

DC/Frequency Documenting Calibrator

Beta 135

The Beta Model 135 DC/Frequency Documenting calibrator from Hathaway Process Instrumentation is the number one value for compliance documentation and automated calibration.

Other devices do not stand up to Beta calibrators function-for-function and feature-for-feature. You'd expect us to say that, but here's an opportunity for you to prove it. Compare your present calibrator against the features listed on the back of this data sheet. Whatever you're using, whenever you purchased it, and however much it cost, you're likely to come up short.

The Model 135 DC/Frequency calibrator is a key element in the answer to your compliance headache. As an extension of proven calibrators, the Model 135 documents "As Found" and "As Left" data for twenty-eight instruments. The Beta Model 135 works in conjunction with our MasterCAL™ Calibration System Software as well as software from a variety of third party suppliers. Up to twenty calibration points for each instrument can be downloaded to the calibrator along with critical "Pass/Fail" criteria.

In the field, this lightweight calibrator is connected to the instrument under test. It guides the technician step by step through the calibration. First obtaining secure "As Found" data, the procedure complies with standards for quality, safety and environmental regulation. Finally, after a successful adjustment, if needed, the calibrator stores "As Left" data and the final "Pass/Fail" status of the instrument. This data is then uploaded to the database for permanent storage and easy retrieval.

The Beta Model 135 is a key part of an effective and comprehensive solution for compliance documentation management as well as an easy to use high performance instrument calibrator.



Features:

- ISO 9000 Compliance
- 4 Line Display
- Real-time Clock/Calendar Synchronizes with Host Computer
- Data for 28 Instruments;
As Found—20 Points; As Left—20 Points
- Pass/Fail Evaluation Criteria
- Battery-backed RAM
- Pressure Module Interface
- Hz, V, mV, and mA Input and Output

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	Input Mode	Output Mode
Frequency		
Range	5 Hz to 100 kHz	0.01 Hz to 100 kHz
Accuracy	±0.005 of reading + 1 digit	Frequency: ±0.005 of reading + 1 digit Amplitude: ±2% of full scale
Sensitivity	50 mV RMS 5 Hz to 30 kHz 100 mV RMS 20 kHz to 100 kHz	
Impedance	1 megohm nominal	
Resolution	Fully Auto ranging 5 significant digits for all ranges	5 significant digits for all ranges
Ranges	5-9.9999 Hz 10.000-99.999 Hz 100.00-999.99 Hz 1000.0-9999.9 Hz 10000.0-100000 Hz	0.01- 9.9999 Hz 10.000-99.999 Hz 100.00-999.99 Hz 1000.0-9999.9 Hz 10000.0-100000 Hz
Reading Rate	2 readings per second	
Amplitude	50 mV to 170 V peak	50 mV to 10 V peak
Rise and Fall		1 µsec (10% to 90%)
Waveform		Zero based positive square wave
Lock Time		1 sec to within 1% of final frequency
Volts/Millivolts		
Ranges	100 mVdc, 1 Vdc, 10 Vdc	100 mVdc, 1 Vdc, 10 Vdc
Accuracy	±0.005% of rdg ±0.01% of fs ±1 digit	± 0.005% of rdg ±0.01% of fs ±1 digit
Resolution	5 digits	5 digits
Impedance	>10 megohm nominal	< 5 ohms
Milliamps		
Ranges	20 mA, 50 mA	0-22 mA ±0.005% of rdg ±0.01% of fs ±1 digit
Accuracy	±0.005% of rdg ±0.01% of fs ±1 digit	1 µA
Resolution	1 µA, 10 µA	> 1 megohm



Ramp

Functions:

V, mV, mA

Resolution/Step Size:

1 least significant digit maximum

Ramp resolution is a function of ramp span & time

Resolution = $\frac{\text{Starting value} - \text{ending value}}{\text{Time} \times 10}$

Accuracy:

Same as output function

Environmental

Temperature:

0 to 50°C (operating)

-20° to 60°C (storage)

Effect on Accuracy:

±0.001%/°C

Humidity:

10% to 90% non-condensing

Mechanical

Dimensions:

3" (7.6 cm) H x 4" (10.2 cm)

W x 7.75" (19.7 cm) L

Weight:

2.1 lbs. (1 kg)

Power

Batteries:

NiCad battery pack

Charger:

Wall mount type. 12-14 hours for full charge at 120 Vac

(220 Vac opt) 50/60Hz 1W max

Battery Operating Time:

8 hours typical

Input Output Isolation:

100 megohms at 500 Vdc

Ordering Information

Model 135 is available from stock. When placing your order, be sure to include the complete part numbers on all models and accessories you are ordering. Please include voltage requirement for AC charger.

Part Number Description

910135-xxx Model 135 Temperature Calibrator

