S0105/SM/F - Maintainer / force controller. SOILMATIC

Options
Range of force: 10kN, 25kN and 50kN
Range of displacement: up to 100mm

What is it?
The controller / force maintainer Soilmatic of Proeti is a general system of force application with PID control and display applied force and displacement in real time. The unit is controlled by computer through EDS software. The unit, EDS software, maintainers of pressure and volume and data interface, give you unlimited capacities for usual and advanced rock and soils testing controlled by a computer. The option "free test" allows you generate any test that you could need.

How works it?
The maintainer has a motor with PID control and a transmission box that put in motion a screw without end. The mechanism is strongly attached to the baseplate and that one is also put to test device, applying the force to test specimen.
Force is measured through a transducer that can be attached on the edge of controller piston or in another part of test device. Displacement is measured through an encoder.

Technical specifications:
Force range: 10-25-50 kN. Another capacities available under customer request.
Force indicator resolution: ±1 in 10.000
Load cell accuracy: no lineality : ±0,03%, histeresys and no repeatability: ±0,05%_
Displacement range: 100mm
Displacement resolution: 0,1µm
Displacement accuracy: 0,05% F.E.
Velocity of displacement max: configurable, from 0.000001 mm/min up to 10 mm/min.
Velocity of displacement min: 0 mm/min
Weight (approx): 32 Kg
Dimensions: actuator 0,87x0,15x0,15m; control unit 0,87x0,23x0,15m
Resolution of measure and control: pressure _0,1% F.E; displacement = 0,1µm
Power supply: 92-265 V.A.C. 48-440Hz, 65w max., One phase earthed and fuse 2A x 2
Control panel: touchscreen.
Interface PC: PCI or USB

USE OF LOAD MAINTAINERS
Maintainers can be used and configured as:

DIRECT SHEAR TEST. Can be used
• To apply a constant deformation to test specimens.
• As devices that apply a load gradient to test specimens.
• As devices that keep constant volume of specimen, during shear phase.