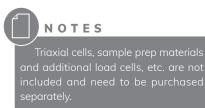
# HUMBOLDT

# ELITE SERIES **Automated Pressure Controllers**



Humboldt's new automated pressure controllers are designed to handle saturation, consolidation and permeation of a triaxial test samples, as well as perform a shear function when using the HM-5020 and its integral Load Frame. Both machines provide a simple and compact setup for doing tests without the need for seperate distribution panels, which simplifies the tubing and and control cable setup.

These pressure controllers are built around Humboldt's integral, data logger with touch-screen control, which allows the both to be used as a standalone device capable of full test control and data logging. They can also be controlled by a networked computer at any location with access to the network.



| Controller Specifications:                      |   |
|---|---|
| Display (Resistive Touch)                       | 7" (178mm) VGA (480 x 800)                        |
| Real-time test data                             | Graphic and tabulation                            |
| Processor                                       | Dual 32-bit ARM                                   |
| RAM   | 64MB  |
| Memory, non-volatile                            | 4GB   |
| Analog to digital converter                     | 24 bit  |
| Logging speed                                   | up to 50 readings per second                      |
| Multi-test storage                              | 1000  |
| Points per test                                 | 3000  |
| USB port (front)                                | export data, import/export calibration data, WiFi |
| USB port (back)                                 | provides external power for wireless access point |
| Ethernet connection                             | for network connectivity                          |
| 24-bit differential analog to digital converter | 2   |
| Ambient temperature sensor                      | 1   |
| Firmware Update                                 | Ethernet or flash drive                           |

### ELITE SERIES

## **Automated Pressure Controllers**



#### Automated, Pressure Controller with Load Frame

The HM-5820 is an automated pressure controller designed to handle saturation, consolidation and permeation of a triaxial test sample, as well as perform a shear function with the use of its integral HM-5020 Load Frame. This allows the technician to also perform triaxial shear tests without having to purchase an additional unit.

Cell, head and tail pressure can be set in increments of 0.1 PSI while volume change is measured to 0.0001cc. The flow rate for permeation can be set from 1 cc/sec (60 cc/min) down to less than 0.000002 cc/sec (0.00012 cc/min). There are three data input channels – one for each pressure transducer, or if you are only doing permeability, you will only need one of the channels/pressure transducers.

The HM-5820 provides an accurate and compact configuration for performing triaxial tests without the need for seperate distribution panels, and simplifying tubing and control cable setup. By using the integral load frame, the HM-5820 provides an extremely compact and organized setup.

The HM-5820 is built around Humboldt's integral, data logger with touch-screen control, which allows the HM-5810 to be used as a standalone device capable of full test control and data logging. It can also be controlled by a networked computer at any location with access to the network.

**Triax-Control Pressure Controller** 

HM-5820.3F

Shipping wt. 168 lb (76kg)

#### **Automated, Pressure Controller**

The HM-5810 is an automated pressure controller designed to handle saturation, consolidation and permeation of a triaxial test sample. In this application it can be used solely for permeability testing as well, eliminating the need for distribution panels, etc. The HM-5810 is all you need to successfully do permeability testing for soil.

Cell, head and tail pressure can be set in increments of 0.1 PSI while volume change is measured to 0.0001cc. The flow rate for permeation can be set from 1 cc/sec (60 cc/min) down to less than 0.000002 cc/sec (0.00012 cc/min). There are three data input channels – one for each pressure transducer, or if you are only doing permeability, you will only need one of the channels/pressure transducers.

The HM-5810 provides an accurate and simplified permeability setup, which eliminates the need for seperate distribution panels, and simplifying tubing and control cable setup. By using the integral staging platform, the HM-5810 provides an extremely compact and organized setup.

The HM-5810 is built around Humboldt's integral, data logger with touch-screen control, which allows the HM-5810 to be used as a standalone device capable of full test control and data logging. It can also be controlled by a networked computer at any location with access to the network.

Hydro-Control Pressure Controller

HM-5810.3F

and the

Shipping wt. 168 lb (76kg)



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