

















IF IT'S WORTH BUILDING, IT'S WORTH TESTING

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### **DSU Electronic Readout and Control** System 110 V AC 60 Hz

Code: 27-1300/02

Product Group: Data Logging with the DSU, Electronic Instrumentation, Data Logging with the

- · Download the full brochure here [/Page/catalogue-download/NTRmZS9UaGUgTkVXIE RTVSBVU0EucGRm]
- · Download the full DS7.2 geotechnical software brochure here [/Page/catalogue-download/NTRmZS9OZXcgRFM3IF NvZnR3YXJIIFVTQTY5LnBkZg==1
- · 4 channel automatic control and data-logging unit
- · Automatic, dual-frame control
- · Performs CBR, Marshall, Unconfined Compression, Direct and Residual Shear, One-Dimensional Consolidation, Unconfined Undrained, Consolidated Drained and Unconsolidated Drained tests
- · LAN connection software can be running anywhere on your server
- · Never lose data from power fails 2 gigabytes of non-volatile memory

The Data System Unit (DSU) is a versatile instrument designed to accomodate the general logging requirements of geotechnical and materials testing engineers. Its intelligent interface allows the user to work with a range of different sensors.

#### **Further Information**

Become a member of the ELE International web site, add this new product to a wishlist to receive a quote! Click here [/Login]

This product is now available in the USA and Canada!



# GDU 8 Channel Data Acquisition Unit 100-120 V 60 Hz

Code: 27-1500/02

Product Group: Data Logging with the GDU, Geotechnical Data Acquisition Unit (GDU)

The GDU is a stand-alone, multi-tasking, multi-channel data logger, that is reliable and powerful, enabling it to co-ordinate test data from the range of ELE transducers required for various test methods.

The ELE Geotechnical Software package (DS7.1), in conjunction with the GDU and a range of transducers, are the two central components required to create a modern turnkey soil testing system. Being fully modular it can be adapted to a wide range of soil testing laboratory configurations.

- For performing CBR, Consolidation, Direct/Residual Shear and Total & Effective Stress Triaxial tests
- 8 Channels expandable to 32 for performing multiple, concurrent tests for cost savings
- Independent signal conditioning on each channel to maintain data accuracy
- Field-upgradeable software, meaning no downtime for future software and functionality upgrades
- Extended warranty

### Specification

Input Range

Case Aluminum, free standing;

houses power supply, analog to digital conversion module and an 8-channel analog input

module with transducer

energization.

Sockets Standard 5-pin DIN type.

 $\pm$  5 volts to  $\pm$  10 mV full scale.

Transducer Supply 10vDC.

Dimensions 12.8" w. x 14.3" d. x 6.1" h.

(325 x 363 x 155 mm).

Weight Net 14.08 lbs. (6.4 kg).

www.ele.com +44 (0)1525 249 200



# **DS7.1 CU/CD Effective Stress Triaxial Software**

Code: 27-1760 Product Group: N/A

### Standards

ASTM D4767, ASTM D7181, AASHTO T297



### **Axial Strain Transducer Assembly 50mm** Travel Fitted with 5 Pin Din Plug.

Code: 27-1617

Product Group: Axial Displacement, Axial Displacement, Displacement Transducers

0 to 50 mm range. For use with Triaxial Cells. •Ideally suited for use with GDU for accurate displacement measurements

- •Models available for use in consolidation, shear, CBR and triaxial test applications
- •Supplied complete with mounting hardware for specified products

Displacement Transducers are used in consolidation, shear, CBR and triaxial test applications for accuratevdisplacement measurements. They are supplied complete with a 5-pin DIN type connector for direct connection to the GDU.

#### **Specification**

Construction Fully encapsulated electronics,

sealed in a stainless steel case

Excitation 10 V DC 5-pin DIN type Connector

Mounting bracket Included as standard

0.45 Weight kg

Construction Fully encapsulated electronics,

sealed in a stainless steel

case.

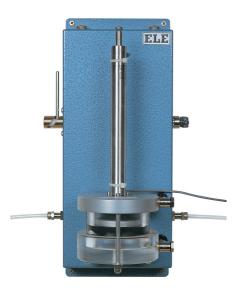
Excitation 10vDC.

Connector 5-Pin DIN type.

Mounting Bracket Included as standard.

Weight Net 1 lb. (0.45 kg).

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## Volume Change Transducer Assembly 80Cm3 Capacity Maximum Working Pressure 1700Kpa

Code: 27-1641

Product Group: Volume Change Measurement, Volume Change Measurement, Volume Change Transducer, Tri-Flex 2 One-Cell Permeability Test System

- •Reversing valves to increase capacity
- •Steel case for wall mounting and access to piping
- •Supplied complete with calibration certificate

The Volume Change Transducer provides continuous measurements of volume change during the triaxial test. The assembly includes a valve to reverse the flow through the unit, providing increased capacity.

#### **Specification**

Overall dimensions (l x w x h) 178 x 229 x 368 mm

Maximum pressure 1700 kPa Excitation 10 V DC

Output 1.25 full range

Capacity 80 ml

Connector 5-pin DIN type

Weight kg 4.5

Maximum Pressure 250 psi (1,700 kPa).

Excitation 10vDC.

Output 1.25 Volts full range.
Capacity 80 cc x 0.1 cc sensitivity.
Case Steel; hinged for access to

piping.

Connector 5-Pin DIN type.

Overall Dimensions 9" w. x 7" d. x 14 -1/2" h. (22 9

x 178 x 368 mm).

Weight Net 10 lbs. (4.5 kg).

Maximum Pressure 250 psi (1,700 kPa).

Excitation 10vDC.

Output 1.25 Volts full range.
Capacity 80 cc x 0.1 cc sensitivity.
Case Steel; hinged for access to

piping.

Connector 5-Pin DIN type.

Overall Dimensions 9" w. x 7" d. x 14 -1/2" h. (22 9

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Weight

x 178 x 368 mm). Net 10 lbs. (4.5 kg).



# **Pressure Transducer Assembly 1700Kpa Fitted with 5 Pin Din Plug.**

Code: 27-1633

Product Group: Pressure Transducer, Pressure Measurement, Tri-Flex 2 One-Cell Permeability Test System

Pressure Transducers are used to measure the cell, pore and back pressures during triaxial testing. Assemblies are supplied complete with a de-airing block, valve, 5-pin DIN plug connector and calibration certificate

### Specification

Construction Stainless steel Excitation 10 V DC

Output 143 mV full range
Thread ¼â BSP
Construction Stainless Steel.

Excitation 10vDC.
Thread 1/4 BSP.

Construction Stainless Steel.

Excitation 10vDC.
Thread 1/4 BSP.

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### 70mm Triaxial Cell 1700Kpa with 5 Pressure/ Drainage Ports. Supplied with Two Valves.

Code: 25-4117

Product Group: Triaxial Cell, Triaxial Cells

- Working pressure up to 1700 kPa
- All round visibility
- Sample sizes 38 to 100 mm diameter
- Rapid assembly and dismantling
- Accepts a range of interchangeable submersible load transducers

This range of precision made triaxial cells has been designed to meet the requirements of the modern soils laboratory. The cells have been treated to minimise corrosion. Particular attention has been paid to the quality of finish between the piston and the head. Final assembly includes the fitting of an O-ring seal and the use of special lubricant to reduce friction to a minimum and eliminate water leakage.

The piston load capacity is designed to accept high horizontal forces which may be present during the final stages of a test. Each cell has five take-off positions drilled in the base for top drainage/back pressure, pore water pressure and bottom drainage. Two no-volume change valves and an anvil for strain gauge/transducer datum are supplied for fitting to the cell.

A feature of these cells is that they all accept a single diameter piston. The internal height is such that a range of submersible load transducers can be fitted without any modification. Each cell will accept a range of base adaptors and various accessories for testing a wide range of specimens

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#### **Standards**

BS 1377, ASTM D2850, ASTM D4767, ASTM D7181, AASHTO T296, AASHTO T297

### **Specification**

Cell size 70 mm

Max specimen size 70 x 140 mm

Working pressure 1701 kPa

Max piston load 46 kN

Vertical clearance required 430 mm

Horizontal clearance required 180 mm

Weight kg 7.3

Maximum Working Pressure 25 0 psi (1,700 kPa). Maximum Piston Load 10,100 lbf. (45 kN).

www.ele.com # 444 (0)1525 249 200 = +1 (800) 323 1242

www.ele.com +44 (0) 01525 249 200

2.8" (70 mm) diam. x 5.6" (14 0 Maximum Specimen Size

mm) l.

17" (43 0 mm) vertical; 7.1" (180 mm) Required Clearance

horizontal.

Weights Net 16 lbs. (7.3 kg).



#### **Tri-Flex 2 Master Control Panel, English 110vAC**

Code: 25-0696/02

Product Group: Tri-Flex 2 Master Control Panel

### **Standards**

ASTM D2850, ASTM D4767, ASTM D7181, ASTM D5084, AASHTO T296, AASHTO T297

#### **Further Information**

110vAC, 50/60 Hz, 1ø.

#### **Specification**

Measurement Range 10-4 to 10-10 cm/sec.

2 to 150 psi (14 -1,034 kPa), Master Regulator

dual scale.

2 to 160 psi (14 -1,103 kPa), Master Pressure Gauge

dual scale.

Master Vacuum Gauge 0 to -30 inches of Hg (0-100

kPa), dual scale.

Digital Pressure Meter English: 2 to 15 0 psi range; ±

0.1 psi; ± 0.25 % accuracy

full scale.

Metric: 14 to 1,034 kPa range;

± 1 kPa; ±

0.25 % accuracy full scale.

**Burette Pressure Regulators** Three; 2 to 15 0 psi (14 -1,034

Three; 25 /400 ml capacity with Burette/Annulus

0.1 ml burette graduations.

**Utilities Required** Water, vacuum, Dry air

pressure, drain and AC power

supply.

**Dimensions** 21 â 0 w. x 36-3/4â 0 h. x 7â 0 0

d. (17â11 d. with legs); (533 x

933 x 178 mm).



Weight

Net 50 lbs. (22 .7 kg).



#### **Combination Permeameter**

Code: 25-0623

Product Group: Combination Permeameter Constant or Falling Head, Combination Permeameter

- Plated steel chamber head assembly
- Corrosion-resistant cast aluminum base assembly
- •Includes accessories for conducting both constant

and falling head permeability studies

This combination permeameter has a transparent plastic chamber for soil specimens of either fine-grained or coarse-grained soils. Generally, soils containing 10 percent or more particles passing a 75 um sieve are tested using the falling head assembly. More granular soils, containing 90 percent or more particles retained on the 75 µm sieve, are tested using the constant head assembly.

The cell is sealed at the top so that a vacuum may be used to saturate the specimen. Porous stones located at the top and bottom of the cell prevent sample flaking or washout. For constant head tests, a plastic funnel reservoir is mounted on an upright attached to the cell, providing a maximum head of 550 mm. Falling head tests are performed using the grGDUated pipette falling head reservoir, which gives a maximum head of 1000 mm and is graduated 0.2

#### **Specification**

Specimen size 63.5 x 63.5 mm (dia x I max)

> when using lower chamber only, 63.5 x 140 mm (dia x I max) when using both lower and extension chambers

Chamber Transparent plastic, two

sections

Base Cast aluminium

Top seal Plated steel with gaskets **Porous Stones** 62.7 x 12.7 mm (diameter x

thickness)

Constant head Plastic, funnel reservoir, 550

mm

maximum head

Graduated pipette, 100 ml x Falling head

0.2 ml, 1000 mm maximum

head

Weight kg

2-1/2" diam. x 2-1/2" l. max. Specimen Size

(63.5 x 63.5 mm) when using lower chamber only; 2-1/2"



diam. x 5-1/2" I. max. (63.5 x 14 0 mm) when using both lower and extension chambers.

Capacity Clear lucite; 1/4" (6.3 mm) wall;

two sections.

Base Cast aluminum.

Top Seal Plated steel with gaskets.

Porous Stones Mounts at top and bottom;

2.47" diam. x 1/2" thick (62.7 x

12 .7 mm); 105-120 permeability rating; 300 micron, average pore size.

Constant Head Plastic; funnel reservoir; 55 cm

maximum head.

Falling Head Graduated pipette; 100 cc x

0.2 cc; 100 cm. maximum

head.

Weight Net 11 lbs. (5 kg).

### Spares/Consumables



Porous Stone 2.47" x .50"

Code: T-308