

## BELLOWS COUPLINGS - BKA



- Operating torque: 300 Ncm
- Absolutely backlash free and with torsional rigidity
- Positive locking junction through clamping hubs with one hexagon socket set screw acc. ISO 4762 on each side
- Materials:
  - Bellow (stainless steel)
  - Clamping hubs (aluminium)

### KEY INFORMATION OVERVIEW

#### DESIGN & FUNCTION

A stainless steel bellow provides compensation for both misalignment or axial displacement between the two shafts. The couplings are particularly suitable for the rotationally stiff driving of high resolution angle transducers.

For the BKA coupling each of the shafts are attached with hexagon socket set screws. The hubs are in aluminium. The bellow material is stainless steel.

The service life of the couplings (number of turns or changes of load) depends on the following factors and can therefore only be reliably determined in practical tests: Torque and moment of inertia of the driven transducer, actual parallel and/or angular offset, axial play in the driven shafts and the ambient temperature must be taken into consideration.

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### TECHNICAL DATA

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|                              |                                                       |
|------------------------------|-------------------------------------------------------|
| Operating torque (max.)      | 300 Ncm                                               |
| Operating speed (max.)       | 10,000 rpm                                            |
| Parallel misalignment (max.) | 0.2 mm (lateral displacement)                         |
| Axial deviation (max.)       | ± 1 mm                                                |
| Angular misalignment (max.)  | 2°                                                    |
| Torsional stiffness (max.)   | 994 Nm / rad                                          |
| Moment of inertia            | 20 gcm <sup>2</sup>                                   |
| Operating temperature        | - 40 °C ... + 200 °C                                  |
| Material                     | Hub (aluminium) / Bellow (stainless steel)            |
| Mass                         | 30 g approx.<br>(at hole diameter<br>d1 / d2 = 10 mm) |

### ORDER CODE FORMAT

#### STANDARD VERSION

|            |             |              |            |
|------------|-------------|--------------|------------|
| <b>BKA</b> | <b>32 /</b> | <b>6-6 -</b> | <b>A01</b> |
|------------|-------------|--------------|------------|

|              |                                            |                                      |                                                                    |
|--------------|--------------------------------------------|--------------------------------------|--------------------------------------------------------------------|
| <b>BKA</b>   | Modell series BKA                          |                                      |                                                                    |
| <b>32 /</b>  | Length:                                    | 32                                   | 32 mm                                                              |
| <b>6-6 -</b> | Hole diameters<br>(d1 / d2 <sup>H7</sup> ) | 6-6<br>6-8<br>6-10<br>10-10<br>10-12 | 6 to 6 mm<br>6 to 8 mm<br>6 to 10 mm<br>10 to 10 mm<br>10 to 12 mm |
| <b>A01</b>   | Mechanical variants                        | A01                                  | Standard                                                           |

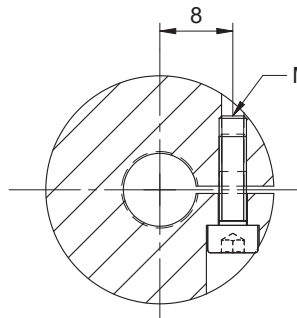
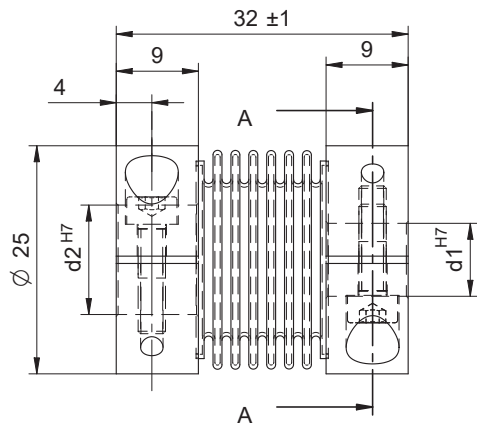
#### ASSEMBLY NOTES

1. The tolerance on the hub and shaft connection are from 0.01 to 0.05 mm
2. When mounting the coupling ensure that the metal bellows are not damaged or bent.
3. During mounting, the torque and axis misalignment may exceed 2 times the value specified without the operation of the coupling being restricted.
4. However, for continuous operation, the specified axial and lateral misalignments must not be exceeded. Only then the coupling will provide infinite performance. Lateral axis misalignment requires special attention.
5. An additional set screw locking are not necessary.

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### INSTALLATION DRAWINGS

Dimensions in mm



Detail A-A

M3 x 12 Hexagon screw socket set ISO 4762  
 tightening torque  $Ma \leq 2.3 \text{ Nm}$