



# J & S Instruments, Inc.

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## AS-140 & AS-145 COMBINATION RELATIVE HUMIDITY and TEMPERATURE PROBES DATA SHEET

The AS-140 and AS-145 Combination Relative Humidity and Temperature Probes utilize a high accuracy capacitive humidity sensor and Pt1000 resistive temperature element with a 1000 ohm European alpha curve of .00385. Both measurements have driven analog outputs.

The relative humidity and temperature sensors in these probes are designed so as to never require calibration in the field. They have interchangeable sensors that simply plug in when it is necessary for field service or upgrade.

The electronics are built right in the cylindrical probe body of the AS-140 and in the housing on the AS-145 so all the user has to do is supply the operating voltage and review the output via the six foot long color coded cable. The packaging is engineered for the harshest environments and is IP65 (NEMA 4) classified due to its metallic and/or ABS construction. The removable membrane filter protects the sensors from dust and dirt.

### SPECIFICATIONS:            AS-140                            AS-145

#### RELATIVE HUMIDITY

Sensor type:	Capacitive	same
Measuring range:	0 to 100% RH	same
Accuracy @ 20° C:	2% from 0 to 90% RH 3% from 90 to 100% RH	same
Stability:	±2% over 2 years	same
Operating temperature:	-10 to 60° C	same

#### TEMPERATURE

Sensor type:	RTD 1000 ohm @ 0° C	same
Element curve:	.00385 ohms/ohm/° C	same
Measuring range:	-40 to 60° C	same
Accuracy:	±0.6° C @ 20° C	±0.3° C @ 25° C

(continued)

## GENERAL

Outputs:	0.00-1.00 VDC	4.00-20.00 mA
Supply voltage:	7 to 28 VDC	10 to 28 VDC
Supply current:	2 mA	4 mA plus outputs
Probe dimensions:	2.72" L x .47" Dia.	10.12" L x .59" Dia.
Housing dimensions:	N/A	3.15" L x 3.15" W
Cable:	4 conductor w/ shield, 24 gauge, 6 feet long	same

The AS-140 and AS-145 Combination Relative Humidity and Temperature Probes come complete with a full one year warranty against defects in materials or workmanship.

October 1998