



PVC-1000 Temperature Control Stage for the Reference Solar Cell

- This highly accurate Temperature Control Stage stabilizes temperature of the reference solar cell within $\pm 0.1^{\circ}\text{C}$.
- Use of our peltier controller driver TDC-1020AC in combination with the Temperature Control Stage realizes quick response and little drift.
- Suitable for daily calibration of a solar simulator.
- Easy to install.
- For use with the AK reference cell series

Features

This equipment is a stage for controlling temperature of the reference solar cell equipped with a built-in temperature sensor. Being connected with our standard temperature controller, the Temperature Control Stage supplies the control current to a peltier device (TEC), using the digital PID control.

Specifications

Temperature Control Stage (PVC-1070)

Applicable Solar Cell	should have four mounting holes in conformity with WPVS (World PV Scale) standard pitches and a built-in PT100Ω temperature sensor.
Stage Dimensions	72 x 72 x 113 mm
Control Temperature Range	10°C to 70°C (non-condensing)
Connection Cable	PVC-1001

Peltier

TEC Maximum Voltage (Vmax)	17.5V
TEC Maximum Current (Imax)	8.5A
Max. Temperature Difference (Δt_{max})	67°C
Max. Cooling Capacity (Qcmax)	80W

Fan

Operation Voltage	12V
Rated Current	0.21A (at 12V)
Airflow	28.3CFM (at 12V)

Heatsink

Cooling Method	Air cooling (fan motor)
Temperature Sensor for Monitoring Heat Radiation Side	Thermistor (R25=10kΩ, B=3435)

Temperature Controller

Recommended Controller	TDC-1020AC by Cellsystem
Control Method	Digital PID Control (with auto tuning function)
Control Stability	±0.03°C
Temperature Resolution	±0.01°C

General Specifications

Operating Temperature	0°C to +40°C
Storage Temperature	-10°C to +60°C
Operating Humidity	85%RH or lower (non-condensing)
Dimensions	128(W) x 300(D) x 132(H) mm (excluding protrusions)
Weight	6,000g

* Specifications and design are subject to change without notice.

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