

HORIZONTAL DISPLACEMENT

INSTRUMENTS	APPLICATION	RANGE	ACCURACY	RELIABILITY
Inclinometers	<p>Detecting zones of movement and establish whether movement is constant, accelerating, or responding to remedial measures.</p> <p>Checking that deformations are within design limits, that struts and anchors are performing as expected, and that adjacent buildings are not affected by ground movements.</p> <p>Verifying stability of dams, dam abutments, and upstream slopes during and after impoundment.</p>	+/-35°	+/-0,25 cm/m	High
In-Place Inclinometer Sensors	<p>A real-time alternative to the traversing probe type of inclinometer, the in-place inclinometer employs a fixed chain of sensors and does not require an on-site operator. It is ideal for data logging and real-time, remote monitoring for critical applications such as construction control. Typical applications include:</p> <p>Monitoring landslide areas above dams, highways, and railroads to provide early warning of slope failure.</p> <p>Monitoring ground movements induced by tunnel construction and excavation.</p> <p>Monitoring deformations of embankments and retaining walls.</p>	0-30°	0,1 FS	High
Settlement Hook	<p>Settlement hooks are used with telescoping inclinometer casing to identify the zones and magnitude of settlement in the ground surrounding the casing. Typical</p>	0-15° rot. +/- 10mm	10" rot. 0,1 mm def.	good

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	<p>applications include:</p> <p>Monitoring settlement in foundations, and embankments.</p> <p>Monitoring for settlement caused by construction of tunnels and other underground openings.</p> <p>Monitoring settlement to increase the accuracy of inclinometer data</p>	def.		
TDR	Detecting zones of movement	cm		elevato

VERTICAL DISPLACEMENT

INSTRUMENTS	APPLICATION	RANGE	ACCURACY	RELIABILITY
Horizontal inclinometer	Monitoring settlement profiles of embankments, foundations, and other structures	0-30°	+/-0,25 cm/m	High
Rod Extensomete	<p>The rod extensometer monitors changes in the distance between one or more downhole anchors and a reference head at the borehole collar. Typical applications include:</p> <p>Monitoring settlement in foundations.</p> <p>Monitoring subsidence above tunnels and mines.</p> <p>Monitoring heave in excavations. Monitoring the stability of tunnels and other underground openings.</p> <p>Monitoring deformation in abutments and walls.</p>	0-200 mm	+/- 0,2 FS base 70 m	high

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Incex	Combined with a conventional inclinometer measuring system allows determination of 3-dimensional deformation profiles.	+/-10 mm	0,01 mm	good
Trivec	measuring system allows determination of 3-dimensional deformation profiles.		.	

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