The S660 is a versatile totalizing counter that can be adapted to a wide variety of counting, measuring and controlling applications.

The control inputs offer several counter operation modes: Count/direction, add/add, add/subtract, subtract/subtract, quadrature and reverse quadrature.

Optional relay outputs enhance the counter from a passive device to an integral control element for your application.
### Ordering Information

<table>
<thead>
<tr>
<th>Basic Unit</th>
<th>Power Supply</th>
<th>Input</th>
<th>Output</th>
<th>Excitation</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>S660</td>
<td></td>
<td></td>
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</table>

#### Select From Each One Below

<table>
<thead>
<tr>
<th>Basic Unit</th>
<th>Power Supply</th>
<th>Input</th>
<th>Output</th>
<th>Excitation</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>S660</td>
<td>1 120 ACV</td>
<td>1</td>
<td></td>
<td></td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>2 240 ACV</td>
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<td></td>
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<td></td>
<td></td>
<td>0 None</td>
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</tr>
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<td></td>
<td></td>
<td>1 One Relay</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 Two Relays</td>
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</tr>
<tr>
<td></td>
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<td>0 None</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 12DCV (100mA Max Current)</td>
<td>None</td>
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</tbody>
</table>

### S660 Preset

Totalizer Counter

Rev. 03-25-15
### 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)
Mounting Requirements -

The S660 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 S660

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