FIBOTEC

Socketdriver RMC
Laser Diode Driver with BF LD Socket

The Socketdriver RMC is a laser diode driver, that can be controlled through a digital electronic interface or the front panel. A customer owned laser diode or SLD (BF-package) can easely plugged to an internal socket and the fiber pigtail connected with the front panel fiber adapter (standard is SC). The LSD^P-version is used with LD having pump laser pinout, the LSD^S-version is used with signal lasers.

The Socketdriver RMC can be easely controlled by commands through the serial interface. Command structure, such as (details in the manual):

    set ch1 pow xxx
    get ch1 vol L

The driver is DC powered (12 V), an additional (external) switching power supply for wall-plug operation is an available option (depends on country of use). Also other fiber adapters can be reviewed as an option.

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control interface:	USB
size:	165 x 85 x 215 mm (WxHxD)
weight:	12 V DC, 2 A
air flow for cooling:	bottom front side in, back side out
I_{op} :	max 2 A (LD), max. 3 A (TEC)
environmental conditions:	non-condensing, T_{op} +5°C ... 50°C

features (interface, commands)		operation of LD in ACC, APC mode, PVI-test
		TEC setpoint -20° ... 60°C (set LD TEC)
		Max Current Setpoint
	set:	LD power by $I_{P\text{-out}}$ or current by I_{op} (ACC, APC)
		current increments and max I_{op}
		max. TEC current max I_{TEC}
		temperature by thermistor value
	read:	LD operational current (I_{op})
		TEC current (I_{TEC})
		LD monitor current (I_{MPD})
		heatsink temperature by thermistor value (T_{MF})
		LD temperature by thermistor value (T_{LD})
		compliance voltage (V_{LD}) and TEC voltage (V_{TEC})

maximum compliance voltage:	2.9 V
setpoint resolution:	0.5°K (LD TEC), 0.5 mA (I_{op}), ~1 mW ($I_{P\text{-out}}$ or I_{MPD})
	0.5 mA min. current increment (PVI-test)
temperature stability (TEC setpoint):	0.1°K (@constant T_{MF} after 1 hour warm-up)
current stability (I_{op}):	0.5% (@constant T_{MF} after 1 hour warm-up)
modulation:	20 Hz minimum, rise/fall time max. 1 µs
power stability (I_{MPD}):	0.5% (@constant T_{MF} after 1 hour warm-up)
compliance voltage (V_{LD}):	10 mV (@constant T_{MF} after 1 hour warm-up)
fiber termination:	SC
fixture accepts:	butterfly-package laserdiodes (specify pinout)