

# CAGED FULLBORE FLOWMETER 6 Arm

# Sondex



## DESCRIPTION

The 6 Arm Caged Full Bore Flowmeter has been developed to provide added protection to its impeller when used in wells with large ID gas lift mandrels and in horizontal wells. It is run at the bottom of the PLT string and by allowing a large diameter impeller to pass through small diameter tubing, accurate flowrates covering a large cross section of the casing may be measured. The cage arms are formed from six tungsten carbide coated bow springs, with additional coil springs built into the folding mechanism which are capable of supporting the weight of the tool in a horizontal well into and pulling out of hole.

## OPERATING PRINCIPLE

The Flowmeter may be closed down to tool diameter while running or pulling out of hole, and opens automatically when it leaves the tubing to enter the casing. Should a restriction be encountered during logging, the flowmeter will close and fold the spinner until the restriction is passed, thus avoiding damage to the blades. The spinner runs on precision bearings. Rotation is sensed by zero drag Hall effect detectors allowing the measurement of very low flow rates. The normal output is 10 pulses per revolution with directional information.

## APPLICATIONS

- Horizontal and Highly Deviated Wells
- Full Bore Production Profiling
- Protection from Downhole Gas Lift Mandrels and Intrusions
- Logging with Coiled Tubing
- Full Bore Injection Profiling
- Low Flow Rates
- Detecting Leaks and Crossflow.

## INTERFACING & TOOL COMBINATIONS

- Interchangeable Mechanical Sections to match Casing ID.
- Simultaneous Operation with other PL Tools
- 1 3/16" UN 12 tpi Sondex GO or other Heads

## OPTIONS

- Casing Diameters: 4 1/2", 5", 5 1/2", 7" & 9 5/8"
- Locking Spinner for High-Rate Injection Wells (standard for 9 5/8" tools).
- Solid impeller shafts for very high flowrate wells

## SPECIFICATION

	Memory	Wireline
Supply Voltage	+12v DC (7mA)	+60v DC (20mA)
Output	10 pulses/rev. Direction indicated	
Max. Pressure	15k psi (12k psi 11/2")	
Max. Temperature	350 degrees F (177C)	
Casing Diameters	4 1/2 - 9 5/8"	
Length Open (7")	35" (895mm)	
Measure Point	13.5" (349mm) from bottom of tool	
Diameters available	1 11/16" (43mm); 1 1/2" (38mm)	
Weight (1 11/16"; 7")	10lb (4.5kg)	
Materials	Corrosion Resistant Throughout	
Threshold	approx 1.7ft/min (100bpd in 7" casing)	
Max. Fluid Velocity*	500 ft/min (28250 bpd in 7" casing)	

CFB

Production Logging Tools