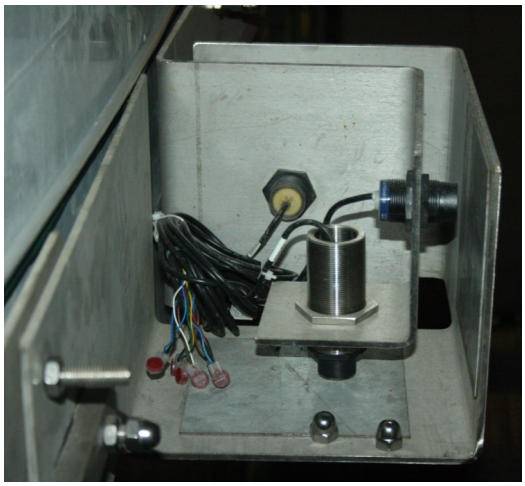
JOINT METER



Joint meters are used for continuous monitoring of cracks and joints.

They are mounted across the fissure and detect any occurring movement.

These instruments find applications in many fields such as:

- *Cliffs:* monitoring of fractures or fissures.
- *Dams:* monitoring of construction joints between concrete blocks.
- *Tunnels:* monitoring of lining and/or rock during excavation works.
- *Buildings:* monitoring of fissures.

AGISCO has developed several models of joint meters that differ for their full scale, number of measuring directions, and application.

All models employ high-accuracy contactless-type electrical transducers. They can be read by a portable reading unit or can be connected to automatic data acquisition systems for continuous long-lasting monitoring.

Every joint meter is delivered with a certificate guaranteeing calibration up to a 5th degree polynomial linearization. A test certificate for climatic extremes is available on request.

Advantages can be summarised as follows:

- Contactless three-dimensional measurement of the two adjacent parts thus preventing interference of one axis with the others.
- Immediate smooth response to any movement, both compression or tensile stress, thus avoiding "saw-tooth" reading of data, common with traditional rod-type instruments.
- High accuracy and repeatability (see technical specifications).
- High temperature stability.
- High reliability. The sensor is self-contained and with a protection level of IP68 which, together with AGISCO's advanced technical engineering, makes the instrument particularly sturdy and suitable for use in every environment.
- Universal connectivity to any data acquisition system and equipped with a standard (4-20 mA) analogical output means no other electronic component is needed.
- Compatible with precision dial gauges for manual reading.
- Operates even if immersed.
- Very low cost.

AGISCO offer three different joint-meters according to their measuring axis: mono-axial, bi-axial and tri-axial.

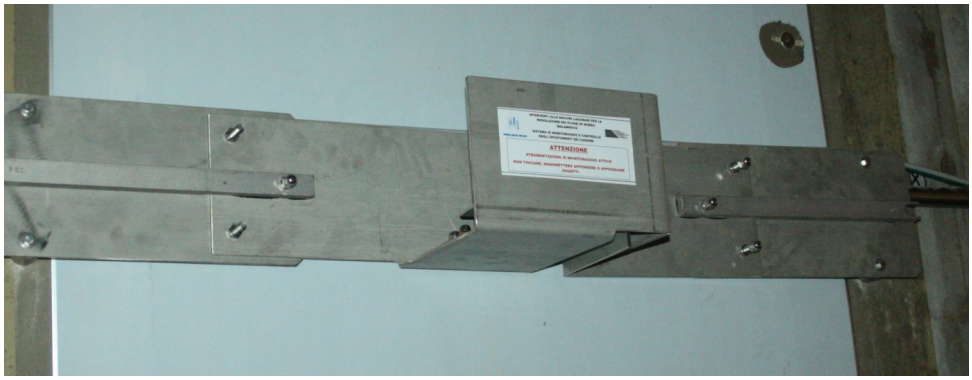
Each of these models uses sensors with different measuring ranges: 8, 15, 50 mm or larger ranges upon request.

The instrument can be mechanically re-adjusted if one of the sensors goes out of range.

The tri-axial model is more versatile than the others as it allows measurement of fissure displacements in three orthogonal directions (X-Y-Z co-ordinates).

The mechanical anchoring system houses three contactless inductive-type electrical transducers which supply an electrical signal proportional to the occurring displacement.

Using the device in extreme environments such as fissures in rock faces may require extensions of the measuring arm and additional protection from destructive natural forces.



Specially developed joint-meter for the caissons of the MOSE project (safeguard of Venice)

TECHNICAL SPECIFICATIONS

JOINT METER	
Type of sensor	contactless inductive-type electrical transducer
Standard measurement range	0 ÷ 15 mm
Optional measurement range	0 ÷ 10 mm / 0 ÷ 40 mm
Supply	12 ÷ 24 V dc
Accuracy	0.01 mm
Output	4 ÷ 20 mA
Operating temperature range	-20 ÷ +50 C°
Protection degree	IP 68
Material	Stainless steel

Agisco reserve the right to change their products and specifications without notice

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