

## Description

A 5 figure (reset) or 6 figure (non-reset), AC hour meter 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.

Features

- Rugged steel housing
- Mil-spec


## Options

- Chrome bezel
- Readouts to 9999.99 hrs .
- Minute meter
- Voltages

Specifications

- Gasket (721-0004)

| Figures: | 5 figure (reset) or 6 figure (non-reset), 0.19 " [ 5 mm ] high, 9,999.9 (reset) or 99,999.9 (non-reset) | Mounting: <br> Termination: <br> Temp. Range <br> Approvals: <br> Weight: | Panel (3-hole or metal clamp) <br> Terminal block or 6 "  wire leads |
| :---: | :---: | :---: | :---: |
| Reset: | Reset or non-reset |  | e: $\quad-65^{\circ} \mathrm{F}$ to $+155^{\circ} \mathrm{F}\left[-54^{\circ} \mathrm{C}\right.$ to $\left.+68^{\circ} \mathrm{C}\right]$ |
| Voltages: | 24,115 , and 230VAC (+/- $10 \%$ ), 50 or 60 Hz . |  | UL Recognized, CSA Certified, CE Compliant |
| Power: | 2.5 watts (nominal) |  | 10 oz. [284g] |
| Models | Description | Models D | Description |
| 720-0001 | $24 \mathrm{VAC} / 60 \mathrm{~Hz}$, non-reset, 3-hole round, 6 " 152.4 mm ] wire leads | 720-0011 11 | 115VAC/60Hz, non-reset, metal clamp, 6" wire leads |
| 720-0003 | 115VAC/60Hz, M3971/2-1 and M3971/2-5 | 720-0012 11 | $115 \mathrm{VAC} / 60 \mathrm{~Hz}$, front reset, 3 -hole round, 6 "  wire leads |
| 720-0004 | $115 \mathrm{VAC} / 60 \mathrm{~Hz}$, non-reset, 3-hole round, terminal block | 720-0030 11 | $115 \mathrm{VAC} / 50 \mathrm{~Hz}$, non-reset, 3-hole round, 6 " $[152.4 \mathrm{~mm}]$ wire leads |
| 720-0007 | $115 \mathrm{VAC} / 60 \mathrm{~Hz}$, non-reset, 3-hole round, 6 " $[152.4 \mathrm{~mm}$ ] wire leads | 720-0031 23 | $230 \mathrm{VAC} / 60 \mathrm{~Hz}$, non-reset, 3-hole round, terminal block |
| 720-0008 | $115 \mathrm{VAC} / 60 \mathrm{~Hz}$, non-reset, metal clamp, terminal block | 720-0036 23 | 230VAC/60Hz, non-reset, 3-hole round, 6 " 152.4 mm ] wire leads |

* Items in bold are normally in factory stock.


## Dimensions

Non-Reset/Terminal Block


Panel cutout: 2.16" [54.9] Dia.
Mounting holes: 0.125 " [3.2] Dia. on 2.44 " [62.0] B.C.

## Applications




## Description

The Redingtono
meters, one for 10
Round and 3 -Hole Round. Models $722-0001$ and $722-0002$ fit a panel opening of 1.45 " $\times 0.95$ " [ $36.8 \mathrm{~mm} \times 24.1 \mathrm{~mm}$ ]. The Flush-Round Model 722 0003 and 3 -Hole $\square$
The Totally Sealed case protects against the environment and provides years of reliable service. Model $722-0004,3-$ Hole mount, is NEMA 4X, 12 rated when mounted with optional gasket.

## Features

## Options

- Operating voltage $90-240$ VAC $50 / 60 \mathrm{~Hz}$
- Totally sealed
- UL/CSA Recognized, CE Compliant
- 6 Figure, 99999.9
- Quartz accuracy
- Wire leads
- 3-hole mount gasket kit (part\# 5003-007S) (for NEMA 4X, 12 rating)


## Specifications

| Figures: | 6 - digits, $0.125^{\prime \prime}[3.2 \mathrm{~mm}] 99999.9$ <br> Hours - white on black <br> Tenths - red on white | Accuracy: Case Material: Agency Approvals: | $\pm 0.02$ over entire range <br> Black polymer <br> UL/CSA Recognized, CE Compliant |
| :---: | :---: | :---: | :---: |
| Reset: | Non-reset | Environmental: | Totally sealed (all models) |
| Voltage: | $90-240 \mathrm{VAC}( \pm 10 \%)$ | Front Panel: | Model: 722-0004, NEMA 4X, 12 rated |
| Frequency: | 50/60Hz |  | with optional gasket (part\# 5003-007S) |
| Power: | Less than 0.6 watts | Temperature: | $-40^{\circ} \mathrm{F}$ to $+185^{\circ} \mathrm{F}\left[-40^{\circ} \mathrm{C}\right.$ to $\left.+85^{\circ} \mathrm{C}\right]$ |
| Mounting: | Clip or mounting holes | Vibration: | $10-75 \mathrm{~Hz}$ @ 1 to 8 g 's |
| Termination: | $1 / 4$ "  spade terminals |  |  |
| Weight: | 2 oz [57 g] |  |  |
| Models | Description |  |  |
| 722-0001 | 2-Hole Rectangular, 90-240VAC $50 / 60 \mathrm{~Hz}, 1 / 4 \mathrm{l}$ " $[6.3 \mathrm{~mm}]$ spade terminals, hours \& $1 / 10$ 's |  |  |
| 722-0002 | Flush-Rectangular, $90-240 \mathrm{VAC} 50 / 60 \mathrm{~Hz}, 1 / 4 \mathrm{l}$ " $[6.3 \mathrm{~mm}]$ spade terminals, $\quad$ hours \& $1 / 10$ 's |  |  |
| 722-0003 | Flush-Round, $90-240 \mathrm{VAC} 50 / 60 \mathrm{~Hz}, 1 / 4{ }^{\prime \prime}$ [ 6.3 mm ] spade terminals, h |  | ours \& 1/10's |
| 722-0004 | 3 -Hole Round, $90-240 \mathrm{VAC} 50 / 60 \mathrm{~Hz}, 1 / 4 "[6.3 \mathrm{~mm}]$ spade terminals, |  | urs \& 1/10's |
| 5003-007S | NEMA 4X, 12 Gasket kit and hardware for 3-Hole Round model (722-0004) |  |  |

## Dimensions



Applications


Test Equipment


Office Equipment



## Description

The Redington MI
3-Hole Round, Flush-Rectangular, Flush-Round and 2-Hole Rectangular. Models 732-0002 and 732-0004 fit a panel opening of 1.45" X 0.95 " $[36.8 \mathrm{~mm}$ X 24.1 mm ]. The Flush-Round Model $732-0003$ and 3 -Hole Model $732-0001$ fit a panel opening of 2.0 " $[50.6 \mathrm{~mm}$ ]. Its quartz time base insures accurate long-term time keepia
is NEMA $4 \mathrm{X}, 12$ rated when mounted with optional gasket.

## Features

Options

- Operating voltage $10-80 \mathrm{VDC}$
- Totally sealed
- UL/CSA Recognized, CE Compliant
- 6 Figure, 99999.9
- Quartz accuracy


## Specifications

| Figures: | 6 - digits, 0.125 " $[3.2 \mathrm{~mm}] 99999.9$ <br> Hours - white on black <br> Tenths - red on white | Accuracy: Case Material: Agency Approvals: | $\pm 0.02$ over entire range <br> Black polymer <br> UL/CSA Recognized, CE Compliant |
| :---: | :---: | :---: | :---: |
| Reset: | Non-reset | Environmental: | Totally sealed (all models) |
| Voltage: | 10-80VDC | Front Panel: | Model: 732-0001, NEMA 4X, 12 rated |
| Power: | 0.3 watts @ 12VDC |  | with optional gasket (part\# 5003-007S) |
| Mounting: | Clip or mounting holes | Temperature: | $-40^{\circ} \mathrm{F}$ to $+185^{\circ} \mathrm{F}\left[-40^{\circ} \mathrm{C}\right.$ to $\left.+85^{\circ} \mathrm{C}\right]$ |
| Termination: | $1 / 4 "$ [ 6.3 mm ] spade terminals | Vibration: | $10-75 \mathrm{~Hz}$ @ 1 to 8g's |
| Weight: | $2.0 \mathrm{oz} \mathrm{[57} \mathrm{g]}$ |  |  |
| Models | Description |  |  |
| 732-0001 | 3 -Hole Round, $10-80 \mathrm{VDC}, 1 / 4 \mathrm{l}$ " 6.3 mm$]$ spade terminals, hours \& $1 / 10$ 's |  |  |
| 732-0002 | Flush-Rectangular, $10-80 \mathrm{VDC}, 1 / 4 \mathrm{l}$ " $[6.3 \mathrm{~mm}]$ spade terminals, hours \& $1 / 10$ 's |  |  |
| 732-0003 | Flush-Round, 10-80VDC, $11 /{ }^{\prime \prime}$ " $[6.3 \mathrm{~mm}]$ spade terminals, hours \& $1 / 10$ 's |  |  |
| 732-0004 | 2 -Hole Rectangular, 10-80VDC, $11 / 3$ " $[6.3 \mathrm{~mm}$ ] spade terminals, hours \& 1/10's |  |  |
| 5003-007S | NEMA 4X, 12 Gasket kit and hardware for 3-Hole Round model (732-0001) |  |  |

## Dimensions



Panel Opening: 1.45 " $\times 0.95$ " [36.8 $\times 24.1$ ]
Maximum Panel Thickness: 0.03 to 0.63 [0.76 to 16.00]

Flush-Round

0.40 [10.2] MAX - PANEL THICKNESS MOUNTING


Panel Opening: 2.0" [50.6]
Maximum Panel Thickness: 0.40 [10.2]

## 3-Hole Round



Panel Opening: 2.0" [50.6]

## Applications




## Description

The Model 77 is a compact, non-reset, 6 figure, 99999.9, electromechanical hour meter. Available with several mounting styles, panel, behind the panel and "snap-in" mount. Products are UL Recognized, CSA Certified and CE Compliant.

Features

- Panel or snap-in mount

Options

- Compact size
- Voltage
- Non-reset
- Frequency
- Mounting


## Specifications

| Figures: | 6 figures, 0.11 "  high | Mounting: | Panel (front, behind, or snap-in) |
| :---: | :---: | :---: | :---: |
|  | 99,999.9 hours | Termination: | Screw type, round terminals |
| Reset: | Non-reset | Temp. Range: | : $\quad-60^{\circ} \mathrm{F}$ to $+154^{\circ} \mathrm{F}\left[-51^{\circ} \mathrm{C}\right.$ to $\left.+68^{\circ} \mathrm{C}\right]$ |
| Voltages: | 115VAC, (+/-10\%) 60 Hz . | Approvals: | UL Recognized, CSA Certified, CE Compliant |
| Power: | 3 watts (nominal) | Weight: | 2.5 oz. [71g] |
| Models | Description | Models D | Description |
| P2-7717/60 | $115 \mathrm{VAC} / 60 \mathrm{~Hz}$, non-reset, panel mount | SR2-7717/60 1 | $115 \mathrm{VAC} / 60 \mathrm{~Hz}$, non-reset, snap-in mount |
| R2-7717/60 | $115 \mathrm{VAC} / 60 \mathrm{~Hz}$, non-reset, behind the panel mount |  |  |

Dimensions



## Description

A compact, economical, 6 or 7 figure, non-reset, electromechanical counter designed for general purpose industrial and commercial counting applications. It is designed for a variety of mounting methods as required by the application. Commonly used for coin-operating equipment, photocopiers and vending machines.

Features

- 6 or 7 figure
- Compact
- Non-reset
- Variety of mounting options

Options

- Voltages
- Lead lengths
- 5 figure


## Specifications



| Models | Description | Models | Description |
| :--- | :--- | :--- | :--- |
| P2-4816 | 115VAC, 6 figures, P panel mount | D8-4817 | 24VDC, 7 figures, D base mount |
| P8-4816 | 24VDC, 6 figures, P panel mount | P2-4817 | 115VAC, 7 figures, P panel mount |
| R2-4816 | 115VAC, 6 figures, R panel mount | P8-4817 | 24VDC, 7 figures, P panel mount |
| SR2-4816 | 115VAC, 6 figures, SR panel mount | R8-4817 | 24VDC, 7 figures, R panel mount |
| SR8-4816 | 24VDC, 6 figures, SR panel mount | SR8-4817 | 24VDC, 7 figures, SR panel mount |
| V1-4816 | 230VAC, 6 figures, V base mount | V2-4817 | 115VAC, 7 figures, V base mount |
| V2-4816 | 115VAC, 6 figures, V base mount | V8-4817 | 24VDC, 7 figures, V base mount |
| V3-4816 | 24VAC, 6 figures, V base mount |  |  |
| V8-4816 | 24VDC, 6 figures, V base mount |  |  |
| V9-4816 | 12VDC, 6 figures, V base mount |  |  |
| * Items in bold are normally in factory stock. |  |  |  |

Applications

| Control panels | Gaming machines | Vending machines | Coin-operated equipment |
| :--- | :--- | :--- | :--- |
|  |  |  |  |



## Mounting holes: 0.15 " [3.8] Dia.

SR - Mount


Panel cutout: $1.67^{\prime \prime} \times 1.29^{\prime \prime}$ [ $42.4 \times 32.8 \mathrm{~mm}$ ] Recommended panel thickness: 0.04 " to $0.08^{\prime \prime}$ [ 1.0 to 2.0 mm ]


Mounting holes: For \#5 flat head screw
Panel cutout: 1.72 " $\times 1.05$ " [ $43.7 \times 26.7 \mathrm{~mm}$ ]

R-Mount


Mounting holes: For \#5 flat head screw Panel cutout: $1.72^{\prime \prime} \times 1.05^{\prime \prime}$ [ $43.7 \times 26.7 \mathrm{~mm}$ ]


Mounting holes: $0.16^{\prime \prime} \times 0.28^{\prime \prime}[4.1 \times 7.1 \mathrm{~mm}]$ slots


## Description

Economically priced 4 and 6 figure push-button reset, electromechanical counter designed for use where limited space is a factor and when reliability is critical. Rugged operating mechanisms require no lubrication or maintenance. Compact size and minimum space requirements make the Model 49 ideally suited for use in control panels, business machines, and test equipment.

Features

- Compact
- No maintenance
- Quick reset

Options

- Voltages
- Extended temperatures
- 4 or 6 figure


## Specifications

| Figures: | 4 or 6 figures, white on black, 0.16 " $\left.{ }^{\prime \prime} 4 \mathrm{~mm}\right]$ high | Mounting: <br> Termination: Operating Life: Temp. Range: Approvals: Weight: | Panel, base, or bail (2) \#22 AWG $105^{\circ} \mathrm{C}$ wire leads, 10 " 2554 mm$]$ long |
| :---: | :---: | :---: | :---: |
| Reset: <br> Speed: | Push-button |  | (2) \#22 AWG $105^{\circ} \mathrm{C}$ wire leads, 10 " [ 254 mm ] long |
| Speed: | (min. 50ms - on, 50 ms - off) |  | $-15^{\circ} \mathrm{F} \text { to }+140^{\circ} \mathrm{F}\left[-26^{\circ} \mathrm{C} \text { to }+60^{\circ} \mathrm{C}\right]$ |
| Voltages: | $\begin{aligned} & 115 \mathrm{VAC}, 24 \mathrm{VDC} \\ & (+10 \% \text { to }-15 \%) \end{aligned}$ |  | UL Recognized, CE Compliant 4 oz. [113g] (4 fig.), 5 oz. [142g] (6 fig.) |
| Power: | AC: 115VAC ~ 3 watts <br> DC: 24VDC ~ 2 watts |  |  |
| Models | Description | Models Description |  |
| B2-4904 | 115VAC, 4 figure, bail mount | B2-4906 11 | VAC, 6 figure, bail mount |
| B8-4904 | 24VDC, 4 figure, bail mount | B8-4906 24 | DC, 6 figure, bail mount |
| D2-4904 | 115VAC, 4 figure, base mount | D2-4906 11 | VAC, 6 figure, base mount |
| P2-4904 | 115VAC, 4 figure, panel mount | P2-4906 11 | VAC, 6 figure, panel mount |
| P8-4904 | 24VDC, 4 figure, panel mount | P8-4906 24 | DC, 6 figure, panel mount |
| P9-4904 | 12VDC, 4 figure, panel mount | P9-4906 12 | DC, 6 figure, panel mount |

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## Dimensions

Panel Mount - 4 Figure


Panel cutout: 1.46 " $\times 1.01$ " $[37.1 \times 25.7 \mathrm{~mm}]$ Mounting holes: For \#4 flat head screw

Panel Mount - 6 Figure


Panel cutout: 2.00 " x $1.01^{\prime \prime}[50.8 \times 25.7 \mathrm{~mm}]$
Mounting holes: For \#4 flat head screw


Panel cutout: 2.00 " $\times 1.01$ " $[50.8 \times 25.7 \mathrm{~mm}]$

## Base Mount - 6 Figure



Mounting holes: $0.12 " \times 0.20 "[3.1 \times 5.1 \mathrm{~mm}]$ slots

## Applications

Test Equipment


Control Panels


Business Machines


Medical devices



## Description

Designed for use in a wide variety of production, batching and packaging applications. These 4 or 6 figure electromechanical predetermining counters count down from a preset number and activate a SPDT switch. Convenient preset controls and built-in manual reset with guard are standard. A surge absorbing circuit protects against damage due to voltage spikes. Heavy duty bail mount secures counter in place.

Features

- 4 or 6 figures

Options

- Heavy duty mount
- SPDT switch


## Specifications



## Dimensions



Panel cutout: 2.17 " $\times 2.17$ " [55.1 $\times 55.1$ ]

## Applications




## Description

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.

## Features

## Options

- Large figures
- Tough, Lexan case
- Reset or non-reset
- Private label faceplates
- Bracket mount
- Mounting bracet (721-0003)
- Splash proof kit (721-0017)
- Heavy duty splash proof kit (721-0018)
- Gasket (721-0004)

Specifications


## Dimensions



Electromechanical


## Description

The Redington Model $711 / 731$ provides a family of compact 7 figure, AC or DC Hour Meters. Models are available in the standard industry housings, 2 -Hole rectangular, flush-round and flush-rectangular. DC Models are quartz controlled for high reliability and accuracy. A choice of two rectangular panel cutouts are offered $1.45^{\prime \prime} \times 0.95^{\prime \prime}\left[36.8 \mathrm{~mm} \times 24.1 \mathrm{~mm}\right.$ ] or $1.45^{\prime \prime} \times 0.87^{\prime \prime}[36.8 \mathrm{~mm} \times 2.1 \mathrm{~mm}$. The Round meter has a panel cutout of 1.99 " [ 50.5 mm ].

## Features

- 7 figure, 99999.99
- Various voltage inputs
- Quartz accuracy (DC)
- Large figures, 0.14 " 3.6 mm ]
- CE Compliant
- UL Recognized/CSA Certified for AC
- UL/cUL Recognized for DC


## Specifications

| Figures: | 7 figures, 0.14"  99999.99 | Environmental: |  |
| :---: | :---: | :---: | :---: |
| Reset: | Non-reset | Front Panel: | IP65 |
| Voltages: | 24,115 or 230VAC ( $\pm 10 \%$ ), 50 or $60 \mathrm{~Hz} 10-28 \mathrm{VDC}$ | Operating Temperature: | $-40^{\circ} \mathrm{F}$ to $+180^{\circ} \mathrm{F}\left[-40^{\circ} \mathrm{C}\right.$ to $\left.+82^{\circ} \mathrm{C}\right]$ |
| Power: | 2 watts AC, 0.4 watts DC | Storage Temperature: | $-40^{\circ} \mathrm{F}$ to $+185^{\circ} \mathrm{F}\left[-40^{\circ} \mathrm{C}\right.$ to $\left.+85^{\circ} \mathrm{C}\right]$ |
| Mounting: | Clip or mounting holes | Humidity: | 95\% RH- SAE J 1378 |
| Termination: | 1/4"  spade terminals with screws (AC) | Vibration: | 20g's @ 10-80 Hz- SAE J 1378 |
|  | $1 / 4 "$  spade terminals (DC) | Shock: | 55g's @ 9-13 msec.- SAE J 1378 |
| Accuracy: | 0.01\% (DC) quartz | Transient Immunity: | EMI: $\pm 400 \mathrm{~V} @ 500 \mathrm{~Hz}$ |
| Case Material: | Black polymer | Alternator Load Dump: | 150 V inductive switching, reverse |
| Agency Approvals: | CE Compliant |  | polarity and over voltage protection |
|  | UL Recognized/CSA Certified for AC |  |  |
|  | UL/cUL Recognized for DC |  |  |
| Weight: | 1.2oz. [35g] |  |  |

Models

| Models | Voltage AC | Mount | Panel Cut-out |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1.45 X . 87 | 1.45 X . 95 | 1.99 |
| 711-0013 | 115VAC/60Hz | Round |  |  | X |
| 711-0014 | 230VAC/60Hz | Round |  |  | X |
| 711-0015 | 24VAC/60Hz | Round |  |  | X |
| 711-0113 | 115VAC/60Hz | Flush Rect | X |  |  |
| 711-0114 | 24VAC/60Hz | Flush Rect. | X |  |  |
| 711-0120 | 115VAC/60Hz | Flush Rect |  | X |  |
| 711-0123 | 230VAC/60Hz | Flush Rect. |  | X |  |
| 711-0124 | 24VAC/60Hz | Flush Rect. |  | X |  |
| 711-0130 | $115 \mathrm{VAC} / 60 \mathrm{~Hz}$ | 2-Hole | X |  |  |
| 711-0131 | 230VAC/60Hz | 2-Hole | X |  |  |
| 711-0132 | 24VAC/60Hz | 2-Hole | X |  |  |
| 711-0133 | $115 \mathrm{VAC} / 50 \mathrm{~Hz}$ | 2-Hole | X |  |  |
| 711-0134 | 230VAC/50Hz | 2-Hole |  | X |  |
| 711-0138 | 230VAC/60Hz | Flush Rect. | X |  |  |
| 711-0215 | 115VAC/60Hz | 2-Hole |  | X |  |
| 711-0216 | 230VAC/60Hz | 2-Hole |  | X |  |
| 711-0217 | 24VAC/60Hz | 2-Hole |  | X |  |


| Models | Voltage DC | Mount | Panel Cut-out |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1.45 X . 87 | 1.45 X . 95 | 1.99 |
| 731-0006 | 10-28VDC | Round |  |  | x |
| 731-0040 | 10-28VDC | 2-Hole | X |  |  |
| 731-0041 | 10-28VDC | Flush Rect | X |  |  |
| 731-0042 | 10-28VDC | Flush Rect |  | X |  |
| 731-0051 | 10-28VDC | 2-Hole |  | X |  |

[^1]
## Dimensions



PANEL OPENING 1.45 [36.8] X 0.87 [22.1] PANELTHICKNESS 0.50" [12.7]


PANEL OPENING 1.45 [36.8] X 0.87 [22.1]


PANEL OPENING 1.45 [36.8] $\times 0.95$ [24.1]


PANEL OPENING 1.45 [36.8] X 0.95 [24.1] PANELTHICKNESS 0.50" [12.7]

## Applications

Medical equipment



Office equipment



## Description

These 7 figure, AC or DC hour meters 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.

## Features

- 7 figure, 99999.99
- Various voltage inputs
- Distinctive styling


## Options

- Terminations
- Din rail
- Voltages


## Specifications

| Figures: | 7 figures, $0.14 "$ high $[3.6 \mathrm{~mm}], 99,999.99$ hours | Mounting: | Panel (mounting hardware included) |
| :--- | :--- | :--- | :--- |
| Reset: | Non-reset | Temp. Range: | $-22^{\circ} \mathrm{F}$ to $+158^{\circ} \mathrm{F}\left[-30^{\circ} \mathrm{C}\right.$ to $\left.+70^{\circ} \mathrm{C}\right]$ |
| Voltages: | 24,115, or $230 \mathrm{VAC}(+/-10 \%), 50$ or $60 \mathrm{~Hz} ., 10-80 \mathrm{VDC}$ | Approvals: | UL Recognized and CSA Certified (AC only), |
| Power: | 3 watts $(\mathrm{AC}), 1.2$ watt maximum (DC) |  | CE Approved |
| Terminations: | $1 / 4 "[6.3 \mathrm{~mm}]$ spade terminals, with removable screws, | Weight: | 2 oz. $[57 \mathrm{~g}]$ |

## Models

Description
Models Description

711-0150
711-0152
711-0160
711-0161
711-0162
711-0163
711-0164
711-0170
711-0171
711-0180

115VAC/60Hz, 2.28"Dia., Flush mount, screw termination 230VAC/60Hz, 2.28"Dia., Flush mount, screw termination 115VAC/60Hz, 2.93" Dia., 3-hole round, screw termination $115 \mathrm{VAC} / 50 \mathrm{~Hz}, 2.93$ " Dia., 3-hole round, screw termination 230VAC/60Hz, 2.93" Dia., 3-hole round, screw termination 230VAC/50Hz, 2.93" Dia., 3-hole round, screw termination $24 \mathrm{VAC} / 60 \mathrm{~Hz}, \quad 2.93$ "Dia., 3-hole round, screw termination 230VAC/60Hz, 2.93" Dia., 3-hole round, 8" wire leads 115VAC/60Hz, 2.93" Dia., 3-hole round, 8" wire leads 115VAC/60Hz, 1.89"Sq., Flush mount, screw termination

711-0182 711-0190 711-0191 711-0192 711-0193 711-0194 711-0195

731-0046

24VAC/60Hz, 1.89"Sq., Flush mount, screw termination $115 \mathrm{VAC} / 60 \mathrm{~Hz}, 2.05^{\prime \prime}$ Sq., Flush mount, screw termination 230VAC/60Hz, 2.05" Sq., Flush mount, screw termination 24VAC/60Hz, 2.05" Sq., Flush mount, screw termination 115VAC/50Hz, 2.05" Sq., Flush mount, screw termination 230VAC/50Hz, 2.05" Sq., Flush mount, screw termination $24 \mathrm{VAC} / 50 \mathrm{~Hz}, 2.05$ " Sq., Flush mount, screw termination

10-80VDC, 2.93 " Dia., 3-hole round, screw termination

* Items in bold are normally in factory stock.


## Dimensions

2.28" Dia. Flush


Panel cutout: 1.99 " [50] Dia. or 1.81 " [46] Sq.

## Applications

3 - Hole Round


Panel cutout: 1.99 " [50] Dia. or $1.81 "$ [46] Sq. Screws provided: $4-40 \times 5 / 8$ " [16] Bolt hole circle: 2.44" [62]
1.89 " or 2.05 " Square


Panel cutout: 1.99" [50] Dia. or 1.81" [46] Sq. (for 1.89 " Sq. use 1.81" [46] Sq. cutout only)


Test equipment


Office equipment



## Description

A rectangular style AC hour meter designed to complement existing meters in control panels. Available in 6 figure reset or 7 figure non-reset. The non-

## Features

- Large figures


## Options

- 6 or 7 digits
- UL Recognized, CSA Certified, CE Compliant
reset model incorporates a retaining clip to lock into panel, while the reset version has a metal bracket and screw.
- Reset or non-reset


## Specifications

| Figures: | 6 figure (reset) or 7 figure (non-reset), $0.19 "[5 \mathrm{~mm}]$ high | Mounting: | Panel (mounting hardware included) |
| :--- | :--- | :--- | :--- |
|  | $9,999.99$ hours. (reset version) | Termination: | $19^{\prime \prime}[483 \mathrm{~mm}]$ wire leads |
|  | $99,999.99$ hours. (non-reset models) | Temp. Range: | $-4^{\circ} \mathrm{F}$ to $+158^{\circ} \mathrm{F}\left[-20^{\circ} \mathrm{C}\right.$ to $\left.+70^{\circ} \mathrm{C}\right]$ |
| Reset: | Push-button, or non-reset | Approvals: | UL Recognized, CSA Certified, CE Compliant |
| Voltages: | $115 \mathrm{VAC}(+/-10 \%), 50$ or 60 Hz. | Weight: | 2 oz. $[57 \mathrm{~g}]$ |
| Power: | 2 watts (nominal) | Options: | Voltages |

## Models Description

711-0019 115VAC/60Hz, reset, 6 figure, 9,999.99 hrs., 19 " [483mm] wire leads
711-0020 115VAC/60Hz, non-reset, 7 figure, $99,999.99 \mathrm{hrs} ., 19 "[483 \mathrm{~mm}]$ wire leads
711-0041 115VAC/50Hz, non-reset, 7 figure, 99,999.99 hrs., 19" [483mm] wire leads

## Dimensions




## Description

A 6 figure general purpose, rugged, electromechanical counter, either panel or base mounted, with manual knob reset, key reset, or non-reset. Frame and housing provides rigid support for accurate alignment and trouble-free use. Distinctive numerals enhance visibility under adverse viewing conditions.

## Features

- Panel or base mount
- Rigid support for accurate alignment
- Enhanced visibility
- Manual knob, key or non-reset


## Options

- Voltages
- Lead lengths
- Terminations
- Mounting
- 1071-024S - additional key for model 1026


## Specifications

| Figures: | 6 figures, white on black, 0.19 " [ 5 mm ] high | Mounting: | Base or panel |
| :---: | :---: | :---: | :---: |
| Reset: | Knob, lock and key, or non-reset | Terminations: | (2)\#22 AWG $105^{\circ} \mathrm{C}$ wire leads, $8^{\prime \prime}$  long |
| Speed: | 1,000 counts/minute (min. 30 ms - on, 30 ms - off) | Operating Life: | Beyond 50 million counts |
| Voltage: | $24,115,230$ VAC or 24 VDC <br> (+/-10\%, but not to exceed 10 volts) | Temp. Range: | $-15^{\circ} \mathrm{F}$ to $+140^{\circ} \mathrm{F}\left[-26^{\circ} \mathrm{C}\right.$ to $\left.+60^{\circ} \mathrm{C}\right]$ <br> UL Recognized, CSA Certified, CE Compliant |
| Power: | 7.8 watts (nominal) | Weight: | 18 to 22 oz . [510 to 624g] |
| Models | Description | Models D | cription |
| 1-1006 | 230VAC, base mount, knob reset | P3-1006 24 | AC, panel mount, knob reset |
| 2-1006 | 115VAC, base mount, knob reset | P8-1006 24 | DC, panel mount, knob reset |
| 3-1006 | 24VAC, base mount, knob reset | P2-1016 11 | VAC, panel mount, non-reset |
| 8-1006 | 24VDC, base mount, knob reset |  |  |
| 2-1016 | 115VAC, base mount, non-reset | P31-1026 23 | VAC, panel mount, lock and key reset |
|  |  | P32-1026 11 | VAC, panel mount, lock and key reset |
| P1-1006 | 230VAC, panel mount, knob reset | P33-1026 24 | AC, panel mount, lock and key reset |
| P2-1006 | 115VAC, panel mount, knob reset | P38-1026 24 | DC, panel mount, lock and key reset |

Dimensions



## Description

A 7 figure, rugged, electromechanical counter, either panel or base mounted, with manual knob reset, key reset, or non-reset. Frame and housing provides rigid support for accurate alignment and trouble-free use. Large, easy-to-read numerals assure readability.

## Features

Options

- 7 figure
- Panel or base mount
- Rigid support for accurate alignment
- Large easy to read numerals
- Voltages
- Lead lengths
- Terminations
- Wheel color


## Specifications

| Figures: | 7 figures, white on black, 0.19 "  high | Mounting: | Base, panel, or behind the panel |
| :---: | :---: | :---: | :---: |
| Reset: | Knob, lock and key, or non-reset | Terminations: | (2)\#22 AWG $105^{\circ} \mathrm{C}$ wire leads, $8^{\prime \prime}$  long |
| Speed: | 1,000 counts/minute (min. 30 ms - on, 30 ms - off) | Operating Life: Temp. Range: | Beyond 50 million counts $-15^{\circ} \mathrm{F} \text { to }+140^{\circ} \mathrm{F}\left[-26^{\circ} \mathrm{C} \text { to }+60^{\circ} \mathrm{C}\right]$ |
| Voltage: | $24,115,230$ VAC or 24 VDC <br> (+/- 10\%, but not to exceed 10 volts) | Approvals: Weight: | UL Recognized, CSA Certified, CE Compliant 14 to 18 oz. [397 to 510g] |
| Power: | 7.8 watts (nominal) |  |  |
| Models | Description | Models | scription |
| 1-1007 | 230VAC, base mount, knob reset | P2-1007 115 | VAC, panel mount, knob reset |
| 2-1007 | 115VAC, base mount, knob reset | P2-1027 11 | VAC, panel mount, lock and key reset |
| 3-1007 | 24VAC, base mount, knob reset | P8-1027 24 | DC, panel mount, lock and key reset |
| 8-1007 | 24VDC, base mount, knob reset |  |  |
| 2-1017 | 115VAC, base mount, non-reset | R2-1007 11 | VAC, behind the panel, knob reset |
|  |  | R2-1017 11 | VAC, behind the panel, non-reset |

## Dimensions



Screws provided: $6-32 \times 0.6$ [15.2mm]
Panel cutout: 4.88 " x 1.75 " [124.0 x 44.5 mm ]
Applications



## Description

A general purpose, 4 figure electromechanical reset counter perfect for applications where long life, reliability, and accuracy are mandatory. Several mounting alternatives and large, easy-to-read numbers are combined in a rugged housing.

Features
Options

- Rugged housing
- Voltages
- Long life
- Lead lengths
- Reliable
- Terminations


## Specifications



## Dimensions



## Applications




## Description

An extremely long life, 6 figure, electromechanical counter available in panel mounting versions with manual push-button reset. High count speeds, bold numbers, and contemporary design make this ideal in office, graphic arts, medical and computer applications.

Features

- High count speed


## Options

- Bold numbers
- Voltages
- Lead lengths
- Contemporary design


## Specifications

| Figures: | 6 figures, white on black, 0.15"  high | Mounting: | Panel |
| :---: | :---: | :---: | :---: |
| Reset: | Push-button | Terminations: | Solder terminals |
| Speed: | 1,000 counts/minute AC, (min. 30 ms - on, 30 ms - off) | Operating Life: | Beyond 200 million counts |
|  | 1,500 counts/minute DC, (min. 20 ms - on, 20 ms - off) | Temp. Range: | $-15^{\circ} \mathrm{F}$ to $+140^{\circ} \mathrm{F}\left[-26^{\circ} \mathrm{C}\right.$ to $\left.+60^{\circ} \mathrm{C}\right]$ |
| Voltages: | 115VAC, 24VDC <br> (+/- 10\%, but not to exceed 10 volts) | Approvals: | UL Recognized, CSA Certified, CE Compliant 8 oz. [227g] |
| Power: | 2.8 watts (nominal) |  |  |
| Models | Description | Models D | Description |
| P2-3106 | 115VAC, P panel mount, manual reset | P9-3206 12 | DC, P panel mount, manual reset |
| R2-3106 | 115VAC, R panel mount, manual reset | R8-3206 24 | $D C, R$ panel mount, manual reset |
| P8-3206 | 24VDC, P panel mount, manual reset |  |  |
| * Items in bold are normally in factory stock. |  |  |  |

## Dimensions



Mounting holes: For \#8 flat head screw Panel cutout: 2.02 " $\times 1.05^{\prime \prime}$ [ $51.3 \times 26.7 \mathrm{~mm}$ ]
Applications
Graphic arts


## Description

The Model 40 is a low cost, non-reset totalizer, available with 6-7 figures (white on black background). A wide choice of operating voltages and mountings make this product adaptable for most applications. The Model 40 is an ideal solution for applications that require low cost and product reliability.

Options

- Low cost
- Small size
- DC and AC
- 6 or 7 figure
- Multiple mounting choices
- Voltages


## Specifications

Figures: $\quad 6$ or 7 figures, white on black, $0.12^{\prime \prime}(3 \mathrm{~mm})$ high
Reset:
Speed:
Voltage:
Power:
Mounting:

Non-reset
600 counts/minute (min. 50 ms - on, 50 ms - off)
115 VAC, 5,12 or 24 VDC (+ 10/-15\% tolerance)
1.4 watts AC, 1.0 watts DC (nominal)

Rear, behind the panel, snap-in, base or PCB mount

Terminations

Operating Life:
Temp. Range:
Weight:
(2)\#22 AWG $221^{\circ} \mathrm{F}\left[105^{\circ} \mathrm{C}\right.$ ] wire leads, $10.5^{\prime \prime}$ [266.7mm] long or (2) 0.03 " [ 0.8 mm ] Dia. pins for PCB mounting
Beyond 3 million counts
$+23^{\circ} \mathrm{F}$ to $+104^{\circ} \mathrm{F}\left[-5^{\circ} \mathrm{C}\right.$ to $\left.+40^{\circ} \mathrm{C}\right]$
Less than 1 oz. [28g]

| Models | Description | Models | Description |
| :--- | :--- | :--- | :--- |
| 2-4016 | 115VAC, 6 figure, rear mount, wire leads | $2-4017$ | 115VAC, 7 figure, rear mount, wire leads |
| R2-4016 | 115VAC, 6 figure, behind the panel mount, wire leads | R2-4017 | 115VAC, 7 figure, behind the panel mount, wire leads |
| R9-4016 | 12VDC, 6 figure, behind the panel mount, wire leads | R9-4017 | 12VDC, 7 figure, behind the panel mount, wire leads |
| SR2-4016 | 115VAC, 6 figure, snap-in panel mount, wire leads | SR2-4017 | 115VAC, 7 figure, snap-in panel mount, wire leads |
| T2-4016 | 115VAC, 6 figure, PCB mount, pins |  |  |
| V8-4016 | 24VDC, 6 figure, V-base mount, wire leads | T2-4017 | 115VAC, 7 figure, PCB mount, pins |
|  | V8-4017 | 24VDC, 7 figure, V-base mount, wire leads |  |

## Dimensions



## Snap-In Panel Mount



V-Base Mount


D-Base Mount


PCB Mount


Applications

Vending/Gaming machines




## Description

A 6 figure, non-reset counter. Metal/plastic frame assembly assures ruggedness while one piece cover discourages tampering. Precision molded internal gearing requires no lubrication for long, accurate count life. Applications include warranty verification, electronic game counting, coin box tallies, or wherever small size, highly visible numerals, and solid construction are critical.

## Features

## Options

- Small size
- Highly visible numerals
- Voltages
- Solid construction
- 7 figure
- Lead length
- Special connectors
- Extended temperature range
- Count x 2

Specifications

| Figures: Reset: | 6 figures, white on black, 0.18 " $[4.6 \mathrm{~mm}]$ high None | Mounting: <br> Terminations: | Rear, behind the panel, base, or combination (2) \#22 AWG $221^{\circ} \mathrm{F}\left[105^{\circ} \mathrm{C}\right]$ wire leads, |
| :---: | :---: | :---: | :---: |
| Speed: | 600 counts/minute (min. 50 ms - on, 50 ms - off) | Operating Life: | $10 "$  long Beyond 3 million counts |
| Voltages: | $115 \mathrm{VAC}, 24 \mathrm{VDC}$ <br> (+/-10\%, but not to exceed 10 volts) | Temp. Range: Approvals: | $+23^{\circ} \mathrm{F}$ to $+104^{\circ} \mathrm{F}\left[-5^{\circ} \mathrm{C}\right.$ to $\left.+40^{\circ} \mathrm{C}\right]$ UL Recognized, CE Compliant |
| Power: | 1.5 watts (nominal) | Weight: | 2.5 oz. [719] |
| Models | Description | Models | scription |
| 2-4416 | 115VAC, 6 figure, rear mount | V2-4416 11 | VAC, 6 figure, base mount |
| 8-4416 | 24VDC, 6 figure, rear mount | V8-4416 24 | DC, 6 figure, base mount |
| R2-4416 | 115VAC, 6 figure, behind the panel mount | RV2-4416 11 | VAC, 6 figure, combination mount |
| R8-4416 | 24VDC, 6 figure, behind the panel mount | RV8-4416 24 | DC, 6 figure, combination mount |
| Dimensions |  |  |  |

## Dimensions




[^0]:    * Items in bold are normally in factory stock.

[^1]:    * Items in bold are normally in factory stock.

