

# CERTIFICATE OF CALIBRATION

ISSUED BY: LAMBDA CALIBRATION LTD

DATE OF ISSUE: 29-May-14

CERTIFICATE No: 306520



Lambda  
CALIBRATION LTD

11-13 Chorley Central  
Business Park  
Stump Lane  
Chorley  
PR6 0BL  
Tel: 0845 241 1533

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APPROVED SIGNATORY

J Carmichael K Quigley  
P Davies A Kelly D Whalley

Customer: Premier Autoclaves Service & Solutions Ltd, Keighley BD20 5LN

Item No: 61022692

Description: A used Druck DPI 610 (is) Digital Pressure Calibrator

Date of Cal: 28-May-14

Basis: Procedure No. C.I.M-101, C.I.E-01&03 and the Manufacturer's Specifications

Equipment Used: LDP-15 , LDW-100-02, LMMC-04, LVD-21

Temperature: 20°C +/- 1.5°C

Calibration Medium: 0 to -1 bar: Air, 0 to 20 bar: Nitrogen

Inlet Port Orientation: Vertical

Pressure Ref Point: The top of the pressure inlet port

Visual Examination: Display damaged

Notes:

Manufacturers Specifications: Pressure:  $\pm 0.025\%$  FSD  
Voltage:  $\pm(0.05\% \text{ Rdg} + 0.004\% \text{ FS})$   
Current:  $\pm(0.05\% \text{ Rdg} + 0.004\% \text{ FS})$

Uncertainty of Measurement: 0 to -1 bar:  $\pm 0.0004$  bar + readability of UUT  
0 to 20bar :  $\pm 0.0087\%$  of applied pressure + readability of UUT  
DC Voltage:  $\pm 120$ ppm + readability of UUT  
DC Current:  $\pm 0.08\%$  + readability of UUT

Comments: The reported results fall within the manufacturers specification

The SI unit of pressure is the pascal (Pa) ... 1MPa=10bar=145.038lbf/in<sup>2</sup>=10.1972kgf/cm<sup>2</sup>. 1kPa=10mbar=0.2953inHg=7.50062mmHg=4.01463inH<sub>2</sub>O

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

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UKAS ACCREDITED LABORATORY No: 0495

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Range Max:  Resolution:   
 Range Min:  Readability:  Units:

Applied Pressure [1]	UUT Reading [2]	Deviation [2] - [1]	Deviation as % FSD
-0.9500	-0.951	-0.0010	-0.005
0.0000	0.000	0.0000	0.000
0.6899	0.691	0.0011	0.005
4.1398	4.140	0.0002	0.001
8.2798	8.280	0.0002	0.001
12.4197	12.420	0.0003	0.001
16.5592	16.560	0.0008	0.004
20.0086	20.010	0.0014	0.007
16.5592	16.560	0.0008	0.004
12.4197	12.420	0.0003	0.001
8.2798	8.280	0.0002	0.001
4.1398	4.140	0.0002	0.001
0.6899	0.690	0.0001	0.000
0.0000	0.000	0.0000	0.000
-0.9500	-0.950	0.0000	0.000

## DC Voltage Accuracy

Before Adjustment UUT Reading (Vdc) [1]	Actual Applied Voltage (Vdc) [2]	Deviation [2] - [1]
30.000	30.0144	0.0144
25.000	25.0114	0.0114
10.000	10.0060	0.0060
-10.000	-10.0010	-0.0010
-30.000	-30.0097	-0.0097

## DC Current Accuracy

Before Adjustment UUT Reading (mAdc) [1]	Actual Applied Current (mAdc) [2]	Deviation [2] - [1]
10.000	10.0005	0.0005
25.000	24.9987	-0.0013
50.000	49.9957	-0.0043