



Excellence in HF measurement technology

# Factory calibrations of the highest quality

CALIBRATION AND ADJUSTMENT

## Why calibrate regularly?

Wireless measuring devices may deviate from nominal values or specifications over time. The functional capability of wireless measuring devices is influenced by pressures of day-to-day operation caused by temperature changes, start-up and shut-down procedures, moisture or even simple oxidation. These devices therefore need to be calibrated regularly.

## What makes MESTEC factory calibration different?

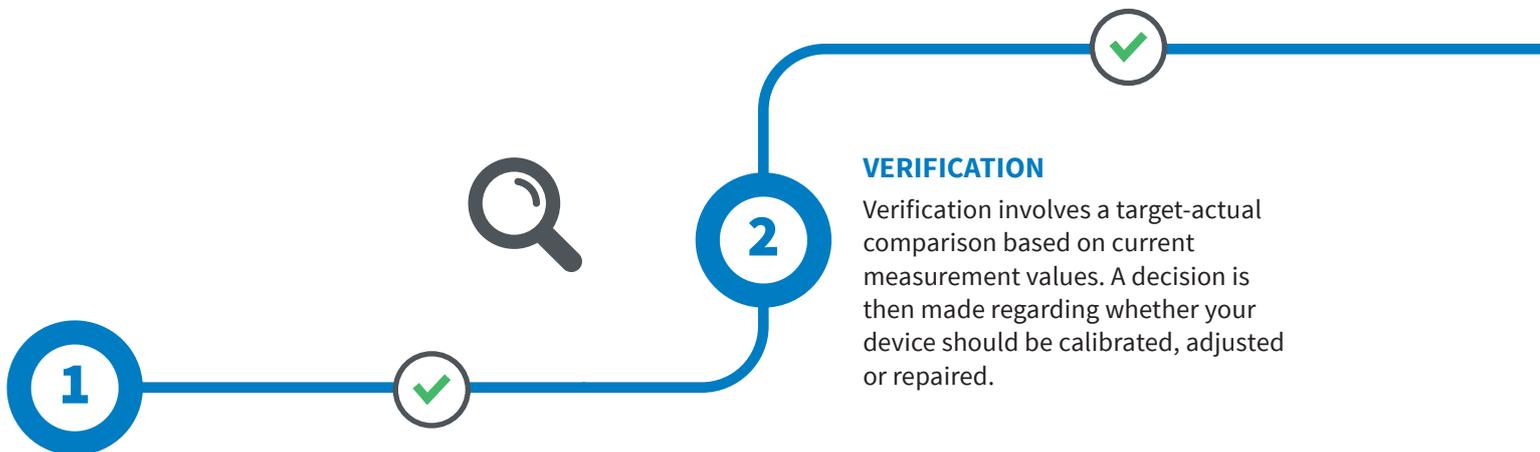
MESTEC factory calibration performed on a regular basis ensures that the functional reliability and accuracy of your wireless measuring equipment complies with the specifications of a new device.

The basis for this is the fully automatic calibration and adjustment which checks the overall functional capability of a wireless measuring device. Influence by external factors is therefore impossible.

Measurement of options installed such as duplex or analyser is also included. You therefore receive optimal throughput times when comparing scope and cost of measurement.

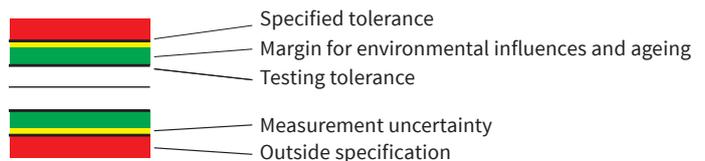


## Factory calibration process - calibration and adjustment



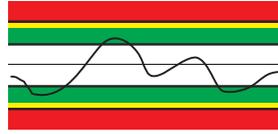
### INCOMING GOODS TEST

The incoming goods test involves your device undergoing an initial inspection, i.e. the external appearance and the buttons are checked. The self check then follows. The initial diagnosis is available at the end of the incoming goods test.



## Threshold values within calibration

### LEVEL 1



Device moves within thresholds, but exceeds the testing tolerances. Calibration is necessary.

### LEVEL 2



Device moves within testing tolerances. It passes the standard calibration test.

### LEVEL 3



Device functions with maximum precision following additional calibration

## CALIBRATION

When calibrating, values determined using a measurement device are compared to reference values. This shows whether the measurement values fall within or outside a defined tolerance. At MESTEC, all device-specific testing points are checked in this process. The range extends from 249 to 580 testing points and, in some cases, with options even up to 1000 testing points. This is the only way to determine the proper functioning of the device.

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## FINAL TEST

The final test at MESTEC is the fine-tuning at the end of each factory calibration. The quartz crystals are adjusted, the electronic safety check is performed in accordance with occupational health and safety check (BGV A3), and the calibration mark and the guarantee seal are attached. Your device is then cleaned and provided with a calibration certificate and test report prior to shipping.

## ADJUSTMENT

MESTEC performs an adjustment if the tolerance range is exceeded. This is necessary in order to enable calibration of all measurement values which can be determined using the device. Despite calibration, approximately one out of every two measurement devices require adjustment. Because errors in untested frequencies cannot be resolved, the device may deliver inaccurate data in certain ranges.

## Safety also ensured during shipping

At MESTEC we use specially produced original packaging with accompanying inlays to ensure secure shipping of your highly sensitive measuring instruments. In addition to this, all devices are supplied with a ShockWatch sticker in order to prevent transport damage.



## Benefit from a range of advantages with regular MESTEC factory calibration:

- + Low throughput times despite high measurement scope
- + Overall functional capability and accuracy ensure low failure rate of your terminal devices
- + Early detection of defects reduces your repair costs
- + Multiple increases in device service life
- + MESTEC customers receive technical support with measurement applications

## About us

Automotive companies, other industries and security authorities have relied on our measurement technology for more than 25 years. MESTEC uses this expertise to ensure they remain a trusted benchmark for technical excellence.



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