#### ELECTRIC COUNTERS

Durant's line of electrically actuated counters includes a full range of dependable counting instruments, which give accurate counts at slow, fast or intermediate speeds. These counters are manufactured to exacting specifications and will give many years of dependable and trouble-free service under the most severe operating conditions.

#### **ELECTRIC COUNTERS**

Electric counters can be used for low or high-speed applications where it is impossible to get a drive-shaft connection or stroke-lever movement. An example is their use with a photo-electric control to count parts covered by wet paint or to count spot welds through a relay on a welder. Another distinct advantage is the ability to mount the counter remotely from the point of electric contact — away from all machine or parts movement in a centralized control system. Power requirements range from 3 to 15 watts depending on number of digits, count speed, duty cycle, and other design characteristics.

Electric counters are available with knob, pushbutton, or electric resets. Count speeds of Durant electric counters range from 600 to 800 cpm in large units to 1000 to 2400 cpm in standard electrics.

#### Series ME

Available in four, six or seven figures, Durant Mini-electric counters feature stainless steel, self-lubricating shafts, nylatron pinions to assure accurate, reliable, long life operation.

#### Series Y-RMF

The Series Y-RMF electric counters are designed to give accurate counts through a wide range of speeds up to 1000 cpm. It features a strong, silent, fast operating DC electromagnetic drive with a compact, dependable built-in higher capacity rectifier for AC operation. Entirely enclosed to prevent damage from moisture or dust. Available in six or seven figures.

#### Series Y-MF

Series 6-Y-1-MF are shaded pole electric counters with straight AC operation and feature a non-rectified, shaded pole coil designed to withstand transient, high voltage spikes. This feature, combined with a simplified hinged escapement drive, also eliminates the possibility of miscounts and greatly adds to the life of the counter.

#### Series YE

Series YE operates at speeds up to 2400 cpm DC and 1800 cpm AC (rectified), with reset time of 300 milliseconds, and features instant electric or pushbutton reset. Designed for high-speed installations on instrument and control systems, office machinery, data processing equipment, printing equipment, test equipment, wherever long-life and high count speeds are required.

#### Series 6-CS

This electric counter with a dependable built-in higher capacity rectifier and DC coil tallies at speeds up to 600 cpm. Available with either wing nut or tumbler lock reset. Extra large figure size permits good readability at a distance.

#### **Electric Counter Contactors**

The diversified Durant electric counter contactor family provides a count input device for all applications. The contactors can be used with all Durant electric and miniature electric counters.

# ELECTRIC COUNTER CONTACTORS

The Durant family electric counter contactors are designed to provide a count input device for every application. Model 41413-400 retro-reflective photocell is a light source and sensor in one housing. Ideal for counting freshly painted, fragile or other hard to handle objects regardless of size, weight, or shape. Model BY-0325-X limit switch is suited for rugged environments. Sealed against moisture and dust the unit also withstands severe vibration. Model ES-4-X lever contactor is designed for applications that require reciprocating motion counting. Count is actuated with only 150 movement. The Model ES-9513 lineal contactor is ideal for length and revolution measurement or count input. Available with mounting bracket and measuring wheels. The unit is simple to install and requires no maintenance. Durant contactors are designed to provide count input versatility and dependability. To assure accurate count and measurement with Durant counting instruments the use of Durant contactors is recommended.

#### RETRO-REFLECTIVE PHOTOCELL ASSEMBLY MODEL 41413-400

The 41413-400 assembly consists of a light source, photocell, and power cord in one housing, and one, 3-3/16" diameter reflective unit, Because of its rugged construction, functional design, versatility of mounting and 10 foot sensing range, the retro-reflective photocell assembly can be adapted to most count sensing operations.

The operation of the 41413-400 is retro-reflective. The control unit light beam is directed across the path of the unit to be counted to a lightweight reflector which directs the beam back to the sensor within the control unit. The count can be triggered when this beam is broken, or by re-establishment of the beam depending on the application. The unit is supplied with mounting holes for front panel or base mounting, or can be threaded onto 1/2 inch electrical conduit.

The control unit is in a NEMA 3, 5, 12 enclosure, making it dust tight, oil, water, and weather resistant with a sensing speed of 1200 CPM. The output relay is single pole double throw, therefore can be wired either normally on or normally off.





#### SPECIFICATIONS:

Model Number: 41413-400

Size:

7-1/2 x 3-1/8" x 2-5/32" 115V AC 50/60 Hz 15VA

Voltage: Output:

Relay Output - Load 1A resistive .5A inductive

Response Time:

0.010 sec. pickup and 0.015 sec. dropout relay

energized when beam is complete

GE #1876 3.1V 10,000 hour nominal life

Lamp: **Ambient** 

Temp: -50°F + 120°F Range:

Rated distances allow as much as 50 foot candles incandescent, or 300 foot candles fluorescent,

ambient light.

**Enclosures:** 

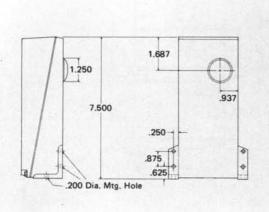
NEMA 3, 5, 12 type construction

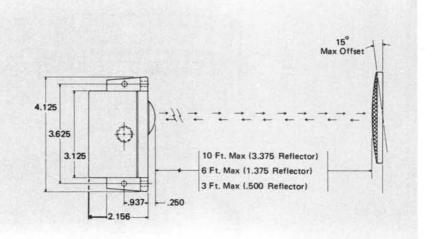
Reflectors:

3-3/16" Range 10 feet max. #39162-201

1-1/4" Range 6 feet max. #39162-202 \*1/2" Range 3 feet max. #39162-203

#### **DIMENSIONS:**





<sup>\*</sup>Not supplied with unit, must be special ordered.

# ELECTRIC COUNTER CONTACTORS

# Series ES-9513



The Durant ES-9513 rotary contactor is designed for length and revolution measurement input. The contactor can measure shaft revolutions at speeds up to 2400 RPM or lineal measurement to 2400 feet per minute. The ES-9513 contactor is ideal for paper, veneer, textile, tin steel and jute lineal measurement applications. Standard ES-9513 accessories include 12 inch measuring wheel with rubber rim, and a mounting bracket for the contactor and measuring wheel. If the mounting bracket and measuring wheel are to be used with the ES-9513 contactor, they must be ordered separately.

#### SPECIFICATIONS:

Wire Leads:

(2) 12 inches long, #20 AWG

Voltage:

To 440 VAC Either direction

Rotation: Ratios:

1:1; 1:3, 1:10 standard

Speed:

To 2400 RPM @ 1:1 ratio

#### 12 Inch Measurement Wheels

Knurled Rim

20156-300

Rubber Rim

21054-300

Urethane Rim

40460 400

Bracket

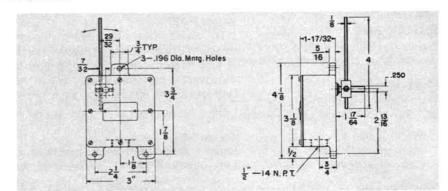
40460-400



# Series E-S-4-X

2 15 MAX.

Lever Contactor for reciprocating action operates in either direction. Contact can be made with as little as 15° movement. Designed to permit an overstroke up to 75°. The switch is rated at 110-220-440 VAC, 60 Hz.



#### SPECIFICATIONS:

Operating

Torque:

3-5 ounces

Switch

SPDT

Circuit: S Shaft: ½

1/4" diameter, stainless steel

Lever

Length: Adjustable to 31/2"



# Series BY-0325-X

Limit Switch is moisture and dustproof and withstands severe vibration. Switch head can be rotated through any of four positions. Actuating roller adjustable through 360°. Connector DB-9, sealed against moisture or dust, is included with switch.

# SPECIFICATIONS:

Operating

1.5 lbs.

Force: Arm

1.5 105.

Adjustment: Arm

360°

Travel:

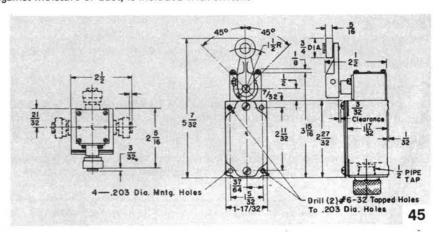
490 max., 120 to operate switch, switch resets 60 from normal posi-

tion

Switch

Rating:

600 VAC, pilot duty



# PREDETERMINED ELECTRIC COUNTERS

#### Series PD-Q

PD-Q counters are five figure, true subtracting, electric predetermined counters that feature pushbutton operation of predetermined count settings. The predetermined count is set by holding the reset button in and then depressing the easy to operate pushbutton selectors under each figure.

#### Series PD-ER

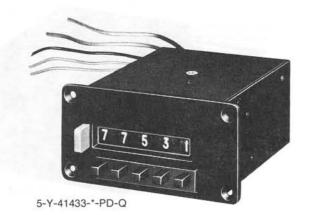
The Durant PD-ER series of predetermined counters features electric reset models for even more control flexibility. The PD-ER models have all the outstanding features of the proven PD-Q, plus electric reset for remote operation.

#### Series P-ME

P-ME counters are true subtract, predetermined miniature devices with a switch contract output for control purposes. Available in two, three or four figures and most standard AC and DC voltages, the counters are ideal for business machines, medical instrumentation, test equipment and production control applications.

#### Series 3-Y

Series Y are true subtracting, predetermined counters designed for applications where a different predetermined number is required after each operation. They subtract from the preset number down to zero where a SPDT switch is actuated.



## SERIES " PD-Q " PREDERMINED ELECTRIC COUNTERS

Model 5-Y-41433-PD-Q is a five figure, true subtracting electric predetermined counter that features pushbutton operation of both predetermined count settings and reset. The predetermined count is set by holding the reset button in and then depressing the easy to operate pushbutton selectors under each figure. The unit subtracts, one count for each contact closure or impulse, and actuates a 4 amp, 250 VAC switch when zero is reached. The output signal from this switch can be used to halt or change the flow of items being counted and/or operate other electrical apparatus. The counter returns to the predetermined number when the reset button is depressed and is immediately ready to control the next lot or batch.

#### SPECIFICATIONS:

Figures:

Count Speed: 1000 counts per minute Figure Size: .187 high X .109 wide

Frame:

Zinc alloy die cast

Shaft:

Stainless steel

Finish:

Dull instrument black with red reset button

Window:

Acrylic 81/2 oz.

Weight: Power

Consumption: 9 watts

Switch

Rating:

SPDT, 4 amps @ 250 VAC

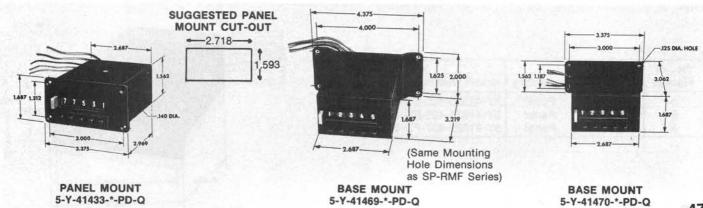
#### ORDERING INFORMATION:

When ordering Model PD-Q Series predetermined electric counters consider - type of mounting and voltage before determining a model number from the Selection Table. The part numbers listed in the Selection Table are incomplete. The voltage designation code must be added. To determine the complete part number, choose the part number that satisfies your application from the Selection Table and then select the voltage required from the Voltage Designation chart and add it to the part number. EXAMPLE: Part number 5-Y-41433- \*- PD-Q + Voltage Designation Code 406 = Complete part number 5-Y-41433-406-PD-Q.

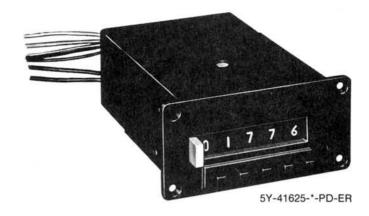
#### SELECTION TABLE:

No. of Figures	Voltage	Mounting	Model Number
5	24V DC	Panel	5-Y-41433-402-PD-Q
5	120V AC	Panel	5-Y-41433-406-PD-Q
5	240V AC	Panel	5-Y-41433-407-PD-Q
5	24V DC	Base	5-Y-41469-402-PD-Q
5	120V AC	Base	5-Y-41469-406-PD-Q
5	240V AC	Base	5-Y-41469-407-PD-Q
5	24V DC	Base	5-Y-41470-402-PD-Q
5	120V AC	Base	5-Y-41470-406-PD-Q
5	240V AC	Base	5-Y-41470-407-PD-Q

#### **DIMENSIONS:**



# SERIES " PD-ER " PREDERMINED ELECTRIC COUNTERS



The Durant PD-ER series of predetermined counters features electric reset models for even more control flexibility. The PD-ER models have all the outstanding features of the proven PD-Q, plus electric reset for remote operation.

PD-ER counters are five figure, true subtracting, electric predetermined counters that feature pushbutton operation of predetermined count settings. The predetermined count is set by holding the reset button in and then depressing the easy to operate pushbutton selectors under each figure. The unit subtracts, one count for each contact closure or impulse, and actuates a 4 amp, 250 VAC control output switch when zero is reached. The counter returns to the predetermined number when reset and is immediately ready to control the next lot or batch. Electric reset is ideal for those predetermined count applications where remote reset operation is required.

#### SPECIFICATIONS:

Count Speed: Figures: Mounting: Frame: Shaft: Finish:

Window: Weight Power Consumption: Switch Rating:

Count Coil: Reset Pulse (On Time): (Electric Reset Only) 1000 counts per minute .187 high x .109 wide Panel mounting Zinc alloy die cast Stainless steel

Dull instrument black with red reset button

Acrylic 17 oz.

Count coil 9 watts, reset coil 20 watts

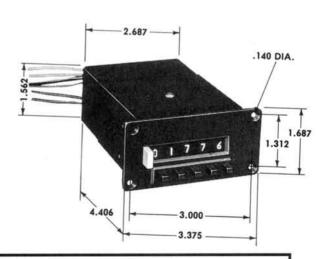
4 amps at 250 volts

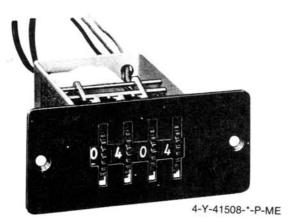
Count coils are designed for continuous duty at rated voltage 300 MS min. and .5 minutes maximum at 10% duty cycle

#### ORDERING INFORMATION:

When ordering Model PD-ER Series predetermined electric counters consider voltage requirement before determining a model number from the Selection Table.

No. of Figures	Voltage	Mounting	Model Number
5	24V DC	Panel	5Y-41625-402-PD-ER
5	120V AC	Panel	5Y-41625-406-PD-ER
5	240V AC	Panel	5Y-41625-407-PD-ER





# SERIES " P-ME " **PREDERMINED** ELECTRIC COUNTERS

P-ME counters are true subtract, predetermined miniature devices with a switch contact output for control purposes. Available in 2, 3, or 4 figures and most standard AC and DC voltages, the counters are ideal for business machines, medical instrumentation, test equipment and most inventory and production control applications.

#### SPECIFICATIONS:

Figures:

Count speed: Figure Size:

Frame:

Shaft:

**Exterior Finish:** Weight: Count Coil Power

Consumption: Switch Rating: 4 standard, 2 or 3 available on

special order

Up to 600 counts per minute
.093 wide, .156 high, white with
black background
Steel with cadmium and

dichromate finish Stainless steel

**Dull instrument black** 

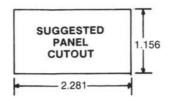
51/2 OZ

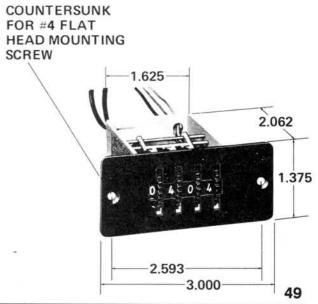
6 watts for DC operation — 6 watts for AC operation

5 amps resistive, 3 amps inductive at 28 VDC; 5 amps resistive or inductive at 120 VAC

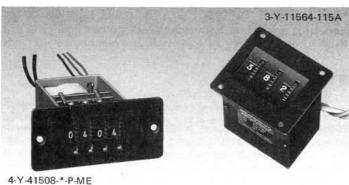
#### ORDERING INFORMATION:

No. of Figures	Voltage	Model Number
4	24V DC	4-Y-41508-402-P-ME
4	120V AC	4-Y-41508-406-P-ME
4	240V AC	4-Y-41508-407-P-ME





# SERIES "Y" PREDERMINED ELECTRIC COUNTERS



# model series

# Model "3-Y"

The Model 3-Y, three-figure, true subtracting electric counter is designed for applications where a different predetermined number is required after each operation. It subtracts from the preset number down to 000 where a SPDT switch is actuated. A dependable built-in higher capacity rectifier assures accurate counting at speeds up to 500 counts per minute.

#### SPECIFICATIONS:

Figures:

Speed: 500 cpm

Figure Size:

3/16" high, white on black background

Reset:

None

Frame: Mounting:

Die cast, zinc Panel mount

Finish:

Instrument Matte Black

Electrical

Connections:

5 wire leads, 9" long. AWG 20, stripped 3/8"

Switch Rating:

SPDT, 7 amps @ 115 VAC

Power Requirements:

6 watts

Coils:

Various popular voltages can be supplied on special order. Count

coils are designed for continuous duty at rated voltage.

#### SELECTION TABLE:

Model Number	Figures	Voltage	Preset	Mounting	Weight
3-Y-11564-115A	3	115VAC	Thumbwheels	Panel	12 oz.

# Model "Y-P-ME"

Y-P-ME counters are true subtract, predetermined miniature devices with a switch contact output for control purposes. Available in 2, 3, or 4 figures and most standard AC and DC voltages, the counters are ideal for business machines, medical instrumentation, test equipment and most inventory and production control applications.

#### ORDERING INFORMATION:

To determine a complete ordering number, the count coil voltage designation must be added to the part number.

**EXAMPLE:** 

Part Number 4-Y-41508-\*-P-ME

Count Coil Voltage Designation 406

Complete Ordering Number 4-Y-41508-406-P-ME Figures:

Weight:

Count Speed:

Figure Size:

Frame:

Shaft: Exterior Finish:

**Count Coil Power** Consumption:

Switch Rating:

2 16 2.000 32 16 1.937 9 16 (TYP.) 4-5 DIA. MTG. HOLES

Suggested Panel Cut-Out 2-5/16 x 1-5/8 132

#### SPECIFICATIONS:

4 standard, 2 or 3 available on special order

Up to 600 counts per minute

.093 wide, .156 high, white with

black background

Steel with cadmium and dichromate

finish

Stainless steel

Dull instrument black

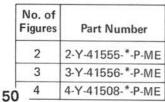
5½ oz.

3 watts for DC operation - 3.5

watts for AC operation

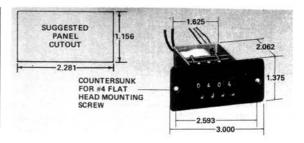
5 amps resistive, 3 amps inductive at 28 VDC; 5 amps resistive or in-

ductive at 120 VAC



No. of Figures	Part Number
2	2-Y-41555-*-P-ME
3	3-Y-41556-*-P-ME
4	4-Y-41508-*-P-ME

*/	OLTAGE D	ESIGN	ATION
Code	DC Voltage	Code	AC Voltage
400	6 VDC	406	120 VAC
401	12 VDC	407	240 VAC
402	24 VDC	408	24 VAC
403	48 V D C		
404	90 VDC		
405	110 VDC		





# SERIES " 3-Y " PREDERMINED ELECTRIC COUNTERS

The three-figure, true subtracting electric counter is designed for applications where a different predetermined number is required after each operation. It subtracts from the preset number down to 000 where a SPDT switch is actuated. When a new number is predetermined the one switch contact opens and the other contact closes. A dependable built-in higher capacity rectifier assures accurate counting at speeds up to 500 counts per minute.

#### SPECIFICATIONS:

Figures:

3

Speed:

500 cpm

Figure Size:

3/16" high, white on black background

Reset:

None

Frame:

Die cast, zinc Panel mount

Mounting: Finish:

Instrument Matte Black

Electrical

Connections: 5 wire leads, 9" long, AWG 20, stripped 3/8"

Switch

Rating:

SPDT, 7 amps @ 115 VAC

Power

Requirements: 6 watts

Coils:

Various popular voltages can be supplied on

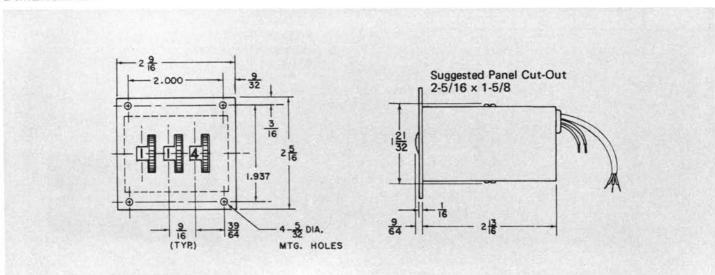
special order. Count coils are designed for contin-

uous duty at rated voltage.

#### SELECTION TABLE:

Model	Figures	Voltage	Preset	Mounting	Weight
3-Y-11564-115A	3	115VAC	Thumb wheels	Panel	12 oz.

#### **DIMENSIONS:**



#### ELECTRIC COUNTERS

Durant's line of electrically actuated counters includes a full range of dependable counting instruments, which give accurate counts at slow, fast or intermediate speeds. These counters are manufactured to exacting specifications and will give many years of dependable and trouble-free service under the most severe operating conditions.

#### **ELECTRIC COUNTERS**

Electric counters can be used for low or high-speed applications where it is impossible to get a drive-shaft connection or stroke-lever movement. An example is their use with a photo-electric control to count parts covered by wet paint or to count spot welds through a relay on a welder. Another distinct advantage is the ability to mount the counter remotely from the point of electric contact — away from all machine or parts movement in a centralized control system. Power requirements range from 3 to 15 watts depending on number of digits, count speed, duty cycle, and other design characteristics.

Electric counters are available with knob, pushbutton, or electric resets. Count speeds of Durant electric counters range from 600 to 800 cpm in large units to 1000 to 2400 cpm in standard electrics.

#### Series ME

Available in four, six or seven figures, Durant Mini-electric counters feature stainless steel, self-lubricating shafts, nylatron pinions to assure accurate, reliable, long life operation.

#### Series Y-RMF

The Series Y-RMF electric counters are designed to give accurate counts through a wide range of speeds up to 1000 cpm. It features a strong, silent, fast operating DC electromagnetic drive with a compact, dependable built-in higher capacity rectifier for AC operation. Entirely enclosed to prevent damage from moisture or dust. Available in six or seven figures.

#### Series Y-MF

Series 6-Y-1-MF are shaded pole electric counters with straight AC operation and feature a non-rectified, shaded pole coil designed to withstand transient, high voltage spikes. This feature, combined with a simplified hinged escapement drive, also eliminates the possibility of miscounts and greatly adds to the life of the counter.

#### Series YE

Series YE operates at speeds up to 2400 cpm DC and 1800 cpm AC (rectified), with reset time of 300 milliseconds, and features instant electric or pushbutton reset. Designed for high-speed installations on instrument and control systems, office machinery, data processing equipment, printing equipment, test equipment, wherever long-life and high count speeds are required.

#### Series 6-CS

This electric counter with a dependable built-in higher capacity rectifier and DC coil tallies at speeds up to 600 cpm. Available with either wing nut or tumbler lock reset. Extra large figure size permits good readability at a distance.

#### **Electric Counter Contactors**

The diversified Durant electric counter contactor family provides a count input device for all applications. The contactors can be used with all Durant electric and miniature electric counters.

# SERIES " Y-RMF " ELECTRIC COUNTERS



The Model "Y-RMF" Series of electric counters are designed to give accurate counts through a wide range of speeds up to 1000 cpm. It features a strong, silent, fast operating DC electromagnetic drive with a compact, dependable built-in higher capacity rectifier for AC operation. The counter has a minimum of moving parts that never need lubrication under normal operating conditions. Compact and rigid, it continues to operate dependably even when subject to severe shock and vibrations. Entirely enclosed to prevent damage from moisture or dust. Available in 6 or 7 figures.

#### **SPECIFICATIONS**

Figures: 6 or 7

Speed: Up to 1000 cpm. Figure Size: 3/16" high, white on

black background. Knob, key, or non-reset.

Mounting: Base, or panel mount.
Finish: Grey frame, matte black side covers.

Electrical
Connections: 2 wire leads, 9" long,

AWG 22, stripped 3/8"

Power

Reset:

Requirements: 7 watts.

Coils: Various voltages and frequencies can

be supplied on special order. Count coils are designed for continuous

duty at rated voltage.

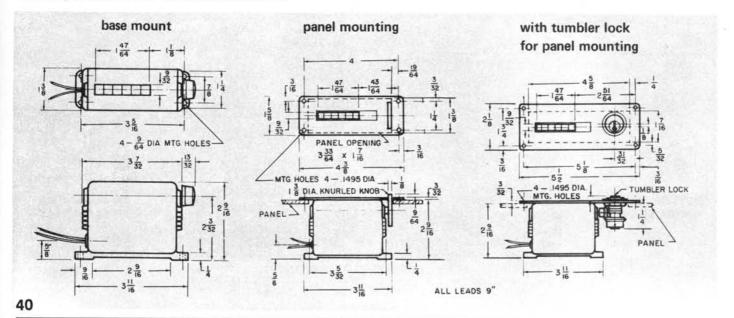
#### SELECTION TABLE

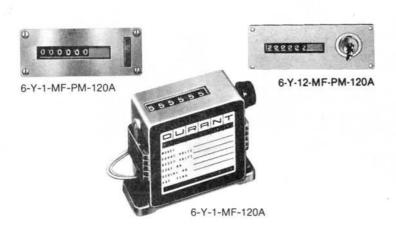
Model Number	Figures	Voltage	Reset	Mounting	Weight
6-Y-1-RMF-24A	6	24 VAC	Knob	Base	1 lb.
6-Y-1-RMF-115A <sup>(1)</sup>	6	115 VAC	Knob	Base	1 lb.
6-Y-1-RMF-PM-115A (1)	6	115 VAC	Knob	Panel	1 lb. 2 oz.
6-Y-1-RMF-230A	6	230 VAC	Knob	Base	1 lb.
6-Y-1-RMF-PM-230A	6	230 VAC	Knob	Panel	1 lb. 2 oz.
6-Y-12-RMF-PM-115A	6	115 VAC	Key (Lock)	Panel	1 lb. 8 oz.
6-Y-13-RMF-115A <sup>①</sup>	6	115 VAC	None	Base	1 lb.
6-Y-13-RMF-PM-115A <sup>①</sup>	6 7	115 VAC	None	Panel	1 lb. 2 oz.
7-Y-1-RMF-115A <sup>①</sup>	7	115 VAC	Knob	Base	1 lb.
7-Y-1-RMF-PM-115A <sup>①</sup>	7	115 VAC	Knob	Panel	1 lb. 2 oz.
7-Y-12-RMF-PM-115A	7	115 VAC	Key (Lock)	Panel	1 lb. 8 oz.
7-Y-13-RMF-115A <sup>①</sup>	7	115 VAC	None	Base	1 lb.
7-Y-13-RMF-PM-24D <sup>①</sup>	7	24 VDC	None	Panel	1 lb. 2 oz.
7-Y-13-RMF-PM-115A <sup>①</sup>	7	115 VAC	None	Panel	1 lb. 2 oz.

<sup>&</sup>lt;sup>①</sup> U.L. recognized counter

#### ORDERING INSTRUCTIONS

When ordering Model "Y-RMF" electric counters consider - number of figures, voltage, type of reset, and type of mounting before determining a model number from the selection table.





# SERIES " Y-MF " ELECTRIC COUNTERS

Model "6-Y-1-MF" Series are shaded pole electric counters with straight AC operation and feature a non-rectified, shaded pole coil designed to withstand transient, high voltage spikes. This feature, combined with a simplified, hinged escapement drive, also eliminates the possibility of miscounts and greatly adds to the life of the counter. Tallies at speeds up to 750 cpm.

#### **SPECIFICATIONS**

Figures:

6 or 7

Speed:

Up to 750 cpm.

Figure Size:

3/16" high, white on brown background

Reset: Mounting: Knob, key, or non-reset Base or panel mount

Finish:

Grey frame, matte black side covers

Electrical

Connections: 2 wire leads, 9" long, AWG 22, stripped 3/8"

Power

Requirements: 12 watts

Coils:

Various AC voltages and frequencies can be sup-

plied on special order. Count coils are designed

for continuous duty at rated voltage.

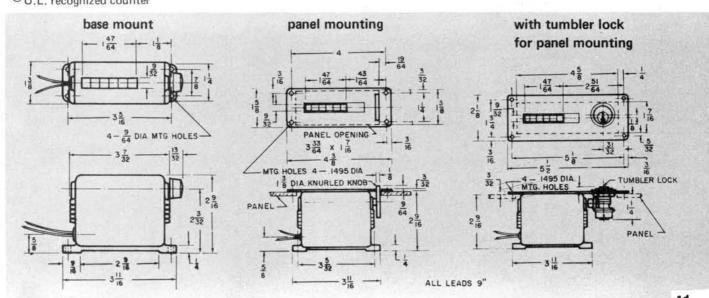
#### ORDERING INFORMATION:

When ordering Model "Y-MF" electric counters consider - number of figures, voltage, type of reset, and type of mounting before determining a model number from the selection table.

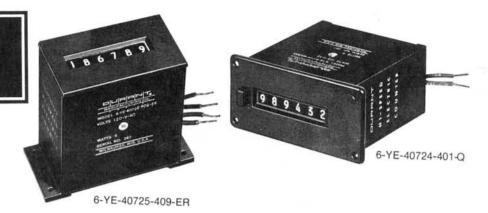
#### SELECTION TABLE

Model Number	Figures	Voltage	Reset	Mounting	Weight
6-Y-1-MF-120A (1)	6	120 VAC	Knob	Base	1 lb.
6-Y-1-MF-PM-120A <sup>(1)</sup>	6	120 VAC	Knob	Panel	1 lb. 2 oz.
6-Y-12-MF-PM-120A <sup>①</sup>	6	120 VAC	Key(Lock)	Panel	1 lb. 8 oz
6-Y-13-MF-120A <sup>①</sup>	6	120 VAC	None	Base	1 lb.
7-Y-1-MF-120A <sup>①</sup>	7	120 VAC	Knob	Base	1 lb.
7-Y-12-MF-PM-120A <sup>①</sup>	7	120 VAC	Key(Lock)	Panel	1 lb. 8 oz

OU.L. recognized counter



# SERIES " YE " ELECTRIC COUNTERS



The "YE" series operates at speeds up to 2400 cpm DC and 1800 cpm AC (rectified), with reset time of 300 milliseconds, and features instant electric or pushbutton reset. Dependable high capacity built in rectifier for AC operation, these compact and extremely rugged models are available for base or panel mounting providing permanent tamperproof installation. Can be reset under power or when the counting coil is energized.

Designed for high-speed installations on instrument and control systems, office machinery, data processing equipment, printing equipment, test equipment, wherever long-life and high count speeds are required.

#### **SPECIFICATIONS**

Figures:

6

Speed: Up to 2400 cpm DC voltage

Up to 1800 cpm AC voltage

Figure Size:

3/16" high, white on black background

Reset:

Electric, pushbutton, or non-reset Panel or base mount

Mounting: Finish:

Instrument matte black

Electrical

Connections: Wire leads, 10" long. AWG 22, stripped 3/8"

Power

Requirements: 9 watts for counting, 20 watts for reset

Coils:

Various voltage and frequencies available on special order. Count coils are designed for continuous duty at rated voltage. Reset coils are

designed for intermittent duty only.

#### ORDERING INSTRUCTIONS:

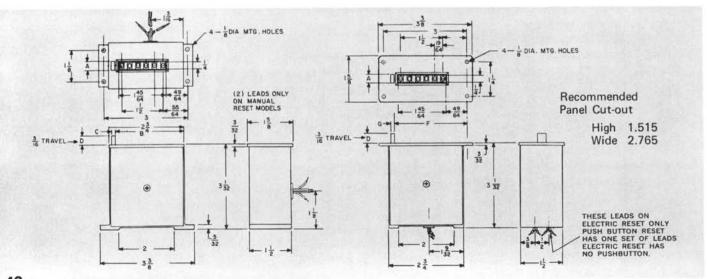
When ordering Model "YE" counters electric counters consider - voltage, type of reset, and type of mounting before determining a model number from the selection table.

#### **SELECTION TABLE:**

Model Number	Figures	Voltage	Reset	Mounting	Weight
6-YE-40724-400-ER <sup>①</sup>	6	120VAC @	Electric	Panel	1 lb.
6-YE-40724-401-Q ①	6	120VAC @	Pushbutton	Panel	12 oz.
6-YE-40724-404-ER	6	24VDC	Electric	Panel	1 lb.
6-YE-40724-410-Q	6	28VDC	Pushbutton	Panel	1 lb.
6-YE-40724-412-Q	6	24VDC	Pushbutton	Panel	12 oz.
6-YE-40724-413-ER	6	28VDC_	Electric	Panel	1 lb.
6-YE-40725-400-ER <sup>①</sup>	6	120VAC <sup>®</sup>	Electric	Base	1 lb.
6-YE-40725-401-Q	6	120VAC@	Pushbutton	Base	12 oz.
6-YE-40990-400-NR <sup>®</sup>	6	120VAC @	None	Panel	1 lb.

O U.L. recognized counter.

② AC rated counters operate at 50 Hz or 60 Hz.





# SERIES " 6-CS " **ELECTRIC COUNTERS**

This electric counter with a dependable built-in higher capacity rectifier and DC coil tallies at speeds up to 600 cpm. Available with either wing nut or tumbler lock reset. Extra large figure size permits good readability at a distance. The simplified drive mechanism resulting from the use of the DC coil assures maximum count life. It is enclosed to make it moisture and dust resistant.

#### **SPECIFICATIONS**

Figures:

Speed:

Up to 600 cpm.

Figure Size:

11/32" high, white on black background.

Reset:

Wing nut or key reset standard.

Mounting:

Base or panel mount.

Finish:

Grey frame, matte black side covers.

Electrical

Connections: Wire leads, 6" long, AWG 22, stripped 3/8".

Power

Requirements: 12 watts.

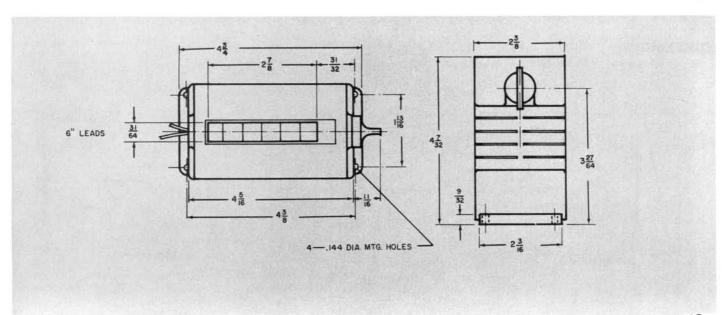
Coils:

Count coils are designed for continuous duty at

rated voltage.

#### **SELECTION TABLE**

Model Number	Figures	Voltage	Reset	Mounting	Weight
6-CS-1-RMF-115A	6	115 VAC	Wing Nut	Base	3 lb. 1 oz.
6-CS-12-RMF-115A	6	115 VAC	Key (Lock)	Base	3 lb. 4 oz.



#### ELECTRIC COUNTERS

Durant's line of electrically actuated counters includes a full range of dependable counting instruments, which give accurate counts at slow, fast or intermediate speeds. These counters are manufactured to exacting specifications and will give many years of dependable and trouble-free service under the most severe operating conditions.

#### **ELECTRIC COUNTERS**

Electric counters can be used for low or high-speed applications where it is impossible to get a drive-shaft connection or stroke-lever movement. An example is their use with a photo-electric control to count parts covered by wet paint or to count spot welds through a relay on a welder. Another distinct advantage is the ability to mount the counter remotely from the point of electric contact — away from all machine or parts movement in a centralized control system. Power requirements range from 3 to 15 watts depending on number of digits, count speed, duty cycle, and other design characteristics.

Electric counters are available with knob, pushbutton, or electric resets. Count speeds of Durant electric counters range from 600 to 800 cpm in large units to 1000 to 2400 cpm in standard electrics.

#### Series ME

Available in four, six or seven figures, Durant Mini-electric counters feature stainless steel, self-lubricating shafts, nylatron pinions to assure accurate, reliable, long life operation.

#### Series Y-RMF

The Series Y-RMF electric counters are designed to give accurate counts through a wide range of speeds up to 1000 cpm. It features a strong, silent, fast operating DC electromagnetic drive with a compact, dependable built-in higher capacity rectifier for AC operation. Entirely enclosed to prevent damage from moisture or dust. Available in six or seven figures.

#### Series Y-MF

Series 6-Y-1-MF are shaded pole electric counters with straight AC operation and feature a non-rectified, shaded pole coil designed to withstand transient, high voltage spikes. This feature, combined with a simplified hinged escapement drive, also eliminates the possibility of miscounts and greatly adds to the life of the counter.

#### Series YE

Series YE operates at speeds up to 2400 cpm DC and 1800 cpm AC (rectified), with reset time of 300 milliseconds, and features instant electric or pushbutton reset. Designed for high-speed installations on instrument and control systems, office machinery, data processing equipment, printing equipment, test equipment, wherever long-life and high count speeds are required.

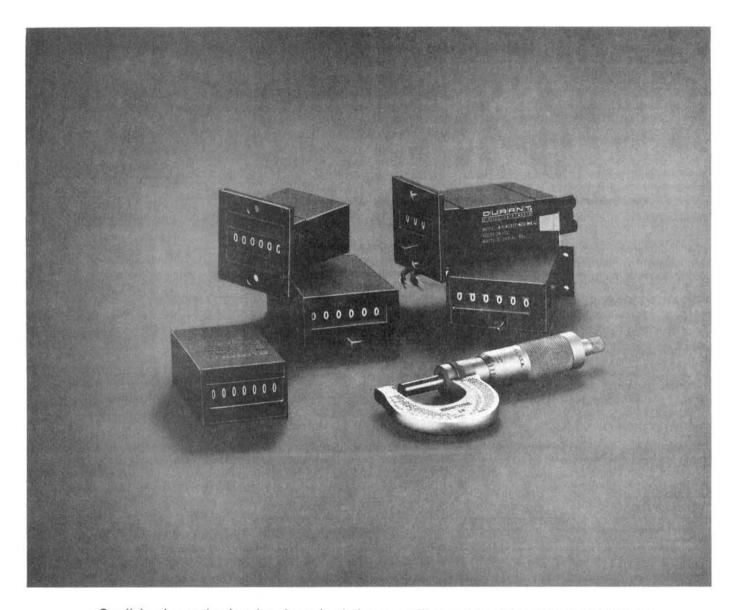
#### Series 6-CS

This electric counter with a dependable built-in higher capacity rectifier and DC coil tallies at speeds up to 600 cpm. Available with either wing nut or tumbler lock reset. Extra large figure size permits good readability at a distance.

#### **Electric Counter Contactors**

The diversified Durant electric counter contactor family provides a count input device for all applications. The contactors can be used with all Durant electric and miniature electric counters.

### **MINIATURE** ELECTRIC COUNTERS

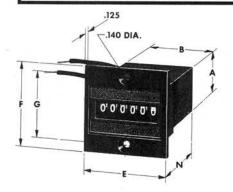


Small in size and price, but large in design versatility and model variety is the Durant miniature electric counter family. Twenty basic models in most popular AC or DC voltages operate on as little as 3 Watts, with the non-reset models measuring only 1" x 1.593" x 2.187" and weigh just three ounces.

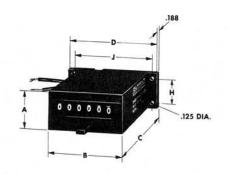
Available in 4, 6, or 7 figures the counters feature stainless steel self-lubricating shafts. nylatron pinions, and a synchronous electromagnetic drive to assure accurate, reliable, long life operation. Designed for mounting flexibility and aesthetic attractiveness, the miniature electric counters are available with four types of mounting and a glare retarding finish Delrin, with crisp easy to read numerals set close to a tamper-proof sealed figure window. Most models are available in non-reset, pushbutton reset, and the new electric reset versions.

A plug-in mounting accessory permits side-by-side installation for limited panel space applications. Wire leads and plug-in pin termination are standard, solder lug terminals are optional.

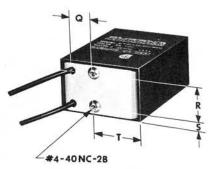
# MINIATURE ELECTRIC COUNTERS





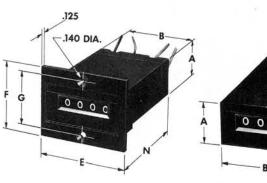


**BASE MOUNTED** 



MAXIMUM ENGAGEMENT OF HOUSING SCREW INTO FRAME - 3/32"

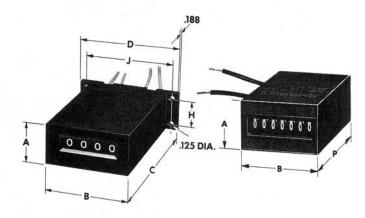
BOTTOM MOUNTING



ELECTRIC RESET PANEL MOUNTED



ELECTRIC RESET BOTTOM MOUNTING



ELECTRIC RESET BASE MOUNTED

BOTTOM MOUNTED

4 FIGURE
PUSHBUTTON
RESET COUNTERS

Dimension	
A.	1.00"
В.	1.60"
C.	2.64"
D.	2.19"
E.	1.80"
F.	1.80"
G.	1.40"
H.	.69"
J.	1.88"
K.	.50"
L.	.49"
M.	.94"
N.	2.45"
P.	2.45"
Q.	.45"
R.	.63"
S.	.19"
T.	.88"

4 FIGURE ELECTRIC RESET COUNTERS

Dimension	1
A.	1.00"
B.	1.97"
C.	2.95"
D.	2.56"
E.	2.25"
F.	1.80"
G.	1.40"
Н.	.69"
J.	2.25"
N. (DC Voltage)	2.45"
N. (AC Voltage)	2.95"
P. (DC Voltage)	2.45"
P. (AC Voltage)	2.95"
R.	.63"
S.	.19"
Т.	.98"

6 FIGURE PUSHBUTTON RESET COUNTERS

HEGET COCKTENS		
Dimension	1	
Α.	1.00"	
В.	1.97"	
C.	2.64"	
D.	2.56"	
E.	2.25"	
F.	1.80"	
G.	1.40"	
H.	.69"	
J.	2.25"	
K.	.50"	
L.	.49"	
M.	.94"	
N.	2.45"	
P.	2.45"	
Q.	.45"	
R.	.63"	
S.	.19"	
T.	.98"	

RECOMMENDED PANEL MOUNT CUT OUTS

4 Figure Counters		
Pushbutton reset	Electric reset	
1.72" x 1.11"	2.09" x 1.11"	
30		

6 Figure C	Counters
Pushbutton reset	Non-reset
2.09" x 1.11"	1.72" x 1.11"

#### ALL NON-RESET

COUNTERS

Dimension	1
A.	1.00"
В.	1.60"
C.	2.38"
D.	2.19"
E.	1.80"
F.	1.80"
G.	1.40"
Н.	.69"
J.	1.88"
K.	.50"
L.	.49"
M.	.94"
N.	2.19"
P.	2.19"
Q.	.45"
R.	.63"
S.	.19"
T.	.88"

/ Figure (	
Non-	reset
1.72"	x 1.11"

# MINIATURE ELECTRIC COUNTERS

#### SPECIFICATIONS:

Figures:

4.6 and 7

Speed:

Up to 1000 cpm.

Figure Size:

3/16" high

Reset:

Electric, pushbutton, and non-reset

Reset Force: Pushbutton models only, 20 oz. maximum

Mounting: Finish:

Black self-extinguishing plastic

Base, bottom, panel and plug-in pin

Electrical

Connections: Wire leads, 10" long, AWG 20, stripped 3/8"; and

pin terminals

Power

Requirements: Count coil 3 watts, reset coil 6 watts

Coils:

Count coils are designed for continuous duty at

rated voltage. Reset coils are designed for inter-

mittent duty only.

#### ORDERING INFORMATION:

The part numbers listed in the selection table are incomplete. The voltage designation code must be added. To determine the complete part number: choose the part number that satisfies your application from the Selection Table then choose the voltage required from the Voltage Designation chart and add it to the part number

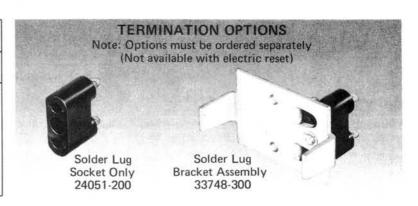
EXAMPLE: Part number 4-Y-41312-\*-ME-Q + Voltage Designation Code 402 = Complete Part Number 4-Y-41312-402-ME-Q

#### SELECTION TABLE:

NO. OF FIGURES	TYPE OF RESET	BOTTOM MOUNT WIRE LEADS	BASE MOUNT WIRE LEADS	PANEL MOUNT WIRE LEADS	PLUG-IN MOUNT PIN TERMINALS	PANEL MOUNT PIN TERMINALS
4	Pushbutton	4-Y-41312-* -ME-Q	4-Y-41313-*-ME-Q	4-Y-41314-*-ME-Q	4-Y-41315-*-ME-Q	4-Y-41317-*-ME-Q
4	Electric	4-Y-41482-*-ME-ER	4-Y-41483-*-ME-ER	4-Y-41484-*-ME-ER	N/A	N/A
6	Pushbutton	6-Y-41321-*-ME-Q	6-Y-41322-*-ME-Q	6-Y-41323-*-ME-Q	6-Y-41325-*-ME-Q	6-Y-41326-*-ME-Q
6	Non-Reset	6-Y-41119-*-ME	6-Y-41345-*-ME	6-Y-41346-*-ME	6-Y-41347-*-ME	6-Y-41348-*-ME
7	Non-Reset	7-Y-41238-*-ME	7-Y-41337-*-ME	7-Y-41349-*-ME	7-Y-41350-*-ME	7-Y-41351-*-ME

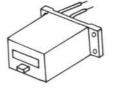
<sup>\*</sup> Add voltage code

* VOLTAGE DESIGNATION			
CODE	DC VOLTAGE	CODE	AC VOLTAGE
400	6V DC	406	120V AC
401	12V DC	407	240V AC
402	24V DC	408	24V AC
403	48V DC		
404	90V DC		
405	110V DC		





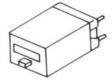
**BOTTOM MOUNT** WIRE LEADS



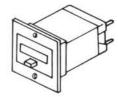
BASE MOUNT WIRE LEADS



PANEL MOUNT WIRE LEADS



PLUG-IN MOUNT **PIN TERMINALS** 



PANEL MOUNT **PIN TERMINALS**