

Pneumatics & Temperature Controllers

Product Description

The pneumatics controller includes a three-state pneumatic circuit: pressure fill / purge; vacuum purge; and operating pressure control. A precision regulator is used to create the correct static pressure for drop-on-demand operation, regardless of the reservoir location and fluid level. The temperature controllers can be used to control printhead temperature(s) and substrate temperature(s). Configurations with up to four independent pressure control channels and up to four heaters are available.

A specific configuration for MicroFab's Solder Jet[®] printhead uses a digital pressure controller and a nitrogen flow controller.



Standard Features

- Three-state pneumatic circuit; precision regulator.
- Digital pressure gage.
- LED strobe: trigger input & (delayed) output.
- Integrated into Jetlab[®], Jetlab[®] II, and Jetlab[®] 4.

Available Options

- Up to four independent pneumatic channels
- Up to four temperature controllers
- Digital pressure regulator and gas flow controller

Ordering Information

- CT-PT-01** Pressure / Temperature Controller. Includes strobe delay unit and LED. Add up to four temperature controllers.
- CT-PT-SJ** Pressure / Temperature Controller for Solder Jet[®] operation. Includes digital pressure regulator, gas flow control, two (2) temperature controllers, strobe delay unit and LED. Add up to one additional temperature controller.
- CT-PT-04** Pressure / Temperature Controller with four independent pneumatic channels. Includes strobe delay unit and LED. Add up to two temperature controller.
- T-01** Additional temperature controller for CT-PT-xx



Specifications

Common Functions:	
Pneumatics Circuit	three state
Pressure fill / purge (1)	0-15 psi (0-100 kPa)
Vacuum purge (2)	0 to input vacuum
Operating Pressure (3)	vacuum / pressure fine adjust to 2 mbar (manual)
Pressure Gages	digital, 0.1 psi readout
Input pressure	60 psig (420 kPa)
Input flow, max	20 scfm (2 scmm)
Input Vacuum	< -20" Hg (-70 kPa)
Temperature control	Increments of 1°C
Heater connector	4 pin AMP, round
Thermocouple connector	Omega mini
Pneumatic connectors	1/8" (32 mm) quick connects
Strobe delay	-500 μs to +2500 μs
Strobe control	manual
Strobe out connector	BNC
Strobe trigger connector	BNC
Power	110V or 220V (set internal)

CT-PT-01 Functions:	
Size, WxDxH	8x10x12" (20x25x30 cm)
CT-PT-SJ Functions:	
Operating Pressure (3)	Digital, 0-100 psig (0-689 kPa) ±0.1% (0.1 psig, 0.69 kPa)
N ₂ input	60 psig (420 kPa)
N ₂ flow control	0-6 scfh (0-0.6 scmm)
Size, WxDxH	8x10x12" (20x25x30 cm)
CT-PT-04 Functions:	
Size, WxDxH	12x12x18" (30x30x45cm)
Additional Information:	
Rear panel views	