

Paroscientific, Inc.
Pressure Instrument Configuration

SN: 107948 Part Number: 1700-003-0 Model: 8CB4000-I Port: Oil Filled

Calibration Date: 05-Oct-07 Report No: 7649 Technician: WMR

Pressure Range: 0 to 6,000 meters Temperature Range: -2 to +40 deg C

Customer: Acal Italia, S.R.L. Report Date: 05-Oct-07

Address : Viale Milanofiori Pal. E-1 Sales Order: 24555

20090, Assago Milano Italy S/R Number :

| Configuration | | Calibration Coefficients | |
|---------------|--------------|---|--|
| BL: 0 | PT: N | U0: 5.789717 μ sec | |
| BR: 9600 | QD: - | Y1: -4027.267 deg C / μ sec | |
| DD: - | QO: - | Y2: -14469.34 deg C / μ sec ² | |
| DL: 0 | SL: 0 | Y3: -148055.3 deg C / μ sec ³ | |
| DM: 0 | SN: 107948 | C1: -27829.47 psi | |
| DO: 0 | ST: 10 | C2: -1412.122 psi / μ sec | |
| DP: 6 | SU: 0 | C3: 96550.93 psi / μ sec ² | |
| ID: 01 | TI: 666 | D1: 0.0394791 | |
| IM: 0 | TR: 952 | D2: 0.0000000 | |
| LL: .0000000 | TU: 0 | T1: 30.05617 μ sec | |
| LH: 6000.000 | UF: 1.000000 | T2: 0.594138 μ sec / μ sec | |
| MC: Y | UL: | T3: 59.25795 μ sec / μ sec ² | |
| MD: 1 | UM: user | T4: 46.41182 μ sec / μ sec ³ | |
| MN: 8CB4000-I | UN: 1 | T5: 2476.481 μ sec / μ sec ⁴ | |
| OP: 6100.000 | US: 0 | TC: 0.6781335 | |
| PF: 6000.000 | VR: R4.02 | PA: 0.0000000 | |
| PI: 666 | ZI: 0 | PM: 1.0000000 | |
| PL: 7200.000 | ZS: 0 | | |
| PO: 0 | ZL: 0 | | |
| PR: 238 | ZV: .0000000 | | |
| PS: 0 | | | |

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Prepared by



Technology

CERTIFICATE OF CONFORMANCE

CUSTOMER: ACAL ITALIA, S.R.L.

PURCHASE ORDER: 18720

TRANSDUCER MODEL: 8CB4000-I

PART NUMBER: 1700-003-0

SERIAL NUMBER(S): 107948

PAROSCIENTIFIC INCORPORATED certifies that the part(s) identified above complies with the requirements of the above order and has been manufactured in accordance with engineering drawings, material and process specifications, testing procedures, and applicable specification drawing of Paroscientific Incorporated. The transducer(s) identified has been calibrated and tested over the specified pressure and temperature range and meets the requirements of the applicable specification drawing. Primary pressure, temperature standards and transfer standards used at Paroscientific Incorporated for calibration and testing have traceability to the National Institute of Standards and Technology and are regularly checked and calibrated according to Paroscientific QA Procedure Q8521, Inspection Test and Measurement Equipment, in accordance with the requirements of ISO 9001:2000.



10/5/07

AUTHORIZED SIGNATURE

DATE

Warren Schuchman, Quality Assurance



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CERTIFICATION OF TRACEABILITY TO NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

Primary pressure and temperature standards used in the calibration and testing of Paroscientific pressure transducers or Meteorological Systems have traceability to the National Institute of Standards and Technology through the following documentation.

Bell and Howell Primary Pressure Standard:

Bell and Howell, Model 6-201-0001, Piston/Cylinder P2-919/C2-1523 via DH Calibration Report No. 15441 and 16653 traceable to NIST. Weight Set 1, P/N 6-002-0002, via DH Calibration Report No. 14481 and 16654 traceable to NIST. Weight Set 2, P/N 6-002-0002, via DH Calibration Report No. 14576, 16603, 31227 and 39628 traceable to NIST. Piston/Cylinder P2-652/C2-1378 via DH Instruments Calibration Report No. 14575, 16602, 31226 and 39627 traceable to NIST. Piston/Cylinder P1-231/C1-384 via DH Instruments Calibration Report No. 13170 traceable to NIST. Piston/Cylinder P/N 6-201, No. P1-949/C1-922, via DH Instruments Calibration Report 17176 and 17445, traceable to NIST.

DH Primary Pressure Standard, Oil Operated Gauge:

DH Instruments, Model 5306, Piston/Cylinder S/N 3375, via DH Calibration Certificate Report No. 8398, 22146, 32354 and 45306 traceable to NIST. Piston/Cylinder 3511 via DH Calibration Report No. 8399, 22147, 32353 and 45307 traceable to NIST. Mass Set S/N 2032 via DH Calibration Report No. 24809, 24826, 45305 and 45308 traceable to NIST.

DH Primary Pressure Standard, Pneumatic Operated Gauge:

DH Instruments, Model 5203, Piston/Cylinder S/N 4845, via DH Calibration Certificate No. 8541, 27161 and 38275 traceable to NIST. Mass Set S/N 2032/3293 via DH Calibration Certificate Nos. 4630, 24809, 8540, 32142, and 45305 traceable to NIST.

DH Primary Pressure Standard, Pneumatic Operated Gauge:

DH instruments, Model PG7601 via DH Instruments Calibration No. 32162 and 41492 traceable to NIST. Piston/Cylinder S/N 305 via DH Instruments Calibration No. 20281, 32161 and 41490 traceable to NIST. DH Instruments 35 kg Mass Set No. 2052 and Bell No. 261A via DH Instruments Calibration Report No. 20282, 32163, 32164, 41491 and 41493 traceable to NIST.

Hart Scientific Precision Thermometer (MET3A only):

Hart Scientific, Black Stack Model 1560 Serial Number A34523, PRT Scanner Model 2562 Serial number A34523, traceable to NIST via report number A4707031, Temperature Probe Model A1959 Serial Numbers 4424A-02, 4424A-04, 4424A-05, 4424A-06 and 5177C-02 traceable to NIST via report numbers 196a-06, 198a-06, 199a-06, 200a-06 and 183a-06.



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CERTIFICATE OF CALIBRATION

TRANSDUCER MODEL: 8CB4000-I

SERIAL NUMBER: 107948

The Paroscientific transducer(s) identified above has been calibrated and tested with one or more of the following primary pressure and temperature standards. All have traceability to the National Institute of Standards and Technology.

Bell and Howell Primary Pressure Standard

Pneumatic Absolute or Gauge Dead Weight Tester Part Number: 6-201-0001, S/N 4034 and S/N 1014

— Piston/Cylinder: 6-001-0002, P2-919/C2-1523,

Weight Set 1: 6-002-0002

Range: 1.5 to 50 psi [10 to 345 kPa]

Accuracy: 0.010 percent of reading



— Piston/Cylinder: 6-001-0002, P2-652/C2-1378,

Weight Set 2: 6-002-0002

Range: 1.5 to 50 psi [10 to 345 kPa]

Accuracy: 0.010 percent of reading



— Piston/Cylinder: 6-001-0001, P1-949/C1-922,

Weight Set 2: 6-002-0002

Range: 0.3 to 5 psi [2 to 34 kPa]

Accuracy: 0.015 percent of reading

DH Primary Pressure Standard

Pneumatic Absolute or Gauge Dead Weight Tester Part Number: PG7601 S/N 161

— Piston/Cylinder: S/N 305, Mass Set: S/N 2052

Range: 0.7 to 50 psi [5 to 345 kPa] absolute mode, 0.29 to 50 psi [2 to 345 kPa] gauge mode

Accuracy: 0.002 percent of reading

DH Primary Pressure Standard

Pneumatic Gauge Dead Weight Tester, Model 5203, S/N 5557

— Piston/Cylinder: S/N 4845, Mass Sets: S/N 2032, S/N 3293

Range: 20 to 1,600 psi [0.14 to 11 MPa]

Accuracy: 0.005 percent of reading

DH Primary Pressure Standard

Oil Operated Gauge Dead Weight Tester, Model 5306, S/N 3505



— Piston/Cylinder: S/N 3375, Mass Set: S/N 2032

Range: 40 to 20,000 psi [0.3 to 138 MPa]

Accuracy: 0.01 percent of reading above 200 psi [1.4 MPa]
or 0.02 psi [0.14 kPa] at lower pressure



— Piston/Cylinder: S/N 3511, Mass Set: S/N 2032

Range: 145 to 72,500 psi [1 to 500 MPa]

Accuracy: 0.02 percent of reading above 725 psi [5 MPa]
or 0.145 psi [1 kPa] at lower pressure

Hart Scientific Precision Thermometer (MET3A only)

— Black Stack model 1560 S/N 97568, PRT Scanner model 2562 S/N A34523, Temperature Probe Model A1959:
S/Ns 4424A-02, 4424A-04, 4424A-05, 4424A-06 and 5177C-02.

Range: -50° to 60° C.

Accuracy: .015°C.



Tested By: 

DATE 10-05-07

