

# Series **AMR**

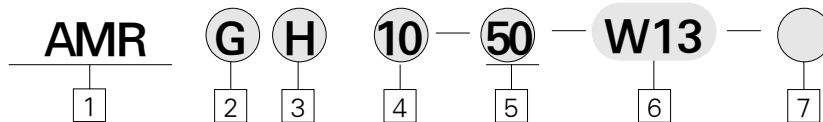
## Magnet Type Rodless Cylinder

Bore size(mm) :  $\phi 10$ ,  $\phi 16$ ,  $\phi 20$ ,  $\phi 25$ ,  $\phi 32$ ,  $\phi 40$



- PRECISION STAINLESS BODY FOR SMOOTH ACTUATION
- LIGHT WEIGHT
- COMPACT DESIGN
- LEAK FREE
- NON - LUBRICATION STANDARD
- POSITION SENSING CAPABLE

### How to Order



#### 1 Magnet Type Rodless Cylinder

#### 2 Type of Bearing

B : Basic Type(Standard)  
 G : With Guide Type(Auto Switch Capable Cylinder)

#### 3 Magnet Holding Power

Dia	H	L
$\phi 10$	5.5	-
$\phi 16$	12	-
$\phi 20$	24	15.7
$\phi 25$	37	22.5
$\phi 32$	60	36.5
$\phi 40$	94	58

#### 4 Bore Size(mm)

10:  $\phi 10$   
 16:  $\phi 16$   
 20:  $\phi 20$   
 25:  $\phi 25$   
 32:  $\phi 32$   
 40:  $\phi 40$

#### 5 Stroke(mm)

AMRB		AMRG	
$\phi 10$	50~300mm	$\phi 10$	50~500mm
$\phi 16$	50~300mm	$\phi 16$	50~700mm
$\phi 20$	100~1,500mm	$\phi 20$	100~1,000mm
$\phi 25$	100~1,500mm	$\phi 25$	100~1,500mm
$\phi 32$	100~2,000mm	$\phi 32$	100~1,500mm
$\phi 40$	100~2,000mm	$\phi 40$	100~1,500mm

#### 6 Applicable Auto Switch (SeriesW1□)

(AMRG only)

Blank : Without Auto Switch

W13 : Reed Switch Type  
 (DC24V, AC110V)

W1H : Solid State Type(DC 24V)

#### Standard Auto Switch

Lead wire Length in 1m.

3m Leads available on all models by adding a "L" suffix to the part number.

#### 7 Additional Symbol of Auto Switch

Blank : 2 pcs.

S : 1 pc.

n : n pcs.

## Specifications 1MPa=10.1972kgf/cm<sup>2</sup>

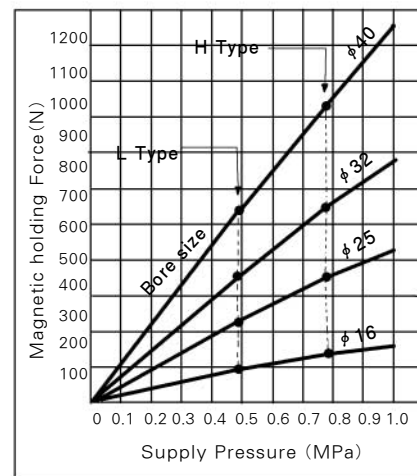
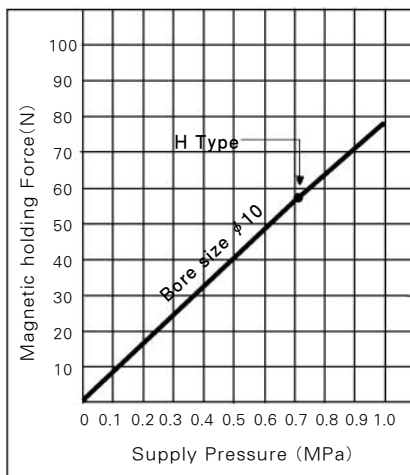
Fluid	Air	
Proof pressure	10.5kgf/cm <sup>2</sup> {1.03MPa}	
Max. operating pressure	7kgf/cm <sup>2</sup> {0.7MPa}	
Min. operating pressure	2kgf/cm <sup>2</sup> {0.2MPa}	
Ambient and fluid temperature	5~60℃	
Operating piston speed	50 ~ 400 mm/s	
Cushion	Rubber Cushion at Both Sides	
Lubrication	Non-lube	
Cushion	AMRB10, AMRB16	Rubber cushion
	AMRB20, AMRB25	Air cushion
	AMRB32, AMRB40	
	AMRG10, AMRG16, AMRG20	Rubber cushion
	AMRG25, AMRG32, AMRG40	

- ACP
- UACP
- AX
- AS
- AM
- AL
- ALX
- UARD
- UAQ
- AJ
- AG
- UAG
- ADM
- ADR
- AMR
- UAMR
- AST

## Cylinder Theoretical Output

φ 10

φ 16, φ 20, φ 25, φ 32, φ 40



## Weight Table kg Main Parts

Number of magnets	Bore size	φ 10	φ 16	φ 25	φ 32	φ 40
	Basic weight	AMRBH	0.08	0.28	0.71	1.34
AMRBL		0.22	0.62	1.19	1.97	3.1
Additional weight per 50 stroke		0.014	0.02	0.05	0.07	0.08

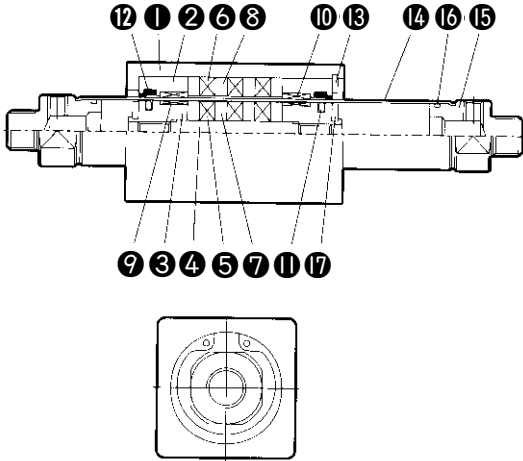
Description	Material	Note
Head cover	Aluminium alloy	Colored hard alumite
Cylinder tube	Stainless steel	
Body	Aluminium alloy	Colored hard alumite
Magnet	Rare earth magnet	

Calculation method/Example:AMRB32-0400  
 Basic weight ..... 1.34kg  
 Additional weight ... 0.07/50s } 1.34+0.07×20÷2=2.04kg  
 Cylinder stroke ..... 500st

# Series AMR

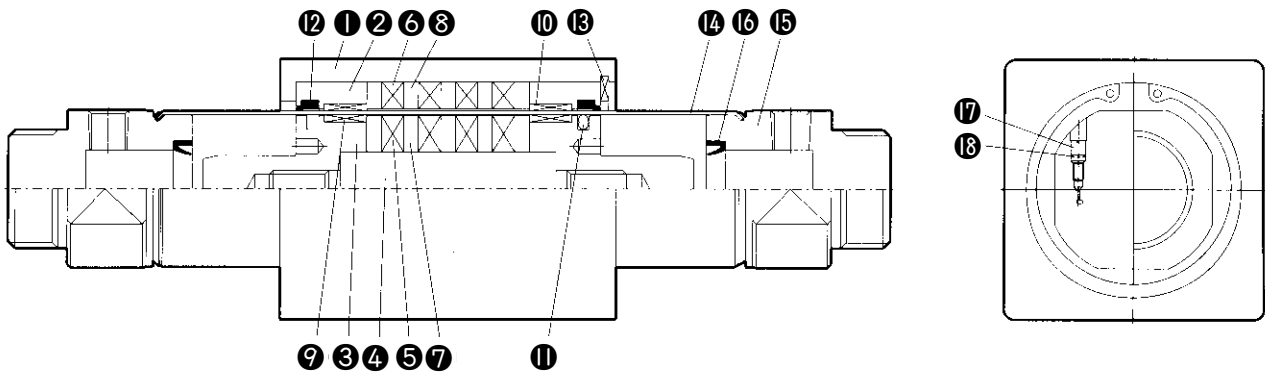
## Basic Type: Construction/Parts List

AMRBH  $\phi$  10,  $\phi$  16



No.	Description	Material	Note
1	Slider	Aluminum alloy	
2	Holder	Aluminum alloy	
3	Piston	Aluminum alloy	
4	Shaft	Stainless steel	
5	Inner Magnet	-	
6	Outer Magnet	-	
7	Inner Yoke	Carbon steel	
8	Outer Yoke	Carbon steel	
9	Inner Wear Ring	Resin	
10	Outer Wear Ring	Resin	
11	Piston Packing	NBR	
12	Wiper Ring	NBR	
13	Snap Ring	Spring	
14	Cylinder Tube	Stainless steel	
15	End Cover	Aluminum alloy	
16	Tube Gasket	NBR	
17	Bumper	Urethane	

AMRBH  $\phi$  20,  $\phi$  25,  $\phi$  32,  $\phi$  40

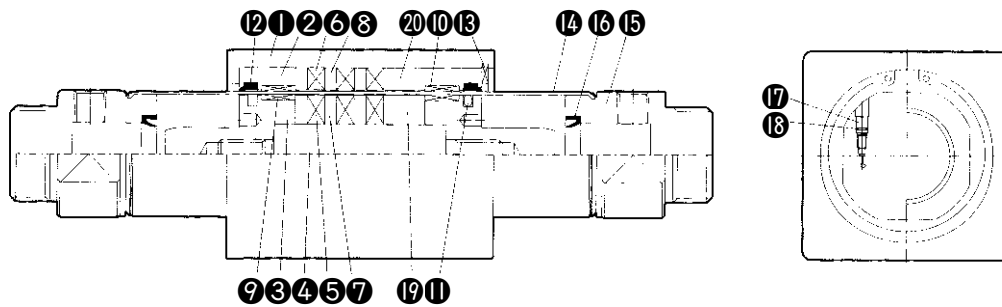


No.	Description	Material	Note
1	Slider	Aluminum alloy	
2	Holder	Aluminum alloy	
3	Piston	Aluminum alloy	
4	Shaft	Stainless steel	
5	Inner Magnet	-	
6	Outer Magnet	-	
7	Inner Yoke	Carbon steel	
8	Outer Yoke	Carbon steel	
9	Inner Wear Ring	Resin	
10	Outer Wear Ring	Resin	
11	Piston Packing	NBR	
12	Wiper Ring	NBR	

No.	Description	Material	Note
13	Snap Ring	Spring steel	
14	Cylinder Tube	Stainless steel	
15	End Cover	Aluminum alloy	
16	Cushion Packing	NBR	
17	Cushion Valve	Carbon steel	
18	Cushion Valve O-Ring	NBR	

Basic Type : Construction/Parts List

AMRBL 20, 25,  
32, 40

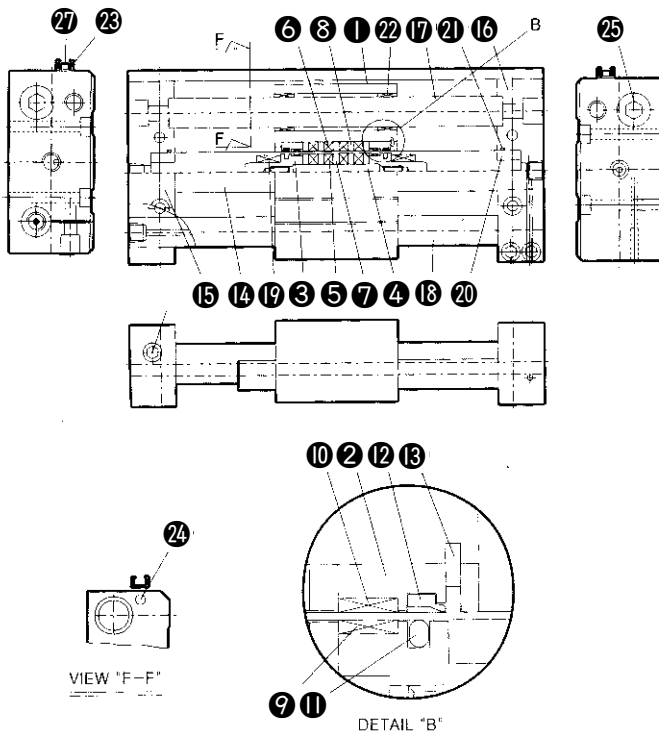


No.	Description	Material	Note
1	Slider	Aluminum alloy	
2	Holder	Aluminum alloy	
3	Piston	Aluminum alloy	
4	Shaft	Stainless steel	
5	Inner Magnet	-	
6	Outer Magnet	-	
7	Inner Yoke	Carbon steel	
8	Outer Yoke	Carbon steel	
9	Inner Wear Ring	Resin	
10	Outer Wear Ring	Resin	
11	Piston Packing	NBR	
12	Wiper Ring	NBR	

No.	Description	Material	Note
13	Snap Ring	Spring steel	
14	Cylinder Tube	Stainless steel	
15	End Cover	Aluminum alloy	
16	Cushion Packing	NBR	
17	Cushion Valve	Carbon steel	
18	Cushion Valve O-Ring	NBR	
19	Inner Spacer	Aluminum alloy	
20	Outer Spacer	Aluminum alloy	

Guide Type: Construction/Part List

AMRGH  $\phi$  10,  $\phi$  16,



No.	Description	Material	Note
1	Slider	Aluminum alloy	
2	Holder	Aluminum alloy	
3	Piston	Aluminum alloy	
4	Shaft	Stainless steel	
5	Inner Magnet	-	
6	Outer Magnet	-	
7	Inner Yoke	Carbon Steel	
8	Outer Yoke	Carbon Steel	
9	Inner Wear Ring	Resin	
10	Outer Wear Ring	Resin	
11	Piston Packing	NBR	
12	Wiper Ring	NBR	
13	Snap Ring	Spring Steel	
14	Cylinder Tube	Stainless steel	
15	End Cover A	Aluminum alloy	
16	End Cover B	Aluminum alloy	
17	Guide Rod A	Carbon Steel	
18	Guide Rod B	Carbon Steel	
19	Bumper	Urethane	
20	Cushion Stopper	Aluminum alloy	
21	Cyl Tube Gasket	NBR	
22	Guide Bush	PBC3	
23	S/W Holder	Aluminum alloy	
24	S/W Magnet	-	
25	Guide Rod Bolt A	Carbon Steel	
26	Guide Rod Bolt B	Carbon Steel	
27	S/W Holder Bolt	Carbon Steel	

ACP

UACP

AX

AS

AM

AL

ALX

UARD

UAQ

AJ

AG

UAG

ADM

ADR

AMR

UAMR

AST

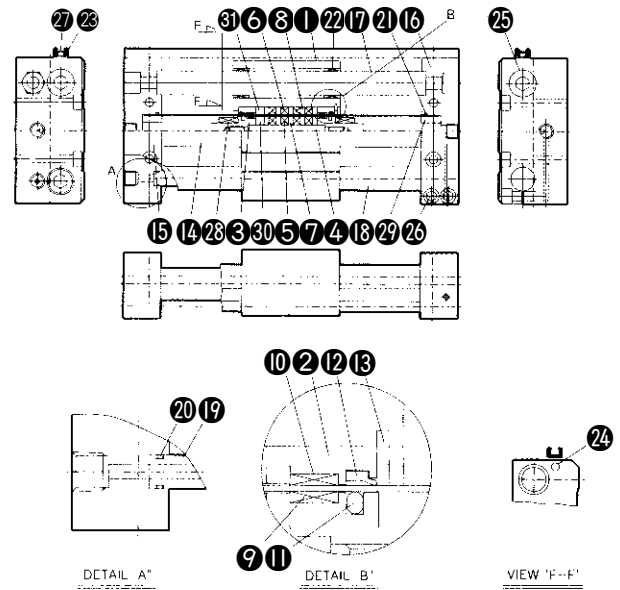
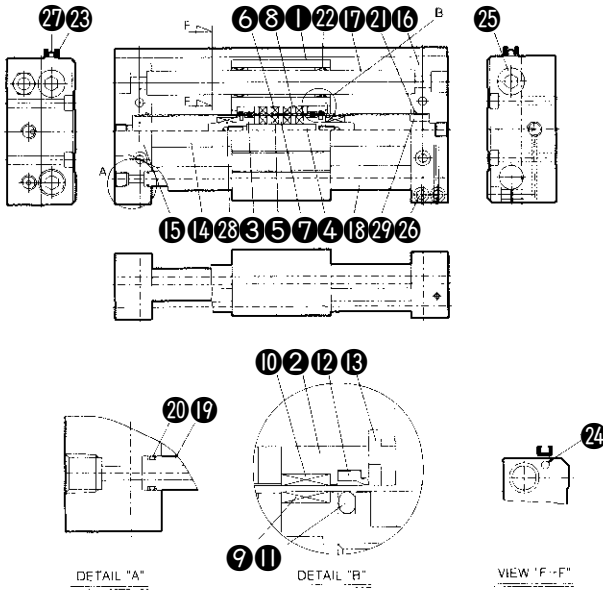
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# Series AMR

## Construction/Guide Type

AMRGH 20, 25, 32, 40

AMRGL 20, 25, 32, 40

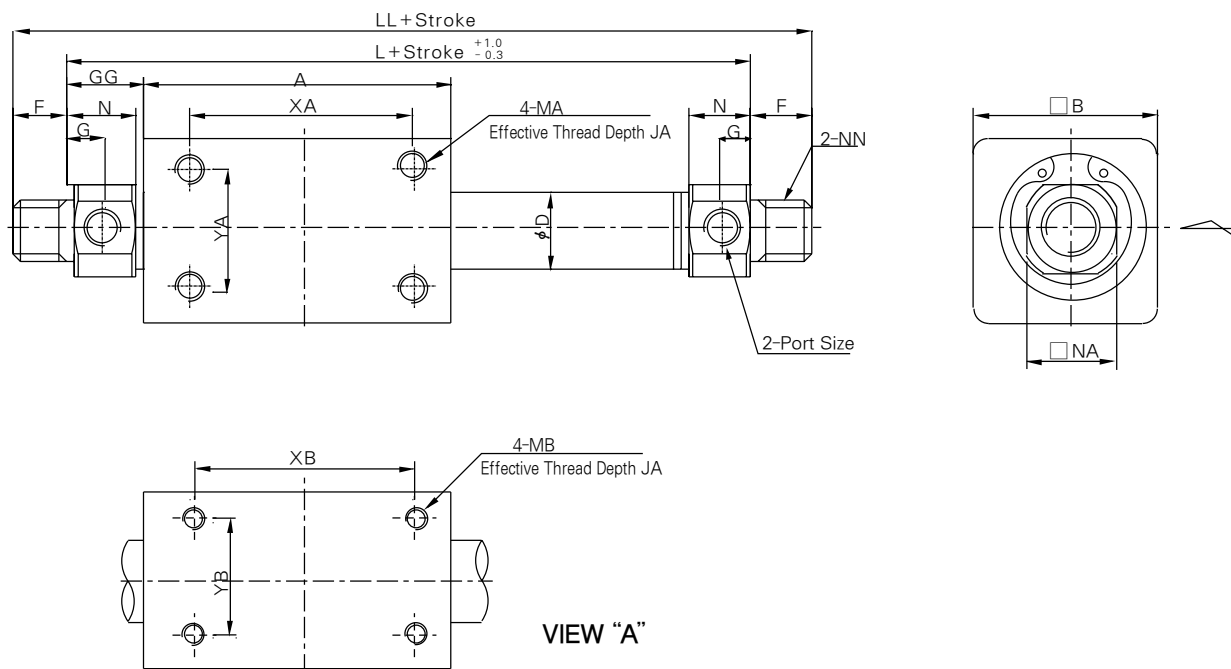


No.	Description	Material	Note
1	Slider	Aluminum alloy	
2	Holder	Aluminum alloy	
3	Piston	Aluminum alloy	
4	Shaft	Stainless steel	
5	Inner Magnet	-	
6	Outer Magnet	-	
7	Inner Yoke	Carbon Steel	
8	Outer Yoke	Carbon Steel	
9	Inner Wear Ring	Resin	
10	Outer Wear Ring	Resin	
11	Piston Packing	NBR	
12	Wiper Ring	NBR	
13	Snap Ring	Spring steel	
14	CylinderTube	Stainless steel	
15	End Cover A	Aluminum alloy	
16	End Cover B	Aluminum alloy	
17	Guide Rod A	Carbon Steel	
18	Guide Rod B	Carbon Steel	
19	Air Pipe	Carbon Steel	
20	Air Pipe O-Ring	NBR	
21	Cyl. Tube O-Ring	NBR	
22	Guide Bush	PBC3	
23	S/W Holder	Aluminum alloy	
24	S/W Magnet	-	
25	Guide Rod Bolt A	Carbon Steel	
26	Guide Rod Bolt B	Carbon Steel	
27	S/W Holder Bolt	Carbon Steel	
28	Bumper	Urethane	
29	Cushion Stopper	Aluminum alloy	

No.	Description	Material	Note
1	Slider	Aluminum alloy	
2	Holder	Aluminum alloy	
3	Piston	Aluminum alloy	
4	Shaft	Stainless steel	
5	Inner Magnet	-	
6	Outer Magnet	-	
7	Inner Yoke	Carbon Steel	
8	Outer Yoke	Carbon Steel	
9	Inner Wear Ring	Resin	
10	Outer Wear Ring	Resin	
11	Piston Packing	NBR	
12	Wiper Ring	NBR	
13	Snap Ring	Spring Steel	
14	CylinderTube	Stainless steel	
15	End Cover A	Aluminum alloy	
16	End Cover B	Aluminum alloy	
17	Guide Rod A	Carbon Steel	
18	Guide Rod B	Carbon Steel	
19	Air Pipe	Carbon Steel	
20	Air Pipe O-Ring	NBR	
21	Cyl. Tube Gasket	NBR	
22	Guide Bush	PBC3	
23	S/W Holder	Aluminum alloy	
24	S/W Magnet	-	
25	Guide Rod Bolt A	Carbon Steel	
26	Guide Rod Bolt B	Carbon Steel	
27	S/W Holder Bolt	Carbon Steel	
28	Bumper	Urethane	
29	Cushion Stopper	Aluminum alloy	
30	Inner Spacer	Aluminum alloy	
31	Outer Spacer	Aluminum alloy	

Dimensions / Basic Type

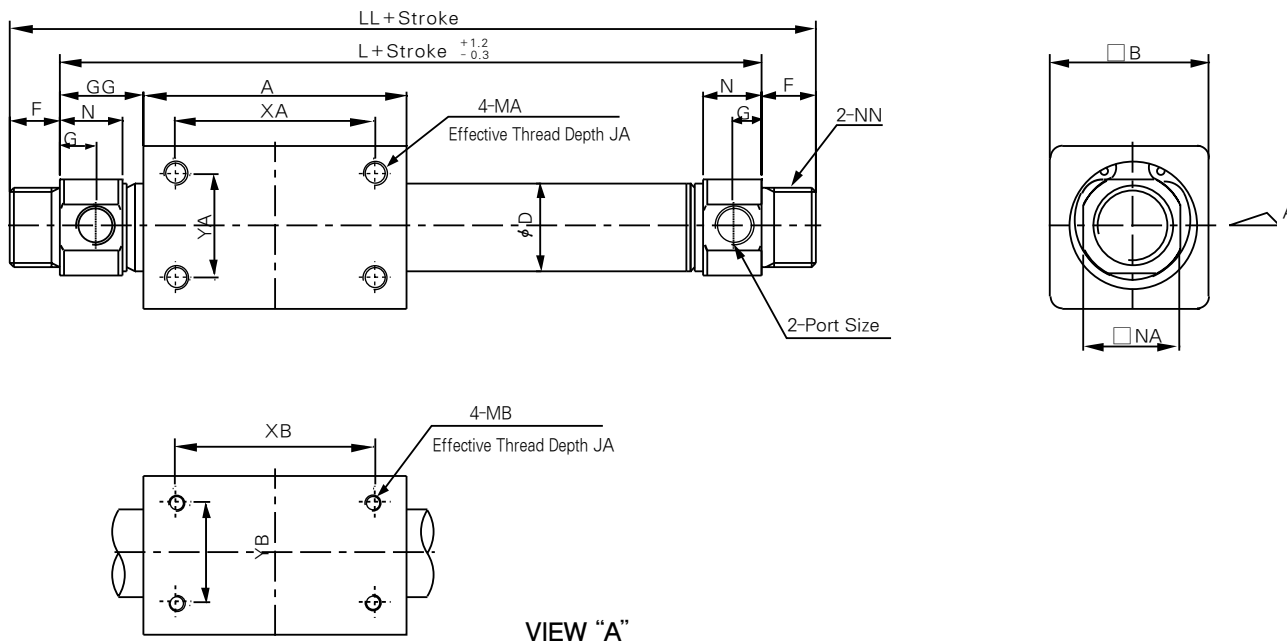
AMRB  $\phi$  10,  $\phi$  16



(mm)

Model	Stroke Range	Port Size	A	B	$\phi D$	F	G	GG	JA	JB	L	LL	MA	MB	N	NA	NN	XA	YA	XB	YB
AMRB*10	~300	M5×0.8	42	25	11	8	4.5	10.5	4.5	4.5	63	79	M4×0.7	M3×0.5	9	12	M8×1.0	30	16	30	16
AMRB*16	~300	M5×0.8	55	35	17.4	8	4.5	14	5.5	5.5	83	99	M5×0.8	M4×0.7	9	18	M10×1.0	35	20	35	19

AMRB  $\phi$  20,  $\phi$  25,  $\phi$  32,  $\phi$  40



(mm)

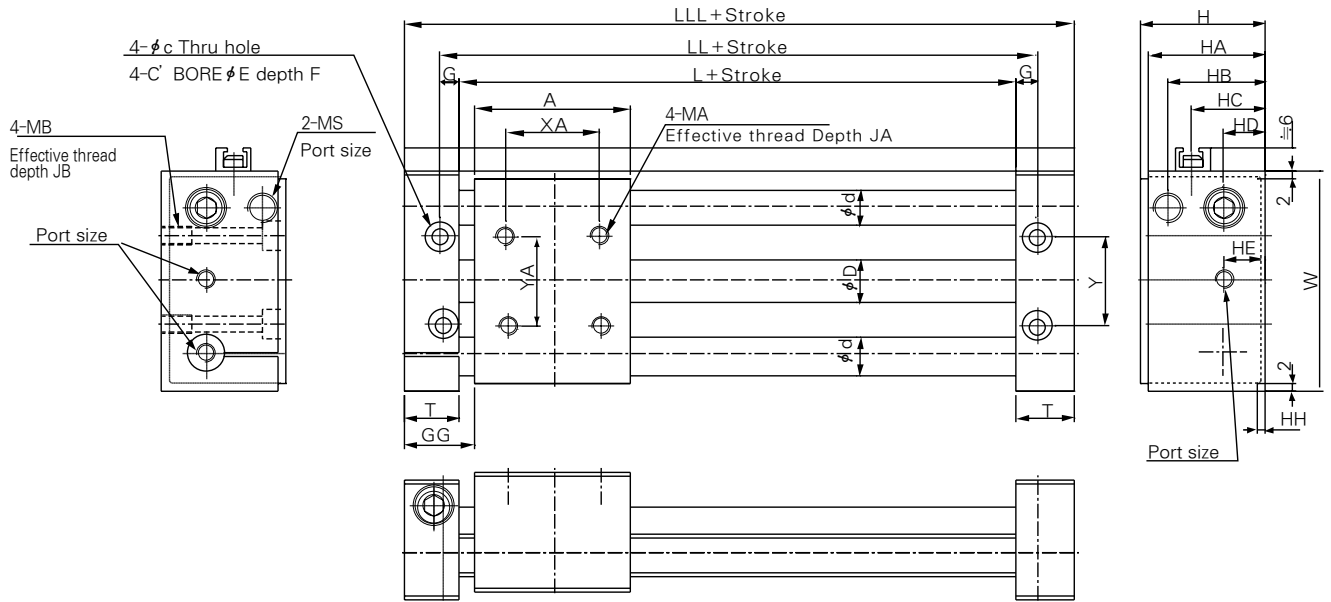
Model	Stroke Range	Port Size	A	B	$\phi D$	F	G	GG	JA	JB	L	LL	MA	MB	N	NA	NN	XA	YA	XB	YB
AMRB*20	~1,500	Rc 1/8	66	40	21.6	13	8	20	9	9	106	132	M6×1.0	M4×0.7	14.8	24	M20×1.5	50	26	50	25
AMRB*25	~1,500	Rc 1/8	75	50	26.6	13	8	18	9	9	111	137	M6×1.0	M5×0.8	14.8	30	M26×1.5	50	35	50	30
AMRB*32	~1,500	Rc 1/8	88	60	33.8	13	8	18	12	12	124	150	M8×1.25	M6×1.0	14.8	34.5	M26×1.5	60	40	50	40
AMRB*40	~1,500	Rc 1/4	91	70	42	16	11	29.5	11	11	150	182	M8×1.25	M6×1.0	21.3	42.5	M32×2.0	60	45	60	40

- ACP
- UACP
- AX
- AS
- AM
- AL
- ALX
- UARD
- UAQ
- AJ
- AG
- UAG
- ADM
- ADR
- AMR
- UAMR
- AST
- W~

# Series AMR

## Guide/ Slider Bearing Type

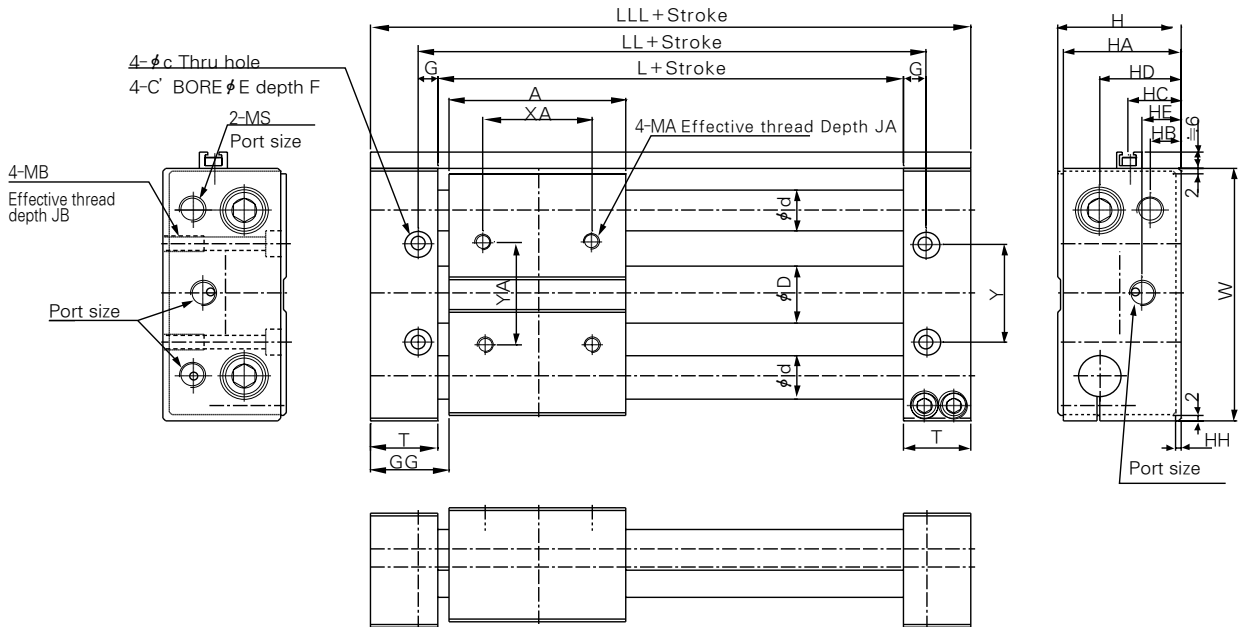
### AMRG $\phi 10, \phi 16$



(mm)

Model	Stroke Range	Port Size	A	$\phi C$	$\phi D$	$\phi d$	$\phi E$	F	GG	G	H	HA	HB	HC	HD	HE	HH	JA	JB	L	LL	LLL	MA	MB	MS	T	W	XA	Y	YA
AMRG*10	~500	M5×0.8	42	4.3	11	10	8	5	19	5	34	32	27	20	12	12	2	10	8	50	60	80	M5×0.8	M5×0.8	M8×1.0	15	60	25	24	25
AMRG*16	~700	M5×0.8	55	5.2	17.4	10	10	7	23	7	40	38	30	24	15	15	2	12	10	61	75	101	M5×0.8	M8×1.0	M8×1.0	20	75	30	30	30

### AMRG $\phi 20, \phi 25, \phi 32, \phi 40$



(mm)

Model	Stroke Range	Port Size	A	$\phi C$	$\phi D$	$\phi d$	$\phi E$	F	GG	G	H	HA	HB	HC	HD	HE	HH	JA	JB	L	LL	LLL	MA	MB	MS	T	W	XA	Y	YA
AMRG*20	~1,000	Rc 1/8	66	5.2	21.6	16	10	6	29	8	46	44	11	19	30	14.5	2	8	15	74	90	124	M6×1.0	M6×1.0	M10×1.0	25	98	40	38	40
AMRG*25	~1,500	Rc 1/8	74	6.8	26.6	16	11	7	25	8	54	52	15	23	34	18.5	2	8	16	74	90	124	M6×1.0	M8×1.25	M14×1.5	25	102	40	42	40
AMRG*32	~1,500	Rc 1/8	88	8.6	33.8	20	14	8.6	29	10	64	62	19.5	29.5	42.5	19	4	12	16	90	110	146	M8×1.25	M10×1.5	M20×1.5	28	122	50	50	50
AMRG*40	~1,500	Rc 1/4	91	8.6	42	25	14	8.6	34.5	10	74	72	20	34.5	47.5	20	4	12	14	100	120	160	M8×1.25	M10×1.5	M20×1.5	30	145	64	64	64

Specifications



Auto Switch Specifications

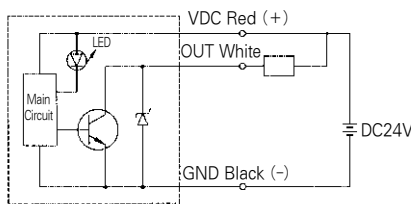
Auto Switch No.	W1H <input type="checkbox"/>	W13 <input type="checkbox"/>
Type	Solid State Switch	Reed Switch
Application	Relay, Sequence Control	
Wiring Method	3 Wire System	2 Wire System
Power Source	DC10~28V	—
Load Voltage	DC28V Less	DC24V, AC110V
Current Consumption	100mA Less	DC24V : 5~40mA AC110V : 5~20mA
Internal Voltage Drop	100mA~0.5V Less	40mA~2.4V Less
Leakage Current	DC24V~10μA Less	
Load Current	OFF: 5mA or Less ON : 35mA or Less	—

- Operating Time : Max. 1ms
- Lead Wire : Oil resistant vinyl cord.  $\phi$ 0.13, 0.2mm<sup>2</sup>, 3 cores(red white, black), cores(red, black), 0.5m
- Shock Resistance : 1000m/S<sup>2</sup> (102G)
- Insulation Resistance : 50M $\Omega$  or more under the test voltage 500V DC between case and cable.
- Withstand Voltage : 1000VAC for 1min.(between lead wire and case)
- Ambient Temperature : -10~60°C.
- Protection Structure : IEC Standard, water-tight and oil resistant structure

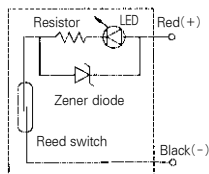
※ "L" is added to the end when the lead is 3m long.  
(ex) W1L

Auto Switch Internal Circuit

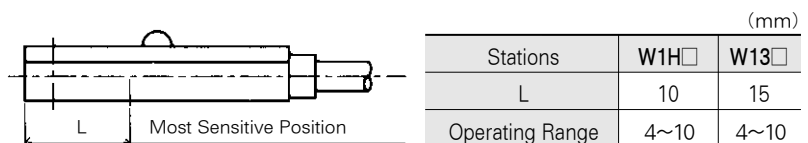
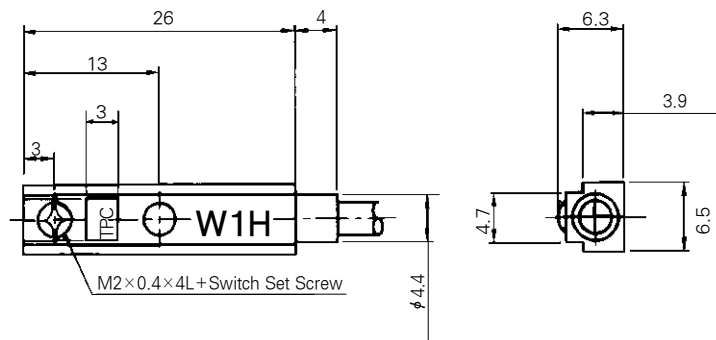
W1H



W13



Auto Switch Dimensions (mm)



ACP

UACP

AX

AS

AM

AL  
ALX

UARD

UAQ

AJ

AG

UAG

ADM

ADR

AMR

UAMR

AST

W~