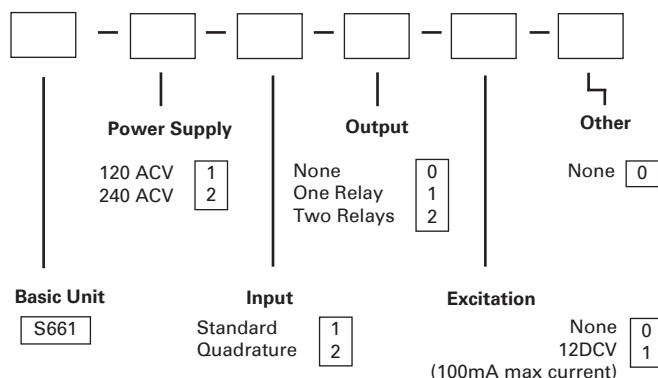# S661 Preset Rate Counter

Simpson

Specifications

- **Easily programmed from the front panel**

- **Remote reset capability**

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

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

- **Optional 12DCV Excitation**

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, 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)

INPUT

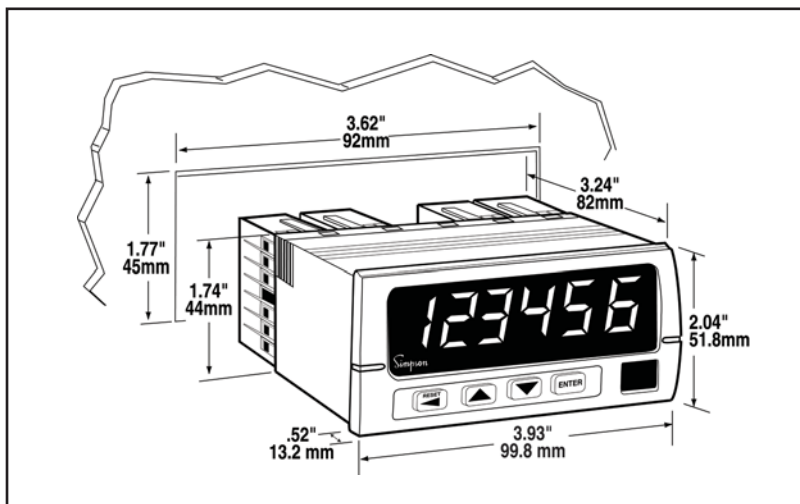|	
User Input	(Display Hold) Display is frozen when the User Input is pulled low.
Standard Input	VLT ≦0.2DCV guaranteed low, VUT = 3.0DCV (max)
Quadrature Input	VLT ≦ 0.9DCV VUT =3.15DCV (max)

ENVIRONMENTAL

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

Ordering Information

☐	☐	☐	☐	☐	☐

Basic Unit

| S661 | |

Power Supply

| 120 ACV | 1 |
| 240 ACV | 2 |

Input

| Standard | 1 |
| Quadrature | 2 |

Output

None	0
One Relay	1
Two Relays	2

Excitation

None	0
12DCV	1
(100mA max current)	

Other

| None | 0 |

Mode	Range (implied scale)	Typical Update Period	Min. Input Frequency	Max. Input Frequency	Display Resolution
0	MSec (Hz x 1000)	1.0 sec	1Hz	30KHz	0.001Hz
1	Sec (Hz)	0.5 sec	2Hz	30KHz	1Hz
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

Dimensions - S660, S661, S662, S663, S664

Accessories

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.

A Simpson 12" 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.

Description	Catalog No.
Coupling: For connecting an encoder to a 3/8" shaft	46002
Coupling package: For connecting an encoder to 1/4" or 5/16" diameter shaft*	46003

*Package includes: One flexible coupling (1/2" I.D.) and three reducing inserts (1/4", 5/16", 3/8").

Tire Durometer	Catalog No.
80A, black tire; longer service life for plastics, metals	46004
83A, non-marking tire for textiles, medium textures	46005
92A, non-marking tire for plastics, metals, coarse wood	46006
70A, non-marking tire for soft textiles	46007