

## CLARK SOLUTIONS

# DFS-2W Flow Sensor

*Sterilizable/Disposable, Liquids to 1.2 GPM, Frequency Output*

### DESCRIPTION

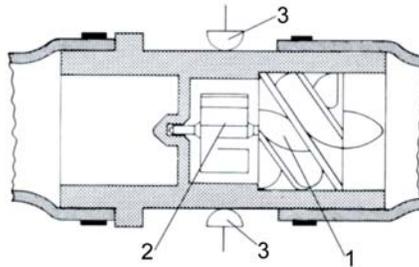
The DigiFlow DFS-2W flow sensors have been specifically developed for use in pharmaceutical, medical, food processing and other end-use/OEM applications requiring either interchangeable or disposable components and for other high volume/low unit cost applications. The basic flow meter consists of two major assemblies:

- A sterilizable, interchangeable/disposable rotor assembly
- A permanent, fixed electronics/mounting assembly.

The flow meter design makes it an integral component of systems designed for accurate monitoring or flow control of liquids.

In operation the fluid flows through the meter, first passing the fixed worm (1) imparting a spiral flow which, in turn, spins the rotor (2) on a virtually friction free bearing. The rotor blades interrupt an infrared beam (3), thus generating a square wave digital output signal.

The rotor is the only moving part. Due to its light weight and the helical pattern of the fluid flow, the rotor has a minimal response time, thus resulting in a very high level of resolution and exceptional accuracy, linearity, and repeatability throughout flow and viscosity ranges.



DFS-2WE & DFS-2WR

DFS turbine flow meters can be mounted in any position and do not require flow straighteners or other specialized installations. Meters are available with hose/barb, threaded and sanitary fittings,

### SPECIFICATIONS

	<b>DFS-2W</b>
Media	liquids
Flow Range	0.07 - 4.5 L/m (0.02 - 1.2 GPM)
Turndown Ratio	64:1
Accuracy	+/- 0.5% (of actual flow reading)
Linearity Deviation	0.5%
Repeatability	<0.15%
Resolution Pulses	60,000 pulses/L (227,100 pulses/Gal.)
Operating Temperature Range	-15 to +85°C (+5 to +185°F)
Static Temperature Range (no flow, useful for sterilization)	-20 to +130°C (-4 to +266°F)
Viscosity Range	0.8 - 10mm <sup>2</sup> /s (0.8 - 10 cSt)
Operational Pressure	25 bar (360 PSIG)
Pressure Drop	0.2 bar @ 1 L/m (2.9 PSI @ 0.25 GPM)
Power Supply	5 VDC, 12 - 36 mA*
Output Signal	Square Wave
Materials - Rotor Assy	PVDF-Solef® (Polyvinylidene fluoride)
Materials - Mounting Assy	Polycarbonate
Electrical Lead	1 meter (39") in length
Dimensions - Rotor Assy	38 mm (1.5") x 7mm (0.28")
Dimensions - Mounting Assy	35mm x 23mm x 7.9mm (1.4" x 0.9" x 0.3")
Connections	7 mm (9/32") hose barb fitting

### ORDERING INFORMATION

**DFS-2WE-** Electronics/Mounting Assembly (1 meter cable)

**DFS-2WR-** Rotor Assembly, PVDF Hose Barb

\*Units set up internally for 5 volts. Other voltages accommodated with external resistor or internal modification with quantity orders.