

Mounting and Maintenance Instructions Elektromagnetic clutch type 14.100 flange mounted and shaft mounted type

06/00

Function:

The electromagnetic clutch comprises the assembly groups stator, rotor and armature.

On applying a direct current (as specified on the name plate) to the stator coil the armature plate is pulled over the airgap $S_{L\ddot{u}}$ into contact with the friction face of the rotor. The clutch will then transmit the torque. If the voltage supply is interrupted the armature plate is pulled back to its original position by the preloaded spring, the clutch is then free of residual torque.

Assembly information:

Mounting and maintenance work has to be done by adequately trained and skilled persons only.

• Flange mounted design

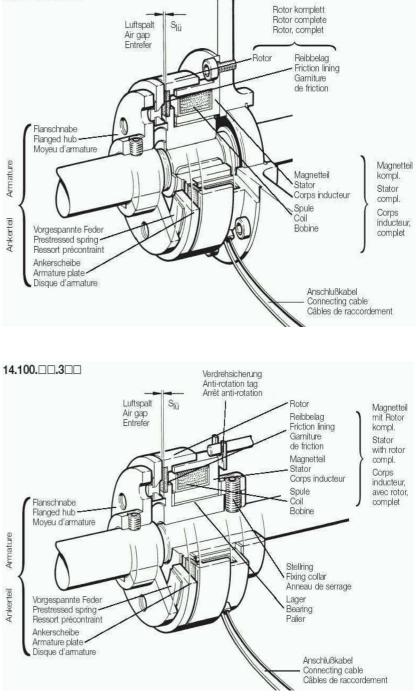
- The stator is to be screwed to an even not convexed fitting surface, centred internally or externally. 0,06 mm concentricity of stator with rotor bore is required.
- The rotor is to be assembled on the shaft. Observe dimension "b" (see table).
- 3. Fix the armature on the shaft and set the operating airgap $S_{L\ddot{u}}$ (see table). Check airgap using feeler gauge. The permissible concentricity of the armature must not exceed 0,03 mm.
- 4. Connect the 2-pole connecting wires to d.c. voltage according to the specifications on the name plate of the stator.

Shaft mounted design

 The stator with rotor is to be secured axially on the shaft using the setscrews of the adjusting nut. Ensure easyrunning of the rotor. Basically, driving home one setscrew is enough to ensure torque transmission. The second setscrew serves for locking.

Procedure:

- a) Press the adjusting nut centrically aginst the shaft via the rotor (no tilting of the nut). Drive home the setscrew opposite the pressing point.
- b) Locking with less torque.
- 2. Rotation is avoided by a pin fitted loosely in the anti-rotation tag of the stator.
- 3. Fix the armature on the shaft and set the operating airgap $S_{L\ddot{u}}$ (see table). Check airgap using feeler gauge.
- 4. Connect the 2-pole connecting wires to a dc voltage according the specifications on the name plate of the stator.

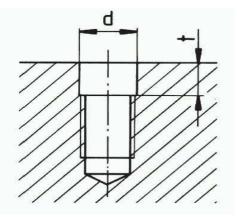


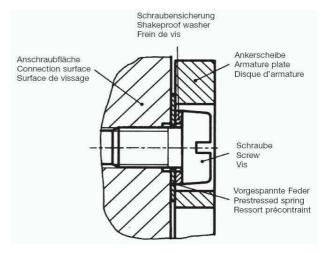
• Screws, shakeproof washers and screw thread design to fix armature design 3 (using the spring of the armature plate) to the component that is to be engaged.

Sizes	Screws		Schnorr-shakeproof washers	Ø d (mm)	t (mm)
01	M 2 x 5	DIN 84	Schnorr-shakeproof washer 2	2.1	0.5
02	M 2 x 5	DIN 84	Schnorr-shakeproof washer 2	2.1	0.5
03	M 2,5 x 6	DIN 84	Schnorr-shakeproof washer 2.6	2.6	0.5
04	M 3 x 9	DIN 84	Schnorr-shakeproof washer 3 3.1		0.8
05	M 3 x 8	DIN 84	Schnorr-shakeproof washer 3	3.1	0.8

Supplier:

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Further tables

Airgap S_{Lü} (mm)

Size	02	03	04	05
S _{LÜ}	0,1	0,15	0,15	0,2

Dimension "b" (mm) from rotor friction face up to the contact surface of the flange at the machine wall.

Size	02	03	04	05
b	16	19	22,3	23,5

Note: The friction surfaces must be kept completely free of any lubricant or grease Cleaner are inadmissible!

Maintenance

The airgap $S_{L\ddot{u}}$ should be checked at regular intervals. If it exceeds 2,5 x $S_{L\ddot{u}}$ value, the airgap must be readjusted (see table). Slicht scoring on the friction faces is quite normal and can be ignored. Do not reface the friction faces otherwise the function of the clutch may be affected. The clutch can be re-adjusted several times. If the re-adjustment margin is fully used the complete clutch needs to be replaced.