

# AI-Tek Instruments, LLC

## Side Look Sensor

### Application: Used for Speed Take Off

The Side Look Sensor (SLS) has been developed by AI-Tek Instruments for Allison automatic transmissions for trucks ranging from light duty vans to over-the-road tractors. It is available for Allison AT, MT and HT transmissions. The new SLS improves on earlier designs developed for Allison to replace a mechanical speed system.

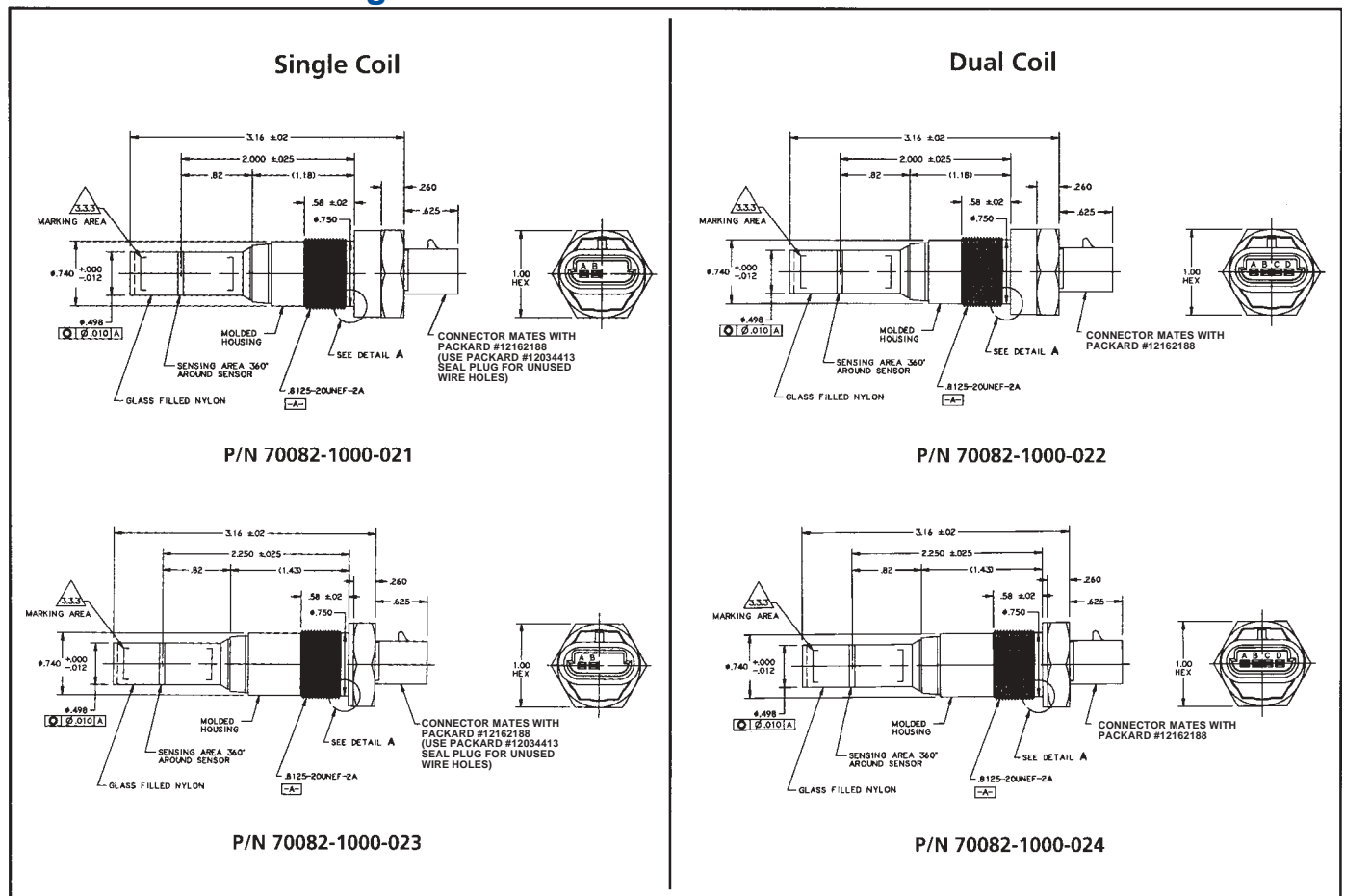
The SLS is a variable reluctance device that provides electronic transmission speed inputs to engine control systems and/or electronic dashboards. It mounts directly on the transmission and employs a unique magnet configuration that induces a magnetic field on the side of the sensor in the path of the rotating transmission gear. This system with its fewer mounting parts improves reliability, reduces weight and conserves space over the earlier designs.

### Outline and Mounting Dimensions



The new SLS uses a molded, glass filled nylon body to protect the sensor in harsh, truck-operating environments. It replaces the old fly-lead design with an integral standard Packard connector, which eliminates the added extra connector cost of the old design. It is available in single and dual output versions.

The SLS is manufactured in the United States. AI-Tek Instruments Distributors stock the SLS for off-the-shelf maintenance, repair and overhaul (MRO) requirements.



# Specifications

## Characteristics

### Physical

Weight: 55 gm typical.  
Body: Black, molded thermoplastic.

### Electrical

All measurements at 25°C.

#### Output:

Single Coil: .67 Volts peak-to-peak, A to B  
Dual Coil: .35 Volts peak-to-peak, A to B and C to D,  
Sensing a 16 tooth wheel, 2.208" diameter  
at 100 rpm and .040 inch air gap.

#### DC Resistance

Single Coil: 3.17K  $\pm$  10% ohms.  
Dual Coil: 1206  $\pm$  20% ohms each coil.

### Inductance

Single Coil: 2.25 H typical.  
Dual Coil: 620 mH typical.  
Dielectric: 1000 VAC between terminals (shorted together) and body for 10 seconds .  
.5 mA maximum leakage current.

### Environmental

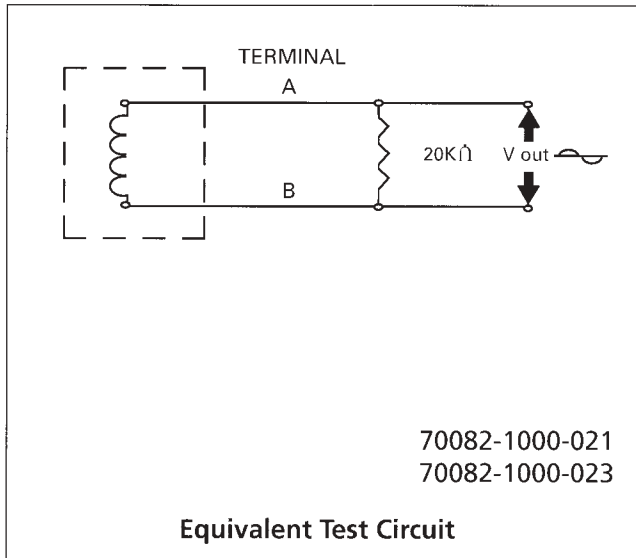
#### Temperature

Operating Temperature: -40°C to 150°C.  
Storage Temperature: -40°C to 150°C.

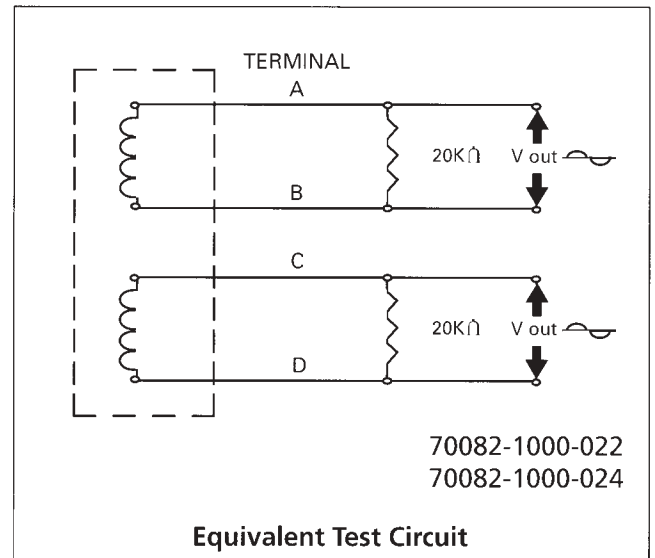
#### Connector

Single Coil: Mates with Packard #12162188. (Use Packard #12034413 seal plug for unused wire holes.)  
Dual Coil: Mates with Packard #12162188.

**Single Coil**



**Dual Coil**



Applications	
P/N 70082-1000-021	AT, MT
P/N 70082-1000-022	AT, MT
P/N 70082-1000-023	HT
P/N 70082-1000-024	HT