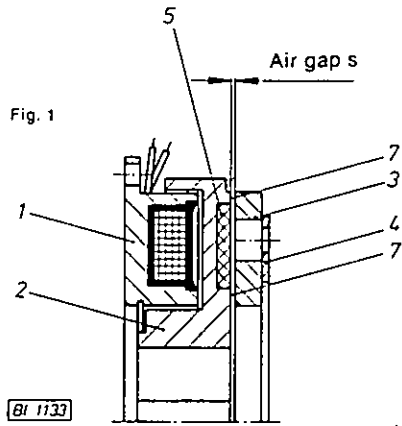


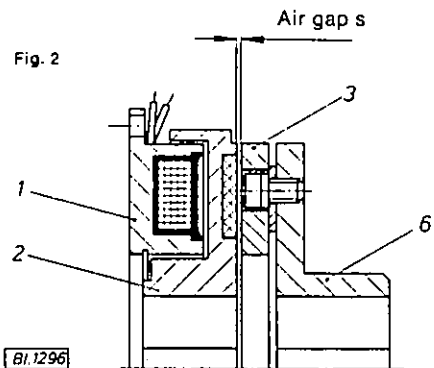
1. General comments

ORTLINGHAUS single-face clutches and brakes designed for dry operation only are supplied in the following versions:

1.1 Single-face clutches without slipping, Range 0-008

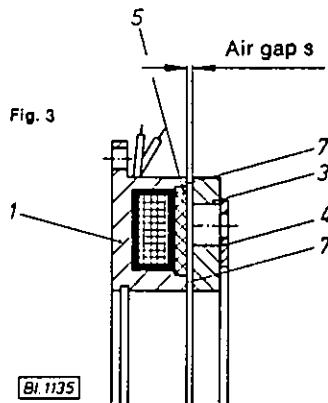


Range 0-008-100
Armature section without driving flange

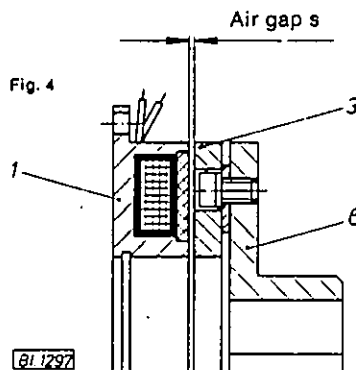


Range 0-008-101
Armature section with driving flange

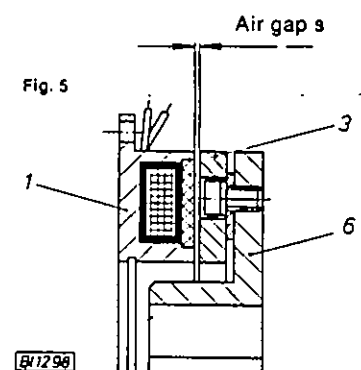
1.2 Single-face brakes, Range 0-009



Range 0-009-100
Armature section without driving flange



Range 0-009-101
Armature section with driving flange
hub outside



Range 0-009-102
Armature section with driving flange
hub inside

Single-face clutches and brakes transmit only approx. 40-50% of the stated catalogue torque when new. Only after an initial running-in period, when the friction surfaces carry fully, will the rated torque be safely transmitted. The running-in process can be speeded up by allowing the friction faces to slip under reduced load. However, temperature of the support plate and/or magnet body must not exceed approx. 100°C.

Rough pole surfaces or areas on the armature plate are normal and must not be smoothed. In the event of severe wear, it may become necessary to skim the pole surfaces and the liner ring of the support plate or magnet body. In this case, the friction surface of the armature plate must also be machined. It is however recommended to fit a new armature plate. Such remachining work re-establishes the new state so that full rated torque will only be safely transmitted after a running-in period of the friction surfaces.

2. Description

When voltage is applied to a clutch or brake, a magnetic field is generated which in the case of a clutch without slipping closes through magnet body (1), support plate (2) and armature plate (3) or in the case of a brake through magnet body (1) and armature plate (3). The armature plate is thus drawn in and forced against poles (7) and liner ring (5) thereby producing a positive connection. In the event of interrupted current supply, the magnetic field collapses and the armature plate is drawn back into its rest position through leaf spring (4) until the air gap "s" is once more established.

In ranges 0-008-101, 0-009-101 and 0-009-102, the armature plate (3) is connected to the drive flange (6) by a leaf spring.

Clutches and brakes normally operate with 24 V DC. Clutches and brakes are connected to the electric supply by two insulated cables which project approx. 200 mm from the magnet body.

3. Rectifiers

Rectifier units are normally supplied for primary 220 V 50-60 Hz and secondary 24 V DC. To allow for variations of $\pm 10\%$ in the mains voltage, additional terminals 2 and 4 are provided as illustrated. Increased output voltage can be obtained by using terminals 6 or 7.

The unit should be wired to supply 24 V + 10% at the clutch terminal when the coil is energized. A fuse is provided in the DC circuit.

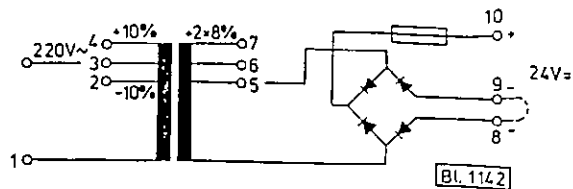


Fig. 6

3.1 Rectifier faults

1. Rectifier delivers no output.
 - a) No mains supply voltage.
 - b) Interruption in the primary or secondary wiring.
 - c) Burnt DC fuse.
2. Rectifier provides too high or too low output voltage. Internal wiring does not correspond with actual mains voltage and should be rewired acc. to paragraph 3.

4. Spare parts

When ordering spare parts, please state the factory number, stamped on the armature section. To avoid mistakes, please place all orders in writing or by telex.

The size of clutches and brakes can be established in accordance with the following data:

Outside diameter of armature plate	42	63	80	100	125	160	200	250	315
Size	00	01	05	09	13	17	25	33	42

5. Armatures

Due to the highly wear resistant friction lining, re-setting of the air gap is normally required only in cases of extremely arduous duty. Should it, however, be required, the driving flange, or corresponding part, must be moved axially to re-instate the following distance between armature plate (3) and the pole surface (7).

Clutch or brake size	00	01	05	09	13	17	25	33	42
Air gap "s" mm	0,2+0,1	0,2+0,1	0,3+0,1	0,3+0,1	0,3+0,1	0,4+0,2	0,5+0,2	0,8+0,2	1+0,2

6. Fitting faults and their rectification

6.1 Clutch or brake does not "pull" or "slips".

Check whether prescribed 24 V + 10% voltage is available. The liner ring may be oiled up (if necessary clean carefully with carbon tetrachloride).

6.2 Clutch or brake driving when idle.

Check whether clutch or brake is subject to residual voltage on account of damaged circuit elements or insulations. Check and possibly readjust air gap between armature and support plate or magnet body.

6.3 Clutch or brake not energizing.

Check air gap between armature plate and support plate or magnet body.

Check current path:

- a) Check whether requisite voltage of 24 V + 10% is applied to clutch (Fig. 8).
- b) Check whether coil is connected. Wire ammeter into circuit (Fig. 7) when the following current intensities should be indicated:

Size	00	01	05	09	13	17	25	33	42	
Clutch 0-008	Amp.	at 20°C	0,26	0,67	0,9	1,23	1,52	2,1	2,75	3,45
		at 80°C	0,21	0,54	0,73	1	1,23	1,69	2,23	3,45
Brake 0-009	Amp.	at 20°C	0,21	0,46	0,64	0,85	1,18	1,47	2	2,57
		at 80°C	0,17	0,38	0,52	0,69	0,96	1,19	1,62	2,1

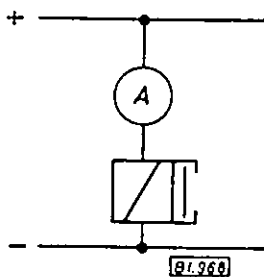


Fig. 7 Current measurement

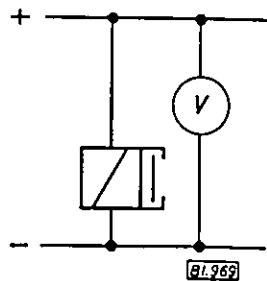


Fig. 8 Voltage measurement

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