

NOVA TR50/FS50

Transducers for crack monitoring,
Load Tests and flat jacks tests



Transducer for crack monitoring, Load Tests and flat jacks tests.

The displacement transducers commonly used for the **automatic and continuous acquisition of measurements** during structural monitoring or load tests. Completely made of stainless steel, they can be equipped with eyelets for wall fixing or with spring testator for load tests with suitable support bracket and telescopic stand. **Available with different measurement ranges.**

The electronic crack meter consists of a potentiometric-type displacement sensor that detects changes in position between two points straddling a lesion or a joint. It is made entirely of **aluminum, nylon and stainless steel** and is equipped with self-aligning joints and a whole range of optional accessories for correct installation even in the most difficult cracking situations (cracks at corners, edges, etc.).

The electric crack meter is a valid tool for manual or automatic control of the measurements of small displacements. The data can be read through the use of a **portable control unit** or through an automatic data acquisition system designed to carry out continuous monitoring.

Applications:

- Automation of multi-base strain gauge measurements
- Measurement of vertical deformations of piles during load tests
- Joint measurements
- Reading of deformations during tests with flat jacks
- Injuries in buildings of historical and artistic interest
- Monitoring of civil and industrial buildings
- Fractures in rock masses
- Joints in dams, bridges and viaducts
- Management of alarms and safety on construction sites

Main features

- Ease of installation
- Reliability even for prolonged monitoring over time
- Good resolution and accuracy
- Manual or automatic readings
- Measuring range up to 150 mm
- IP65 / IP68 protection degree
- Compact and robust construction in stainless steel

Both types of sensors are compatible with the “NB-IoT 5G DATA ACQUISITION SYSTEM” and with the “NOVLog” data acquisition control unit.

Technical features:

Displacement Transducers

Type of sensor	Potentiometric
Range: 50 mm	50 mm
Linearity: +/- 0.1% F.S.	+/- 0.1% F.S.
Resolution	Dependent on the reading system
Repeatability	0.01 mm
Output signal	Voltage, 4-20 mA
Protection	IP65
Maximum applicable voltage	40 Volt
Operating temperature	-20 ~ +80°C
Maximum applicable current	< 10 mA
Diameter	16 mm
• Material: Stainless Steel	Acciaio Inox

Electronic Crack Gauges

Type of sensor	Potentiometric
Type of installation	Suitable for any environmental situation
Range	50 (100 and 150 mm strokes available on request)
Material	Stainless steel
Linearity	< 0.1% F.S.
Resolution	Dependent on the reading system
Repeatability	0.01 mm
Protection	IP68
Output signal	Voltage
Operating temperature	-20 ~ +80°C

Accessories:

Displacement transducers

- 50 mm displacement transducer
- Fitting for attachment to the head of strain gauges
- Signal cable
- Support bracket (optional)

Electronic crack meters

- NOVA-FS 50 electronic crack meter (100 and 150 mm range available on request)
- Aligned joints
- Extension rods in stainless steel
- Ground or rock anchors

