WATER

- RQ-30 / RQ30-a
- Radar Profiler RP-30
- Tracer System TQ-S

NON-CONTACT DISCHARGE MEASUREMENT BY MEANS OF RADAR TECHNOLOGY FOR OPEN RIVES

The RQ-30 is a sensor for continous discharge measurement of rivers, open channels and Canals with know cross-section profile. The sensor uses innovative radar technology to measure velocity, wáter level and discharge. It enables reliable, non-contact measurement without the need for structural work in the wáter.

MEASURING PRINCIPLE

The non-contact radar technology determines the wáter surface flow velocity using the Doppler frequency shift method and futhermore the wáter leve lis estabIoshed by a travel time measurement. With known cross section profile the discharge Q of the wáter can then be calculated on basis of the continuity equation: Q= Vm*A(h).

GEOTECHNICS

- Fissurometer
- Extensometer
- Geophone

FISSUROMETER

Continous monitoring of rock movements and fissure shifts

The fissurometer is a tenght variation sensor that measures changes in lenght via a linear potentiometer. It can be applied for rock formations or building structures to measure the movement and shift size of gaps and fissures between two walls that are positioned parallel or vertically to each other.

EXTENSOMETER

Measuring expansion and tension

An extensometer (strain sensor) is used to measure the elongation in situations of tension, compression or bending. In enviromental monitoring extensometers are used to monitor buildings and rock formations and therefore in road and railway building just like for cibvil protection. For this purpose analogue and inremental position sensors are applied. With their signal the elongation (strain) is calculated according to a refernece value measured before.

GEOPHONE

Monitoring ground vibrations

Geophones are used to measure vibrations and concussions (Shocks) in the ground and of big rock formations. The geophone transform a mechanic vibration to an analogue voltage signal. The sensors are shock-resistant and most suitable for applications in the field and at extreme conditions.
Sensitive capturing of even mild vibrations are possible. On demand it is possible to mount a vibrating plate together with the geophone for controlled and regular practice alarms.