

Policy of the calibration laboratory BD SENSORS s.r.o. for declaring the statement of conformity in calibration certificates

The measurement uncertainty associated with estimated error of the DUT is a reality that needs to be considered when declaring the statement of conformity with a given specification. Therefore, "decision rule" must be defined, which determines how the measurement uncertainty is taken into account.

EN ISO/IEC 17025:2018 defines a decision rule as "rule that describes how measurement uncertainty is accounted for when stating conformity with a specified requirement". The risk of false acceptance and the risk of false rejection are interlinked and a decrease in one causes an increase in the other. The choice of decision rule should be based on sufficient information and in close cooperation with the customer. When selecting decision rule, one should take into consideration the importance of the specific application (e.g. aviation, military, type of industry) as well as the financial implications of the decision. Choosing the right decision rule is a "business decision" and flexibility in decision rules from the strictest to the looser ones for acceptance or rejection is needed to meet the diverse requirements of the industry.

Where the decision rule is prescribed by the customer, our calibration laboratory reports on the statement of conformity so that the statement clearly identifies:

- a) to which results the statement of conformity applies;
- b) which specifications, standards or parts thereof are met or not met;
- c) the decision rule applied.

If the decision rule is not prescribed by the customer, the procedure is as follows:

Pressure gauges manufactured in accordance with EN 837-1, EN 837-3

Pressure balances/Dead weight testers

The default is to use a binary decision rule with the guard band equal to the expanded measurement uncertainty with a probability of 95 % ($w = U_{95\%}$) according to clause 4.2.2 ILAC-G8: 09/2019.

In other cases, we do not provide a statement of conformity automatically (without instructions from the customer).