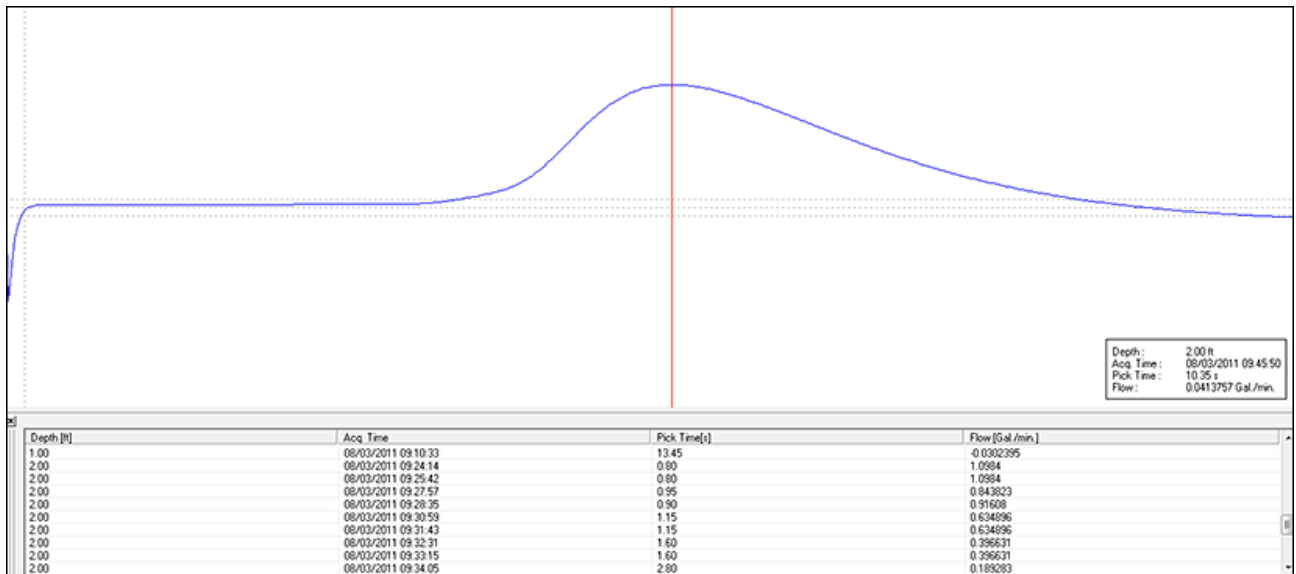
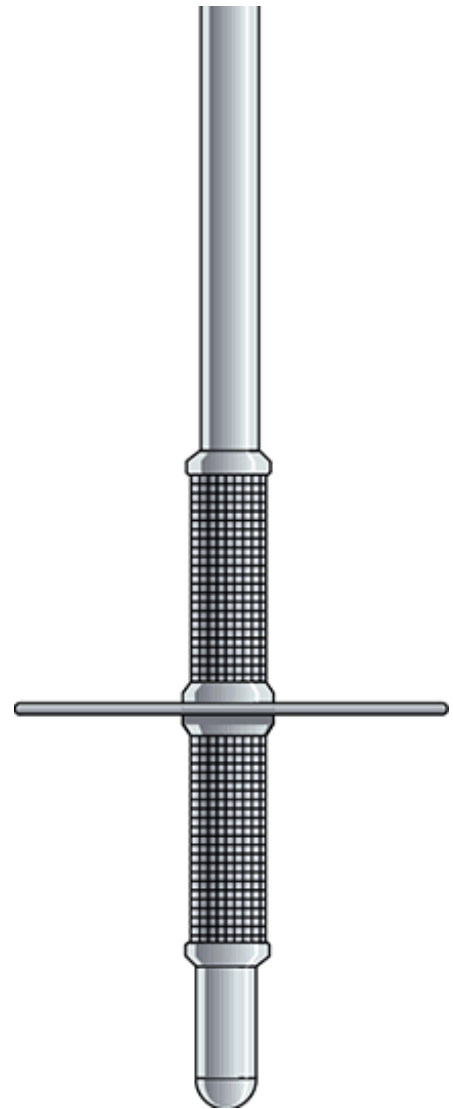


# HFP-2293 – Heat Pulse Flowmeter

[mountsopris.com/items/hfp-2293-heat-pulse-flowmeter](http://mountsopris.com/items/hfp-2293-heat-pulse-flowmeter)





## Description

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The HFP-2293 Heat Pulse Flowmeter is a unique flowmeter tool designed to measure low flow rates in the borehole environment. It will also give the direction of the flow of fluid vertically. To detect these low flow rates, measurements must be made while the probe is stationary at different depths within the borehole. The probe is run standalone.

Matrix Heat software is used with the HFP-2293 and is compatible Matrix Logging Systems. Individual heat-flow waveforms can be saved, and text files with depth and flow rate can be imported into WellCAD for a histogram-type presentation.

The Mount Sopris Heat Pulse was recently upgraded based on customer recommendations. For a full discussion of what was upgraded please see our [Blog Post](#) on the topic and the [New User Manual](#).

*“The HPFM updates are a great improvement. The tool functions predictably as intended and provides a line of evidence that is critical at many of our clients’ sites. The MSI staff have been great to work with, showing persistence and professionalism. The flow of new products is truly impressive and we are always eager to see (and apply) what is next!”* -James L. Peterson, PG, LSRP – President, Princeton Geoscience, Inc.

## Applications

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- Measure interval and/or fracture-specific low flow rates
- Identification of hydrostratigraphic units
- Determine transmissivity and hydraulic head
- Confirmation of predicted transmissive zones in open hole

## Operating Conditions

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### Borehole Fluid

Water

Mud

Dry

### Casing

Uncased

PVC Borehole

Steel

### Centralization

Required

Non-Necessary

## Features & Benefits

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- Designed by the USGS, industry standard tool for use in very low flow zones.
- Supplied with diverters for 4", 6" & 8" (100, 150, 200mm) boreholes to provide optimum results in a variety of borehole diameters
- Includes Matrix Heat acquisition (waveform viewing & time picking) and processing software
- Slim, 41 mm diameter. One-person operation.

## Specifications – Metric/English

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Specification	Metric	Imperial
Diameter	41 mm	1.63"
Length	1.22 m	48"
Weight	5.5 Kg	12 lbs.
Max. Temp.	70°C	158°F
Max. Pressure	200 bar	2900 psi

**Sensor:** Two thermistors

**Measuring Range:** 0.113 lpm to 3.785 lpm (0.03 gpm to 1.0 gpm)

**Measuring Range:** 0.046 m/min to 3.962 m/min (0.15 ft/min to 13 ft/min)

**Accuracy:** 5% midrange to 15% extremes

**Resolution:** 5%

## Documentation

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[Data Sheet](#)

[User Guide](#)

[Matrix Heat Software User Guide](#)