0.00} _{-0.062}

Rod End Male Thread



Rod End Male Thread (mm)				
Bore size (mm)	C	X	H	L1
$\phi 32$	20.5	23.5	M14×1.5	28.5
$\phi 40$	20.5	23.5	M14×1.5	28.5
$\phi 50$	26	28.5	M18×1.5	33.5

Standard

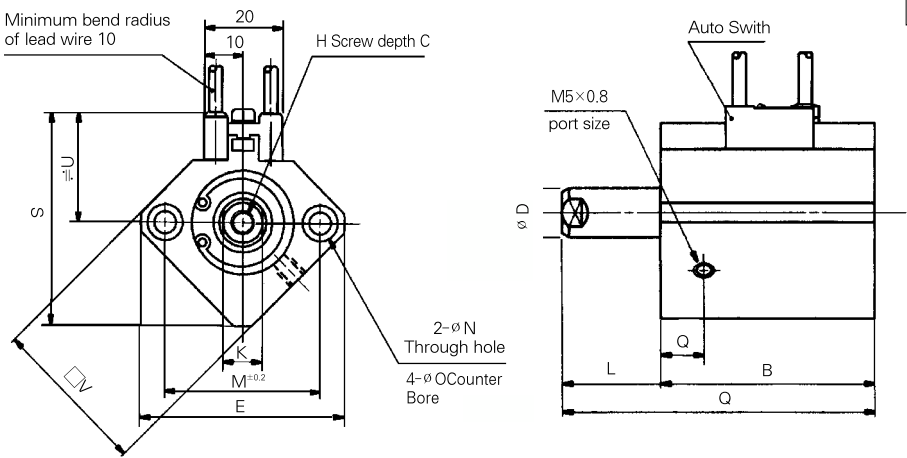
(mm)

Bore size (mm)	A		B		C	D	E	F	H	I	J	K	L	M	N	ϕO	P	S	U	Z
	5st	10st	5st	10st																
$\phi 32$	45	50	38	43	13	16	45	7.5	M8×1.25	60	4.5	14	7	34	5.5	9 Depth 7	Rc(PT) 1/8	58.5	31.5	18
$\phi 40$	51.5	56.6	44.5	49.5	13	16	52	8	M8×1.25	69	5	14	7	40	5.5	9 Depth 7	Rc(PT) 1/8	66	35	18
$\phi 50$	-	58.5	-	50.5	15	20	64	10.5	M10×1.5	86	7	17	8	50	6.6	11 Depth 8	Rc(PT) 1/4	80	41	22

With Auto Switch : Single Acting/Single Rod /Spring Extended Type : Dimensions

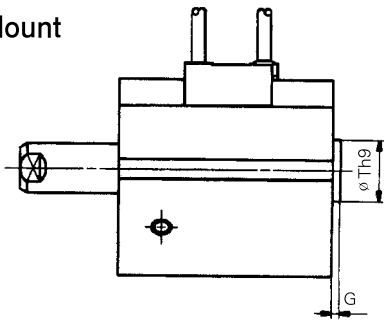
Bore Size : $\varnothing 20$

For the Dimension of
“A” type (Both End Tapped)
Please refer to Page A-196

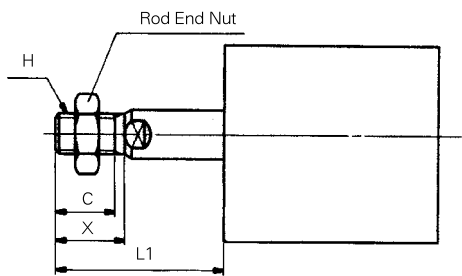


Rear Boss Mount		
Bore size (mm)	G	Th9
$\varnothing 20$	2	13 ⁰ _{-0.043}

Rear Boss Mount



Rod End Male Thread



Rod End Male Thread					
Bore size (mm)	C	X	H	L1	
				5st	10st
$\varnothing 20$	12	14	M8×1.25	23.5	28.5

Standard

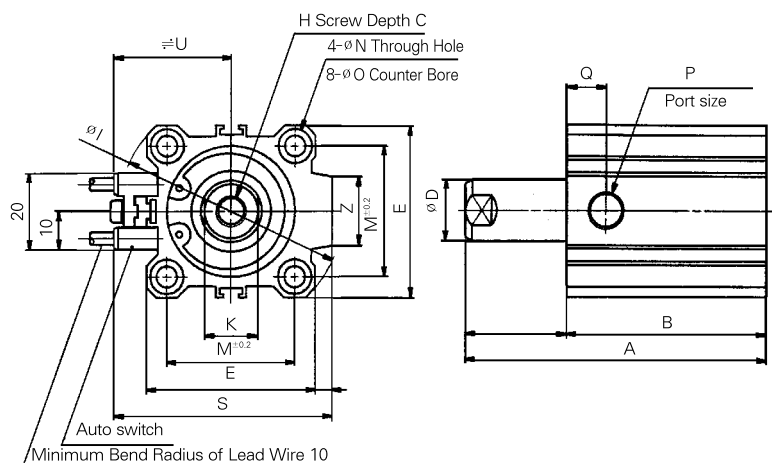
(mm)

Bore size (mm)	A		B		C	D	E	H	K	L		M	N	$\varnothing O$	Q	S	U	V
	5st	10st	5st	10st						5st	10st							
$\varnothing 20$	46	56	36.5	41.5	7	10	47	M5×0.8	8	9.5	14.5	36	5.5	9 Depth 7	10.5	48	24.5	36

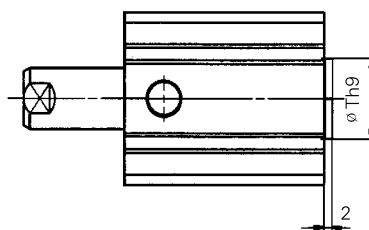
With Auto Switch : Single Acting/Single Rod/Spring Extend Type : Dimensions

Bore Size : $\phi 32 \sim \phi 50$

For the Dimension of
"A" type (Both End Tapped)
Please refer to Page A-196

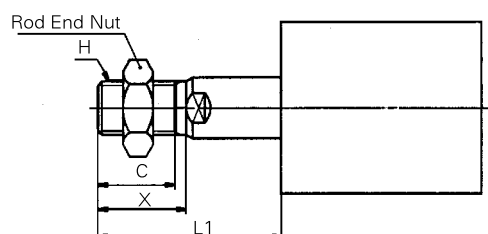


Rear Boss Mount



Rear Boss Mount (mm)	
Bore size (mm)	Th9
$\phi 32$	21 ⁰ _{-0.052}
$\phi 40$	28 ⁰ _{-0.052}
$\phi 50$	35 ⁰ _{-0.052}

Rod End Male Thread



Rod End Male Thread (mm)						
Bore size (mm)	C	X	H	L1		
				5st	10st	20st
$\phi 32$	20.5	23.5	M14×1.5	33.5	38.5	-
$\phi 40$	20.5	23.5	M14×1.5	33.5	38.5	-
$\phi 50$	26	28.5	M18×1.5	-	43.5	53.5

Standard Type

(mm)

Bore size (mm)	A		B		C	D	E	H	I	J	K	L		M	N	O	P	Q	S	U	V
	5st	10st	5st	10st								5st	10st								
$\phi 32$	50	60	38	43	13	16	45	M8×1.25	60	4.5	14	12	17	34	5.5	9 Depth 7	Rc(PT) 1/8	10.5	58.5	31.5	18
$\phi 40$	56.5	66.5	44.5	49.5	13	16	52	M8×1.25	69	5	14	12	17	40	5.5	9 Depth 7	Rc(PT) 1/8	11	66	35	18
$\phi 50$	-	68.5	-	50.5	15	20	64	M10×1.5	86	7	17	-	18	50	6.6	11 Depth 8	Rc(PT) 1/4	10.5	80	41	22

Both Ends Tapped

〈“A” Type〉

(mm)

Bore Size mm	O	Depth1	Depth2	R1	R2
∅ 12	M4×0.7	3.5(-)	3.5	10.5(-)	10.5
∅ 16	M4×0.7	3.5(-)	3.5	10.5(-)	10.5
∅ 20	M6×1.0	7(15)	7	17(25)	17
∅ 25	M6×1.0	7(15)	7	17(25)	17
∅ 32	M6×1.0	7(7)	7	17(17)	17
∅ 40	M6×1.0	7(7)	7	17(17)	17
∅ 50	M8×1.25	8(8)	8	22(22)	22
∅ 63	M10×1.5	10.5(10.5)	10.5	28.5(28.5)	28.5
∅ 80	M12×1.75	10.5(10.5)	10.5	35.5(35.5)	35.5
∅ 100	M12×1.75	13.5(13.5)	13.5	35.5(35.5)	35.5

※ () : Non - Rotating Type

