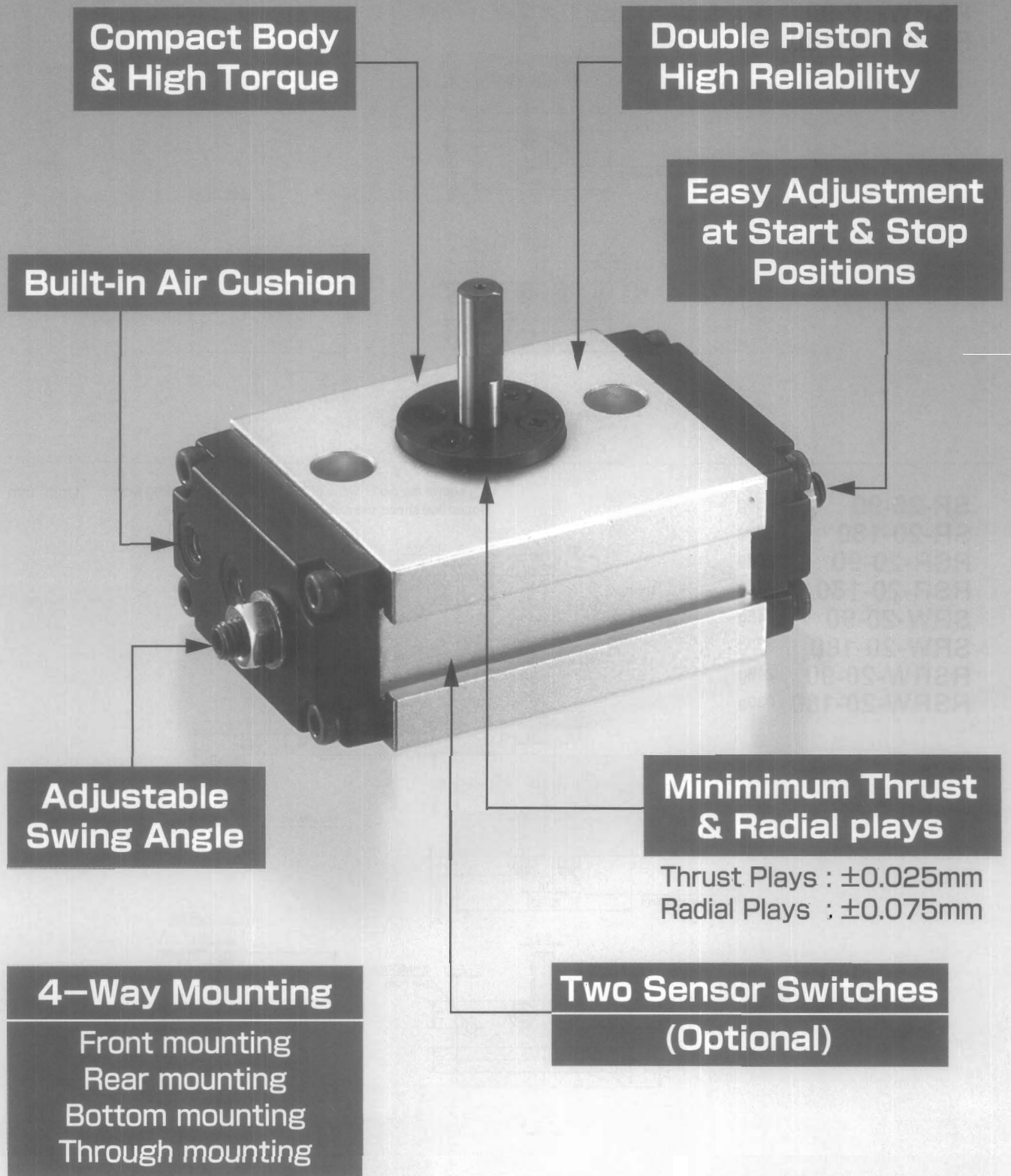


Rotary Actuator

Smooth Operation with Free Backlash



RS01 Series (B)

Model Code No.

RS01 - 18 B - 90

Series Name

Standard Swing Angle

90 : 90°
180 : 180°

Cylinder Bore

14 : 14mm
16 : 16mm
18 : 18mm
22 : 22mm

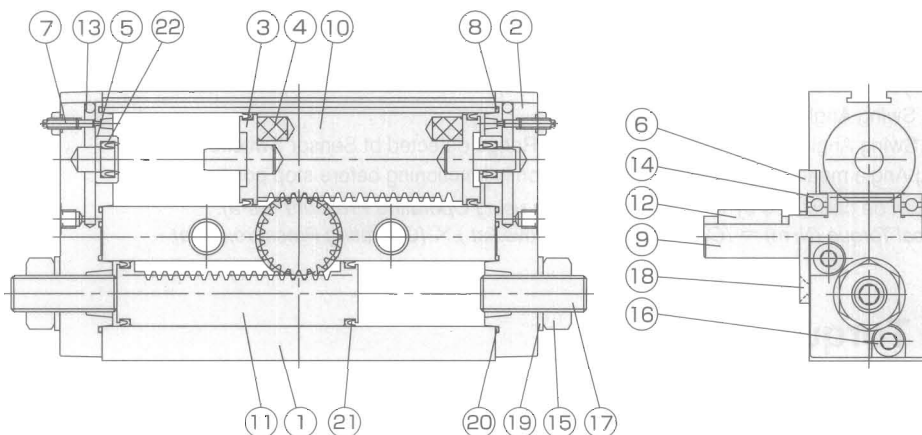
Stop Position Type

B : 2 stop position
(with Air cushion)

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

RS01(B)

Internal Structure



Parts List

No.	Name	Material	No.	Name	Material
1	Main Body	Aluminium Alloy	12	key	Carbon Steel
2	Head Cover	Aluminium Alloy	13	Steel Ball	Bearing Steel Ball
3	Piston	Brass	14	Bearing	Bearing Steel
4	Magnet	Resin	15	Hexagonal Nut	Mild Steel
5	Packing Holder	Brass	16	Slotted Head Bolt	Chrome Moybdenum Steel
6	Pinion Cover	Mild Steel	17	Slotted Head Bolt	Chrome Moybdenum Steel
7	Needle	Stainless Steel	18	Cross Slotted Screw	Mild Steel
8	Gasket	NBR	19	Fastener Seal	NBR
9	Pinion Rod	Carbon Steel	20	O Ring	NBR
10	Rack	Stainless Steel	21	Piston Packing	NBR
11	Rack Piston	Carbon Steel	22	Cushion Packing	NBR

RS01 Series (B)

Specifications

		RS01-14B-90 RS01-14B-180	RS01-16B-90 RS01-16B-180	RS01-18B-90 RS01-18B-180	RS01-22B-90 RS01-22B-180
Stop Positions		2			
Cylinder Bore (mm)		14+20	16+24	18+26	22+30
Shaft Diameter (mm)		$\phi 8^{+0}_{-0.015}$	$\phi 10^{+0}_{-0.015}$	$\phi 12^{+0}_{-0.018}$	$\phi 15^{+0}_{-0.018}$
Fluid		Air			
Operating Pressure (MPa)		0.1~0.7			
Proof Pressure (MPa)		1.00			
Ambient Temperature (°C)		5~60			
Standard Swing Angle (°)		90 or 180			
Adjustable Swing Angle (°)	90° type	70~95			
	180° type	160~185			
Detecting Swing Angle (°)	90° type	30~95	20~95		
	180° type	30~185	20~185		
Cushion		Air Cushion			
Cushioning Angle (°)		60		40	
Permissible Kinetic Energy (J)		0.03	0.14	0.28	0.42
Theoretical Torque* (N·m)		2.8P	5.2P	8.6P	14P
Permissible Radial Load (N)		0.49	1.96	3.92	5.86
Permissible Thrust Load (N)		0.25	0.98	1.96	2.94
Air Port Size		M5×0.8			
Main Body Weight (g)	90° type	460	700	1000	1600
	180° type	460	800	1200	1800
Inner Volume (one cycle) (cc)	90° type	9	17	27	44
	180° type	18	33	55	89

For the swing angle beyond the Standard Swing Angle (90 or 180°), consult New-Era Co., Ltd.

The above Adjustable Swing Angle is recommendatory.

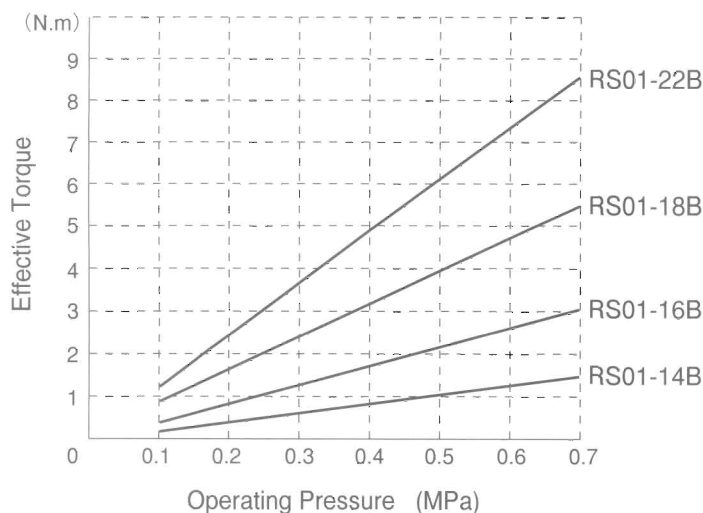
The above "Detecting Swing Angle" is shown the Swing Angle Range detected by Sensor Switches.

The above Cushioning Angle means the range where air cushion is functioning before stop position.

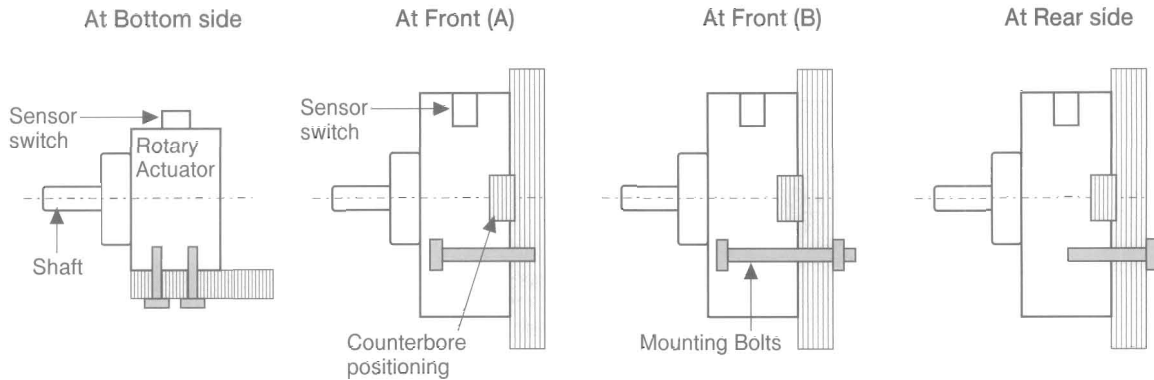
* Theoretical Torque can be calculated by the following formula using Operating Pressure (MPa).

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

Effective Torque



Installation Examples



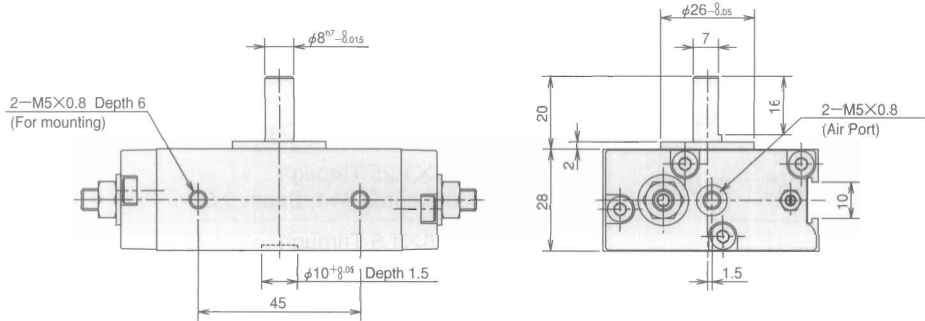
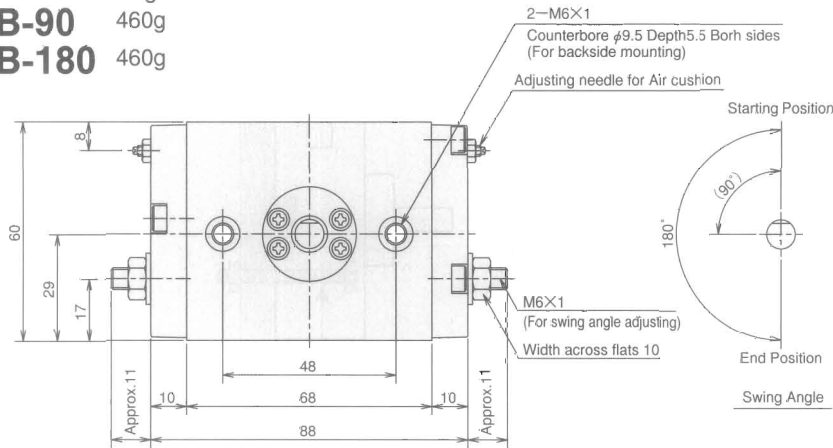
	Specifications of Mounting holes / thread			
	At Bottom side	At Front (A)	At Front (B)	At Rear side
RS01-14B	2×M5×0.8 Depth 6	2×M6×1 Through Counterbored ϕ 9.5 Depth 5.5		2×M6×1 Through
RS01-16B	4×M4×0.7 Depth 6	2×M8×1.25 Through Counterbored ϕ 11 Depth 6.5		2×M8×1.25 Through
RS01-18B	4×M5×0.8 Depth 7	2×M10×1.5 Through Counterbored ϕ 14 Depth 8.5		2×M10×1.5 Through
RS01-22B	2×M6×1 Depth 8	2×M10×1.5 Through Counterbored ϕ 14 Depth 8.5		2×M10×1.5 Through

RS01 Series (B)

Dimensions

Unit : mm

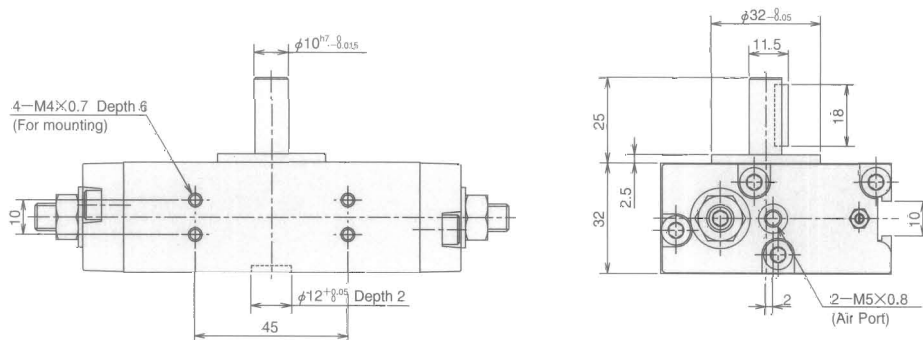
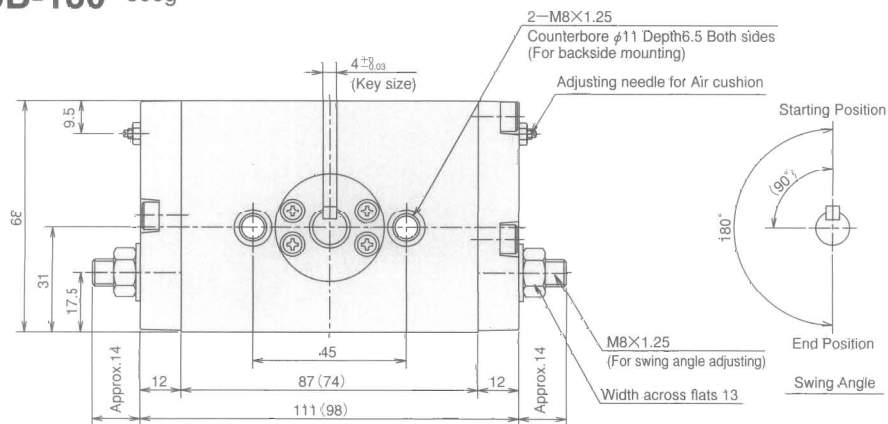
Weight
RS01-14B-90 460g
RS01-14B-180 460g



Weight
RS01-16B-90 700g
RS01-16B-180 800g

() shows the dimensions of the swing angle 90° type.

Unit : mm

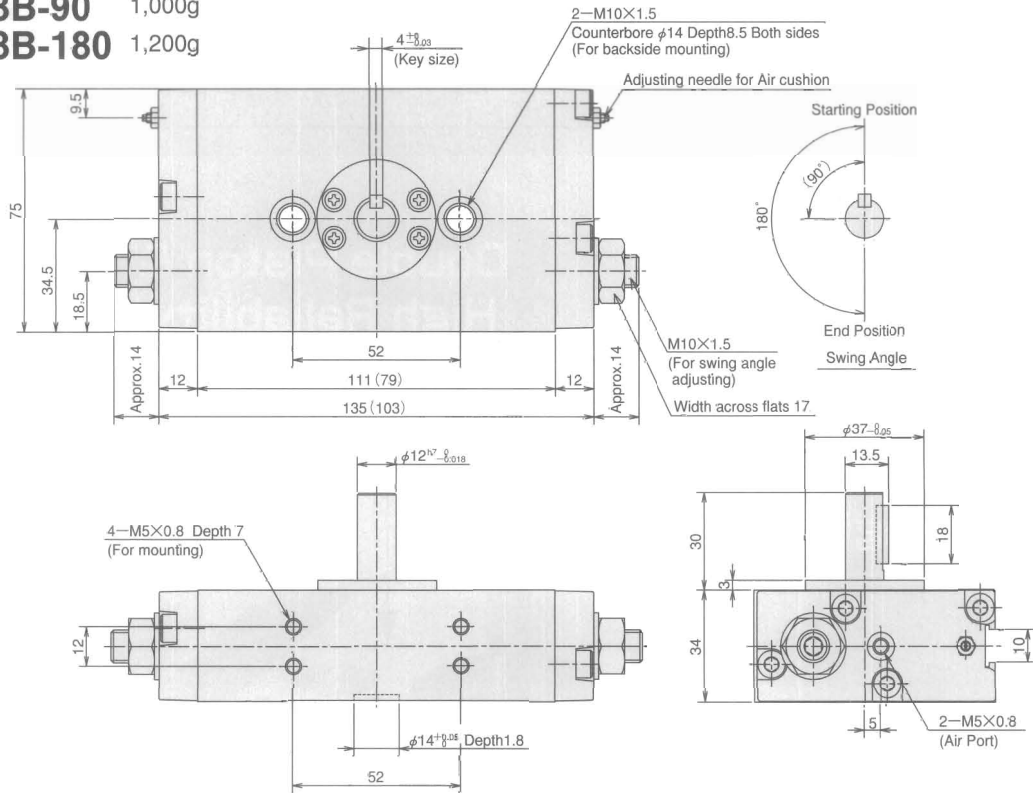


Dimensions

() shows the dimensions of the swing angle 90° type.

Unit : mm

	Weight
RS01-18B-90	1,000g
RS01-18B-180	1,200g



RS01(B)

	Weight
RS01-22B-90	1,600g
RS01-22B-180	1,800g

() shows the dimensions of the swing angle 90° type.

Unit : mm

