

# probe specification

## IMPELLER FLOWMETER PROBE

A range of high-sensitivity impeller flowmeters is offered by RG to satisfy most borehole size requirements and expected flowrates.

### PRINCIPLE OF MEASUREMENT:

All the probes are equipped with lightweight helical impellers mounted on double sapphire bearings for maximum sensitivity. The impellers contain magnets which actuate low-drag 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 sonde.

The RG impeller flowmeter gives a direct log measurement of cable speed to aid this procedure.

### FEATURES

- Jewelled bearings for minimum friction
- Low-drag sensors
- Large or small impeller heads
- Cable-speed readout

### MEASUREMENTS

- Flow
- Cable velocity
- Natural gamma (optional)

### APPLICATIONS

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

### OPERATING CONDITIONS

- Borehole type:** open/cased, water-filled
- Centralisation:** recommended

### SPECIFICATIONS

- Diameter:** 45mm, 70mm, 100mm (other diameters available to order)
- Length:** 1.57m
- Weight:** 7.3kg
- Max. temperature:** 70°C (extended ranges available)
- Max. pressure:** 20MPa (extended ranges available)
- Threshold velocity (static mode):** 1m/min

### SALES INFORMATION

- Probe:**
- 25 076 000 Flowmeter 45mm
- 25 077 000 Flowmeter 45mm and natural gamma
- 25 071 000 Flowmeter 70mm
- 25 072 000 Flowmeter 70mm and natural gamma
- 25 069 000 Flowmeter 100mm
- 25 070 000 Flowmeter 100mm and natural gamma
- Accessories:**
- 21 001 000 Centraliser range 90mm - 180mm
- 21 002 000 Centraliser range 180mm - 260mm
- 21 003 000 Centraliser range 260mm - 342mm
- 21 004 000 Centraliser range 342mm - 472mm
- 20 070 000 Natural-gamma API calibrator without source
- 30 010 000 3.7MBq <sup>137</sup>Cs source for natural-gamma calibrator

