MODULES

LDC**/E**-Temp3

High performance temperature controller for laser diodes (± 3A)

_MAIN FEATURES

Ultra high resolution (better than 0.0002 ºC). 24 bits ADC thermistor measurement
High temperature stability (0.001 ºC)
±3 A TEC current
Highly customizable PID loop, with several method for auto-calibration and graphical step response
For 10 kΩ thermistor NTC sensors. Other sensors soon

_**PRODUCT** SPECIFICATIONS

LDC/E-Temp3

TEC controller output

Current range	±3 A
Compliance voltage	< 4.3 V
Maximum output power	12.9 W

TEC controller sensor measurement

Measurement	4-wire
Sensor type	10 kΩ Thermistor
Resolution	<0.34 Ω (< 0.2 mºC)
Accuracy	±1.5 Ω (± 0.6 mºC)
Short term stability (40 s)	<2 mºC

Temperature control loop

Type	PID Manual independent configuration of P, I , D parameters Automatic PID calibration (several methods to choose) Graphical step response and configuration

General

Protection features	Temperature limits, Temperature window, no sensor detection
Connector	D-SUB9 (female)
Format	VME 160mm (for use with chassis/xxHP series and SOM/E controller)
Operating temperature	0-40 ºC
Storage temperature	-40-70 ºC
Size	3U height, 4 HP width, 160 mm depth
Weight	TBD
Warm-up time	TBD

_PINOUT

Pin	Name	IN/OUT	Description
1	TEC+	O	TEC current positive
2	TEC+	O	TEC current positive
3	TEC-	O	TEC current negative
4	TEC-	O	TEC current negative
5	GND	I/O	Ground (chassis)
6	GND	I/O	Ground (chassis)
7	TH1	I	Thermistor terminal 1
8	TH2	I	Thermistor terminal 2
9	TEC+	O	TEC current positive
10	TEC-	O	TEC current negative
11	NC		Not Connected
12	NC		Not Connected
13	NC		Not Connected
14	TH1_SENSE	I	Thermistor terminal 1 sense
15	TH2_SENSE	I	Thermistor terminal 2 sense
C	Connector	I/O	Ground (chassis)

_ORDERING INFORMATION

LDC**/E**-Temp3-x

x: blank (standard)
OEMcontrol (OEM version remote controlled)
OEMnoControl (OEM low cost potentiometer based control)

THz & Photonics

_v0.2 datasheet 20160406

LDC**/E**-Temp3

All product specifications are subject to change without prior notice

Avenida Gregorio Peces Barba, 1, 28919. Leganés, Madrid 0034 910 05 22 10 luzwavelabs@luzwavelabs.com