

**Notes:**

**Warranty**

This product is fully warranted against defective materials and/or workmanship for a period of one year after purchase, provided it was not improperly used. For your protection, please use this product as soon as possible. If returned, it must be securely wrapped, sent prepaid and insured to:

Pacer Industries, Inc.  
1450 First Avenue  
Chippewa Falls, WI 54729  
PH: 715-723-1141  
FX: 715-723-7890

Please include a note with name, address, telephone number and description of the problem. Although we provide assistance on Pacer products both personally and through our literature, it is still the total responsibility of the customer to determine the suitability of the product for use in their application.

This manual is provided by Pacer Industries without any kind of warranty. Precautions have been taken in accurately preparing this manual; however, we neither assume responsibility for any omissions or errors that may appear nor assume liability for any damages that result from the use of the products in accordance with the information contained in the manual.

## INTRODUCTION

Pacer's model DH200 (°F) and DH300 (°C) digital hygro-thermometers are accurate and versatile instruments for measuring temperature and relative humidity in HVAC service, storage and processing facilities and research labs. The units feature an LCD display and use a capacitance type RH sensor and a platinum resistance temperature sensor. Probe cables have connectors for easy replacement and calibration.

## SECTION 1 - SPECIFICATIONS

### Sensors:

|                  |            |
|------------------|------------|
| Humidity sensor: | Capacitive |
| Temperature:     | PT100 RTD  |

### Range:

|                                |                |
|--------------------------------|----------------|
| Relative Humidity:             | 15% to 95% RH  |
| Temperature – RH probe:        |                |
| DH200:                         | 32.0° to 175°F |
| DH300:                         | 0° to 80°C     |
| Temperature – optional probes: |                |
| DH200:                         | -100° to 200°F |
| DH300:                         | -100° to 200°C |

### Accuracy:

|                    |                        |
|--------------------|------------------------|
| Relative Humidity: | ±2% RH                 |
| Temperature:       | ±1°F (±0.5°C) ±1 digit |

### Resolution:

|                    |             |
|--------------------|-------------|
| Relative Humidity: | 0.1% RH     |
| Temperature:       | 0.1°F or °C |

### Response time (to ΔRH step change):

|                    |                                 |
|--------------------|---------------------------------|
| Relative Humidity: | 10%-50% of final value: 2-3 min |
| (circulating air)  | 50%-90% of final value: 3-5 min |
| (still air)        | Final value: 20-30 min          |
| Temperature:       | Approximately 60 seconds        |

### Temperature drift:

±0.5% RH per 10°C (18°F)

### Operating temperature:

|             |                             |
|-------------|-----------------------------|
| Instrument: | 32 to 120°F (0 to 50°C)     |
| Probe:      | -4° to 176°F (-20° to 80°C) |

### Storage temperature:

14°F to 140°F (10° to 60°C)

### Power supply:

9V alkaline battery

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## SPECIFICATIONS (continued)

|                       |                               |
|-----------------------|-------------------------------|
| <b>Battery life:</b>  | Approximately 100 hours       |
| <b>Battery check:</b> | Automatic low battery display |

### Dimensions:

|             |                        |
|-------------|------------------------|
| Instrument: | 4.75" x 2.75" x 1"     |
| Probe:      | 7" length, 1" diameter |

### Weight:

8.8 ounces with battery

### Display:

0.5" LCD, 3 ½ digits

### Options:

|                                     |                                |
|-------------------------------------|--------------------------------|
| CG-3 charger:                       | PN 6043 (with NiMH battery)    |
| Sinter filter:                      | PN 3901 for harsh environments |
| Special-purpose temperature probes: |                                |
| PT201S probe:                       | PN 6301 GP immersion probe     |
| PT202S probe:                       | PN 6303 air probe              |
| PT203S probe:                       | PN 6304 surface probe          |

### Included:

|          |                                  |
|----------|----------------------------------|
| 1 piece: | DH200 or DH300 hygrometer        |
| 1 piece: | PN 6059 HTP200 RH probe          |
| 1 piece: | 9V alkaline battery              |
| 1 piece: | PN 6003 hard-shell carrying case |
| 1 piece: | M2964 operation manual           |

## SECTION 2 – OPERATION

Operation is simple. Install the battery if not already in place. Attach the probe cable connector by aligning the keyway, inserting the connector and tightening the collar. The slide switch is center OFF; slide to the right for %RH and to the left for temperature. Then place the probe in the location to be tested.

The DH200 and DH300 have low-battery indications. When "LO BAT" is displayed, replace (or charge) the battery.

The sensors should not come in contact with dirt or other foreign matter nor be immersed in water or other liquids. These things can cause incorrect readings or damage the sensors. If contaminated, the sensors should be cleaned carefully with distilled water and left to dry at least 24 hours in dry air.

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