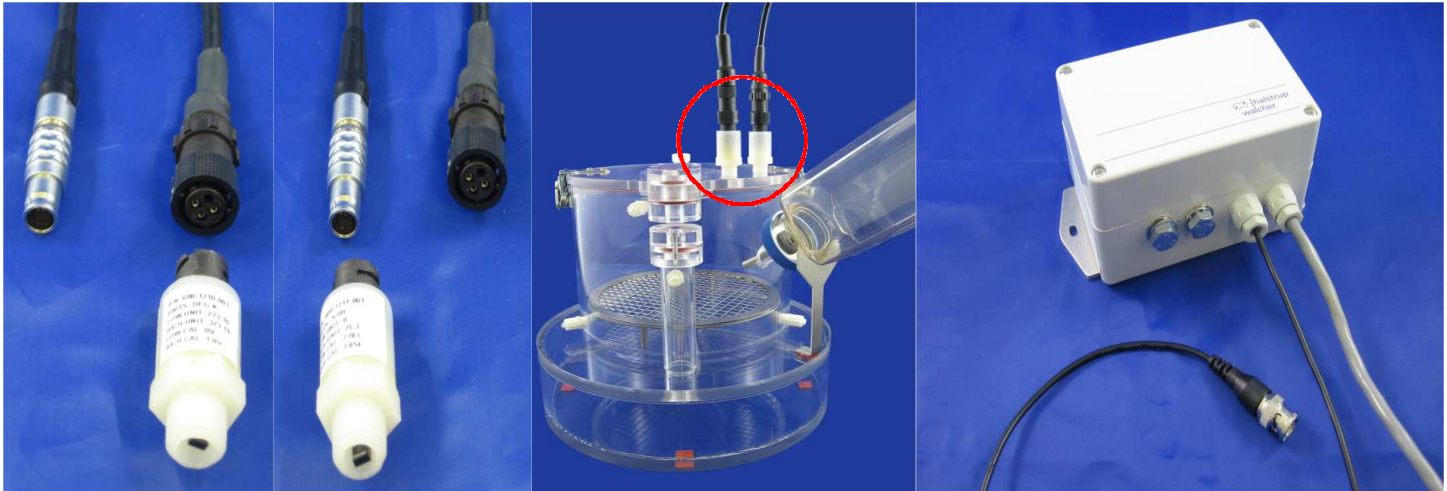


# Temperature, Humidity and Barometric Pressure Sensors



Temperature sensor (left), Humidity sensor (right) with cables.

DSI Unrestrained Whole Body Plethysmograph Chamber with temperature and humidity sensors (circled in red).

Barometric Pressure Sensor with cables.

## Features:

- For use with Compensated Whole Body Plethysmograph respiratory method, which provides a more accurate volume calculation. (Reference: Drorbaugh, J. E. & Fenn, W. O.: A barometric method for measuring ventilation in newborn infants. Pediatrics., 1955; 16;81-87) .
- Interfaces to the 7700 UniversalXE signal conditioner.
- Attaches to the lid of the DSI Rat Unrestrained Whole Body Plethysmograph Chamber (Bulletin 446-107).
- Calibrations marked on temperature and humidity sensors for ease of calibrating the system.
- Temperature and humidity sensors are available without the cable for easy replacement of the sensors.
- Different length cables are available (10 feet [3.05 meters] and 20 feet [6.1 meters]) for use with temperature and humidity sensors.
- Barometric pressure sensor provides a calibrated high level output so that there is no need for a physical calibration.

# Technical Data Sheet

## *Model 600-1210-001 Temperature Sensor*

## *Model 600-1211-001 Humidity Sensor*

## *Model 600-1258-001/600-1259-001 Barometric Pressure Sensor*

The Temperature and Humidity sensors are designed to be used with the DSI Unrestrained Whole Body Plethysmograph Chamber (part 600-2400-001) when collecting data using the compensated method.

The compensated method uses chamber temperature and humidity to generate more accurate flow and volume signals which generate accurate Tidal Volume (TV) and Minute Volume (MV) parameters.

Additionally, a barometric pressure sensor (part numbers 600-1258-001 for 220V and 600-1259-001 for 115V) can also be used in conjunction with the temperature and humidity sensors for a more accurate volume measurement.

SPECIFICATIONS	ORDERING INFORMATION																				
<ul style="list-style-type: none"><li>• Temperature accuracy within <math>\pm 2^{\circ}\text{C}</math>.</li><li>• Humidity accuracy within <math>\pm 10\%</math> RH.</li><li>• The temperature and humidity sensors are designed to mate with 1/4" (0.64 cm) NPT threaded holes in the lid of the Rat Whole Body Plethysmograph Chamber (part 600-2400-001).</li><li>• The temperature and humidity sensors are approximately 2.125" (5.4 cm) long and 0.75" (1.91 cm) in diameter.</li><li>• The temperature and humidity sensors weigh less than 0.1lb (0.05 kg).</li><li>• The temperature and humidity sensor body is made from Nylon and sealed with epoxy.</li><li>• The barometric pressure sensor provides a calibrated output in kilopascal.</li><li>• The full range of the barometric pressure sensor is 80-120kPa, the equivalent is 600-900mmHg.</li></ul>	<table><thead><tr><th>Part Number</th><th>Description</th></tr></thead><tbody><tr><td>600-1210-001</td><td>Temperature Sensor</td></tr><tr><td>600-1211-001</td><td>Humidity Sensor</td></tr><tr><td>600-1258-001</td><td>Barometric Pressure Sensor, 220 V</td></tr><tr><td>600-1259-001</td><td>Barometric Pressure Sensor, 115 V</td></tr></tbody></table> <table><thead><tr><th>Accessories</th><th></th></tr></thead><tbody><tr><td>600-1212-001</td><td>Temp sensor Cable: UniversalXE 10 ft (3.05 meters)</td></tr><tr><td>600-1213-001</td><td>Temp sensor Cable: UniversalXE 20 ft (6.1 meters)</td></tr><tr><td>600-1214-001</td><td>Humidity sensor Cable: UniversalXE 10 ft (3.05 meters)</td></tr><tr><td>600-1215-001</td><td>Humidity sensor Cable: UniversalXE 20 ft (6.1 meters)</td></tr></tbody></table>	Part Number	Description	600-1210-001	Temperature Sensor	600-1211-001	Humidity Sensor	600-1258-001	Barometric Pressure Sensor, 220 V	600-1259-001	Barometric Pressure Sensor, 115 V	Accessories		600-1212-001	Temp sensor Cable: UniversalXE 10 ft (3.05 meters)	600-1213-001	Temp sensor Cable: UniversalXE 20 ft (6.1 meters)	600-1214-001	Humidity sensor Cable: UniversalXE 10 ft (3.05 meters)	600-1215-001	Humidity sensor Cable: UniversalXE 20 ft (6.1 meters)
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*DSI products are not intended for the purposes of diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease, or used as a life support device. Use of DSI products are solely for the purposes of conducting life science research.*