

Document Title: Description, RK-1 Rock Sensor QuickStart Guide		Part # and Rev. 14520-01	
		Release Date: 06/27/12	
Rev.	Description	Revision By	Date

Production Filename: 14520-01 RK-1 Rock Sensor QuickStart Guide.pdf

Path: DecaDoc/KD2 Pro/Marketing/14520 RK-1 Rock Sensor QuickStart Guide/14520-01 RK-1 Rock Sensor QuickStart Guide/Published/14520-01 RK-1 Sensor QuickStart Guide

Paper Dimensions: 5.50 inch wide, 8.50 inch tall

Color: Color LaserJet

Printer: HP 5550

Material: Cardstock

Special Notes: Pages are duplexed front to Back
Illustration is Ref Only

KD2^{PRO} RK-1 Sensor Quick Start Guide

Your new RK-1 sensor is designed for use with the KD2 Pro system to measure the thermal conductivity and resistivity of hard materials like rock or cured concrete where a rotary hammer must be used to drill a hole to accommodate the sensor.

RK-1 Specifications

Operating Environment: -50 to +150 °C
Size: 3.96 mm diameter x 60 mm long
Range: 0.10 to 6 W/(m•K) (thermal conductivity)
17 to 1000 °C•cm/W (thermal resistivity)
Accuracy: ±10 % from 0.2 - 6 W/(m•K)
±0.02 W/(m•K) from 0.1 to 0.2 W/(m•K)
Cable length: 0.8 m
KD2 Pro firmware: KP 1.23.2 or greater

RK-1 Requirements

KD2 Pro firmware requirements
If you are using a KD2 Pro unit running firmware less than KP 1.23.2, it will be necessary to update the KD2 Pro firmware to the latest version before using the RK-1 sensor.

To check and update the firmware version on your KD2 Pro unit see your KD2 Pro users manual. Updating firmware will erase all data saved in the KD2 Pro, so make sure to upload any data from your KD2 Pro unit to your PC before proceeding.

Read time
The RK-1 sensor defaults to a 10 minute read time. The long read time helps to prevent errors caused by effects of the large diameter needle and contact resistance between the sensor and the test sample. This setting should not be changed except in special situations and only by expert users.

Power mode
The RK-1 sensor defaults to High Power Mode (HPM), and should generally be used in this configuration. One notable exception might be measurements in ice or frozen samples. It is especially important to use HPM in samples with high thermal conductivity (> 2 W/m•K).