Impellers can detect differential flow rates as low as 1.0m/min.

Logging at a range of speeds allows detection of flow of any rate (although for high precision in low flow rates use of the Heat-Pulse Flowmeter is advised).

**Principle of Measurement:**
The probes are equipped with lightweight helical impellers mounted on double sapphire bearings. The impellers contain magnets which actuate Hall-effect switches within the probe to detect impeller rotation. Separate log channels record the time of rotation according to fast and slow timebases for improved resolution at high and low flow rates. Uphole and downhole rotations are distinguished within the probe.

**SPECIFICATION:**

- **Features**
  - Jewelled bearings for minimum friction
  - Low-drag sensors
  - Choice of head diameters
  - Cable-speed readout

- **Measurements**
  - Flow
  - Cable velocity
  - Optional natural gamma

- **Applications**
  - **Water**
    - Flow measurement within a water well
    - Location of permeable zones
    - Casing leak detection

- **Operating Conditions**
  - Borehole type: open/cased, water-filled
  - Centralisation: required
  - Recommended Logging Speed: Multiple passes, varied speeds 2-7 m/min

- **Specifications**
  - Diameter: 45mm, 70mm
  - Length: 1.53m
  - Weight: 4.0kg
  - Temperature: 0-70°C (extended ranges available)
  - Max. pressure: 20MPa

- **Part Numbers**
  - 1002122 Impeller Flowmeter 45mm
  - 1002115 Impeller Flowmeter 70mm

Examples of logging data