

Automatic Pressure Controllers

Our easy to use APCs are ideal for the most modern laboratories. When used with VJ Tech's load frames, data loggers and software they can be controlled from a PC to form part of a complete automated system which provides accurate pressure control and volume change measurement. They can also be used as stand-alone automatic pressure sources with keypad operation and graphic display.

Due to the compact case design these units can be stacked one on top of the other (dependent on model). All Hydraulic APCs incorporate volume change measurement and as there is no requirement for an air compressor and bladder air/water cylinders, minimal laboratory space is taken up and tests are easier to control.

The pneumatic version of the APC can provide independent control and measurement of air pressure (compressed air source required) typically required for unsaturated triaxial tests.

- Microprocessor based design with 16bit A/D converter
- Fully stand alone or can be daisy chained for computer control
- Built-in battery backed real time clock
- Digital output of indicated readings
- LED Graphics display for pressure/volume/status indication
- Transducer calibration via keypad
- Non-volatile storage of calibration
- Closed loop Stepper motor controlled pressure / volume regulation
- Pressure control to a set pressure
- Ramping of pressure to a set level, ramp rate selectable in kPa/Hour
- Ramping of volume to a set level, ramp rate selectable in cc/Hour



VJT2260

Hydraulic APC Features:

- Standard pressure range from 1000kPa to 7000kPa
- Volume measurement up to 1000cc, 0.001cc readability
- Fill and empty options from keypad
- Supplied with pressure transducer
- Supplied with built-in volume change measurement
- Remote feedback control via external pressure sensor as standard (Sensor to be purchased separately)
- Electrical connection for automatic solenoid back pressure valve as standard (valve purchased separately)

Pneumatic APC Features:

- Supplied with pressure transducer
- Maximum inlet pressure of 1400kPa (use 5 micron upstream filter)
- Maximum regulated output pressure of 1000kPa, controlled to +/- 1kPa
- One or two pressure outlets
- Pressure connection via push-in type pneumatic connector

Automatic Pressure Controllers

Ordering Information

VJT2260	Automatic Hydraulic pressure/volume controller 3000kPa maximum pressure, 250cc volume capacity.
VJT2261	Automatic Hydraulic pressure/volume controller 14000kPa maximum pressure, 250cc volume capacity.
VJT2262	Automatic Hydraulic pressure/volume controller 70000kPa maximum pressure, 250cc volume capacity
VJT2266	Automatic Hydraulic pressure/volume controller 1000kPa maximum pressure, 200cc volume capacity.
VJT2280	Automatic Hydraulic pressure/volume controller 1700kPa maximum pressure, 1000cc volume capacity
VJT2250	Single Channel Pneumatic pressure controller, 1000kPa maximum pressure
VJT2270	Dual Channel Pneumatic pressure controller, 1000kPa maximum pressure.

Alternative Capacity and Volume ranges available on request.



VJT2266 1000kPa Automatic Hydraulic Pressure/Volume controller



Automatic Hydraulic Pressure controller graphic display. Showing: status, current pressure and volume readings, target values and graphic representation of available volume.

Specifications

	VJT2260	VJT2261	VJT2262	VJT2266	VJT2280	VJT2250	VJT2270
Medium	De-aired water	Clean, dry air	Clean, dry air				
Maximum Pressure	3000 kPa	14000 kPa	70000 kPa	1000 kPa	1700 kPa	1000 kPa	1000 kPa
Volume Capacity	250 cc	250 cc	250 cc	200 cc	1000 cc	N/A	N/A
Number of Pressure Outlets	1	1	1	1	1	1	2
Pressure Accuracy	0.15% FRO	0.1% FRO	0.5% FRO				
Pressure Resolution	1 kPa	1 kPa	10 kPa	0.1 kPa	1 kPa	1 kPa	1 kPa
Volume Accuracy	0.25% FRO	N/A	N/A				
Volume Resolution	0.001 cc	N/A	N/A				
Computer Interface	RS232						
Local Control via Keypad	Yes						
Graphic Display	Yes						
Power Supply	110-240V AC 50/60 Hz, 1 ph						
Dimensions (L x W x H)	600 x 235 x 180 mm	860 x 235 x 185 mm	390 x 300 x 1070 mm	210 x 230 x 440 mm	690 x 235 x 180 mm	410 x 200 x 150 mm	410 x 200 x 150 mm
Weight (kg)	18	39	148	14	28	6.5	7

Dual Automatic Pressure Controller

The Dual Automatic Pressure Controller (VJT2267) is specifically designed for Triaxial Testing in a soil laboratory. It provides two independent channels for Pressure control (each one up to 1000kPa and with their own Volume measurement), enabling both Cell and Back Pressure to be controlled from a single piece of equipment with a smaller footprint.

It is controlled from a PC, laptop, netbook or tablet running our renowned Clisp Studio software, using either a USB, RS232 or Wi-Fi interface or locally using an optional 7" touchscreen colour display with Wi-Fi Connection.

The Dual APC is factory calibrated before delivery and the settings can be read into Clisp Studio before initial use. Details of any subsequent re-calibration can be written back to the Dual APC for re-use.

Ordering Information

VJT2267	Dual Automatic Pressure Controller
VJT1010	Optional 7" touchscreen colour display with Wi-Fi Connection
VJT1011	Router

Features

- Compact design (small footprint)
- Wi-Fi enabled
- Firmware easily updated remotely
- Supports use of an Automatic Solenoid Valve for complete Test automation
- Two independent channels for Pressure control
- Upright cylinders for ease of de-airing
- Over range and travel limit protection
- Standalone or can be daisy chained
- Microprocessor based design
- High Resolution 24 bit A/D converter
- Built-in battery backed real time clock
- Transducer calibration from/to Clisp Studio
- Thermostatically controlled fan
- Non-volatile storage of calibration



VJT2267 - Dual Automatic Pressure Controller

Specifications

Maximum Pressure (on each channel):	1000 kPa
Volume Capacity (each cylinder):	200cc
Pressure Accuracy (on each channel):	0.15% FRO
Pressure Resolution (on each channel):	1 kPa
Volume Accuracy on each channel)	0.25% FRO
Volume Resolution (on each channel)	200 x 0.001 mL
Power Supply	DC Adaptor (Output 24VDC, Input 90-240V, 50/60Hz, 1ph)
Dimensions (L x W x H)	360 mm x 290 mm x 450 mm
Weight (kg)	24.9 kg

Touchscreen Colour Display Main Screen

