# NATA CERTIFICATE OF CALIBRATION



WIKA Australia Pty Ltd

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Report On:

INDUSTRIAL PRESSURE GAUGE

**Customer:** 

HIRE EXPRESS

9 FORGE ST

**BLACKTOWN NSW 2148** 

**Certificate No:** 

NL211727

Our Ref No:

SO00367623

Date Tested:

01-Nov-2021

Customer PO: cash **Description:** 

Date Issued:

01-Nov-2021

Item/Cat No:

NPI02-R

**Reference Equipment Used:** Serial No:

Z80107P-1

Make: Type/Model: **ENERPAC** 213.53.063

Certificate No: Calibration Date: 26-May-2021

NL210806

Serial No: Scale Range: 21719 0/10000 psi

Calibration Due: 26-May-2022

Scale Interval:

200 psi

D.U.T. Pressure	As Found	True Pressure As Left			
		Rising	Correction	Falling	Correction
psi	psi	psi	psi	psi	psi
0	0	0	+0	0	+0
2000	2000	2000	+0	1949	-51
4000	3942	3942	-58	3924	-76
6000	5914	5914	-86	5852	-148
8000	7973	7973	-27	7947	-53
10000	9921	9921	-79	9921	-79

Accuracy (Tolerance): ±3 % Full Scale = 300 psi

Conversion Factor: psi = 6.894758 kPa

# **Conditions of Test:**

- Uncertainty of reported corrections ± 58 psi 1
- Coverage factor of k = 2 at a confidence level of 95% 2
- 3 Instrument test position: Vertical
- 4 Medium of test: Water
- 5 Ambient temperature during test 20°C ± 2°C
- 6 Instrument tapped lightly before reading taken
- Instrument tested in accordance with and does comply to MSA Test Method 2 2008 7
- Instrument does comply with stated accuracy as the correction is no larger than the tolerance and the uncertainty of the correction is no larger than the accuracy tolerance

Comments:

NIL

Calibration was performed at:

Unit K. 10-16 South Street Rydalmere NSW 2116

Checked By:

Approved Signatory:

Elzbieta Grzeslak





**Laboratory Accreditation Number 410** 

Accredited for compliance with ISO/IEC 17025 - Calibration. Measurement results are traceable to the International System of Units (SI). Reference Equipment has been calibrated by National Measurement Institutes, NATA or ISO/IEC 17025 accredited laboratories. This document shall not be reproduced, except in full.

F.PA.040.02

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Software Version: 3.8.3

Certificate No: NL211727

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Sheet 1 of 2

# NOTES

#### 1. Calibration:

A set of operations that establish, under specified conditions, the relationship between values of quantities indicated by a measuring instrument or measuring system, or values represented by a material measure or a reference material, and the corresponding values realised by standards. Results relate only to the item calibrated. The uncertainty stated is only for the nominal points unless otherwise stated.

#### 2. Correction:

Value added algebraically to the uncorrected result of a measurement to compensate for systematic error.

#### D.U.T.:

Device Under Test (D.U.T.), Indicated Pressure is referenced to the True Pressure, Indicated(Mean Value), Rising or Falling and the correction listed on the report, (Rising or Falling) applied to the D.U.T.

#### Pressure:

Indicated (Mean Value), Rising or Falling of the Instrument is referenced to the True Pressure, and the correction listed on the report, (Rising or Falling) applied to the Instrument.

#### 3. Coverage Factor "k":

Numerical factor used as a multiplier of the combined standard uncertainty in order to obtain an expanded uncertainty. Note: - A coverage factor "k", is typically in the range 2 to 3.

## 4. Expanded Uncertainty (As reported):

The product of the combined standard uncertainty and a coverage factor. The coverage factor is selected so as to produce an interval about the measurement within which the values that could be attributed to the measureand may be expected to lie with a high (preferably stated) level of confidence.

#### 5. Limits of Error:

Limits of error are specified as a percentage of the maximum instrument value or span, at a specified reference temperature.

# 6. Measureand:

A physical quantity, property or condition which is measured.

### 7. Standard Uncertainty:

Uncertainty of the result of a measurement expressed as a standard deviation.

# 8. Traceability:

The property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons, all having stated uncertainties.

# 9. Uncertainty (of measurement):

Parameter, associated with the result of a measurement, that characterises the dispersion of the values that could reasonably be attributed to the measureand.

## 10. Bibliography:

NATA News Sept 1994, Uncertain about Uncertainties [1], [4], [6], [8]

Guide to the Expression of Uncertainty in Measurement, 1995 [2] B.2.23, [3] 2.3.6, [7] .2.3.1, [9] B2.18.

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