

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

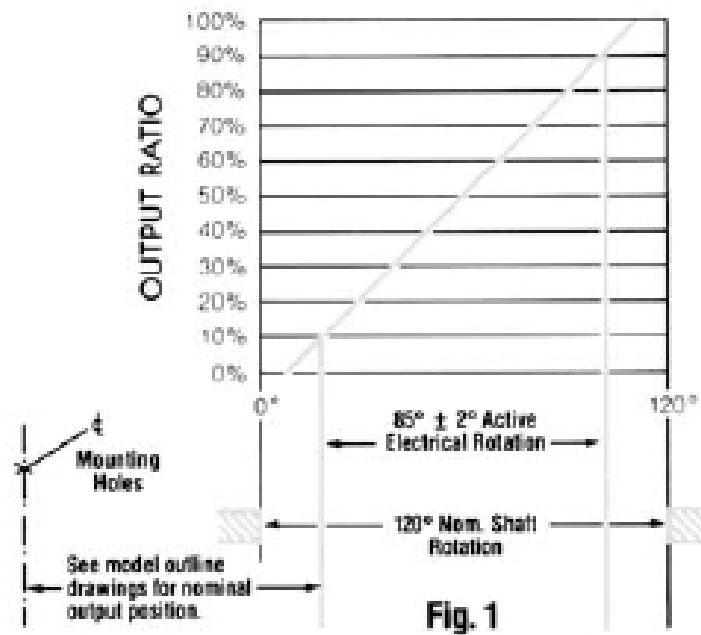
| | |
|---------------------------|--|
| Temperature Limits | -40°C to +135°C |
| Vibration | 15 G's 50 to 1,000 Hz 2 Hrs. each plane |
| Humidity | 95% @ 38°C |
| Shock | 50 G's |

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

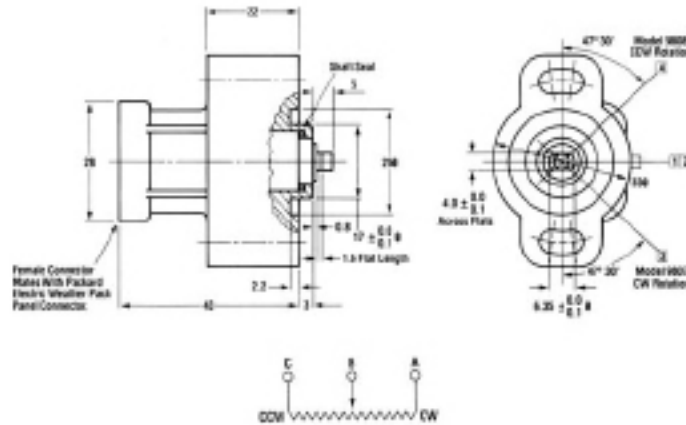
Most specifications may be altered to meet specific requirements



DIMENSIONS AND DIAGRAMS

Dimensions in mm

9807 (CW) and 9808 (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.

Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

CONTACT US

Americas

+1 (800) 350 2727 – Option 1
sales.beisensors@sensata.com
Europe, Middle East & Africa
 +33 (3) 88 20 8080
position-info.eu@sensata.com

Asia Pacific

sales.isasia@list.sensata.com
 China +86 (21) 2306 1500
 Japan +81 (45) 277 7117
 Korea +82 (31) 601 2004
 India +91 (80) 67920890
 Rest of Asia +886 (2) 27602006
 ext 2808