Installation and Adjustment of the Release Monitoring with Microswitch on ROBA-stop®-silenzio® Type 896.2/8_ _._ _

(E079 06 000 003 4 EN)

These Additional Instructions serve only as a supplement to the brake Installation and Operational Instructions. Please also observe the Safety Regulations and Protective Measures in the Installation and Operational Instructions!

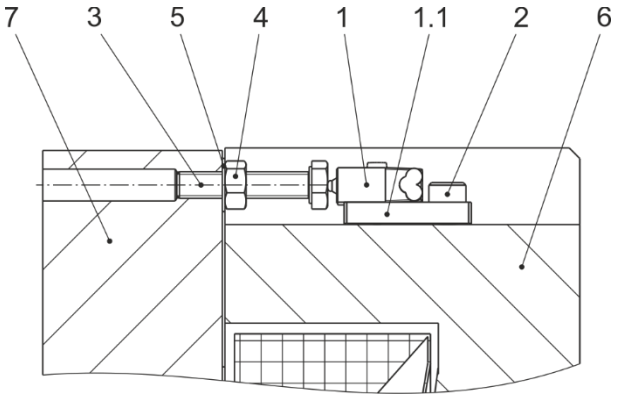

Fig. 1

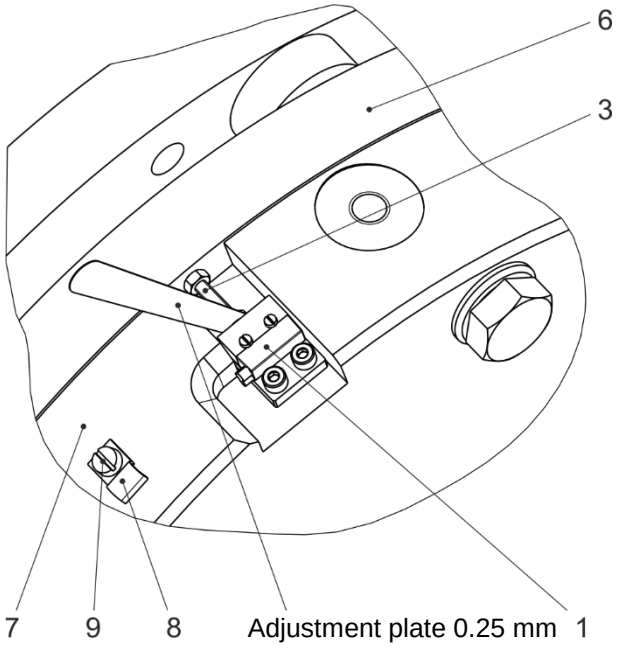

Fig. 2

Parts List (Only use *mayr* ® original parts)

Item	Name
1	Microswitch assembly (glued and screwed onto adaptor plate 1.1)
1.1	Adaptor plate
2	Cap screw
3	Hexagon head screw
4	Hexagon nut
5	Spring washer
6	Coil carrier assembly
7	Armature disk
8	Cable clamp
9	Cap screw

The ROBA-stop®-silenzio® brakes are supplied with manufacturer-side installed and adjusted release monitoring devices.
One microswitch (1) per brake circuit emits a signal for every brake signal condition change:
"brake opened" or "brake closed"

The customer is responsible for a signal evaluation of both conditions.
From the point at which the brake is energised, a time span of three times the separation time must pass before the microswitch signal on the release monitoring is evaluated.

Function

When the magnetic coil in the coil carrier (6) is energised, the armature disk (7) is attracted to the coil carrier (6).
The microswitch (1) emits a signal and the brake is released.

For brake design with hand release:
If the hand release is actuated, the switch signal of the microswitch (1) cannot be guaranteed.

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Installation and Adjustment of the Release Monitoring with Microswitch on ROBA-stop®-silenzio®
Type 896.2/8_ _._ _

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Microswitch replacement must only be carried out by qualified personnel trained at *mayr*®.

Replacement of a Defective Microswitch

1. Loosen the cap screw (9) and remove the cable clamp (8).
2. Remove the cap screws (2), then remove the adaptor plate (1.1) incl. microswitch (1).
3. Loosen the hexagon nut (4) slightly (< 1/8 turn) making sure that the hexagon head screw (3) remains pre-tensioned by the spring washer (5).
4. Hold the hexagon nut (4) using an open-end wrench and screw the hexagon head screw (3) in by approx. ½ turn in the direction of the armature disk (7) using a second open-end wrench.

The purpose of this is to make sure that the adjustment plate can be joined after installation of a new microswitch (1) without damaging or destroying the microswitch tappet.

5. Screw a new microswitch (1) incl. adaptor plate (1.1) onto the coil carrier (6) using cap screws (2), so that the front end edge of the adaptor plate (1.1) is parallel to the armature disk (7).
   Please observe the tightening torque of 2.9 Nm.
6. Re-install the cable clamp (8) using the cap screw (9).

Adjustment of the New Microswitch

The brake is screwed onto the machine wall using the tightening torque stated in the Installation and Operational Instructions. The brake must not be energised.

1. Take the loose adjustment plate **0.25 mm** from a standard feeler gauge set and join it between the hexagon head screw (3) and the microswitch tappet (1).
2. Connect the inspection lamp or measuring device (adjustment diode inspection) to the microswitch (1) (connection as NO contact => black and blue).
3. Hold the hexagon nut (4) using an open-end wrench and turn the hexagon head screw (3) in the direction of the microswitch (1) using a second open-end wrench until **the inspection lamp signals "ON".**
4. Hold the hexagon nut (4) using an open-end wrench and turn the hexagon head screw (3) **slowly** in the direction of the armature disk (7) using a second open-end wrench until **the inspection lamp signals "OFF".**

Please make sure that the open-end wrenches do not touch the adjustment plate.

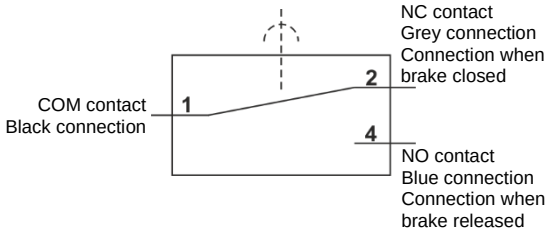
5. Hold the hexagon head screw (3) using an open-end wrench and counter the hexagon nut (4) using a second open-end wrench.
6. Remove the adjustment plate.

Functional Inspection

Carry out a functional inspection before brake initial operation.

- ❑ Brake de-energised:
  inspection lamp must signal "OFF".
- ❑ Brake energised:
  inspection lamp must signal "ON".

Microswitch Wiring Diagram (1):



Microswitch Specification

Characteristic values for measurement:	250 V~ / 3 A
Minimum switching power:	12 V, 10 mA DC-12
Recommended switching power: for maximum lifetime and reliability	24 V, 10...50 mA DC-12 DC-13 with freewheeling diode!

Usage category acc. IEC 60947-5-1:
DC-12 (resistance load), DC-13 (inductive load)

Microswitches cannot be guaranteed fail-safe. Therefore, please ensure appropriate access for replacement or adjustment.
The switching contacts are designed so that they can be used for both small switching powers and medium ones. However, after switching a medium switching power, small switching powers are no longer reliably possible. In order to switch inductive, capacitive and non-linear loads, please use the appropriate protection circuit to protect against electric arcs and unpermitted loads!

The Following Prevent Actuation of the Microswitch (1) and Lead to a Malfunction:

- ❑ Heavy contamination between the armature disk (7) and the coil carrier (6).
- ❑ Extreme warping on the armature disk (7).
- ❑ Excessively large air gap “a” between the armature disk (7) and the coil carrier (6) due to wear on the friction linings.
- ❑ Defective brake magnetic coil.
- ❑ No or incorrect voltage on the brake coil.

If none of these error sources prove to be the reason for incorrect release monitoring function, the microswitch (1) must be checked and the adjustment corrected if necessary.

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