

# Flexible Shaft Coupling



## ERB Series PRODUCT MANUAL

**For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.**

The specifications, dimensions, etc. are subject to change without notice for product improvement. Some models may be discontinued without notice.

### Features

- Zero backlash
- High-strength aluminum alloy (AL7075-T6), High elasticity
- Alumite treated surface provides high corrosion resistance
- 2 connection types (clamp type, screw type)

### Cautions during Use

- Couplings are for transferring rotation angle and power between shafts. Before using this, make sure to check the purpose and appropriacy.
- This product uses high strength aluminum alloy and has spring power as Radial beam type. However, if the coupling is dropped, hit or applied excessive power, it may be damaged or transformed.
- If the coupling is applied over the rated misalignment, or the tolerance of the shaft is over the allowable value, it may cause plastic deformation, damage of the product or shorten the life cycle.
- When it occurs abnormal sound during operating the equipment with this coupling, stop the operation and remove the cause such as misalignment, unscrewing, or rotation hazard.
- If this coupling is applied to the equipment which has big fluctuation of load, shaft may be loose by unscrewing. Tighten the screw securely and prevent from unscrewing.
- This product is for transferring rotation power. If there is a risk of human contact, attach the caution label or install a safety cover in a prominent position.
- Rated torque is available to transfer the power continuously. Check the rated capacity before using this product.
- Max. torque is available to transfer the power in a moment. Check the rated capacity before using this product.

### Ordering Information

This is only for reference.

For selecting the specified model, follow the Autonics website.

ERB A - ① ② - ③

#### ① Diameter

Number: External diameter (unit: mm)

#### ③ Bore diameters

Number / Number: Bore diameters

#### ② Connection type

C: Clamp

S: Set screw

(unit: mm)

### Cautions during Installation

- It must be used within the rated allowable misalignment range. When using the flexible coupling over the rated misalignment range, it may cause vibration or shorten the life cycle.
- When there are more than two misalignments, each allowable value is 50%.
- It is recommended to use the flexible coupling below 1/3 of the allowable misalignment value to extend the life of the coupling and the applied equipment.

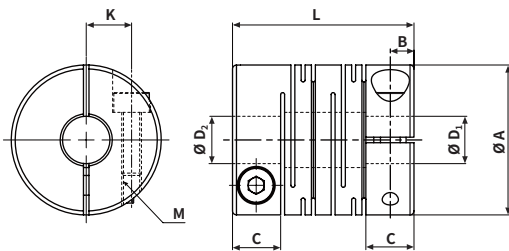
## Specifications

Model	ERB-A-19C-□	ERB-A-19S-□	ERB-A-26C-□	ERB-A-26S-□
Connection type	Clamp	Set screw	Clamp	Set screw
Max. revolution	8,000 rpm	20,000 rpm	6,000 rpm	15,000 rpm
Max. torque	1.2 N m		3.0 N m	
Rated torque	0.6 N m		1.5 N m	
Mounting bolt (mounting torque)	M2.5 (1 N m)	M3 (0.7 N m)	M3 (0.7 N m)	M4 (1.7 N m)
Torsional stiffness	140 N m / rad		240 N m / rad	
Inertia moment	$6.4 \times 10^{-7} \text{ kg}\cdot\text{m}^2$		$3.4 \times 10^{-6} \text{ kg}\cdot\text{m}^2$	
Max. allowable misalignment	Angular misalignment: $\leq 2.5^\circ$ Parallel misalignment: $\leq 0.15 \text{ mm}$ End-play: $\leq \pm 0.3 \text{ mm}$		Angular misalignment: $\leq 2.5^\circ$ Parallel misalignment: $\leq 0.2 \text{ mm}$ End-play: $\leq \pm 0.4 \text{ mm}$	
Standard bore diameter (tolerance h7)	$\varnothing 4, \varnothing 5, \varnothing 6 \text{ mm}$		$\varnothing 6, \varnothing 8 \text{ mm}$	
Max. allowable diameter	$\varnothing 4 \text{ to } 8 \text{ mm}$		$\varnothing 5 \text{ to } 12 \text{ mm}$	
Material	Aluminum (AL 7075-T6), Alumite surface			
Unit weight (packaged)	$\approx 14.4 \text{ g} (\approx 14.9 \text{ g})$		$\approx 36.7 \text{ g} (\approx 37.3 \text{ g})$	

## Dimensions

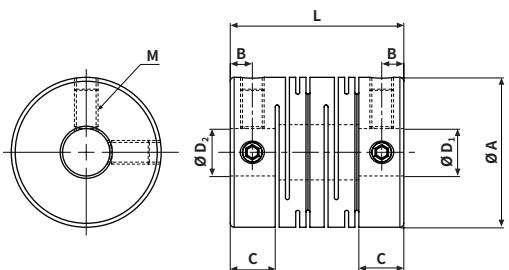
• Unit: mm, For the detailed drawings, follow the Autonics website.

### ■ Clamp type



Model	Ø A	L	Ø D <sub>1</sub>	Ø D <sub>2</sub>	M	C	B	K
ERB-A-19C-04/04	19	23	4 <sup>+0.018</sup> <sub>0</sub>	4 <sup>+0.018</sup> <sub>0</sub>	M2.5	6.1	3	5.75
ERB-A-19C-04/05				5 <sup>+0.018</sup> <sub>0</sub>				
ERB-A-19C-04/06				6 <sup>+0.018</sup> <sub>0</sub>				
ERB-A-19C-05/05	19	23	5 <sup>+0.018</sup> <sub>0</sub>	5 <sup>+0.018</sup> <sub>0</sub>	M2.5	6.1	3	5.75
ERB-A-19C-05/06				6 <sup>+0.018</sup> <sub>0</sub>				
ERB-A-19C-06/06	19	23	6 <sup>+0.018</sup> <sub>0</sub>	6 <sup>+0.018</sup> <sub>0</sub>	M3	7.4	3.7	8.55
ERB-A-26C-06/06	26	31.4	6 <sup>+0.018</sup> <sub>0</sub>	6 <sup>+0.018</sup> <sub>0</sub>				
ERB-A-26C-06/08				8 <sup>+0.018</sup> <sub>0</sub>				
ERB-A-26C-08/08	26	31.4	8 <sup>+0.018</sup> <sub>0</sub>	8 <sup>+0.018</sup> <sub>0</sub>	M3	7.4	3.7	8.55

### ■ Set screw type



Model	Ø A	L	Ø D <sub>1</sub>	Ø D <sub>2</sub>	M	C	B
ERB-A-19S-04/04	19	22	4 <sup>+0.018</sup> <sub>0</sub>	4 <sup>+0.018</sup> <sub>0</sub>	M3	5.7	2.8
ERB-A-19S-04/05				5 <sup>+0.018</sup> <sub>0</sub>			
ERB-A-19S-04/06				6 <sup>+0.018</sup> <sub>0</sub>			
ERB-A-19S-05/05	19	22	5 <sup>+0.018</sup> <sub>0</sub>	5 <sup>+0.018</sup> <sub>0</sub>	M3	5.7	2.8
ERB-A-19S-05/06				6 <sup>+0.018</sup> <sub>0</sub>			
ERB-A-19S-06/06	19	22	6 <sup>+0.018</sup> <sub>0</sub>	6 <sup>+0.018</sup> <sub>0</sub>	M3	5.7	2.8
ERB-A-19S-06/08				8 <sup>+0.018</sup> <sub>0</sub>			
ERB-A-26S-06/06	26	30	6 <sup>+0.018</sup> <sub>0</sub>	6 <sup>+0.018</sup> <sub>0</sub>	M4	6.8	3.4
ERB-A-26S-06/08				8 <sup>+0.018</sup> <sub>0</sub>			
ERB-A-26S-06/10				10 <sup>+0.018</sup> <sub>0</sub>			
ERB-A-26S-06/12				12 <sup>+0.018</sup> <sub>0</sub>			
ERB-A-26S-08/08	26	30	8 <sup>+0.018</sup> <sub>0</sub>	8 <sup>+0.018</sup> <sub>0</sub>	M4	6.8	3.4