

55-C0222/F

Electronic compression/extension meter for deformation measurement.

CONTROLS



Compression/extension meter model 50-C0222/F.

Main features

- Ideal for axial deformation in elastic modulus tests.
- Suitable for various samples sizes: cylinders up to dia. 150 x 300 and 160 x 300; cubes up to 200 mm and various sized prisms including 40 x 40 x 160 mm cement samples.
- Simple and quick fixing system, in a few seconds testing can begin.
- Aluminium and steel structure with integral transducers guarantees free movement in all testing conditions.
- Highly accurate transducers:
 - Feed: up to 10 V
 - Sensitivity: 0,02 micron
- Travel $\pm 1,5$ mm.
- Mechanical full travel blockage to prevent accidental damage due to over travel.
- Gauge length adjustable from 50 to 160 mm (regulation template included).
- Minimal axial dimension 55 mm.

Description

The new **55-C0222/F** extension/compression meter is fixed to the surface of the sample with a pair of elastic bands supplied as standard and is connected to a compatible data logger. It allows accurate measurement of axial deformations. It is ideal in elastic modulus tests on concrete given its rapid and easy set up. In a few moments two or more (in accordance with test Standard being followed) **55-C0222/F** can be positioned and fixed to the sample and be ready for the test. Another application may be when the sample deformation may be the signal used as the feed-back to pilot the test itself (i.e. deformation controlled tests). This universal instrument can be used in many different tests. The sensor used are compatible with most commercial data loggers as well as those produced by CONTROLS, and can also be connected to CONTROLS computerized control consoles such as ADVANTEST 9, SERCOMP 7, ecc..

Procedure for use in the determination of uniaxial secant elastic modulus.

- Make the position of the 55-C0222/F on the surface of the sample using the supplied template. If the sample is a cylinder, 2 or 3 axis will be used depending on the test Standard adopted.
- Position the 2 or 3 55-C0222/F, one at a time, along each marked axis and fix in position using the elastic band supplied with the instrument. These are pulled over the instrument and placed in the notches in the surface of the frames.
- Unlock the transducers by rotating the knob which prevents the free movement of the mobile part. The transducer is unlocked when the knob is parallel to the main axis of the instrument.
- Connect the data logger and start the test.

The fixing on the sample surface is via the conical points of hardened steel which prevents any slippage thanks to the light pressure given by the elastic bands supplied with the instrument.



Dia 150 x 300 mm cylinder fitted with 3 55-C0222/F ready for an elastic modulus test. The detail above shows the lock/unlocking device of the transducer.

Ordering information

55-C0222/F

Universal electronic extension/compression meter. For cylinders, cubes and prisms supplied complete with:

- mini distance pieces for use with small samples:
 - minimal measuring base 50 mm
 - minimal axial dimension 55 mm
- template for gauge length regulation;
- pair of elastic bands with adjustable length for fixing of the instrument to samples.



Set of three 55-C0222/F.

Some of CONTROLS compatible data loggers and systems

Datalogger

82-P0908/A - DATALOG

Data acquisition and processing unit with 8 channels.
Sensor feed 10 V. 110-240V / 50-60Hz / 1 Ph.

Test systems

ADVANTEST 9 - 50-C9842

Computerized controls unit for 4 frames for compression/flexure/indirect tensile test with load, displacement of deformation control.

Command software included. 230 V, 50 Hz, 1 Ph.

Up to four 55-C0222/F can be connected to this unit.

The elastic modulus test is performed automatically.



Contact face of the instrument. Note the 4 hardened steel points which prevent slippage.