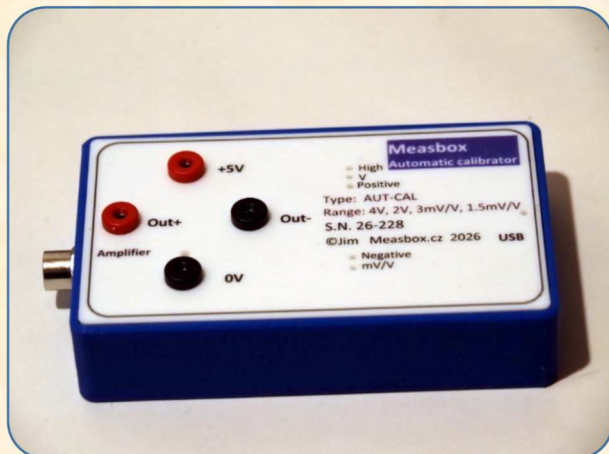


Automatic calibrator

Type: AUT-CAL

Datasheet



Description

The automatic calibrator is designed as a passive calibrator (does not require an external power supply). The individual

ranges are implemented by a precise resistor network. The switching of the individual ranges is done by means of relays with gold contacts, which are controlled by commands sent over the serial line from the **ADclient** application in the superior PC.

The AUT-CAL calibrator has 2 basic functions:

1. Operational **verification** – verification of the correct functioning of the EMS-ETH and EMS-PLC amplifiers.
2. Complete **recalibration** of these amplifiers.

Both of these functions are implemented in software into the **ADclient** measurement program (the program must be switched to calibration mode) and are designed to be fully automatic. The user only preselects the type of function (**verification** / **recalibration**). By activating it, the selected function is performed in sequential steps. The verification or recalibration process of the entire amplifier takes about 30 or 40 seconds. The **ADclient** program takes care of setting the gain of the verified amplifier (via TCP/IP protocol) and setting the calibrator range (via USB serial line). To connect the calibrated amplifier, the calibrator is equipped with a standard M8 (female) connector. The calibrated amplifier is connected to the calibrator with a special cable that connects the calibrator with all eight analog inputs of the amplifier. The control serial line is connected via USB-C connector. For checking the electrical parameters, the calibrator is equipped with four sockets (2mm).

The result of the **verification** is a table showing the deviations between the measured value and the value from the calibrator. The result of the **calibration** is a table of calibration quotients. These quotients can be easily written to the EEPROM of the calibrated amplifier and also to a file (Excel) for documentation.

PARAMETERS

Number of ranges	10
Range [V].....	$\pm 2V$, $\pm 4V$, $0V$
Range [mV/V]	$\pm 1.5.mV/V$, $\pm 3m/V$, $0mV$
Iput - PC side	USB-C (virtual Com port)
Input - amplifier side	M8 (F)
Supply voltage	5 V DC (USB)
Power consumption	1 W
Ambient operating temper.....	$+10^{\circ}C$. $+30^{\circ}C$
Dimensions	130 x 66 x 25 mm
Weight	90 g

Measbox.cz
info@measbox.cz
Prague, Czechia