



The Practical Instrument Electronics' Model 530 is the result of 30+ years of experience manufacturing and designing calibrators for the process control industry.

The Model 530 calibrator incorporates all of this knowledge and experience and combines it into one superior product. It has simple, easy to use controls, featuring a large high contrast display with easy visibility without the need for contrast adjustments.

The Model 530 is designed to be a tool with all the practical functions required to get the job done easily without the confusing extras or reading through a complicated manual.

The Model 530 can source and read current in the process loop, and simulate, power and measure 2-wire transmitters. It can read voltage to 60.00 VDC with over 2X over range ability.

MODEL 530

4-20 MILLIAMP LOOP CALIBRATOR

Features

■ 4 to 20 mA Loop Functions

Source and Read 0.000-24.000 mA.
 Simulate 2-Wire Transmitters 0.000-24.000mA.
 Power 2-Wire Transmitters and Read 0.000-24.000 mA.
 Display current in mA or -25.00-125.00 % of 4-20 mA.

■ Read Voltage Function

Read 0.00 to ± 30.00 VDC with 4X over range ability.

■ Full 5 Digit Display

True $\pm 0.012\%$ of reading accuracy.
 Bar graph for quick reference of input and output levels.
 High contrast graphic display viewable in all lighting conditions and angles.

■ EZ-Dial™ Knob

Easily adjust output by 0.001 mA (0.01%) or 0.100 mA (1.00%).

■ EZ-Check™ Switch with EZ-Step™ Button

3 position tactile switch with push button for true one handed calibrations. Push button for stepping through calibration points. 6 different step sizes.
 Hands-free auto step and auto ramp modes.

■ Uses a standard 9V Alkaline Battery

Superior battery life of 40 hours under typical continuous usage. Easy access to battery compartment.

■ 240 VAC Tolerant

Fuse-less protection from accidental misuse.

■ Lightweight and rugged with a solid feel

Convenient Velcro® hand strap allows for a firm confident grip or attachment to pipes and ladders.

■ HART® protocol compatibility mode

User selectable 250 Ω resistor in series with the output for compatibility with HART® protocol enabled devices.



Haven Automation Limited

General Specifications

(Unless otherwise indicated all specifications are rated from a nominal 23°C, 70% rh for 1 year from calibration)

Operating Temperature Range	-20 to 60°C (-5 to 140°F)
Storage Temperature Range	-30 to 60°C (-22 to 140°F)
Relative Humidity Range	10% ≤rh ≤90% (0 to 35°C), Non-condensing 10% ≤rh ≤ 70% (35 to 60°C), Non-condensing
Battery	9V Alkaline Optional 120 VAC 50 Hz AC adaptor available
Miscellaneous	Low battery indication with nominal 1 hour of operation left Over-voltage protection to 120 Vrms (rated for 30 seconds) or 240 Vrms (rated for 15 seconds) Bar graph display with 1% resolution of 4-20 mA signal scale High contrast graphic liquid crystal display with 0.45" (11.4 mm) high digits

Common Specifications for all Current Modes

Ranges	0.000 to 24.000 mA, -25.00 to 125.00% of 4-20 mA
Accuracy	± (0.012% of Reading + 0.004 mA)
Temperature Effect	± 50 ppm/°C of Range
Resolution(s)	0.001 mA and 0.01%

Source/Power and Measure 2-Wire Transmitter Specifications

Loop Compliance Voltage	≥ 24 Volts
Loop Drive Capability	1200 Ω at 20 mA for entire battery life
Miscellaneous	Open loop or out of compliance conditions are indicated by appropriate error display Battery life in: Source mode ≥ 18 hrs at 12mA typical (HART® disabled) Power measure ≥ 10 hrs at 12mA typical. HART® protocol mode is a selectable option at turn on. HART® protocol mode places a 250Ω resistor in series with the output. Selectable EZ-Step(s) for Source Mode/2-Wire Transmitter Simulation: In mA mode: 0.001, 0.010, 0.100, 1.000, 4.000 (default), 8.000 mA % of 4-20 mA mode: 0.01, 0.10, 1.00, 10.00, 25.00 (default), 50.00 %

Authorised Representative:

Read mA Specifications

Voltage Burden	≤ 2V at 20 mA
Overload/Current Limit Protection	nominal ≤ 24 mA
Battery Life	Typical ≥ 40 Hours

2-Wire Transmitter Simulation Specifications

Voltage Burden	≤ 2V at 20 mA
Overload/Current Limit Protection	nominal ≤ 24 mA
Loop Voltage Limits	2-60 VDC
Miscellaneous	Open loop or out of compliance conditions are indicated by appropriate error display Battery life ≥ 40 hour typical Selectable EZ-Step(s) for Source Mode/2-Wire Transmitter Simulation: In mA mode: 0.001, 0.010, 0.100, 1.000, 4.000 (default), 8.000 mA % of 4-20 mA mode: 0.01, 0.10, 1.00, 10.00, 25.00 (default), 50.00 %

Voltage Read Specifications

Range	0.00 to 30.00 VDC indicator for over range (with 4X over range)
Accuracy	± (0.1% of Reading ±0.1V)
Temperature Effect	± 200 ppm/°C of Reading
Resolution	0.01V
Input Resistance	≥ 1 MΩ Battery life > 40 hour typical

Available Options

Option:	Part Number:
AC Adaptor	020-0100
Carrying Case	020-0200
UKAS Calibration Certificate	

Warranty

Practical Instrument Electronics (PIE) equipment is guaranteed against defective material and workmanship (excluding batteries) for a period of three years from the date of shipment. Claims under guarantee can be made by returning the equipment prepaid to Haven Automation Ltd. The equipment will be repaired, replaced or adjusted at our option. The liability of Practical Instrument Electronics (PIE) is restricted to that given under their guarantee. No responsibility is accepted for damage, loss or other expense incurred through sale or use of our equipment. Under no condition shall Practical Instrument Electronics, Inc. or Haven Automation Ltd. be liable for any special, incidental or consequential damage.



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