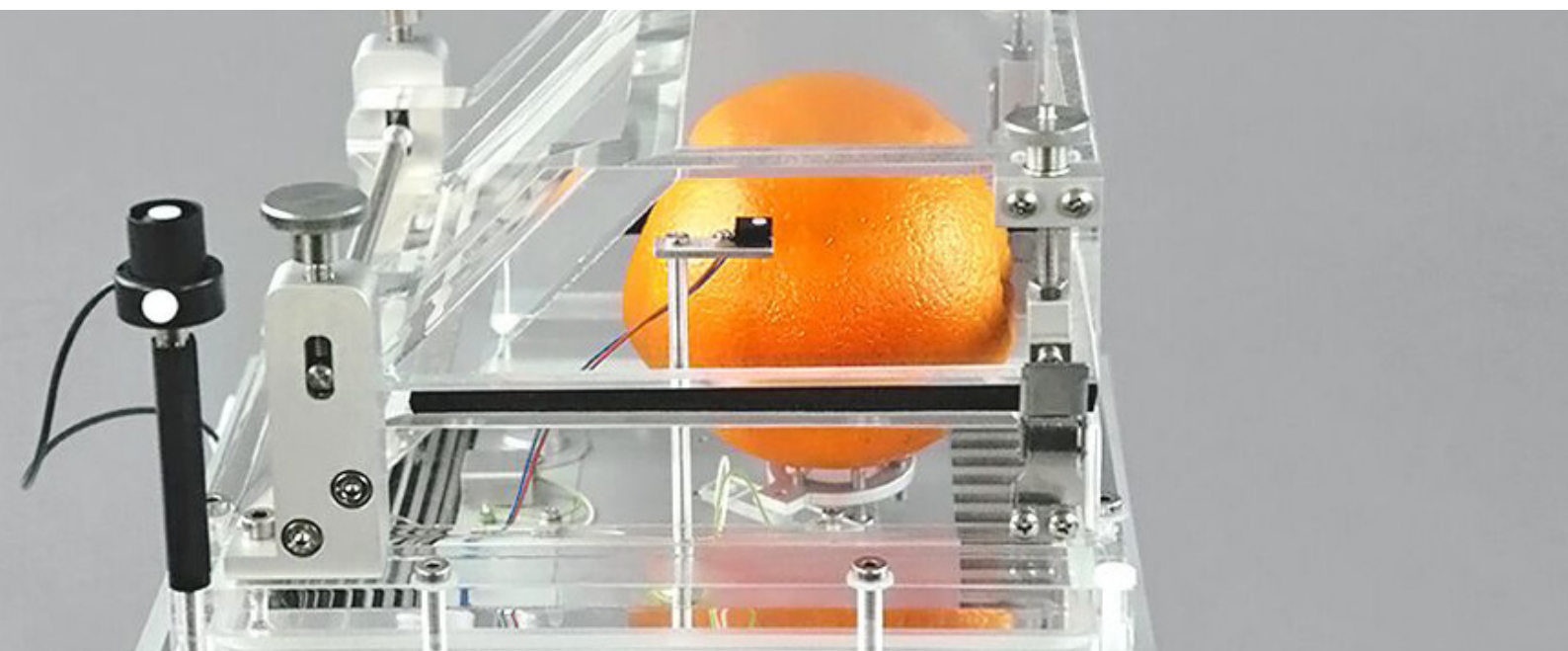


3010-GWK1

Gas-Exchange Chamber



High Quality Instrumentation for Plant Sciences

WALZ

Accessories for 3010-GWK1

LED-Panel RGBW-L084

LED-Panel RGBW-L084 with a densely packed array of high-power color LEDs features various illumination options. See also 3010-GWK1 & LED-Panel.

Chamber

Chambers can be designed on customer request, for example a fruit chamber as shown.

Interface 3010-I/Box

Interface establishing a connection between the socket COMP and the USB-port of a PC. Suitable for direct operation of the Standard Measuring Heads 3010-S, the Dual-PAM Gas-Exchange Cuvette 3010-DUAL, the Gas-Exchange Chamber 3010-GWK1, or any Control Unit by an external PC.

Specifications for 3010-GWK1

All specifications are subject to change without prior notice.

Gas-Exchange Chamber 3010-GWK1
Design: Chamber consisting of an aluminum cooling block with two pneumatic connectors and transversal fan, flat polymer lid or user-designed cuvette; micro-processor controlled electronics with connectors for temperature sensors, humidity sensor, PAR-sensors, GFS-3000 or 3010-I/Box connection, power-input; cooled with Peltier-cooling units and ventilator
Measurement of chamber and ambient temperatures: Pt 100 type A, range -10 to 50 °C, accuracy ±0.1 °C. An extended version with a range from -10 to 75°C is available
Leaf temp. measurement: Thermocouple, range: -10 to 50 °C, accuracy ±0.2 °C, range of extended version: -10 to 75°C
Temperature control: Three modes of temperature control: Constant cuvette temperature, constant leaf temperature, follow ambient temperature with an offset
Temperature control range: -10°C to 50°C depending on ambient temperature and radiative heat intake. With 4l volume, dark: 10 K below ambient temperature and 25 K above ambient temperature. With flat lid, dark: 20 K below ambient temperature and 35 K above ambient temperature. Range of extended version: -10 to 75°C
Relative humidity sensor: Range: 0 to 100% r.h., accuracy: ±1.5% (5 to 95% r.h.), T ₉₀ response time (11 to 75% r.h.): <10 s
External miniature quantum sensor: Mini Quantum Sensor MQS-B/GWK1 outside of chamber. Selective PAR measurement, range 0 to 2500 µmol m ⁻² s ⁻¹ , accuracy ±5%, cosine corrected (measuring photosynthetic photon flux density PPFD)

Internal light sensor: Selective PAR measurement, range 0 to 2500 $\mu\text{mol m}^{-2} \text{s}^{-1}$ PAR, accuracy $\pm 10\%$, two sensors, one in the upper and one in the lower part of the cuvette
Cuvette ventilation system: Transversal fan
Maximum sample area: 14 cm x 10 cm
Pneumatic connectors: Hose fittings for 10/8 mm (OD/ID) tubing
Inner volume of the cooling unit alone: 840 ml (up to edge of aluminum frame)
Power supply: AC Power Supply 3020-N for laboratory operation
Power consumption: Max. 45 W
Operating temperature: -5 to 45 °C
Dimension of cooling unit: 26 cm x 25 cm x 19.5 cm (L x W x H)
Weight: 6.9 kg including cables and tubes
Cuvette
Standard: Flat lid (inside: 16 cm x 14.5 cm, outside: 18.5 cm x 17 cm, volume: 320 ml)
Other design: Available on customer request

AC Power Supply 3020-N

Design: DC power supply unit for laboratory use
Output voltage: 16 V DC
Output power: 135 W
Mains power supply: 100 to 240 V AC, 50/60 Hz
Operating temperature: 0 to 60 °C
Dimensions: 20 cm x 8 cm x 5 cm (L x W x H)
Weight: 1 kg