



To participants

Additional points to a report on an interlaboratory comparison

(ILC pressure2022:1).



The bag carrying 2 pieces of equipment for calibration.

Author

Håkan Källgren
Swedish Metrology and Quality AB

Calculations

Peter Lau
MNE-Konsult AB

This additional report covers some extra calibration points asked by some participants. These pressure points are beyond the ordinary ones used in the inter-comparison. They were not part of the first calibration by the reference laboratory but were added in the final calibration to make available a comparison not with all others but just with the reference laboratory.

The results of these few extra points concern both sensor 1 (up to 300 bar) and sensor 2 (up to 2000 bar). A main reason for this extension of the large inter-comparison report is that the participants could not reach all pressure levels but wanted to achieve a check at their upper pressure limits. Another reason could be to check the linearity of a reference equipment.

All together two points for sensor 1 and three points for sensor 2 are compared in table 1. The different participants have the same identity as in the main report. In contrast to the evaluation there in table 1 only the found indication error and the belonging uncertainties are listed together with the reference data from Rise (Swedish national metrology institute) working as reference laboratory. For details on the characteristic of the used En-criteria please look up the main report for this inter-comparison. The data in table 1 were fetched from the calibration certificates provided by the participants.

Table 1. Result of extra comparison points

Asked extra Pressure points	Participant	Different participants		Reference laboratory		En-value
		Indication error bar	Uncertainty bar	Indication error bar	Uncertainty bar	
Sensor 1						
145	P6	0,12	0,03	0,129	0,008	-0,29
250	P10	0,2483	0,119	0,238	0,011	0,09
Sensor 2						
700	P17	-0,12	0,7	-0,11	0,09	-0,01
700	P4	-0,09	0,5	-0,11	0,09	0,04
1000	P3	-0,15	0,2	-0,02	0,12	-0,56