

Active Fine Buffer

AFB-RB Series

Load capacity:50g



Specifications

Item		AFB-RB	
Buffer force	N	0.5±0.2, 1.0±0.2 (Selection method)	
Buffer force change rate	*1	±15% or less	
Stroke	mm	3, 6 (Selection method)	
Ambient temperature	°C	10 to 40	
Storage ambient temperature	°C	0 to 50 (no condensation)	
Rotation runout	mm	0.01	
Repeatability	X, Y mm	±0.01	
		Z mm	±0.02
	θ °	±0.2	
Product weight	g	Approx. 120 (approx. 150 with AZ motor)	
Mounting orientation	*3	Shaft downward	
Load capacity	g	50 or less	
Portable moment of inertia	kg·m ²	2.45 x 10 ⁻⁶ or less	
Movable part weight	g	21	
Moment of inertia of movable parts	kg·m ²	4.56 x 10 ⁻⁷	
Used rotation speed	rpm	100 or less	

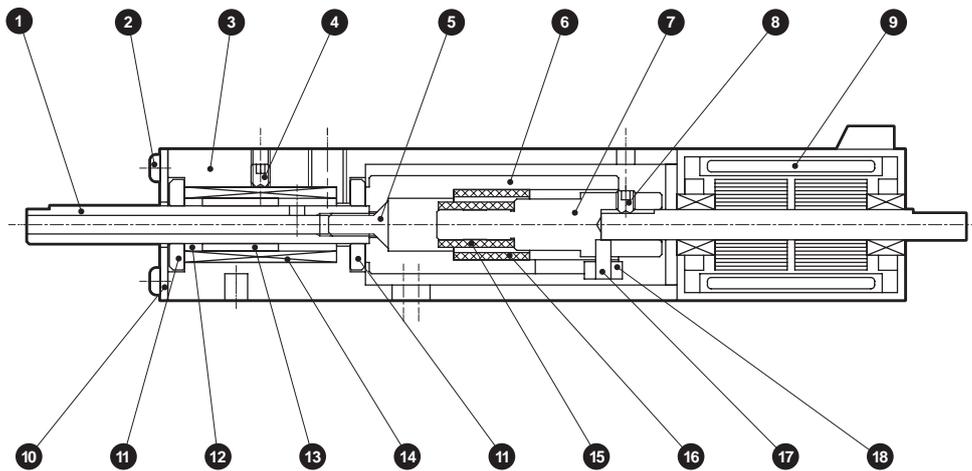
*1: Indicates buffer force variation within the stroke. Buffer force is not proportional to the stroke.

*2: Repeatability is the return position of the shaft following buffering.

*3: When the product is used facing downward, take the weight of movable parts into consideration when setting the buffer force.

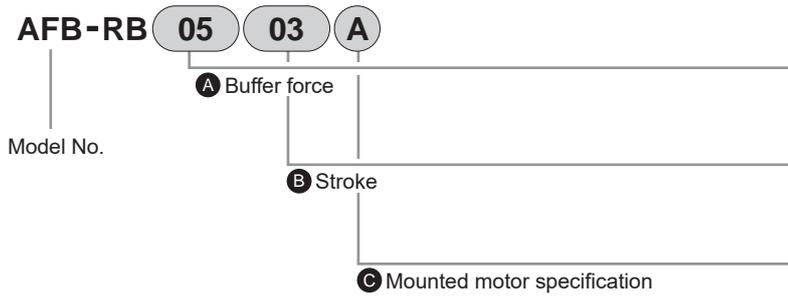
*4: Holding torque depends on the motor specifications.

Internal structure and parts list



Part No.	Part name	Material	Remarks	Part No.	Part name	Material	Remarks
1	Shaft	Stainless steel		10	Cap	Stainless steel	
2	Cross-recessed pan head machine screw	Stainless steel		11	Washer	Polyacetal resin	
3	Body	Aluminum alloy	Electroless nickel plating	12	Outer cylinder cap	Aluminum alloy	
4	Hexagon socket set screw	Stainless steel		13	Retainer	-	
5	Cross-recessed flat head machine screw	Stainless steel		14	External cylinder	Steel	
6	Movable shaft	Aluminum alloy	Trivalent chromate treatment	15	Ring magnet	Plastic magnet	
7	Fixed shaft	Stainless steel		16	Ring magnet	Plastic magnet	
8	Hexagon socket set screw	Stainless steel		17	Parallel pin	Stainless steel	
9	Stepper motor	-		18	Small diameter ball bearing	Stainless steel	

How to order



Code	Description
(A) Buffer force (N)	
05	0.5
10	1.0
(B) Stroke length (mm)	
03	3
06	6
(C) Mounted motor specification Note	
A	Oriental Motor's two-phase stepping motor (Motor Model No.: PKP213D05)
B	Oriental Motor's five-phase stepping motor (Motor Model No.: PK513PB)
C	MinebeaMitsumi's two-phase stepping motor (Motor Model No.: 08PM-K049BSTDCN)
D	Oriental Motor's AZ motor (Motor Model No.: AZM14AK)

[Example of model No.]

AFB-RB1006A

- (A) Buffer force (N) : 1.0N
- (B) Stroke length (mm) : 6 mm
- (C) Mounted motor specification : Oriental Motor's two-phase stepping motor

Note: The motor is a custom-made model No. for AFB-RB. Refer to the model No. above to check the motor specifications.

(Reference) Motor cable (C Mounted motor specification "B")

- Connection cable (for five-phase stepping motor)

LC5N06A

Contact Oriental Motor Co. Ltd. for details on specifications.

