

# TECHNICAL DATA SHEET

## Relative Humidity

Digitron's range of hand-held relative humidity instruments has been designed for the effective and reliable measurement of controlled environments.

The two models 2020RP and 2080RP both supplied with a temperature/humidity probe, offer excellent accuracy at a budget price. Their ergonomic case design with advanced technology sensors combine to give instruments with excellent performance and long life.

The more advanced instrument 2080RP includes functions such as - Dew point calculation, separate thermocouple input and logging and can measure humidity to 1.5% RH accuracy.

### Dew Point

The dew point is defined as the lower temperature to which air must be cooled in order for condensation (saturation) to occur. The dew point is dependent on the concentration of water vapour present, and therefore the relative humidity.

### Ice Point

The ice point is defined as the true reading for temperatures below zero.

### RH Calibration

RH calibration chamber and capsules are available to generate a known RH



## Specification

	2020RP*	2080RP*
<b>Sensor(s)</b> Plug replaceable	Pt100 RTD plus capacitive RH sensor	Input for Type K thermocouple Pt100 RTD plus capacitive RH sensor
<b>Range:</b>	0 to 100%RH -40°C to +85°C / -14°F to +185°F	0 to 100%RH -40°C to +85°C / -14°F to +185°F
<b>Resolution:</b>	0.1%RH, 0.1° from -199.9°C to +199.9°C / -199°F to +392°F, 1° elsewhere	0.1%RH, 0.1° from -199.9°C to +199.9°C / -199°F to +392°F, 1° elsewhere
<b>Accuracy:</b>	1.5% RH at 23°C/73°F over 0 to 100%RH window	1.5% RH at 23°C/73°F over 0 to 100RH window
<b>Accuracy (integrated Pt100 RTD)</b>	±0.3°C	±0.3°C
<b>Accuracy:(additional thermocouple)</b>	0.1% rdg ±0.3°C/0.4°F above -100°C/-148°F, ± 2 digits 0.5% rdg ±0.3°C/0.4°F below -100°C/-148°F, ± 2 digits	0.1% rdg ±0.3°C/0.4°F above -100°C/-148°F, ± 2 digits 0.5% rdg ±0.3°C/0.4°F below -100°C/-148°F, ± 2 digits
<b>Operating Temperature:</b>	-10°C to +50°C	-10°C to +50°C
<b>Operating Humidity:</b>	0 to 100%RH (non-condensing)	0 to 100%RH (non-condensing)
<b>Battery Type: T</b>	Two AA or equivalent cells (not supplied)	Two AA or equivalent cells (not supplied)
<b>Battery Life:</b>	Typically 150 hours	Typically 150 hours
<b>Low Battery Check:</b>	Battery symbol appears on display	Battery symbol appears on display
<b>Display:</b>	12.7mm / 0.5" custom L.C.D.	12.7mm / 0.5" custom L.C.D.
<b>Back light:</b>	Yes	Yes
<b>Environmental Specifications:</b>	IP65 (IP67 optional) with plug connected I	P65 (IP67 optional) with plug connected
<b>Dimensions:</b>	155 x 67 x 40mm/6.1 x 2.6 x 1.6"	155 x 67 x 40mm/6.1 x 2.6 x 1.6"
<b>Weight:</b>	180g/6.4oz	180g/6.4oz

## Key Features

- ✓ Waterproof to IP65 (with plug connected) with IP67 option
- ✓ Magnified display
- ✓ Separate battery compartment
- ✓ Accuracy: 0 to 100%RH 1.5%
- ✓ -40°C to +85°C/ -40°F to +185°F
- ✓ Back light
- ✓ Auto switch-off
- ✓ °C/°F/RH selection button
- ✓ Dew Point measurement
- ✓ Ice Point measurement (2020R only)
- ✓ 2080R (additional features)
- ✓ External probe option
- ✓ Max/Min averaging
- ✓ Display hold
- ✓ Logging (250 readings on demand or 50 at pre set interval)
- ✓ Data store with 4 digit data code input