

Drosophila

Percival® model DR-41VL

Standard IncuWhite® LED lighting



Applications

- Designed for *Drosophila melanogaster* and many more applications

IntellusUltra Controller

The IntellusUltra (C8) control system adapts to nearly any programming style with a large range of options for optimal control over experiments.

- Robust and reliable, industrial-grade integrated hardware design
- Highly flexible programming capabilities for customized configurations and expansion
- Precise, simultaneous control of up to 7 environmental parameters
- Industry-leading experiment protection and system diagnostic

Please visit www.percival-scientific.com for more information on our control systems.

IncuWhite LED LightingSystem

- Linear LEDs vertically mounted
- Intensity programmable up to 120 $\mu\text{moles/m}^2/\text{s}$ of light irradiance measured @ 6" from LEDs
- Programmable through the IntellusUltra real-time controller
- Dimmable output from 5-100% in one-percent increments

Airflow/Circulation

- Direction: horizontal
- Airspeed fpm (feet per minute): 30

Cabinet Construction

- 26-gauge smooth galvanized white side walls and top reinforced with 24-gauge backer plates
- Interior floor constructed of 24-gauge #304-4 stainless steel
- 24-gauge smooth white galvanized exterior
- NSF-compliant seam design
- Overall wall thickness is 2" (5.1 cm)
- One 1.25" diameter access port on right-hand wall with air-tight plug
- Integrated floor drain
- Contains casters assembly and adjustable leveling legs

DR-41VL specifications (subject to change without notice)

Temp Range with all lights on	Interior Space volume		Total Shelving Floor Area		Maximum Growing Height		Exterior Dimensions						Light Intensity 6" from lamps unless otherwise noted	Tiers
							width		depth		height			
°C	ft³	m³	ft²	m²	in	cm	in	cm	in	cm	in	cm	µmoles/m²/s	
5-44±0.5	37.2	1.1	34	3.2	9.5	24.1	41	104.1	33.6	85.4	77.2	196.1	120	5

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Insulation

- Construction using 2" high-grade materials, such as closed-cell and non-CFC Urethane insulation

Door

- One door opening 36.8" x 57.5" (93.3 cm x 146.1 cm) provides full access to the chamber interior
- Magnetic gasket provides a tight seal to door frame

Interior Space

- 37.2 ft³ (1.1 m³) with work area of 34 ft² (3.2 m²) provided on six tiers

Shelving

- Five tiers of white epoxy coated steel wire shelving (each shelf is 27"D x 36.3"W [68.6 cm x 92.2 cm])
- Shelves are supported by shelf clips allowing ½" vertical adjustments
- Maximum clearance between shelves is 9.5" (24.1 cm) per tier with all five shelves installed (and the water pan humidifier as standard)

Finish

- Interior and exterior painted with highly reflective, environmentally friendly, high temperature baked white powder coating

Refrigeration

- Self-contained air-cooled condensing unit with hot gas bypass system (continuous running condensing unit ensures precise temperature control by alternately cycling refrigerant and hot gas to coil; this also prolongs life of compressor and eliminates risk of ice buildup in coil)
- Top-mounted refrigeration system allows easy access for maintenance and cleaning
- As heat is rejected, it rises and is dissipated into room without having any effect on inside temperature of cabinet
- Extended stem solenoid valves for quiet and long life operation
- Ceiling-mounted evaporator coils incorporate dual air circulation fans in aluminum housing
- Heat rejection to ambient (standard refrigeration system) = 2,718 BTU/hr
- Coated coil for improved resistance to corrosion from acidic environments

Temperature Range

- 5°-44°C (±0.5°C) lights on and 2°-44°C (±0.5°C) lights off

Temperature Safety Limit Controls

- Experiment protection (adjustable high/low temperature control, audible alarms and visual indicators)
- Controls shut down all power to the chamber, activating alarms
- System automatically resets when temperature returns to normal range

Humidity Control

- Additive humidity control of higher than ambient to 85% (±10%) lights on for set temperatures between 15° to 30°C
- Humidity control of higher than ambient to 90% (±10%) lights off for set temperatures between 15° to 30°C
- Humidity system requires a de-mineralized water supply line which terminates to a ½" MPT connector

See other specification sheets or contact Percival Scientific for additional information.

Electrical Service Requirements

- 120/1/60: two grounded cords each with NEMA 5-15P plug provided (with standard chamber)
- Cord #1 RLA=6.6
Cord #2 RLA=6.4 (combined MCA=16.3)

Helping You Create Better Science

Percival Scientific controlled environment systems are the culmination of over 60 years of design and manufacturing experience. We developed our high-quality products through direct partnerships within the scientific community. Our controlled environments are known for their customizable designs and superior, long-lasting performance. Creativity, passion, technical expertise and attention to detail drive our scientific innovation, and we are proud to help you create better science.



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