

## Crack meter (1D) – CRCJ02

A crack meter (or joint meter) is used to monitor any changes in opening of a surface crack. It can be either in 1D, 2D or 3D form. When no info in regards to the displacement components is required, a one dimensional crack meter is used.

The instrument has two sections which move telescopically. Each part is fixed to one side of the crack either by mechanical methods or by grouting the base rebars in ground boreholes. The sensing element in this instrument is VW type. The body of the crack meter is made out of stainless steel to resist against harsh surface conditions. The instrument can be detached from the grouted rebars once the monitoring program is finished. So the instrument can be used in several projects which make it a durable low cost choice.

## Application

Some of the applications of this instrument are :

- Monitoring crack opening (or closure) in rock structures.
- Recording movements along cracks formed in concrete structures.
- Movement assessment of buildings adjacent to open excavations.
- Monitoring tension cracks in open slopes.
- Land slide monitoring by crack opening records.

## Operation and Installation

A crack meter with suitable movement range is selected. Usually the ends of the instrument are equipped with fixtures and 3D spherical joint which in turn are attached to two rebars. Two short boreholes are drilled to the sides of the crack and are filled with a dense mortar. The rebars are then pushed into the holes and the excess mortar is cleaned from the collars. The body of the crack meter is then fixed to the rebars and the whole system is left to dry out. First measurement is done after the mortar has set. Consequent measurements are also performed and movement of the crack is detected.

Technical Spec	
Displacement range	30, 50, 100 mm
Accuracy	0.1% FS
Sensor type	Vibrating Wire
Fixing method	Grouting rebar
Cable type	Two twisted cable with PU sheath



## Order information

CRCJ-02-AAA

AAA: Displacement range in mm