

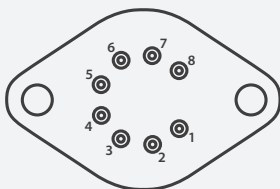
technical specification

The Q-MACS basic TO3 is an advanced QC laser driver. It consists of a newly developed laser head, which is compatible to the Q-MACS basic supply. This enables the extension of existing Q-MACS setups by the possibility to drive TO3 packaged QCL devices. This head is a robust and versatile laser driver for currently available pulsed QC laser based on the TO3 package. Within the laser head a high performance temperature controller as well as a thermoelectric cooler and the pulse driver are installed. Because of its sturdy design, the system can be utilized for spectroscopic applications at industrial facilities. The Q-MACS basic is a QC laser head containing all necessary electronics, a power supply and a connecting cable. Furthermore special software (Q-MACSoft 2.0) to control the basic features of the Q-MAC System is included.



head

dimensions	58 mm x 58 mm x127 mm
weight	850 g
connector	compatible with Q-MACS Basic



- 1 TEC +
- 2 thermistor
- 3 thermistor
- 4 negative contact of the laser
- 5 positive contact of the laser
- 6 not connected
- 7 not connected
- 8 TEC -

pulse driver

QCL voltage	0...17V [1]
QCL current	up to 9A
frequency	up to 1MHz
pulse width	8 ns ... 256 ns

temperature controller

max. TEC voltage	3V [2]
max. TEC current	2A [2]
QCL temperature range	min. -10 °C [3] max. +40 °C [3]
heat sink	water cooling

[1] depends on the Supply, QCL voltage on the supply can be changed to max. 27V
 [2] different TEC voltage (max. 15V) and current (max. 5A) on request
 [3] different ranges are possible: -10 °C...+17 °C or -3 °C...+40 °C

