

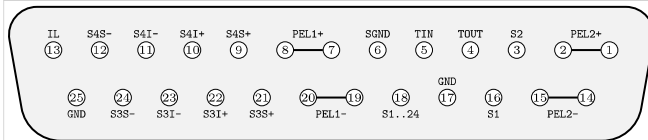
Tabletop Peltier Controller with 2 Circuits and up to 5 temp. sensor inputs

type: ps11-pa08v24-pa08v24-t8543-v1-683



- 1.TEC max. : 8A, 24V
- 2.TEC max. : 8A, 24V
- Vin: 100~240VAC, 50/60Hz
- The controller has 4 universal Temp. Sensor Inputs, 2 of these inputs can be used with 4 wire option for PT100 f.e., additional it has 1- Thermocouple K-Type Input
- These Sensors can freely be related to the TEC stages
- The Analog Input maps the applied voltage in a range of 0..10V to a temperature range LTL..LTLU and sets the target temperature value TT of the control loop (LTEL is the laser temp. lower and LTEU is the upper range limit)
- The Analog Output maps the range LTEL..LTEU to 0..10V and gives the TA actual temperature back also mapped between the LTEL and LTLU edges
- With the LTXAR command the Analog Temperature Mapping can be activated and it's deactivated by LTXAS
- External Fan Support can. be configured freely between 1..24V max. 800mA

Peltier Connector



SubD25 female

PIN.No	Abbr.	Function
1,2	PEL2+	2. Peltier element (+)
3	S2	2. Temp. Sensor Input (vs. GND)
4	TOUT	Analog Temperatur Output 0..10V (Actual Temperature) can also be used as Temp. OK Signal
5	TIN	Analog Temperature Input 0..10V (Temperature Target)
6	SGND	Supply Ground
7,8	PEL1+	1. Peltier element (+)
9	S4S+	4. Temp. Sensor Supply (+) (for 4-wire option, if not used connect to pin 10)
10	S4I+	4. Temp. Sensor Input (+)
11	S4I-	4. Temp. Sensor Input (-)
12	S4S-	4. Temp. Sensor Supply (-) (for 4-wire option, if not used connect to pin 11)
13	IL	Interlock Input has to by bypassed to GND
14,15	PEL2-	2. Peltier element (-)
16	S1	1. Temp. Sensor Input (vs. GND)
17,25	GND	Common Ground
18	S1..24	Universal Supply 1..24V, max. 800mA (vs. SGND) supports fan etc.
19,20	PEL1-	1. Peltier element (-)
21	S3S+	3. Temp. Sensor Supply (+) (for 4-wire option, if not used connect to pin 22)
22	S3I+	3. Temp. Sensor Input (+)
23	S3I-	3. Temp. Sensor Input (-)
24	S3S-	3. Temp. Sensor Supply (-) (for 4-wire option, if not used connect to pin 23)

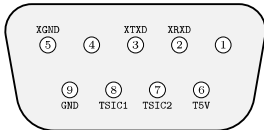
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Thermocouple connector Type-K



NKU 1200 0 from Greisinger (+NiCr -NiAl)

RS232 Connector



SubD-9 female

Standard RS232-connector, No Null-Modem Cable ! 9600-Baud-8N1

¹⁾ Optional in Version "v99" pin 6,7,8,9 only. For 2 additional TSiC-sensors!

PIN.No	Abbr.
2	RXD
3	TXD
5	GND
6	TSiC Supply for TSiC ¹⁾
7	TSiC2 ¹⁾
8	TSiC1 ¹⁾
9	GND ¹⁾

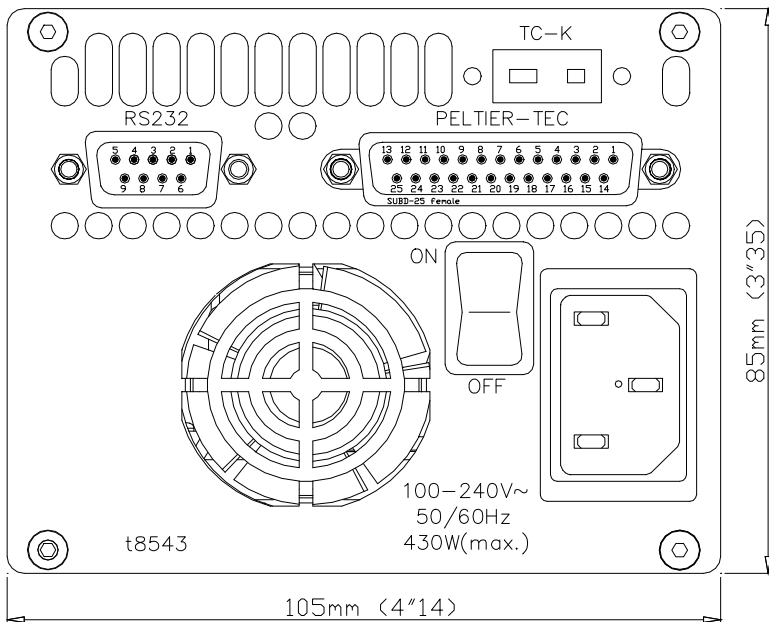


fig: ps11-t8543-rear length 204mm

Revision overview:

2017.02.20: "v0" - revision

2017.09.23 "v1" max. TEC-Voltage increased from 18V to 24V

2018.02.26: "v99" - optional customized revision available with support of 2 TSiC sensors

References:

<http://www.ostech.de/en/products/tec-controllers/ps11-t85>

<http://www.ostech.de/en/downloads/manuals/ds-en.pdf>

<http://www.ostech.de/en/downloads/labview>

Accessories

- kab-24pol-0.34qmm-subd25m-oe-1.5m-674
cable 24polx0.34qmm, max-4A/pin, SUBD-25 to open ends, length-1m5
- acc-converter-usb-to-rs232-1m5-iso-417
RS232 to USB converter optical isolated with FTDI-Chip cable 1.5m