

10628 Hand Throttle

A rugged, single-axis hand control with an electronic sensor output. The 10628 is designed to accommodate both Resistive Element and Hall Effect sensors. The lever arm may be customized to fit the application.

Specifications

Mechanical Specifications

- Travel Range (°): 53.5
- Holding Force (N [lbf]): 22 [5]
- Mounting: See figure 3 on page 2
- Life (Cycles): $\geq 100,000$

Electrical Specifications

- Sensor Types: Resistive, Hall Effect
- Output Types: Dual Analog
- Working Voltage (VDC): 5
- Max Supply Voltage (VDC): 5
- Max Output Current (mA): 10
- Connector: Delphi Metripack 150 Series ref figure 2 on page 2
- Reverse Polarity Protection
- Electrical Output: See figure 1 on page 2

Environmental Specifications

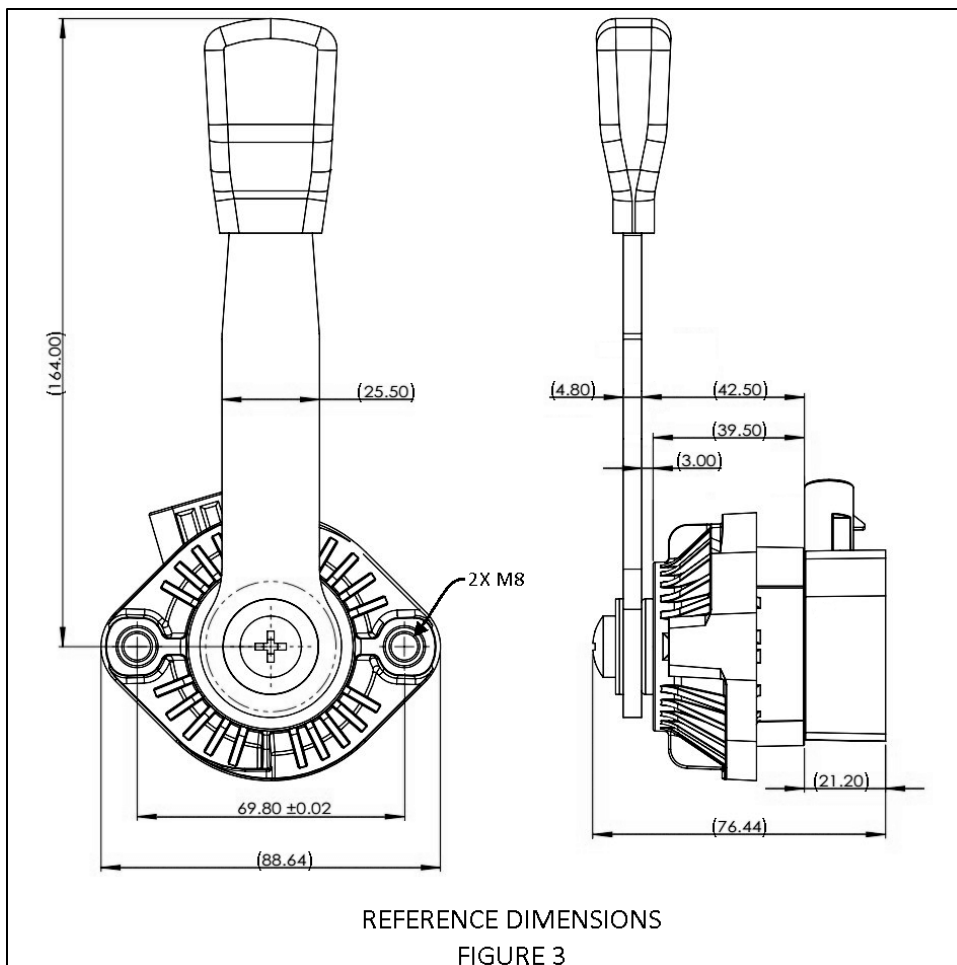
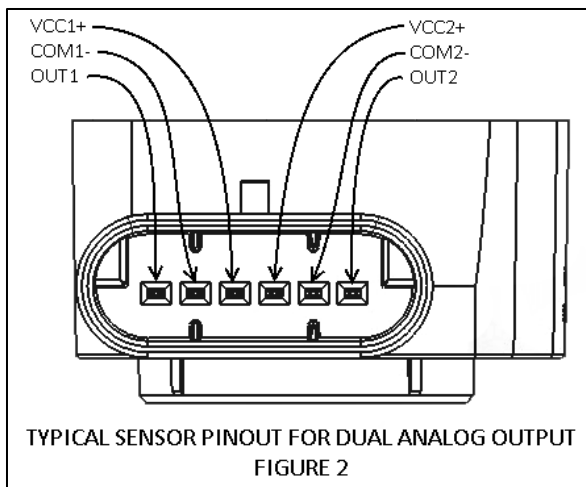
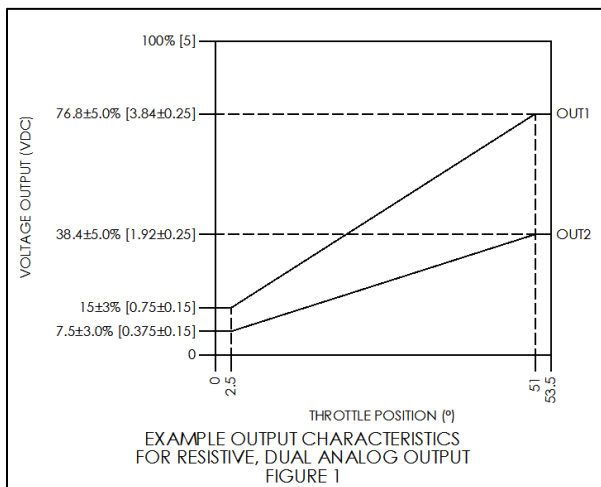
- Temperature Range (°C [°F]): -40 to 85
[-40 to 185]
- IP Rating: 66

Materials

- Body and Sensor Housing: Nylon 6/6
- Lever Arm: Carbon steel with powder coat
- Knob: Vinyl



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Testing and Validation

- Thermal Cycling: -40°C to 85°C per SAE J1455.
- Thermal Shock: -40°C to 85°C per SAE J1455.
- Humidity: 120 hours at 95% relative humidity for temperature range of 27°C to 75°C per SAE J1455.
- Mechanical Vibration:
 - a. Swept sine vibration per SAE J1455.
 - b. Random 5-500Hz at 4G per SAE J1455.
- Salt Spray: 96 Hours per ASTM B-117.
- Chemical Exposure: diesel, brake fluid, antifreeze, and plastic protectant.
- Pressure Wash:
 - a. Detergent solution at 250 psig for 40 minutes.
 - b. Water heated to 60°C at 1,000 psig for 40 minutes.
- Mechanical Shock: Drop from 1m to a concrete floor in each of three different orientations that are perpendicular to one another per SAE J1455.
- Sensor Life: 10,000,000 full cycles over temperature range of -40°C to 85°C.
- Sensor Dither Testing: 80,000,000 cycles at 28 Hz.
- Sensor EMC Testing: EMI per SAE J1113 Class C