

9800 SERIES | THROTTLE POSITION / AND INDUSTRIAL CONTROL SENSOR MODULES

THROTTLE POSITION AND INDUSTRIAL CONTROL SENSOR MODULES

Product Description

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.



SPECIFICATIONS

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

Environmental Specifications

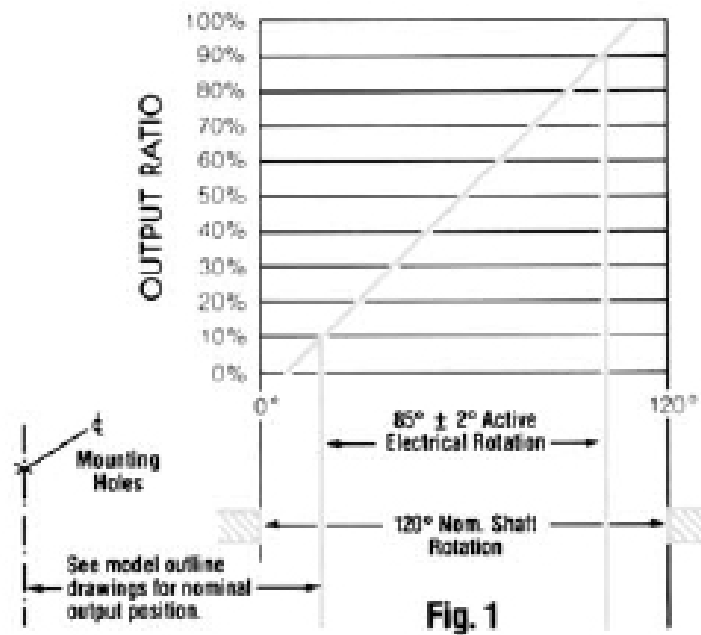
Temperature Limits	-40°C to +135°C
Vibration	15 G's 50 to 1,000 Hz 2 Hrs. each plane
Humidity	95% @ 38°C
Shock	50 G's

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.

CURVES AND INFO

Figure 1



Spring Return Orientation

Spring returns slider to counter-clockwise end on CW sensors.
Spring returns slider to clockwise 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

Note: Custom Drive-Arm/ Actuator Configurations Available

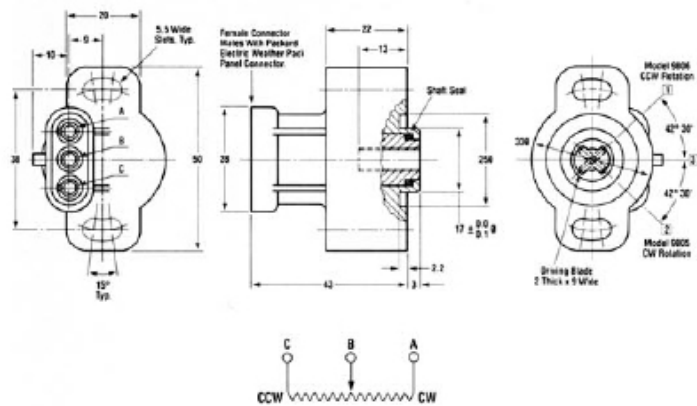
Most specifications may be altered to meet specific requirements



DIMENSIONS AND DIAGRAMS

Dimensions in mm

9805 (CW) and 9806 (CCW)



Models 9805-9808 Offset Connector Style



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.**

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