

RT01 Series – 3, 4 stop position type –

Registration of Design

Rotary Actuator

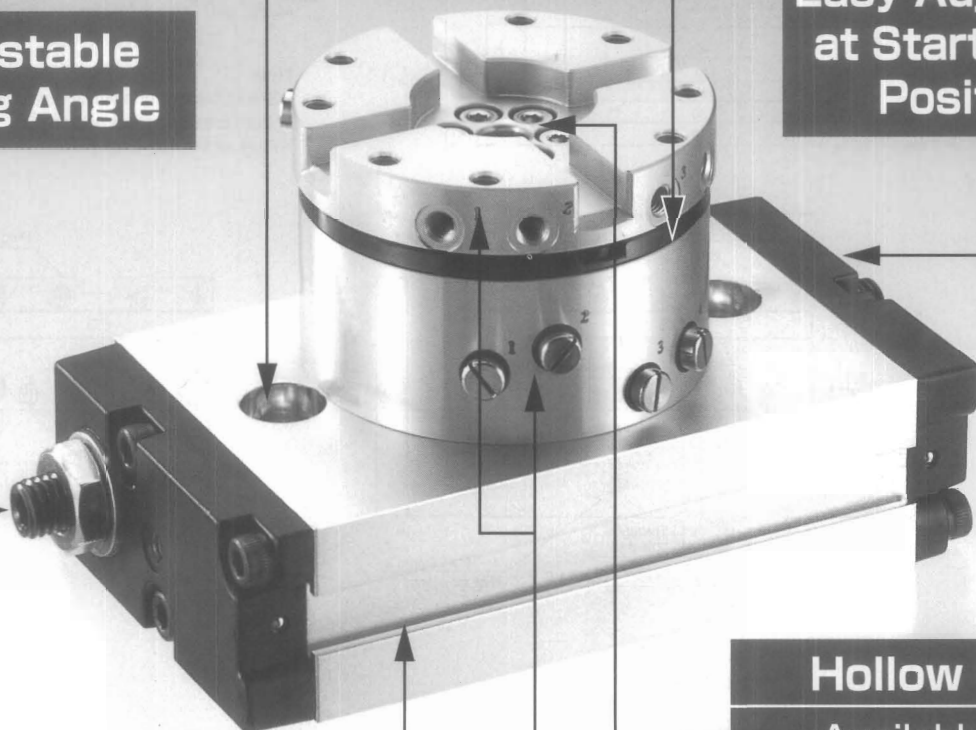
Smooth Operation with Free Backlash

Direct Load
Mounting Table

High Reliable
Bearing Adopted

Adjustable
Swing Angle

Easy Adjustment
at Start & Stop
Positions



Two Sensor Switches
(Optional)

Hollow Shaft

Available Inner
Wiring & Piping

Swivel Joint

Free from swinging Piping

**3 or 4-Stop
position**

Innovative for
Pneumatic Industry

4-Way Mounting

Front mounting
Rear mounting
Bottom mounting
Through mounting

RT01 Series (D)

Model Code No.

RT01 - 18 D - α + β

Series Name

Cylinder Bore
18 : 18mm
22 : 22mm

Stop Position Type

D : 3 or 4 stop position type

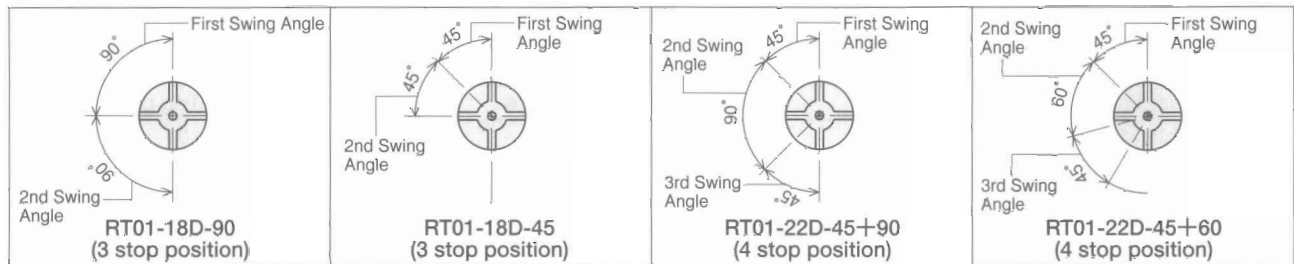
Description of Nominal (Standard) Swing Angle

	α	β
3 stop position type	First & 2nd Swing Angle <i>However, $90^\circ \geq \alpha \geq 15^\circ$</i>	(Blank)
4 stop position type	First & 3rd Swing Angle <i>However, $90^\circ \geq \alpha \geq 15^\circ, 180^\circ \geq 2\alpha + \beta$</i>	2nd Swing Angle

Sensor switch :

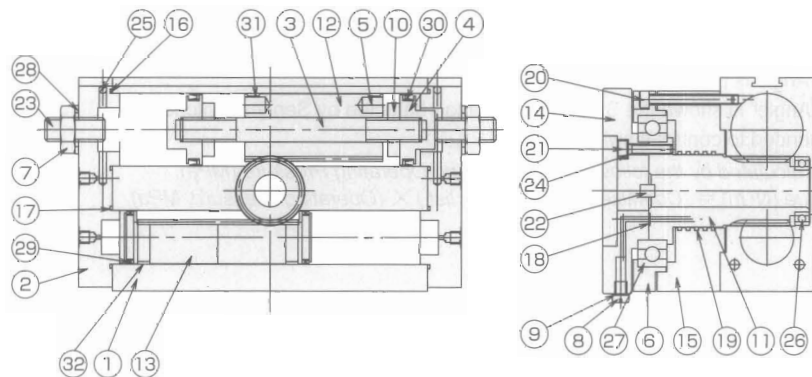
Refer to "Selection from New-Era Sensor Switch" (Page 265)

Model Examples



RT01(D)

Internal Structure



Parts List

No.	Name	Material	No.	Name	Material
1	Main Body	Aluminium Alloy	17	O Ring	NBR
2	Head Cover	Aluminium Alloy	18	O Ring	NBR
3	Piston Rod	Carbon Steel	19	O Ring	NBR
4	Piston	Stainless Steel	20	Hexagon Slotted Bolt	Carbon Tool Steel
5	Magnet	Resin	21	Hexagon Slotted Bolt	Carbon Tool Steel
6	Pinion Cover	Mild Steel	22	Key	Carbon Steel
7	Hexagon Nut	Mild Steel	23	Hexagon Slotted Screw	Carbon Tool Steel
8	Plug	Brass	24	Spring Washer	Carbon Steel
9	Gasket	Mild Steel+NBR	25	Steel Ball	Bearing Steel
10	Tightening Nut	Brass	26	Bearing	Bearing Steel
11	Pinion Rod	Carbon Steel	27	Bearing	Bearing Steel
12	Rack	Stainless Steel	28	Fastener Seal	Mild Steel +NBR
13	Rack Piston	Carbon Steel	29	Packing	NBR
14	Table (Swivel Joint Upper)	Aluminium Alloy	30	Packing	NBR
15	Case (Swivel Joint Lower)	Aluminium Alloy	31	Wear Ring	Teflon
16	O Ring	NBR	32	Wear Ring	Teflon

RT01 Series (D)

RT01 (D)

Specifications

		RT01-18D- $\alpha + \beta$	RT01-22D- $\alpha + \beta$
Stop Positions		3 or 4	
Cylinder Bore	(mm)	18+26	22+30
Fluid		Air	
Operating Pressure	(MPa)	0.35~0.7	
Proof Pressure	(MPa)	1.05	
Ambient Temperature		5~60	
Standard Swing Angle	(°)	180 \geq 2 α \geq 30	
		180 \geq 2 $\alpha + \beta$	
Adjustable Swing Angle	(°)	30~95	
		120~185	
Detecting Swing Angle	(°)	20~95	
		20~185	
Cushion		None	
Permissible Kinetic Energy	(J)	0.07	0.11
Theoretical Torque *	(N·m)	2.8×Operating pressure	4.2×Operating pressure
Permissible Moment	(N·m)	6.5	10
Permissible Radial Load	(N)	185	430
Permissible Thrust Load	(Pull) N	175	400
	(Push) N	260	600
Port Size		M5×0.8	
Main Body Weight	(g)	1,630	
		2,570	
Inner Volume (one cycle)	(cc)	18+37	31+58

For the swing angle beyond the Standard Swing Angle (180°), consult New-Era Co., Ltd.

The above Adjustable Swing Angle is recommendatory.

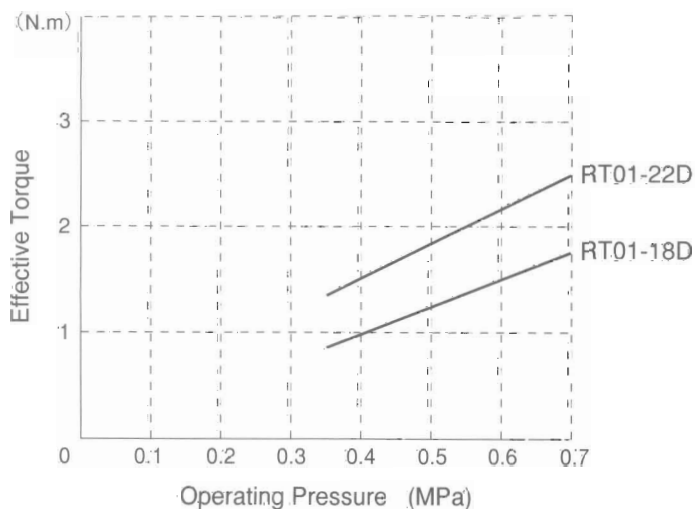
The above "Detecting Swing Angle" is shown the Swing Angle Range detected by Sensor Switches.

A speed controller is recommended to control a swing speed.

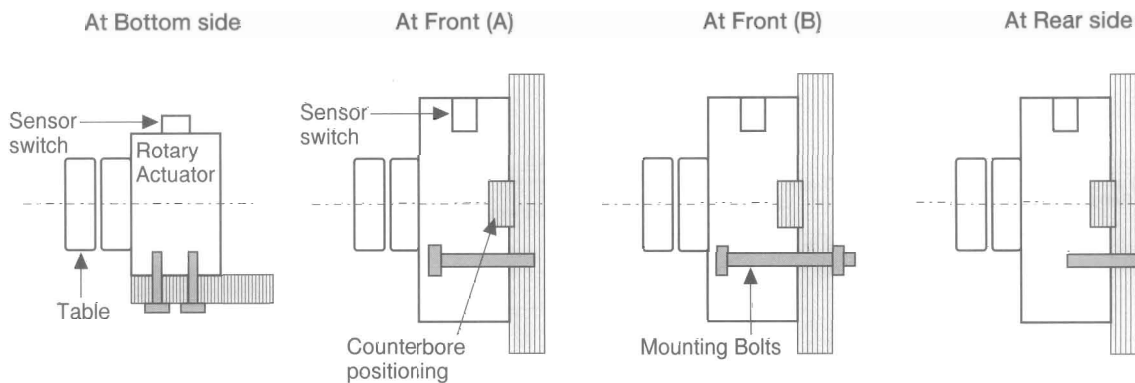
* Theoretical Torque can be calculated by the following formula using Operating Pressure (MPa).

(Example): Theoretical Torque (N·m) = (Coefficient in the above list) × (Operating Pressure, MPa)

Effective Torque



Installation Examples



	Specifications of Mounting holes / thread			
	At Bottom side	At Front (A)	At Front (B)	At Rear side
RT01-18D	4×M5×0.8 Depth 7	2×M10×1.5 Through Counterbored ϕ 14 Depth 8.5		2×M10×1.5 Through
RT01-22D	4×M6×1 Depth 8	2×M10×1.5 Through Counterbored ϕ 14 Depth 8.5		2×M10×1.5 Through

RT01 (D)

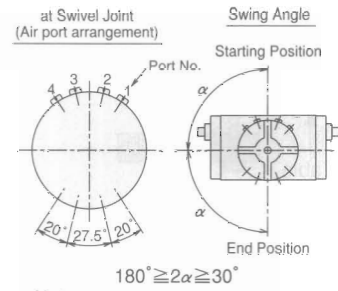
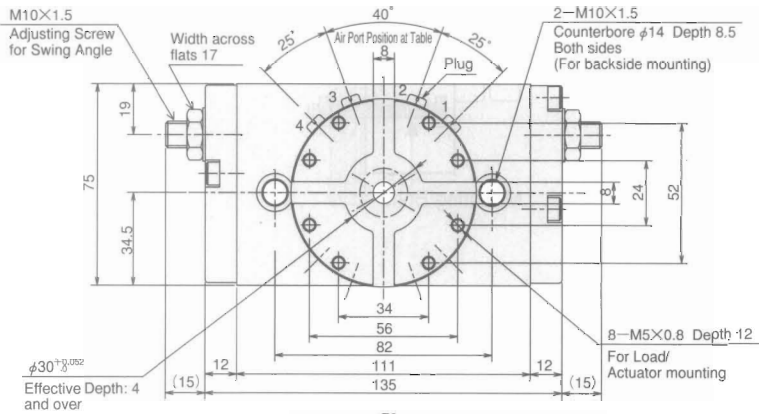
RT01 Series (D)

Unit : mm

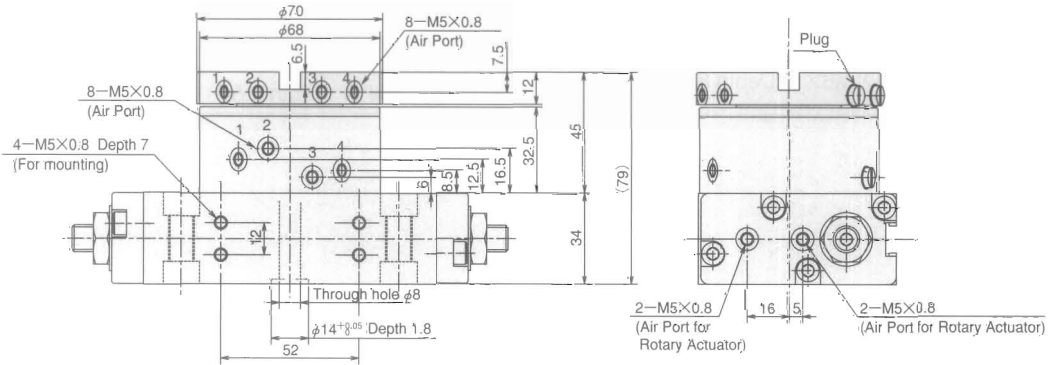
Dimensions

Weight
RT01-18D 1,630g

RT01 (D)

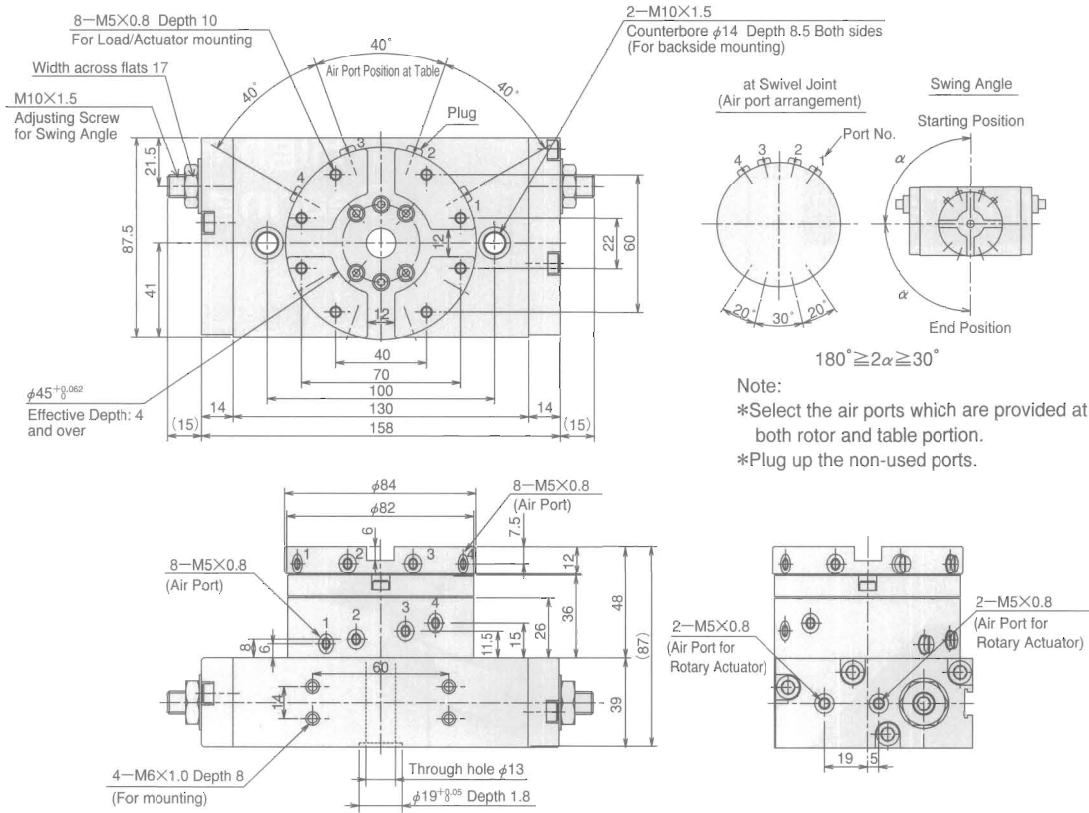


Note:
*Select the air ports which are provided at both rotor and table portion.
*Plug up the non-used ports.



■ Dimensions

Weight
RT01-22D 2,570g



RT01(D)