TRIAXIAL STRAIN CELL (DOORSTOPPER TEST)

TECHNICAL FEATURES

- ✓ Type of strain gauge: Wheatstone bridge (1/4 bridge);
- ✓ Nominal resistance of each strain gauge: 350 Ω +/- 0.5%;
- ✓ Strain gauges position: 0°-45°-90°-135°;
- ✓ Power supply: 7.5 VDC;
- ✓ Temperature sensor: NTC 3 KΩ at 25° C
- ✓ Temperature accuracy: 0,5° C
- ✓ Triaxial strain cell size: 32 mm diameter, 55 mm total length including connector.

CENTERING FRAME

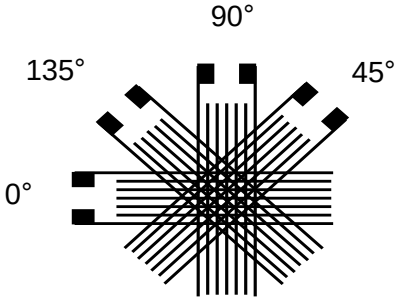
- ✓ with pre-compression spring, 6-7 kg of thrust;
- ✓ with 2 removable and repositionable hole centering devices;
- ✓ with surface locking device;
- ✓ 2 assembled tubes to easily perform surface and deep tests;
- ✓ ring for readings with "accurate" hooking system.

CE product compliant with European directives

The triaxial strain cell (Doorstopper test) is made of 4 electrical resistance sensors placed at 45 ° angle from each other. They are glued to the bottom of a borehole, previously cleared and levelled, excavated in rock or concrete.
Overcoring this portion of material causes stress relief measured by a variation of the electrical resistance for each sensor of the triaxial strain cell that was glued.
Through these changes in electrical resistance it is possible to trace back the status of stress to which the material monitored was subjected to.

The triaxial strain cell is mounted on a special plastic structure with a military (Mil Spec) connector to measure for resistive measurement of the strain gauge sensors.
It comes with a epoxy glue kit to fix it on the rock-concrete and, if needed, with special centring frame for fastening and measurement from bottom hole.

Placement of the Strain Gauges



Earth System srl - Via Artigianato 5/a
43022 Montechiarugolo - Parma
tel. +39 0521 394595
e-mail: info@earthsystem.it