Data sheet for CaviBasic

Product specifications

Areas of Use
CaviBasic is available in two versions:

1. With a perforated plastic tube to quality-ensure the grouting of rock bolts and wire bolts and thereafter monitor elongation and bolt breakage/wire breakage.
2. CaviBasic without the perforated measuring tube is used to monitor elongation and bolt breakage for cement-grouted rock bolts and wire bolts.

Measuring pressure
CaviBasic can handle a measuring pressure of up to 10 bar. A measuring pressure of 3 bar is normally used for installation monitoring of hardened cement.

Weight
9 grams/meter

Dimensions
The plastic tube has an outer diameter of 4.0 mm and an inner diameter of 2.5 mm. The stainless steel wire inside the plastic tube has a diameter of 0.7 mm. CaviBasic is available in any length, i.e. will be delivered to tailor-fit customer needs.

1. **Measuring principle**
   CaviBasic with perforated plastic tube.
   CaviBasic is perforated with small slits in order to allow gas to pass through when pressurized. No cement slurry can seep into the tube through the slits or through the top of the tube since it is sealed.
   CaviTube is pressurized using either measuring system CaviMeter or CaviMini.
   If the gas escapes out into cavities or cracks in the finished grout, this will be registered by the measuring system.
   To monitor elongation or bolt breakage of the cement-grouted rock bolt or wire bolt, a digital gauge and ohm meter are used respectively. The steel wire is cut flush with the threading. The distance between the end of the treading and the steel wire are a measurement of elongation. For resistance measurements, if the resistance between the bolt and the steel wire are about 0 ohm, then the rock bolt is whole. If the resistance is very large, then the bolt has broken.

2. CaviBasic without the perforated plastic tube.
   To monitor elongation or bolt breakage of the cement-grouted rock bolt or wire bolt, a digital gauge and ohm meter are used respectively. The steel wire is cut flush with the threading. The distance between the end of the treading and the steel wire are a measurement of elongation. For resistance measurements, if the resistance between the bolt and the steel wire are about 0 ohm, then the rock bolt is whole. If the resistance is very large, then the bolt has broken.

CaviBasic is fastened to the top of the rock bolt using a hand tool and in a few places along the bolt using clips. It is best to do this on site before the rock bolt is inserted in the bore hole. CaviBasic can be delivered tailor-made for different types of rock bolts or wire bolts for cement grouting.

Accuracy
CaviBasic is manufactured with automatic machinery to ensure quality.