arroyo instruments

585 SERIES TECPAK

OEM TEMPERATURE CONTROLLER

The 585 TECPak OEM temperature controller is a compact, high-power temperature controller that can be used independently or with a LaserPak to form a complete system. The TECPak offers the same quality instrumentation as our bench top units, but in a smaller and lower cost solution for custom systems.

EXCELLENT STABILITY

The 585 offers ± 0.004°C temperature stability over 1 hour, and only ± 0.01°C fluctuation over 24 hours.

AUTO-TUNE AUTOMATIC PID CALCULATION

The 585 series automatically calculates PID parameters for your mount.

FULLY ADJUSTABLE PID VALUES

Every TECPak has eight factory-set gain settings, along with the option to choose your own.

ROBUST ANALOG INTERFACE

Provides on/off control, status, and analog control and monitor of temperature.

INTEGRATED FAN POWER SUPPLY

Provides integrated supply to power a laser mount cooling fan.

AT-A-GLANCE

Power Ranges

- 32 Watt / 4 Amp / 8 Volt
- 55 Watt / 5 Amp / 12 Volt

Works With

- Thermistors
- RTD (2- or 4-wire)

Heat & Cool

- TEC Modules & Resistive Heaters

Save Space

- Compact Enclosure

Remote Operation via PC

- Use your existing control code. Our command set is compatible with other manufacturers.
- USB / RS-232 Connections

DRIVE ANY ARROYO LASERMOUNT.

The 585 Series TECPak will drive any Arroyo Instruments laser fixture and many compatible fixtures. Connections are easy, and we offer purpose-built cables.

Plug and play compatibility.

585 SERIES
TECPAK
SPECIFICATIONS

		585-04-08	585-05-12
Drive Channel	**Current**		
	Range (A)	4	5
	Compliance Voltage (V)	8	12
	Max Power (W)	32	55
	Resolution (A)	0.01	
	Accuracy (+/- [% set point + mA])	0 + 30	
	Noise/Ripple (mA, rms)	< 5	
	Temperature Control		
	Range (°C)[1]	-99 to 250	
	Resolution (°C)	0.01	
	Thermistor Accuracy (± °C)[2]	0.05[3]	
	Short Term Stability (1hr) (± °C)[4]	0.004	
	Short Term Stability (24hr) (± °C)[4]	0.01	
Measurement Channels	**Current**		
	Resolution (mA)	10	
	Accuracy (+/- [% reading + mA])	0 + 30	
	Voltage		
	Resolution (mV)	10	
	Accuracy (+/- [% reading + mV])	0 + 50	
	Sensor		
	10µA Thermistor		
	Range (kΩ)	0.1 - 450	
	Resolution (Ω)	10	
	Accuracy (+/- [% reading + Ω])	0.05 + 50	
	100µA Thermistor		
	Range (kΩ)	0.05 - 45	
	Resolution (Ω)	1	
	Accuracy (+/- [% reading + Ω])	0.05 + 5	
	RTD		
	Range (Ω)	20 – 192	
	Resolution (Ω)	0.01	
	Accuracy (+/- [% reading + Ω])	0.03 + 0.1	
	Current Limit		
	Resolution (mA)	10	
	Accuracy (+/- mA)	50	
General	TEC Connector	DB-15, female	
	Fan Supply	4 – 8.5V, 350mA max	
	Computer Interface	USB 2.0 Full Speed (Type B), RS-232 (DB-9, male)	
	Power	Universal, 90V to 240V, 50/60 Hz	
	Size (H x W x D) [inches (mm)]	3.0 (77) x 4.5 (115) x 8.5 (216)	
	Weight [lbs (kg)]	4.0 (1.8)	
	Operating Temperature	+10°C to +40°C	
	Storage Temperature	-20°C to +60°C	

1. Software limits. Actual range dependent on sensor type and system dynamics.
2. Accuracy figures are the additional error the 585 TECPak adds to the measurement, and does not include the sensor uncertainties.
3. 25°C, 100 µA thermistor.
4. Stability measurements done at 25°C using a 10 kΩ thermistor on the 100 µA setting. The number is ½ the peak-to-peak deviation from the average over the measurement period.

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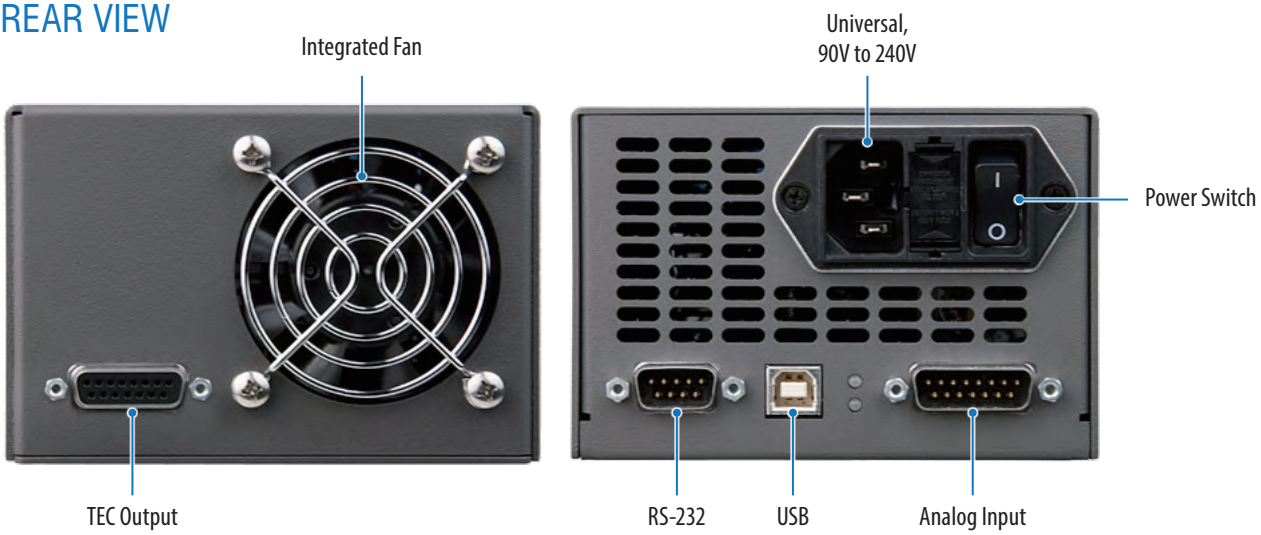
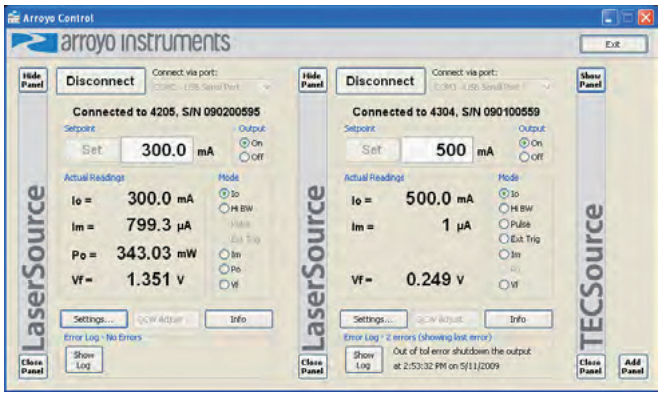
REAR VIEW



ARROYO CONTROL



Control any Arroyo laser driver or temperature controller directly from your PC. Simply connect to your Arroyo device via USB or RS-232 and gain direct access to settings, device limits, and adjustments from an easy-to-use Windows interface. You can even connect to multiple instruments at the same time.

Download ArroyoControl for free from www.arroyoinstruments.com.

LabView drivers available.

ACCESSORIES

1402-RM

PAK SERIES RACK MOUNT KIT, 3 OR 5 UNITS

This rack mount kit will mount any 485 LaserPak or 585 TECPak controller. When positioned flat, the 1402-RM can hold three units in a 2U space.

Mount the controllers on their sides, and the 1402-RM can hold five units in a 5U space.

There is also mounting support for a 7-port USB hub as well as holes for securing and dressing wiring to the tray with cable ties.

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