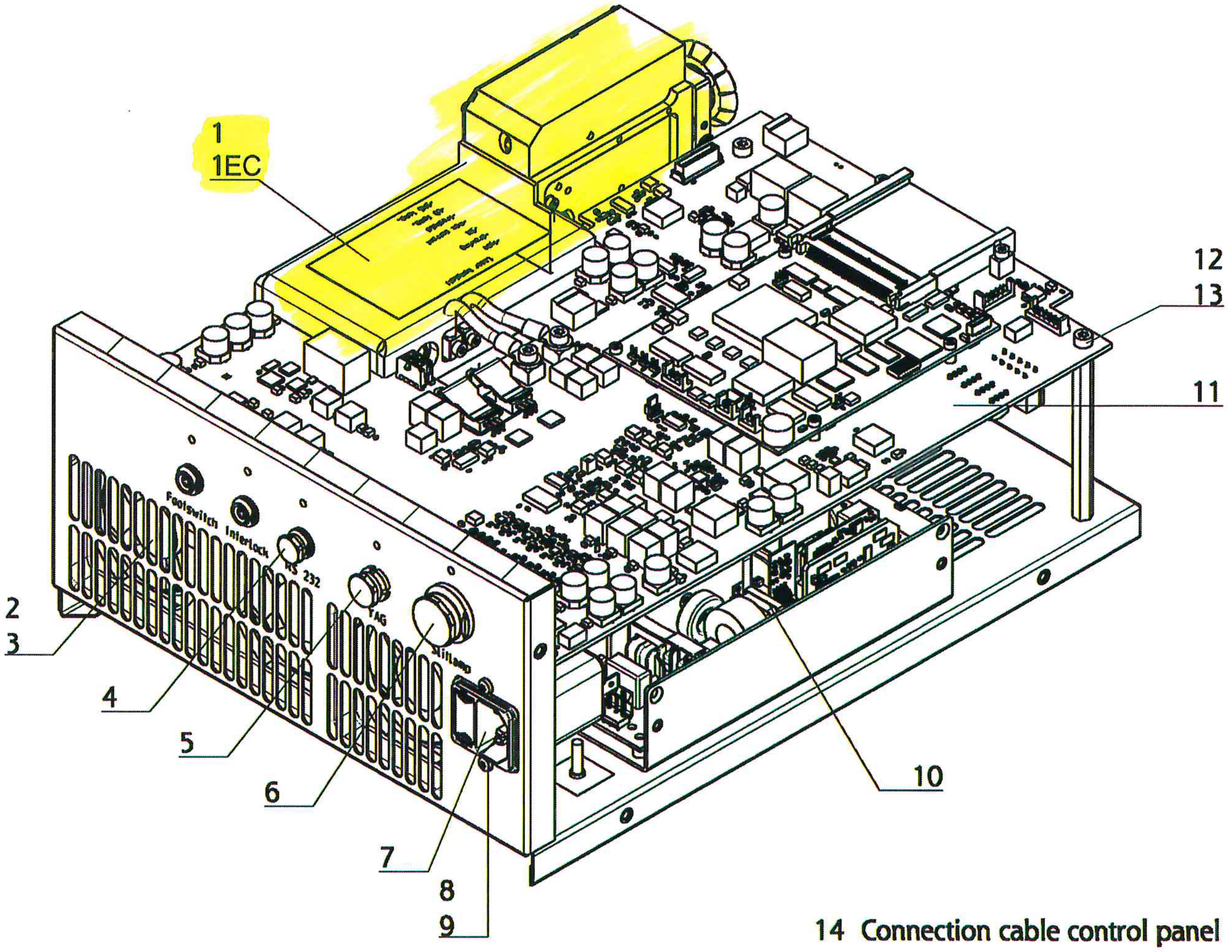
# Technical data

## VISULAS 532s laser system

| | | |
|---|---|---|
| Laser type | Frequency doubled Nd:$YVO_4$, diode-pumped, cw | |
| Laser class | Class 4 (EN 60825-1:2003) | |
| Wavelength of therapy beam | 532 nm | |
| Pulse duration (single pulse): | 10 to 2500 ms, cw (180 s) | |
| Pulse duration (*VITE* multispot option) | 20 ms, 30 ms, 40 ms, 50 ms | |
| Max. power at cornea | 1500 mW (slit lamp), 1500 mW (laser endoprobe) | |
| Max. power at resonator | 2.5 W | |
| Pulse interval | Adjustable from 100 to 6000 ms | |
| Aiming beam | Diode, 620 to 650 nm, max. 1 mW at the cornea, max. 5 mW at the diode | |
| Ambient conditions | Ambient temperature: | +10 °C to +40 °C |
| | Relative humidity: | 0 to 70 % (no condensing) |
| | Altitude: | up to 3,000 m above sea level |
| Transport and storage conditions | Ambient temperature: | -40 °C to +70 °C |
| | Relative humidity: | 0 % to 70 % |
| Rated voltage; frequency | 100 to 240 V AC (±10 %); 50/60 Hz | |
| Max. current | 7 A | |
| Power consumption | 400 VA | |
| Protection mode | IP 20 | |
| Protection class | I | |
| Instrument type | B (in accordance with DIN EN 60601-1) | |
| Ground connection | Only use power outlets with proper ground connections | |
| – Fuses | – 2 x T6.3 AH 250 V | |
| Cooling system | Thermoelectric | |
| Laser console dimensions | H x W x D = 151 mm x 289 mm x 400 mm | |
| Laser console weight | < 15 kg (including control console) | |
| Laser beam divergence<br>with LSL, LIO<br>with typical laser endoprobe | <br>NA ≤ 0.1<br>NA ≤ 0.22 | |
| NOHD<br>(**N**ominal **O**cular **H**azard **D**istance) | 10 m (with LSL)<br>3 m (with typical laser endoprobe)<br>20 m (with LIO Trion/532s) | |

## Base plate, assembled

| Pos. | Order Number | Description | Additional info | Price | Currency | Classification |
|---|---|---|---|---|---|---|
| 1 | 000000-2193-238 | SC Laser Resonator | | | | |
| 1EC | 000000-2082-881 | EC Laser VISULAS 532s - new Hardware | | | | |
| 1EC_1 | 000000-2193-239 | EC Laser VISULAS 532s | | | | |
| 2 | 000000-1969-204 | Fan, complete - new Hardware | | | | |
| 3 | | Plastic rivet7,1_19,8-34,9mm new Harware | | | | |
| 4 | 000000-0536-225 | Cup nut LEMO_BRZ-0B screw ECG_EXG.0B | | | | |
| 5 | 000000-0536-277 | Cup nut LEMO_BRZ-1B screw EXG.1B | | | | |
| 6 | 000000-0536-228 | Cup nut LEMO_BRZ-3B screw | | | | |
| 7 | 000000-1975-925 | Power connection cable - new Hardware | | | | |
| 8 | | DIN 128-A3-A2 | | | | |
| 9 | | ISO 14583-M3x6-A2-70 | | | | |
| 10 | 000000-0532-947 | Power supply 24Vdc16,7A400W new Hardware | | | | |
| 11 | 000000-1954-166 | System control, complete - new Hardware | | | | C |
| 12 | | Spacer bolt des. B L 78,5 M4 St. Steel | | | | |
| 13 | | ISO 14579-M4x8-A2-70 | | | | |
| 14 | 000000-1975-612 | Connection cable control panel | | | | |
| 15 | 000000-1975-927 | Signal cable laser | | | | |

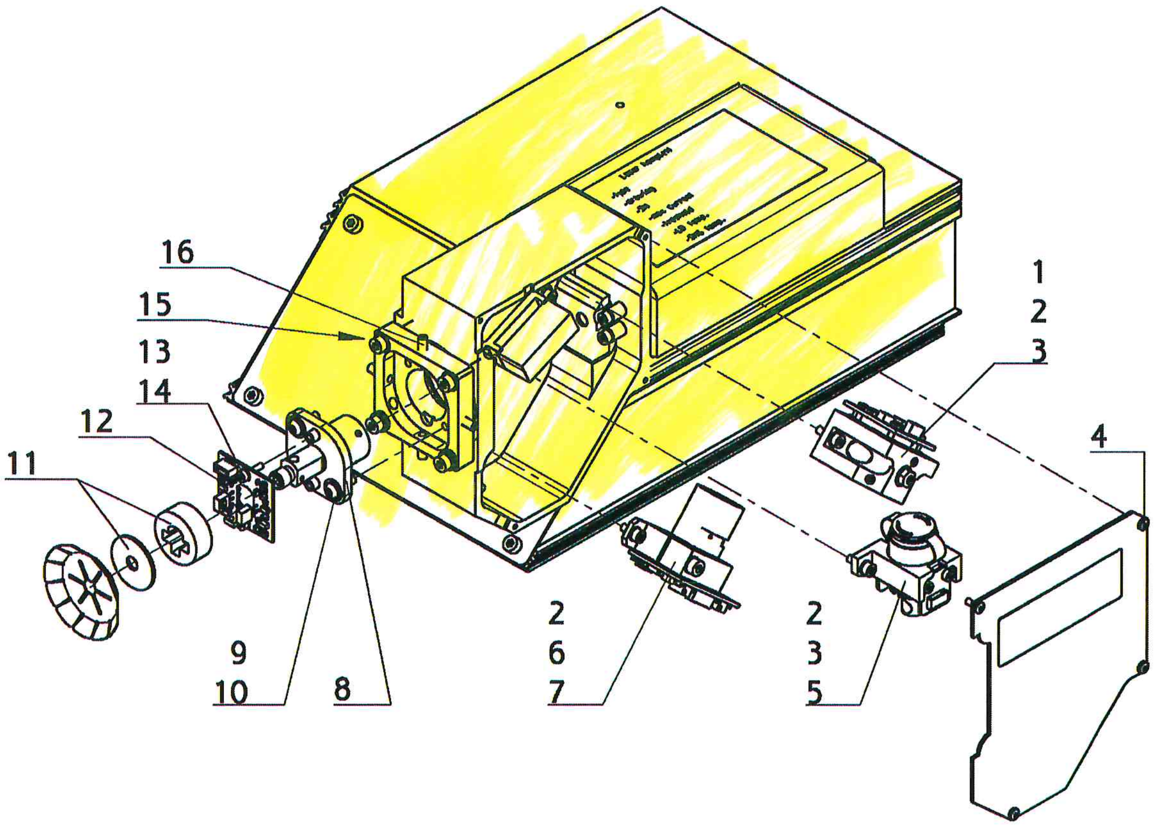



14 Connection cable control panel

15 Signal cable laser

ÄZ: V06

**Base plate, assembled**




17 Connection cable

ÄZ: V04

## Operating principle

A laser crystal generates laser radiation, the frequency of which is doubled by means of a crystal.

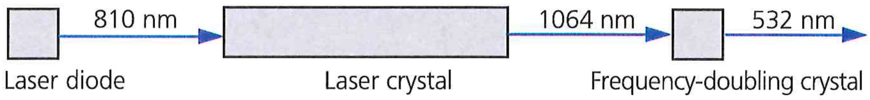



Fig. 7 Generation of laser radiation with $\lambda = 532$ nm

Radiation with a wavelength of 532 nm is strongly absorbed by bodily tissues. The thermal energy thus created causes coagulation of tissue protein, which can be used for medical purposes.