



## SERIES TDFS2 | W.E. ANDERSON THERMAL DISPERSION FLOW SWITCH



TDFS2-1-P-06



TDFS2-2-P-06

### BENEFITS/FEATURES

- 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
- 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

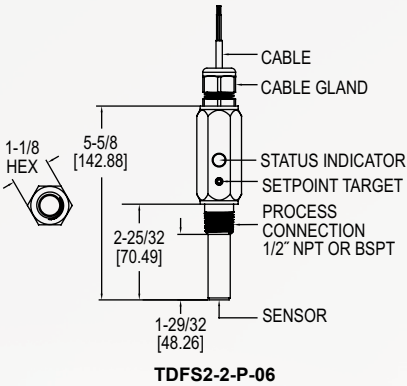
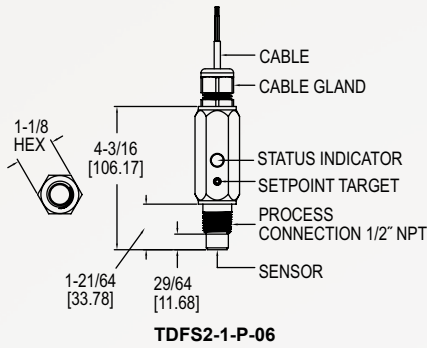
### DESCRIPTION

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 easily field adjustable with included magnet and the unit has both NO and NC NPN outputs.

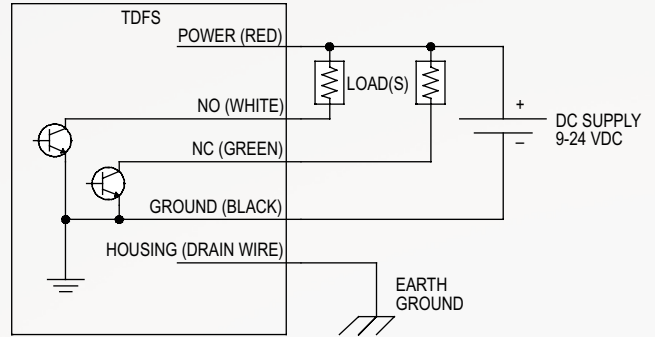
### SPECIFICATIONS

<b>Service</b>	Compatible water-based fluids.
<b>Wetted Materials</b>	316 SS.
<b>Pipe Range</b>	1/2 to 1-1/2" (15 to 40 mm) or 2 to 10" (50 to 250 mm) (model selectable).
<b>Set Point Range</b>	0.5 to 10 ft/s (0.15 to 3.0 m/s).
<b>Repeatability</b>	0.07 ft/s (0.02 m/s) +3% of setpoint.
<b>Typical Deadband</b>	0.1 ft/s (0.03 m/s) +15% of setpoint.
<b>Temperature Limits</b>	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).
<b>Pressure Limits</b>	300 psig (20.67 bar).
<b>Response Time</b>	Approximately 8 s.
<b>Power Requirement</b>	9-24 VDC.
<b>Switching Current</b>	400 mA, derate 5 mA/°C above 23°C.
<b>Current Consumption</b>	Average: 93 mA; Peak: 300 mA.
<b>Electrical Connection</b>	1/2" NPT female or cable gland with 4 conductor 22 AWG 6' (1.83 m) long (model selectable).
<b>Process Connection</b>	1/2" NPT or BSPT male (model selectable).
<b>Enclosure Rating</b>	NEMA 4X (IP65).
<b>Housing Materials</b>	316 SS, 416 SS, polycarbonate, neoprene, and acrylated urethane.
<b>Switch Type</b>	1 NO NPN, 1 NC NPN.
<b>Input Power and Protection</b>	0.5 A fuse (resettable) reverse polarity protected.
<b>Switched Output Protection</b>	0.5 A fuse (resettable) reverse polarity protected.
<b>Agency Approvals</b>	CE.

**DIMENSIONS**



**WIRING DIAGRAM**



**HOW TO ORDER**

Use the **bold** characters from the chart below to construct a product code.

	<b>TDFS2</b>	<b>-1</b>	<b>-P</b>	<b>-06</b>	<b>BSPT</b>	
<b>SERIES</b>					<b>OPTIONS</b>	
<b>TDFS2:</b> Thermal dispersion flow switch					<b>-BSPT:</b> 1/2" BSPT process connection	
<b>PIPE SIZE</b>					<b>CABLE LENGTH</b>	
<b>-1:</b> 1/2 to 1-1/2" (15 to 40 mm) pipe sizes					<b>-03:</b> 3 ft cable (0.91 m)	
<b>-2:</b> 2 to 10" (50 to 250 mm) pipe sizes					<b>-06:</b> 6 ft cable (1.83 m)	
<b>ELECTRICAL CONNECTION</b>					<b>-10:</b> 10 ft cable (3.05 m)	
<b>-C:</b> 1/2" female NPT with PVC cable for conduit connection					<b>-15:</b> 15 ft cable (4.57 m)	
<b>-B:</b> Cable gland with burial rated cable					<b>-20:</b> 20 ft cable (6.07 m)	
<b>-P:</b> Cable gland with PVC jacketed cable					<b>-25:</b> 25 ft cable (7.62 m)	
					<b>-30:</b> 30 ft cable (9.14 m)	
					<b>-35:</b> 35 ft cable (10.67 m)	
					<b>-40:</b> 40 ft cable (12.19 m)	
					<b>-45:</b> 45 ft cable (13.72 m)	
					<b>-50:</b> 50 ft cable (15.24 m)	

**ACCESSORIES**

Model	Description
100571-00	Replacement set point magnet

**ORDER ONLINE TODAY!**

[dwyer-inst.com/Product/SeriesTDFS2](http://dwyer-inst.com/Product/SeriesTDFS2)



**DWYER INSTRUMENTS, INC.**