



PRODUCT CATALOGUE



**COUNTERS • TIMERS AND HOUR METERS • RATE INDICATORS • PANEL METERS
ENCODERS • TIME RELAYS • LENGTH MEASUREMENT • DISTANCE**

WWW.TRUMETER.COM

Distributed by Gross Automation
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Welcome to the the Trumeter product catalogue.

This edition contains many exciting new products that we have developed and added recently, as well as all the Distance and Control & Measurement products that you have used for many years.

At Trumeter, we value your business and offer a broad range of reliable, high-quality, innovative products that can help you be successful. Our products carry warranties of between 3-and-10-years, much longer than our competitors, demonstrating our confidence in both design and manufacturing.

The acquisition of Redington in 2011, Kessler Ellis Counting and Timing Division in 2015, and Control Dynamic in 2016, means we can offer an even larger range of professional control and measurement products. These products, along with those developed by our Engineering Team, are manufactured to highly-exacting quality standards at our world-class manufacturing facilities which you are welcome to visit at any time.

The Trumeter team and I are committed to achieving 100% customer satisfaction, so in addition to expanding our range of products we continue to invest in our customer support and logistics organisations. From our bases in Europe, North America, and Asia we have a world-class team of application engineers, sales managers, and customer and technical support specialists who are ready to assist you in selecting the best product or solution for your application.

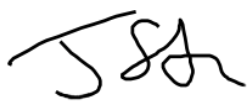
A large part of our business today is in products that we have customised and designed specifically for a particular customer, so if you have a requirement for a product not in this catalogue, or you would like a special version of one of our products, please let us know – we would really like to work with you and customise a product specifically for you.

Customisation is something our engineering team enjoys and excels at. We specialise in developing innovative products and solutions that reduce **your** product cost, and differentiate **your** products. You can read more in the customisation section of this catalogue.

We are constantly developing new products and improving existing ones. To keep up-to-date on all our innovations, please visit www.trumeter.com and subscribe to our newsletter or feel free to send me an email directly and I will keep you fully informed.

Lastly, I want to mention our five core values of Innovation, Integrity, Ambition, Teamwork and Customer Driven. These are really important to our company and people, are integrated fully into all our HR systems and processes, and mean you know what to expect in terms of the standards that we set for ourselves and the way we will work with you.

Thank you for your interest in Trumeter and our products, services, and technologies. We look forward to the opportunity to help your business grow and succeed.



Director
john.smith@trumeter.com



Product Customisation Services

Almost every Trumeter product you will find in this catalogue can be customised to meet your exact requirements. Take advantage of our 80 years of expertise in control and measurement to get bespoke solutions tailored to your specific needs. We provide custom configurations of nearly all our standard products, OEM products and systems as well as one-of-a-kind custom product solutions that integrate seamlessly into a wide range of industrial and consumer devices. Setting our engineers your challenge is what we enjoy and delivering your solution is our specialty.



Counters, Timers & Measurement

Our products accurately measure, monitor and display the key parameters of machinery, equipment and devices. Custom designs can be produced for any industry including die cutting, glass manufacture, gaming and automotive.

By utilizing our existing products, we can incorporate various features into a tailored solution that integrates seamlessly with our customers system.

Some of the available customisation options include:

- Integrated count switches
- Tailored environmental protection covers
- Customized housings
- OEM branding
- Custom electrical interface
- Changes to the device software to offer additional and specific functionality



Filter Life Indication

Working with multiple customers in the water filtration industry, we create custom designed filter life indicators (FLIs) utilizing our expertise in miniaturization, low power electronics and LED technology.

The units show when a filter requires replacing. This is done through passive technology, for example LED indicators or Bluetooth communication to an app, or active methods, such restricting flow or turning off the system. This improves product performance and user experience, and generates revenues by encouraging repeat filter purchases and replacements.

Characteristics can include:

- Measuring flow, elapsed time, temperature and the amount of Total Dissolved Solids (TDS)
- Bespoke flow changing systems
- Indicators designed to complement existing products
- OEM branding of life indication displays



Advanced Panel Meters (APMs)

Working closely with a number of different clients we have produced a range of custom-designed APMs to seamlessly integrate with their final product and provide specific functionality. Applications including battery chargers, metal spraying equipment, mobile power equipment and variable speed drives have benefitted from upgrading to the advanced panel meter.

These have been designed to provide specific functionality, through bespoke hardware and software developments, to best meet the application and user requirements.

Some of the customisable options available include:

- OEM branding
- Bluetooth
- App integration
- Customised inputs
- Bespoke display options
- Custom screen colour

Next Steps

Almost all our products can be customised to meet your requirements, so even if what you require is not mentioned, please call or email us today for more information or to speak to a specialist:



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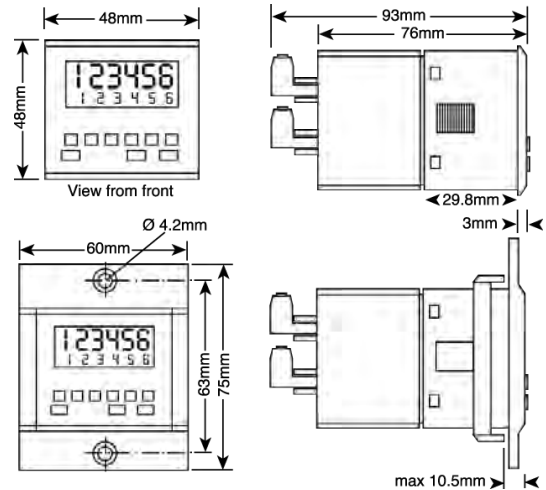
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7922 Electronic Predetermining Counter with Quadrature Input



6 digit supertwist LCD programmable preset counter with prescaler, quadrature input and EEPROM data storage in an IP65 (NEMA4X) DIN case.

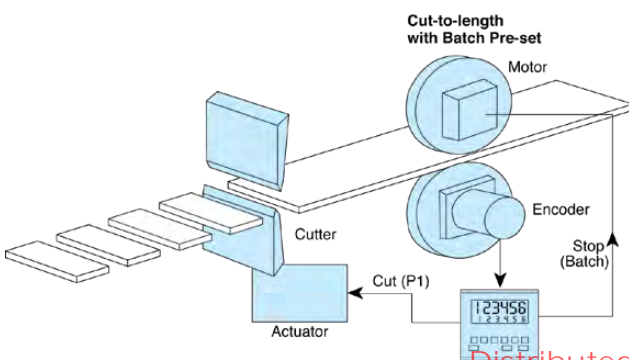
This versatile counter with prescaling can be configured for quadrature or uni-directional inputs, dual preset or single preset with batch preset. Reset can be automatic, manual or electronic with a sink (NPN) or source (PNP) input.

The display is a supertwist high visibility backlit LCD which can be viewed from any angle. The count is on the main display and the preset value (or batch preset) is on the lower display.

Features

- Simple programming via menu driven display
- Quadrature input
- High visibility supertwist LCD display can be viewed from any angle
- Backlight programmable ON, OFF or AUTO
- 40 years data retention with no power
- Programmable decimal point up to 3 places
- Operates from 85-265VAC or 10-26VDC
- 12VDC output to drive a sensor (when AC powered)
- Opto-isolated inputs
- Wide range of prescaling
- Output relay contacts rated at 5A
- Output can be set to latch or pulse with programmable pulse duration
- Environmental protection to IP65
- Standard DIN housing
- CE, UL and cUL approved

All programming, reset and presetting can be carried out from the front panel. When powered from an AC supply, there is a 12VDC output to drive a sensor. The key below each digit sets the P1 or P2 (or batch) preset value on the lower display. The red reset key resets the display count to zero or P1 (according to programming). In normal operation the colon illuminates whenever relay 1 is active. In P2 Set mode the colon illuminates whenever relay 2 is active.



Specification

Supply Voltage	85 - 265VAC or 10 - 26VDC at 100mA
Auxiliary Output Supply	12VDC +20% -10% @ 75mA (when operating from AC supply)
Display	<ul style="list-style-type: none"> • 2 rows of 6 digits, supertwist LCD with yellow/green LED backlight. Upper row 7mm (0.28in) high indicates count, lower row 4mm (0.16in) high indicates P1/P2 preset point. • Also Relay 1 Active annunciator
Backlight Control	Programmable to Always ON, Always OFF or AUTO (ON for 30s following last keypress)
Preset Points	Two user selectable preset points 1 - 999999
Count Inputs	<ul style="list-style-type: none"> • Voltage Opto-isolated 10 - 30VDC • Quadrature and uni-directional • Input A (quadrature and uni-dir. count) NPN or PNP • Input B (quadrature and UP/DOWN in uni-dir. mode) • Maximum input frequency 10kHz • Duty cycle Maximum 60:40 or 40:60 mark/space ratio • Prescaler Multiply 0.00001 - 9.99999, default 1.00000 • Divide 1 - 99999, default 00001
Manual Reset	Can be disabled on installation or remotely reset
Remote Reset	Contact closure or pulse (15 ms response time)
Automatic Reset	Programmable for automatic or Manual/Remote reset
Data retention	40 years minimum
Output Relays	<ul style="list-style-type: none"> • One SPDT relay programmable as NO or NC • One SPST relay programmable as NO or NC • Contact Rating 5A 260VAC/30VDC 1300VA/150W
Operating Temp.	-10°C to +60°C [14°F to 140°F]
Storage Temp.	-20°C to +70°C [-4°F to 158°F]
Environmental Protection	IP65 (NEMA4X) when properly installed using the sealing gasket supplied (without bezel)

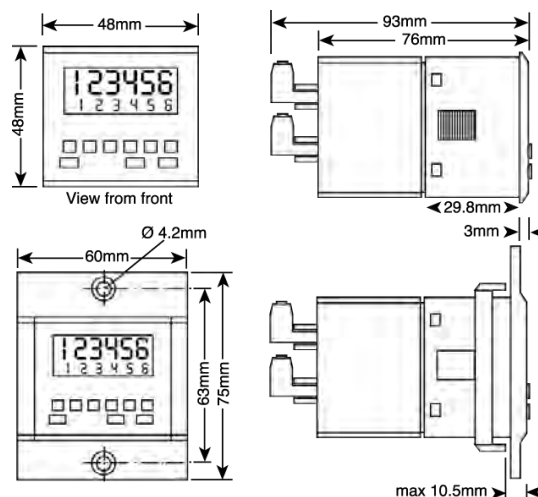
Ordering Information

7922 - 6 digit electronic predetermining counter

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7932 Electronic Predetermining Counter/Timer



6 digit supertwist LCD programmable preset counter/timer with prescaler and EEPROM data storage in an IP65 (NEMA4X) DIN case.

This versatile count up or count down predetermining counter/timer with prescaler has a wide range of innovative and attractive features. Designed with imagination and built to the highest standards it offers both counting and timing functions in one unit.

Features

- Simple programming via menu driven display
- High visibility supertwist LCD display can be viewed from any angle
- Backlight programmable ON, OFF or AUTO
- 40 years data retention with no power
- Programmable decimal point up to 3 places
- Operates from 85-265VAC or 10-26VDC
- 12VDC output to drive a sensor (when AC powered)
- Opto-isolated inputs
- Wide range of prescaling
- Output relay contacts rated at 5A
- Output can be set to latch or pulse with programmable pulse duration
- Environmental protection to IP65
- Standard DIN housing
- CE, UL and cUL approved

The count inputs are Opto-Isolated and can be sink (NPN) or source (PNP). The count is on the main display and the preset value is on the lower display. Reset can be remote, manual or automatic with a manual over-ride option. All programming, reset and presetting can be carried out from the front panel although the keys can be remotely disabled from the rear of the unit.

Please note the electrical connections are different to the previous version (7931).

Specification

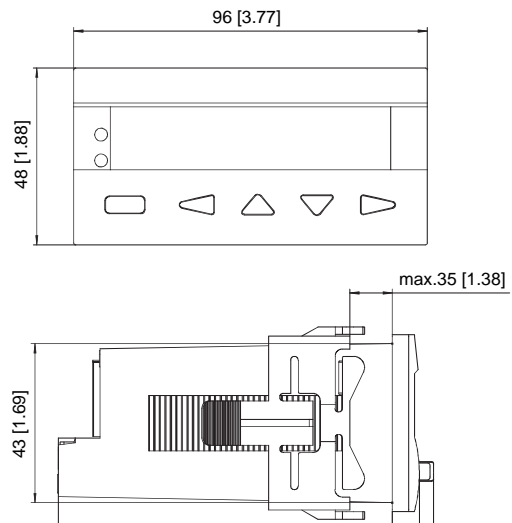
Supply Voltage	85 - 265VAC or 10 - 26VDC at 100mA
Auxiliary Output Supply	12VDC \pm 10% @ 100mA (when operating from AC supply)
Display	<ul style="list-style-type: none"> • 2 rows of 6 digits, supertwist LCD with yellow/green LED backlight. Upper row 7mm (0.28in) high indicates count, lower row 4mm (0.16in) high indicates P1 preset point • Also Relay Active annunciator
Backlight Control	Programmable to Always ON, Always OFF or AUTO (ON for 30s following last keypress)
Preset Points	User selectable preset point 1 - 999999
Count Inputs	<ul style="list-style-type: none"> • High Speed NPN/PNP • Opto-isolated 10 - 30VDC. Maximum input frequency 10kHz • Low Speed • Opto-isolated 12 - 260VAC/DC. Maximum input frequency 30Hz
Prescaler	<ul style="list-style-type: none"> • Multiply 0.00001 - 9.99999, default 1.00000 • Divide 1 - 99999, default 00001
Manual Reset	Can be disabled on installation or remotely
Remote Reset	Contact closure or pulse (15 ms response time)
Automatic Reset	Programmable for automatic or Manual/Remote reset
Data Retention	40 years minimum
Output Relay	<ul style="list-style-type: none"> • Contact Connection SPDT • Contact Rating 5A 260 VAC 30 VDC 1300 VA/150 W
Operating Temp.	-10°C to +60°C [14°F to 140°F]
Storage Temp.	-20°C to +70°C [-4°F to 158°F]
Environmental Protection	IP65 (NEMA4X) when properly installed using the sealing gasket supplied (without bezel)

Ordering Information

7932 - 6 digit Predetermining counter/timer

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898X Series Electronic LCD Preset Counter



A replacement for our popular 878X *Liberty* range, the 898X series is a 6-digit counter, rate meter, timer and position display in one.

Available with RS485 interface and MODBUS and CR/LF protocol, it can be used as a preset counter, batch counter or total counter. The 14mm high LED display ensures easy reading even from a long distance and in poor lighting conditions.

Features

- Simple programming via menu driven display
- Can be used as a preset counter, batch counter or total counter
- 2 relays (change-over)
- Many different count models
- Scalable display
- Set value, step to tracking preset
- Multi-range power supply for AC
- Readable or configurable via RS232/485 interface via Modbus or CR/LF protocol
- Allows for direct connection of a large display or Printer
- Automatic help text
- 14-segment LED for improved text representation
- Status display of the presets
- 3 defined parameters
- Tracking presets eliminate the need for re-programming the pre-signal
- 4-stage RESET modes
- 3-stage keypad locking
- Suitable for installation in mosaic systems

With its automatic help text, clearly and legibly displayed on 14 LED segments, the 898X preset counter takes the user effortlessly through the programming. The large user-friendly front keys can be operated even when wearing gloves.

Specification

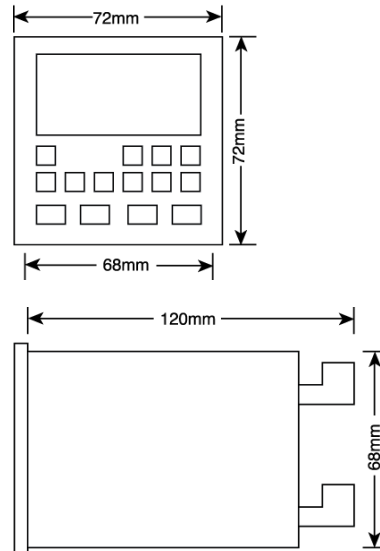
Supply Voltage	AC 100-240 VAC, +10% max. 11 VA, 50/60 Hz
External Fuse Protection	230 VAC T0.1 A 10-30 VDC T 0.25 A
Display	6-digit red 14 segment LED display, 14mm [0.55] high
Data Retention	>10 years, EEPROM
Response time of the rate meter	100 / 600 ms (details in instruction manual)
Input Mode	<ul style="list-style-type: none"> • Count Direction (cnt.dir) • Difference (up.dn) • Addition A+B (up.up) • Phase discriminator x1, x2, x4 (quad, quad x2, quad x4) • Ratio (A/B) • Ratio in % ((A-B)/Ax100%)
Pulse Counter:	
Input Mode	A, A-B, A+B quad, A/B, (A-B)/A x 100%
Rate Meter:	
Input Mode	4 start modes: FrErun, Auto, InpA.InpB., InpB.InpB.
Timer:	
Sensor power supply	AC supply: 24V DC+ 15%, 80 mA DC Supply: max. 80 mA, external power supply is connected through
EMC	Emitted interference: EN55011 class B Immunity to interference: EN 61000-6-2
Operating Temp.	-20°C - +65°C [-4°F - +149°F] (non-condensing)
Storage Temp.	-25°C - +5°C [-13°F - +167°F]
Environmental Protection	IP65 (from the front)
Optional interface	MODBUS and CR/LF
Count Frequency	max. 45 kHz (details in instruction manual)
Interface	RS232, RS485
Baud Rate	9600
Device address	1-99, programmable

Ordering Information

8981-1 - Dual Preset, Dual Relay Counter, 100-240VAC
8981-5 - Dual Preset, Dual Relay Counter, 100-240VAC, RS485

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9100 Predetermining Counter / Ratemeter



The versatile 9100 multi-function instrument is a multi-preset, totalising counter / ratemeter with backlit display.

Simultaneous operation in different modes is now possible with this recent development of the highly successful 9100 multi-function counter. Additional enhancements include 3-line display, more keys, enhanced programming, EEPROM memory avoiding the need for a battery, and on-screen programming prompts in four languages.

Features

- Simultaneously maintains any three of the following: Count preset, count pre-warn, batch preset, overspeed, underspeed condition and displays count, total and speed
- Counts in any of 7 modes: A-B, A+B, A/B, count and direction and quadrature x1, x2 and x4
- EEPROM retains program and data for 40 years with no power
- 3 line Supertwist LCD display viewable from any angle
- Easily programmed in English, German, French or Spanish using simple menu structure and 10-key keypad
- Counting continues while rate measurement is in progress
- Accurate enough for position sensing and robotic control
- Displayed values, choice of engineering units and 12 characters of user programmable text can be printed directly from the IBM/Epson compatible serial printer port
- Can be powered from 85-265VAC for world wide use
- Multiplying and dividing prescalers enable display directly in the required (engineering) units
- Manual, remote and automatic resets available
- Remote inhibit and remote keyboard disable
- Fast electronic or slow contact closure inputs, all with optical isolation. Contact closure inputs are debounced
- Auxiliary 12VDC 100mA power output to power sensor
- Environmental protection to IP65
- CE approved

The 9100 carries out rate measurement, batch counting and totalising simultaneously. Rate mode is signified by an R appearing at the top left hand corner of the display and counting carries on in the background. The first line of the display shows pulses per minute (PPM) unless a prescaler is in use.

Specification

Power Supply	85 - 265VAC
Auxiliary Output	12VDC \pm 10% 100mA for powering sensors
Display	3 line high contrast supertwist backlit LINE 1: 8 numeric LCD LINE 2: 12 alphanumeric LINE 3: 12 alphanumeric
Keyboard	Sealed elastomeric keyboard with 10 keys
Connections	1 x 9 way and 1 x 10 way plug in terminal strips with wire clamps. Each way capable of accepting up to 2 OFF 2.5mm ² (0.1in ²) conductors
Prescaler	0.0025 - 9.99999 . Multiplying 0.00250 - 9.99999. Dividing 1- 9999
Rate Input	Input A only. 8 - 30VDC. Maximum 600k PPM (10kHz), minimum 4.7 PPM (0.078Hz i.e. one pulse every 12.8s)
Control Inputs	External reset, count inhibit, keyboard disable. Maximum 30Hz contact closure or solid state input. 8 - 30VDC Opto-Isolated
Manual Reset	Can be disabled on installation or remotely reset
Remote Reset	Contact closure or pulse (minimum pulse duration 34msec) Automatic Reset Program to reset to zero on reaching preset 3 or vice versa
Control Outputs	3 SPST relays. Contacts 5A 260VAC, 220VDC 1300VA/150W. Programmable for pulsed, latched or disabled
Front Panel Sealing	IP65 when properly mounted using gasket supplied
Operating Temp.	-10°C to +60°C [14°F to 140°F]
Storage Temp.	-20°C to +70°C [-4°F to 158°F]
Relative Humidity	85% at 25°C non-condensing

Ordering Information

9100 - Predetermining Counter / Ratemeter

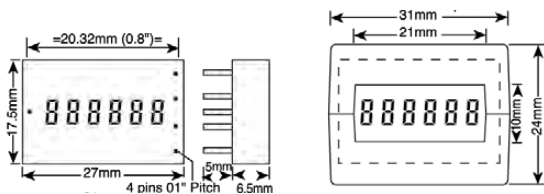
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7000 / 7000AS Series

6-digit LCD Electronic Totalising Counter



Miniature, 6-digit LCD PCB mounted totalising counter designed for minimal power requirement. These miniature 6-digit totalising counters are suitable for either direct PCB mounting, or panel mounting with bezel supplied (pictured above without bezel).



Features

- Current consumption less than 10uA
- 6mm black character high contrast LCD display
- Bi-directional counting (7000AS model)
- Counts pulses up to 10kHz frequency
- External reset input
- CE, UL and cUL approved

The 7000/7000AS can also be configured to count electro-mechanical contact closure events using an external resistor and capacitor to eliminate contact bounce. Similarly the supply voltage can be increased using an external resistor and 3V zener diode. See instruction leaflet for details.

Specification

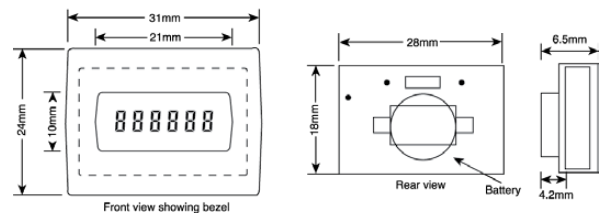
Supply Voltage	2.6 - 3.4VDC
Current Consumption	10µA quiescent, 20µA at 10kHz
Display	6-digit black LCD, 6mm characters with leading zero blanking
Count Range	999999 display rollover to 0
Count Input	10kHz maximum, negative edge triggered, 0.7V threshold, 50µS minimum pulse length, TTL/CMOS Compatible
Reset Input	Active low, 0.7V threshold, 15ms minimum pulse length, TTL/CMOS Compatible
Direction Input (AS model only)	Add=logic 1, Subtract=logic 0 (0V)
Operating Temp.	-10°C to +60°C [14°F to 140°F]
Storage Temp.	-10°C to +60°C [14°F to 140°F]
Material	Clear polycarbonate. Supplied with black ABS panel mount bezel
Environmental Protection	IP40/DIN40050
Weight	7.5g [0.3oz.]

7016

6-digit LCD Electronic Totalising Counter



The 7016 comes ready for mounting and features flying leads for connection to remote contact closure input devices.



Features

- Self-powered for 3-4 years using a 1.5V button cell
- 6-digit 6mm character high contrast LCD display
- Low power CMOS circuitry to achieve an expected battery life of 3 to 4 years at 20°C
- Simple to install
- Integral de-bounce circuitry
- CE approved

The counter increments when contacts are opened. It may be panel mounted with the supplied bezel.

Specification

Supply Voltage	1.5V button cell SR44 (supplied)
Expected Battery Life	3 - 4 years at 20°C
Display	6-digit LCD, 6mm characters
Count Range	999999 display rollover to 000000
Count Input	High speed - 12Hz. Low speed - 0.2Hz, contact closure. Operates on contact opening. Negative edge triggered - 12Hz max
Reset	Reset to zero on external reset input and insertion of battery
Operating Temp.	0°C to +50°C [32°F to 122°F]
Storage Temp.	-10°C to +60°C [14°F to 140°F]
Material	Clear polycarbonate, black ABS bezel for panel mounting
Environmental Protection	IP40/DIN40050
Weight	7.5g [0.3oz.]

Ordering Information

7000 - 6-Digit LCD Totalising Counter
7000AS - Bi-directional, Add/Subtract version of above

Ordering Information

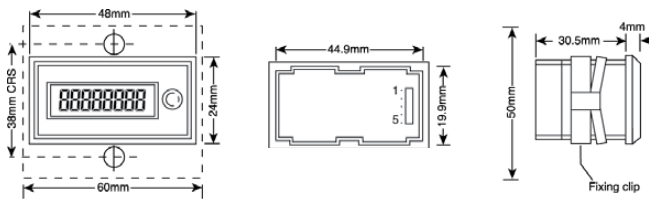
7016 - 6-Digit LCD Self-powered Counter

7110DIN

8-digit Totalising Counter



8-digit LCD self-powered totalising counter in a 24 x 48 DIN standard case. Powered by integral lithium batteries these totalising counters have a front panel reset push-button which can be enabled or disabled by a wiring connection or external contact closure.



Features

- Use of the latest CMOS circuitry achieves 10-year battery life
- 7mm black character high contrast LCD display
- Counting up to 10kHz
- Contact closure/open collector low speed count input with integral de-bounce circuitry
- Choice of mounting available, front panel with supplied bezel or rear mounting clip
- Front panel can be sealed to IP65/NEMA 4X
- UL, cUL and CE approved.

External connections are made by a standard plug-on connector with colour coded 24cm flying leads (supplied)

Specification

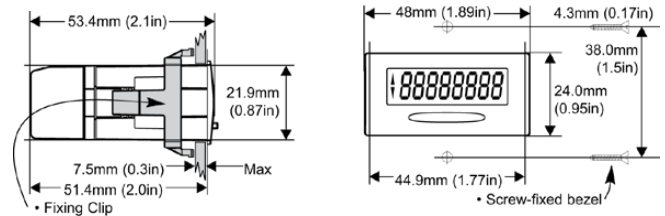
Supply Voltage	Internal lithium long life battery
Display	8-digit black LCD, 7mm characters with leading zero blanking
Count Range	99999999 display rollover to 0
Manual Reset Enable (PIN 2)	Link to COMMON (PIN 1) to enable front panel reset push-button
External Reset (PIN 3)	Contact closure/open collector, active low, 0.7V threshold, 15mS minimum closure time
Low Speed Count Input (PIN 4)	Contact closure/open collector with integral de-bounce circuitry. 30Hz maximum, negative edge triggered, 0.7V threshold, 15mS minimum closure time
High Speed Count Input (PIN 5)	Electronic input 10kHz maximum, negative edge triggered, 0.7V threshold 50µS minimum pulse length, TTL/CMOS Compatible
Operating Temp.	-10°C to +60°C [-14°F to 140°F]
Storage Temp.	-20°C to +60°C [-4°F to 140°F]
Environmental Protection	IP65/NEMA 4X using gasket supplied
Mounting	Either with clip mount supplied or two front screws with bezel supplied

7111 Series

8-digit Self-powered Electronic LCD Counter



8-digit liquid crystal display counter, self-powered with a 10-year battery life. A compact LCD counter designed for many applications, screw terminals ensures fast wiring and features including backlight (external 5VDC supply required), decimal point selection, count direction indication and 9mm high digits. High Voltage (HV) version accepts input voltages of 10-110VDC or 10-240VAC.



Features

- 9mm high contrast LCD display
- 10-year battery life
- Bi-directional counting
- Counts pulses up to 10kHz frequency
- External reset input.
- CE, UL and cUL approved
- Integral backlight

Specification

Battery life	10-years typical at 1KHz count speed
Display	Backlit 8-digit black LCD, 9mm characters with leading zero blanking
Count Range	99999999 display rollover to 0
Count Input	10kHz maximum, negative edge triggered, 0.7V threshold, 50µS minimum pulse length, TTL/CMOS Compatible
(HV Version)	10 – 240VAC ±10%, 10 – 110VDC ±10%, Opto-Isolated, maximum 10 pulses per second, minimum 50mS
Reset Input	Active low, 0.7V threshold, 15mS minimum pulse length, TTL/CMOS Compatible
(HV Version)	10 – 240VAC ±10%, 5 – 110VDC ±10%, Opto-Isolated, minimum 15mS
Direction Input	Add=logic 1, Subtract=logic 0 (0V)
Operating Temp.	-10°C to +60°C [-14°F to 140°F]
Storage Temp.	-20°C to +60°C [-4°F to 140°F]
Material	Clear polycarbonate
Environmental Protection	IP65 NEMA 4X
Weight	62g [2.2oz.]

Ordering Information

- 7111 - 8-digit Self-powered Totalising Counter
- 7111HV - 8-digit Self-powered Totalising Counter with High Voltage Input

Ordering Information

7110DIN - Totalising Counter

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7400AS / 7401AS Series

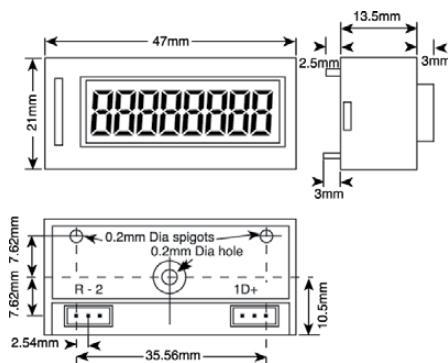
8-digit Electronic Totaliser



8-digit LCD bi-directional totalising counter for PCB mounting, with push-button reset.

This PCB mount bi-directional totalising counter operates from an external 3VDC supply. It is supplied with an electrical reset.

7401AS is non-reset version.



Features

- 8-digit high contrast LCD characters
- Latest CMOS circuitry achieves an expected battery life of 10-years (1/2 AA 900mAH 3V lithium battery)
- Remote reset facility
- Leading zero blanking
- Add/subtract counting of pulses up to 10kHz
- Low speed contact closure input with integral de-bounce circuitry
- CE, UL and cUL approved

Inputs are provided for count, direction and external reset.

Specification

Supply Voltage	2.6 - 3.4VDC
Current Consumption	Less than 10 μ A, typically 5 μ A
Display	99999999 display rollover to 0
Electronic Count Input (1)	10kHz maximum, positive edge triggered, 0.7V threshold, 100 μ S minimum pulse length, TTL/CMOS Compatible
Low Speed Count Input (2)	Contact closure/open collector input, 30Hz maximum, negative edge triggered, 0.7V threshold, 25mS minimum pulse length
Reset Input (R)	Contact closure/open collector, active low, 0.7V threshold, 15mS minimum pulse length
Direction Input (D)	Electronic input TTL/CMOS Compatible. Add=logic 1, Subtract=logic 0(0V)
Operating Temp.	-10°C to +60°C [14°F to 140°F]
Storage Temp.	-20°C to +70°C [-4°F to 158°F]

Ordering Information

7400AS - With pushbutton reset
7401AS - Non Reset Version

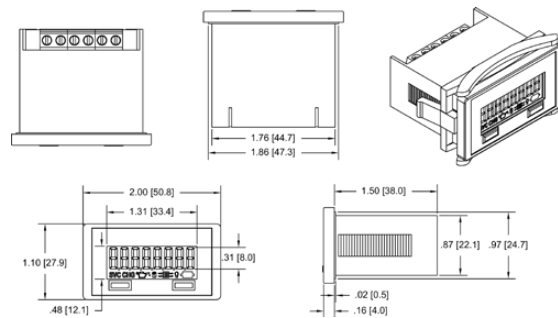
6300 Series

8-digit Self-powered Electronic LCD Counter



The 6300 Series with 8 LCD digits brings more features to the user than ever before. Available in single and/or multi-function units, the array of functions and options make the Model 63 suitable for a variety of applications.

A long list of features includes a programmable output, an external reset, a front panel reset enable, and programmable alert or preset capabilities. The front end of the Model 63 utilizes a high-contrast, reflective, 8-digit LCD with 0.32 inch [8mm] digits and seven icons, while at the back end, Switch (Dry Contact), Low Voltage DC, and High Voltage DC and AC Inputs are available.



Features

- Optional external electronic reset
- Optional front panel programming
 - 3 Redi-Alerts
 - Preset functionality
 - Part numbers must be in 63XX-X5XX-0000 format to be programmable

Specification

Display	Reflective LCD Display with 8 large (8mm) digits
Inputs	Switch Input (No voltage) Low DC Voltage (3-30VDC) <2mA High Voltage (20-300VAC or 10-300VDC) <2mA
Battery	Internal lithium battery, 10yr typical life
Environmental	NEMA 4/4X, 12, and IP66 rated
Approvals	CE compliant, UL and cUL recognised
Operating Temp.	-10°C to +60°C [14°F to 140°F]
Storage Temp.	-20°C to +70°C [-4°F to 158°F]

Ordering Information

6300-0000-0000 - Ctr, 40/150HZ, Dry Contact, Remote-Reset
6300-0500-0000 - Ctr, 40/150HZ, Dry Contact, Programming
6300-0600-0000 - Ctr, 40/150HZ, Dry Contact, Front Panel Reset
6300-1000-0000 - Ctr, 40/150HZ, 3-30VDC, Remote-Reset
6300-1500-0000 - Ctr, 40/150HZ, 3-30VDC, Programming
6300-2500-0000 - Ctr, 40/150HZ, 10-300VDC or 20-300VAC, Programming
6301-2000-0000 - Ctr, 40HZ, 10-300VDC or 20-300VAC, Remote-Reset

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Other versions available on request.

3400 Series

“any housing, any function”



The 3400 Series provides a large display, with 0.28" [7mm] high characters, in the industry standard housings. Units are available in 5 different housings. All models are totally sealed from moisture and dirt. A wide operating voltage, 10-300VDC and 20-300VAC make the 3400 series versatile for all indoor and outdoor applications. All models are NEMA 4/4X, 12, and IP66 rated from the front when used with the optional gasket, and have a polarized lens which assures high visibility in an outdoor environment.

Maintenance Meters are offered with multiple “Redi-Alerts” to alert users when service is due. Models are available with front panel field programmable alerts.

Not only does the display flash to get attention, but it displays a choice of 7 different .08" [2mm] maintenance icons. Users can program or specify the service interval and flash duration for each Redi-Alert.

Features

- Totally sealed from moisture and dirt
- AC or DC voltage input in the same unit
- Compact depth
- Optional Preset Count value/Hour Meter
- Optional - up to 3 Redi-Alerts/7 icons
- Fits in existing panel openings
- Always on display
- A choice of 5 housings
- A choice of reset modes
- Optional front panel programmable
- Can be programmed with starting time
- 10-year typical battery life
- CE compliant, UL and cUL recognised

Specification

Case Style

- 2-Hole Rectangular
- 3-Hole Round
- Mini Flush Rectangular
- SAE Flush Round
- Snap-In

Programmability - Optional

- Front Panel

Input Option

- 10-300VDC or 20 to 300VAC <2mA
- Switch/Dry Contact

Reset - Optional

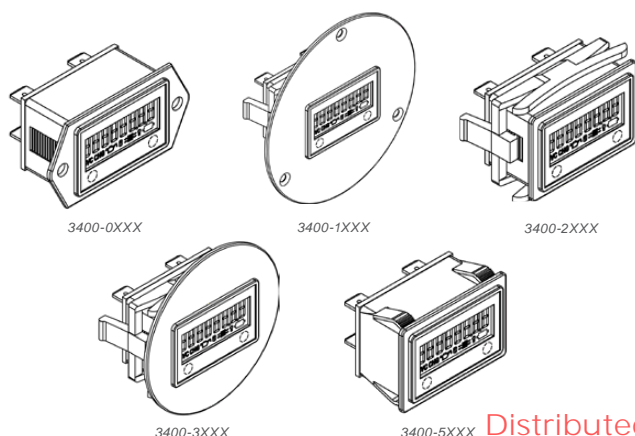
- Remote (Dry Contact/Switch) - Part Numbers end in -X010
- Manual - Part Numbers end in -X070
- Non-Reset - Part Numbers end in -X000

Operating Temp.

-10°C to +60°C [14°F to 140°F]

Storage Temp.

-20°C to +70°C [-4°F to 158°F]



Ordering Information

- 3400-0000 - AC/DC Ctr, 2-Hole, Non-Reset
- 3400-0010 - AC/DC Ctr, 2-Hole, Remote-Reset
- 3400-1000 - AC/DC Ctr, 3-Hole Round, Non-Reset
- 3400-2010 - AC/DC Ctr, Flush Rectangular, Remote-Reset
- 3400-3010 - AC/DC Ctr, SAE Round, Remote-Reset
- 3400-5000 - AC/DC Ctr, Snap-in, Non-Reset

Other versions available on request.

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94 Series

Large LCD Totaliser



A 6-figure, battery-powered, push-button or key reset, electronic LCD totaliser, available in base mount or panel mount configuration. No external power supply is required. Large 0.50 inch (12 mm) LCD figures for fast, easy reading.

Operates at 6-240 VAC/VDC. 8-year internal lithium battery. Attractive styling and silent operation makes these models equally well-suited for lab or office equipment applications.

Features

- No external power supply required
- Long life lithium battery
- Large easy reading display
- Operates at 6 to 240 VAC/VDC

Specification

Display	6 LCD figures, 0.50" [12mm] high
Reset	Push-button, or lock and key front
Speed	0-4Hz, (min. 12.5ms - on, 12.5ms - off)
Input	6-240VAC or VDC
Mounting	Base or panel
Terminations	(2) #22 AWG 221°F [105° C] wire leads, 8" [203mm] long
Operating Temp.	-10°C to +60°C [14°F to 140°F]
Power Source	Internal lithium battery
Weight	510g [18 oz.]

Ordering Information

9415-001 - 6-240 VAC or VDC, Base Mount Pushbutton Reset
9415-003 - 6-240 VAC or VDC, Panel Mount Pushbutton Reset
9415-005 - 6-240 VAC or VDC, Key Reset

18 Series

Electronic Hand Tally (Add/Subtract or Add Only)



The E2M and E3 offer an electronic version of the popular Hand Tally counter and are available with a choice of Add only or Add/Subtract models.

Counts are input using large positive action buttons. The Add model has a single count button and the Add/Subtract model has two separate count buttons. The "+" button (green) will add a count to the total and the "-" button (red) will subtract a count from the total.

When activated, an audible "beeper" sounds every count to verify that a count has been registered. All electronic components provide a long-life counter with no moving parts to wear out. The counter is manufactured from impact-resistant plastic, combining lightweight with outstanding durability.

Features

- Add or Add/Subtract models
- Beep at every count with the option of switching the sound off for silent operation
- Cannot accidentally reset or turn off; On/Off/Reset button
- Must be held down for 3 seconds to reset
- Long life battery (replaceable) - typically 250 days without sound
- Large LCD display
- No mechanical parts to wear out
- Large rubber buttons for comfort of use
- Ergonomically designed for ease of use
- Carrying cord - 9.0" [229mm]
- Light weight

Specification

Display	4-digit LCD 0.35" [9mm] high
Reset	Push button
Battery	250 days (without sound) typical life
Operating Temp.	0°C to +50°C [32°F to 122°F]
Weight	20g [0.7 oz.]
Colour	Black case with blue buttons (Add Only) or green and red buttons (Add/Subtract)

Ordering Information

E2M-1804 - Electronic Hand Tally
E3-1804 - Electronic Hand Tally (Add/Subtract)

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HED 251T

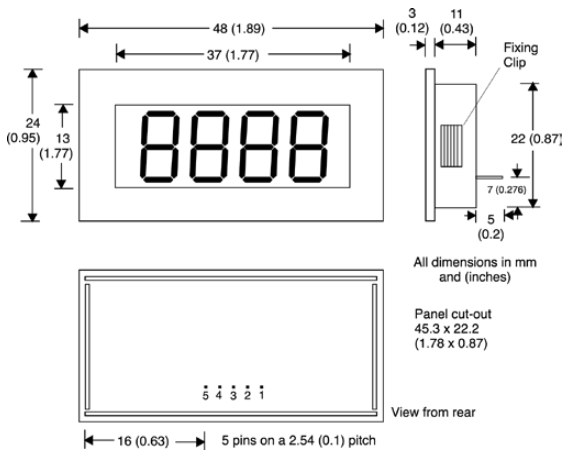
4-digit Panel Mount Counter (24mm X 48mm)



CE

24 X 48mm 4-digit totalising counter suitable for many OEM applications. Ideal for contact closure and reed switch signal inputs.

These miniature 4-digit totalising counters are suitable for either direct PCB mounting or panel mounting.



Features

- Uses the latest CMOS circuitry to achieve very low quiescent current consumption
- 10mm black character high contrast LCD display
- Integral backlight
- Counts pulses up to 10Hz frequency
- External reset input
- CE and RoHS compliant

Specification

Supply Voltage	2.7 - 3.3 VDC
Display	4-digit black LCD, 10mm characters with leading zero blanking
Count Range	0-9999
Count Input	Contact closure open collector input. 18Hz max, negative edge triggered, 0.7V threshold 1.8V max, 25mS min pulse width
Reset Input	Active low, 0.7V threshold, 15mS minimum pulse length, TTL/CMOS Compatible
Operating Temp.	-10°C to +50°C [14°F to 122°F]
Storage Temp.	-20°C to +70°C [-4°F to 158°F]

HED 261T

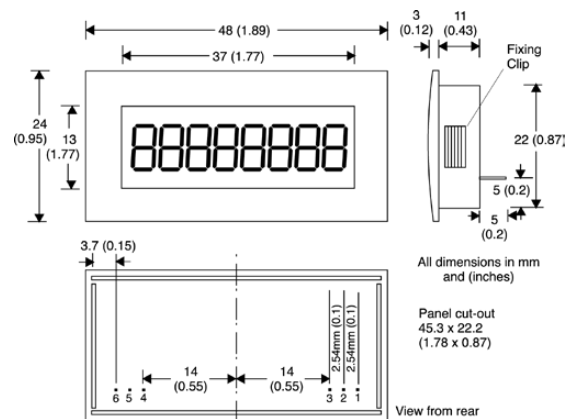
8-digit Panel Mount Counter (24mm X 48mm)



CE

24 X 48mm 8-digit totalising counter suitable for many OEM applications. Ideal for contact closure and reed switch signal inputs. Panel mounted or PCB mounted and with high speed input 10kHz or a slow speed debounced input 20Hz.

These miniature 8-digit totalising counters are suitable for either direct PCB mounting or panel mounting.



Features

- Uses the latest CMOS circuitry to achieve very low quiescent current consumption
- 8mm black character high contrast LCD display
- Integral backlight
- Counts pulses up to 10kHz frequency
- External reset input
- CE and RoHS compliant

Specification

Supply Voltage	2.7-3.3 VDC
Display	8-digit black LCD, 8mm characters with leading zero blanking
Count Range	0-99999999
Count Input	<ul style="list-style-type: none"> • High speed input (pin3) 10kHz max negative edge triggered, 0.7V threshold 18V max, 50uS min pulse width • Contact closure open collector input (pin2). 20Hz max, negative edge triggered, 0.7V threshold 18V max, 15mS min pulse width
Reset Input	Active low, 0.7V threshold, 15mS minimum pulse length, TTL/CMOS Compatible
Operating Temp.	-10°C to +50°C [14°F to 122°F]
Storage Temp.	-20°C to +70°C [-4°F to 158°F]

Ordering Information

HED251-T - 4 Digit Panel Mount Counter

Ordering Information

HED261-T - 8 Digit Panel Mount Counter

10 Series

Electromechanical Counter



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. UL, CE and RoHS compliant.

Features

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

Specification

Figures	6 figures, white on black, 0.19" [5mm] high
Reset	Knob, lock and key, or thumb wheel
Speed	1,000 counts/minute (min. 30ms - on, 30ms - off)
Voltage	115VAC, (+/- 10%)
Power	7.8 watts (nominal)
Mounting	Base or panel
Terminations	(2)#22 AWG 105°C wire leads, 8" [203mm] long
Operating Life	Beyond 50 million counts
Temp. Range	-5°C to +40°C [+23°F to +104°F]
Approvals	UL Recognised, CE Compliant, RoHS
Weight	510 to 624g [18 to 22 oz.]

Ordering Information

2-1006 - 115 VAC, Base Mount, Knob Reset
P2-1006 -115 VAC, Panel Mount, Knob Reset
P32-1026 -115 VAC, Panel Mount, Key Reset

40 Series

Electromechanical Counter



The 40 Series is a low cost, non-reset totaliser, available with 7 figures (white on black background).

A wide choice of operating voltages and mountings make this product adaptable for most applications.

The 40 Series is an ideal solution for applications that require low cost and product reliability. CE and RoHS compliant.

Features

- Low cost
- Small size
- DC and AC
- Multiple mounting choices
- Voltages

Specification

Figures	7 figures, white on black, 0.12" (3 mm) high
Reset	Non-reset
Speed	600 counts/minute (min. 50ms - on, 50ms - off)
Voltage	115 VAC, 5, 12 or 24 VDC (+ 10/-15% tolerance)
Power	1.4 watts AC, 1.0 watts DC (nominal)
Mounting	Rear, behind the panel, snap-in, base or PCB mount
Terminations	(2)#22 AWG 221°F [105°C] wire leads, 10.5" [266.7mm] long
Operating Life	Beyond 3 million counts
Temp. Range	-5°C to +40°C [+23°F to +104°F]
Approvals	UL Recognised, CE Compliant, RoHS
Weight	510 to 624g [18 to 22 oz.]

Ordering Information

P8-4017 - 24 VDC, 7 Figure, PCB Mount
R8-4017 - 24 VDC, 7 Figure, Behind Panel Mount
SR8-4017 -24 VDC, 7 Figure, Snap-In Mount

44 Series

Electromechanical Counter



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. UL, CE and RoHS compliant.

Features

- Small size
- Highly visible numerals
- Solid construction
- Voltages
- Lead length
- Special connectors
- Extended temperature range

Specification

Figures	6 figures, white on black, 0.12" (3 mm) high
Reset	None
Speed	600 counts/minute (min. 50ms - on, 50ms - off)
Voltage	115VAC, 24VDC (+/- 10%)
Power	1.5 watts (nominal)
Mounting	Rear, behind the panel, base, or combination
Terminations	(2) #22 AWG 221°F [105°C] wire leads, 10" [254mm] long
Operating Life	Beyond 3 million counts
Temp. Range	-5°C to +40°C [+23°F to +104°F]
Approvals	UL Recognised, CE Compliant
Weight	71g [2.5 oz.]

Ordering Information

R7-4416 - 115 VDC, Behind The Panel Mount
R8-4416 - 24 VDC, Behind The Panel Mount
R9-4416 - 12 VDC, Behind The Panel Mount
RV14-4416 - 48 VDC, Combo Mount
RV2-4416 - 115 VAC, Combo Mount (Non UL)
RV8-4416 - 24 VDC, Combo Mount

48 Series

Electromechanical Counter



A compact, economical, 6 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. UL, CE and RoHS compliant.

Features

- Compact
- Non-reset
- Variety of mounting options
- Voltages

Specification

Figures	6 figures, white on black, 0.17" [4.3mm] high
Reset	None
Speed	1,000 counts/minute AC, (min. 30ms - on, 30ms - off) 1,200 counts/minute DC, (min. 25ms - on, 25ms - off)
Power	24VAC ~ 4 watts 115VAC ~ 3.5 watts 230VAC ~ 5 watts 12/24VDC ~ 2 watts
Mounting	Panel or base
Terminations	(2) #22 AWG 105°C wire leads, 12" [305mm] long
Operating Life	Beyond 10 million counts
Temp. Range	-10°C to +60°C [14°F - 140°F]
Approvals	UL Recognised, CE Compliant, RoHS
Weight	99g [3.5 oz.]

Ordering Information

P2-4816 - 115 VAC, Panel Mount, Non-Reset
P8-4816 - 24 VDC, Panel Mount, Non-Reset
P9-4816 - 12 VDC, Panel Mount, Non-Reset
V2-4816 - 115 VAC, V Base Mount, Non-Reset
V3-4816 - 24 VAC, V Base Mount, Non-Reset
V8-4816 - 24 VDC, V Base Mount, Non-Reset

49 Series

Electromechanical Counter



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. UL, CE and RoHS compliant.

Features

- Compact
- No maintenance
- Quick reset
- Voltages
- Extended temperatures
- 4 or 6 figure

Specification

Figures	4 or 6 figures, white on black, 0.16" [4mm] high
Reset	Push-button
Speed	600 counts/minute (min. 50ms - on, 50ms - off)
Voltages	115VAC, 24VDC, 12VDC (+10% to - 15%)
Power	AC: 115VAC ~ 3 watts DC: 12/24VDC ~ 2 watts
Mounting	Panel, base, or bail
Terminations	(2) #22 AWG 105°C wire leads, 10" [254mm] long
Operating Life	Beyond 100 million counts
Temp. Range	-10°C to +60°C [14°F - 140°F]
Approvals	UL Recognised, CE Compliant, RoHS
Weight	113g [4 oz.] (4 fig.), 142g [5 oz.] (6 fig.)

Ordering Information

D2-4904 - 115VAC, D Base Mount, Pushbutton Reset
D8-4906 - 115VAC, D Base Mount, Pushbutton Reset
D8-4906 - 24VDC, D Base Mount, Pushbutton Reset
P2-4904 - 115VAC, Panel Mount, Pushbutton Reset
P2-4906 - 115VAC, Panel Mount, Pushbutton Reset
P8-4904 - 24VDC, Panel Mount, Pushbutton Reset
P8-4906 - 24VDC, Panel Mount, Pushbutton Reset
P9-4904 - 12VDC, Panel Mount, Pushbutton Reset
P9-4906 - 12VDC, Panel Mount, Pushbutton Reset

58 Series

Electromechanical Predetermining Counter



Designed for use in a wide variety of production, batching and packaging applications.

These 4 or 6 figure electromechanical predetermining counters activate a SPDT switch at the preset count. Convenient preset controls and built in manual reset with guard are standard. Its surge absorbing circuit protects against damage due to voltage spikes. Heavy duty bail mount secures counter in place.

Features

- Small size
- Highly visible numerals
- Solid construction
- Voltages
- Lead length
- Special connectors
- Extended temperature range

Specification

Figures	4 or 6 figures, white on black, .16" (4mm) high
Reset	Manual, or electric reset (100 - 500ms - on, 1min - off)
Speed	600 counts/minute (min. 50ms - on, 50ms - off)
Voltages	115VAC, 24VDC (+/-10%, but not to exceed 10 volts)
Power	5.5 watts count, 20 watts reset (nominal)
Mounting	Bail
Terminations	Screw type
Operating Life	Beyond 100 million counts
Temp. Range	-10°C to +60°C [14°F - 140°F]
Output Switch	SPDT 5 Amp. @ 250 VAC resistive
Output Duration	Until reset
Approvals	UL Recognised, CE Compliant
Weight	283g [10 oz.]
Options	Voltages

Ordering

Information

B2-5804 - 115 VAC, 4 Fig, Pushbutton-Reset
B2-5804/E2 - 115 VAC, 4 Fig, Electronic Reset
B2-5806 - 115 VAC, 6 Fig, Pushbutton Reset

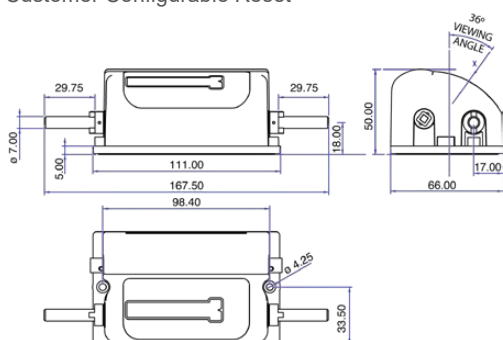
3602 Series Mechanical Totalising Counter



This unit counts revolutions on many different types of production machinery. Robustly constructed for continuous operation at high speeds with the main shaft running in double oil impregnated bearings to ensure accurate, long term, trouble free service. Supplied double drive with wing bush, customer configurable reset.

Features

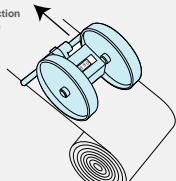
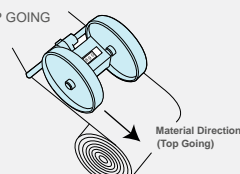
- 6-digit 6.4mm (0.25in) readout
- Up to 3000 counts per minute with 1:1 gear ratio
- 1:1, 1:10, 2:1, 3:1, 4:1 gearings as standard
- Front viewing
- Reset to zero
- Reset by lever
- Customer Configurable Reset



Specification

Display	White on black, decimals black on white 0.25in (6.4mm) figures
Base Material	Stainless Steel
Cover Material	Grey ABS plastic
Drive Shaft Diameter	0.275 inch (7mm) diameter
Gearing	1:1, 1:10, 2:1, 3:1, 4:1 as standard. Others on application
Bearings	Bronze, oil impregnated for life
Operating Torque	180g.cm (2.5oz.in) at 1:1 gearing
Maximum Shaft Speed	3000 RPM
Maximum Count Speed	3000 CPM
Operating Temp.	-10°C to +50°C [14°F to 122°F]
Storage Temp.	-20°C to +50°C [-4°F to 122°F]
Environmental Protection	IP40
Nett Weight	280g

Ordering Information

COUNTER TYPE	NUMBER OF DECIMAL PLACES	FIG WHEEL READING	GEAR RATIO	DRIVE DIRECTION
3602 - FRONT VIEWING	0 NO DECIMAL PLACES	0 FULL FIGURES (PLAIN)	0 1:10	TC TOP COMING Material Direction (Top Coming)  TG TOP GOING Material Direction (Top Going) 
	1 ONE DECIMAL PLACE	1 0 - 11" FIG WHEEL (FEET & INCHES)	1 1:1	
	2 0 - 9" FIG WHEEL (FEET & TENTHS)	2 2:1		
	3 0 - 9" FIG WHEEL (YARDS & TENTHS)	3 3:1		
	4 FULL FIGURES (FEET)	4 4:1		
	5 FULL FIGURES (YARDS)	5 1:25		
	6 FULL FIGURES (METRES)	6 10:1		
	7 0 - 7/8" FIG WHEEL (YARDS & EIGHTHS)	7 2:3		
	8 0 - 9mm FIG WHEEL WITH 100 LINES (Mmm)	8 64:105		

ALL COUNTERS ARE 6 DIGIT

RESET POSITION IS CUSTOMER SELECTIVE

DOUBLE DRIVE SHAFT WITH WING BUSHES
FITTED AS STANDARD

EXAMPLE OF CODING: 3602 - 117TG

3602 = FRONT VIEWING
1 = ONE DECIMAL PLACE
1 = 0-11" FIG WHEEL (FEET & INCHES)
7 = 2:3
TG = TOP GOING

3602-117TG = 99999 - 11 / 2:3 / TOP GOING

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20 Series

Medium Duty Stroke Counter



A highly versatile, 5 figure stroke counter. Numbers are large and distinctive for easy viewing even when above or below eye level. Ruggedly built for years of trouble-free use. An excellent choice for counting parts produced.

Features

- Durable
- Large figures
- Reliable
- Large reset knob

Specification

Figures	5 figures, white on black, 0.19" [5mm] high
Reset	Knob
Speed	500 counts/minute
Rotation	Top-coming or top-going
Count Stroke	49° Min. - 60° Max.
Shaft Extension	Right-hand
Shaft Diameter	0.125" [3.2mm]
Operating Life	Beyond 10 million counts
Temp. Range	-10°C to +60°C [14°F - 140°F]:
Weight	43g [1.5 oz.]

Ordering Information

1-2035 - Right Hand, Top Coming

22 Series

Rotary Counter



A compact, 5 figure, rotary counter, indicating 10 counts/revolution. Design and compact size make it ideally suited for office and test equipment, coin counting and other direct reading instruments.

Features

- Compact size
- 5 figures
- Long life
- Large reset knob

Specification

Figures	5 figures, white on black, 0.19" [5mm] high
Reset	Knob
Speed	500 revolutions/minute
Rotation	Top-coming or top-going
Shaft Extension	Right-hand or left-hand
Shaft Diameter	0.125" [3.2mm]
Ratio	10 counts/revolution
Operating Life	Beyond 10 million counts
Temp. Range	-10°C to +60°C [14°F - 140°F]
Weight	37g [1.3 oz.]

Ordering Information

7-2215 - Left Hand, Top Coming, Add/Subtracts
 7-2235 - Right Hand, Top Coming, Add/Subtracts
 7-2245 - Right Hand, Top Going, Add/Subtracts

29 Series

Mechanical Stroke Counter



A 6 figure, general purpose heavy duty industrial stroke counter designed for high count rates and continuous operation even under the most adverse operating conditions. Corrosion resistant material and finishes. Large, easy-to-read numbers.

Features

- Heavy duty
- High count rates
- Corrosion resistant
- Special mounting bases
- Weatherised versions
- Spring and Lever Kit (200700-010S)

Specification

Figures	6 figures, white on black, 0.30" [7.6mm] high
Reset	Knob
Speed	1,000 counts/minute
Rotation	Top-coming
Count Stroke	40° Min. - 70° Max.
Shaft Extension	Right-hand
Shaft Diameter	0.25" [6.4mm]
Operating Life	Beyond 100 million counts
Temp. Range	-10°C to +60°C [14°F - 140°F]
Weight	510g [18 oz.]

Ordering Information

1-2936 - Right Hand, Top Coming Stroke
V1-2936 - Right Hand, Top Coming Stroke, Large Base

46 Series

Mechanical Stroke Counter



These 5 figure stroke counters are especially designed for limited space and high count life applications. The advanced drive system translates into exceptionally high operating speeds, extended operating life, for fast and accurate readings. Ideal for copiers, printing presses, cut-off machines, and piece-part counting applications. Also available with a thumb lever for use as a tally counter.

Features

- Compact size
- Reliability
- Low cost
- Special levers
- Replacement lever and spring (10007-009S)
- Special metal lever (10007-001)

Specification

Figures	5 figures, white on black, 0.19" [5mm] high
Reset	Standard knob
Speed	500 counts/minute
Rotation	Top-coming or top-going
Count Stroke	40° Min. - 45° Max.
Shaft Extension	Right-hand or left-hand
Shaft Diameter	0.156" [4.0mm]
Operating Life	Beyond 5 million counts
Temp. Range	-10°C to +60°C [14°F - 140°F]
Weight	57g [2 oz.]

Ordering Information

1-4615 - Left Hand, Top Coming, Base Mount, Reset
1-4625 - Left Hand, Top Going, Base Mount, Reset
1-4635 - Right Hand, Top Coming, Base Mount, Reset
1-4645 - Right Hand, Top Going, Base Mount, Reset
1-4635T - Right Hand, Top Coming, Thumb Lever, Reset

TIMERS AND HOUR METERS

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PRESET 27

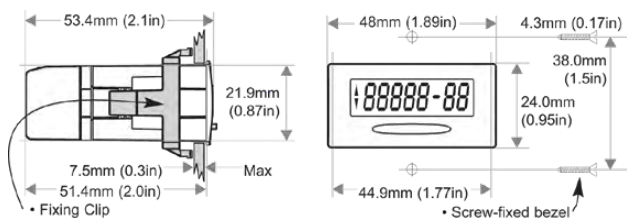
7932 27

7511 Series

8-digit Self-powered LCD Electronic Timer



8-digit liquid crystal display timer, self-powered with a 10-year battery life. A compact LCD timer designed for many applications, screw terminals ensure fast wiring. Features include backlighting (external 5VDC supply required), 4 timing modes, timing direction indication and 9mm high digits. High Voltage (HV) version accepts input voltages of 10-110VDC or 10-240VAC.



Features

- 9mm high contrast LCD display
- 10-year battery life
- Minimum contact closure time 1 second
- 4 timing modes
- Times up or down
- External reset input
- CE, UL and cUL approved
- Integral backlight

Specification

Battery life	10-years typical
Display	8-digit black LCD, 9mm characters with leading zero blanking
Timing Ranges	Seconds, minutes and seconds; hours and 1/100ths and hours and minutes
Timing Input	Sink signal (NPN) 18VDC maximum threshold 1VDC negative edge trigger
(HV Version)	10 – 240VAC $\pm 10\%$, 10 – 110VDC $\pm 10\%$, Opto-Isolated
Direction Input	Up not connected, down connected to common
Operating Temp.	-10°C to +60°C [14°F to 140°F]
Storage Temp.	-20°C to +70°C [-4°F to 158°F]
Material	Clear polycarbonate
Environmental Protection	IP65 / NEMA 4X
Weight	62g [2.2oz.]

Ordering Information

7511 - 8-digit Self-powered Totalising Timer
7511HV - 8-digit Self-powered Totalising Timer with High Voltage Input

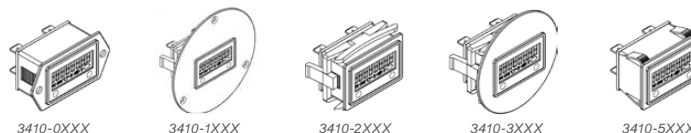
3410 Series

"any housing, any function"



The Trumeter 3410 Series is a versatile range of hour meters available with wide operating voltages (10-300VDC and 20-300VAC), 5 different industry-standard housings and a large display, with 0.28" [7mm] high characters. It is suitable for a range of applications.

Maintenance Meters with optional multiple "Redi-Alerts" to alert users when service is due. Models are available with front panel field programmable alerts. Not only does the display flash to get attention but it displays a choice of 7 different .08" [2mm] maintenance icons. Models are available as a Preset Counter/Timer with a MOSFET output for the actuation of external alarms or indicator lamps. Users can program or specify the service interval and flash duration for each Redi-Alert.



Features

- Totally sealed from moisture and dirt
- AC or DC voltage input in the same unit
- Optional programmable output thresholds (MOSFET)
- Optional preset count value/Hour Meter
- Optional - up to 3 Redi-Alerts/7 icons
- Compact depth - Fits in existing panel openings
- A choice of 5 housings
- A choice of reset modes
- Optional front panel programmable
- Optional preset functions
- Can be programmed with starting time
- CE, UL and cUL approved

Specification

Case Style	<ul style="list-style-type: none"> • 2-Hole Rectangular • 3-Hole Round • Mini Flush Rectangular • SAE Flush Round • Snap-In
Programmability - Optional	Front Panel
Input	10-300VDC or 20 to 300VAC <2mA, Switch/Dry Contact
Reset - Optional	<i>Remote (Dry Contact/Switch)</i> - Part Numbers end in -X010 <i>Manual</i> - Part Numbers end in -X070 <i>Non-Reset</i> - Part Numbers end in -X000
Operating Temp.	-10°C to +60°C [14°F - 140°F]
Storage Temp.	-20°C to +70°C [-4°F to 158°F]

Ordering Information

3410-0000 - AC/DC HR, 2-Hole, Non-Reset
3410-0010 - AC/DC HR, 2-Hole, Remote-Reset
3410-1000 - AC/DC HR, 3-Hole Round, Non-Reset
3410-2000 - AC/DC HR, Flush Rectangular, Non-Reset
3410-2010 - AC/DC HR, Flush Rectangular, Remote-Reset
3410-3000 - AC/DC HR, SAE Round, Non-Reset
3410-5000 - AC/DC HR, Snap-In, Non-Reset
3410-5010 - AC/DC HR, Snap-In, Remote-Reset

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+1 (262) 252-1600 or email sales@grossautomation.com Other versions available on request.

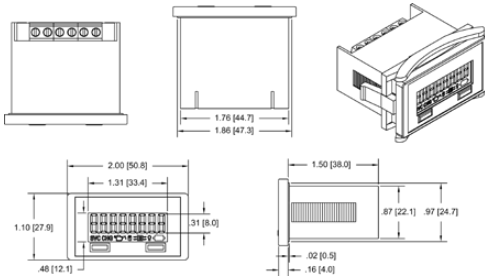
6320 Series

8-digit Self-powered Electronic LCD Hour Meter



The Model 6320 Series of 8-digit LCD hour meters are available in single and/or multi-function units. The array of functions and options make the 6320 series suitable for a variety of applications.

Features include a programmable output, an external reset, a front panel reset enable, and programmable alert or preset capabilities. The front end of the Model 63 utilizes a high-contrast, reflective, 8-digit LCD with 0.32 inch [8mm] digits and seven icons, while at the back end Switch (Dry Contact), Low Voltage DC, and High Voltage DC and AC Inputs are available.



Features

- Optional external electronic reset
- Optional front panel programming
 - 3 Redi-Alerts
- Preset functionality
- Start time (available on hour meter only)
- Part numbers must be in 63XX-X5XX-0000 format to be programmable

Specification

Battery life	10-years typical
Display	Reflective LCD Display with 8 large (8mm) digits
Inputs <i>Choice of one or two inputs</i>	<ul style="list-style-type: none"> ◦ Switch Input (No voltage) ◦ Low DC Voltage (3-30VDC) <2mA ◦ High Voltage (20-300VAC or 10-300VDC) <2mA
Operating Temp.	-10°C to +60°C [14°F to 140°F]
Storage Temp.	-20°C to +70°C [-4°F to 158°F]
Material	Clear polycarbonate
Environmental Protection	NEMA 4/4X, 12, and IP66 rated
Certification	CE compliant, UL and cUL recognised EMC Compliant to EN61326:2001 for industrial environments European WEEE and RoHS Compliant

720-6300

High Voltage AC LCD Hour Meter



The Trumeter Model 720-6300 Electronic Hour Meter offers a large 8-digit LCD display, (9999999.9) 0.32" (8mm) high, with an input operating voltage of 85-500VAC.

The front of the unit is totally sealed, and the Hour Meter is housed in a rugged steel enclosure that is interchangeable with the 720 Series Electro-Mechanical Hour Meters. The wide operating voltage makes this product ideal for almost any application.

Features

- Operating voltage 85-500VAC
- Rugged steel housing
- Lithium battery
- Quartz accuracy (better than 0.01%)
- Popular 3-hole mounting
- Gasket (721-0004)

Specification

Display	Large 8-digit LCD (9999999.9), 0.32" [8mm] high
Reset	Non-reset
Voltage	85-500VAC 50/60Hz
Hour Meter Memory	Self-powered (internal lithium battery)
Termination	Wire leads 6" [152mm]
Mounting	Panel (3-Hole)
Operating Temp.	-10°C to +60°C [14°F - 140°F]
Storage Temp.	-20°C to +60°C [-4°F to 140°F]
Humidity	0 to 95% RH, non-condensing, front totally sealed
Vibration	10 to 80 Hz, 0.06 double amplitude
Shock	50G
Dielectric	1000VAC 50/60Hz for 1 minute
Accuracy	Quartz accuracy (better than 0.01%)
Weight	142g [5.0 oz.]

Ordering Information

6320-0000-0000 - HR, Dry Contact Input Remote-Reset
6320-0500-0000 - HR, Dry Contact Input, Programming
6320-0600-0000 - HR, Dry Contact Input, Front Panel Reset
6320-1000-0000 - HR, 3-30VDC, Remote-Reset
6320-1500-0000 - HR, 3-30VDC, Programming
6320-1600-0000 - HR, 3-30VDC, Front Panel Reset
6320-2000-0000 - HR, 10-300VDC or 20-300VAC, Remote-Reset
6320-2500-0000 - HR, 10-300VDC or 20-300VAC, Programming
6321-1000-0000 - Minute, 3-30VDC, Remote-Reset

Ordering Information

720-6300 - 85-500 VAC, 3-Hole Round, LCD Hour Meter, Non-Reset

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+1 (262) 252-1800 or email sales@grossautomation.com

710 Series

Electromechanical Hour Meter



The 710 Series 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. UL, CE and RoHS compliant.

Features

- Large figures
- Tough, Lexan case
- Non-reset
- Bracket mount
- Mounting bracket (721-0003)
- Heavy duty splash proof kit (721-0018)
- Gasket (721-0004)

Specification

Figures	6 figure, 99999.9 (non-reset), 0.19" [5mm] high
Reset	Non-reset
Voltages	24, 115 or 230VAC, (+/-10%), 60 Hz.
Power	3 watts (nominal)
Mounting	Panel (3-hole)
Terminations	8" [203.2mm] wire leads or terminal block
Operating Life	Beyond 50 million counts
Temp. Range	-10°C to +60°C [14°F - 140°F]
Approvals	UL Recognised, CE Compliant, RoHS
Weight	170g [6 oz.]

711 Series

AC Electromechanical Hour Meter



The 711 Series provides a family of compact 7 figure, AC Hour Meters.

Models are available in the standard industry housings, 2- Hole rectangular, flush-round and flush-rectangular. A choice of two rectangular panel cutouts are offered 1.45" X 0.95" [36.8mm X 24.1mm] or 1.45" X 0.87" [36.8mm X 2.1mm]. The round meter has a panel cutout of 1.99" [50.5mm].

Features

- 7 figure, 99999.99
- Various voltage inputs
- Quartz accuracy (DC)
- Large figures, 0.14" [3.6mm]

Specification

Figures	7 figures, 0.14" [3.6mm] 99999.99
Reset	Non-reset
Voltages	24, 115 or 230VAC (± 10%)
Power	2 watts AC
Mounting	Clip or mounting holes
Terminations	1/4" [6.3mm] spade terminals with screws (AC)
Case Material	Black polymer
Weight	35g [1.2oz.]
Front Panel	IP65
Operating Temp.	-10°C to +60°C [14°F - 140°F]
Storage Temp.	-20°C to +60°C [-4°F to 140°F]
Shock	30g [18ms] IEC 68-T2-27 25g [16ms] IEC 68-T2-19
Agency Approvals	CE Compliant, UL Recognised

720 Series

AC Hour Meter



A 6 figure (non-reset), AC hour meter encased in a rugged steel housing. These models are completely sealed. UL, CE and RoHS compliant.

Features

- Rugged steel housing
- Chrome bezel
- Readouts to 99,999.9 hrs.
- Voltages
- Gasket (721-0004)

Specification

Figures	6 figure, 0.19" [5mm] high, 99,999.9
Reset	Non-reset
Voltages	115VAC (+/- 10%), 60Hz.
Power	3 watts max.
Mounting	Panel (3-hole or metal clamp)
Terminations	6" [152mm] wire leads
Temp. Range	-40°C to +70°C [-40°F to +160°F]
Approvals	UL Recognised, CE Compliant, RoHS
Weight	-5°C to +40°C [+23°F to +104°F]
Approvals	UL Recognised, CE Compliant
Weight	284g [10 oz.]

Ordering Information

- 710-0001** - 115 VAC, 60 HZ, 99999.9 HRS, Non-Reset
- 710-0002** - 115 VAC, 60 HZ, 99999.9 HRS, Non-Reset
- 710-0003** - 230 VAC, 60 HZ, 99999.9 HRS, Non-Reset
- 710-0006** - 24 VAC, 60 HZ, 99999.9 HRS, Non-Reset

Ordering Information

- 711-0109** - 115/60, Flush 1.45x87, Spade Terminal
- 711-0113** - 115/60, Flush 1.45x87, Screw Terminal
- 711-0114** - 24/60, Flush 1.45x87, Screw Terminal
- 711-0130** - 115/60, 2-Hole 1.45x87, Screw Terminal
- 711-0160** - 115/60, Round Bezel 3-Hole Round, Screw Terminal
- 711-0162** - 230/60, Round Bezel 3-Hole Round, Screw Terminal
- 711-0163** - 230/50, Round Bezel 3-Hole Round, Screw Terminal
- 711-0180** - 115/60, Square Bezel Flush, Screw Terminal
- 711-0190** - 115/60, Square Bezel Flush, Screw Terminal
- 711-0217** - 24/60, 2-Hole 1.45x.95

Ordering Information

- 720-0007** - 115 VAC, 99999.9 HR, wires, 3-Hole Round
- 720-0011** - 115 VAC, 99999.9 HR, wires, Stirrup Mount

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Other versions available upon request.

+1 (262) 252-1600 or email sales@grossautomation.com

722 Series

Totally Sealed AC Hour Meter



CE cUL US

The 722 Series provides an AC Hour Meter with an operating range of 90-264VAC 50/60 Hz.

You no longer require two separate meters, one for 115VAC and one for 230VAC. Models are available in the standard industry housings. Its quartz time base insures accurate long-term time keeping. The Totally Sealed case protects against the environment and provides years of reliable service. All applicable models are NEMA 4X, 12 rated when mounted with optional gasket.

Features

- Operating voltage 90-264VAC 50/60Hz
- Totally Sealed
- 6 Figure, 99999.9
- Quartz accuracy
- Minimum 36 second on-time for event capture
- UL/cUL Recognised, CE and RoHS Compliant

Specification

Frequency	50/60 Hz
Power	1 watt max.
Mounting	Clip or Mounting Holes
Termination	1/4" [6.3mm] spade terminals
Weight	57g [~2 oz.]
Accuracy	±.02% over entire range
Case Material:	Black Polymer
Lens Material	Polymer
Agency Approvals	UL/cUL Recognised, CE and RoHS Compliant, SAE and NEMA 4X, 12 Compliant
Environmental	Totally Sealed
Front Panel	NEMA 4A, 12 rated with optional gasket
Temperature	-10°C to +60°C [14°F - 140°F]
Humidity	95% (SAE J1378)
Shock	55g @ 9-13ms (SAE J1378)
Vibration	10-80 Hz. 20g max. (SAE J1378)

Ordering Information

722-0001 - 90-264 VAC, 50-60, 2-Hole
 722-0002 - 90-264 VAC, 50/60, Flush Rectangular
 722-0003 - 90-264 VAC, 50/60, Flush Round
 722-0004 - 90-264 VAC, 50/60, 3-Hole Round
 722-0030 - 90-264 VAC, 50/60, Square

731 Series

DC Quartz Hour Meter



CE cUL US

The 731 Series provides a family of compact 7 figure, 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.

Features

- 7 figure, 99999.99
- Quartz accuracy
- Large figures, 0.14" [3.6mm]
- CE Compliant, RoHS
- UL/cUL Recognised

Specification

Reset	Non-reset
Voltages	50 or 60 Hz, 10-28VDC
Power	0.4 watts
Mounting	Clip or mounting holes
Terminations	1/4" [6.3mm] spade terminals
Accuracy	0.01%
Case Material	Black polymer
Weight	35g [1.2oz.]

Ordering Information

731-0040 - 12-24 VDC, 2-Hole
 731-0046 - 10-80 VDC, Bezel, 3-Hole Round, Screw Terminal

732 Series

Totally Sealed DC Hour Meter



CE cUL US

The 732 Series provides an DC Hour Meter with an operating range of 10-80VDC. Models are protected for two times battery voltage and/or reverse polarity.

Models are available in the standard industry housings. Its quartz time base insures accurate long-term time keeping. The Totally Sealed case protects against the environment and provides years of reliable service. All applicable models are NEMA 4X, 12 rated when mounted with optional gasket.

Features

- Operating voltage 10-80VDC
- Totally Sealed
- 6 Figure, 99999.9 Quartz accuracy
- Wire Leads Gasket kit (for NEMA 4X, 12 rating)
- Terminals up, down, straight
- Adapter bezels for various panels
- UL/cUL Recognised, CE and RoHS Compliant, NEMA and SAE

Specification

Power	1 watt max.
Mounting	Clip or Mounting Holes
Termination	1/4" [6.3mm] spade terminals
Weight	57g [~2 oz.]
Accuracy	±.02% over entire range
Case Material:	Black Polymer
Lens Material	Polymer
Agency Approvals	UL/cUL Recognised, CE and RoHS Compliant, SAE and NEMA 4X, 12 Compliant
Environmental	Totally Sealed
Front Panel	NEMA 4A, 12 rated with optional gasket
Temperature	-10°C to +60°C [14°F - 140°F]
Humidity	95% (SAE J1378)
Shock	55g @ 9-13ms (SAE J1378)
Vibration	10-80 Hz. 20g max. (SAE J1378)
Voltage	10-80 VDC

Ordering Information

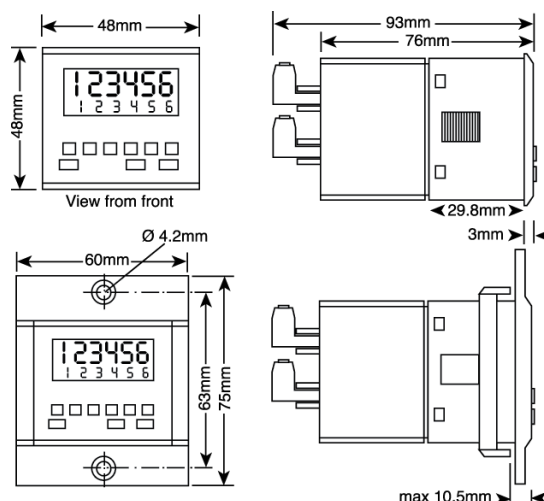
732-0001 - 10-80 VDC, 3-Hole Round
 732-0002 - 10-80 VDC, Flush Rectangular
 732-0003 - 10-80 VDC, Flush Round
 732-0004 - 10-80 VDC, 2-Hole
 732-0030 - 10-80 VDC, Square
 732-0013 - 10-80 VDC, Round Cup
 732-0014 - 10-80 VDC, Cup Bracket
 732-0023 - 10-80 VDC, Stirrup Mount

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7932

Electronic Predetermining Counter/Timer



6 digit supertwist LCD programmable preset counter/timer with prescaler and EEPROM data storage in an IP65 DIN case.

This versatile count up or count down predetermining counter/timer with prescaler has a wide range of innovative and attractive features. Designed with imagination and built to the highest standards it offers both counting and timing functions in one unit.

Features

- Simple programming via menu driven display
- High visibility supertwist LCD display can be viewed from any angle
- Backlight programmable ON, OFF or AUTO
- 40 years data retention with no power
- Programmable decimal point up to 3 places
- Operates from 85-265VAC or 10-26VDC
- 12VDC output to drive a sensor (when AC powered)
- Opto-isolated inputs
- Wide range of prescaling
- Output relay contacts rated at 5A
- Output can be set to latch or pulse with programmable pulse duration
- Environmental protection to IP65
- Standard DIN housing
- CE, UL and cUL approved

The count inputs are Opto-Isolated and can be sink (NPN) or source (PNP). The count is on the main display and the preset value is on the lower display. Reset can be remote, manual or automatic with a manual over-ride option. All programming, reset and presetting can be carried out from the front panel although the keys can be remotely disabled from the rear of the unit.

Please note the electrical connections are different to the previous version (7931).

Specification

Supply Voltage	85 - 265VAC or 10 - 26VDC at 100mA
Auxiliary Output Supply	12VDC \pm 10% @ 100mA (when operating from AC supply)
Display	<ul style="list-style-type: none"> • 2 rows of 6 digits, supertwist LCD with yellow/green LED backlight. Upper row 7mm (0.28in) high indicates count, lower row 4mm (0.16in) high indicates P1 preset point • Also Relay Active annunciator
Backlight Control	Programmable to Always ON, Always OFF or AUTO (ON for 30s following last keypress)
Preset Points	User selectable preset point 1 - 999999
Count Inputs	<ul style="list-style-type: none"> • High Speed NPN/PNP • Opto-isolated 10 - 30VDC. Maximum input frequency 10kHz • Low Speed • Opto-isolated 12 - 260VAC/DC. Maximum input frequency 30Hz
Prescaler	<ul style="list-style-type: none"> • Multiply 0.00001 - 9.99999, default 1.00000 • Divide 1 - 99999, default 00001
Manual Reset	Can be disabled on installation or remotely
Remote Reset	Contact closure or pulse (15 ms response time)
Automatic Reset	Programmable for automatic or Manual/Remote reset
Data Retention	40 years minimum
Output Relay	Contact Connection SPDT Contact Rating 5A 260 VAC 30 VDC 1300 VA/150W
Operating Temp.	-10°C to +60°C [14°F to 140°F]
Storage Temp.	-20°C to +70°C [-4°F to 158°F]
Environmental Protection	IP65 when properly installed using the sealing gasket supplied (without bezel)

Ordering Information

7932 - 6 digit Predetermining counter/timer

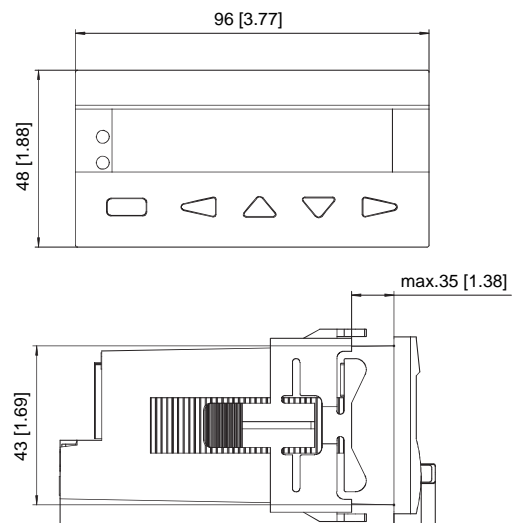
PROCESS INDICATORS

RATE INDICATORS 29

898X 29

9100 30

898X Series Electronic LCD Preset Counter



A replacement for our popular 878X *Liberty* range, the 898X series is a 6-digit counter, rate meter, timer and position display in one.

Available with RS485 interface and MODBUS and CR/LF protocol, it can be used as a preset counter, batch counter or total counter. The 14mm high LED display ensures easy reading even from a long distance and in poor lighting conditions.

Features

- Simple programming via menu driven display
- Can be used as a preset counter, batch counter or total counter
- 2 relays (change-over)
- Many different count models
- Scalable display
- Set value, step to tracking preset
- Multi-range power supply for AC
- Readable or configurable via RS232/485 interface via Modbus or CR/LF protocol
- Allows for direct connection of a large display or Printer
- Automatic help text
- 14-segment LED for improved text representation
- Status display of the presets
- 3 defined parameters
- Tracking presets eliminate the need for re-programming the pre-signal
- 4-stage RESET modes
- 3-stage keypad locking
- Suitable for installation in mosaic systems

With its automatic help text, clearly and legibly displayed on 14 LED segments, the 898X preset counter takes the user effortlessly through the programming. The large user-friendly front keys can be operated even when wearing gloves.

Specification

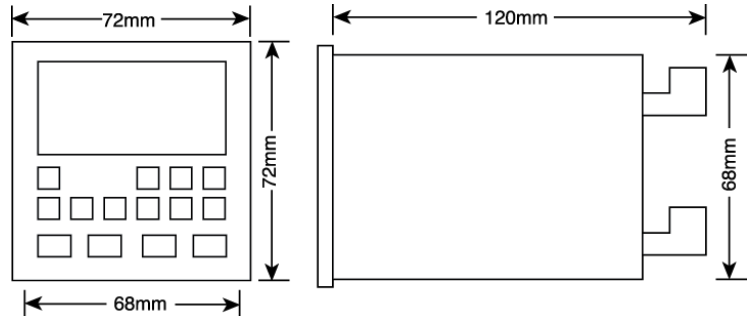
Supply Voltage	AC 100-240 VAC, +10% max. 11 VA, 50/60 Hz
External Fuse Protection	230 VAC T0.1 A 10-30 VDC T 0.25 A
Display	6-digit red 14 segment LED display, 14mm [0.55] high
Data Retention	>10 years, EEPROM
Response time of the rate meter	100 / 600 ms (details in instruction manual)
Input Mode Pulse Counter:	<ul style="list-style-type: none"> • Count Direction (cnt.dir), • Difference (up.dn) • Addition A+B (up.up) • Phase discriminator x1, x2, x4 (quad, quad x2, quad x4), • Ratio (A/B), • Ratio in % ((A-B)/Ax100%)
Input Mode Rate Meter:	A, A-B, A+B quad, A/B, (A-B)/A x 100%
Input Mode Timer:	4 start modes: FrErun, Auto, InpA.InpB., InpB.InpB.
Sensor power supply	AC supply: 24V DC+ 15%, 80 mA DC Supply: max. 80 mA, external power supply is connected through
EMC	Emitted interference: EN55011 class B Immunity to interference: EN 61000-6-2
Operating Temp.	-20°C - +65°C [-4°F - +149°F] (non-condensing)
Storage Temp.	-25°C - +5°C [-13°F - +167°F]
Environmental Protection	IP65 (from the front)
Optional interface	MODBUS and CR/LF
Count Frequency	max. 45 kHz 9 (details in instruction manual)
Interface	RS232, RS485
Baud Rate	9600
Device address	1-99, programmable

Ordering Information

8981-1 - Dual Preset, Dual Relay Counter, 100-240VAC
8981-5 - Dual Preset, Dual Relay Counter, 100-240VAC, RS485

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9100 Predetermining Counter / Ratemeter



The versatile 9100 multi-function instrument is a multi-preset, totalising counter / ratemeter with backlight display.

Simultaneous operation in different modes is now possible with this recent development of the highly successful 9100 multi-function counter. Additional enhancements include 3-line display, more keys, enhanced programming, EEPROM memory avoiding the need for a battery, and on-screen programming prompts in four languages.

Features

- Simultaneously maintains any 3 of the following: Count preset, count pre-warn, batch preset, overspeed, underspeed condition and displays count, total and speed
- Counts in any of 7 modes: A-B, A+B, A/B, count and direction and quadrature x1, x2 and x4
- EEPROM retains program and data for 40-years with no power
- 3-line Supertwist LCD display viewable from any angle
- Easily programmed in English, German, French or Spanish using simple menu structure and 10-key keypad
- Counting continues while rate measurement is in progress
- Accurate enough for position sensing and robotic control
- Displayed values, choice of engineering units and 12 characters of user programmable text can be printed directly from the IBM/Epson compatible serial printer port
- Can be powered from 85-265VAC for world-wide use
- Multiplying and dividing prescalers enable display directly in the required (engineering) units
- Manual, remote and automatic resets available
- Remote inhibit and remote keyboard disable
- Fast electronic or slow contact closure inputs, all with optical isolation. Contact closure inputs are debounced
- Auxiliary 12VDC 100mA power output to power sensor
- Environmental protection to IP65/NEMA4X
- CE approved

The 9100 carries out rate measurement, batch counting and totalising simultaneously. Rate mode is signified by an R appearing at the top left hand corner of the display and counting carries on in the background. The first line of the display shows pulses per minute (PPM) unless a prescaler is in use.

Specification

Supply Voltage	85 - 265VAC or 10 - 26VDC at 100mA
Auxiliary Output Supply	12VDC \pm 10% @ 100mA (when operating from AC supply)
Display	<ul style="list-style-type: none"> • 2 rows of 6 digits, supertwist LCD with yellow/green LED backlight. Upper row 7mm (0.28in) high indicates count, lower row 4mm (0.16in) high indicates P1 preset point • Also Relay Active annunciator
Backlight Control	Programmable to Always ON, Always OFF or AUTO (ON for 30s following last keypress)
Preset Points	User selectable preset point 1 - 999999
Count Inputs	<ul style="list-style-type: none"> • High Speed NPN/PNP • Opto-isolated 10 - 30VDC. Maximum input frequency 10kHz • Low Speed • Opto-isolated 12 - 260VAC/DC. Maximum input frequency 30Hz
Prescaler	<ul style="list-style-type: none"> • Multiply 0.00001 - 9.99999, default 1.00000 • Divide 1 - 99999, default 00001
Manual Reset	Can be disabled on installation or remotely
Remote Reset	Contact closure or pulse (minimum pulse duration 34msec)
Automatic Reset	Programmable for automatic or Manual/Remote reset
Data Retention	40-years minimum
Output Relay	<ul style="list-style-type: none"> • Contact Connection SPDT • Contact Rating 5A 260 VAC 30 VDC 1300 VA/150 W
Operating Temp.	-10°C to +60°C [14°F to 140°F]
Storage Temp.	-20°C to +70°C [-4°F to 158°F]
Environmental Protection	IP65 (NEMA4X) when properly installed using the sealing gasket supplied (without bezel)

Ordering Information

9100 - Predetermining Counter / Ratemeter

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PANEL METERS

ADVANCED PANEL METERS (APM) 32

Volt Meter / Process Meter / Frequency Meter 32

Shunt Meter / CT Meter / Amp Meter 33

Product Selector 34

PANEL METERS 35

DPM Series 951 / 952 35

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Volt Meter

Advanced Panel Meter



The APM voltmeter for industrial and mains applications such as control panels, power supplies and energy management and DC applications such as battery charging, marine and electric vehicles.

It features an auto-detecting AC or DC measuring input and is capable of measuring up to 600V to an accuracy of 1%.

The output models include two separate digital (open collector) or analogue (4-20mA) outputs to interface with beacons, sounders, indicators, PLCs, remote monitors, interlocks, relays and more.

Like all APMs the unique display is user-programmable for customizing parameters, centre zero, positive and negative scales, set points and alerts.

Specific Features

- Flexible measuring input
- Auto-detects AC or DC
- Capable of measuring up to 600V
- Outputs can be used for integration with other systems

Specifications

For general specifications see page 34.

Inputs

Input range (DC)	0 - 600V
Input range (AC)	0 - 600V
Accuracy	1%

Process Meter

Advanced Panel Meter



The APM process meter monitors metrics such as liquid flow, pressure, temperature or speed. It works in conjunction with industrial sensors to provide a 0.1% accuracy across the input range.

It can also be used with variable speed drives (VSDs) to provide current or speed indication, or non-linear sensors such as flow or pressure transducers.

Like all APMs the unique display is user-programmable for customizing parameters, centre zero, positive and negative scales, set points and alerts.

Specific Features

- For speed monitoring, liquid flow management and pressure measurement
- Display motor current with variable speed drives (VSDs)
- Display rate of flow and tank levels from 0-10V/4-20mA sensors
- 20-point non-linear conversion
- Outputs included for easy integration with other systems

Specifications

For general specifications see page 34.

Inputs

<u>Voltage</u>	
Range (DC)	0 to +/-10VDC
Impedance	100KΩ
Accuracy	0.1%

Current

Range (DC)	0 - 50mA
Impedance	15Ω
Accuracy	0.01%

Frequency Meter

Advanced Panel Meter



The APM Frequency Meter is ideal for control panels where accurate AC or DC frequency and speed measurement is required.

With an input range of 2-400Hz and accuracy of 0.1% it is suitable for many applications including mains applications, generator and power performance monitoring, industrial applications, process monitoring and aviation.

Because it is a programmable frequency meter, it also can be configured to accurately measure DC pulses. The LCD display, unique to the APM range, is user-programmable for customizing parameters, centre zero, positive and negative scales, set points and alerts.

Specific Features

- Frequency range 2-400Hz
- Accurately measure DC pulses from a sensor
- Able to indicate speed and rate
- Optional outputs to control or re-transmit values to other systems

Specifications

For general specifications see page 34.

Inputs

Input range (AC)	2 - 400Hz
Accuracy	0.1%

Ordering Information

APM-VOLT-APN	- APM Volt Meter, Positive LCD
APM-VOLT-APO	- APM Volt Meter, Positive LCD w/Outputs
APM-VOLT-ANN	- APM Volt Meter, Negative LCD
APM-VOLT-ANO	- APM Volt Meter, Negative LCD w/Outputs

Ordering Information

APM-PROC-APO	- APM Process Meter, Positive LCD w/Outputs
APM-PROC-ANO	- APM Process Meter, Negative LCD w/Outputs

Ordering Information

APM-FREQ-APN	- APM Frequency Meter, Positive LCD
APM-FREQ-APO	- APM Frequency Meter, Positive LCD w/Outputs
APM-FREQ-ANN	- APM Frequency Meter, Negative LCD
APM-FREQ-ANO	- APM Frequency Meter, Negative LCD w/Outputs

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Shunt Meter

Advanced Panel Meter



The APM Shunt Meter is for use in low-side DC current measurement applications where precise accuracy is required. It is able to measure to an accuracy of 0.1% of the signal or 0.5mV, whichever is greater.

Applications include marine, leisure and material handling as well as industrial applications such as power supplies, load banks and battery charging systems.

It is user-programmable to display critical parameters as required. Set points can be customised to trigger the LCD screen to change colour, flash, display a message, or all three at once – alerting the operator when a parameter is out of range.

Specific Features

- Accurate DC current measurement for low side applications
- 1VDC high-resolution input and two outputs
- Suitable with a wide range of shunts up to 1000mV
- Digital and analogue outputs as standard for easy integration

Specifications

For general specifications see page 34.

Input

Range	0 - 1 VDC
Impedance	1 Meg
Accuracy	0.1% of signal or 0.5mV, whichever is greater

CT Meter

Advanced Panel Meter



The APM CT Meter provides accurate measurement for monitoring AC currents. When used with an external current transformer, the CT meter measures up to 10,000 amps to an accuracy of 0.5%.

It can be used in a wide range of applications such as motor control, heating control, industrial power supplies and energy management.

The 5A high resolution input allows for precision measurement and control while programmable scale and annunciators, set points and alerts can all be customised to display critical parameters as required.

Specific Features

- For use with an external current transformer
- Accurately measure up to 10,000 amps
- Ideal for remote monitoring and energy management applications
- Digital and analogue outputs for easy integration

Specifications

For general specifications see page 34.

Input

Range (CT Output Current)	0 - 5A
Range (via External CT)	0 - 10,000A
Accuracy	0.5%

Amp Meter

Advanced Panel Meter



The APM Amp Meter provides effective measuring and monitoring of currents up to 5A directly, or up to 1,000A in conjunction with a current transformer.

This versatile meter includes a programmable scale, where both minimum and maximum values can be customised as required, as well as alerts and setpoints configured.

This flexible meter is suitable for a multitude of applications.

Specific Features

- Flexible 5A current measuring input
- Suitable for use with current transformers up to 1000A or direct AC and DC
- Optional outputs to integrate with other systems for monitoring and control

Specifications

For general specifications see page 34.

Inputs

Input range (AC)	0 - 5A
Max Using CT	1000A
Max Using Shunt	1000A
Accuracy	1%
Display modes	Peak or RMS

Ordering Information

- APM-SHUNT-APO** - APM Shunt Meter, Positive LCD w/Outputs
- APM-SHUNT-ANO** - APM Shunt Meter, Negative LCD w/Outputs

Ordering Information

- APM-CT-APN** - APM CT Meter, Positive LCD
- APM-CT-APO** - APM CT Meter, Positive LCD w/Outputs
- APM-CT-ANN** - APM CT Meter, Negative LCD
- APM-CT-ANO** - APM CT Meter, Negative LCD w/Outputs

Ordering Information

- APM-AMP-APN** - APM Ammeter, Positive LCD
- APM-AMP-APO** - APM Ammeter, Positive LCD w/Outputs
- APM-AMP-ANN** - APM Ammeter, Negative LCD
- APM-AMP-ANO** - APM Ammeter, Negative LCD w/Outputs

APM - Advanced Panel Meters

The APM is the only range of panel meters to combine the instant visual representation of an analog meter with the accuracy of a digital meter. Each model has a fully programmable input scaler, user selectable measurement range (min, max and span), two independent alarm outputs and a fully scaled analogue monitor output. The backlight can be set to automatically change colour or flash when the input reaches a certain value or goes outside a specific range - all configurable via an easy to use PC application.

Common Features

Large multi-format display

- 40 segment bar graph display
- Large 4-digit display
- Separate starburst display area for annunciators, custom messages and alarm information

Visibility

- Dynamic backlight colour
- User adjustable backlight brightness and colour
- Wide viewing angle (both horizontal and vertical)

Programmable

- Scale (offset and gain) and Range (min and max)
- Custom annunciators
- User selectable backlight colour and intensity
- Two independent alarm set-points
- Two independent outputs (output models only)
- 4-20mA analogue monitor output (output models only)

Common Specifications

Power Supply

Nominal Input (AC or DC) 12-24 VAC/ VDC

Display

Number of digits 4

Digit height 12mm [0.47"]

Digit height of annunciator 6mm [0.23"]

Number of message characters 4

Backlight colours Red, Green, White

LCD display Positive or Negative

Environmental

Operating Temp. -10 to +60°C

Storage Temp. -40 to +70°C

IP rating (from the front) IP65

Output Models

Max voltage 34V

Max current 500mA

Analogue output 4-20mA

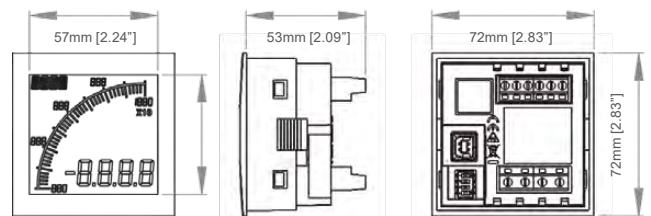
Mechanical

Dimensions: 72mm x 72mm x 53mm [2.83" x 2.83" x 2.09"]

Cutout: 68mm x 68mm [2.68" x 2.68"] as per DIN43700/IEC61554

Accessories

022128-01 - USB Cable



PRODUCT SELECTOR

	Voltage			Current			Frequency			PSU	Typical Applications
	Range	Accuracy	Galvanic Isolation	Range	Accuracy	Galvanic Isolation	Range	Accuracy	Galvanic Isolation		
VOLT	0-600VDC 0-600VAC	1% of full scale	No	-	-	-	-	-	-	12-24 DC and 50-400Hz	Measuring mains voltage e.g. control panels, power supplies, energy management etc.
PROCESS	0-10VDC	0.1% of signal or 5mV, whichever is greater	No	0-50mA	0.01% of signal or 5uA, whichever is higher	None	-	-	-	12-24 DC	Process control e.g. industrial equipment (linear and non-linear sensors)
FREQUENCY	-	-	-	-	-	-	2-400Hz	0.1% of full scale	None	12-24 DC and 50-400Hz	Measuring frequency and speed e.g. mains measurement, industrial and aviation applications etc.
SHUNT	0-1VDC	0.1% of signal or 0.5mV, whichever is greater	No	-	-	-	-	-	-	12-24 DC	Measuring DC currents with a SHUNT placed on the low side only
CT	-	-	-	0-10,000A via CT	0.5% of full scale	None	-	-	-	12-24 DC and 50-400Hz	Measuring AC currents to 10,000A using an external CT
AMP	-	-	-	0-5A direct. 0-1000A via CT	1% of full scale	2.4Kv for 1 min	-	-	-	12-24 DC and 50-400Hz	Measuring AC and DC currents directly up to 5A Measuring AC current to 1,000A using an external CT

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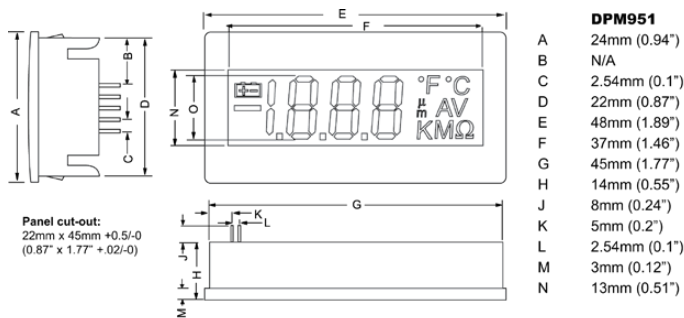
DPM 951

3½-digit LCD Digital Panel Meter (24x48mm)



24mm x 48mm (0.9in x 1.9in) Panel mount digital meter with a 200mv full scale input. 10mm height character display with annunciators for common engineering units and suitable for operation with either 5VDC or 9VDC power.

LCD modules with a full scale reading at 200mV and operated from either 5VDC or 9VDC.



Features

- Low power consumption
- 10mm black character high contrast LCD display
- Integrated backlight
- 24mm X 48mm bezel
- 5 or 9VDC operation
- 200mV full scale
- Scaleable
- CE Approved

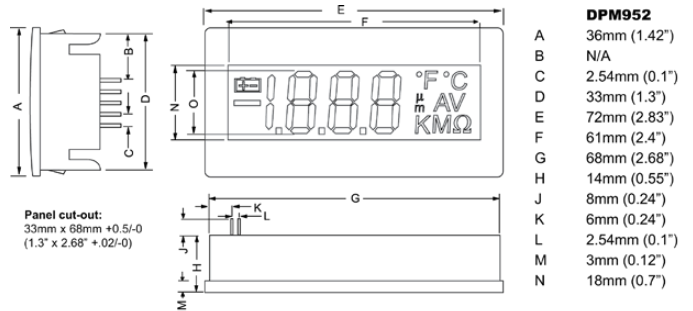
DPM 952

3½-digit LCD Digital Panel Meter (36x72mm)



36mm x 72mm (1.4in x 2.8in) Panel mount digital meter with a 200mv full scale input. 14mm height character display with annunciators for common engineering units and suitable for operation with either 5VDC or 9VDC power.

LCD modules with a full scale reading at 200mV and operated from either 5VDC or 9VDC.



Features

- Low power consumption
- 14mm black character high contrast LCD display
- Integrated backlight
- 36mm X 72mm bezel
- 5 or 9VDC operation
- 200mV full scale
- Scaleable
- CE Approved

Specification

Supply Voltage	5V mode: 3 - 7VDC 9V mode: 7 - 12VDC
Display	3½-digit black LCD, 10mm characters
Supply Current	2mA typical
Sample rate	3 per second
Backlight Current	80mA MAX
Accuracy	0.1% ± 1 count
Operating Temp.	-10°C to +50°C [14°F to 122°F]
Storage Temp.	-20°C to +70°C [-4°F to 158°F]

Specification

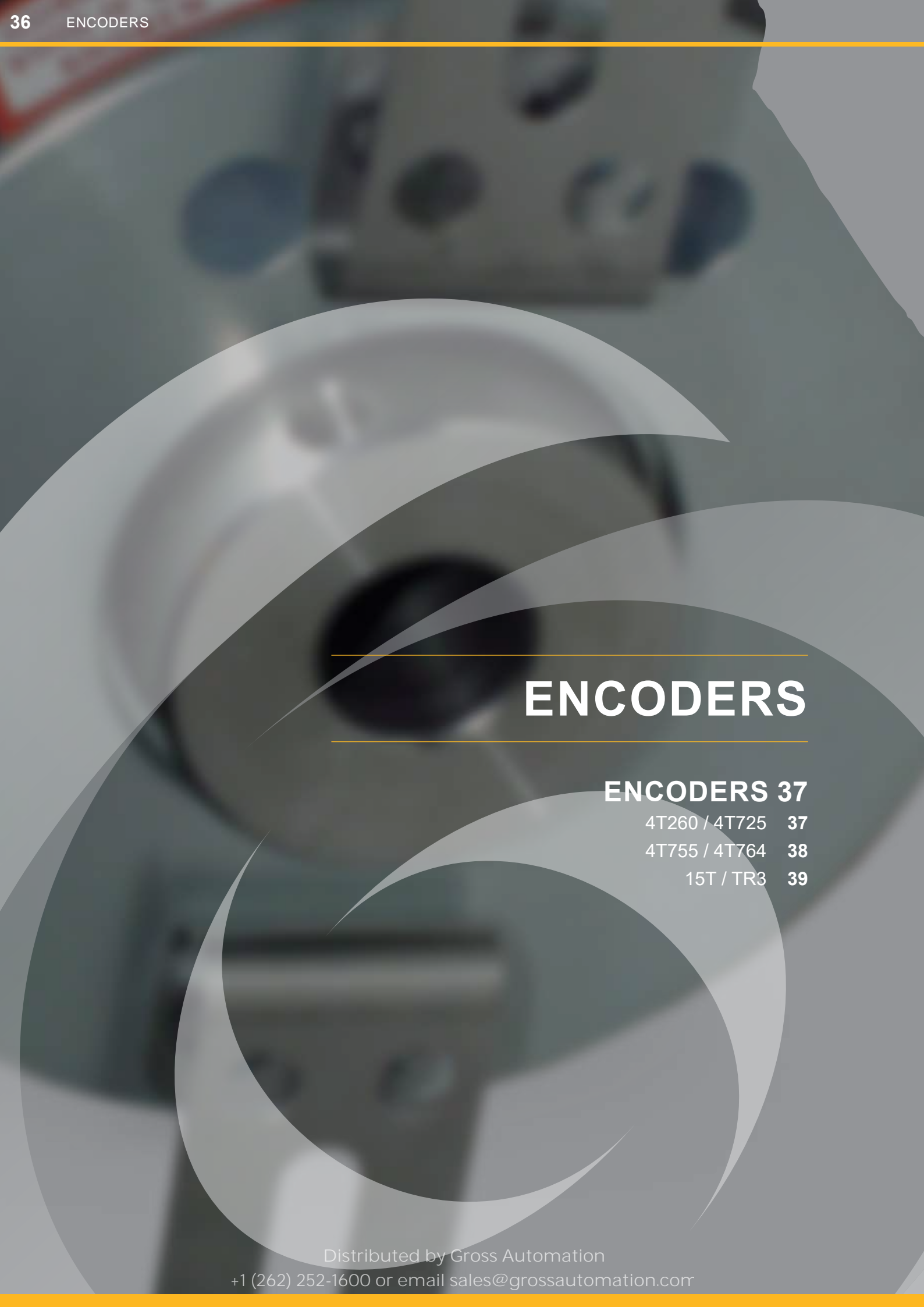
Supply Voltage	5V mode: 3 - 7VDC 9V mode: 7 - 12VDC
Display	3½-digit black LCD, 14mm characters
Supply Current	2mA typical
Sample Rate	3 per second
Backlight Current	160mA MAX
Accuracy	0.1% ± 1 count
Operating Temp.	-10°C to +50°C [14°F to 122°F]
Storage Temp.	-20°C to +70°C [-4°F to 158°F]

Ordering Information

DPM951-T - Digital panel meter

Ordering Information

DPM952-T - Digital panel meter



ENCODERS

ENCODERS 37

4T260 / 4T725 37

4T755 / 4T764 38

15T / TR3 39

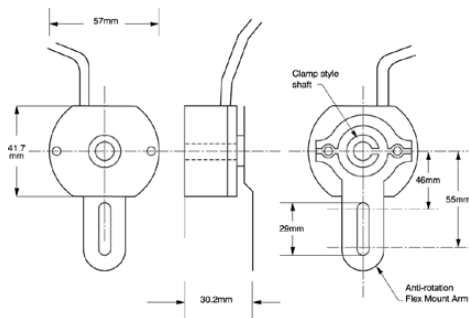
4T260

Electronic Incremental Encoder



Compact 30mm encoder with Quadrature output, 10mm hollow shaft and a 100°C operating temperature. This encoder is ideal when space is limited.

The series 4T260 low profile 30 mm package design makes it a perfect solution for many machine and motor applications. The unit has a complete 10mm through-shaft design. The series 260 and its integral bearing set provide for stable and consistent operation, without concerns for axial or radial shaft runout. The standard 100°C temperature capability allows servo motors to operate at higher power outputs and duty cycles. The output has a push/pull output as standard, signals A, B output.



Features

- Quadrature output.
- Anti-rotation flex mount arm.
- 10 mm hollow through shaft.
- Ideal replacement for mechanical counters when used in conjunction with a suitable electronic counter.
- Operates in temperatures up to 100°C.
- Operates at output frequency of up to 300 KHz.
- CE and RoHS compliant.

Specification

Input Voltage Range	5 to 24V (+10%)
Regulation, for 5V Operation	5% with 2% maximum ripple
Current Consumption	80mA typical
Output Circuits	A, B, @ 20mA each
Frequency Response	300 KHz std
Accuracy	0.017° or 1 Arc/Min
Max Shaft Speed	7,500 rpm continuous
Shaft Sizes and Types	10mm Hollow shaft (through shaft)
Housing	Aluminium with protective finish
Operating Temp.	0°C to +100°C [32°F to 212°F]
Humidity	95% RH
Protection	IP54

Ordering Information

4T260 - 30mm encoder, Quadrature output, 10mm hollow shaft, 100°C operating temp.
 4T26015TPP0250A 250PPR - Push pull output
 4T26015TPP0500A 500PPR - Push pull output
 4T26015TPP1000A 1000PPR - Push pull output

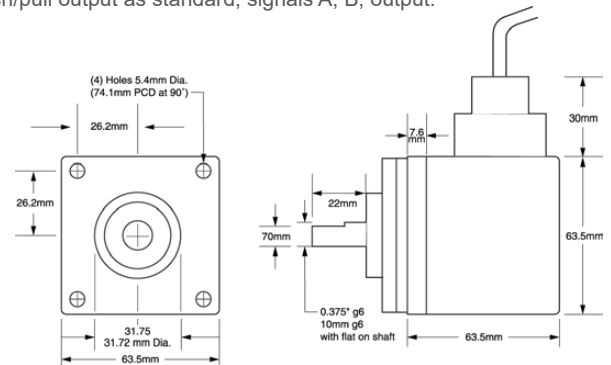
4T725

Electronic Incremental Encoder



Low-cost, rugged encoder with Quadrature output, 10mm shaft diameter and square mount flange.

This size 25 encoder has been designed to suit a wide variety of industrial applications. The unit has a 10mm diameter shaft. A square mounting flange is fitted as standard. A 2M cable is fitted, this enters the unit via a gland situated on the side of the unit. The Output circuit has a push/pull output as standard, signals A, B, output.



Features

- Quadrature output.
- Square mounting flange enables easy mounting.
- Robust heavy duty 10 mm shaft.
- Ideal replacement for mechanical counters when used in conjunction with a suitable electronic counter.
- CE and RoHS compliant.

Specification

Input Voltage Range	5 to 24V (+10%)
Regulation, for 5V Operation	5% with 2% maximum ripple
Current Consumption	50 to 100 mA typical
Output Circuits	A, B, @ 20mA each
Frequency Response	20 KHz
Accuracy	0.017° or 1 Arc/Min
Max Shaft Speed	6,000 rpm continuous
Shaft Sizes and Types	10mm diameter
Housing	Aluminium with protective finish
Mounting	Square flange
Operating Temp.	-10°C to +70°C [14°F to 158°F]
Humidity	95% RH
Protection	IP54

Ordering Information

4T734 - Encoder, 10mm shaft diameter, square mount flange, Quadrature output
 4T734PPF10SG20333 333PPR - Push pull output
 4T734PPF10SG20500 500PPR - Push pull output
 4T734PPF10SG21000 1000PPR - Push pull output

4T755

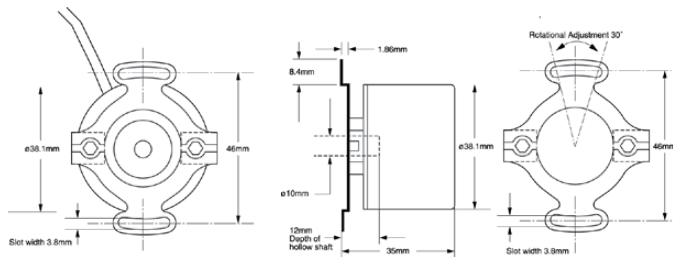
Electronic Incremental Encoder



CE

Miniature high precision encoder with a 10mm blind hollow shaft it has a 125Khz frequency response and can mount directly onto motor shafts. Quadrature output and Flexible mounting bracket.

Series 4T755 encoders are ideal for applications requiring a miniature, high precision low cost encoder. The encoder has a flexible mounting and a blind hollow shaft (10mm diameter) for mounting directly onto motor shafts etc. the Output circuit has a push/pull output as standard, signals A, B, output.



Features

- Quadrature output
- Fixable by flexible mountings
- 10 mm blind hollow shaft
- Ideal replacement for mechanical counters when used in conjunction with a suitable electronic counter
- Operates at output frequency of up to 300 KHz
- CE and RoHS compliant

Specification

Input Voltage Range	5 to 24V (+10%)
Regulation, for 5V Operation	5%, with 2% maximum ripple
Current Consumption	80 mA typical
Output Circuits	A, B, @ 20mA each
Frequency Response	125 KHz
Accuracy	±0.017° or 1 Arc / Min
Max Shaft Speed	7,500 rpm continuous
Shaft Sizes and Types	Blind hollow shaft (10mm diameter)
Housing	Aluminium with protective finish
Operating Temp.	0°C to +70°C [32°F to 158°F]
Humidity	95% RH
Protection	IP54

Ordering Information

4T755 - Encoder, 10mm blind hollow shaft, 125Khz frequency response, Quadrature output
 4T755150PP0333328 333PPR - Push pull output
 4T755150PP0500328 500PPR - Push pull output
 4T755150PP1000328 1000PPR - Push pull output

4T764

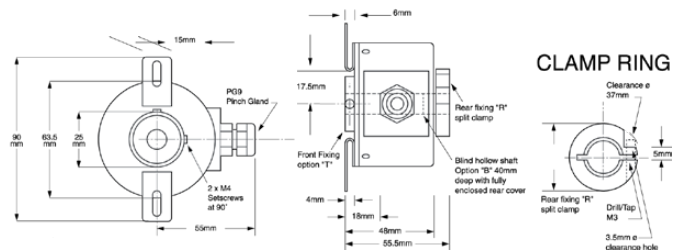
Electronic Incremental Encoder



CE

10mm hollow through shaft, Fixing from either side, Flexible mounting, 50Khz frequency response, Quadrature output Push pull output circuit.

4T764 Series encoders have a full through hollow shaft (which may be fixed at either end). The bore size is 10mm. The encoder body is fixed by means of two flexible mountings which compensate for minor shaft misalignment. The Output circuit has a push/pull output as standard, signals A, B, output



Features

- Quadrature output
- Fixable by flexible mountings
- 10 mm hollow through shaft, can be fixed at either end with optional clamp ring
- Ideal replacement for mechanical counters when used in conjunction with a suitable electronic counter
- CE and RoHS compliant

Specification

Input Voltage Range	4.75 to 24V (+10%)
Regulation, for 5V Operation	5%, with 2% maximum ripple
Current Consumption	75 to 125 mA
Output Circuits	A, B, @ 20mA each
Frequency Response	50 KHz
Accuracy	0.0117° or 1 Arc / Min
Max Shaft Speed	6,000 rpm continuous
Shaft Sizes and Types	10mm through shaft
Housing	Aluminium with protective finish
Mounting	Shaft set screws or split clamp & flexible mounting springs
Operating Temp.	-10°C to +70°C [14°F to 158°F]
Humidity	95% RH.
Protection	IP54

Ordering Information

4T764 - Encoder, 10mm hollow through shaft, Quadrature output, Push pull output circuit
 4T764PPT0G20333 333PPR - Push pull output
 4T764PPT0G20500 500PPR - Push pull output
 4T764PPT0G21000 1000PPR - Push pull output
 019044-01 - Encoder shaft assembly for dual wheel measuring system
 019141-01 - Mounting bracket for 1 or 2 wheel measuring systems
 4TCLP - Optional Encoder Clamp Ring

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15T

Electronic Encoder

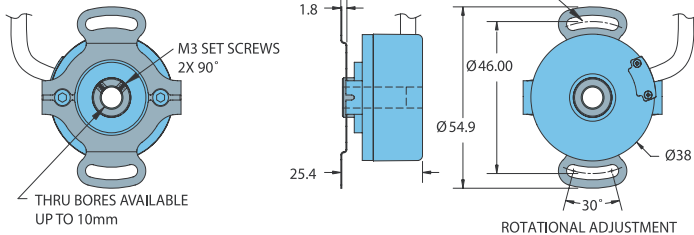


CE

The Model 15T or 15H offers a high performance feedback solution in a low profile package. Unlike modular or kit encoders, the Model 15 utilizes an integral bearing set, and an innovative flexible mounting system which is much more tolerant to axial misalignment or radial shaft run-out. The slotted flex mounts provide 20 or 30 degrees of rotational adjustment for commutation or index pulse timing.

Installation is quick and easy! For brushless servo motor applications, three 120° electrical phase tracks can provide up to 12 pole commutation feedback. The optional 100° C and 120°C temperature options allow servo motors to operate at higher power outputs and duty cycles. The Model 15 provides stable and reliable operation and is an excellent replacement for other manufacturers modular encoders where a high performance solution is desired.

CABLE LENGTH
2M STANDARD



Features

- High-performance economical encoder
- Low profile 1.0" (25.4 mm) height and 1.5" (38 mm) diameter
- Thru-bore (sizes up to 0.375" or 10 mm)
- Simple, innovative flex mounting system (global mounting standards)
- Up to 12 pole commutation optional (for brushless motor control)
- CE and RoHS compliant

Specification

Input Voltage Range	5 to 24V (+10%)
Regulation, for 5V Operation	5%, with 2% maximum ripple
Current Consumption	100 mA typical
Output Circuits	A, B, @ 20mA each
Frequency Response	200 KHz
Accuracy	±0.017° or 1 Arc / Min
Max Shaft Speed	8000 rpm continuous
Shaft Sizes and Types	5mm through 10mm thru bore or blind hollow bore
Housing	Aluminium with protective finish
Operating Temp.	0°C to +70°C [32°F to 158°F]
Humidity	98% RH
Protection	IP50 standard, IP64 available as option

TR3

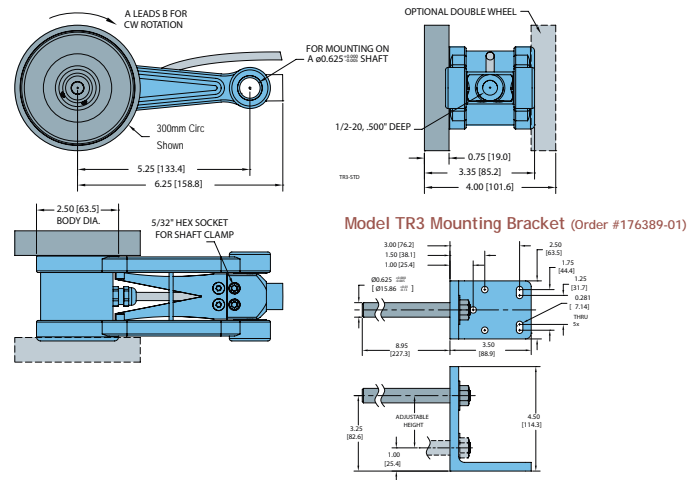
Heavy Duty Tru-Trac



CE

An integrated heavy duty encoder and spring loaded measuring wheel assembly unit that is compact and easy-to-use. Available in a single or optional double-wheel format, the TR3 Heavy Duty Tru-Trac™ is a versatile solution for tracking velocity, position or distance over a wide variety of surfaces in almost any industrial application.

Its spring loaded torsion arm provides a simple to adjust torsion load, allowing the TR3 Heavy Duty Tru-Trac™ to be mounted in any orientation, even upside-down.



Features

- Heavy duty encoder and measuring wheel solution integrated into one industrial-strength unit
- Spring loaded torsion arm for simple wheel pressure adjustments
- Easily installed in a vertical, horizontal, or upside-down orientation
- Operates over a variety of surfaces at speeds up to 3000 feet per minute
- Integrated module simplifies your system design, reducing cost
- CE and RoHS compliant

Specification

Input Voltage Range	5 to 24V (+10%)
Regulation, for 5V Operation	5%, with 2% maximum ripple
Current Consumption	100 mA typical
Output Circuits	A, B, @ 20mA each
Frequency Response	200 KHz
Accuracy	±0.017° or 1 Arc / Min
Max Shaft Speed	6000 rpm continuous
Housing	Powder coated aluminium
Operating Temp.	0°C to +70°C [32°F to 158°F]
Humidity	98% RH
Protection	IP50 standard, IP65 available as option

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TIME RELAYS

TIME RELAYS 41

7954 / 7957 41

DAY TIMERS 41

ET14 41

STAE 42

GM Series 42

TM Series 42

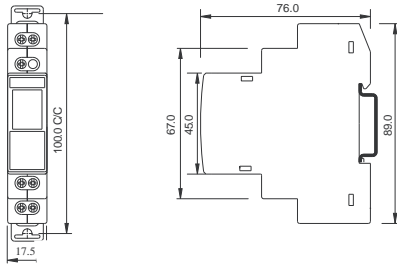
795X

Multi-Function Time Relays



Trumeter's range of digital time relays offer 8 or 18 operating modes, easily configured on the 3-digit LCD display; a wide timing-range of 0.1s - 999Hr to suit all applications; a clear indication of the changeover relay status via the front panel LED; can accept a wide range of operating voltages for most installations.

The keylock feature means settings cannot be tampered with, for 100% reliable operation.



Features

- Compact 17.5mm DIN rail mountable
- 3-digit LCD for easy programming
- Tamper proof with key lock feature
- Wide timing range: 0.1s - 999Hr
- Multi-function: (8 or 18) non-signal and signal based functions
- Multi-voltage: 24 - 240VAC/VDC
- Option to select up/down counting
- CE, UL and cUL approved

7954 Specification

- ON Delay
- Cyclic OFF/ON
- Cyclic ON/OFF
- Signal ON/OFF
- Signal OFF Delay
- Interval
- Signal OFF/ON
- One Shot Output

7957 Specification

- ON Delay
- Cyclic OFF/ON
- Cyclic ON/OFF
- Impulse on Energising
- Accumulative Delay on Signal
- Accumulative Delay on Inverted Signal
- Accumulative Impulse on Signal
- Signal ON Delay
- Inverted Signal ON Delay
- Signal OFF Delay
- Impulse ON/OFF
- Signal OFF/ON
- Leading Edge Impulse 1
- Leading Edge Impulse 2
- Trailing Edge Impulse 1
- Trailing Edge Impulse 2
- Delayed Impulse
- Inverted Signal ON Delay (Type 2)

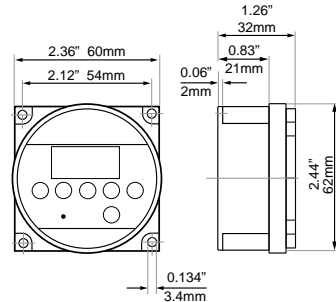
ET14

24-Hour, 7-Day Electronic Timer Module



The ET 14 is a compact electronic 24 hour/ 7 day time switch module with heavy duty relay contacts for switching low or line voltage loads. Applicable for time of day control of pumps, fans, heaters, HVAC control circuits, lighting, machinery and many other types of commercial, industrial, and agricultural equipment.

The ET 14 features large keys with a unique backlit LCD screen that allows for viewing in dark locations. It is simple to program and incorporates a rechargeable Ni-MH battery that holds programs and keeps time for up to 60 days.



Features

- Integrated MOV surge protection assures reliable operation
- Thermal fuse protects unit in the event of overload
- 1/4" quick terminals for easy wiring connection
- Rechargeable Ni-MH battery holds program and keeps time for up to 60 days
- Block programming reduces number of events: MON-SUN, MON-FRI, SAT-SUN, MON-SAT, MON-WED-FRI
- Backlit LCD illuminates in the dark
- 14 programs for maximum 98 weekly ON/OFF events

Specification

Wiring Connection	1/4" Quick Terminals
Supply Voltage	125VAC, 60 Hz
Switch Output	SPDT (Form C Relay Contacts)
Switch Rating	15A General Purpose/Resistive @125VAC 1000W Tungsten @125VAC 1/2HP @125VAC
Battery Back-Up	Rechargeable Ni-MH (Holds program and keeps time for up to 60 days)
Operating Temp.	-10°C to + 55°C
Accuracy	± 1 sec/day at 20°C
Number of Programs	7 ON, 7 OFF
Block Programming	MON-SUN, MON-FRI, SAT-SUN, MON-SAT, MON-WED-FRI
Shortest Switching Time	1 Minute
Display	Backlit LCD (Illuminates in the dark)
Protection	MOV and Thermal Fuse

Ordering Information

7954 - 24-240VAC/DC, Multi-Function Digital Timer, 8 Functions, 1 C/O
7957 - 24-240VAC/DC, Multi-Function Digital Timer, 18 Functions, 1 C/O

Ordering Information

ET14 - Electronic Timer Module

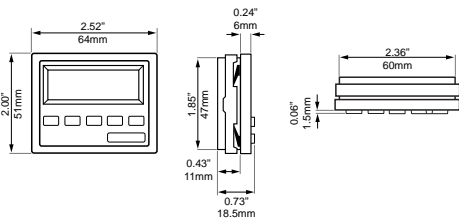
STAE

24-Hour, 7-Day Electronic Timer Module



Specifically for OEM applications, the STAE module has solid state input and output. It provides the timing function, programming keys and time of day display for a multitude of time-of-day control requirements at very low cost.

Conventional supply voltage of 1.5VDC (battery or separate power supply) increases the universal scope of applications for this timer module. It can be integrated directly into electronic circuits with existing C-MOS output.



Specification

Supply voltage	1.30-1.65VDC
Power input	max. 15 μ A/1.50VDC (plus switched power)
Switching capacity	0.1mA/1.50VDC
Switching output	C-MOS
Operating temp.	14°F to 122°F (-10°C to +50°C)
Time base	Standard crystal oscillator 32.768kHz
Accuracy	\pm 1sec. per day at 20°C
Number of storage spaces	6 x ON; 6 x OFF
Shortest switching time	1 minute
Programmable every	Minute
Time display	Models available with either AM/PM or 24:00 hr. military time

Ordering Information

CP3002GR - STAE Electronic Timer OEM Module

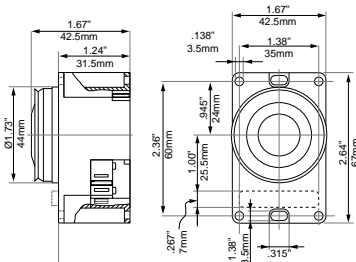
GM Series

Electro-mechanical Timer Modules



The GM series of OEM time switches are designed for control of heating, ventilating, air conditioning, refrigeration, lighting, security, circulating pumps, spas or any electrical load requiring 24-hour scheduling.

The small and contemporary design provides flexibility and interchangeability for any time switch requirement.



Specification

Supply Voltage:	24, 120, 240VAC
Switch Rating:	SPST or SPDT
Resistive:	15A or 20A
General Purpose:	15A or 20A
HP:	1/2 or 1
Power Consumption:	1VA
Installation:	Electrical Wall Box or Panel Mounting
Manual Switch:	On/Auto/Off
Trippers:	Captive
Connections:	Wire Leads
Weight:	Approximately 3 oz.
Switch program	24 hour
Reserve	No
Program on/off	Every 30 minutes
Shortest switching time	30 minutes
Manual override	Yes

Ordering Information

GM1 - 24hr switch program with SPST switch type and 15A res. rating
GM2 - 24hr switch program with SPDT switch type and 20A res. rating

TM Series

Electro-mechanical Timer Modules



The TM series of OEM time switches are designed for control of heating, ventilating, air conditioning, refrigeration, lighting, security, circulating pumps, spas or any electrical load requiring 24-hour or 7-day scheduling.

The small and contemporary design, in conjunction with the broad range of controls with identical dimensions, provides flexibility and interchangeability for any time switch requirement.

Specification

Supply Voltage	24, 120, 240VAC
Switch Rating	SPDT
Resistive	15A or 20A
Tungsten	1250W or 1500W
HP@125VAC	1/2 or 1 HP
Power Consumption	1VA
Installation	Surface Mounting Flush Mounting with Stand-offs
Ambient Temperature Range	-4°F to 128°F
Trippers	Captive
Terminals	1/4" Spade
Weight	Approximately 3 oz.
ROHS	Compliant

Ordering Information

TM1S/3* - 24 hr. switch program, no reserve, program on/off every 15 min., shortest switching time 15 min., SPDT switch, 15A res. rating, on/off/auto manual override
TM1K* - 4 hr. switch program, no reserve, program on/off every 15 min., shortest switching time 15 min., SPDT switch, 15A res. rating, no manual override
TM1BS - 7 day switch program, no reserve, program on/off every 2 hr., shortest switching time 2 hr., switch type, SPDT switch, 15A res. rating, no manual override
TM1Q/3* - 24 hr. switch program, 36hr. reserve, program on/off every 15 min., shortest switching time 15 min., SPDT switch, 20A res. rating, on/off/auto manual override
TM18Q - 24 hr. switch program, 36hr. reserve, program on/off every 15 min., shortest switching time 15 min., SPDT switch type, 20A res. switch rating, no manual override

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LENGTH MEASUREMENT

LENGTH MEASUREMENT 44

2300 / 2400 44

2701 / 2600 45

2620 / 2630 / 3900B 46

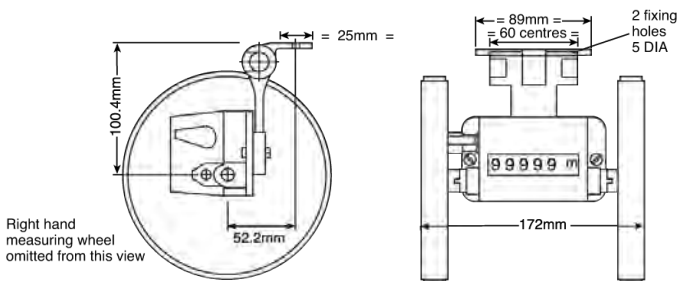
2300

Mechanical Length Measuring Unit



Heavy duty measuring unit, dual measuring wheels for better stability and contact, frame/bulkhead mounted.

This rugged instrument has a wide range of applications where an accurate record of length is required. It is a strong, heavy duty unit for use on calenders, tenters, rolling, ribbon winding textile machinery and almost all other continuous manufacturing processes.



Features

- Sturdy die-cast construction
- Uses standard measuring wheels
- Can be tilted out of the way when not in use
- The 2300 bolts directly onto a bulkhead or frame member
- The integral hinge arrangement allows the unit to be positioned at any angle
- The measuring wheels supplied can be 0.5m or 0.3m (18in or 12in) circumference (specify when ordering)
- The weight of the assembly holds it in contact with the material being measured

Specification

Shaft Diameter	7mm (0.275in).
Units of Measurement	Metres/centimetres, yards/eighths or feet/inches (other measurements may be available to special order; please ask).
Packed Dimensions	180mm (7.09in) x 200mm (7.87in) x 270mm (10.63in)
Gross Weights	1.3kg (2.86lb)

Ordering Information

2300 - Heavy duty measuring counter with hinged bracket and two wheels.

- **2300-11MCG** - Top Going Counter. (M/Cm.) with 2 x ½ metre wheels and hinged bracket.
- **2300-11MCC** - Top Coming Counter. (M/Cm.) with 2 x ½ metre wheels and hinged bracket.
- **2300-14MFG** - Top Going Counter. (Ft/Ins.) with 2 1ft. wheels and hinged bracket.
- **2300-14MFC** - Top Coming Counter. (Ft/Ins.) with 2 1ft. wheels and hinged bracket.
- **2300-13MYG** - Top Going Counter. (Yd/1/8's) with 2½ yard wheels and hinged bracket.
- **2300-13MYC** - Top Coming Counter. (Yd/1/8's) with 2½ yard wheels and hinged bracket.

2401

Mechanical Length Measuring Unit



Heavy duty measuring unit, single wheel unit which has frame or bulkhead mounting.

This rugged instrument has a wide range of applications where an accurate record of length is required. It is a strong, heavy duty unit for use on calenders, tenters, rolling, ribbon winding textile machinery and almost all other continuous manufacturing processes.

Features

- Sturdy die-cast construction
- Uses standard measuring wheels
- Can be tilted out of the way when not in use
- The 2400 unit is slung from a stay rod. A hinge arrangement on the stay rod allows the unit to be positioned at any angle
- The 2401 is supplied with a 475mm (17.99in) stay rod and stand
- The measuring wheel supplied can be 0.5m or 0.3m (18in or 12in) circumference (specify when ordering)
- The weight of the assembly holds it in contact with the material being measured.

Specification

Shaft Diameter	7mm (0.275in).
Units of Measurement	Metres/centimetres, yards/eighths or feet/inches (other measurements may be available to special order; please ask).
Packed Dimensions	520mm (20.47in) x 170mm (6.69in) x 130mm (5.12in)
Gross Weights	2.0kg (4.4lb)

Ordering Information

2401 - Heavy duty measuring counter with stand, stay rod, counter mounting bracket and measuring wheel.

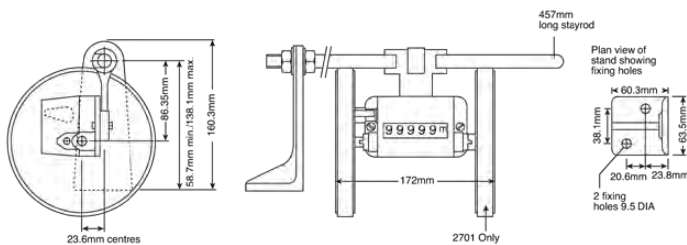
- **2401-11MCG** - Top Going Counter (M/Cm.) 1/2m rubber covered wheel
- **2401-11MCC** - Top Coming Counter (M/Cm.) 1/2m rubber covered wheel
- **2401-14MFFG** - Top Going Counter (Ft.) 12" rubber covered wheel
- **2401-14MFFC** - Top Coming Counter (Ft.) 12" rubber covered wheel
- **2401-14MFG** - Top Going Counter (Ft/Ins.) 12" rubber covered wheel
- **2401-14MFYG** - Top Going Counter (Yds.) 12" rubber covered wheel
- **2401-14MFC** - Top Coming Counter (Ft/Ins.) 12" rubber covered wheel
- **2401-54MFFG** - Top Going Counter (Ft.) 12" knurled aluminum wheel
- **2401-54MFFC** - Top Coming Counter (Ft.) 12" knurled aluminum wheel
- **2401-34MFFG** - Top Going Counter (Ft.) 12" poly covered wheel

2701 Mechanical Length Measuring Unit



Heavy duty measuring unit, twin wheel, stay rod mounted. This rugged instrument has a wide range of applications where an accurate record of length is required.

It is a strong, heavy duty unit for use on calenders, tenters, rolling, ribbon winding textile machinery and almost all other continuous manufacturing processes.



Features

- Sturdy die-cast construction
- Uses standard measuring wheels
- Can be tilted out of the way when not in use
- Supplied with stand
- The 2700 unit is slung from a stay rod. A hinge arrangement on the stay rod allows the unit to be positioned at any angle
- The 2401 is supplied with a 475mm (17.99in) stay rod and stand
- The measuring wheel supplied can be 0.5m or 0.3m (18in or 12in) circumference (specify when ordering)
- The weight of the assembly holds it in contact with the material being measured.

Specification

Shaft Diameter	7mm (0.275in).
Units of Measurement	Metres/centimetres, yards/eighths or feet/inches (other measurements may be available to special order; please ask).
Packed Dimensions	520mm (20.47in) x 170mm (6.69in) x 130mm (5.12in)
Gross Weights	2.0kg (4.4lb)

Ordering Information

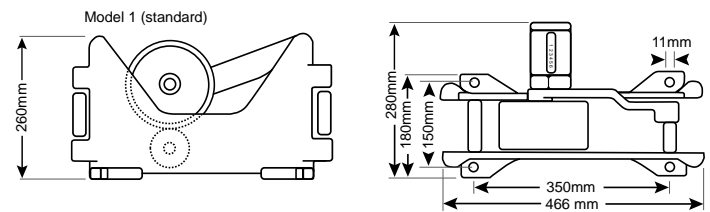
- 2700** Heavy duty measuring counter with stand, stay rod, counter mounting bracket and two wheels.
- **2701-11MCG** - Top Going Counter (M/Cm.) 1/2m Rubber Covered Wheels
 - **2701-11MCC** - Top Coming Counter (M/Cm.) 1/2m Rubber Covered Wheels
 - **2701-13MFFG** - Top Going Counter (Ft.) 18" Rubber Covered Wheels
 - **2701-13MFFC** - Top Coming Counter (Ft.) 18" Rubber Covered Wheels
 - **2701-33MFFG** - Top Going Counter (Ft.) 18" Poly Covered Wheels
 - **2701-53MFFG** - Top Going Counter (Ft.) 18" Knurled Aluminum Wheels
 - **2701-13MFGY** - Top Going Counter (Yds.) 18" Rubber Covered Wheels
 - **2701-14MYG** - Top Going Counter (Yds/1/8s.) 12" Rubber Covered Wheels
 - **2701-13MYG** - Top Going Counter (Yds/1/8s.) 18" Rubber Covered Wheels
 - **2701-12MCG** - Top Going Counter (M/Cm.) 1/3m Rubber Covered Wheel

other versions available upon request

2600 Cable, Wire and Rope Measuring Machine



Heavy duty, multi-purpose measuring machine which measures the length of cable, wire, rope, hose, extrusions or continuous strip from 6mm (0.24in) to 76mm (3.0in) diameter.



Features

- Measures up to 76mm (3.0in) diameter
- Heavy duty cast structure with integral mounting flanges
- Totalising counter fitted

The pivot arm, also available separately (2620), carries the 500mm circumference precision ground measuring wheel. The shaft that supports the measuring wheel revolves in a double ball race which is mounted in the pivot arm. A choice of polyurethane covered or knurled aluminium measuring wheels is available. The length is indicated on a 3602 counter mounted at the side of the unit.

Specification

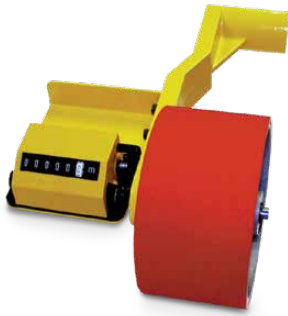
Cable Diameter Range	6mm (0.24in) to 76mm (2.99in)
Measuring Wheel Circumference	500mm
Maximum Speed of Travel	1500 metres/min or 3000 counts/min whichever is lower
Units of Measurement Available	Metres and centimetres, yards and eighths, or feet and inches
Counters Type	3602
Packed Dimensions	53mm (2.09in) x 33mm (1.30in) x 33mm (1.30in).
Gross Weight	15.0kg (33.0lb)

Ordering Information

- 2600** - Multi-purpose Measuring Machine
- Wheel type** (Select and add code to 2600-???)
- 132** for polyurethane covered wheel and mechanical display
- 332** for knurled aluminium wheel and mechanical display
- Unit of measurement** (Select and add code to 2600-XXX?)
- C** Metres/Centimetres
- F** Feet and Inches
- Material travel and counter position** (Select and add code to 2600-XXXX?)
- A** for material travelling towards the operator; counter on his left
- B** for material travelling away from the operator; counter on his left
- C** for material travelling away from the operator; counter on his right
- D** for material travelling towards the operator; counter on his right
- e.g. 2600-132CA = Poly wheel displaying in metres/centimetres, material travelling towards the operator with the counter on his left*

2620

Multi Purpose Surface Length Measuring Machine



This is a pivot arm assembly only that rests on the "guided" material to be measured. As well as cable it is suitable many materials such as steel, plastic and board.

Features

- Heavy duty cast aluminium structure with integral mounting collar
- Totalising counter
- Optional encoder and electronic counter available

The pivot arm carries a 500mm circumference precision ground measuring wheel. The shaft that supports the measuring wheel revolves in a double ball race which is mounted in the pivot arm. A choice of polyurethane covered, knurled or plain aluminium measuring wheels is available.

Specification

Measuring Wheel Circumference	500mm
Maximum Speed of Travel	1500 metres/min or 3000 counts/min whichever is lower
Units of Measurement Available	Metres and centimetres or feet and inches

Ordering Information

2620 - Multi-purpose Measuring Machine for Guided Materials

Wheel type

(Select and add code to 2620-???)

132 for polyurethane covered wheel and mechanical display

332 for knurled aluminium wheel and mechanical display

Unit of measurement

(Select and add code to 2620-XXX?)

C Metres/Centimetres

F Feet and Inches

Material travel and counter position

(Select and add code to 2620-XXXX?)

A for material travelling towards the operator; counter on his left

B for material travelling away from the operator; counter on his left

C for material travelling away from the operator; counter on his right

D for material travelling towards the operator; counter on his right

e.g. 2620-132CA = Poly wheel displaying in metres/centimetres, material travelling towards the operator with the counter on his left

2630

Mechanical Length Measuring Unit



Robust wire measuring machine designed for continuous high speed operation, suitable for cable and wire up to 15mm in diameter. The 250mm circumference, precision ground measuring wheel runs in self lubricating bearings.

Features

- Continuous operation at up to 300 metres per minute or 50 counts per second
- Self lubricating bearings on both rollers
- Heavy duty cast structure
- Hardened steel inlet and outlet guides
- Polyurethane covered measuring wheel fitted as standard

The machine is equipped with two adjustable tension springs, mounted externally, which can be unhooked from their anchor. This allows the measuring head to be pivoted up to a backstop to facilitate threading the cable through the machine. When in position, these springs grip the cable between the measuring roller and the bottom roller. They should be adjusted for the minimum tension required to prevent slippage.

Specification

Maximum Wire Diameter	15mm (0.59in)
Measuring Wheel Circumference	250mm
Maximum Speed of Travel	300.0 metres/min, 300.11 feet/inches 300: 7/8 yards (4921 ft/min) or 3000 counts/minute whichever is lower
Units of Measurement	Metres/centimetres or Feet/inches
Counters Type	3602
Packed Dimensions	180mm (7.09in) x 200mm (7.87in) x 270mm (10.63in)
Gross Weight	3.0kg (6.6lb)
Operating Life	Beyond 3 million counts

Ordering Information

2630 - Cable and Wire Measuring Machine

Unit of measurement

(Select and add code to 2630-132?)

C Metres/Centimetres

F Feet and Inches

Material travel and counter position

(Select and add code to 2630-132C?)

A for material travelling towards the operator

B for material travelling away from the operator

e.g. 2630-132CA = Cable and wire measurer displaying in metres/centimetres, material travelling towards the operator

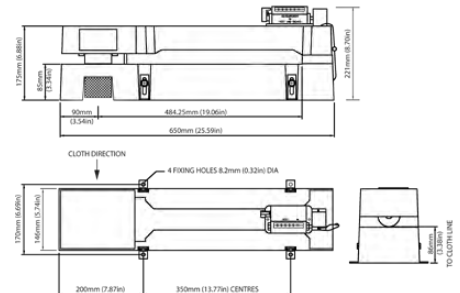
3900B

Trumeasure 3900 Fabric and Carpet Measurement.



Robust, durable and accurate length measurement

The Trumeasure 3900B incorporate the very best features from over 60-years experience in the specialised length measurement sector. These machines incorporate exclusive new components to ensure reliability and continuing accuracy even when operating under the most demanding conditions.



Features

- US Weights and Measures Approval
- Measures material up to 24mm (0.94in) thick
- Accommodates easily marked and/or abrasive materials (with special wheels)
- Accuracy 0.25%
- Accommodates pile up or no pile materials
- Optional encoder output
- Can be built into manufacturing and finishing processes

Operates as the material passes between the measuring roller and the spring loaded pressure roller. The machine is activated by the movement of the material. All Trumeasure machines incorporate an integral brake to prevent overspin at the end of the piece. The brake is automatically released when a further piece of material is passed between the rollers.

Ordering Information

3900B Trumeasure Fabric and Carpet Measurer:

Material travel and counter position

3900B TYPE A for material travelling towards the operator; counter on his left

3900B TYPE B for material travelling away from the operator; counter on his left

3900B TYPE C for material travelling away from the operator; counter on his right

3900B TYPE D for material travelling towards the operator; counter on his right

3905-1B - Trumeasure, 99999'11" Feet & Inches

3905-2B - Trumeasure, 99999.7/8 Yards & Eighths

3905-DD250 - 3905 Machine with 250PPR

Encoder Output

DISTANCE

ROAD MEASURING 48

5000 / 5500 48

5500E / 5505E 49

11-0765 / 11-0795 50

LAND MEASURING 50

5041 50

RAIL MEASURING 50

5063 50

5061 50

Calibration service with certification available on request for all distance products

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5000

Professional Road Measurer



Professional and robust road measuring wheel with built in stand and brake.

The wheel is available in metric or imperial versions and is ideal for any distance measuring application.

Features

- Large easy to read display
- Pointer indicates start position
- Robust construction
- 3 year guarantee
- Fold away stand
- Folding, locking handle for easy carriage.
- Adds forward subtracts in reverse
- Carry bag included

Specification

Weight	3 Kgs
Measuring Wheel Circumference	1m
Units of Measurement available	Metres and centimetres; yards; feet and inches
Accuracy	± 1%
Measures up to	99999.9m, 99999.9yds or 99999ft 11inches

Ordering Information

5000-611 - Metric
 5000-612 - Yards (Imperial)
 5000-519 - Feet and Inches (Imperial)

5500 Measurimeter

Metric Distance Measuring Wheel



Mechanical Metric Distance Measuring Wheel. Many unique features make the Measurimeter® the first choice for all distance measuring applications. Fitted with a 1m circumference wheel.

Features

- Large easy to read display
- Pointer indicates start position
- Robust construction
- 3 year guarantee
- Retractable stand
- Telescopic handle for easy carriage
- Adds forward subtracts in reverse
- Carry bag included

Specification

Weight	2.2 Kgs
Measuring Wheel Circumference	1m
Unit of Measurement	Metres and centimetres only
Accuracy	± 1%
Measures up to	99999.9 metres

Ordering Information

5500 - Single (metric)

5500E Measurimeter

Electronic Measuring Wheel (Metric-only)



The digital Measurimeter® Revolution combines advanced and patented technology to a measuring wheel at costs previously unimaginable. Using the latest electronic design technology, it has more features than ever before.

Features

- Measures up to 9999.99m
- Fitted with 1 metre circumference measuring wheel
- Large LCD display
- Crystal clear in direct sunlight
- Backlight for low light conditions
- Weather & Moisture Proof
- Long Life Battery
- 3 year guarantee
- Two measuring modes; trip and total
- Pushbutton reset
- Electronic brake
- Telescopic handle
- Mud scraper
- Retractable Stand
- Adds forward subtracts in reverse
- Carry bag included

Specification

Weight	2.2 Kgs
Measuring Wheel Circumference	1m
Unit of Measurement	Metres and centimetres only
Accuracy	± 1%
Measures up to	99999.9 metres

Ordering Information

5500E - Single (metric)

5505E Measurimeter

Electronic Measuring Wheel (Metric and Imperial)



The digital 5505E Measurimeter® Revolution can measure in Metres, Yards or Feet and inches at the push of a button. It combines advanced and patented technology for the first time to a measuring wheel at costs previously unimaginable.

Features

- Metric & Imperial measurement: measures distance in feet and inches, meters and centimeters or yards and tenths (user selectable)
- Large LCD display
- Crystal clear in direct sunlight
- Backlight for low light conditions
- Weather & Moisture Proof
- Reliable operation to -10 °C
- Long Life Battery
- 3 year guarantee
- Two measuring modes; trip and total
- Pushbutton reset
- Electronic brake
- Telescopic handle
- Mud scraper
- Retractable Stand
- Adds forward subtracts in reverse
- Carry bag included

Specification

Weight	2.2 Kgs
Measuring Wheel Circumference	1m
Unit of Measurement	Metres and centimetres; yards; feet and inches
Accuracy	± 1%
Measures up to	99999.9m, 99999.9yds or 99999ft 11inches
Storage temp.	-20 °C to +60 °C
Operating temp.	-10 °C to +60 °C
Relative Humidity	80%

Ordering Information

5505E - Single (metric)

11-0765

3ft Multi-Purpose Mechanical Distance Measuring Wheel



These sturdy multi-purpose measuring wheels are best suited for quick and easy measuring over a variety of surfaces. They feature a 5-figure display with bold .20" [5.08mm] high numerals and are capable of counting to 10,000 feet or metres, depending on the model chosen.

Their lightweight design eases handling, and the reset button is protected by a raised collar. These models are available with multi-position straight or curved handles. Component parts are sold separately for quick field repairs. These units are widely used for estimating by contractors, accident investigators, landscapers, surveyors and farmers.

Features

- For outdoor use
- Easy to read display
- Folding handle for easy carriage
- Extended size 48" (curved handle), storage size 32" (curved handle)
- Wheel diameter of ~11.5 in.

Specification	
Weight	1.9lbs [0.86 Kg]
Measuring Wheel Circumference	3 ft.
Unit of Measurement	Feet and inches only
Reset	Push button
Measures up to	99999ft 11inches

Ordering Information
11-0735 - 3ft Multi-Purpose Measuring Wheel (imperial)

11-0795

4ft Multi-Purpose Mechanical Distance Measuring Wheel



These heavy-duty measuring wheels are best suited for outdoor use, recording long distances over a variety of surfaces, including rough terrain. Their lightweight design eases handling and reduces fatigue. They feature a 5-figure display with bold .19" [4.82mm] high numerals and are capable of counting to 100,000 feet.

Component parts are sold separately for quick field repairs. The bright orange wheel enhances visibility, and the fold down handle reduces storage space. These models are widely used for estimating by contractors, agriculturalists, surveyors and landscapers.

Features

- For outdoor use
- Easy to read display
- Folding handle for easy carriage
- Extended size 40" (curved handle), storage size 24" (curved handle)
- Wheel diameter of ~15.3 in.

Specification	
Weight	3.6lbs [1.6 Kg]
Measuring Wheel Circumference	4 ft.
Unit of Measurement	Feet and inches only
Reset	Rotary knob
Measures up to	99999ft 11inches

Ordering Information
11-0795 - 3ft Multi-Purpose Measuring Wheel (imperial)

5041

Heavy Duty Land Measurer



Single Reading Land Distance Measuring Wheel. This large circumference measuring wheel ensures the greatest accuracy over rough terrain.

Ideal for farmers who are obliged to measure their land annually, to qualify for and obtain government subsidies. High quality, rugged construction and accuracy of +/- 1%

Features

- Robust solid tyre fitted to spoked wheel
- Metric or Imperial Reading Counter Available
- Heavy duty counting head fitted directly to wheel
- Five figure counting head, 7mm high figures
- Adds forward subtracts in reverse
- Scraper to prevent mud build up on wheel
- 3 year guarantee

Specification	
Unit of Measurement	Metres/Decimetres
Accuracy	± 1%
Measures up to	99999.9m

Ordering Information
5041 - Metres/Decimetres

5063

Dual Reading Rail Track Measurer



Dual Reading Rail Track Measuring Wheel. The Definitive tool for accurate measuring of rail track.

This robust, quality product was designed with input from international railroad companies and is in daily use worldwide. The heavy duty measuring wheel incorporates metal side plates keeping the wheel stable on the rail.

Features

- Dual large display mechanical counters
- Adds forward subtracts in reverse
- Supplied complete with carry case
- 3 year guarantee

Specification

Units of measurement available	Metres and centimetres; yards; feet and inches
Accuracy	± 1%
Measures up to	99999.9m, 99999.9yrds or 99999ft 11inches

Ordering Information

5063 - Rail Track Measurer (Dual reading)

Unit of measurement

(Select & add code to 5063-XXX-XXX)

511 Meters/Decimeters

512 Yards/Tenths

519 Feet/Inches

e.g. 5063-512-519 Rail track measurer in Yards/Tenths and Feet/Inches

5061

Rail Track Measurer



Single Reading Rail Track Measuring Wheel. The Definitive tool for accurate measuring of rail track.

This robust, quality product was designed with input from international railroad companies and is in daily use worldwide. The heavy duty measuring wheel incorporates metal side plates keeping the wheel stable on the rail.

Features

- Large display mechanical counter
- Adds forward subtracts in reverse
- Supplied complete with carry case
- 3 year guarantee

Specification

Units of measurement available	Metres and centimetres; yards; feet and inches
Accuracy	± 1%
Measures up to	99999.9m, 99999.9yrds or 99999ft 11inches

Ordering Information

5061-511 - Rail Track Measurer in Metres/Decimeters

5061-512 - Rail Track Measurer in Yards/Tenths

5061-519 - Rail Track Measurer in Feet/Inches

Global Group Operations



Florida, USA
US Headquarters
Sales
Distribution
Engineering

Connecticut, USA
Sales
Technical Support

Manchester, UK
Headquarters
Sales
Manufacturing
Engineering
Distribution

Penang, Malaysia
Sales
Manufacturing
Engineering
Distribution

OUR PURPOSE

To create sustainable growth for our customers by delivering new and innovative products through:-

- Understanding our customers and their markets.
- Creating expertly-designed products and services that are innovative and robust.
- Delivering world-class manufacturing at a competitive price.

OUR VALUES

Innovation	Our products and services change the game and the way we do business is creative and flexible.
Integrity	We do what we say we will do and operate to the highest professional standards.
Ambition	We are passionate about improving everything, constantly challenging the status quo.
Teamwork	We value and respect our employees and partners. We fundamentally believe teams outperform individuals every time.
Customer Driven	We cherish our customers, listen to them, and continually meet their expectations.

QUALITY

RoHS:	All current Trumeter products are in conformity with the applicable requirements of the following Directive(s) of the European Parliament. 2011/65/EU - The Restriction of Hazardous Substances Directive (RoHS 2).
ISO9001:2008:	Accreditation since May 2002 Manufacturing, Design and Engineering, Customer Fulfilment.
ISO TS 16949:	In progress.
QPulse:	Company-wide Distributed Quality Management System. Strong supplier/sub-contractor evaluation process. Multiple successful third party audits.



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Certificate Number 13453
ISO 9001

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