Portable Two Pen Pressure/Temperature Recorder
Series 50000

Overview

Bristol Babcock produced the World's 1st Pressure / Temperature Circular Chart Recorder in 1905.

Thereby setting a Standard that others find hard to follow.

It's main focus still being on Accuracy, Repeatability, Cost of Ownership and Safety.

All of the New Generation Recorders have an internal easily removable sub plate, on which all the components parts are fitted.

This makes for quick and easy Calibration, Maintenance and change of ranges (should it be required) by non-specialized personnel.

i.e. remove / replace complete calibrated sub plate assembly.

Typical 2 Pen Portable Version

All recorders are supplied with a Stainless Steel case that negates the necessity for further weather proofing and makes them Ideal for usage in all locations.

Measuring elements have a centre spindle that keeps the final drive shaft located at the centre of the range spring. This has the advantage of improved calibration accuracy, repeatability and reduced field errors caused by mechanical vibration.

All thermal systems are Mercury free, and can be supplied case, or, fully compensated for ambient temperature deviations along the capillary tubing.

Bristol Babcock spanning 3 centuries of Providing World Class Innovations

Standard Ranges
12-inch round-chart recorders for: Pressure, Temperature and Vacuum Measurement.
Specification Summary

Features
- +/- 0.5% of span accuracy *
- Two pens
- Varied element materials
- Integral chart hub
- Stainless Steel Case
- Stainless Steel Gasketed Door
- Carrying handle
- Adjustable leveling feet
- Dual Coin Operated Locks
- Optional 2 inch Pipe Mounting Bracket
- Optional Dual Key Lockable Door
- Optional Solid Fronted Stainless Steel Door
- Optional Shatterproof Macralon Window

Measuring Elements
The superior performance of Bristol Babcock Pressure and or Temperature Recorders is due primarily to their high quality measuring elements. Element are factory-calibrated to an accuracy of +0.5%* of span and built to maintain this accuracy under the most adverse environmental conditions. The range limits of each element are chosen so that it operates at stresses well below its elastic limit. This not only allows the use of the suppressed ranges, but also provides inherent over-range protection. Special elements are available for use where extreme over-pressures are expected.

Pressure Ranges
Bristol Babcock recorders offer standard pressure ranges from 0-15 psi (1bar) full vacuum; 0-2.9 inches of water (7 mbar) to 0-30,000 psig* (2000 bar*).

Calibrated Accuracy
- +/- 0.5% of span accuracy up to 10.000 psig (700 bar)
- * +/- 1% of span accuracy up to 30.000 psig (2000 bar)

Thermal Systems - General
Class I systems use the thermal expansion of organic liquid as a measurement of temperature, The major advantages of this particular class of thermometer are high sensitivity (permitting narrow measurement spans), adaptability to partial or suppressed ranges, and small bulb size. In ranges above 0° F, standard systems are available for any span of 50° F, or greater, and special over-size bulbs can be supplied for narrower spans. Minimum span depends upon temperature range, capillary length, ambient temperature span and over or under range protection required. Class IA systems are fully compensated for ambient temperature influences at the instrument case and along the capillary. These systems may be used with capillary tubing lengths up to 100 feet. Class IB systems are compensated for ambient temperature effects at the instrument case only.

Ambient Temperature Compensation
Class IA, fully compensated for ambient temperature variations at instrument case and along capillary tubing.
Class 1B, compensated for ambient temperature variations at instrument case only.
Maximum Capillary Tubing Length
Depends upon Ambient Temperature Span and Over Range Protection required. Where ambient temperature will vary +25° F from calibrating temperature, tubing lengths up to 100 feet may be used with a Class IA system. The flexible armoured capillary is Stainless Steel.

Bulb Material
Type 316 stainless steel is standard.

Temperature Range Limits
-115° C to +260° C
(-175° G to +500° F)

Calibrated Accuracy - Class IA & 1B
+0.5% of span

Case
Rectangular, Stainless Steel with Gasketed Stainless Steel Door.
Satin finish standard

Case Dimensions
12-inch model.
355 mm wide x 485 mm high x 147 mm deep

Weight
12-inch model.
Approximately 13.5 kilo

Chart Drives
Mechanical spring wound dual speed drives 1hr/3hr, 2hr/8hr or 24hr/7 day or multiple speed battery driven CSA certified intrinsically safe version are available.

Permanent Chart Records
Bristol Babcock Recorders provide a complete description of both past and present conditions. The exact time and duration of each Pressure and or Temperature variation is permanently recorded – both for immediate guidance, maintenance and for long-range planning purposes.