PROHOOD™ AIR CAPTURE HOOD MODEL PH731

The PH731 ProHood™ Capture Hood is a multipurpose electronic air balancing instrument primarily used for efficiently taking direct air volume readings at diffusers and grilles. It features a detachable micromanometer which can be used with optional probes for increased flexibility in multiple measurement applications. Offering durable, trouble-free operation, this lightweight, ergonomically designed capture hood kit saves time and money by combining multiple measurement tools into one package. The PH731 ProHood Capture Hood helps you create healthy and energy efficient environments while meeting local codes, guidelines and regulations for ventilation systems.



Features and Benefits

- + Ergonomic design and ultra light weight for easy, one-person operation
- + Automatically senses and displays supply or return flows, saving time on the job
- + Back pressure compensation ensures accurate readings
- + Multiple hood sizes available for easy, cost effective use across multiple jobs
- + Detachable digital micromanometer offers flexibility to use in multiple applications
- + Includes Swirl X Flow Conditioner for use with twist or swirl type supply air diffusers
- + Compatible LogDat™ Mobile Remote Reader and Data Logger Software option simplifies documenting of results and emailing of reports
- + Capture hood stand eliminates the need for ladders (reaching diffusers up to 4,5m (15 ft.)

Applications

- + Test and balance contractors
- + Commissioning agents
- + Facilities managers
- + Health and safety specialists
- + Ventilation system installers





DETACHABLE MICROMANOMETER MODEL PH730

The PH731 ProHood Capture Hood includes a detachable PH730 micromanometer—one of the most advanced, versatile, and easy to use micromanometers on the market today. The PH730 features an auto-zeroing pressure sensor that increases measurement resolution and accuracy along with an intuitive menu structure for ease of operation.

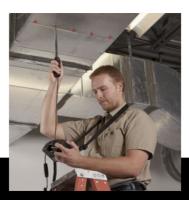


Model PH730 (Micromanometer shown with standard and optional accessories)

Features and Benefits

- + Accurately measures pressure, velocity and flow to help you meet industry standards
- + Auto-zeroing pressure sensor reduces user-steps and saves time
- + Automatic density correction increases reading accuracy
- + Intuitive menu structure allows for ease of use and setup
- + Large graphic display with backlight offers easy-to-use interface
 - Displays up to five measurements simultaneously
 - On-screen messages and instructions
 - Programmed for multiple languages
- + Integrated Log-Tchebycheff duct traverse application simplifies calculations

- + Bluetooth communications for transferring data or remote polling
- + Optional LogDat™ Mobile Android™ App connects to the instrument via bluetooth to remotely take readings and datalog measurements for review or export
- + Includes downloading software with USB cable
- + Accommodates optional pitot, air flow (straight pitot), temperature/relative humidity, velocity matrix, or thermoanemometer probes for use in multiple applications







SPECIFICATIONS

PROHOOD™ CAPTURE HOOD MODEL PH731 DETACHABLE MICROMANOMETER MODEL PH730

Pitot probes 0.125 to 78 m/s (25 to 15,500 ft/min) Air flow probe 0.125 to 12.5 m/s (25 to 2.500 ft/min) Velocity matrix 0.125 to 12.5 m/s (25 to 2.500 ft/min) Accuracy ±3% of reading ±0.04 m/s (±7 ft/min) at velocities > 0.25 m/s (50 ft/min) Units m/s, ft/min Resolution 0.01 m/s (1 ft/min) Pressure ±3735 Pa (±15 in. H₂0); 37.5 kPa (150 in. H₂0), maximum safe operating pressure Absolute pressure ±36 to 1016 mm Hg (15 to 40 in. Hg) Accuracy ±2% of reading ±0.025 Pa H₂0 (±0.0001 in.) static and differential; ±2% of reading absolute Units in. H₂0, in. Hg, Pa, hPa, kPa, mm Hg, cm Hg, mm H₂0, cm H₂0 Resolution 0.001 Pa H₂0 (0.00001 in.) static and differential; ±1 mm Hg (0.01 in. Hg) absolute Volume Range 42 to 4250 m³/h (25 to 2,500 ft³/min) capture hood, supply and return Accuracy ±3% of reading ±12 m³/h (±7 ft³/min) at flows >85 m³/h (>50 ft³/min) Units m³/h, ft³/min, l/s, m³/min Resolution 1 m³/h (1 ft³/min) Resolution 5 to 95% RH (temperature/RH probe) Accuracy ±3% C (±0.5°F)	Velocity Range	
Velocity matrix 0.125 to 12.5 m/s (25 to 2,500 ft/min) Accuracy ±3% of reading ±0.04 m/s (±7 ft/min) at velocities >0.25 m/s (50 ft/min) Units m/s, ft/min Resolution 0.01 m/s (1 ft/min) Pressure Differential pressure ±3735 Pa (±15 in. H₂0); 37.5 kPa (150 in. H₂0), maximum safe operating pressure Absolute pressure 356 to 1016 mm Hg (15 to 40 in. Hg) Accuracy ±2% of reading ±0.025 Pa H₂0 (±0.0001 in.) static and differential; ±2% of reading absolute Units in. H₂0, in. Hg, Pa, hPa, kPa, mm Hg, cm Hg, mm H₂0, cm H₂0 Resolution 0.001 Pa H₂0 (0.00001 in.) static and differential; 1 mm Hg (0.01 in. Hg) absolute Volume Range 42 to 4250 m³/h (25 to 2,500 ft³/min) capture hood, supply and return Accuracy ±3% of reading ±12 m³/h (±7 ft³/min) at flows > 85 m³/h (>50 ft³/min), l/s, m³/min Resolution 1 m³/h (1 ft³/min, l/s, m³/min Resolution 1 m³/h (1 ft³/min) RH Range 5 to 95% RH (temperature/RH probe) Accuracy ±3% RH Resolution 0.1% RH Temperature Sensor in base 4.4 to 60°C (40 to 140°F	Pitot probes	0.125 to 78 m/s (25 to 15,500 ft/min)
### ### ##############################	Air flow probe	0.125 to 12.5 m/s (25 to 2,500 ft/min)
Accuracy	Velocity matrix	0.125 to 12.5 m/s (25 to 2,500 ft/min)
Resolution	Accuracy	at velocities >0.25 m/s (50 ft/min)
Pressure Differential pressure ±3735 Pa (±15 in. H₂0); 37.5 kPa (150 in. H₂0), maximum safe operating pressure Absolute pressure 356 to 1016 mm Hg (15 to 40 in. Hg) Accuracy ±2% of reading ±0.025 Pa H₂0 (±0.0001 in.) static and differential; ±2% of reading absolute Units in. H₂, D. in. Hg, Pa, hPa, kPa, mm Hg, cm Hg, mm H₂0, cm H₂0 Resolution 0.001 Pa H₂0 (0.00001 in.) static and differential; 1 mm Hg (0.01 in. Hg) absolute Volume Range 42 to 4250 m³/h (25 to 2.500 ft³/min) capture hood, supply and return Accuracy ±3% of reading ±12 m³/h (±7 ft³/min) at flows >85 m³/h (>5 ft³/min) No freading ±12 m³/h (±7 ft³/min) at flows >85 m³/h (1 ft³/min) Resolution 1 m³/h (1 ft³/min) RH 8 to 95% RH (temperature/RH probe) Accuracy ±3% RH Resolution 0.1% RH Temperature Sensor in base 4.4 to 60°C (40 to 140°F) Temperature/RH probe -10 to 60°C (14 to 140°F) Accuracy ±0.3°C (±0.5°F) Units °C, °F	Units	m/s, ft/min
±3735 Pa (±15 in. H ₂ O); 37.5 kPa (150 in. H ₂ O), maximum safe operating pressure 356 to 1016 mm Hg (15 to 40 in. Hg) Accuracy	Resolution	0.01 m/s (1 ft/min)
### Absolute pressure ### Absolute pressure ### Absolute pressure ### 356 to 1016 mm Hg (15 to 40 in. Hg) ### Accuracy ### 22% of reading ±0.025 Pa H,0 (±0.0001 in.) ### static and differential; ±2% of reading absolute in. H,0, in. Hg, Pa, hPa, kPa, mm Hg, cm Hg, mm H,0, cm H,0 ### Resolution ### 0.001 Pa H,0 (0.00001 in.) static and differential; 1 mm Hg (0.01 in. Hg) absolute ### Volume ### 42 to 4250 m³/h (25 to 2,500 ft³/min) ### capture hood, supply and return ### Accuracy ### 42 m³/h (>50 ft³/min) ### 13% of reading ±12 m³/h (±7 ft³/min) at flows ### >85 m³/h (>50 ft³/min) ### ### William ### 10 m³/h (1 ft³/min) ### Range 5 to 95% RH (temperature/RH probe) ### Accuracy ### 23% RH ### Resolution 0.1% RH ### Temperature ### Sensor in base 4.4 to 60°C (40 to 140°F) ### Temperature/RH probe -10 to 60°C (14 to 140°F) ### Accuracy ### 20.3°C (±0.5°F) ### Units ### 20.25 Ft	Pressure	
### ### ##############################	Differential pressure	
Static and differential; ±2% of reading absolute	Absolute pressure	0 (
Whits mm Ĥ_O, cm H_O Resolution 0.001 Pa H_O (0.00001 in.) static and differential; 1 mm Hg (0.01 in. Hg) absolute Volume 42 to 4250 m³/h (25 to 2.500 ft³/min) capture hood, supply and return Accuracy ±3% of reading ±12 m³/h (±7 ft³/min) at flows >85 m³/h (>50 ft³/min) Units m³/h, ft³/min, l/s, m³/min Resolution 1 m³/h (1 ft³/min) RH Range 5 to 95% RH (temperature/RH probe) Accuracy ±3% RH Resolution 0.1% RH Temperature 4.4 to 60°C (40 to 140°F) Temperature/RH probe -10 to 60°C (14 to 140°F) Accuracy ±0.3°C (±0.5°F) Units °C, °F	Accuracy	static and differential; ±2% of reading absolute
differential; 1 mm Hg (0.01 in. Hg) absolute Volume	Units	mm H ₂ O, cm H ₂ O
Range 42 to 4250 m³/h (25 to 2,500 ft³/min) capture hood, supply and return Accuracy ±3% of reading ±12 m³/h (±7 ft³/min) at flows >85 m³/h (>50 ft³/min) Units m³/h, ft³/min, l/s, m³/min Resolution 1 m³/h (1 ft³/min) RH Range 5 to 95% RH (temperature/RH probe) Accuracy ±3% RH Resolution 0.1% RH Temperature Sensor in base 4.4 to 60°C (40 to 140°F) Temperature/RH probe -10 to 60°C (14 to 140°F) Accuracy ±0.3°C (±0.5°F) Units °C, °F	Resolution	0.001 Pa H ₂ O (0.00001 in.) static and differential; 1 mm Hg (0.01 in. Hg) absolute
Range capture hood, supply and return Accuracy ±3% of reading ±12 m³/h (±7 ft³/min) at flows >85 m³/h (>50 ft³/min) Units m³/h, ft³/min, l/s, m³/min Resolution 1 m³/h (1 ft³/min) RH Range Accuracy ±3% RH (temperature/RH probe) Accuracy ±3% RH Resolution 0.1% RH Temperature Sensor in base 4.4 to 60°C (40 to 140°F) Temperature/RH probe -10 to 60°C (14 to 140°F) Accuracy ±0.3°C (±0.5°F) Units °C, °F	Volume	
Nesturacy Nest	Range	capture hood, supply and return
Resolution 1 m³/h (1 ft³/min) RH Range 5 to 95% RH (temperature/RH probe) Accuracy ±3% RH Resolution 0.1% RH Temperature Sensor in base 4.4 to 60°C (40 to 140°F) Temperature/RH probe -10 to 60°C (14 to 140°F) Accuracy ±0.3°C (±0.5°F) Units °C, °F	Accuracy	
RH Range	Units	m³/h, ft³/min, l/s, m³/min
Range 5 to 95% RH (temperature/RH probe) Accuracy ±3% RH Resolution 0.1% RH Temperature Sensor in base 4.4 to 60°C (40 to 140°F) Temperature/RH probe -10 to 60°C (14 to 140°F) Accuracy ±0.3°C (±0.5°F) Units °C, °F	Resolution	1 m³/h (1 ft³/min)
Accuracy ±3% RH Resolution 0.1% RH Temperature Sensor in base 4.4 to 60°C (40 to 140°F) Temperature/RH probe -10 to 60°C (14 to 140°F) Accuracy ±0.3°C (±0.5°F) Units °C, °F	RH	
Resolution 0.1% RH Temperature Sensor in base 4.4 to 60°C (40 to 140°F) Temperature/RH probe -10 to 60°C (14 to 140°F) Accuracy ±0.3°C (±0.5°F) Units °C, °F	Range	5 to 95% RH (temperature/RH probe)
Temperature Sensor in base 4.4 to 60°C (40 to 140°F) Temperature/RH probe -10 to 60°C (14 to 140°F) Accuracy ±0.3°C (±0.5°F) Units °C, °F	Accuracy	±3% RH
Sensor in base 4.4 to 60°C (40 to 140°F) Temperature/RH probe -10 to 60°C (14 to 140°F) Accuracy ±0.3°C (±0.5°F) Units °C, °F	Resolution	0.1% RH
Temperature/RH probe -10 to 60°C (14 to 140°F) Accuracy ±0.3°C (±0.5°F) Units °C, °F	Temperature	
Accuracy ±0.3°C (±0.5°F) Units °C, °F	Sensor in base	4.4 to 60°C (40 to 140°F)
Units °C, °F	Temperature/RH probe	-10 to 60°C (14 to 140°F)
·	Accuracy	±0.3°C (±0.5°F)
Resolution 0.1°C (0.1°F)	Units	°C, °F
	Resolution	0.1°C (0.1°F)

Instrument Temperature Range				
Operating	4.4 to 60°C (40 to 140°F)			
Storage	-20 to 71°C (-4 to 160°F)			
Statistics	tatistics			
min, max, average and s	nin, max, average and sum			
Data Storage				
25,500 samples, time and date stamped				
Logging Interval				
User selectable				
Response Time				
2 to 8 seconds, different	ial pressure sensor			
Power Requirements	Power Requirements			
Four AA-size cells or AC adapter				
Physical Characteristics				
Dimensions (micromanometer only)	18.8 cm x 11.4 cm x 5.8 cm (7.4 in. x 4.5 in. x 2.3 in.)			
Weight with Batteries	PH730 0.5 kg (17 oz.) PH731 3.4 kg (7.4 lb.)			
Pressure Connection	6.35 mm (1/4 in.) OD straight ports with barbed ends for use with 4.76 mm (3/16 in.) ID flexible tubing			

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Use the stand and tablet app to do single-person balancing of a system

Model	PH731-B	PH731	PH731-STA	PH730
Description	Basic 610 mm x 610 mm (2 ft x 2ft) ProHood Capture Hood Kit	Standard 610 mm x 610 mm (2 ft x 2ft) ProHood Capture Hood Kit	Bundled 610 mm x 610 mm (2 ft x 2ft) ProHood Capture Hood Kit	Micromanometer Kit
Capture hood base, poles, frame and fabric	+	+	+	
Micromanometer	+	+	+	+
(4) support poles	+			
(6) support poles		+	+	
(4) AA alkaline batteries	+			
(4) AA rechargeable NiMH batteries		+	+	+
(2) battery holders	+	+	+	+
Multi-country AC power adaptor		+	+	+
Swirl-X flow conditioner*	+	+	+	
46 cm (18 in.) pitot probe		+	+	+
5.0 m (16 ft.) tubing		+	+	+
(2) static pressure probes		+	+	+
Neck strap		+	+	+
Capture hood stand			+	
Android Tablet loaded with LogDat Mobile			+	
Wheeled carrying case	+	+	+	
Handheld carrying case				+
LogDat CH downloading software with cable	+	+	+	+
User manual	+	+	+	+
Calibration certificate, pressure: 5-points (differential), 3-points (barometric), 3-points (temperature)	+	+	+	+
Calibration certificate, flow: 7-points (supply), 7-points (return)	+	+	+	
* NOTE: Swirl X included with AirFlow Hoods				

SPECIFICATIONS

PROHOOD™ CAPTURE HOOD MODEL PH731 DETACHABLE MICROMANOMETER MODEL PH730

Recommended Optional Accessories

Hood Kits	
801097 (standard)	610 mm x 610 mm (2 ft x 2 ft)
801200	305 mm x 1220 mm (1 ft x 4 ft)
801201	610 mm x 1220 mm (2 ft x 4 ft)
801202	305 mm x 1525 mm (1 ft x 5 ft)
801203	915 mm x 915 mm (3 ft x 3 ft)
801206	305 mm x 1,220 mm (1 ft x 4 ft) and 610 mm x 1,220 mm (2 ft x 4 ft)
801207	305 mm x 1,525 mm (1 ft x 5 ft) and 915 mm x 915 mm (3 ft x 3 ft)
801209	406 mm x 406 mm (16 in. x 16 in.)
801210	133 mm x 1220 mm (5.25 in. x 4 ft)
801211	710 mm x 710 mm (28 in. x 28 in.)
801212	710 mm x 1270 mm (28 in. x 50 in.)
801215	305 mm x 915 mm (1 ft x 3 ft)
801204 (BSC*)	205 mm x 560 mm (8 in. x 22 in.)
801205 (BSC*)	255 mm x 560 mm (10 in. x 22 in.)

^{*}The BSC hood kits are used to certify Class II bio-safety cabinets by taking direct in-flow measurements for NSF compliance.

Duct Plugs	
634650002	9.5 mm (3/8 in.) diameter - 1000 pieces
634650003	9.5 mm (3/8 in.) diameter - 5000 pieces
Printer	
8034	Wireless Bluetooth printer

LogDat™ Mobile Software

LogDat Mobile*

Remote reader and data logger Android™ Software App available via Google Play™



Capture Hood Stand

CH-Stand*

Extends up to 4.5 m (15 ft) with PH731 attached to take readings from ceiling diffuser without the use of a ladder. Capture hood is secured onto quad bracket and two extension pole sections can be raised to desired height and locked in place. Hood stand uses wheels for ease of movement and portability.



Optional Probes

Airflow Probe 800187	
Straight air flow probe, 46 cm (18 in.). Used to perform a duct traverse and to measure face velocity measurements. Ideal for small diameter ductwork.	
Temperature and Humidity Probe 80022	20
Telescopic temperature and humidity probe, extends 230-990 mm (9-39 in.). Used for measuring inside of duct work. Can be inserted into a standard 8 mm (5/16 in.) diameter hole typically use for pitot traverses with the ability to calculate wet bulb and dewpoint temperatures.	
Thermoanemometer Air Velocity Probes Models 960, 962, 964, and 966	
Available in straight or articulating construction, and with or without a relative humidity sensor. Models with a relative humidity sensor can also calculate wet bulb and dewpoint temperature.	
Velocity Matrix 801090 16 point Telescopic Velocity Matrix. Used for measuring face velocities of HEPA filters, chemical fume hood, laminar flow benches, filter banks, kitchen exhausts and other applications where a large surface area needs to be measured. Grid covers 0.09 m² (1 ft²) and averages the air velocity while minimizing the effects of turbulence to produce a stable reading.	100 ***

Pitot Probes	
634634000	8 mm-30 cm (5/16-12 in.) diameter
634634001*	8 mm-46 cm (5/16-18 in.) diameter
634634002	8 mm-61 cm (5/16-24 in.) diameter
634634003	8 mm-91 cm (5/16-36 in.) diameter
634634005	8 mm - 152 cm (5/16-60 in.) diameter

^{*}included in specific bundles. Please refer to model matrix on page 3.

 $Specifications \ subject \ to \ change \ without \ notice.$

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