

Q-MACS Basic



technical specification

The Q-MACS Basic is the fundamental component of all Q-MAC Systems. It is a robust and versatile QC Laser driver system, pulsed and cw, for various infrared absorption spectroscopic applications. It can be utilized for fundamental and industrial research purposes. The Q-MACS Basic is a QC Laser head containing all electronics necessary, a power supply and a cable connection. It comes with a special control software (Q-MACSoft 2.0) to drive the QCL.

head	dimensions	64 mm x 64 mm x 170 mm
	weight	1050 g
	pulse width	8 ns*... 256 ns** * depends on the used QCL and the QCL-voltage ** longer pulses on request
	pulse frequency	to 1 MHz
	cw current	to 900 mA
	QCL temperature range	-35 °C to +40 °C
	QCL	tested and installed
cable	length and weight	2 m (other lengths on request), 500 g
	connector	straight or rectangular
supply	dimensions	42 TE / 3HE x 235 mm (without cooling) = BTH: 23.6/13.9/ 25.6 cm 42 TE / 4HE x 235 mm (with cooling) = BTH: 23.6/.../25.6 cm
	weight	5.4 kg (without cooling)
	power	230 V / 1 A / 50 Hz; 115 V / 2 A / 60 Hz (switchable)
	working range	+5 °C to +40 °C
signals on BNC	input	trigger (external / internal) (TTL); gate (TTL) set temperature: -4 V (= -40 °C) to +4 V (= +40 °C) set QCL-voltage: 0 ... 10 V programmable voltage set ramp: 0 ... 10 V, for ramp and cw current control
	output	actual temperature: -400 mV (-40 °C) to +400 mV (+40 °C) actual QCL-voltage trigger
	optional connections	2 x 68 pin AMP connector for using National Instruments DACs and TDLWintel
RS 232 interface	parameter control	using Q-MACSoft 2.0