# NID-1100
# Rotor Speed Simulator

## Features

- Easy to use, menu-driven operation
- Simulates various RPM sensors output
- Manual and Automatic Operating Modes
- Output Range: 1.0 RPM to 60.000 RPM
- RPM Tachometer Output (TTL Level)
- RPM Proximity Probe Output (Powered by - 24VDC)
- RPM Proximity Probe Output (Powered by + 24VDC)
- RPM OSO® Output (Optical Speed Output)
- Battery operated

## Application Note

Suitable for inspecting RPM measurement lines and checking the ALARM and TRIPS Values. Device is especially designed for Condition Monitoring Systems (CMS) and/or Vibration Monitoring Systems (VMS) that are independent or connect to SCADA Systems.


## Description

NID-1100 is a battery operated, handheld instrument which is used to electronically simulate outputs from various types of RPM sensors and transmitters in the range from 1.0 RPM to 60,000 RPM.

NID-1100 uses a menu-driven, 1.8" TFT display (160x128 pixel, 18-bit colors) to establish appropriate settings. The key panel contains five sealed switches: Up Arrow, Down Arrow, E (Enter), Run/Stop and On/Off. The operating modes are: Manual and Automatic.

In Manual mode, the user can select the desired RPM value and the type of Output. Using Start/Stop key, the user can Start or Stop the output generation. During the generation of RPM output, the user can continually (On-line) increase or decrease the RPM value using Up or Down arrow.

In Automatic Mode, the user can select the nominal RPM, desired acceleration time (for RPM from zero to nominal), steady state time for nominal RPM and deceleration time (for RPM from nominal to zero), in range from 1.0 sec to 999.0 sec. Using Start/Stop key, the user can Start or Stop the programed output generation.

The user can select the Output signal from the following: RPM Tachometer Output (TTL Level), RPM Proximity Probe Output (powered by +24VDC), RPM Proximity Probe Output (powered by -24VDC), RPM OSO® Output.

## Specifications

### Outputs

| | |
|---|---|
| Type | RPM Tachometer Output (TTL Level)<br>RPM Proximity Probe Output (Powered by -24VDC)<br>RPM Proximity Probe Output (Powered by +24VDC)<br>OSO® - Optical Speed Output |
| RPM Range | 1.0 RPM to 60,000 RPM |
| Accuracy | ± 0.05% of settings |

### Transfer Characteristics

| | |
|---|---|
| Amplitude stability | 0.03%/°C maximum change from -10°C to +65°C |
| RPM accuracy | ± 0.05% of settings |
| RPM stability | ± 0.05% of maximum change from -10°C to +65°C |

### Environmental Characteristics

| | |
|---|---|
| Temperature | |
| Operating | -10°C to +65°C |
| Storage | -18°C to +65°C |
| Humidity | max. 95% R.H. |

### Power

| | |
|---|---|
| Battery | 3 x AAA (LR03) Alkaline (supplied with instrument) |
| Autonomy | approx. 8 hours |

### Physical Characteristics

| | |
|---|---|
| Dimension | 125mm x 67mm x 40mm |
| Weight | 0.175 kg |
| Case | ABS Molded Plastic Case |
| Connection | LEMO (ODU) 4-poles connector |
| Front Panel Controls | Five sealed switches (Up Arrow, Down Arrow, Enter, Start/Stop and ON/OFF switch) |
| Front Panel Display | 1.8" TFT Color Display (160x128 pixel, 18-bit colors) |

NOTE: All technical data can be changed without notice.

DESIGNED AND ASSEMBLED IN THE USA

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