

# CALIBRATION REPORT

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## **CALIBRATION PROPERTIES**

Calibrated by: Anders Thorstad Bø  
Type/Producer: HKM375-17BARA  
SN: 8344-11-583  
Range: 1-10 bar A  
Unit: bar

Druck PTX 1830  
2867610  
0-10 bar a  
kPa

## **CALIBRATION SOURCE PROPERTIES**

Type/Producer: DPI 601  
SN: 14206/96-1  
Uncertainty [%]: 0,01

## **POLY FIT EQUATION:**

$Y = -508.96964516E-3X^0 + 1.69622524E+3X^1$

## **CALIBRATION SUMMARY:**

Max Uncertainty : 0.040161 [%]  
Max Uncertainty : 0.000415 [bar]  
RSQ : 1.000000  
Calibration points : 23

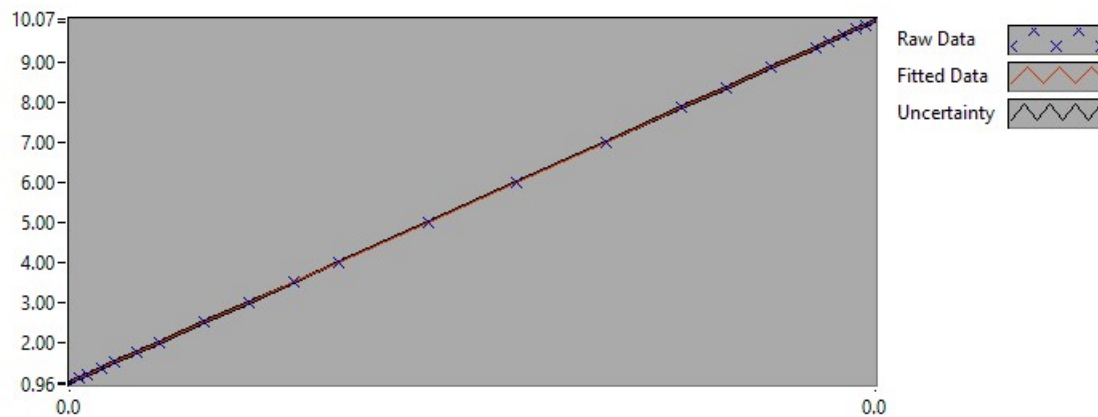


Figure 1 : Calibration chart (The uncertainty band is multiplied by 100 )

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Anders Thorstad Bø

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**CALIBRATION VALUES**

Value [bar]	Voltage [V]	Best Poly Fit [bar]	Deviation [bar]	Uncertainty [%]	Uncertainty [bar]
1.002512	0.000891	1.002827	-0.000315	0.040161	0.000403
1.103665	0.000951	1.103792	-0.000127	0.035968	0.000397
1.203816	0.001010	1.204257	-0.000441	0.032509	0.000391
1.354042	0.001099	1.354787	-0.000745	0.028291	0.000383
1.505271	0.001188	1.505866	-0.000596	0.024904	0.000375
1.754647	0.001334	1.753828	0.000818	0.020613	0.000362
2.003021	0.001481	2.002826	0.000195	0.017423	0.000349
2.508784	0.001779	2.508846	-0.000062	0.012930	0.000324
3.005534	0.002072	3.004882	0.000652	0.010077	0.000303
3.510295	0.002369	3.509612	0.000683	0.008078	0.000284
4.012052	0.002665	4.012016	0.000036	0.006680	0.000268
5.014564	0.003256	5.014251	0.000313	0.004993	0.000250
6.009064	0.003843	6.008807	0.000257	0.004206	0.000253
7.011576	0.004434	7.011273	0.000304	0.003919	0.000275
7.863862	0.004936	7.863978	-0.000116	0.003900	0.000307
8.363616	0.005231	8.364126	-0.000510	0.003919	0.000328
8.863370	0.005525	8.863313	0.000057	0.003971	0.000352
9.369133	0.005824	9.369059	0.000074	0.004039	0.000378
9.515353	0.005910	9.516002	-0.000649	0.004063	0.000387
9.668584	0.006000	9.668401	0.000183	0.004084	0.000395
9.820814	0.006090	9.820824	-0.000010	0.004108	0.000403
9.921967	0.006149	9.921779	0.000188	0.004121	0.000409
10.029128	0.006213	10.029318	-0.000189	0.004139	0.000415

**COMMENTS:**

Test with AI-configuration AI-Bridge  
Vex=2.5V (Module can't handle 10V)  
Temp = 20.5  
Vert H-diff = 0

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The uncertainty is calculated with 95% confidence. The uncertainty includes the randomness in the calibrated instrument during the calibration, systematic uncertainty in the instrument or property which the instrument under calibration is compared with (dead weight manometer, calibrated weights etc.), and due to regression analysis to fit the calibration points to a linear calibration equation. The calculated uncertainty can be used as the total systematic uncertainty of the calibrated instrument with the given calibration equation.