Simpson®

MADE IN THE USA SINCE 1936 | RELIABILITY BEYOND MEASURE

S661 Preset Rate Counter
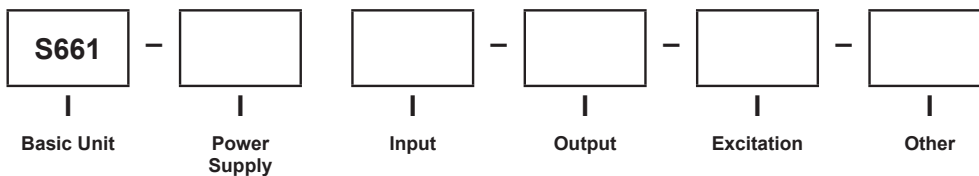

File# E199939 CE UL cUL

- **Easily programmed from the front panel**

- **Remote reset capability**

- **Input variety:**
  Quadrature, Switch, TTL, CMOS, NAMUR, PNP, NPN

- **Software functions include:**
  Password
  Display Scaling
  Set Point Programming
  Decimal Point Selection

- **5A Relay Outputs**

- **Optional 12DCV Excitation**

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S661 Preset Rate Counter

Ordering Information

S661	–			–		–		–	

Basic Unit	Power Supply	Input	Output	Excitation	Other

Select From Each One Below	
Basic Unit	
	S661
Power Supply	
1	**120 ACV**
2	**240 ACV**
Input	
1	**Standard**
2	**Quadrature**
Output	
0	**None**
1	**One Relay**
2	**Two Relays**
Excitation	
0	**None**
1	**12DCV (100mA Max Current)**
Other	
0	**None**

Rev. 03-25-15

S661 Preset Rate Counter

Specifications

DISPLAY

Type	6-digit, 7-segment, red LED
Height	0.56" (14.2mm)
Decimal Point	User-programmable
Count Direction	"+" indication implied, "-" indication displayed
Display Range	-99,999 to +999,999
Output Indicators	1 and 2

POWER REQUIREMENTS

AC Voltages	120 or 240VAC, ±10%
Power Consumption	3VA

INPUT RATINGS

Current Sinking	10KΩ 5% Resistor pull-up to (9.0 - 16DCV) ±10%
Current Sourcing	5.1KΩ 5% Resistor pull-down to common
Minimum Pulse Width	~5µs
Low Pass Filter	<200Hz
Low Bias	VLT = 1.6V ±10% VUT = 3.6V ±10%
High Bias	VLT = 5.0V ±10% VUT = 7.0V ±10%
Count Rate	20KHz (Pulse Max) 5KHz (Quadrature X4 Max)
Maximum Voltage Input A,B, and User	30DCV (Max)
User Input	VLT ≤ 0.9DCV, VUT = 3.15DCV (max) (Display Hold) Display is frozen when the User Input is pulled low

ENVIRONMENTAL

Operating Temperature	0°C to +40°C
Storage Temperature	-10°C to +60°C
Relative Humidity	0 to 80% non-condensing for temperatures less than 32°C, decreasing linearly to 50% at 40°C
Ambient Temperature	25°C
Temp. Coefficient (per °C)	±100ppm/°C
Warm-up Time	15 minutes

MECHANICAL

Bezel	3.93" x 2.04" x .52" (99.8mm x 51.8mm x 13.2mm)
Depth	3.24" (82.3mm)
Panel Cutout	3.62" x 1.77" (92mm x 45mm)
Case Material	PBT-ABS
Weight	9oz (255.1g)

Typically used in applications involving speed, the S661 rate counter is capable of counting in four different time modes; hours, minutes, seconds, and seconds/thousand (msec).

The msec rate mode increases the frequency resolution to .001Hz within the range from 1 to 999.999Hz.

S661 Preset Rate Counter

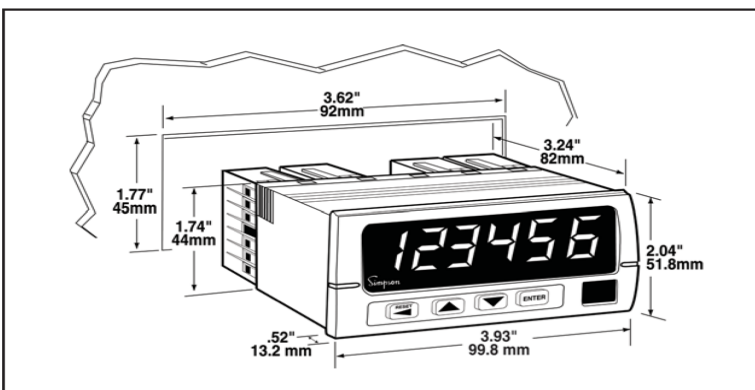| Mode	Range (implied scale	Typical Update Period	Min. Input Frequency	Max. Input Frequency	Display Resolution
0	MSec (Hz x 1000)	1.0 sec	1 Hz	30 KHz	0.001 Hz
1	Sec (Hz)	0.5 sec	2 Hz	30 KHz	1 Hz
2	Min (Hz x 60)	3 sec	20 Counts / Min	1.2 Million Counts / Min	1 Pulse per Minute
3	Hr (Hz x 3600)	90 sec	40 Counts / Hr	3.0 Million Counts / Hr	1 Pulse per Hour

Mounting Requirements -

The S661 series 1/8 DIN counters require a panel cutout of 1.77" (45mm) high by 3.62" (92mm) wide.

To install the counter into a panel cutout, remove the clips from the side of the meter.

Slide the meter through your panel cutout, then slide the mounting clips back on the meter.

Press evenly to ensure a proper fit.

Dimensions

Accessories available for the S661

Chariot

The Chariot is used to mount most cube-style quadrature encoders and measuring wheels. Made of anodized aluminum, the chariot includes mounting hardware and selectable pivotal points. Wheels, tires, and flexible shaft couplings are sold separately.
Catalog No. 46012

Flexible Shaft Couplings

The one-piece flexible coupling connects the shaft of a cube-style encoder to an ancillary equipment shaft without worry of misalignment of rotary frequency. The coupling ensures minimum windup, minimum rotary oscillation, and no hysteresis.

Coupling: For connecting an encoder to a 3/8" shaft.   **Catalog No. 46002**

Coupling package: For connecting an encoder to 1/4" or 5/16" diameter shaft.
Package includes: One flexible coupling (1/2" I.D.) and three reducing inserts (1/4", 5/16", 3/8").
Catalog No. 46003

Tire Durometer

A Simpson 12" circumference anodized aluminum measuring wheel is the right choice to complete the setup of a length measurement system.

Whether the application requires one or two, Simpson's measuring wheels will perform accurately and reliably throughout the measuring process.

Also included on the measuring wheel is a printed alignment scale which assists in the installation and measurement of the length measurement system.

Simpson offers four replaceable durometer tires that consist of a black tire that has a longer life span and three non marking tires. The three non marking tires are for delicate materials such as plastics, textiles, wood, metal and paper to prevent tearing, damage or marking of delicate materials.

80A, black tire; longer service life for plastics, metals. **Catalog No. 46004**

83A, non-marking tire for textiles, medium textures. **Catalog No. 46005**

92A, non-marking tire for plastics, metals, coarse wood. **Catalog No. 46006**

70A, non-marking tire for soft textiles. **Catalog No. 46007**

5 Feet Cable Assembly **Catalog No. 46013**

10 Feet Cable Assembly **Catalog No. 46014**

15 Feet Cable Assembly **Catalog No. 46015**

Rev. 03-25-15

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

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