

# Greyline **DFS 5.1**

## Technical Specifications:

The DFS 5.1 Doppler Flow Switch is recommended for flow control of liquids containing gas bubbles or solids in closed pipes. The DFS 5.1 strap-on sensor can be installed in minutes without shutting down flow or cutting pipe.



#### **GENERAL SPECIFICATIONS**

Transducer:	Model SE4 Single-head 316SS ultrasonic, with 6 m (19.7 ft) shielded cable and stainless steel mounting
Operating Temperature: (Sensor)	-40 °C to 150 °C (-40 °F to 300 °F)
<b>Electronics Enclosure:</b>	NEMA4X (IP66) polycarbonate with clear, shatterproof cover
Accuracy:	$\pm 2\%$ , requires solids or bubbles minimum size of 100 microns, minimum concentration 75 ppm. Repeatability: $\pm 0.1\%$
Power Input:	100-240 V AC 50-60 Hz (see Popular Options), 10 VA max depending on options
Control Relays:	5 A DPDT
Set Points:	ON/OFF adjustment from 0.076 m/s to 3 m/s (0.25 ft/s to 9.8 ft/s)
Operating Temp. (Electronics):	-23 °C to +60 °C (-10 °F to +140 °F)
Pipe Size:	Any pipe ID from 12.7 mm to 4.6 m (0.5 in to 15 ft)
Approximate Shipping Weight:	3.6 kg (8 lb)
Approvals:	CE, cCSAus

#### **STANDARD FEATURES**

Set Point:	Field-adjustable with separate ON/OFF set points or select high-flow alarm or low-flow alarm mode
Indication:	Flow rate LED bar graph, relay status LED
Time Delay:	Adjustable 0 to 80 seconds
Electrical Surge Protection:	AC power input and sensor
Transducer:	Mounting bracket clamp and coupling compound included

#### **POPULAR OPTIONS**

Transducer Cables:	15.2 m or 30.5 m (50 ft or 100 ft) continuous RG62AU coaxial from sensor, or splice up to 152.4 m (500 ft) with Junction Box
Sensor Mounting Clamp:	stainless steel, adjustable
Power Input:	12-24 V DC (±10%), 3 W Max

#### **APPLICATIONS**

Liquids:

Sensor Mounting Location:

**Pipe Materials:** 

Recommended for liquids containing suspended solids or bubbles minimum size of 100 microns, minimum concentration 75 ppm

On vertical or horizontal pipes, 6-10 pipe diameters from elbows, tees (turbulence increasing devices) >30 pipe diameters from pumps, controlling valves, and pipe discharge

Steel, stainless steel, cast iron, PVC, fiberglass, any contiguous pipe material that conducts sound, including lined pipes with a liner bonded to the pipe wall. Avoid pipes with loose insertion liners and pipe materials that contain air pockets (concrete, wood, etc.)



### Delivering the Measure of Possibility

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By taking a step forward in echo processing technology, Pulsar Measurement addresses applications previously thought to be beyond the scope of ultrasonic measurement. This technology improves signal processing at the transducer head which has made it possible to increase resistance to electrical noise, enabling the transducer to 'zone in' on the true echo.

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