

## ***S661 Preset Rate Counter***

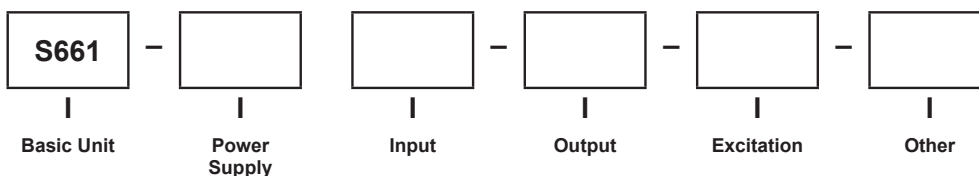


File# E199939 CE UL c UL

- 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

## S661 Preset Rate Counter

### Ordering Information



| 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                      |

## S661 Preset Rate Counter

| Specifications                      |                                                                                                               |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>DISPLAY</b>                      |                                                                                                               |
| 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                                                                                                       |
| <b>POWER REQUIREMENTS</b>           |                                                                                                               |
| AC Voltages                         | 120 or 240VAC, $\pm 10\%$                                                                                     |
| Power Consumption                   | 3VA                                                                                                           |
| <b>INPUT RATINGS</b>                |                                                                                                               |
| Current Sinking                     | 10K $\Omega$ 5% Resistor pull-up to (9.0 - 16DCV) $\pm 10\%$                                                  |
| Current Sourcing                    | 5.1K $\Omega$ 5% Resistor pull-down to common                                                                 |
| Minimum Pulse Width                 | $\sim 5\mu s$                                                                                                 |
| Low Pass Filter                     | <200Hz                                                                                                        |
| Low Bias                            | VLT = 1.6V $\pm 10\%$ VUT = 3.6V $\pm 10\%$                                                                   |
| High Bias                           | VLT = 5.0V $\pm 10\%$ VUT = 7.0V $\pm 10\%$                                                                   |
| Count Rate                          | 20KHz (Pulse Max) 5KHz (Quadrature X4 Max)                                                                    |
| Maximum Voltage Input A,B, and User | 30DCV (Max)                                                                                                   |
| User Input                          | VLT $\leq 0.9$ DCV, VUT = 3.15DCV (max)<br>(Display Hold) Display is frozen when the User Input is pulled low |
| <b>ENVIRONMENTAL</b>                |                                                                                                               |
| 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)          | $\pm 100$ ppm/°C                                                                                              |
| Warm-up Time                        | 15 minutes                                                                                                    |
| <b>MECHANICAL</b>                   |                                                                                                               |
| 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<br>(implied scale) | Typical<br>Update Period | Min. Input<br>Frequency | Max. Input<br>Frequency  | Display<br>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 -

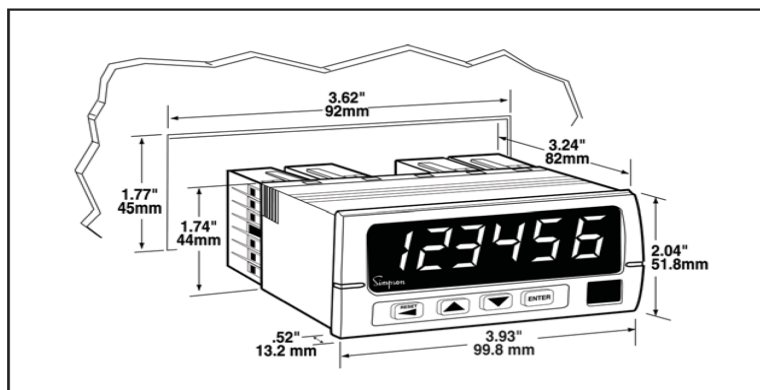
The S661 series 1/8 DIN counters require a panel cutout of 1.77" (45mm) high by 3.62" (92mm) wide.

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



## S661 Preset Rate Counter

### 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**