5400-15-28 15A / 28V TECSource

- **420W of TEC power**
- 0.004°C stability
- Up to 7 sensor inputs
- AutoTune automatic PID
- Bi-polar output: heat & cool
- Thermistor, RTD, LM335, & AD590 sensors
- 4-wire RTD mode

The new **5400-15-28 TECSource** pushes temperature control power to new levels, with 420W available for your most demanding thermal applications.

The **5400** brings precision temperature control with a high contrast VFD display and standard computer interfaces in an economic design. It feature ultra-stable performance and fully adjustable PID control, multiple sensor support, and an integrated fan power supply.

- **High Power, 420 Watts!**
- AutoTune for automatic PID calculation
- Fully adjustable PID settings plus 8 standard gain settings
- Two selectable high precision temperature sensor inputs plus AD590
- Four auxiliary temperature inputs for enhanced thermal monitoring
- Digital I/O for triggering, monitoring, and linking to other instruments
- Interlock
- Bi-polar, linear output
- Large, clear VFD display, easily viewable with laser goggles
- Simultaneous display of temperature set point, actual temperature, current, and voltage
- USB / RS-232 computer interfaces that are command set compatible with Newport and ILX temperature controllers.
- 2U rack-mountable controller

Interconnect Cables
Because each customer's application is different, cables are not included with the product. Choose from the 1264 TECSource Cable, which has 17W male/female connectors, or the 1265 TECSource Cable, which has a 17W2 male connector for the instrument and bare wires on the mount end to custom termination into your mount or connector. To make your own cables, you can also purchase a 17W2 connector kit, which has either male or female connectors sets.

USB & RS232 Computer Interfaces

Rack Mount Kit
For applications requiring rack mounts, the 1403-RM Rack Mount Kit allows you to quickly and easily rack the 5400 in 2U of rack space.

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Specifications

Key Specs	
Power (A, V, W)	**±15A, ±28V, 420W**
Stability (1 hour, °C)	0.004
Stability (24 hours, °C)	0.01
Temperature	
Range (°C)	-99 to 250
Resolution (°C)	0.01
Thermistor (100µA) Accuracy at 25°C (°C)	0.03
AD590 Accuracy at 25°C (°C)	0.90
LM335 Accuracy at 25°C (°C)	0.90
RTD Accuracy at 25°C (°C)	0.35
Thermistor, 100µA Range	
Accuracy (±[% reading + kΩ])	0.05 + 0.005
Range (kΩ)	0.05 – 45
Resolution (kΩ)	0.001
Thermistor, 10µA Range	
Accuracy (±[% reading + kΩ])	0.05 + 0.05 Auxilliary inputs: 0.20 + 0.05
Range (kΩ)	0.1 – 450
Resolution (kΩ)	0.01
LM335	
Accuracy (±[% reading + mV])	0.3 + 1
Range (mV)	1730 – 4250
Resolution (mV)	0.1
Bias (mA)	1
AD590	
Accuracy (±[% reading + µA])	0.03 + 0.1
Range (µA)	173 – 473
Resolution (µA)	0.01
Bias (V)	4.5
RTD	
Accuracy (±[% reading + Ω])	0.03 + 0.1
Range (Ω)	20 – 192
Resolution (Ω)	0.01
Bias (mA)	1
Current	
Accuracy (±[% value + A])	0.5 + 0.06
Range (A)	±15
Resolution (A)	0.01
Noise/Ripple (A, rms)	< 0.015
Voltage (measurement only)	
Accuracy (±[% reading + V])	0.2 + 0.05
Range (V)	±28
Resolution (V)	0.01
Auxiliary Interface	
Sensor Inputs	4, thermistor only
Digital Inputs	2
Digital Outputs	2
Auxiliary Power	5V, 100mA
Relay	Form C, 2A/30VDC or 0.5A/125VAC max
Other	
TEC Connector	17W2, female
Auxilliary Interface Connector	DB-25, female
Interlock Connector	Phoenix 2-pin
Computer Interface	USB 2.0 Full Speed (USB Type B), RS-232 (DB-9, male)
Display Type	4 x 20 VFD
Power	Universal 90 - 250 VAC, 50/60 Hz
Size (H x W x D) [inches (mm)]	3.5 (90) x 12 (305) x 14 (356)
Operating Temperature	+10°C to +40°C
Storage Temperature	-20°C to +60°C