

# Vehicle Sensors

## 01027 Series

### STEERING EFFORT SENSOR

This steering effort transducer was designed to evaluate steering torque requirements of non-airbag equipped, new and existing steering systems and components used in automobile, trucks, buses, and material handling equipment. Quantitative evaluations of steering systems, steering geometries, tire interactions, and safety factors are made using this device. The steering effort sensor is equipped with a 14" steering wheel. This is fastened to the existing steering wheel by means of a fixed or optional adjustable 3 point clamp assembly. For direct steering shaft attachment, a custom adapter plate is available.



### SPECIFICATIONS

|                                     |                        |
|-------------------------------------|------------------------|
| Capacities.....                     | 100 to 3,000 in.- lbs. |
| Overload capacity.....              | 150% of F.S.           |
| Output at full scale load.....      | 2.0 mV/V nominal       |
| Non-linearity.....                  | 0.10% of F.S.          |
| Hysteresis.....                     | 0.10% of F.S.          |
| Zero balance.....                   | 1% of F.S.             |
| Compensated temperature.....        | 70 to 170°F            |
| Useable temperature.....            | -65 to +250°F          |
| Temperature effect on zero.....     | 0.002% of F.S./°F      |
| Temperature effect on span.....     | 0.002% of Rdg./°F      |
| Bridge resistance.....              | 350 Ohms               |
| Excitation voltage, maximum.....    | 20 Vdc                 |
| Excitation/Signal transmission..... | Slip ring coupled      |
| Resolution .....                    | Infinite               |
| Encoder .....                       | Resistive              |
| Encoder range .....                 | 10 turns - 10K Ohms    |

### OPTIONAL FEATURES

- High level analog torque signal output
- Steering column adapter plates
- Replace 10kohm potentiometer with optical encoder
- Encoder to analog convertor

