

DS850

Extrude meter



Description

The removable extensometer DS850 was designed to measure the excavation face in tunnels during excavation procedures. It measures the distance between two magnetic rings allocated along the inclinometer casing.

The system is equipped with a probe, cable, a readout unit ESTRUDAT and a software package.

The probe consists of two wheel-carriages and two contactless magneto-resistant linear transducers. The electric cable is equipped with a waterproof connector up to 50 bar and supports the probe during measurement. The cable has a kevlar core to guarantee the cable non-extendibility and positioning precision. The cable is also equipped with reference marks at 50 cm intervals, has a max error margin of $\pm 5\text{cm}/100\text{m}$ and max extensibility of $<0,05\%$ of the nominal cable length with a load of 20 kg.

The readout unit is equipped with trigger cable power supply and serial cable.

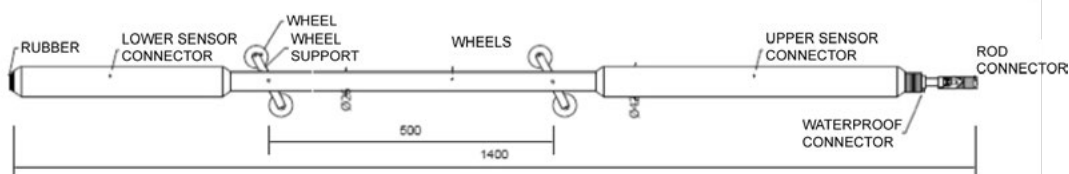
Applications

Tunnel path monitoring during excavation.



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Technical features

Probe step	1000mm
Range	±100mm
Combined error	±0.02mm
Repeatability	< 0.01mm
Supply	24Vcc
Output	0-5Vcc
Consumption	138mA
Operating temperature	-30 ÷ 75°C
Temperature coeff.	0.005%FS/°C
Protection	IP68
Length	1400
Max. diameter	Ø42
Weight	4.3 Kg
Material	Stainless Steel
Readout unit	ESTRUDAT
Software	ESTRUDAT Manager + Processing

Accessories

Magnetic ring	DS850-RNG1
Positioning rod with quick-joint coupling (2m)	DS850-RDAR
Calibrator	DS850-MWDM

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