

# Fluke 709/709H Precision Current Loop Calibrator

with HART communication

**Fluke reliable. HART compatible.**

Fluke puts HART communication in a precision loop calibrator.

The Fluke 709 and 709H mA loop calibrators are designed to save time and produce high-quality results. These calibrators are built around a user friendly interface with a Quick-Set rotary encoder knob. This tool reduces the time it takes to measure, or source, current and power up a loop. The protective holster easily fits into a technician's hand and the large backlit display is easy to read, even in dark, cramped worked areas.

**New**



## Technical Data

### Hart communications

The 709H adds HART communications and supports a select set of the HART universal and common practice commands. This makes the 709H unique as both an affordable, compact loop calibrator and powerful HART communication troubleshooting tool.

In the communicator mode the user will be able to read basic device information, perform diagnostic tests, and trim the mA output on most HART enabled transmitters. In the past, this could only be done with a dedicated communicator, a high-end multifunction calibrator, or a laptop computer with HART modem. Fluke 709H will allow virtually any technician to service and support HART devices.

### Saving time, getting answers

In addition, the 709H offers:

- Logging of HART data in the field. Once recorded by the 709H in the field, the 709H/TRACK software can upload the HART configuration of up to (20) HART devices in your plant and output data in either (.csv) or (.txt) format.
- Data logged mA loop measurements and HART data can be recorded from a particular transmitter for troubleshooting and loop tuning. The data log feature offers selectable capture with recording intervals of 1 to 60 seconds and a logging capacity of 9800 records or 99 individual sessions. Each data sample contains the 709H mA measurement, all four process variables, and the standard status conditions.

## Product highlights

- Best-in-class accuracy at 0.01% reading
- Compact rugged design
- Intuitive user interface with Quick-Set knob for fast setup, easy use
- 24 V DC loop power with mA measure mode (-25% to 125%)
- Resolution of 1  $\mu$ A on mA ranges and 1 mV on voltages ranges
- Built in selectable 250  $\Omega$  resistor for HART communications
- Simple two wire connection for all measurements
- Auto shutdown to conserve battery life
- Variable step and ramp time in seconds
- Valve test (source and simulate defined mA values with % keys)

## Specifications

<b>Functions</b>	mA source, mA simulate, mA read, mA read/loop power, and volts read.
<b>Ranges</b>	mA (0 to 24mA) and Volts (0 to 30VDC)
<b>Resolution</b>	1 $\mu$ A on mA ranges and 1mV on voltage range
<b>Accuracy</b>	0.01% +/- 2 counts all ranges (@23° +/- 5°C)
<b>Operating temperature range</b>	-10 °C to 55 °C (14 °F to 131°F)
<b>Humidity range</b>	10 to 95% non-condensing
<b>Stability</b>	20ppm of F.S. /°C from -10°C to 18°C and 28°C to 55°C
<b>Display</b>	128 x 64 pixels, LCD Graphic w/backlight, .34" high digits
<b>Power</b>	6 AAA alkaline
<b>Battery Life</b>	≥ 40 hours continuous use (measure mode using alkaline)
<b>Loop Compliance Voltage</b>	24VDC @ 20mA
<b>Over-Voltage Protection</b>	240VAC
<b>Overload Current Protection</b>	28mA DC
<b>EMC</b>	EN61326 Annex A (Portable Instruments)
<b>Dimensions (L x W x D)</b>	15 cm x 9 cm x 3 cm (6" x 3.6" x 1.3")
<b>Weight</b>	0.3 kg (9.5 ounces)
<b>Included Accessories</b>	NIST traceable calibration certificate with data, batteries, test leads, and manual
<b>Warranty</b>	Three year

