

FREQUENCY CALIBRATOR WITH TOTALIZER

CL535
\$1050



- ✓ Read and Source Frequency Signals
- ✓ Full 5-Digit Display
- ✓ Source Sine and Square Waves
- ✓ Calibrate Totalizers

The Omega CL535 is an excellent tool for calibration, test, and diagnostics of instruments that use frequency signals. Instruments include tachometers, frequency counters, integrators, and any other frequency devices in the shop, plant and/or field. The CL535 brings all the features you would expect from a frequency calibrator and timesaving new ones with the easy dial knob and easy check switch, saving hours of troubleshooting time. The CL535 comes with an LED indicator showing gate time for easy trigger level adjustment. When calibrating a totalizer, the CL535 eliminates the need of a stop watch. The calibrator will automatically stop when the selected number of pulses has been sent to the totalizer.

Features

Frequency Read and Source Functions:

- ✓ Accuracy $\pm 0.005\%$ of range
- ✓ Source and read
- ✓ Six ranges 1 count per hour to 20.000Khz
- ✓ Calibrate totalizer input and outputs from 1 to 99999
- ✓ Count pulses 1 to 99999
- ✓ LED indicator for gate time



CL535, \$1050, shown actual size.

Read Function

- ✓ Read a wide range of frequencies and waveforms
- ✓ Read 50 mV to 120 V peak
- ✓ Read signals from flowmeter pickups, velocity and motion detectors
- ✓ Totalizers

Source Function

- ✓ Sine and square waves, zero based and zero crossing
- ✓ Frequency from 1 CPH to 20 KHz
- ✓ Adjustable amplitude from 100 mV to 12 volts peak-to-peak
- ✓ Simulates vibration pickups, variable speed drives and more

Calibrate Totalizers

- ✓ Output a number of pulses from 1 to 100 minutes

Gate Trigger Indicator

- ✓ The LED flashes in synch with the output frequency. This allows easy adjustment of the attenuation for proper gate triggering

Full 5-Digit Display

- ✓ True $\pm 0.005\%$ of range accuracy
- ✓ Bar graph for quick reference of trigger level and output levels, 5% of frequency range
- ✓ High contrast graphic display viewable in all lighting conditions and angles

FREQUENCY CALIBRATOR WITH TOTALIZER

Easy Dial Knob

- ✓ Change the speed of dialing your test point by just pushing down on the knob

Easy Check Switch

- ✓ Stop watch style push button for accurate totalizer measurements and for high and low readings

Uses a Standard

9V Alkaline Battery

- ✓ Superior battery life of 24 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

General Specifications

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

Common Specifications for all

Frequency Modes:

Frequency Ranges:

1 CPH to 20.000 kHz

Accuracy: ± 0.005% of range

Temperature Effect:

= 10 ppm/°C of range

Frequency Ranges Specifications:

1: 1 CPH < CPH range < 20000 CPH

2: 0.1 CPM (0.0167Hz) < CPM range < 2000.0 CPM (33.33 Hz)

3: 0.01 Hz < Hz < 200.00 Hz

4: 0.1 Hz < Hz range < 2000.0 Hz

5: 0.001 kHz < kHz range < 20.000 kHz

6: Totalize inputs/outputs from 1 to 99999 counts in 0.1 minutes to 100.0 minutes

Read Inputs Specifications:

Read x1 Attenuation Range:

0.1 V pk to 12 V pk

x10 Attenuation Range:

1 V pk to 120 V peak - limit of attenuation is 120 V pk

Input Impedance:

> 1 Meg + 100 pF

Adjustable Signal: Attenuation adjustable trigger level with X1 and x10 attenuation ranges

Miscellaneous Battery Life:

24-hour typical

Fuse- Less Protection:

240 Vrms

Waveforms Source Specifications:

Output Current: > 6 mA pp

at 12 V pp output, 20 kHz

Output Impedance: < 25

Square Wave: Zero Crossing, zero based selectable

Rise/Fall Time: < 0.0001% of output Vpk per second

Frequency Jitter: < 0.5LSB of frequency range

Duty Cycle: 50% ± 2%

Sine Wave:

Offset and Zero Crossing

Symmetry: <± 10% of V pk output amplitude setting

Amplitude Adjustment:

100 mV < nominal output

< 12 V pp ± 10% of setting

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

Display: High contrast graphic liquid crystal display with 11.4 mm (0.45") high digits

Battery:

9V alkaline, low battery indication with nominal 1-hour of operation left (included)

Over-Voltage Protection:

To 120 Vrms (rated for 30 seconds) or

240 Vrms (rated for 15 seconds)

Connection: Test leads attached, with alligator clips

Dimensions:

177.8 H x 83.8 W x 56.1 mm D

(7.00 x 3.30 x 2.21")

Weight: 340 g (12.0 oz)



CL535, \$1050, shown smaller than actual size.



OMEGACARESM extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARESM covers parts, labor and equivalent loaners.

AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model Number)

MODEL NO.	PRICE	DESCRIPTION
CL535	\$1050	Frequency calibrator with totalizer
SC-530	65	Rugged carrying case

Comes complete with NIST-traceable certificate, 9V battery and operator's manual.

Ordering Example: CL535, frequency calibrator with totalizer, \$1050.

OCW-2, OMEGACARESM extends standard 3-year warranty to a total of 5 years (\$262), \$1050 + 262 = \$1312.

Recommended Reference Book: Marks' Standard Handbook for Mechanical Engineers, ME-0301, \$200.
See Section Y for Additional Books





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