

Data Sheet

Fast Modulator VFS 05-25-x

Features

- High speed current source for LASER and LED diodes
- CW, pulsed, modulated or mixed curves
- Very short rise and fall time
- Fast current monitor output
- Two alternative analogue inputs (50Ω or 10kΩ)
- Trigger input
- Internal pulse generator (1Hz ... 5MHz)
- Closed loop adaptation adjustable via software by customer
- LEDs for status indication
- Serial interface for configuration, controlling and monitoring

Specification

Diode current	0 ... 5 A
Diode voltage	0 ... 22 V
Supply voltage	10 V ... 24 V, max. 26 V
Rise / Fall time	<10 ns (load dependent)
Modulation (input 50Ω)	50 MHz max
Modulation (input 10kΩ)	100 kHz max
Internal pulse generator	t _P min: 100 ns; t _P max: 1 s; adjustable in steps of 10 ns

Inputs

Diode current set point	0 ... 1000 mV (input 50 Ω) or 0 ... 5 V (input 10 kΩ)
Trigger / Gate, Enable, Reset	5 V TTL

Outputs

Diode current monitor	0 ... 250 mV (into 50 Ω)
Temperature	0 ... 4 V corresponds to 0 ... 80°C
Ready, Error	5 V TTL

General specifications

Ambient temperature	0 ... +45°C
Dimensions	95mm x 60mm x 30mm
Weight	150g

Description

VFS 05-25-x is a linear current modulator for LASER and LED diodes. Adaptation to internal capacitive and inductive parasitics of the individual diode can be easily done by the customer using the MPC GUI Software. Diodes are contacted with proven low inductance conductor sheets (so called striplines are optionally available). Modulation can be accomplished by external analog signal (analog inputs), external digital signal (trigger input) or internal pulse generator (gate input). The internal pulse generator is synchronized to the external trigger signal with no missing or clipping pulses.

Type	Description	Ordering code
VFS 05-25-U	VFS 5A with USB interface	10100548
VFS 05-25-R	VFS 5A with RS232 interface	10100549
USB cable	USB C to SubD9M 0.25m	11002352
USB cable	USB C to standard A 0.5m	11002351
MPC GUI software	Control-Software for PC	31000057

Technical subjects to change without notice.



Warning!
Risk of exposure
of hazardous
LASER radiation in
combination
with LASER light
emitting devices!

Document: 10100546	Revision: 02	Date: 28.05.2025
www.powerconverter.com	info@powerconverter.com	+49 (0) 8856 803060