



## Marine Calibration Kit



### Description:

Marine calibration kit is a compact, all-in-one solution for calibrating pressure gauges, temperature transmitters, and switches, designed specifically for the marine industry. Supplied in a rugged case with valid calibration certificates, it meets international regulations.

### Kit Includes:

- Temperature Calibrator: 30°C to 650°C
- Advanced Pressure Gauge: -1 to 60 bar (Pneumatic), 0 to 700 bar (Hydraulic)
- Medium Pressure Hand Pump: -1 to 60 bar (Pneumatic)
- High Pressure Hand Pump: 0 to 700 bar (Hydraulic)
- Loop Calibrator: mV/V/mA source & measurement
- Digital Multimeter: 4.5-digit

### Temperature Calibrator Kit

- Range: 30° to 650°C
- Accuracy: +/- 1.0°C
- Bath stability +/-0.1°C
- Stabilization time: 10min.
- Heating time: Amb to 650°C - 12min.



- Resolution: 0.1°C
- Units: °C/°F switchable
- Immersion Depth: 120mm
- Immersion Diameter: 25.4mm
- Radial Uniformity: @50°C +/-0.05°C

### Pressure Calibrator Kit (Pneumatic)

#### Pressure Gauge

- Range: -1 to 60 bar
- Accuracy provided: 0.1% FS, 0.05% FS, 0.02% FS
- Resolution: 0.001
- Sealing : IP67
- 13 selectable units



#### Medium Pressure Hand Pump

- Generation of Pressure: 60 bar
- Generation of Vacuum: 0.95 bar
- Medium: Dry Air
- End connection: ¼" BSP(F) test & master

### Pressure Calibrator Kit (Hydraulic)

#### Pressure Gauge

- Range: 0 to 700 bar
- Accuracy provided: 0.1% FS, 0.05% FS, 0.02% FS
- Resolution: 0.01
- Sealing : IP67
- 9 selectable units



#### High Pressure Hand Pump

- Generation of Pressure: 700 bar
- Medium: Hydraulic oil/ water
- End connection: ¼" BSP(F) test & master



## Signal Calibrator Kit

### Loopcal-1(both source & measure)

- Range: 0 to 25mA & 0 to 30 V
- Accuracy: +/-0.015% of reading + 2 digit
- Resolution: 0.001
- Short circuit protection up to 30mA
- Loop power supply: 24V+/-10%



### Digital multimeter

- 600 V Cat III safety rating
- AC/DC voltage measurement up to 1000V
- AC/DC current measurement up to 10A
- Measures voltage, resistance, continuity, capacitance
- Diode test, data hold



## Standard delivery

Each APG is supplied with

1. APG Digital Indicator-2 nos
  - Rubber boot
  - AA alkaline batteries x 4nos (placed inside the gauge)
2. Medium Pressure Hand Pump
  - 1m 4mm nylon hose with 1/4" BSP (F) adaptor
3. High Pressure Hand Pump
  - 1/2 meter flexible hose (630 bar) with swivel adaptor of 1/4" BSP (F)
4. Dry block temperature calibrator-1
  - Power Cable: 1 no.
  - Test Lead (2 wire): 1 no.
  - Insertion Tube: Dual Hole - 1 x 1/4" + 1 x 12.5mm Dual Hole - 1 x 1/4" + 1 x 8.2mm
  - Insertion Tool: 1 no.
  - Spare Fuses: 8A, 15A - 2 nos. each
5. loopcal-1
  - Rubber boot: 1 no
  - Carrying Pouch: 1 no.
  - Test Lead (2 wire) : 2 nos
  - AAA alkaline batteries x 6nos (placed inside the gauge)
6. FLUKE-15B+ Digital Multimeter
  - Test leads with caps
7. Warranty certificate for all instruments
8. User manual for all instruments
9. Traceable Calibration Certificate

## Optional

- Set of adapters
- carrying case
- Accredited (NABL) Calibration Certificate as per ISO/IEC 17025 Standard



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**Manufacturer of Test benches  
Calibration Instruments**





## Advanced Pressure Gauge

## APG-Series

## Data Sheet



## FEATURES

- 0.02 % Full scale accuracy
- Pressure ranges from -1 bar to 1000 bar
- Gauge, and absolute ranges
- 14 selectable pressure units
- Wide choice of Pneumatic and Hydraulic range
- IP 67 Protection Class
- Logging Rate Up to 36,000 samples per second
- 0 to 100% Progress Bar for the FS

## DESCRIPTION

High precision digital pressure gauge with an accuracy ranges of 0.1, 0.05, 0.02% of full scale available in pressure ranges from -1 bar to 1000 bar with a wide choice of pressure ranges. APG Series is capable of data logging, enabling precise recording and traceability of pressure measurements over time. APG features 14 selectable pressure units, zero, tare & peak hold display functions. APG is supplied as a standalone digital indicator or in hydraulic or pneumatic test kits with our wide range of hand-held pressure pumps to be used as high accuracy pressure calibrator for calibrating pressure gauges, pressure transducer and pressure switches.

## Technical Specifications

Range code	Range	Resolution	Units
1	-1 to 1	0.0001	bar, psi, Kg/cm <sup>2</sup> , KPa, MPa, mmHg, atm, mH <sub>2</sub> O, inHg, inH <sub>2</sub> O, ftH <sub>2</sub> O, cmH <sub>2</sub> O, mbar, mmH <sub>2</sub> O
2	-1 to 2	0.0001	bar, psi, Kg/cm <sup>2</sup> , KPa, MPa, mmHg, atm, mH <sub>2</sub> O, inHg, inH <sub>2</sub> O, ftH <sub>2</sub> O, cmH <sub>2</sub> O, mbar, mmH <sub>2</sub> O
20	-1 to 20	0.001	bar, psi, Kg/cm <sup>2</sup> , KPa, MPa, mmHg, atm, mH <sub>2</sub> O, inHg, inH <sub>2</sub> O, ftH <sub>2</sub> O, cmH <sub>2</sub> O, mbar
40	-1 to 40	0.001	bar, psi, Kg/cm <sup>2</sup> , KPa, MPa, mmHg, atm, mH <sub>2</sub> O, inHg, inH <sub>2</sub> O, ftH <sub>2</sub> O, cmH <sub>2</sub> O, mbar
70	-1 to 70	0.001	bar, psi, Kg/cm <sup>2</sup> , KPa, MPa, mmHg, atm, mH <sub>2</sub> O, inHg, inH <sub>2</sub> O, ftH <sub>2</sub> O, cmH <sub>2</sub> O, mbar
200	0 to 200	0.01	bar, psi, Kg/cm <sup>2</sup> , KPa, MPa, atm, mH <sub>2</sub> O, inHg, ftH <sub>2</sub> O
400	0 to 400	0.01	bar, psi, Kg/cm <sup>2</sup> , KPa, MPa, atm, mH <sub>2</sub> O, inHg, ftH <sub>2</sub> O
700	0 to 700	0.01	bar, psi, Kg/cm <sup>2</sup> , KPa, MPa, atm, mH <sub>2</sub> O, inHg, ftH <sub>2</sub> O
1000	0 to 1000	0.1	bar, psi, Kg/cm <sup>2</sup> , MPa, atm, mH <sub>2</sub> O, inHg, ftH <sub>2</sub> O

Accuracy provided: 0.1%FS, 0.05%FS, 0.02%FS \*

Special Function: Min/Max/ZERO

Operating Temperature: 0 to 60°C

Pressure media: all liquid and gas compatible with SS316 (non-corrosive)

Pressure unit: bar, psi, Kg/cm<sup>2</sup>, KPa, MPa, mmHg, atm, mH<sub>2</sub>O, inHg, inH<sub>2</sub>O, ftH<sub>2</sub>O, cmH<sub>2</sub>O, mbar, mmH<sub>2</sub>O

Pressure connection: 1/4" BSP male for all ranges

Storage temperature: -20°C to 70°C

Display: 7 segment large LCD display

Backlight: white LED backlight

Character height in display: 15mm height

Sealing: IP 67

Over pressure: 120%FS up to 40 bar  
105%FS above 40 bar

Power supply: 4 x AA size alkaline battery

Physical Dimension: 105 x 110 x 50(LBH) in mm

Casing material: ABS Plastic

Battery backup: 2000 hours (STD)

400 hours (for LA, HA) \*Note: for DL model it may vary\*

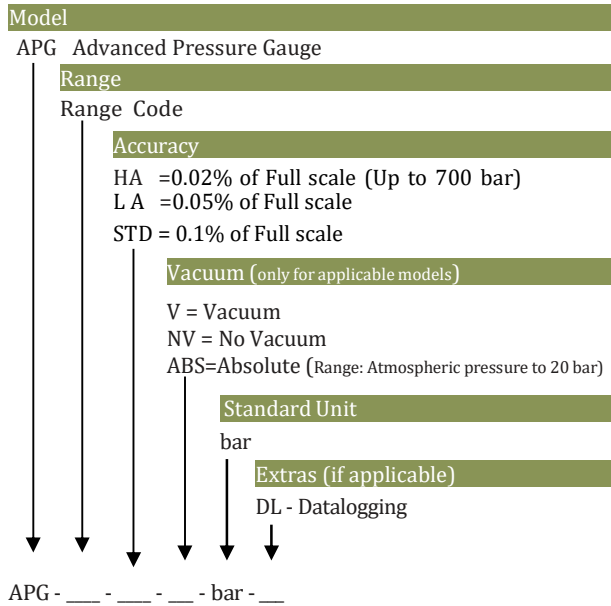
Progress Bar: 0 to 100% (FS for pressure alone)

Warranty: 1 year (battery not included)

Safety Standards: IEC 61000-4-2: Testing and measurement techniques – Electrostatic discharge immunity test.  
IEC 61000-4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test.



## Ordering Information



### Note:

- \* - Accuracy specifications include effect of non-linearity, hysteresis & repeatability at 23±5°C
- \*ABS models offer a maximum accuracy of up to 0.05% F.S. only

## Recommended Pressure Source

Below models have been recommended by our R&D to enhance calibration accuracy and performance, and are being considered for inclusion.

1. HP series
2. CP series
3. HPP series

Check our website for more catalogues.

## CONTACT



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**Manufacturer of Test benches  
 Calibration Instruments**

## Pressure Range Code

Range Code	Range	Vacuum
1	0 to 1 bar	✓
2	0 to 2 bar	✓
20	0 to 20 bar	✓
40	0 to 40 bar	✓
70	0 to 70 bar	✓
200	0 to 200 bar	NA
400	0 to 400 bar	NA
700	0 to 700 bar	NA
1000	0 to 1000 bar	NA
X	User defined	

## Data logger:

Data Output Format .TXT format via Serial Port Monitor

Real-Time Clock (RTC) 24-hour internal clock

Time Configuration:

- User-Defined Date & Time

Start Function Modes:

- Immediate Start
- Scheduled Start (date/time-based triggering)

Logging Capacity by Up to 36,000 samples

## Standard delivery

Each APG is supplied with

- APG Digital Indicator
- Rubber boot
- AA alkaline batteries x 4nos
- Transit Carrying Case
- Warranty certificate
- User manual
- Traceable Calibration Certificate
- Data cable (Only for DL model)

## Optional

- Adapters: 1/4" BSP F x 1/4" NPT M
- 1/4" BSP F x 1/2" BSP M
- 1/4" BSP F x 1/2" NPT M
- 1/4" BSP F x 3/8" BSP M
- Quick Couplers
- Accredited (NABL) Calibration Certificate as per ISO/IEC 17025 Standard
- Data logging facility





## Pneumatic Hand Pump HP-Series (Medium Pressure) Data sheet

\*This image is for marketing purposes; the actual instrument may vary slightly\*



### FEATURES

Compact, lightweight & hand operated,  
Generates pressure as well as vacuum (user selectable)  
Hand operated scissor action pump  
Vernier with fine adjustment enables precise setting  
Recommended strictly for air / pneumatic applications only

### DESCRIPTION

- Pneumatic hand pumps create pressure to test and adjust pressure measuring tools.
- These tests can be done in labs, workshops, or right where the measurement is needed.
- The HP-series hand pump is small but can make accurate pressure up to 60 bar and switch to vacuum up to -950 mbar.
- The highest pressure or vacuum depends on how much you're testing.
- The pump has a fine adjustment valve for precise adjustments, ensuring accurate tests.
- To connect reference tool directly on top of the pump and connect the test item using a hose with a G ¼ female thread, which comes with the pump.

## Ordering Information

### Model

HP Hand Pump

### Range

10=Generates Pressure upto 10 bar  
20=Generates Pressure upto 20 bar  
25=Generates Pressure upto 25 bar  
30 = Generates Pressure upto 30 bar  
35=Generates Pressure upto 35 bar  
40 = Generates Pressure upto 40 bar  
50=Generates Pressure upto 50 bar  
60 = Generates Pressure upto 60 bar

### Vacuum

0.95 = Generates vacuum upto -28 inHg  
0.9 = Generates vacuum upto -26 inHg

HP - \_\_\_\_ - \_\_\_\_

## Technical Specifications

- Range: generation of pressure: refer pressure range
- 0.95 = Generates vacuum: 0.95 barMedium: Dry air
- End connection: ¼" BSP (F)  
Test & MasterWeight: 800 grams
- Dimension: 235 mm (H) x 180 mm (W) x 65 mm (D)

## Standard delivery

- 1m 4mm nylon hose with ¼" BSP (F) adapter
- 5.23 X 2.62, 4.47 X 1.78 'O' Ring – each 3 nos.
- Carrying Pouch
- User manual
- Test certificate

## Optional

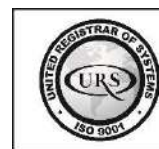
- Set of bonded seals 1/8" – 3nos.
- Set of Nylon washers – 1/8", 1/4", 3/8", 1/2" – each 5nos.
- Quick coupling & connector – 1no.
- Set of adapters:  
1/4" BSP (M) x 1/8" BSP (F), 1/8" NPT (F), 1/4" NPT (F),  
3/8" BSP (F), 3/8" NPT (F), 1/2" BSP (F), 1/2" NPT (F)  
- 1 No. each

## Contact



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For Calibration: [www.calibrationlab.in](http://www.calibrationlab.in)  
**Manufacturer of Test benches  
Calibration Instruments**



CC-2828



## Hydraulic Hand Pump

## HP-P series

## Data Sheet



\*This image is for marketing purposes; the actual instrument may vary slightly\*

### Ordering Information

#### Model

HP-P

#### Range

100 (0 to 100 bar)  
200 (0 to 200 bar)  
400 (0 to 400 bar)  
700 (0 to 700 bar)

HP-P - \_\_\_\_

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**Manufacturer of Test benches &  
Calibration Instruments**

### FEATURES

- Compact, lightweight, and hand-operated.
- Generates pressure through a hand-operated scissor action pump.
- Equipped with a vernier for fine adjustment, enabling precise setting.
- Recommended strictly for oil and water applications only.

### DESCRIPTION

- Hydraulic Hand pumps create pressure to test and adjust pressure measuring tools.
- Tests can be done in labs, workshops, or right where the measurement is needed.
- The pump is small but powerful, making pressure up to 700.
- The maximum pressure depends on the volume of the test.
- The pump features a vernier for precise pressure adjustment.
- Tools connect directly on top of the pump to connect 1/4<sup>th</sup> female connector and another end to connect to a hydraulic hose, with various adapter sizes included in the delivery.

### Technical Specifications

Range: Generation of pressure: up to 700bar (based on model selected refer

Medium: Oil/Water

End connection: 1/4<sup>th</sup> (F) Master & Test

Weight: 2 Kg (approx.)

### Standard delivery

- Hydraulic Hand Pump
- Hydraulic Oil: 100cc
- 1/4" Bonded Seal - 5 nos
- 1/8" Bonded Seal - 2 nos.
- 5.28 x 1.78 'O' ring - 3 nos
- User Manual
- Test Certificate
- Hydraulic Hose-1no
- Carrying Pouch

### Optional delivery

- Adaptors: 1/4" BSP(M) x 1/8" BSP (F), 1/8" NPT (F), 1/4" NPT (F), 3/8" BSP (F), 3/8" NPT (F), 1/2" BSP (F), 1/2" NPT (F), 1/4" BSP(M).
- Set of Nylon Washers: 1/8", 1/4", 3/8", 1/2" - each 5 nos.



CC-2828

# Compact Sized Dry Block Temperature Calibrator

## TS Series

*Easy to Carry - Onsite Model*



\*This image is for marketing purposes; the actual instrument may vary slightly\*

Carrying Bag



### Application

Fast and time saving, reliable true testing and calibration of temperature sensors such as thermocouple, RTD, temperature gauges, switches, transmitters including other most commonly used temperature sensing instruments and devices.

### Features

Dry Block. Better Accuracy. Good Stability. Best Performance. Fast Heating and Cooling. Controlled through PID Controller



Carrying Case (optional)

### Design

Compact Sized Design (12x20x22.5 cm - WxDxH), Less Weight (5.8 kg / 4.4 kg) Easy to carry to the field for on-site calibration. Very useful tool designed to carry out temperature calibration especially for all the thermal calibration laboratory

### TECHNICAL SPECIFICATION

Model	Range at 23 C	Accuracy	Bath Stability	Stabilization Time	Heating Time	Cooling Time
400 TS	30 to 400°C	±0.6°C	±0.1°C	12 Min.	Amb. to 400°C	400 to 100°C
					5 Min.	18 Min.
650 TS	30 to 650°C	±1.0°C	±0.1°C	12 Min.	Amb. to 650°C	650 to 100°C
					12 Min.	28 Min.

Resolution **0.1°C**

Units **°C / °F Switchable**

Display **LED Green & Orange**

Power Supply **230V AC ± 2.5% / 50 Hz, 1.6 KW or 115V AC ± 2.5% / 60 Hz, 1.2 KW**

Radial Uniformity **@50°C ± 0.05°C / @ 50°C ± 0.05°C @650°C ± 0.1°C / @ 400°C ± 0.1°C**

Immersion Diameter **25.4 mm**

Immersion Depth **120 mm**

Dimensions with Bush **120 x 200 x 225 mm (WxDxH)**

Weight (Approx.) **5.8 kg (650 TS); 4.4 kg (400 TS)**

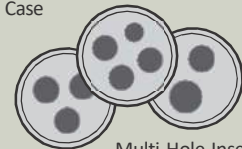
Switch Test **Provided**

### Standard Delivery

1. Instrument: 1 no.
2. Power Cable: 1 no.
3. Carrying Bag: 1 no.
4. Test Lead (2 wire): 1 no.
5. Insertion Tube : Dual Hole - 1 x 1/4" + 1 x 12.5mm  
Dual Hole - 1 x 1/4" + 1 x 8.2mm
6. Insertion Tool: 1 no.
7. Spare Fuses : 8A, 15A - 2 nos. each
8. User Manual: 1 no.
9. Traceable Calibration Certificate

### Optional

- Multi hole insertion tube: Custom built
- Accredited (NABL) Calibration Certificate as per ISO/IEC 17025 Standard
- Carrying Case



Multi-Hole Insertion Tube

Manufacturer of  
**TEST BENCHES**  
**CALIBRATION INSTRUMENTS**

**ISO 9001**  
*Certified Company*

[www.rndinstruments.com](http://www.rndinstruments.com)

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**ACCREDITED CALIBRATION LABORATORY**

*As per ISO / IEC 17025*

**THERMAL**  
**MECHANICAL**  
**ELECTROTECHNICAL**

[www.calibrationlab.in](http://www.calibrationlab.in)



# Loop Calibrator

## Loopcal-Series

### Application

Ideal for calibrating indicators, controllers, transmitters, receivers, switch test, and mA /V/ mV measuring instruments.

### Features

- Graphical Display
- 24 V Loop supply with mA measure, including 250  $\Omega$  HART resistor
- Measure loop current (0 mA to 20 mA, 4 mA to 20 mA)
- Switch test facility
- Simulation and Measurement of mV /V/ mA
- Dual display for source and measure
- % Setup Increase & Decrease – Customizable
- PC interface integrated with R&D Calibration Management Software
- Feather Touch Key Pad

### Current Terminal Input

Protection	: Short circuit protection (30mA)
Backlight	: LED backlight
Power supply	: 6 x AAA Battery
Low Battery Indicator	: Yes
Battery backup	: 40 hours @ no load condition
Loop power supply	: 24V $\pm$ 10%
Switch test	: 3.3V
Operating Temperature	: 0 to 60°C
Instrument Casing	: ABS Plastic
Instrument Dimensions	: 155 mm x 110 mm x 35 mm (LxWxD)
Instrument Weight	: 400 g

**Safety Standards:** IEC 61000-4-2: Testing and measurement techniques – Electrostatic discharge immunity test.

IEC 61000-4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test



### Specification

#### Measure and source mode:

Model	mA	V	Resolution	Accuracy
LOOPCAL-1	0 to 25 mA	0 to 30 V	0.001	$\pm$ 0.015% of Reading + 2digit
LCAL-05+	0 to 24 mA	0 to 30 V	0.01	$\pm$ 0.05% of Reading + 0.01 mA/V
LCAL-05	0 to 24 mA	NA	0.01	$\pm$ 0.05% of Reading +0.01 mA

Note 1: Accuracy specifications include effect of non-linearity, hysteresis and repeatability at 23 $\pm$ 5°C

Note 2: Maximum load 1000 ohms @ 20mA

Note 3: mA Source range up to 25 or higher based on requirement

### Standard Delivery

1. Instrument: 1 no.
2. Rubber boot: 1 no
3. Carrying Pouch: 1 no.
4. Test Lead (2 wire) : 2 nos.
5. User Manual: 1 no.
6. Traceable Calibration Certificate
7. 'AAA' Battery – 6 nos.

### Optional

1. Accredited (NABL) Calibration Certificate as per ISO/IEC 17025 Standard
2. R&D Calibration Management Software
3. Table top Design

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Manufacturer of  
**TEST BENCHES**  
CALIBRATION INSTRUMENTS

**ISO 9001**  
Certified Company

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