

# 740 Series Documenting Process Calibrators

Calibrators as versatile as you are



The 740 series Documenting Process Calibrators are rugged, handheld tools for the calibration and troubleshooting of process control instrumentation. These calibrators:

- Calibrate temperature, pressure, voltage, current, resistance, and frequency
- Simultaneously measure and source
- Automatically capture calibration results
- Document procedures and results to meet ISO 9000, EPA, FDA, OSHA, and other government requirements
- Measure/simulate eleven types of thermocouples and eight RTDs
- Store up to 8,000 readings in data logging mode (743B +744 only)
- Protected against dirt, dust, and moisture; unaffected by vibration
- PC interface (743B +744 only)
- Operates in English, French, German, Italian, and Spanish
- One and two-year calibration cycles
- Four types of built-in automated calibration procedures; linear transmitter, square root devices, one and two-point limit switches
- User entered values allow users to capture readings measured or sourced by other devices
- Custom units permit capturing data in measurement units not directly supported by the calibrator, e.g. ppm or rpm. Optional shunt supports mA/mA applications
- Built in calculator (four functions plus SQRT) permits readings to be recalled from the measurement function, or to store calculation results to a source function
- Autostep permits the calibrator to be used as a remote, continuously varying test source
- Programmable measurement delay supports slowly-responding instruments
- Handling of fast pulsed RTD transmitters and PLCs, with pulses as short as 1 ms.

## 741B: A complete documenting calibrator

The 741B is the economical choice for plants that don't use PCs or that require traditional paper forms. It has storage capacity for a day's calibration and measurement data. When you're back at the shop, recall the data on-screen to fill out calibration forms.

## 743B: More memory, plus a PC interface and data logging

The 743B has all the capabilities of the 741B plus a PC interface that lets you download procedures, lists, and instructions created with software—or upload data for printing, archiving, and analysis. With its expanded memory, the 743B can hold a full week of calibrations and procedures.

## 744: Get HART-ability

The Fluke 744 offers all of the capabilities of the 743B, plus the ability to calibrate, maintain, and troubleshoot HART instrumentation with just one tool. This rugged, reliable tool offers:

- Integrated HART communication functions, permitting you to monitor, control, and calibrate HART instrumentation.
- NiMH battery with 3500 mA hour life and battery indicator.

## Instrumentation Management Software

The Fluke 743B and 744 are compatible with Fluke 700SW DPC/TRACK software and with software from Beamex, Blue Mountain, Cornerstone, Fisher-Rosemont, Honeywell, and On Time Support

## Safety Conformance

All inputs are protected to EN61010-1 CAT II 300V. CSA listed.

## Accessories and Ordering Information

### Included Accessories

Fluke 741B/743B: TL24 Industrial Test Leads (2 sets), AC20 Test Clips (2 sets), TP20 Test Probes (1 set), BP7217 Battery Pack, BC7210 Battery Charger, Instruction Manual, NIST Traceable calibration certificate and data, three-year warranty, serial port cable (743B only), DPC/TRACK Sample Version with free PC communication utility software (743B only).  
 Fluke 744: TL24 Industrial Test Leads (2 sets), AC20 Test Clips (2 sets), TP20 Test Probes (1 set), BP7235 NiMH Battery Pack, BC7217 Battery Charger, serial port cable, HART communications cable, DPC/TRACK Sample Version with free PC communication utility software, Instruction Manual, HART Users Manual, NIST Traceable calibration certificate and data.

## Specifications

Function	Measure	Sourcing
DC voltage	0.025% reading + 0.005% full scale	0.01% output + 0.005% full scale
DC current	0.01% reading + 0.015% full scale	0.01% output + 0.015% full scale
Resistance	0.05% reading + 50 mΩ	0.01% output + 40 mΩ
Frequency	0.05%	0.01%
Thermocouples	0.3°C	0.2°C
RTDs	0.3°C	0.1°C
Pressure	To 0.05% of full scale. See Pressure Module specifications.	



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**Battery Life:** Typically over eight hours **Internal Battery Pack:** NiCd, 7.2V, 1700 mAh  
**Battery Replacement:** Via snap-shut door without opening calibrator; no tools required  
**Weight:** 1.4 kg **Size (HxWxD):** 130 x 236 x 61 mm  
**Three Year Warranty**