Magnet Type Rodless Cylinder

Series UAMR

Bore size mm(inch) : ϕ10(0.39), ϕ16(0.63), ϕ20(0.79), ϕ25(0.98), ϕ32(1.26), ϕ40(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

UAMR (1) G (2) H (3) 10 (4) — 0150 (5) — UW1 (6) — ○ (7)

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
ϕ10	5.5	-
ϕ16	12	-
ϕ20	24	15.7
ϕ25	37	22.5
ϕ32	60	36.5
ϕ40	94	58

4 Bore Size (inch)
- 10: ϕ10 (0.39)
- 16: ϕ16 (0.63)
- 20: ϕ20 (0.79)
- 25: ϕ25 (0.98)
- 32: ϕ32 (1.26)
- 40: ϕ40 (1.58)

5 Hundreth of Stroke inch(mm)

BORE SIZE	UAMRB	UAMRG
ϕ10(0.39)	0.5~12(10~300)	0.5~20(10~500)
ϕ16(0.63)	0.5~12(10~300)	0.5~30(10~700)
ϕ20(0.79)	0.5~60(10~1,500)	0.5~40(10~1,000)
ϕ25(0.98)	0.5~60(10~1,500)	0.5~60(10~1,500)
ϕ32(1.26)	0.5~78(10~2,000)	0.5~60(10~1,500)
ϕ40(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.

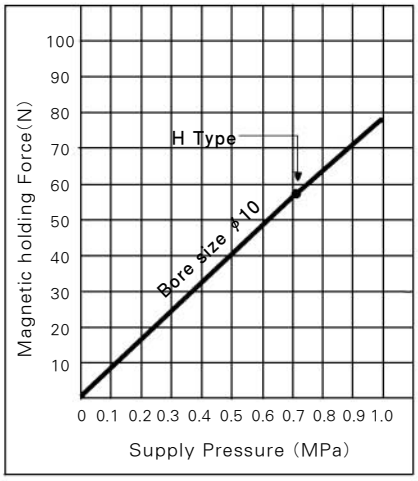
Specifications

1MPa=10.1972kgf/cm²

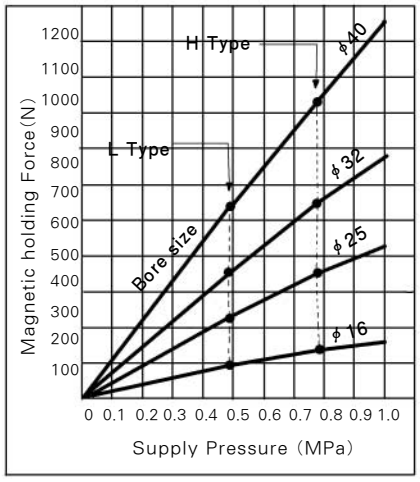
Fluid	Air	
Proof pressure	150PSI(1.0MPa)	
Max. Operating Pressure	100PSI(0.7MPa)	
Min. Operating Pressure	26PSI(0.2MPa)	
Ambient and Fluid Temperature	14~140℉(-10~60℃)	
Operating Piston Speed	5.9~16inch/sec (150~400mm/s)	
Lubrication	Non-lube	
Cushioning (Standard)	UAMRB10, UAMRB16	Rubber Cushion
	UAMRB20,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

Cylinder Theoretical Output

ϕ10(0.39)



ϕ16(0.63), ϕ20(0.79), ϕ25(0.98), ϕ32(1.26), ϕ40(1.58)



Weight Table

kg

Bore size		ϕ10(0.39)	ϕ16(0.79)	ϕ25(0.98)	ϕ32(1.26)	ϕ40(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

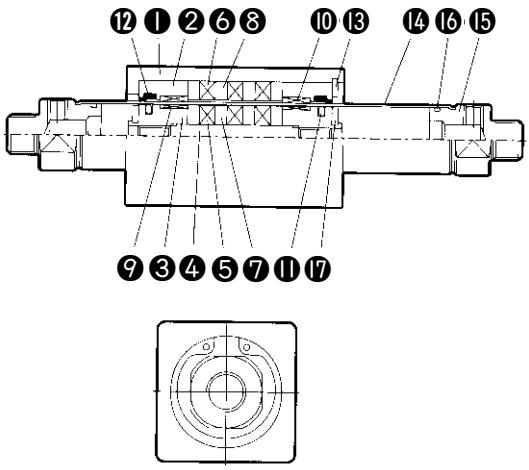
Basic weight ·····1.34kg
Additional weight 0.07/2″
Cylinder stroke···4″st

} 1.34+0.07×4÷2=1.48kg (×2.2=3.25lbs)

TPC PNEUMATICS

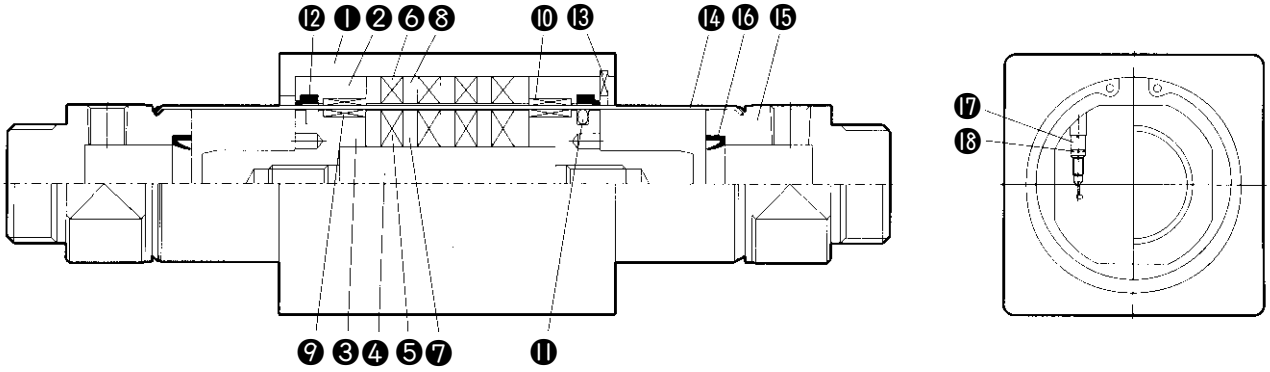
Basic Type:Construction/Parts List

UAMRBH φ10(0.39), φ16(0.63)



No.	Description	Material	Note
❶	Slider	Aluminum Alloy	
❷	Holder	Aluminum Alloy	
❸	Piston	Aluminum Alloy	
❹	Shaft	Stainless Steel	
❺	Inner Magnet	Rare earth Magnet	
❻	Outer Magnet	Rare earth Magnet	
❼	Inner Yoke	Carbon Steel	
❽	Outer Yoke	Carbon Steel	
❾	Inner Wear Ring	Resin	
❿	Outer Wear Ring	Resin	
⓫	Piston Packing	NBR	
⓬	Wiper Ring	NBR	
⓭	Snap Ring	Spring	
⓮	Cylinder Tube	Stainless Steel	
⓯	End Cover	Aluminum Alloy	
⓰	Tube Gasket	NBR	
⓱	Bumper	Urethane	

UAMRBH φ20(0.79), φ25(0.98), φ32,(0.26) φ40(1.58)

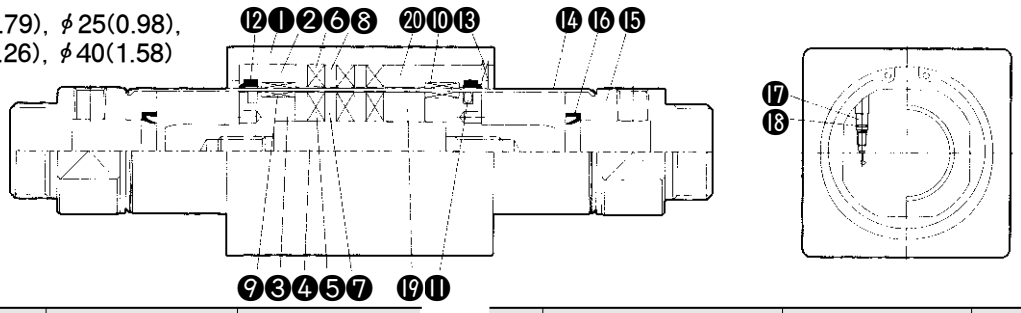


No.	Description	Material	Note
❶	Slider	Aluminum Alloy	
❷	Holder	Aluminum Alloy	
❸	Piston	Aluminum Alloy	
❹	Shaft	Stainless Steel	
❺	Inner Magnet	Rare earth Magnet	
❻	Outer Magnet	Rare earth Magnet	
❼	Inner Yoke	Carbon Steel	
❽	Outer Yoke	Carbon Steel	
❾	Inner Wear Ring	Resin	
❿	Outer Wear Ring	Resin	
⓫	Piston Packing	NBR	
⓬	Wiper Ring	NBR	

No.	Description	Material	Note
⓭	Snap Ring	Spring Steel	
⓮	Cylinder Tube	Stainless Steel	
⓯	End Cover	Aluminum Alloy	
⓰	Cushion Packing	NBR	
⓱	Cushion Valve	Carbon Steel	
⓲	Cushion Valve O-Ring	NBR	

Basic Type : Construction/Parts List

UAMRBL ϕ20(0.79), ϕ25(0.98),
ϕ32(1.26), ϕ40(1.58)

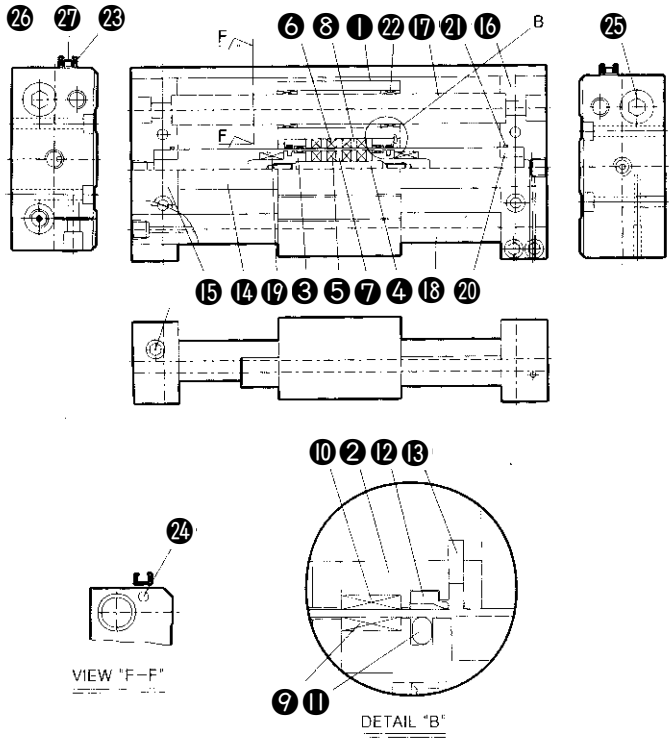


No.	Description	Material	Note
❶	Slider	Aluminum Alloy	
❷	Holder	Aluminum Alloy	
❸	Piston	Aluminum Alloy	
❹	Shaft	Stainless Steel	
❺	Inner Magnet	Rare Earth Magnet	
❻	Outer Magnet	Rare Earth Magnet	
❼	Inner Yoke	Carbon Steel	
❽	Outer Yoke	Carbon Steel	
❾	Inner Wear Ring	Resin	
❿	Outer Wear Ring	Resin	
⓫	Piston Packing	NBR	
⓬	Wiper Ring	NBR	

No.	Description	Material	Note
⓭	Snap Ring	Spring Steel	
⓮	Cylinder Tube	Stainless Steel	
⓯	End Cover	Aluminum Alloy	
⓰	Cushion Packing	NBR	
⓱	Cushion Valve	Carbon Steel	
⓲	Cushion Valve O-Ring	NBR	
⓳	Inner Spacer	Aluminum Alloy	
⓴	Outer Spacer	Aluminum Alloy	

Guide Type : Construction/Part List

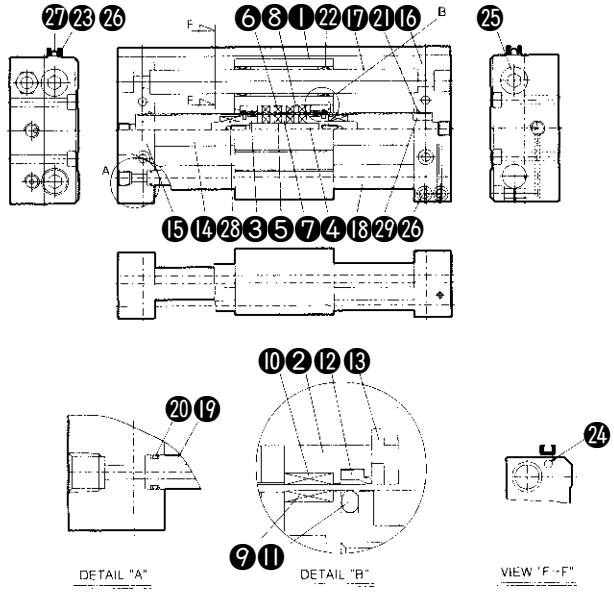
UAMRGH ϕ10(0.39), ϕ16(0.63),



No.	Description	Material	Note
❶	Slider	Aluminum Alloy	
❷	Holder	Aluminum Alloy	
❸	Piston	Aluminum Alloy	
❹	Shaft	Stainless Steel	
❺	Inner Magnet	Rare earth Magnet	
❻	Outer Magnet	Rare earth Magnet	
❼	Inner Yoke	Carbon Steel	
❽	Outer Yoke	Carbon Steel	
❾	Inner Wear Ring	Resin	
❿	Outer Wear Ring	Resin	
⓫	Piston Packing	NBR	
⓬	Wiper Ring	NBR	
⓭	Snap Ring	Spring Steel	
⓮	Cylinder Tube	Stainless Steel	
⓯	End Cover A	Aluminum Alloy	
⓰	End Cover B	Aluminum Alloy	
⓱	Guide Rod A	Carbon Steel	
⓲	Guide Rod B	Carbon Steel	
⓳	Bumper	Urethane	
⓴	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	

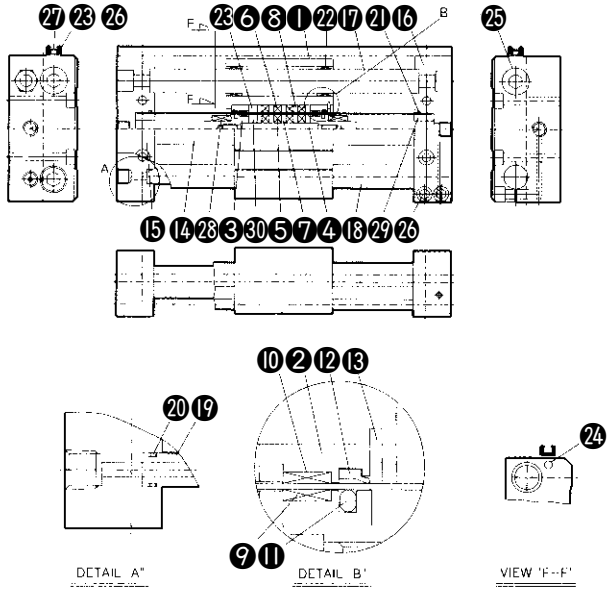
Construction/Guide Type

UAMRGH ϕ20(0.79), ϕ25(0.98), ϕ32(1.26), ϕ40(1.58)



No.	Description	Material	Note
❶	Slider	Aluminum Alloy	
❷	Holder	Aluminum Alloy	
❸	Piston	Aluminum Alloy	
❹	Shaft	Stainless Steel	
❺	Inner Magnet	Rare Earth Magnet	
❻	Outer Magnet	Rare Earth Magnet	
❼	Inner Yoke	Carbon Steel	
❽	Outer Yoke	Carbon Steel	
❾	Inner Wear Ring	Resin	
❿	Outer Wear Ring	Resin	
⓫	Piston Packing	NBR	
⓬	Wiper Ring	NBR	
⓭	Snap Ring	Spring NBR	
⓮	Cylinder Tube	Stainless Steel	
⓯	End Cover A	Aluminum Alloy	
⓰	End Cover B	Aluminum Alloy	
⓱	Guide Rod A	Carbon Steel	
⓲	Guide Rod B	Carbon Steel	
⓳	Air Pipe	Carbon Steel	
⓴	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	

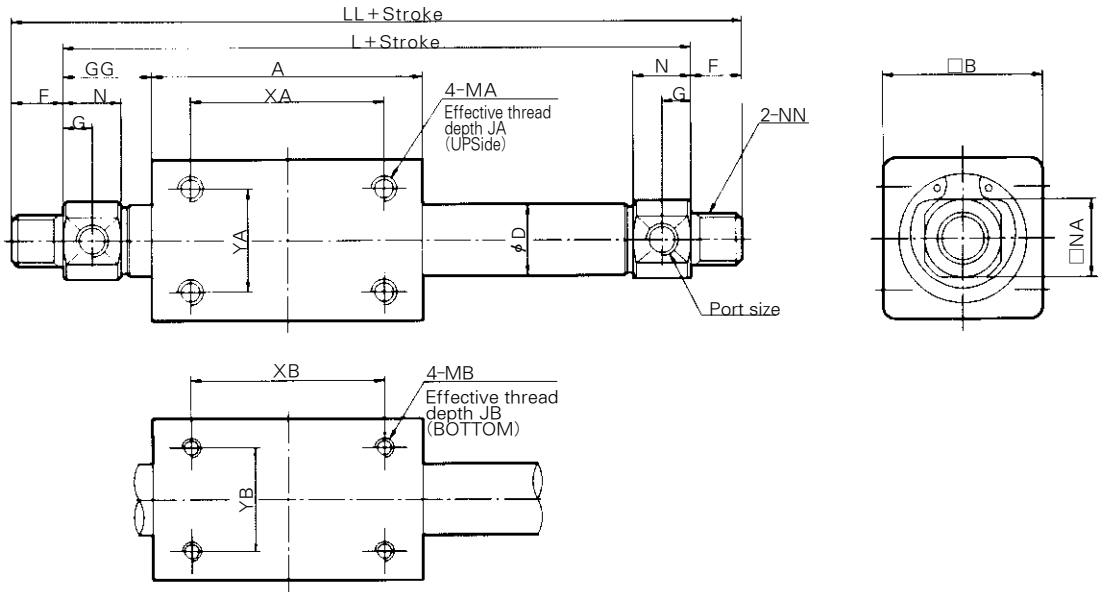
UAMRGL ϕ20(0.79), ϕ25(0.98), ϕ32(1.26), ϕ40(1.58)



No.	Description	Material	Note
❶	Slider	Aluminum Alloy	
❷	Holder	Aluminum Alloy	
❸	Piston	Aluminum Alloy	
❹	Shaft	Stainless Steel	
❺	Inner Magnet	Rare Earth Magnet	
❻	Outer Magnet	Rare Earth Magnet	
❼	Inner Yoke	Carbon Steel	
❽	Outer Yoke	Carbon Steel	
❾	Inner Wear Ring	Resin	
❿	Outer Wear Ring	Resin	
⓫	Piston Packing	NBR	
⓬	Wiper Ring	NBR	
⓭	Snap Ring	Spring Steel	
⓮	Cylinder Tube	Stainless Steel	
⓯	End Cover A	Aluminum Alloy	
⓰	End Cover B	Aluminum Alloy	
⓱	Guide Rod A	Carbon Steel	
⓲	Guide Rod B	Carbon Steel	
⓳	Air Pipe	Carbon Steel	
⓴	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

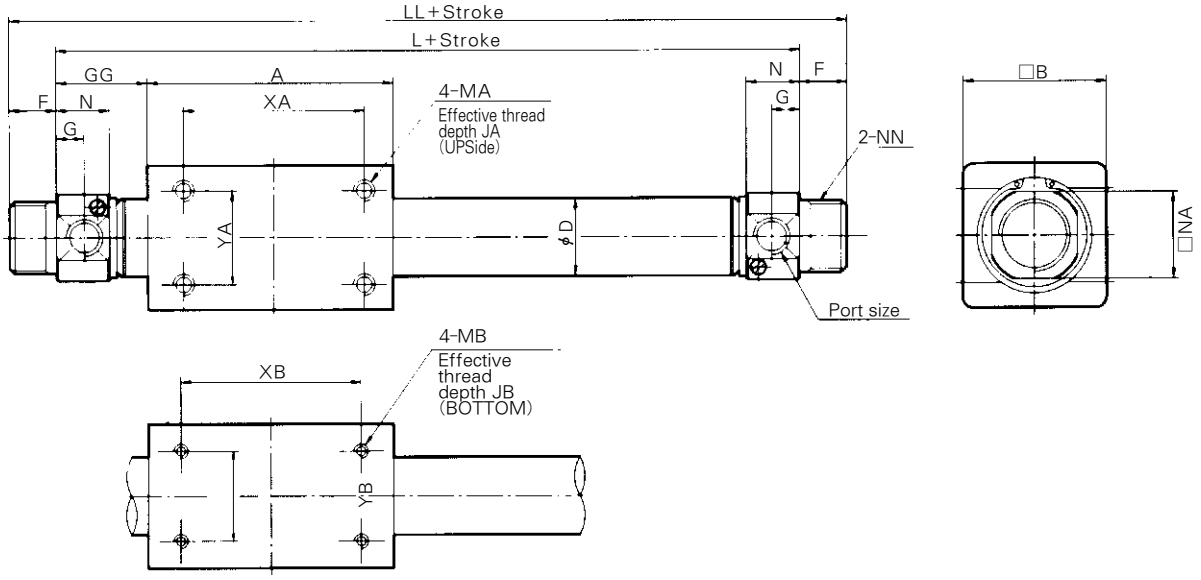
UAMRBH ϕ10(0.39), ϕ16(0.63)



(inch)

Model	Stroke range	Port size	A	B	ϕD	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□: ϕ20(0.79), ϕ25(0.98), ϕ32(1.26), ϕ40(1.58)

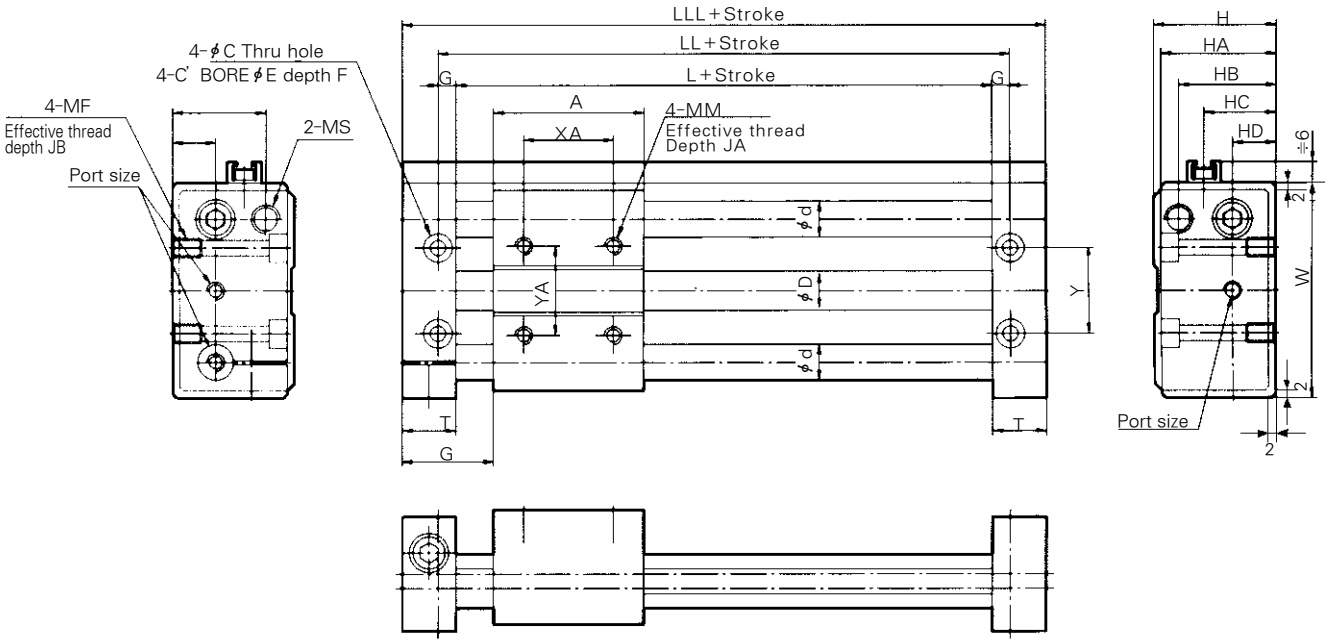


(inch)

Model	Stroke range	Port size	A	B	ϕD	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

Dimensions / Slider Type

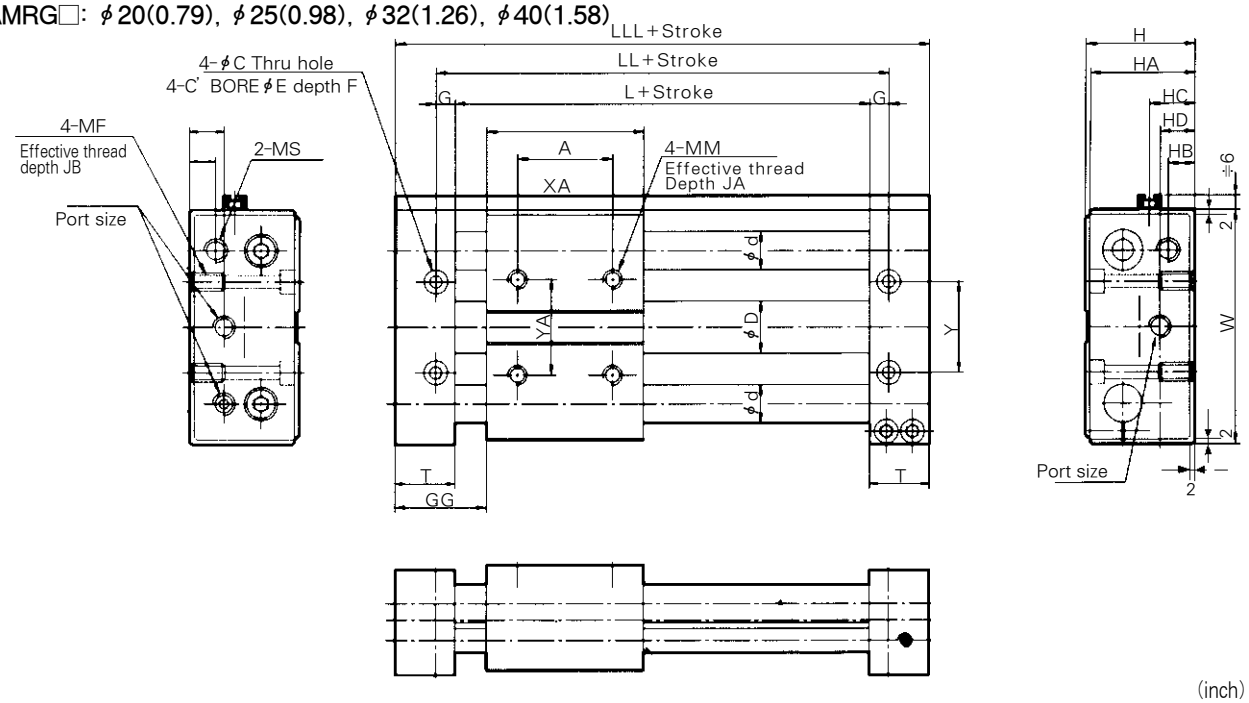
UAMRGH ϕ10(0.39), ϕ16(0.63)



(inch)

Model	Stroke range	Port size	A	ϕC	ϕD	ϕd	ϕE	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□: ϕ20(0.79), ϕ25(0.98), ϕ32(1.26), ϕ40(1.58)



(inch)

Model	Stroke range	Port size	A	ϕC	ϕD	ϕd	ϕE	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	0.57	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	5/1624UNF	3/8-24UNF	3/4-16UNF	1.18	4.72	2.52	2.52	2.52

Specifications

Auto Switch Specifications

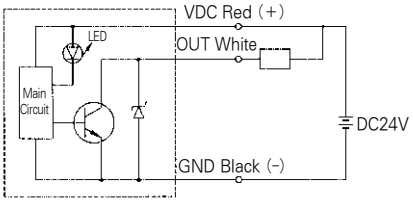
Auto Switch No.	UW1H□	UW13□
Type	Solid State Switch	Reed Switch
Application	Relay, Sequence Control	
Wiring Method	3 Wire System	2 Wire System
Power Source	DC10~28V	–
Load Voltage	DC28V Less	DC24V, AC120V
Current Consumption	100mA Less	DC24V : 5~40mA AC120V : 5~20mA
Internal Voltage Drop	100mA~0.5V Less	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. φ0.13, 0.2mm², 3 cores(red white, black), cores(red, black), 0.5m(18inch)
- Shock Resistance : 1000m/S² (102G)
- Insulation Resistance : 50MΩ 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℃.(14~140°F)
- Protection Structure : IEC Standard, water-tight and oil resistant.

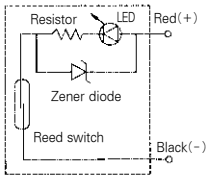
※ "L" is added to the end when the lead is 3m long.
(ex) UW1□L

Auto Switch Internal Circuit

UW1H□

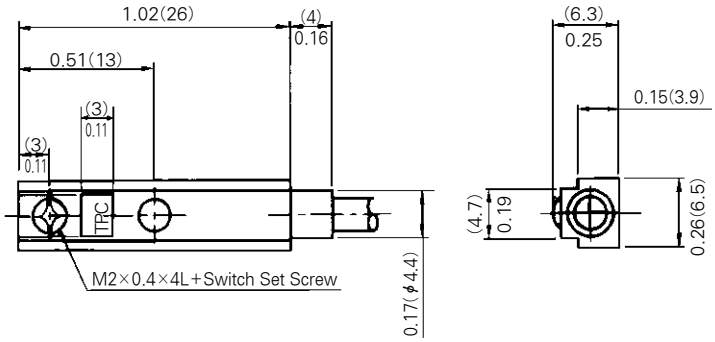


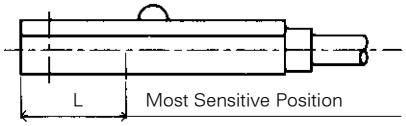
UW13□



Auto Switch Dimensions

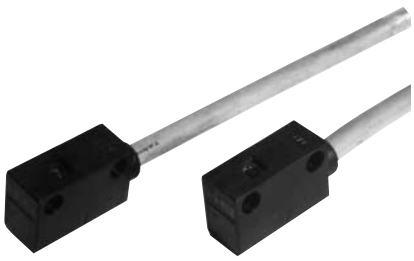
inch(mm)





inch(mm)

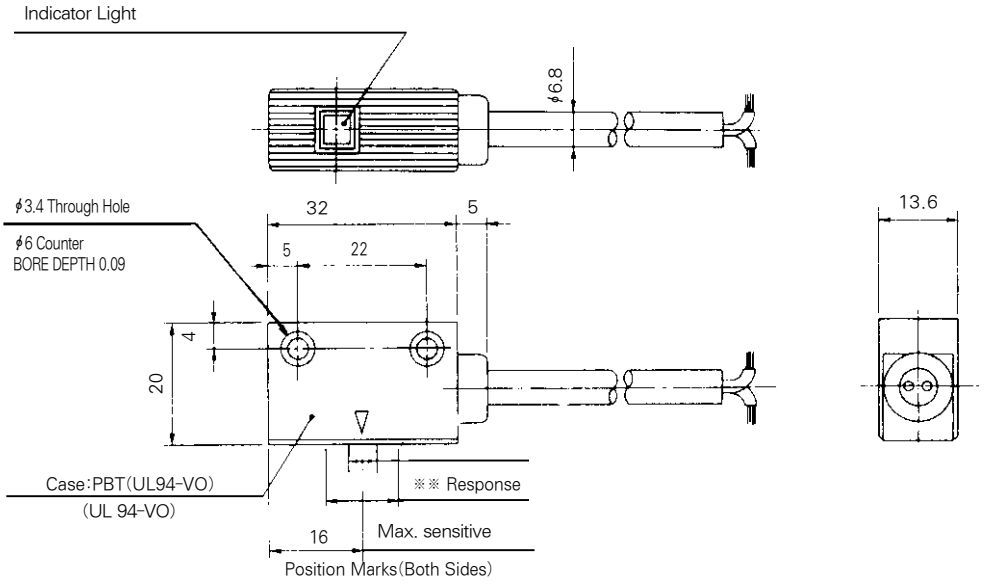
Stations	UW1H□	UW13□
L	0.39(10)	0.59(15)
Operating Range	0.16~0.39(4~10)	0.16~0.39(4~10)



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)	
	φ50	φ63
ADQCP	8	8
AMD□P	9	9
AJCP	8	8

TPC Electronic Catalogue

How to install an electronic catalogue of TPC

1. Conditions of Installation

1)This program covers the whole products of TPC.

2)TPC2001 is practicable over AutoCAD R14 and works normally over resolution, 1204×768 mode.

2. Method of Installation

1)In case of using DWG & DXF File you can use it in Hard Disk after copying or CD-ROM directly.

2)You copy D:\TPC\TANHAY on Hard Disk for TPC2001 Program.
(*DG1*/*DG2*/*DG3) if so the space of Hard Disk, only 45MB, is used.
(In case of using only Drawing File in CD: when the program acts.
CD should exist on CD-ROM)

∗ after copying TPC.PAS into C:\, you can revise it with EDIT or--------as follow

C:\TANHAY Program Path

C:\TANHAY or \TPC\TANHAY Drawing File Path

As CD-ROM is D:\

How to use an electronic catalogue of TPC

1. How to use

You use APPLOAD to load the program in AutoCAD or may set up the program for loading in ACAP.LAP.

You add(LOAD *C:/TANHAY/MAIN0000*)on ACAD LSP

※ When TANHAY.PAS exist on C:\ it normally works .

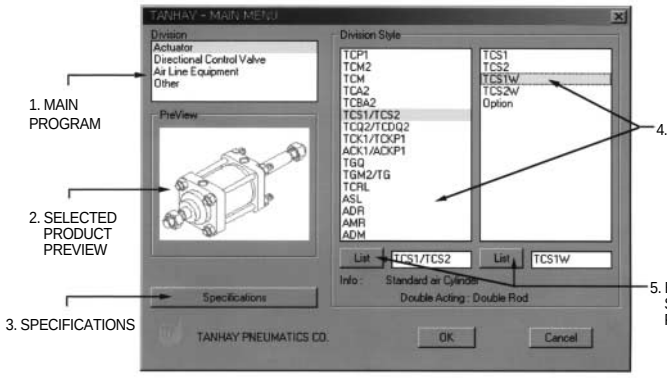
2. How to use APPLOAD

Input APPLOAD on COMMAND and Dialogue Box will be appeared like below.

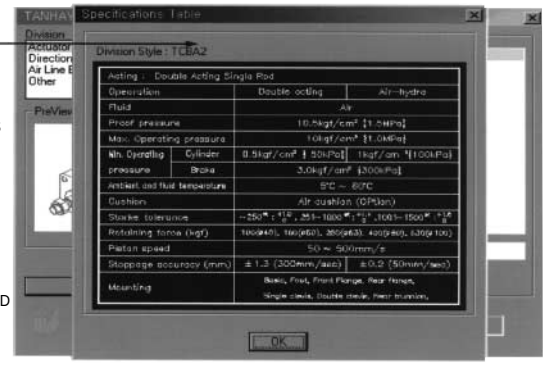
If you choose, next screen will be loading.

You click C:\TANHAY, MAIN0000. LSP and OK in a row.
If the screen above appears, click LOAD.

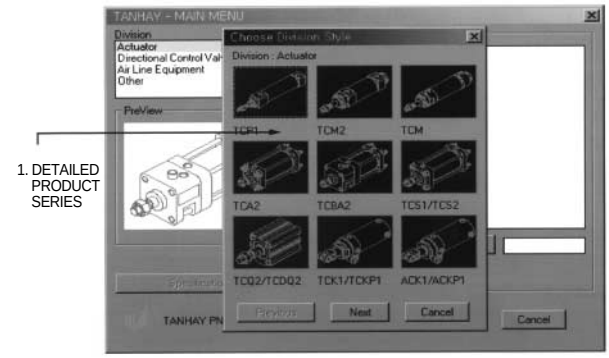
You can use it anytime if you type TPC on COMMAND.
From now on you just use the last command.



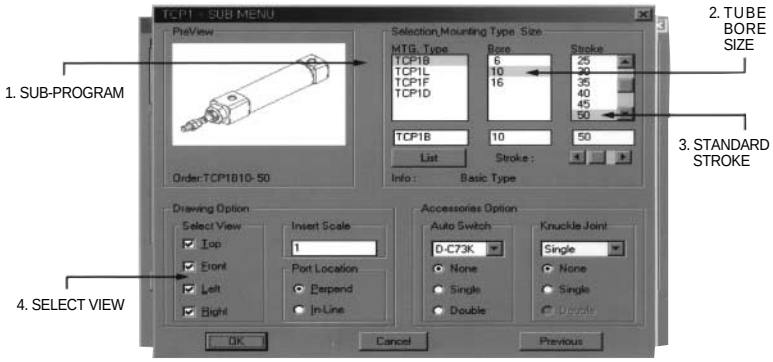
[Fig. 1] MAIN PROGRAM



[Fig. 3] SPECIFICATIONS TABLE



[Fig. 2] SLIDE LIST-UP



[Fig. 4] SUB PROGRAM

Products Series Index