F L U X M E T E R B 1

Instructions for use

1.1 Connect the external power supply to the B1 using the 3,5 mm socket (25) at the backside of the Fluxmeter.

When using the external power supply, the internal 9 Volt-Battery will be switched off and the LED (15) lights.

Switch on the B1 using the left switch (1). Bring this switch in the position of the wished measuring range.

When pulling out the 3,5 mm plug of the power supply, the Fluxmeter goes automatically in the modus battery-power.

1.2 Use a measuring coil adequate to the respective measuring problem.
Connect the measuring coil to the input (14) under notice the correct polarity.

1.3 **"Input "** (14): The input-resistance is 10 000 Ω.

1.4 **Influence of the resistance "R" of the measuring coil** to the measuring range "C" and consequently to "C_R":

$$C_R = \frac{10\,000 + R}{10\,000} \times C \quad \text{Vs / digit}$$

1.5 **Driftcompensation:** During longer measuring brakes the integration- condensor will be slowly charged and has to be discharged before the next measuring will start.

To discharge the condensor you have to push the red switch (10) on the left side of the B1.

Is there a drifting measuring value then you have to compensate the drift using the potentiometer "DRIFT" (2).

A measuring coil must be connected during this procedure.

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The Potentiometer "DRIFT" at the front-panel has the function "fine".

If it is not possible to compensate the drift using this potentiometer, then set it in the middle-position and turn the "rough" spindle-trimmer (22) at the right side of the B1 using the small screw-driver delivered with the fluxmeter.

For all drift-compensations please use the measuring range 10^{-6} Vs, because the resolution is higher.

2.1 How to change the measuring-constant:

Using the switch "VAR-CAL" (12) you have the possibility to change the measuring constant of the fluxmeter.

In the position "CAL" the fluxmeter has two calibrated measuring ranges: 10^{-5} Vs and 10^{-6} Vs.

In the position "VAR" the B1 gives the possibility to change the fix constants of the measuring ranges in every constant between 10% and 110% of the two fix constants.

For changing the constant you first measure any value in the position "CAL" .

The shown value is for example 820 digits.

Then switch in the position "VAR" and turn the spindle-trimmer "VAR" (13) using the small screw-driver until a value of 410 digits is to see at the display.

The new constant is now 50 % of the fix constant.

2.2 How to create a measuring range 10^{-4} Vs:

In analogy turn the screw driver until the display shows 82 digits.
The new constant in this case is 10 % of the fix constant.

That means you have another measuring range now that is 10^{-4} Vs, if the switch (1) is in position 10^{-5}.

2.3 **Analog output:** At the backside of the B1 you find a 2.5 mm socket (21) to connect for example a X-Y-recorder, an A/D card or an oscilloscope.

The output-voltage is 199,9 mV when the display shows 1999 digits.

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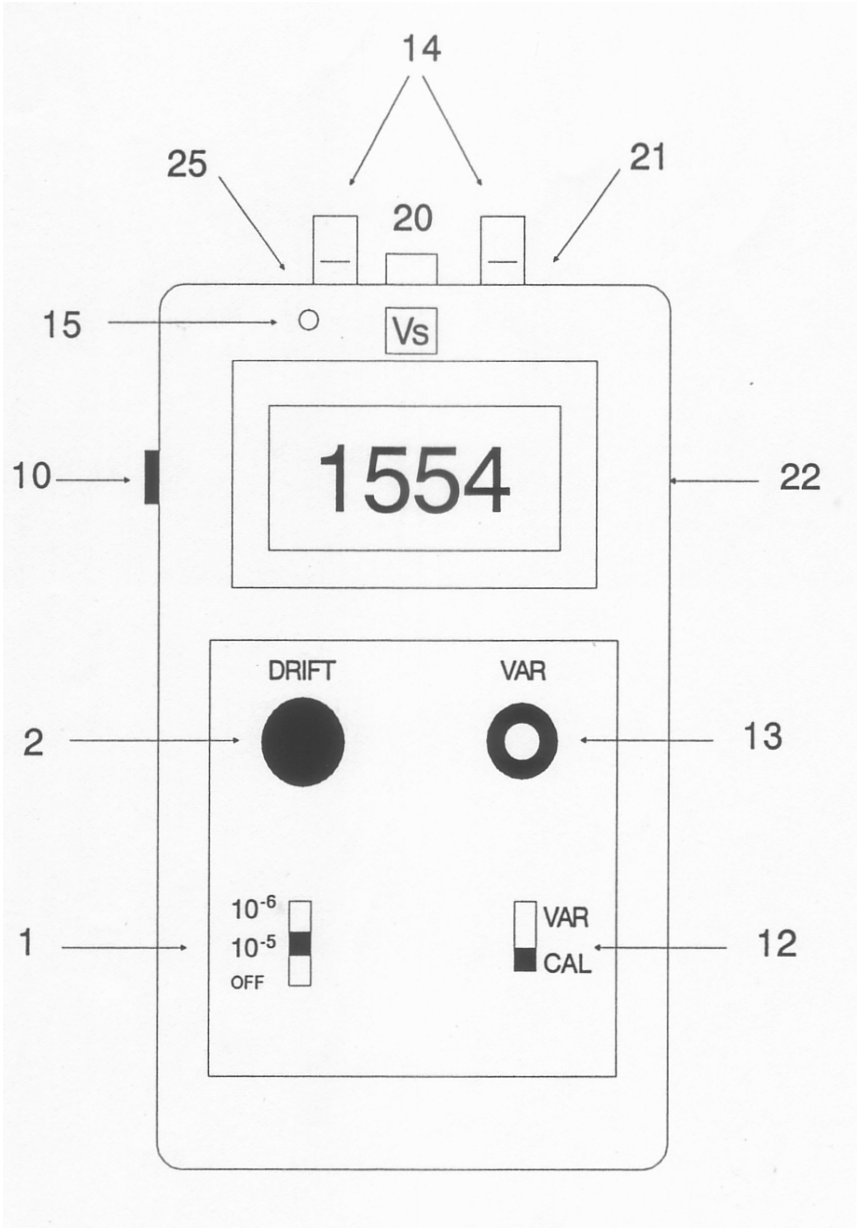
2.4 **Reset-foot-switch:** It is possible to connect a foot-switch for the function "Reset", using the socket (20) at the backside of the fluxmeter.



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