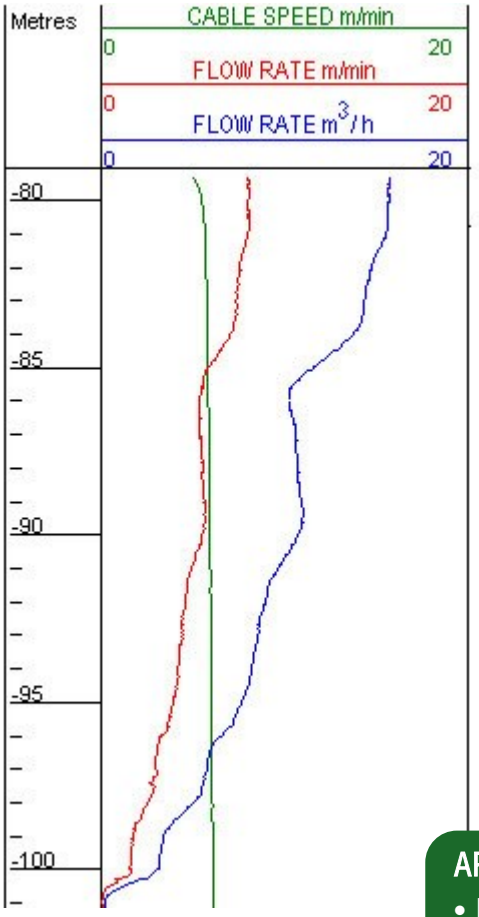
GeoVista

Impeller Flowmeter Probe

The Geovista Impeller Flowmeter Probe detects differential flow rates and flow direction in boreholes. Primarily used in groundwater applications, the data are real time and the probe can be combined with other Geovista probes.

The impeller flowmeter uses an interchangeable impeller mounted on jewel bearings which spins in response to fluid flow. Measurements can either be made as the sonde travels down the borehole at a constant speed, which generates a continuous flow profile over the interval of interest, or while the sonde is stationary. The sonde can make measurements over a wide range of flow rates, with a minimum threshold velocity in the region of 1 to 2 m/min.

The impeller comes in three different interchangeable sizes (50, 75, and 100 mm) for different borehole diameters. The probe is often logged at different speeds to detect a wide range of flow rates. It is commonly used with a Geovista Fluid Temperature and Conductivity Probe to give a complete borehole flow profile.



KEY FEATURES

- Combinable digital probes
- Interchangeable impeller heads

SPECIFICATIONS	Impeller
Weight (kg)	3.5
Length (m)	0.48
Diameter (mm)	50, 75 or 100 mm Interchangeable Impeller cage
Threshold velocity (m/min)	1 to 2 depending on setting and cage size
Data Output	Flow rate, Direction
Max. Pressure (MPa)	20 HP version @ 35)
Max. Temp. (ºC)	80 (HT version @ 125)

APPLICATIONS

- Flow profile
- Zonal identification
- Casing leak determination
- Location of permeable and flowing zones
- Identification of hydraulic gradients
- Identification of transient fractures and fracture flow
- Qualitative and quantitative aquifer characteristics
- Cross hole flowmeter profiling