MCIH

Companion Series

HAND HELD CALIBRATOR FOR mA/V SIGNALS

H1121

FEATURES

- Simulate or Measure mA & V signals.
- ±0.035% Accuracy.
- Potentiometer free Digital setting.
- Bold, Back lit LCD Display.
- User configurable ranges/output steps.
- Stepping up/down feature.
- Powered by AA (1.5V) batteries.
- Hip pouch for Hands-off field work.



About H1121.....

Companion range of Calibrators from MCIH are designed for loop calibration/testing of mA and voltage loops at field. The microcontroller based hardware of the calibrator paves way for full digital setting and easy configuration. Companion series calibrators do not use potentiometers inside or outside, and hence offer drift free long term performance even in harsh environments.

Companion has an elegant LCD display panel with bold characters to increase viewing convenience and the LED backlighting enhances visibility in poor ambient light. The instrument is powered by four 1.5V AA type batteries inside an easily accessible battery compartment.

Model H1121 can source mA,V signals to calibrate panel instruments or can simulate a two-wire transmitter. Alternatively the instrument can measure mA,V signals of transmitting instruments or can power two wire transmitters and measure output.

Companion has versatile operational features aimed at simplifying the field calibration work. Single key stroke range zero and full scale, stepping up/stepping down of source outputs, user configurable range limits, direct percentage setting for source output and configuration of meter readings in terms of user defined Engg. Units are some of the operational features of the calibrator.

GENERAL SPECIFICATIONS

Display	: 8 character Alpha Numeric LCD 6.45x10.75mm character size.	**Dimensions**	: 180mm x 100mm x 40mm
Back light	: LED Backlight (Pulsed 2 secs)	**Material**	: Industrial ABS enclosure
Signal I/O	: 4 mm Banana sockets	**Operating Temp.**	: 0 to 45°C
Power supply	: By four AA cells of 1.5V each	**Storage Temp.**	: 0 to 55°C
		Humidity	: 0 - 95% Non condensing

PERFORMANCE SPECIFICATIONS

Model H1121

SOURCE

Range[2]	Resolution	Accuracy[1]
0-22 mA	0.001 mA	±0.035% of FS
0-11 V	0.001 V	±0.035% of FS
Tx.sim[3] 0-22mA	0.001 mA	±0.035% of FS

METER

Range[2]	Resolution	Accuracy[1]
0-22 mA	0.001 mA	±0.035% of FS
0-11 V	0.001 V	±0.035% of FS
Tx.pwr[3] 0-22mA	0.001 mA	±0.035% of FS

Note1 : Accuracy specifications include effect of non-linearity, hysteresis and repeatability at ambient temperatures from 25°C to 30°C.

Note2 : Ranges in meter mode cover -2mA & -1V.

Note3 : Tx.Pwr (Transmitter Powering) is a meter mode where 24V DC supply comes in series with 'mA meter'.Tx.Sim (Transmitter Simulation) is a source mode that simlates a two-wire transmitter.

OPERATIONAL SPECIFICATION

SOURCE MODE

Load HandlingCapacity[4]

Voltage mode : 2mA
mA mode : 850Ω
Tx.Sim mode : 900Ω with 24V loop power supply

Output Protection

Voltage output : Short circuit protected
Current output : Current limited at 30mA
Against voltage injection : Voltage and current outputs protected up to 24V DC.
Max. Loop Voltage : 50V DC for Tx. Simulation mode

METER MODE

Input Impedance

Voltage mode : 10 MΩ.
Current mode : 120 Ω.

Input Protection

Voltage mode : ±24V DC max.
Current mode : Fuseless design protects against over currents exceeding 50 mA.
Tx. powering mode : Short circuit protected 24V / 30mA.

Note 4: Values indicated are nominal only.

USER CONFIGURABLE FEATURES

SOURCE

Range minimum (zero) and maximum (full scale).
Setting in percentage.
5 point manual & Auto output stepping.

METER

Range minimum (zero) and maximum (full scale).
Indication in percentage.
Indication in Engineering units.

STANDARD ACCESSORIES

- ✦PROBES
- ✦AA DRY CELLS (4 NOS)
- ✦MAINS ADAPTOR
- ✦CARRYING POUCH

RELATED INSTRUMENTS

Model **INTCAL SM-10** 0.01% Accurate documenting Calibrator for mA/Vsignals
Model **INTCAL TM-10** 0.01% Accurate documenting Calibrator for T/C, RTD signals
Model **Companion T** Handheld T/C, RTD simulator & meter

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Specifications are subject to change without any notice due to continuous development.