

Magnet Type Rodless Cylinder

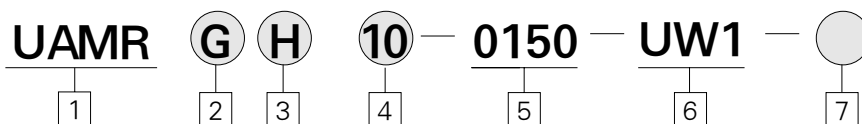
Series UAMR

Bore size mm(inch) : ϕ 10(0.39), ϕ 16(0.63), ϕ 20(0.79), ϕ 25(0.98), ϕ 32(1.26), ϕ 40(1.58)



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

How to Order



1 NPT Port Magnet Type Rodless Cylinder

2 Type of Bearing

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

3 Magnet Holding Power

(kgf)		
Dia	H	L
ϕ 10	5.5	-
ϕ 16	12	-
ϕ 20	24	15.7
ϕ 25	37	22.5
ϕ 32	60	36.5
ϕ 40	94	58

4 Bore Size (inch)

10: ϕ 10 (0.39)
16: ϕ 16 (0.63)
20: ϕ 20 (0.79)
25: ϕ 25 (0.98)
32: ϕ 32 (1.26)
40: ϕ 40 (1.58)

5 Hundreth of Stroke inch(mm)

BORE SIZE	UAMRB	UAMRG
ϕ 10(0.39)	0.5~12(10~300)	0.5~20(10~500)
ϕ 16(0.63)	0.5~12(10~300)	0.5~30(10~700)
ϕ 20(0.79)	0.5~60(10~1,500)	0.5~40(10~1,000)
ϕ 25(0.98)	0.5~60(10~1,500)	0.5~60(10~1,500)
ϕ 32(1.26)	0.5~78(10~2,000)	0.5~60(10~1,500)
ϕ 40(1.58)	0.5~78(10~2,000)	0.5~60(10~1,500)

6 Applicable Auto Switch (Series UW1□)

(UAMRG only)

Blank : Without Auto Switch

UW13 : Reed Switch Type

(DC24V, AC110V)

UW1H : Solid State Type(DC 24V)

Standard Auto Switch

Lead wire Length is 1m

3m Leads available on all models by adding "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/cm²

Fluid	Air	
Proof pressure	150PSI(1.0MPa)	
Max. Operating Pressure	100PSI(0.7MPa)	
Min. Operating Pressure	26PSI(0.2MPa)	
Ambient and Fluid Temperature	14~140°F(-10~60℃)	
Operating Piston Speed	5.9~16inch/sec (150~400mm/s)	
Lubrication	Non-lube	
Cushioning (Standard)	UAMRB10, UAMRB16	Rubber Cushion
	UAMRB20, UAMRB25	Air Cushion
	UAMRB32, UAMRB40	
	UAMRG10, UAMRG16, UAMRG20	Rubber Cushion
	UAMRG25, UAMRG32, UAMRG40	

ACP

UACP

AX

AS

AM

AL
ALX

UARD

UAQ

AJ

AG

UAG

ADM

ADR

AMR

UAMR

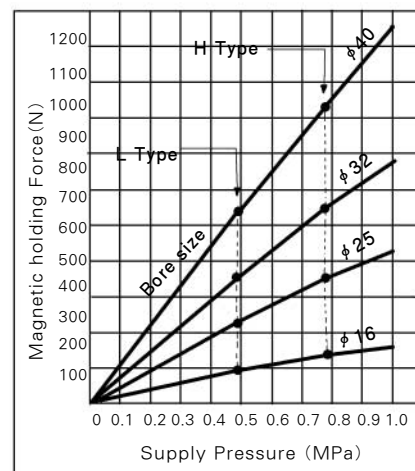
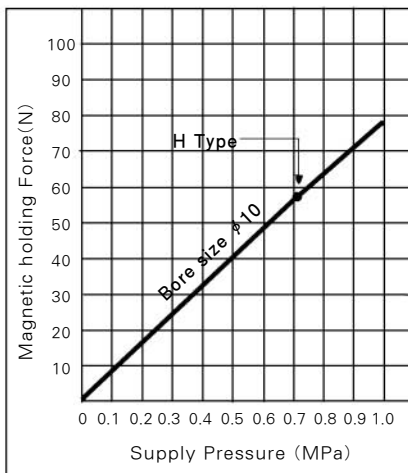
AST

W~

Cylinder Theoretical Output

φ 10(0.39)

φ 16(0.63), φ 20(0.79), φ 25(0.98),
φ 32(1.26), φ 40(1.58)



Weight Table

kg

Bore size		φ 10(0.39)	φ 16(0.79)	φ 25(0.98)	φ 32(1.26)	φ 40(1.58)
Basic weight	UAMRBH	0.08	0.28	0.71	1.34	2.15
	UAMRBL	0.22	0.62	1.19	1.97	3.1
Additional weight per 2" stroke		0.014	0.02	0.05	0.07	0.08

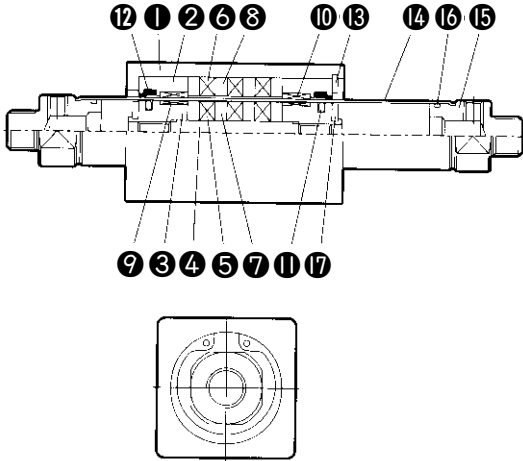
Calculation method/Example : UAMRBH32-0400

Basic weight1.34kg
 Additional weight 0.07/2" } 1.34+0.07×4÷2=1.48kg (×2.2=3.25lbs)
 Cylinder stroke...4"st

Series UAMR

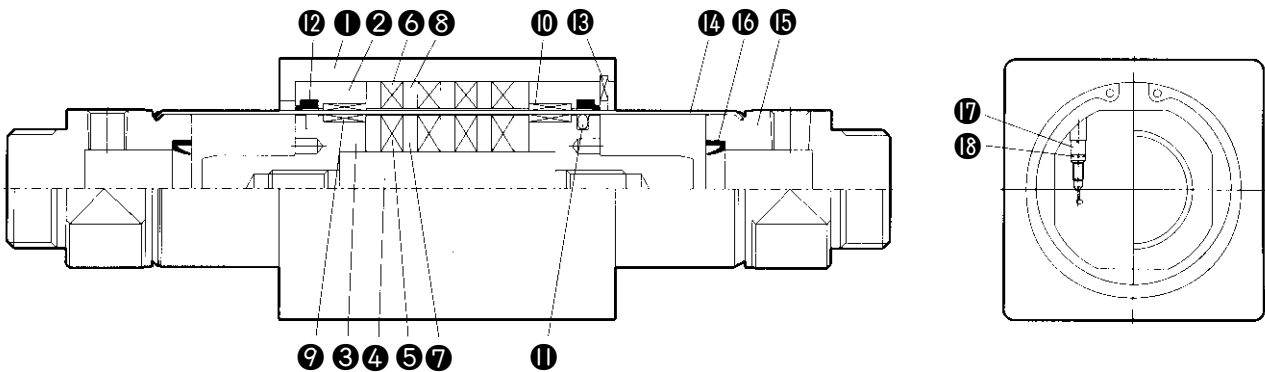
Basic Type: Construction/Parts List

UAMRBH ϕ 10(0.39), ϕ 16(0.63)



No.	Description	Material	Note
1	Slider	Aluminum Alloy	
2	Holder	Aluminum Alloy	
3	Piston	Aluminum Alloy	
4	Shaft	Stainless Steel	
5	Inner Magnet	Rare earth Magnet	
6	Outer Magnet	Rare earth 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	

UAMRBH ϕ 20(0.79), ϕ 25(0.98), ϕ 32(1.26) ϕ 40(1.58)

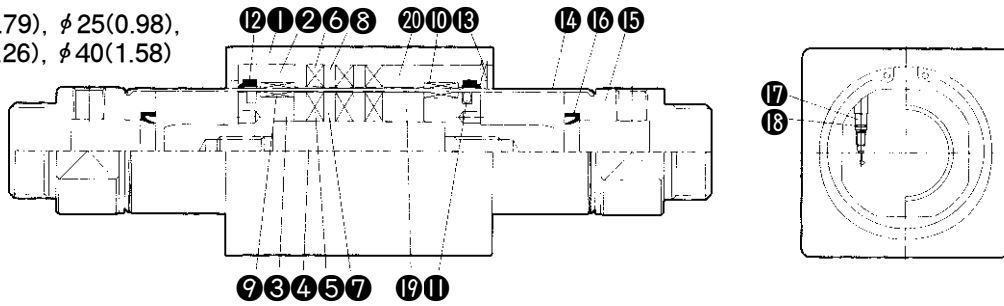


No.	Description	Material	Note
1	Slider	Aluminum Alloy	
2	Holder	Aluminum Alloy	
3	Piston	Aluminum Alloy	
4	Shaft	Stainless Steel	
5	Inner Magnet	Rare earth Magnet	
6	Outer Magnet	Rare earth Magnet	
7	Inner Yoke	Carbon Steel	
8	Outer Yoke	Carbon Steel	
9	Inner Wear Ring	Resin	
10	Outer Wear Ring	Resin	
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

UAMRBL ϕ 20(0.79), ϕ 25(0.98),
 ϕ 32(1.26), ϕ 40(1.58)

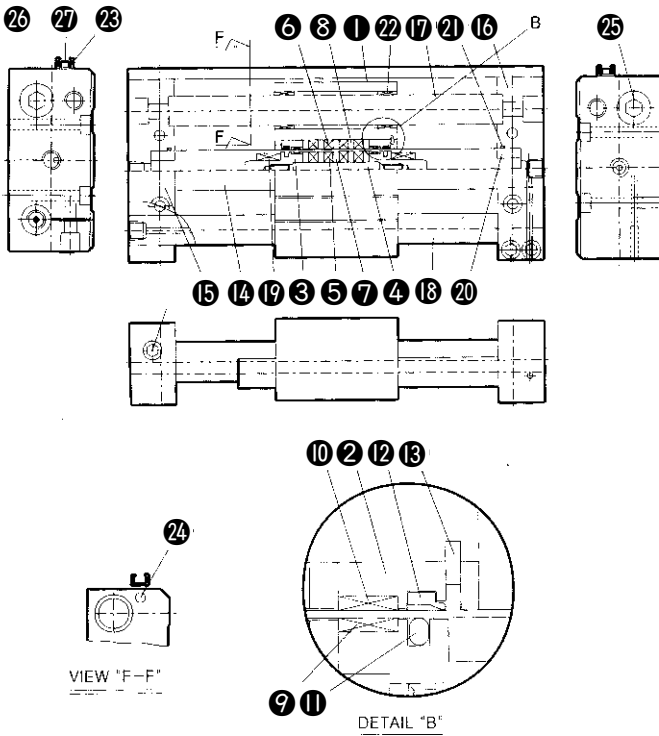


No.	Description	Material	Note
1	Slider	Aluminum Alloy	
2	Holder	Aluminum Alloy	
3	Piston	Aluminum Alloy	
4	Shaft	Stainless Steel	
5	Inner Magnet	Rare Earth Magnet	
6	Outer Magnet	Rare Earth Magnet	
7	Inner Yoke	Carbon Steel	
8	Outer Yoke	Carbon Steel	
9	Inner Wear Ring	Resin	
10	Outer Wear Ring	Resin	
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

UAMRGH ϕ 10(0.39), ϕ 16(0.63),



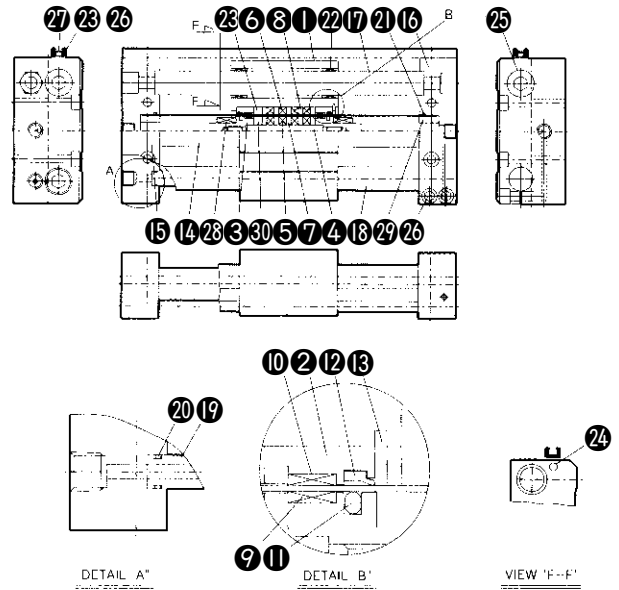
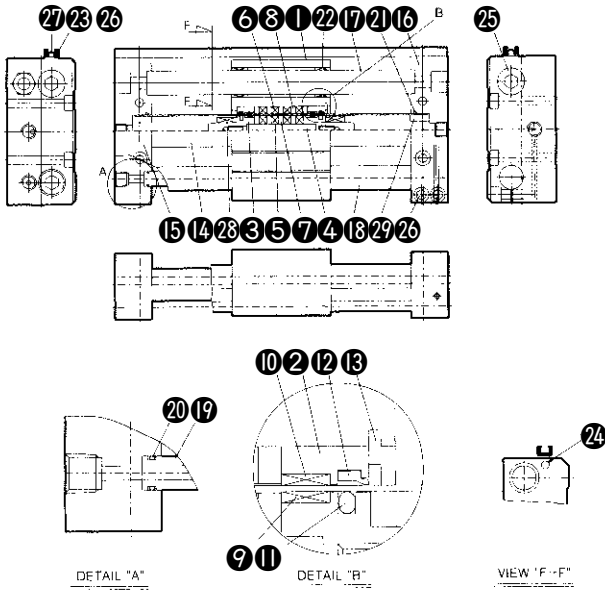
No.	Description	Material	Note
1	Slider	Aluminum Alloy	
2	Holder	Aluminum Alloy	
3	Piston	Aluminum Alloy	
4	Shaft	Stainless Steel	
5	Inner Magnet	Rare earth Magnet	
6	Outer Magnet	Rare earth Magnet	
7	Inner Yoke	Carbon Steel	
8	Outer Yoke	Carbon Steel	
9	Inner Wear Ring	Resin	
10	Outer Wear Ring	Resin	
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	Rare earth Magnet	
25	Guide Rod Bolt A	Carbon Steel	
26	Guide Rod Bolt B	Carbon Steel	
27	S/W Holder Bolt	Carbon Steel	

Series UAMR

Construction/Guide Type

UAMRGH ϕ 20(0.79), ϕ 25(0.98), ϕ 32(1.26), ϕ 40(1.58)

UAMRGL ϕ 20(0.79), ϕ 25(0.98), ϕ 32(1.26), ϕ 40(1.58)

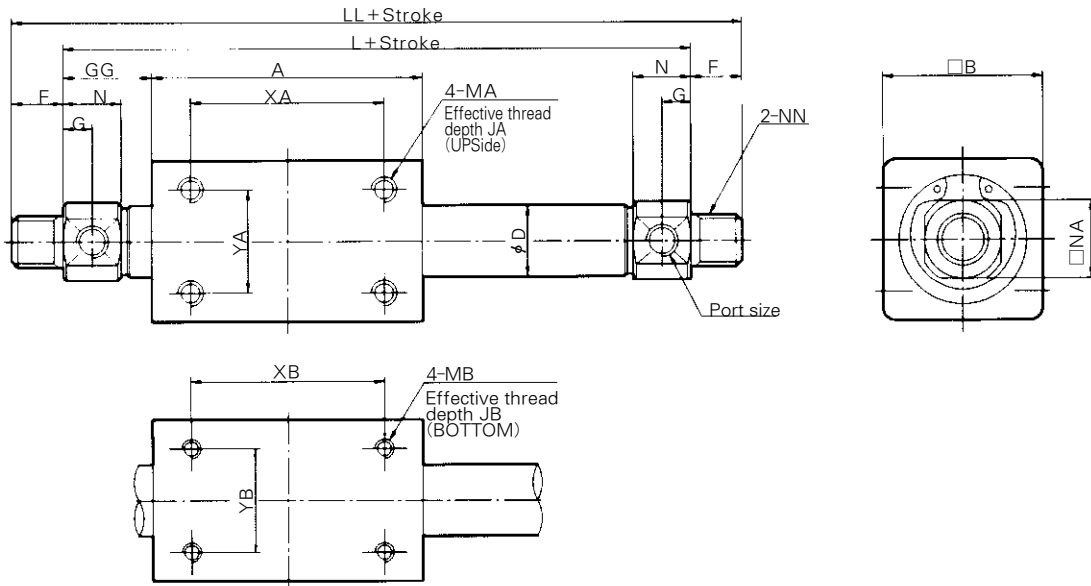


No.	Description	Material	Note
1	Slider	Aluminum Alloy	
2	Holder	Aluminum Alloy	
3	Piston	Aluminum Alloy	
4	Shaft	Stainless Steel	
5	Inner Magnet	Rare Earth Magnet	
6	Outer Magnet	Rare Earth Magnet	
7	Inner Yoke	Carbon Steel	
8	Outer Yoke	Carbon Steel	
9	Inner Wear Ring	Resin	
10	Outer Wear Ring	Resin	
11	Piston Packing	NBR	
12	Wiper Ring	NBR	
13	Snap Ring	Spring NBR	
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	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	Rare earth 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	Rare Earth Magnet	
6	Outer Magnet	Rare Earth 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	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	Rare Earth 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	

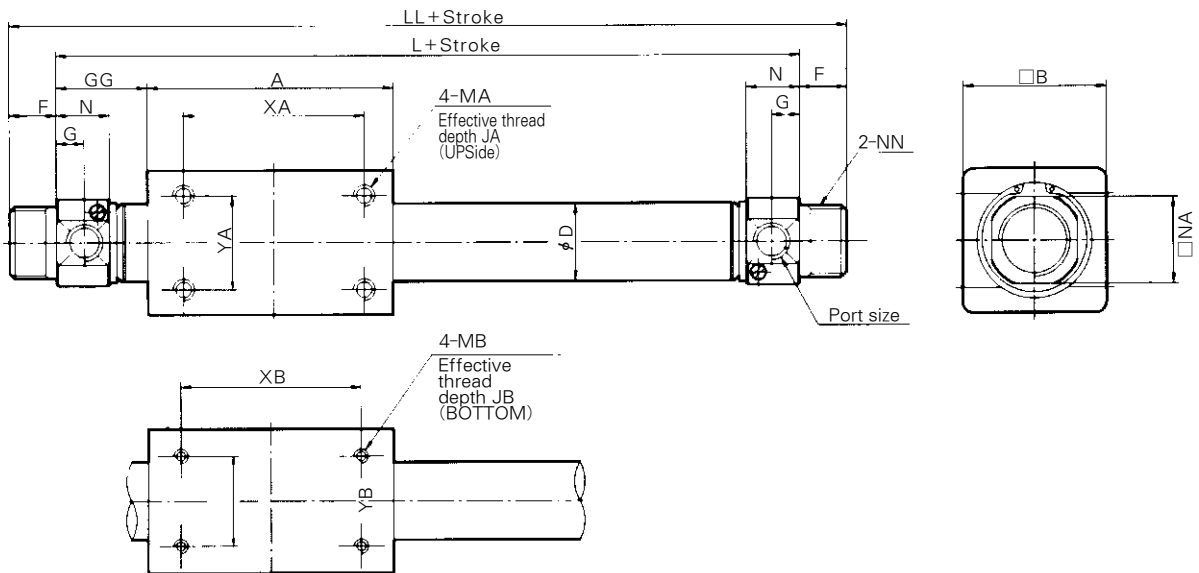
Dimensions / Basic Type

UAMRBH ϕ 10(0.39), ϕ 16(0.63)



(inch)																					
Model	Stroke range	Port size	A	B	ϕ D	F	G	GG	JA	JB	L	LL	MA	MB	N	NA	NN	XA	YA	XB	YB
UAMRBH10	12inch	No.10-32UNF	1.65	0.98	0.43	0.31	0.18	0.41	0.18	0.18	2.48	3.11	8-32UNC	5-40UNC	0.35	0.47	5/16-24UNF	1.18	0.63	1.18	0.63
UAMRBH16	12inch	No.10-32UNF	2.17	1.38	0.69	0.31	0.18	0.55	0.22	0.22	3.27	3.90	10-32UNF	8-32UNC	0.35	0.71	3/8-24UNF	1.38	0.79	1.38	0.75

UAMRB□: ϕ 20(0.79), ϕ 25(0.98), ϕ 32(1.26), ϕ 40(1.58)



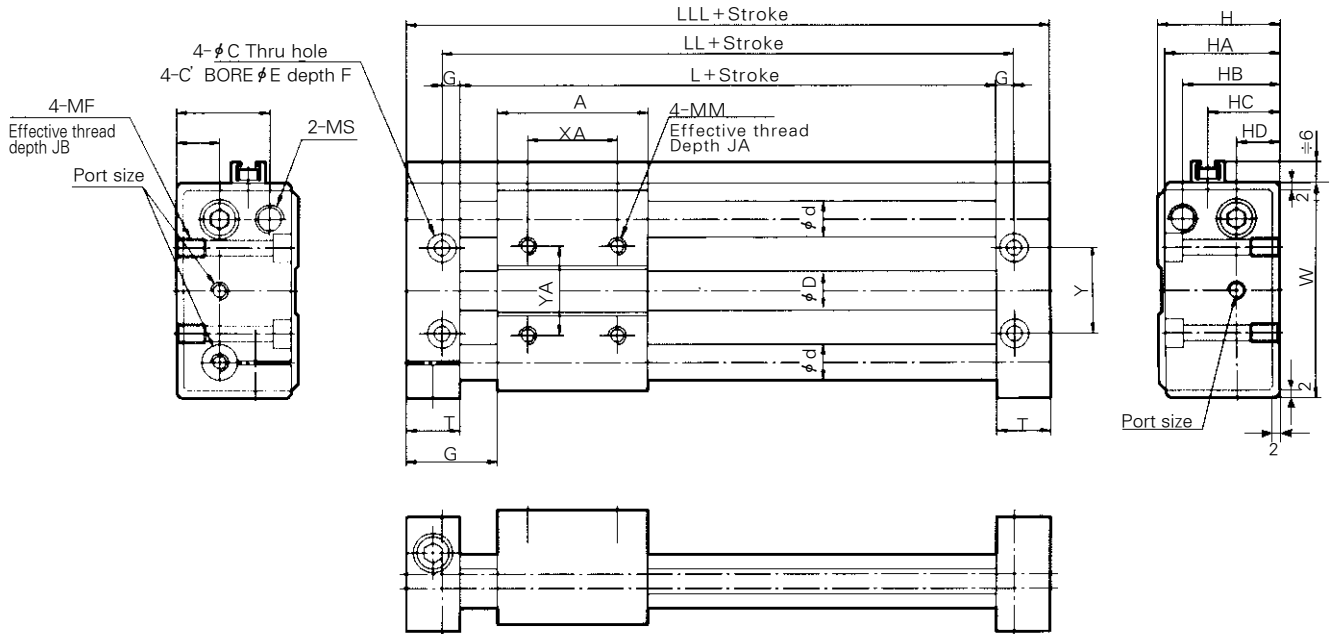
(inch)																					
Model	Stroke range	Port size	A	B	ϕ D	F	G	GG	JA	JB	L	LL	MA	MB	N	NA	NN	XA	YA	XB	YB
UAMRB□20	0.5~60inch	NPT 1/8	2.60	1.57	0.85	0.51	0.31	0.64	0.35	0.35	4.17	5.20	1/4-28UNF	8-32UNC	0.58	0.94	3/4-16UNF	1.97	1.02	1.97	0.98
UAMRB□25	0.5~60inch	NPT 1/8	2.95	1.97	1.05	0.51	0.31	0.60	0.35	0.35	4.37	5.40	1/4-28UNF	10-32UNF	0.58	1.18	1-12UNF	1.97	1.38	1.97	1.18
UAMRB□32	0.5~60inch	NPT 1/8	3.46	2.36	1.33	0.51	0.31	0.61	0.47	0.47	4.88	5.90	5/16-24UNF	1/4-28UNF	0.58	1.36	1-12UNF	2.36	1.57	1.97	1.57
UAMRB□40	0.5~60inch	NPT 1/4	3.58	2.76	1.65	0.63	0.43	1.06	0.43	0.43	5.90	7.17	5/16-24UNF	1/4-28UNF	0.84	1.67	1 1/4-12UNF	2.36	1.77	2.36	1.57

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

Series UAMR

Dimensions / Slider Type

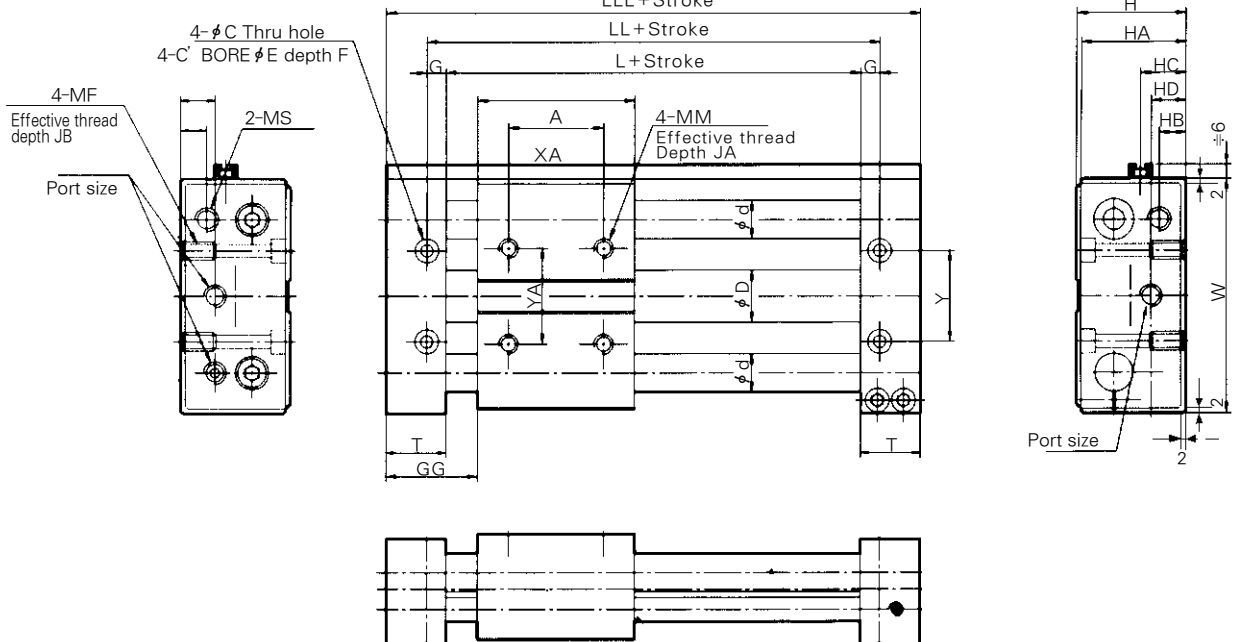
UAMRGH ϕ 10(0.39), ϕ 16(0.63)



(inch)

Model	Stroke range	Port size	A	ϕ C	ϕ D	ϕ d	ϕ E	F	GG	G	H	HA	HB	HC	HD	JA	JB	L	LL	LLL	MM	MF	MS	T	W	XA	Y	YA
UAMRGH10	0.5~20inch	10-32UNF	1.65	0.17	0.43	0.39	0.31	0.20	0.74	0.20	1.34	1.26	1.06	0.79	0.47	0.39	0.31	1.97	2.36	3.15	10-32UNF	10-32UNF	5/16-24UNF	0.59	2.36	0.98	0.94	0.98
UAMRGH16	0.5~20inch	10-32UNF	2.17	0.20	0.69	0.39	0.39	0.28	0.90	0.28	1.57	1.50	1.18	0.94	0.51	0.47	0.39	2.40	2.95	3.98	1/4-28UNF	1/4-28UNF	5/16-24UNF	0.79	2.95	1.18	1.18	1.18

UAMRG□: ϕ 20(0.79), ϕ 25(0.98), ϕ 32(1.26), ϕ 40(1.58)



(inch)

Model	Stroke range	Port size	A	ϕ C	ϕ D	ϕ d	ϕ E	GG	F	G	H	HA	HB	HC	HD	JA	JB	L	LL	LLL	MM	MF	MS	T	W	XA	Y	YA
UAMRG□20	0.5~40inch	NPT 1/8	2.60	0.20	0.85	0.63	0.39	1.14	0.24	0.31	1.81	1.73	0.43	0.75	0.31	0.59	2.91	3.54	4.88	1/4-28UNF	1/4-28UNF	3/8-24UNF	0.98	3.86	1.57	1.50	1.57	
UAMRG□25	0.5~60inch	NPT 1/8	2.91	0.27	1.05	0.63	0.43	0.98	0.28	0.31	2.12	2.05	1.59	0.91	0.73	0.31	0.63	2.91	3.54	4.88	1/4-28UNF	5/16-24UNF	9/16-18UNF	0.98	4.02	1.57	1.65	1.57
UAMRG□32	0.5~60inch	NPT 1/8	3.46	0.34	1.33	0.79	0.55	1.14	0.34	0.39	2.52	2.44	0.77	1.16	0.75	0.47	0.63	3.54	4.33	5.75	5/16-24UNF	3/8-24UNF	3/4-16UNF	1.10	4.80	1.97	1.97	1.97
UAMRG□40	0.5~60inch	NPT 1/4	3.58	0.34	1.65	0.98	0.55	1.36	0.34	0.39	2.91	2.83	0.79	1.36	0.79	0.47	0.55	3.94	4.72	6.30	5/16-24UNF	3/8-24UNF	3/4-16UNF	1.18	4.72	2.52	2.52	2.52

Specifications



Auto Switch Specifications

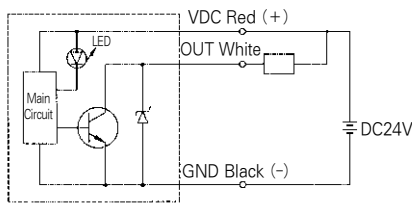
Auto Switch No.	UW1H <input type="checkbox"/>	UW13 <input type="checkbox"/>
Type	Solid State Switch	Reed Switch
Application	Relay, Sequence Control	
Wiring Method	3 Wire System	2 Wire System
Power Source	DC10~28V	—
Load Voltage	DC28V Less	DC24V, AC120V
Current Consumption	100mA Less	DC24V : 5~40mA AC120V : 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. ϕ 0.13, 0.2mm², 3 cores(red white, black), cores(red, black), 0.5m(18inch)
- Shock Resistance : 1000m/S² (102G)
- Insulation Resistance : 50M Ω 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.(14~140°F)
- Protection Structure : IEC Standard, water-tight and oil resistant.

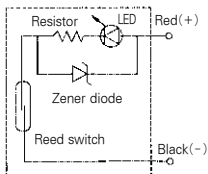
※ "L" is added to the end when the lead is 3m long.
(ex) UW1 L

Auto Switch Internal Circuit

UW1H

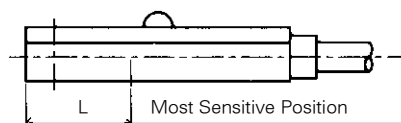
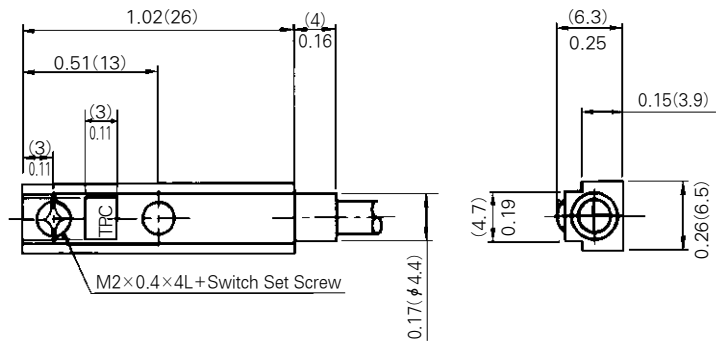


UW13



Auto Switch Dimensions

inch(mm)



Stations	UW1H <input type="checkbox"/>	UW13 <input type="checkbox"/>
L	0.39(10)	0.59(15)
Operating Range	0.16~0.39(4~10)	0.16~0.39(4~10)

ACP

UACP

AX

AS

AM

AL
ALX

UARD

UAQ

AJ

AG

UAG

ADM

ADR

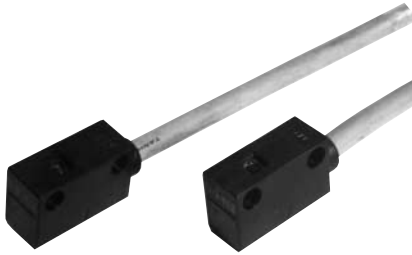
AMR

UAMR

AST

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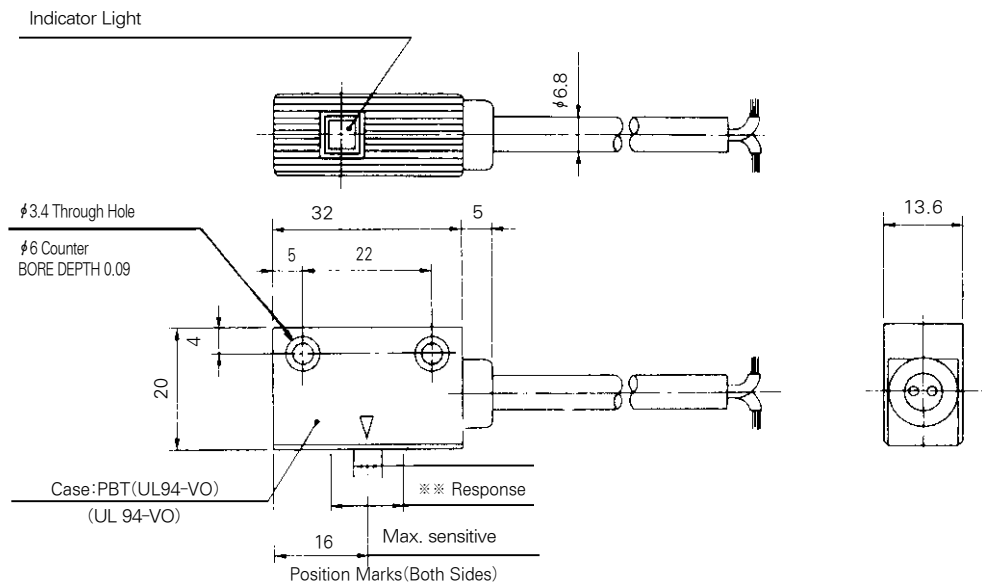
Automatic Reed Switch / Intense-Magnetism-Resistant Type / Series W6/W7



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		
Protective Construction	IEC Standard IP67		
Pilot Lamp	OFF Lighting (Red LED)	ON Lighting (Red LED)	
Current Leakage	MAX. 1.8mA	0	
Ambient Temperature Range	-10~60℃		
Insulation Resistance	50MΩ/500V DC		
Application	Relay, Sequence Controller		

Auto Switch Dimensions (mm)



Operation Range (Dimension)

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

Products Series Index

ITEM	PAGE
A	
Series ACP Double Acting/Single Rod	A-3
Series ACPS Single Acting/Spring Return, Spring Extended	A-13
Series ACPW Double Acting/Double Rod	A-9
Series ADM Direct Mount Cylinder/Standard Type:Double Acting	A-246
Series ADMK Direct Mount Cylinder/Double Acting/Non-Rotating Rod/Single Rod	A-252
Series ADMKW Direct Mount Cylinder/Double Acting/Non-Rotating Piston Double Rod	A-255
Series ADMW Direct Mount Cylinder/Double Acting Double Rod	A-249
Series ADR Double Rod Cylinder	A-259
Series AG Compact Guide Cylinder	A-221
Series AGX/GX Guide Cylinder/Guide Unit	A-231
Series AJ Clamp Cylinder/Double Acting	A-213
Series AJM Clamp Cylinder/With Intense-Magnetism Resistant Auto Switch	A-218
Series AL/ALX Air Cylinder	A-146
Series ALW/ALXW Air Cylinder	A-160
Series AM Air Cylinder/Double Acting	A-126
Series AMK Non-Rotating Piston Rod Type	A-135
Series AMR Magnet Type Rodless Cylinder	A-268
Series AMW Double Rod End Type	A-137
Series AS Double Acting, Single Acting:Single Rod	A-108
Series ASK Non-Rotating Rod Type/Double Acting, Single Acting	A-119
Series AST Stopper Cylinder	A-284
Series ASW Double Rod Type/Double Acting	A-117
Series AX Double Acting/Single Rod	A-39
Series AXK Non-Rotating Piston Rod Type/Double Acting/Single Rod	A-81
Series AXKS Non-Rotating Piston Rod Type/Single Acting:Spring Return, Spring Extended	A-89
Series AXR Direct Mounting Cylinder/Double Acting Single Rod	A-98
Series AXRK Non-Rotating Piston Rod Direct Mounting Type	A-104
Series AXS Single Acting/Spring Return, Spring Extended	A-68
Series AXW Double Acting/Double Rod	A-60
U	
Series UACP Double Acting/Single Rod	A-21
Series UACPS Single Acting/Spring Return, Spring Extended	A-31
Series UACPW Double Acting/Double Rod	A-27
Series UADQ With Auto Switch/Double Acting, Single Acting Type	A-188
Series UADQCP Compact Cylinder for Intense-Magnetism Resistant	A-206
Series UAG Compact Guide Cylinder	A-236
Series UAMR Magnet Type Rodless Cylinder	A-276
Series UAQ Compact Cylinder/Double Acting, Single Acting Type	A-170
Series UARD Round Cylinder	A-166
W	
W1H, W13	A-301
W2	A-302
W3	A-303
W4	A-304
W5	A-305
W6/W7	A-306