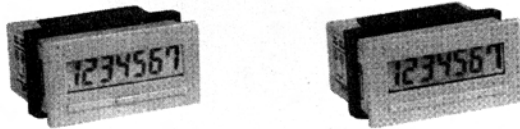


Model 53



Features

A 7 figure digital hourmeter used in applications requiring time accumulation for maintenance scheduling, warranty monitoring, or fee computation. Ideal for air conditioning installations, lighting systems, generators, and business machines. Compact design for easy panel use. Blinking decimal for instant in-use (tell-tale) recognition. Reading to 999999.9, available in hour meter, minute meter or second meter versions. (See page 2 for additional information.)

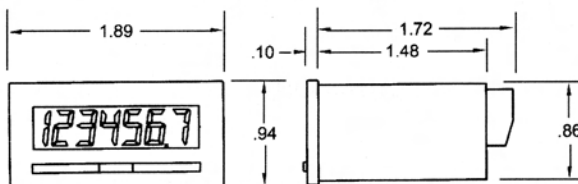
Specifications

Figures	7 LCD figures, .315" high
Reset	Remote, manual, and non-reset
Readout	Hours, minutes, or seconds
Inputs	Switch (non-voltage), 3-30VDC, or 20-250VAC/VDC
Power	Internal lithium battery
Mounting	Panel
Terminations	Terminal block or connector with 8" wire leads
Temp. Range	+15°F to +130°F
Approvals	UL Recognized, CSA Certified
Weight	2 oz.
Options	Termination, color, panel adapters, private labeling, PCB mountable, CE Approved

Models	Description
5320-0000	Hours, switch, remote reset, terminal block
5321-0000	Minutes, switch, remote reset, terminal block
5322-0000	Seconds, switch, remote reset, terminal block
5320-1000	Hours, 3-30VDC, remote reset, terminal block
5320-2000	Hours, 20-250VAC/VDC, remote reset, terminal block
5320-0100	Hours, switch, manual & remote reset, terminal block
5320-1010	Hours, 3-30VDC, remote reset, connector with 8" wire leads
5320-2200	Hours, 20-250VAC/VDC, non-reset, terminal block

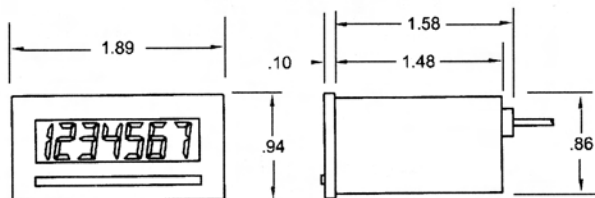
Dimensions

TERMINAL BLOCK



Panel cutout: 1.79" x .89"

WIRE LEADS



Panel cutout: 1.79" x .89"

Model 731



Features

These 7 figure, DC hourmeters are available in two mounting styles. The PCB mount version is designed for wave soldering. The Flange mount is designed for use on panels and is retained by integral snap-in tabs. In both, a magnifying lens enhances readability. For cycle times of less than 36 seconds, an accumulator (disable) circuit is standard.

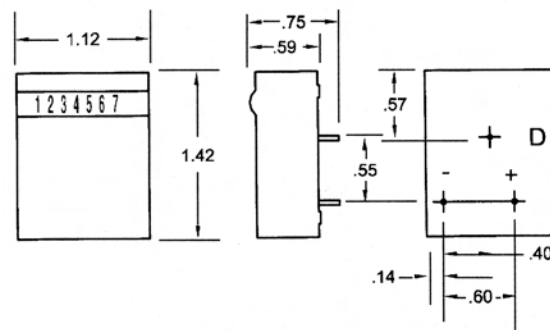
Specifications

Figures	7 figures, magnified to .16" high 99,999.99 hours
Reset	Non-reset
Voltages	5 VDC (+20% to -5%)
Power	22mW input current with 70mW peak current every 36 seconds with a 32ms pulse
Mounting	PCB, or panel (snap-in)
Termination	Solder pins, 1/8" tabs, or 6" wire leads
Temp. Range	+14°F to +185°F
Approvals	CE Approved
Weight	.5 oz.
Options	Mounting, other voltages. Counter versions available

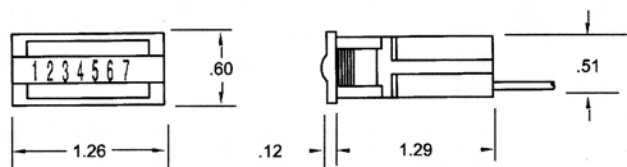
Models	Description
731-0034	PCB Mount
731-0035	Panel mount, with 6" wire leads
731-0036	Panel mount, with 1/8" tabs
731-0037	Panel mount, with pin terminals

Dimensions

PCB MOUNT



PANEL MOUNT



Panel cutout: .53" x 1.2"

Model 710

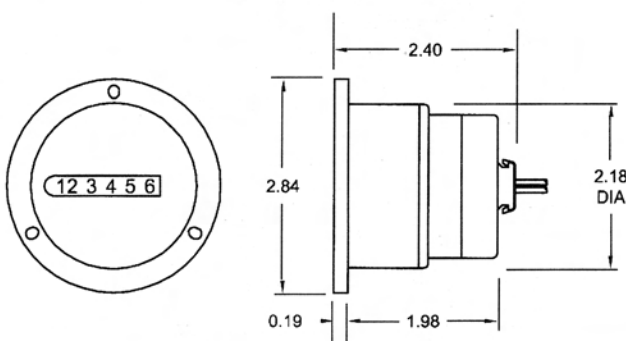
Features

The model 710 AC hour meters and minute meters are widely used in panel applications where number size and visibility are critical. Its tough, Lexan bezel and distinctive styling enhance appearance and durability. Available in 5 figure reset or 6 figure non-reset versions.

Specifications

Figures	5 figures (reset) or 6 figure (non-reset), .19" high
Reset	Reset (on front or side) or non-reset
Voltages	24, 115 or 230VAC, (+/-10%), 50 or 60 Hz.
Power	3 watts (nominal)
Mounting	Panel (3-hole)
Terminations	8" wire leads or terminal block
Temp. Range	-20°F to +160°F
Approvals	UL Recognized, CSA Certified
Weight	6 oz.
Options	Private label faceplates, bracket mount, splash kit

Models	Description
710-0001	115VAC/60Hz., non-reset, 99,999.9 hrs., 8" wire leads
710-0002	115VAC/60Hz., non-reset, 99,999.9 hrs., terminal block
710-0003	230VAC/60Hz., non-reset, 99,999.9 hrs., 8" wire leads
710-0006	24VAC/60Hz., non-reset, 99,999.9 hrs., 8" wire leads
710-0007	230VAC/50Hz., non-reset, 99,999.9 hrs., 8" wire leads
710-0008	115VAC/60Hz., non-reset, 99,999 hrs., 8" wire leads
710-0009	115VAC/50Hz., non-reset, 99,999.9 hrs., 8" wire leads
710-0013	115VAC/60Hz., front reset, 9,999.9 hrs., 8" wire leads
710-0014	230VAC/60Hz., non-reset, 99,999.9 hrs., terminal block
710-0018	115VAC/60Hz., non-reset, 9,999.99 min., 8" wire leads
710-0022	115VAC/60Hz., non-reset, 99,999.9 hrs., 8" wire leads
710-0024	24VAC/60Hz., non-reset, 99,999.9 hrs., terminal block
710-0026	115VAC/50Hz., non-reset, 99,999.9 hrs., terminal block
710-0032	115VAC/60Hz., front reset, 9,999.9 hrs., terminal block
710-0051	115VAC/60Hz., non-reset, 99,999 hrs., terminal block

Dimensions
8" WIRE LEADS


Mounting holes: For #4 screws on 2.44" B.C.
and #6 screws on 2.53" B.C.
Panel cutout: 2.21" Dia.

Model 720

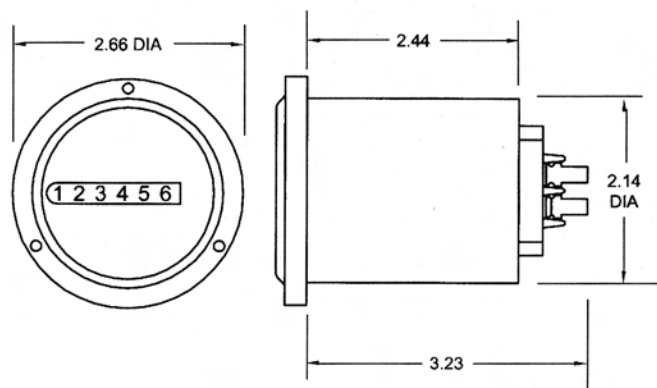
Features

A 5 figure (reset) or 6 figure (non-reset), AC hourmeter encased in a rugged steel housing and designed to mil-spec environmental requirements. The non-reset models are completely sealed, and meet NEMA 4 standards. Reset models are available, as are both wire lead and terminal block versions.

Specifications

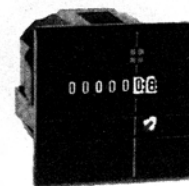
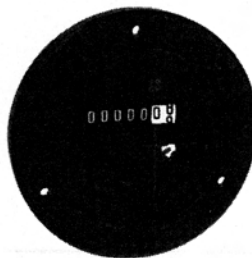
Figures	5 figure (reset) or 6 figure (non-reset), .19" high 9,999.9 (reset) or 99,999.9 (non-reset)
Reset	Reset or non-reset
Voltages	24, 115, and 230VAC (+/- 10%), 50 or 60Hz.
Power	2.5 watts (nominal)
Mounting	Panel (3-hole or metal clamp)
Termination	Terminal block or 6" wire leads
Temp. Range	-65°F to +155°F
Approvals	UL Recognized, CSA Certified
Weight	10 oz.
Options	Chrome bezel, readouts to 9999.99 hrs., minute meter, other voltages.

Models	Description
720-0001	24VAC/60Hz., non-reset, 3-hole round, 6" wire leads
720-0002*	115VAC/60Hz., M3971/2-2 and M3971/2-6
720-0003	115VAC/60Hz., M3971/2-1 and M3971/2-5
720-0004	115VAC/60Hz., non-reset, 3-hole round, terminal block
720-0007	115VAC/60Hz., non-reset, 3-hole round, 6" wire leads
720-0008	115VAC/60Hz., non-reset, metal clamp, terminal block
720-0011	115VAC/60Hz., non-reset, metal clamp, 6" wire leads
720-0012	115VAC/60Hz., front reset, 3-hole round, 6" wire leads
720-0030	115VAC/50Hz., non-reset, 3-hole round, 6" wire leads
720-0036	230VAC/60Hz., non-reset, 3-hole round, 6" wire leads
720-0123	230VAC/60Hz., non-reset, 3-hole round, terminal block

Dimensions
NON-RESET / TERMINAL BLOCK


Panel cutout: 2.16" Dia.
Mounting holes: .125" Dia. on 2.44" B.C.
* Bezel: 3.50" Dia. with 3.16" B.C.

Model 711 / 731



Features

These 7 figure, AC or DC hourmeters with running indicators, offer crisp, distinctive styling for many panel applications. Available in square and round bezel, flush mount, or three-hole round panel mount. Each is light-weight, low power, and carry UL, CSA and CE approvals.

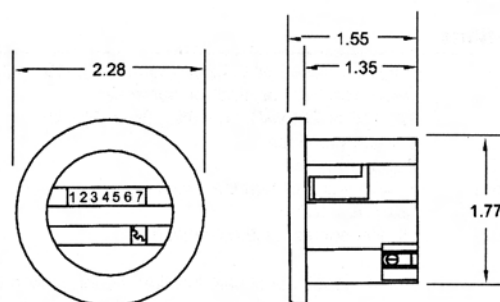
Specifications

Figures	7 figures, .14" high 99,999.99 hours
Reset	Non-reset
Voltages	24, 115, or 230VAC (+/-10%), 50 or 60Hz., 10-80 VDC
Power	3 watts (AC), 1.2 watt maximum (DC)
Mounting	Panel (mounting hardware included)
Terminations	1/4" spade terminals, with removable screws, or 8" wire leads
Temp. Range	-22°F to +158°F
Approvals	UL Recognized and CSA Certified (AC only), CE Approved
Weight	2 oz.
Options	Din Rail

Models	Description
711-0150	115VAC/60Hz., 2.28" Dia., Flush mount, screw termination
711-0152	230VAC/60Hz., 2.28" Dia., Flush mount, screw termination
711-0160	115VAC/60Hz., 2.93" Dia., 3-hole round, screw termination
711-0161	115VAC/50Hz., 2.93" Dia., 3-hole round, screw termination
711-0162	230VAC/60Hz., 2.93" Dia., 3-hole round, screw termination
711-0163	230VAC/50Hz., 2.93" Dia., 3-hole round, screw termination
711-0164	24VAC/60Hz., 2.93" Dia., 3-hole round, screw termination
711-0170	230VAC/60Hz., 2.93" Dia., 3-hole round, 8" wire leads
711-0171	115VAC/60Hz., 2.93" Dia., 3-hole round, 8" wire leads
711-0180	115VAC/60Hz., 1.89" Sq., Flush mount, screw termination
711-0182	24VAC/60Hz., 1.89" Sq., Flush mount, screw termination
711-0190	115VAC/60Hz., 2.05" Sq., Flush mount, screw termination
711-0191	230VAC/60Hz., 2.05" Sq., Flush mount, screw termination
711-0192	24VAC/60Hz., 2.05" Sq., Flush mount, screw termination
711-0193	115VAC/50Hz., 2.05" Sq., Flush mount, screw termination
711-0194	230VAC/50Hz., 2.05" Sq., Flush mount, screw termination
711-0195	24VAC/50Hz., 2.05" Sq., Flush mount, screw termination
711-0200	115VAC/60Hz., 2.20" Sq., Flush mount, screw termination
711-0201	115VAC/50Hz., 2.20" Sq., Flush mount, screw termination
731-0046	10-80VDC, 2.93" Dia., 3-hole round, screw termination

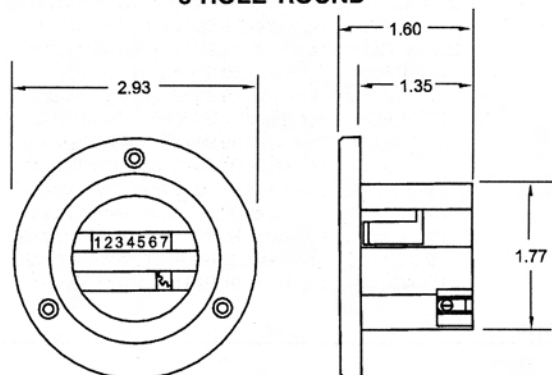
Dimensions

2.28" Dia. FLUSH



Panel cutout: 1.99" Dia. or 1.81" Sq.

3-HOLE ROUND

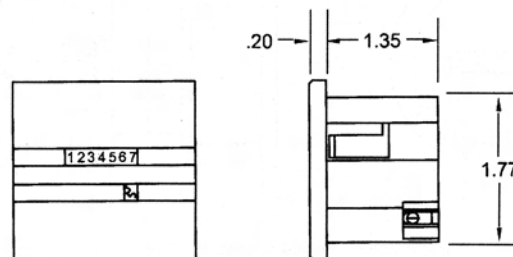


Panel cutout: 1.99" Dia. or 1.81" Sq.

Screws provided: 4-40 x 5/8"

Bolt hole circle: 2.44"

1.89", 2.05", or 2.20" Sq. FLUSH



Panel cutout: 1.99" Dia. or 1.81" Sq.

Model 711 / 731

Features

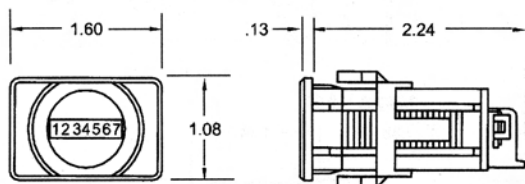
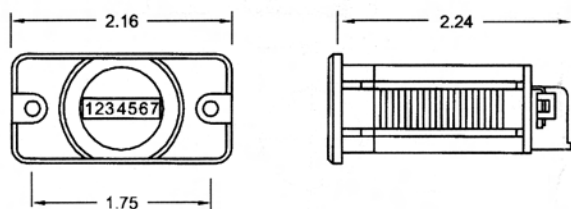
Compact, 7 figure, AC or DC hourmeters, ideal where panel space is limited. Synchronous motor AC and quartz controlled DC insure accuracy. Both are light-weight, and come in a variety of styles and mounting choices.

Specifications

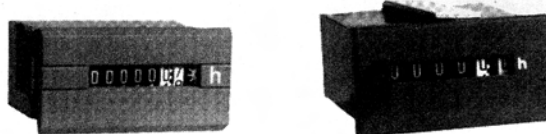
Figures	7 figures, magnified to .14" high 99,999.99 hours (AC), 999,999.9 hours (DC)
Reset	Non-reset
Voltages	24, 115, 230VAC (+/- 10%), 50 or 60Hz.; 10 - 50VDC
Power	2 watts (AC), .75 watts maximum (DC)
Mounting	Panel
Termination	1/4" spade terminals with screws (AC) 1/4" spade terminals (DC)
Temp. Range	-13°F to +185°F
Approvals	UL Recognized & CSA Certified (AC only), CE Approved
Weight	2 oz.
Options	Lead wires, 3-hole or SAE flush mount, case size, terminations

Models	Description
711-0113	115VAC/60Hz., Flush mount, 1.45" x .87" panel cutout
711-0114	24VAC/60Hz., Flush mount, 1.45" x .87" panel cutout
711-0120	115VAC/60Hz., Flush mount, 1.45" x .95" panel cutout
711-0130	115VAC/60Hz., 2-hole rectangle, 1.45" x .87" panel cutout
711-0131	230VAC/60Hz., 2-hole rectangle, 1.45" x .87" panel cutout
711-0132	24VAC/60Hz., 2-hole rectangle, 1.45" x .87" panel cutout
711-0133	115VAC/50Hz., 2-hole rectangle, 1.45" x .87" panel cutout
711-0134	230VAC/50Hz., 2-hole rectangle, 1.45" x .87" panel cutout

731-0040	10-50VDC, 2-hole rectangle, 1.45" x .87" panel cutout
731-0041	10-50VDC, Flush mount, 1.45" x .87" panel cutout

Dimensions
FLUSH MOUNT

2-HOLE MOUNT


Mounting holes: .15" Dia.

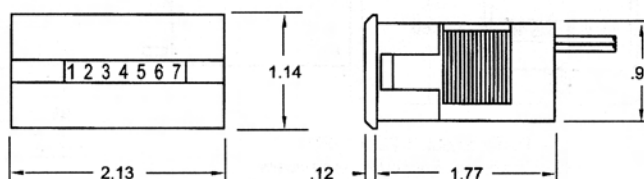
Model 711

Features

A rectangular style AC hourmeter designed to complement existing meters in control panels. Available in 6 figure reset or 7 figure non-reset. The non-reset model incorporates a retaining clip to lock into panel, while the reset version has a metal bracket and screw.

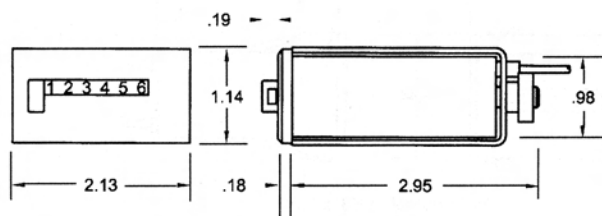
Specifications

Figures	6 figure (reset) or 7 figure (non-reset), .19" high 9,999.99 Hours. (reset version) 99,999.99 Hours. (non-reset models)
Reset	Push-button, or non-reset
Voltages	115VAC (+/- 10%), 50 or 60 Hz.
Power	2 watts (nominal)
Mounting	Panel (mounting hardware included)
Termination	19" wire leads
Temp. Range	-4°F to +158°F
Approvals	UL Recognized, CSA Certified, CE Approved
Weight	2 oz.
Options	Other voltages

Models	Description
711-0019	115VAC/60Hz., reset, 9,999.99 hrs., 15" wire leads
711-0020	115VAC/60Hz., non-reset, 99,999.99 hrs., 15" wire leads
711-0041	115VAC/50Hz., non-reset, 99,999.99 hrs., 15" wire leads

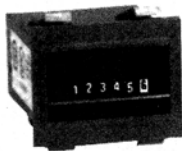
Dimensions
NON-RESET


Panel cutout: 1.98" x .99"

RESET


Panel cutout: 1.98" x .99"

Model 77



Features

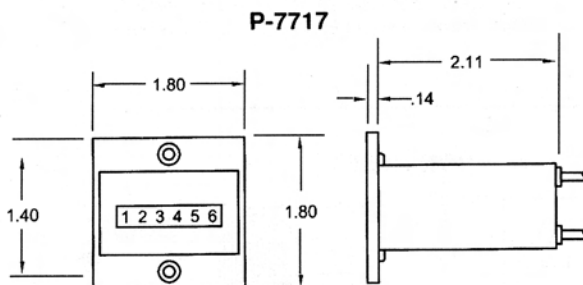
A compact 6 figure electromechanical hourmeter. Available in several mounting styles which complement the 48 series counters.

Specifications

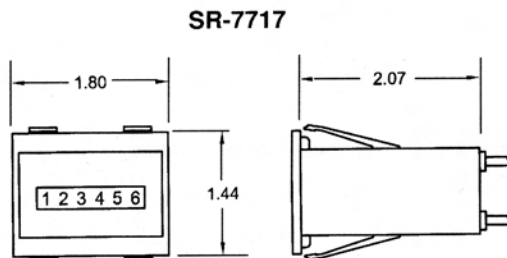
Figures	6 figures, .11" high 99,999.9 hours
Reset	Non-reset
Voltages	115VAC, (+/- 10%) 60Hz.
Power	3 watts (nominal)
Mounting	Panel (front, behind, or snap-in)
Termination	Screw type, round terminals
Temp. Range	-60°F to +154°F
Approvals	UL Listed, CSA Certified
Weight	2.5 oz.
Options	Other AC voltages and frequency

Models	Description
P2-7717/60	115VAC/60Hz., non-reset, panel mount
R2-7717/60	115VAC/60Hz., non-reset, behind the panel mount
SR2-7717/60	115VAC/60Hz., non-reset, snap-in mount

Dimensions



Panel cutout: 1.72" x 1.05"
Mounting holes: For #5 flat head screw



Panel cutout: 1.68" x 1.31"

Model 711



Features

Ideal where mounting space is limited. The 711 Space Saver requires less than one square inch, yet offers a full 9,999.9 hour readout. A simple spring retainer makes installation easy.

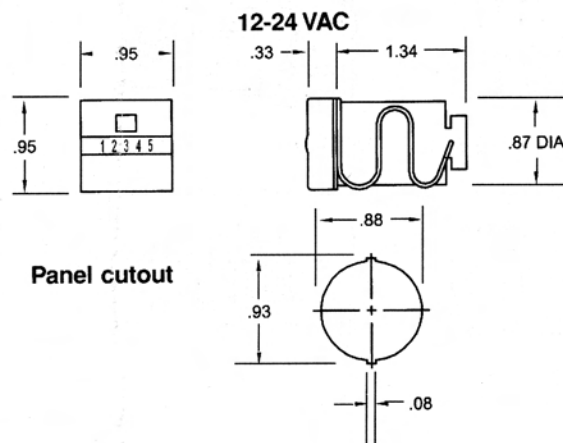
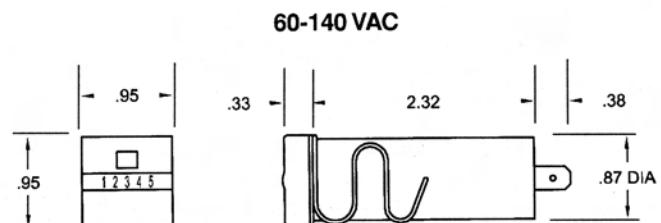
Specifications

Figures	5 figures, magnified to .14" high 9,999.9 hours
Reset	Non-reset
Voltages	12 - 24VAC or 60 - 140VAC, 50 or 60 Hz.
Power	0.2 watt (nominal) for 12 - 24VAC 1.1 watts (nominal) for 60 - 140VAC
Mounting	Bail
Termination	Pin termination (12 - 24VAC), 1/4" spade terminals (60 - 140VAC)
Temp. Range	-22°F to +176°F
Approvals	UL Recognized, CE Approved
Weight	1 oz.
Options	DC voltages, other AC voltages

Models	Description
711-0005	60 - 140VAC/60Hz., spade terminals
711-0040	60 - 140VAC/50Hz., spade terminals

711-0006	12 - 24VAC/60Hz., pin terminals
711-0028	12 - 24VAC/50Hz., pin terminals

Dimensions



Panel cutout

Model 740

Features

Powered by the vibration of the equipment it's mounted on, this 6 figure hour meter requires no electrical connections. Easily installed in panels or with brackets. This product is tamperproof and features a watertight case, an operation-tell-tale, and accuracy of +/- 3%.

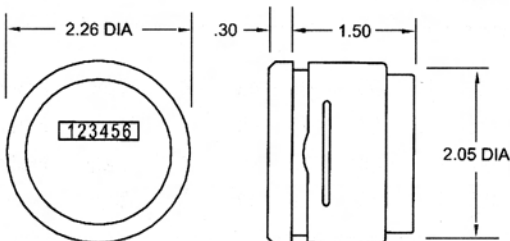
Specifications

Figures	6 figures, .16" high 99,999.9 hours
Reset	Non-reset
Mounting	Panel (mounting hardware included)
Temp. Range	-13°F to +176°F
Approvals	CE Approved
Weight	4 oz.

Models	Description
740-0003	Chrome bezel
740-0004	Chrome bezel with dampener

Operation Details

An amplitude vs. frequency diagram is provided with each unit to illustrate the typical operating range of the vibration hour meter. Pulse shapes in practical applications differ due to their harmonic content, and are frequency aperiodic, therefore we recommend that the optimum installation position be determined with a sample meter. Without knowledge of the particular application and because a vibration driven motor is designed to respond to vibrations from any direction it is impossible to always indicate the preferred installation position.

Dimensions
740-0003


Panel cutout: 2.06" Dia.

Model 53

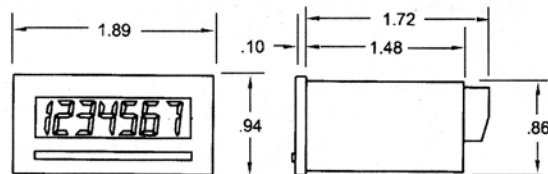
Features

"Eagle" tachometers are a low-cost, accurate way to measure speed or production rates in a number of manufacturing and process applications. Ideally suited for laboratory, production line, and maintenance situations. Measurement criteria could include units per minute, length per minute, or revolutions per minute, with appropriate sensor. Maximum rate is 10,000 counts per minute. (See page 2 for additional information)

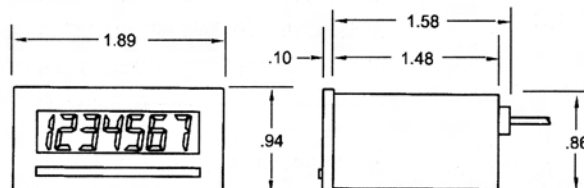
Specifications

Figures	7 LCD figures, .315" high
Reset	Remote, manual, or non-reset
Speed	10,000 counts/minute
Inputs	Switch (non-voltage), 3-30VDC, 20-250VAC/VDC
Power	Internal lithium battery
Mounting	Panel
Terminations	Terminal block or connector with 8" wire leads
Temp. Range	+15°F to +130°F
Approvals	UL Recognized, CSA Certified
Weight	2 oz.
Options	Termination, color, panel adaptors, private labeling, PCB mountable, CE Approved

Models	Description
5330-0000	Switch, remote reset, terminal block
5330-1000	3-30VDC, remote reset, terminal block
5330-2000	20-250VAC/VDC, remote reset, terminal block
5330-0100	Switch, manual & remote reset, terminal block
5330-1010	3-30VDC, remote reset, connector with 8" wire leads
5330-2200	20-250VAC/VDC, non-reset, terminal block

Dimensions
TERMINAL BLOCK


Panel cutout: 1.79" x .89"

WIRE LEADS


Panel cutout: 1.79" x .89"