



THERMOCOUPLE MEASURING SYSTEMS

SECTION 7"

1 - BST ISOTHERMAL SHELL

Tuning up aeronautical, marine and automobile engines and following manufacturing process requires measuring parameters which are more and more numerous, especially in the temperature area. These measuring systems must meet the following requirements: increased precision, great reliability and a lower installation and maintenance cost.

The thermocouple measurement within the AIR LB ISOTHERMAL BOX meets all of these requirements and any other required thermocouple temperature measuring of any type.

It has 48 measuring channels internally wired with copper wire, 2 PT100 probes, or 2 WHEAT STONE bridges.

E: Chromel - Constantan

J: Iron - Constantan

T: Copper - Constantan

K: Nickel - Chrome - Nickel alloy (Chromel - Alumel)

R: Platinum rhodium 13% platinum

S: Platinum rhodium 10% platinum

B: Platinum rhodium 30%
platinum rhodium 6%

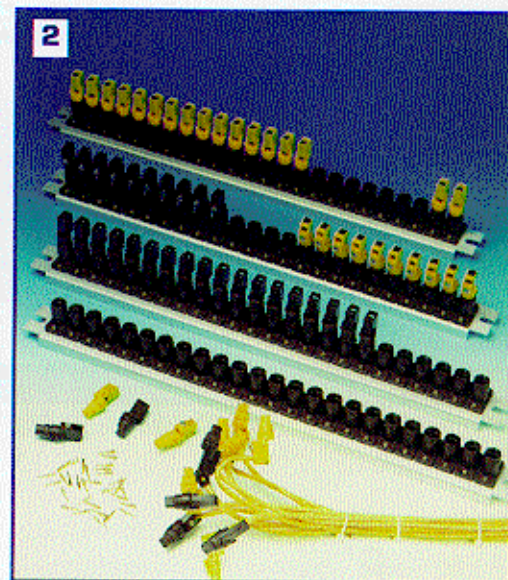
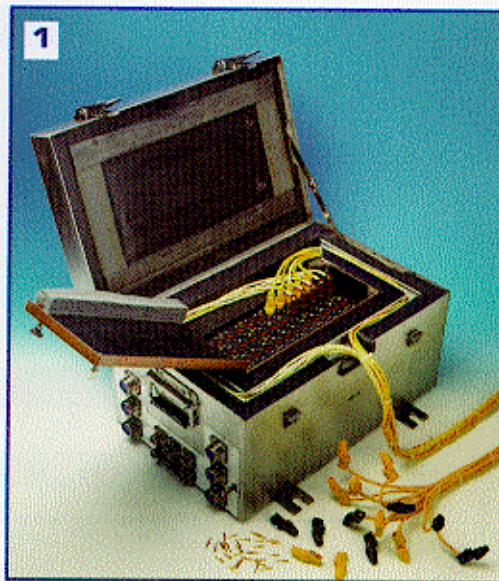
It is possible to mix various thermocouple types.

No intermediary metal is inserted in the circuit. The internal measuring temperature of the shell is done with two temperature resistance detectors, precision class 1/3 DIN, or with one or two thermocouple already calibrated.

Two assemblies are proposed: 3 wires with bridge incorporated in temperature resistance detector equipment and 4 wires without bridge.

The maximum discrepancy of the measurement obtained is 0,2°C when the AIR LB ISOTHERMAL BOX is used in a -20°C + 80°C environment.

There being no more extension or compensation cables, therefore electromotive force parasites that they engender disappear.



2 - THERMOCOUPLE TERMINAL MONOBLOCK RAILS

Quick junction intermediary connection system for normal precision measuring lines that do not go through the isothermal box.

Monoblock rails for 24 or 12 terminals including:

- 1 cadmium plated terminal board
- connecting receptacles with 3 female contacts (2 copper or 2 thermocouples + 1 copper grounding)
- movable plugs with grounding cable clamp



295 Kesmark
Dollard-des-Ormeaux,
Quebec, Canada H9B 3J1
Tel.: (514) 421-2153
Fax: (514) 421-3408
www.air-lb.ca