The Mini-Gen® signal generator mounts on the transmissions of buses and trucks to measure road speed or on diesel engines to measure engine speed.

Features:
- Mounts on standard SAE \( \frac{7}{8} \)-18, General Motors, and E1 & E2 DIN 75 532 tachometer outputs
- Non-feed thru models come standard with \( \frac{1}{4} \)“ male tab
- Compact, only 1\( \frac{1}{4} \)“ in diameter
- Long, reliable life under continuous speeds as high as 4000 RPM
- Usable signal at speeds below 20 RPM (10 Hz)
- Output signal frequency \( \frac{1}{2} \) of shaft RPM
- Rugged zinc die cast construction
- Heavy duty, two-conductor cable on feed-thru models
- Plated for protection against moisture, salt and dirt
- Environmentally sealed
- Optional connectors available
- Patented design

Signal Generator Output:

Mini-Gen Timing:

Sinusoidal Output @ 1000 RPM
(Mini-Gen shaft speed) = 500 Hz
1. Voltage output = 25 V peak (RMS = 17.7 volts)
2. Timing between zeroes = 1 millisecond
3. Timing between periods = 2 milliseconds
Timing variation between zero crossing = 7%
**Mini-Gen® Signal Generator**

**RUGGED CONSTRUCTION**

- HI-TEMP SHIELDING CABLE
- ZINC DIE-CAST HOUSING
- "O" SHAFT SEAL
- HOUSING GASKET SEAL
- "O" RING SEAL
- SHAFT CUP SEAL
- NICKEL PLATED MALE DRIVE TANG

**Electrical Specifications:**
- Output (37 GA) (No Load) 1750 RPM
- Minimum: 25 VRMS
- Maximum: 55 VRMS
- Resistance (37 GA) 210 ohms +15%
- Hi Pot 600 VDC
- 60 Pole Magnet 4000 RPM maximum
- Consult factory for high RPM applications and alternate coil construction for higher output.

**Mechanical Specifications:**
- Operating Temperature -40°F to +225°F (-40°C to +107°C)
- Thread Torque 15 ft. lbs (20.3 Nm) maximum
- Lead Pull Test (feed-thru) 10 lbs (44.5 N) maximum
- Vibration 20 G’s at 5-2000 Hz
- Mechanical Shock Withstands 3 drops to concrete from 3 feet
- Environmental Exposure to moisture, salt, fuel oil, lubricants, or transmission fluid will not degrade performance or shorten life

**Specifications are for reference only.**
e-mail: info_niles@woodward.com
Mini-Gen® Signal Generator

Three Mounting Drives
The Mini-Gen's non-feed thru or feed thru mounting styles permit its use with practically any engine, transmission, tachometer or speedometer manufactured throughout the world.

1. SAE Mounting

MGO
Non-feed Thru Mounting End
SA-2650A

MGO-1
Feed Thru Mounting End
SA-2652A

2. General Motors Engine Mounting

MGW
Non-feed Thru Mounting End
SA-2772A

3. Metric Mounting

MGJ
Non-feed Thru Mounting End
SA-2888A – M22 x 1.5
SA-2885A – M18 x 1.5

MGJ-L
Feed Thru Mounting End
SA-2763A – M22 x 1.5

phone: 847-967-7730
**Mini-Gen® Signal Generator**

**Drive Tangs** Nickel plated, round or square drive tangs for use with SAE mounting Mini-Gens. To select appropriate drive tang, match Dimension “A” from mounting drive diagram with Part No. from charts below.

**Order Information:**

<table>
<thead>
<tr>
<th>Mounting Drive</th>
<th>Drive Designation</th>
<th>Mounting Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA-2650A SAE 1/2-18</td>
<td>MGO</td>
<td>Non-feed thru</td>
</tr>
<tr>
<td>SA-2652A SAE 3/4-18</td>
<td>MGO-1</td>
<td>Feed thru</td>
</tr>
<tr>
<td>SA-2731A General Motors</td>
<td>MGY</td>
<td>Non-feed thru</td>
</tr>
<tr>
<td>SA-2772A General Motors</td>
<td>MGW</td>
<td>Non-feed thru (large ring)</td>
</tr>
<tr>
<td>SA-2685A Metric (M22x1.5)</td>
<td>MGJ</td>
<td>Non-feed thru</td>
</tr>
<tr>
<td>SA-2888A Metric (M18x1.5)</td>
<td>MGJ</td>
<td>Non-feed thru</td>
</tr>
<tr>
<td>SA-2763A Metric (M22x1.5)</td>
<td>MGJ-1</td>
<td>Feed thru</td>
</tr>
</tbody>
</table>

**Square Drive Tangs**

<table>
<thead>
<tr>
<th>ORDER NO.</th>
<th>Male</th>
<th>Female</th>
<th>Dimensions “A” (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA-2676</td>
<td>SA-2635</td>
<td>.104” (2.64)</td>
<td></td>
</tr>
<tr>
<td>SA-2633</td>
<td>SA-2639</td>
<td>.150” (3.81)</td>
<td></td>
</tr>
<tr>
<td>SA-2634</td>
<td>SA-2640</td>
<td>.193” (4.90)</td>
<td></td>
</tr>
</tbody>
</table>

**Round Drive Tangs**

<table>
<thead>
<tr>
<th>ORDER NO.</th>
<th>Male</th>
<th>Female</th>
<th>Dimensions “A” (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA-2677</td>
<td>SA-2636</td>
<td>.152” (3.86)</td>
<td></td>
</tr>
<tr>
<td>SA-2678</td>
<td>SA-2637</td>
<td>.187” (4.75)</td>
<td></td>
</tr>
<tr>
<td>SA-2679</td>
<td>SA-2638</td>
<td>.203” (5.16)</td>
<td></td>
</tr>
<tr>
<td>SA-2672</td>
<td>SA-2622</td>
<td>.187” (4.75) Extended</td>
<td></td>
</tr>
</tbody>
</table>

**Metric Drive Tangs**

<table>
<thead>
<tr>
<th>ORDER NO.</th>
<th>Termination Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA-2962</td>
<td>Male E2 DIN 75 532</td>
</tr>
<tr>
<td>SA-2961</td>
<td>Female E2 DIN 75 532</td>
</tr>
</tbody>
</table>

**Drive Tang Option:** For use on SAE mounting drives only (MGO, MGO-1)

**Note:** Non-feed thru models come standard with 1/4” male tab. Lead wire with connector is available as an option.

e-mail: info_niles@woodward.com