



*Elektromotoren und
Gerätebau Barleben GmbH*



OPERATING INSTRUCTIONS
Oil sampler ZG 6.1.

1 Application

The ancillary unit for oil drainage is provided at normal service height and can be used for the following purposes:

- Draining of oil from the Buchholz relay; if no shutoff valve is provided between the Buchholz relay and the conservator, the conservator is also drained.
- Taking of oil samples from the Buchholz relay.

Hence, there is no need any more to mount on the transformer for the purpose of oil sampling.

2 Construction

The oil drain plug M12x1.5 is replaced by a shoulder nipple (**Figure 1/ Number 1**) that is screwed on the Buchholz relay. The tube (**Fig. 1/2**) to be fitted on the nipple is led to the oil drain (**Fig. 1/4**) that has to be provided by the user at an appropriate location on the transformer. It is advisable to fasten the tube every 2 m approx. using the pipe clamps (**Fig. 1/3**) supplied. The lower pipe clamp (**Fig. 1/5**) should be located at a minimum distance to the oil drain fitted.

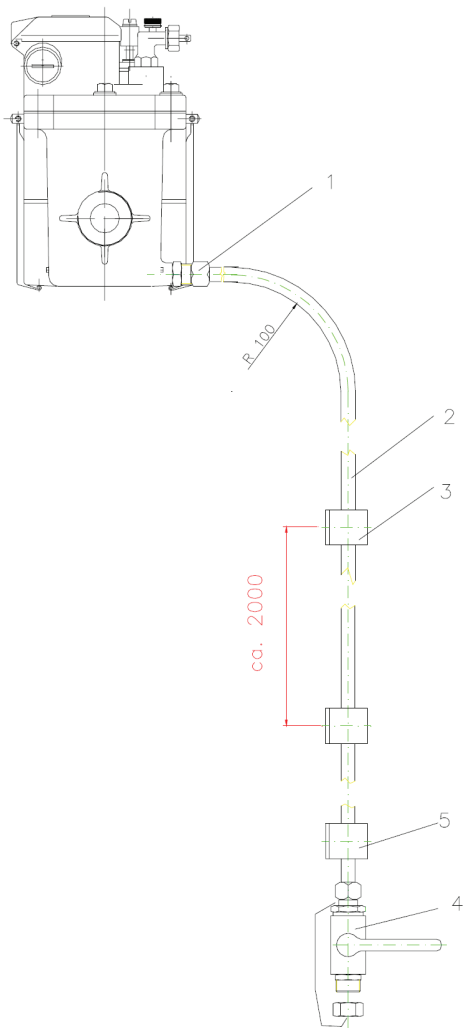


Figure 1 - Construction of oil drain unit ZG 6.1.

3 Function

The ancillary unit for oil draining is easy to operate. If there is no shutoff valve between the Buchholz relay and the conservator, oil will automatically come out of the oil drain after having turned the locking handle.

If a shutoff valve is available, the latter should be closed and the test valve on the Buchholz relay opened to ensure pressure compensation. Once the handle of the oil drain has been operated, the Buchholz relay is also drained automatically.

4 Installation

The oil drain unit is installed as follows:

- Remove the oil drain plug from the Buchholz relay.
- Screw in the shoulder nipple (**Fig. 2/1**) with a 12x2 O-ring as sealing element.
- Extend and bend the supplied copper tube (**Fig. 2/2**) in accordance with local requirements; for “horizontal” sections ensure a minimum slope of 15°.
- Connect the tube (**Fig 2/2**) with the shoulder nipple (**Fig 2/1**):
 - Fit the supplied back-up bushing on the tube end.
 - Fit the union nut on the tube.
 - Fit the olive on the tube end.
 - Fit the tube end so prepared on the shoulder nipple and fasten by means of the union nut.
- Fasten the tube on the transformer by means of pipe clamps as shown in **Figure 1**. **Figure 2** shows the drilling pattern for a pipe clamp.

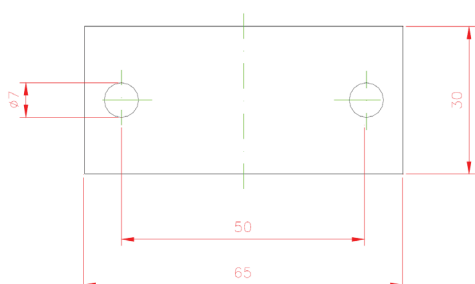


Figure 2 - Drilling pattern for a pipe clamp

The lower pipe clamp ensures stability of the oil drain unit as shown in **Figure 1**.

5 Maintenance

The unit is maintenance-free so that no special instructions are required.

6 Technical data

- Tube : copper tube \varnothing 12x1 mm, rolled up
- Standard length : 5 m, other lengths on request
- Temperature range: - 45°C to + 100°C
- Viscosity of transformer oil : 1 mm²/sec to 1,100 mm²/sec

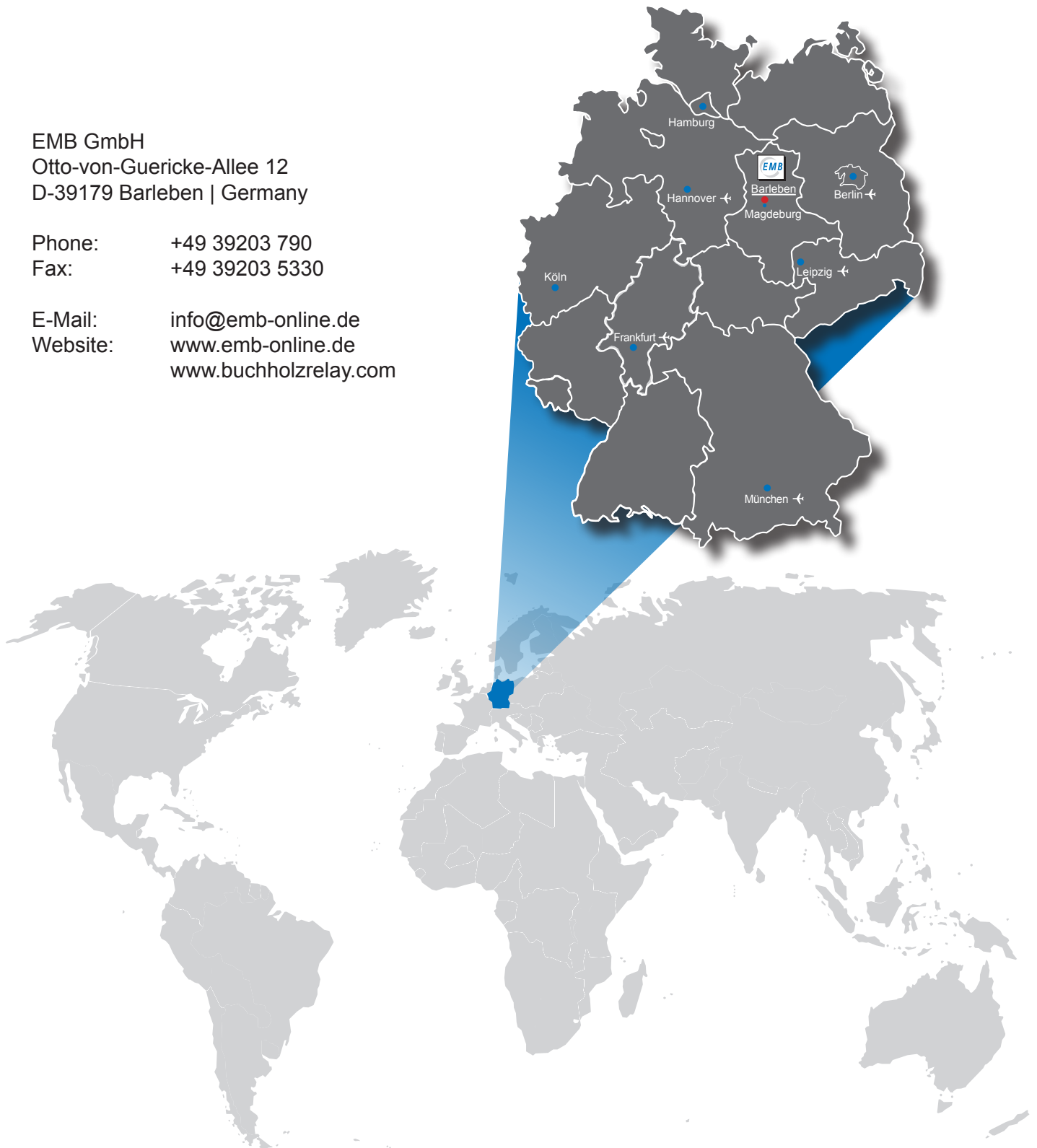


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