

Q-MACS Basic 1.5 TO8



technical specification

The Q-MACS Basic 1.5 TO8 is an advanced QC Laser driver system for absorption spectroscopic applications. The Q-MACS Basic 1.5 TO8 has nearly the same functionality as the Q-MACS Basic but with a very small laser head. It can be utilized for research and industrial purposes. The Q-MACS Basic 1.5 consists of the compact QC laser head, a power supply and a cable connection. It comes with a special control software (Q-MACSoft 2.0) to drive the QCL and monitor your process.

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|------------------------|-----------------------|--|-----------|--------------|--|--|--------|---------------|--------|---------|--|--|-----------|---------|--|--|----------|-----------|--|--|----------|-----------|--|--|----------|-----------|--|--|----------|-----------|--|
| head | dimensions | 25 mm x 25 mm x 50 mm [1] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | weight | 62 g [1] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | connectors | Binder RD08 Serie 711 SMA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <table border="0"> <tr> <td>1 TEC (-)</td> <td>9 Thermistor</td> <td rowspan="2"> </td> <td rowspan="2"> </td> </tr> <tr> <td>2 n.c.</td> <td>10 Thermistor</td> </tr> <tr> <td>3 n.c.</td> <td>11 n.c.</td> <td></td> <td></td> </tr> <tr> <td>4 TEC (+)</td> <td>12 n.c.</td> <td></td> <td></td> </tr> <tr> <td>5 LD (+)</td> <td>13 LD (-)</td> <td></td> <td></td> </tr> <tr> <td>6 LD (+)</td> <td>14 LD (-)</td> <td></td> <td></td> </tr> <tr> <td>7 LD (+)</td> <td>15 LD (-)</td> <td></td> <td></td> </tr> <tr> <td>8 LD (+)</td> <td>16 LD (-)</td> <td></td> <td></td> </tr> </table> | 1 TEC (-) | 9 Thermistor | | | 2 n.c. | 10 Thermistor | 3 n.c. | 11 n.c. | | | 4 TEC (+) | 12 n.c. | | | 5 LD (+) | 13 LD (-) | | | 6 LD (+) | 14 LD (-) | | | 7 LD (+) | 15 LD (-) | | | 8 LD (+) | 16 LD (-) | |
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| 8 LD (+) | 16 LD (-) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | tested TO-8 QCL | Laser Components, nanoplus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pulse driver | supply voltage | +9 V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | QCL voltage | 0 – 15 V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | QCL current | max. 2 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | frequency | 1 Hz – 1 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | pulse width | 10 ns – 1000 ns | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| temperature controller | max. TEC voltage | 1.8 V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | max. TEC current | ±1.5 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | QCL temperature range | -20 °C to +30 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | heat sink | air or water cooling | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

[1] without additional heat sink