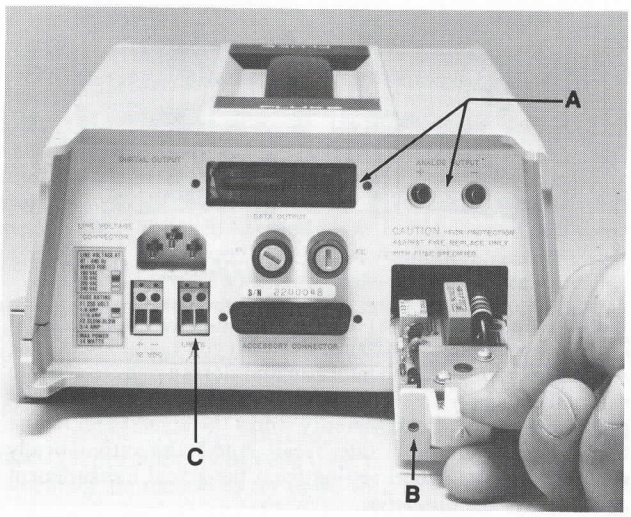
DIGITAL THERMOMETERS & SYSTEMS

2180A/2189A/2190A Thermometers

Output Option (-002)

For recording temperature measurements with a 2180A or 2190A, you can get Output Option -002. It provides both an analog output for chart recorders and a digital output for printers or computers, and may be installed in the field. The digital output is available in four forms, depending on connector pins and cabling used: Parallel ASCII, RS-232-C, TTY current loop, and IEEE-488 (using the Fluke 1120A Translator). The Y2026B RS-232-C Cable Adapter is available to convert the 36-pin PTI connector on the option to a standard 25-pin RS-232-C connector, or the user can wire his own cable to the connector provided.

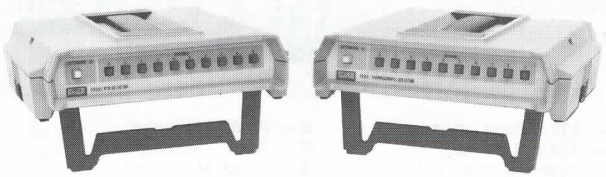
Option -002 is required when the thermometer alone is being used with a Fluke 2020A or 2030A Printer.



Rear view of 2190A showing the **(A)** *Output Option -002 Connector,* **(B)** *Y2030 Thermocouple Input Module, and* **(C)** *Limits Option -006 Relay Output.*

Multipoint Selector (Y2000 & Y2001)

The Y2000 RTD Multipoint Selector (for the 2180A) and the Y2001 Thermocouple Multipoint Selector (for the 2190A) increase the number of points your thermometer can monitor. Connect up to ten sensors to each multipoint selector. Cascade up to ten multipoint selectors for up to 100 measurement points — all using a single 2180A or 2190A Thermometer. Both units have ten pushbuttons to easily access a specific measurement point. To measure or monitor more than one *type* of RTD or thermocouple, take advantage of internal switching. This allows you to monitor five sensors of one type, five of another. With Output Option -002 installed, the channel number is sent to your printer or computer, too.



Y2000 **Y2001**

Multiple Limits and Alarms (Y2002)

The Y2002 Alarms Output accessory uses four independent comparator circuits for on/off control as well as alarms. Four sets of thumbwheel switches select a high- or low-limit mode, polarity, and the actual limit value. Each comparator signals out-of-limit conditions via an LED and a relay (latching or non-latching).

Thermometer Calibration (Y2003)

The Y2003 Thermometer Calibrator and 2190A Digital Thermocouple Thermometer can be used together to check the accuracy of a thermocouple or millivolt-measuring or recording instrument.

Accurate and completely portable, the Y2003-2190A combination provides a variable voltage output from -10 to +90 mV. The output voltage simulates a thermocouple output so that the reading on the 2190A Thermometer can be compared with a corresponding reading on any other thermocouple thermometer, either analog or digital. In addition, the Y2003 and 2190A can be used to calibrate millivolt chart recorders and digital or analog indicators measuring to 90 mV. Besides being used as a portable calibration system, the Y2003 can be used as a battery pack for the 2190A.

The 2190A/Y2003 Portable Calibration System

Battery Pack (Y2009)

The Y2009 Battery Pack is a rechargeable, self-contained 12V dc nickel-cadmium supply for up to five hours of continuous operation. An indicator light tells you when the batteries are low, while an automatic out-off prevents damage to the cells from excessive discharge.

IEEE-488 Bus Translator (1120A)

The Fluke 1120A Translator configured with Option 2XXXA-522 provides a link to the IEEE-488 bus. Connect either a 2180A or a 2190A to the 1120A and you'll have an inexpensive bus-compatible system. See page 181 and following sections for more information.