# MESSTEC Power Converter GmbH

# **Data Sheet** Fast Modulator VFM 1,5-25



### **Features**

Drives arbitrary current waveforms into laser diodes

CW, pulsed, modulated or mixed curves

Very short rise and fall time

Enhanced optical performance

Two analog inputs plus BIAS current

Trigger input

Small dimensions, low weight

### **Specification**

Diode current CW 0 ... 1,5 A 0 ... 3 A Diode current pulsed 0 ... 23 V Diode voltage Output power 34.5 W max Power dissipation 30 W max allowed

1 V ... 24 V Supply voltage Supply current 1.5 A max Supply voltage\* 3 V ... 6 V Rise time 26 ns

Fall time Frequency (set point 1) 16 MHz max Frequency (set point 2) 100 kHz max

0 ... 500 mV (50 Ohm input) Diode current set point 1 Diode current set point 2 0 ... 5 V (high impedance)

34 ns

Trigger TTL Enable TTL Reset TTL

### **Outputs**

Diode current monitor 0 ... 83 mV (into 50 Ohm) Temperature 0 ... 4 V for 0 ... 80°C

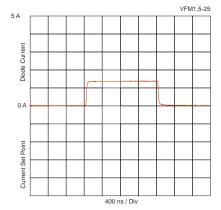
Ready TTL

## General specifications

Ambient temperature 0 ... +45 °C Cooling Required Dimensions 95 x 61 x 20 mm

Weight 240 g Ordering Code 10100828

\* for internal electronics



### Description

The fast diode current modulator VFM 1,5-25 is a linear modulator with improved properties for driving arbitrary current waveforms or fast pulses into laser diodes. Current waveforms can be CW, pulsed, modulated or mixed with frequencies up to 16 MHz and currents up to 1,5 A for CW and 3A for pulsed waveforms. The modulator is small and compact and it is designed for mounting with low inductance directly at laser diodes or for integrating in laser diode modules. It has two analogue inputs for the current set point: a high frequency input (50 Ohm input impedance) with a bandwidth of 16 MHz and a low frequency input with a bandwidth of 100 KHz. Additionally there is a 10 turns potentiometer for generating a CW-current (bias current). All set points are added and build the effective current set point. A TTL-Trigger input generates fast and clean pulses at the high frequency set point 1.

Technical subjects to change without notice.

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