THROTTLE POSITION AND INDUSTRIAL CONTROL SENSOR MODULES

9800 SERIES THROTTLE POSITION/ AND INDUSTRIAL CONTROL SENSOR MODULES

The Duncan 9800 Series Sensor is designed for rugged, continuous under hood environments. Features include high temperature, stable materials; insert molded integral connector/body design to eliminate weak/stress points or leaks during engine wash-down or water exposure.

To meet a variety of mounting area needs and interconnection requirements, fourteen standard models are available. For engineering assistance or special configurations of the 9800 Series to meet specific applications, contact a Duncan representative or the factory.

ELECTRICAL SPECIFICATIONS

Active Electrical Rotation:
85° ±2° (See Fig. 1)

Total Resistance:
5,000 ohms ±20%

Linearity:
Std ±2.0% over active electrical rotation (See Fig. 1)
Spec. ±0.5% over active electrical rotation (See Fig. 1)

Power Rating At 70°C:
0.15 Watts

Shaft Rotation Direction:
CW Models: female—9801, 9805, 9811
male—9803, 9807, 9813
leadwire—9831
CCW Models: female—9802, 9806, 9812
male—9804, 9808, 9814
leadwire—9832

MECHANICAL SPECIFICATIONS

Mechanical Rotation (Nominal):
120° (Except 130° for 9831, 9832)

Mechanical Life:
1,000,000 full cycles,
5,000,000 dither cycles

Stop Strength:
0.68 Nm max.

Torque:
0.11 Nm max.

Mounting Torque:
1.35 Nm max.

ENVIRONMENTAL SPECIFICATIONS

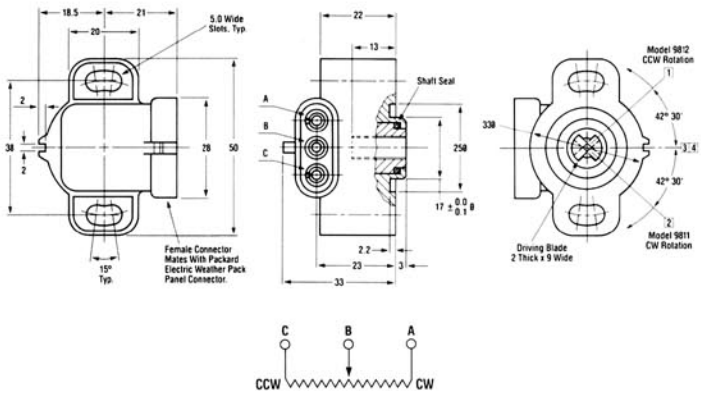
Temperature Limits:
−40°C to +135°C

Humidity:
95% @ 38°C

Vibration:
15 G's, 50 to 1,000 Hz.
2 Hrs. each plane

Shock:
50 G's

9811 (CW)
9812 (CCW)



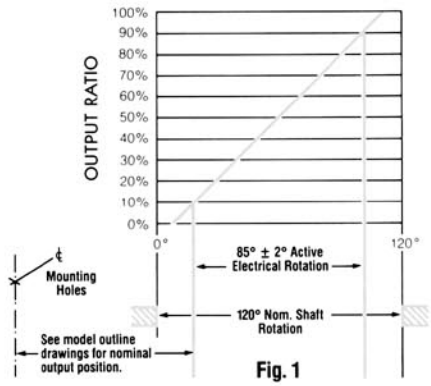


Fig. 1

SPRING RETURN ORIENTATION:
Spring returns slider to counter-clockwise end on CW sensors.
Spring returns slider to clockwise end on CCW sensors.

MATING CONNECTOR/INTERFACE INFORMATION:
Sensor Female Connector Mates With Packard Electric Weather Pack Connector
—Three-way Tower with Seal (1 required) P/N 12015793
—Male Pin (3 required) P/N 12033674 (for 18 AWG wire)
—Wire Cable Seal (3 required) P/N 12015284

MODELS 9811-9814
90° CONNECTOR STYLE

Note: Custom Drive-Arm/Actuator Configurations Available

Most specifications may be altered to meet specific requirements

Notes:
1. Nominal Midpoint of Mechanical Rotation for CCW Rotation.
2. Nominal Midpoint of Mechanical Rotation for CW Rotation.
3. Nominal 10% Output Position for CCW Rotation.
4. Nominal 10% Output Position for CW Rotation.
5. Both Driving Blades and Shaft are Shown in Midpoint Position.
6. All Dimensions and Values Shown in Metric.