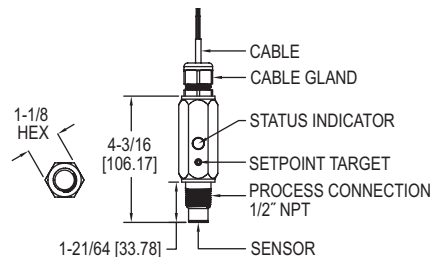


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Thermal Dispersion Flow Switch

Non-Mechanical, Low Pressure Drop



The **Series TDFS2 Thermal Dispersion Flow Switch** is a thermal flow switch that indicates whether the flow rate is above or below a user set flow rate. The unit incorporates two LED status indicators providing visual switch indication. The set flow rate (setpoint) is field adjustable and the unit has both NO and NC NPN outputs.

FEATURES/BENEFITS

- Better reliability and life expectancy than mechanical flow switches with no paddles or vanes to wear or break, no jams in the paddle movement, and no seals on movement assembly to wear or leak
- Not affected by empty pipe as it avoids overheating by actively heating above the process temperature and then cooling down to process temperature
- Set point is easily field set by tapping the included magnet on the set point target three times at the desired flow rate
- LED status indicators provide visual switch indication of flow rate in comparison to the set point
- Low pressure drop; only needs to be inserted 10% into the flow (e.g. 1/8" for 3/4" schedule 40 pipe)

APPLICATIONS

- Boiler flow proving
- Hot water heaters
- Chillers
- Liquid transfer systems

MODEL CHART

Model	Description
TDFS2-1-P-06	Thermal flow switch, 6' (1.83 m) cable with cable gland

SPECIFICATIONS

Service: Compatible water-based fluids.

Wetted Materials: 316 SS.

Setpoint Range: 0.5 to 10 ft/s (0.15 to 3.0 m/s).

Repeatability: 0.07 ft/s +3% of setpoint.

Typical Deadband: 0.1 ft/s +15% of setpoint.

Temperature Limits: Ambient: 5 to 140°F (-15 to 60°C), Process: 5 to 140°F (-15 to 60°C), Storage: -40 to 185°F (-40 to 85°C).

Pressure Limits: 300 psig (20.67 bar).

Response Time: Approximately 8 s.

Power Requirement: 9-24 VDC.

Switching Current: 400 mA, derate 5 mA/°C above 23°C.

Current Consumption: Average: 93 mA, Peak: 300 mA.

Electrical Connection: 1/2" NPT cable gland with 4 conductor 22 AWG, 6' (1.83 m) cable.

Process Connection: 1/2" NPT male.

Enclosure Rating: NEMA 4X (IP65).

Housing Materials: 316 SS, 416 SS, polycarbonate, neoprene, and acrylated urethane.

Switch Type: 1 NO NPN, 1 NC NPN.

Input Power and Protection: 0.5A fuse (resettable) reverse polarity protected.

Switched Output Protection: 0.5A fuse (resettable) reverse polarity protected.

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