

General

The fixed extrusometer DS840 was designed to measure the excavation face in tunnels during excavation procedures.

It consists of an anchor and a measuring head placed at a different depth (i.e. anchor at 12 mt. from face and head at 6 mt. from face). In the measuring head are placed a displacement sensor DS810 with a range of 200mm and a radio transmitter allowing to send the data to a data logger and record the movements in real time without needing to stop the excavation works.

SIM provides inflatable anchors that allow a punctual cementation without inserting concrete in the entire hole. As for the measuring head SIM supplies inflatable anchor in order to have a better adherence.

The radio transmitter is equipped with an antenna placed in a metallic tube in order to ensure the data transmission in every situation.

The extrusometer measuring head is produced in anticorrosive and stainless steel material in order to ensure great longevity to the system. The measuring heads are produced with different number of measuring points, from 1 to 4 rods.

Applications

Tunnel path monitoring during excavation.

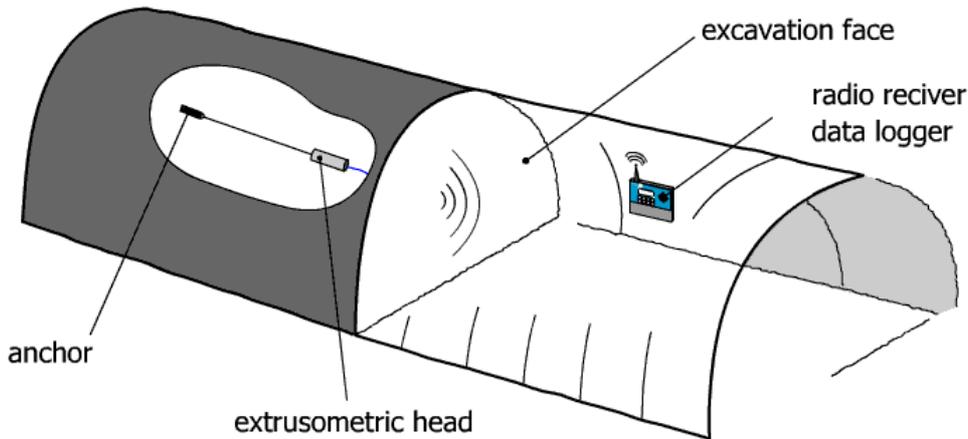
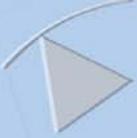
Tunnel path monitoring

Radio communication

Data logger (optional)



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Technical features

Displacement sensor

Range	200 mm
Supply	3,6 Vcc
Output	0-1 Vcc (4-20 mA via radio)
Linearity	0,1% FS
Repeatability	<0,01%
Resolution	0,01 mm
Operating temperature	-55 ÷ +125 °C

Measuring rod

Material	Fiberglass/PVC
Diameter base	Ø 9 mm
Diameter tube	Ø 16 mm
Length bars	Single length
Anchor	Steel + inflatable
Length anchor	300 mm
Diameter anchor	20 mm
Thermal dilatation coeff.	5x10E-6/°C

Accessories & spare parts

DS840 - AX - ANC1	Couple of anchors
DS840 - AX - ANC2	Couple of inflatable anchor
DS840 - AX - ANT0	Antenna cable (1ml)
DS840 - AX - MSB1	Measuring rod with sliding tube (1ml)

DS840_EN ED01/07



SIM STRUMENTI SNC
 Via Merendi 42
 20010 Cornaredo (MI) - ITALY
 Tel. : +39 02 97003039
 Tel. : +39 02 97003329
 Fax : +39 02 97290167
 www.simstrumenti.com
 sim@simstrumenti.com



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