Differential Impulse Current Method (Diff ICM)  
Differential Decay Method (Diff Decay)

**Explanation:**

The Differential Impulse Current Method and the Differential Decay Method is based on the current impulse pick up via an inductive coupling unit. For the differential Decay method, the faulty cable is charged by applied DC voltage up to the level of the breakdown, whereas for the differential Impulse current method a surge energy impulse is used. This breakdown causes a transient wave which is travelling between the faulty point and the system. This transient wave will be recorded by the echronometer IRG 2000/3000 via the inductive coupling unit.

The Differential Impulse Current Method and the Differential Decay Method is working with two separate measurements (one without bypass bridge and second one with a bypass bridge at the far end).

At the splitting point of these two lines, the faulty position is indicated. The information of the distance to the faulty position is from the far end!

**Block diagram:**

![Block diagram of Differential Impulse Current Method (Diff ICM) and Differential Decay Method (Diff Decay)](image)
Measurement example:

First measurement without bypass bridge at the far end

Second measurement with bypass bridge at the far end

faulty position, splitting of the lines