



Relative air humidity and temperature sensor

- Accurate also at high RH
- Electronics encapsulated by silicone
- Solid stainless steel housing
- Built-in heating
- Recalibration not necessary
- Built-in compensation for temperature function

Introduction

The HS-91 is a relative air humidity and temperature sensor with high accuracy, even in the case of higher relative humidity (RH) values. The electronics are moulded into a solid stainless steel housing, and the device can therefore be used virtually everywhere. A built-in heating system prevents condensation on the sensor element when the dew point is reached. A chip programmed by Contronics compensates for temperature fluctuations. The sensor is already calibrated on delivery. Follow-up calibration is unnecessary due to the excellent stability.

HS-91P

The HS-91 can also be delivered with a DIN plug for direct connection to a Contronics humidifier. (Order number: HS-91P)

Specifications HS-91 (P)

Relative humidity:

<i>Output</i>	0-1 Volt: 0-100% RH linear or
	0-10 Volt: 0-100% RH linear

Temperature:

<i>Output</i>	0-4 Volt linear	0 V = -50 °C
		0,5 V = 0 °C
		1,0 V = 50 °C
<i>Supply voltage</i>	12-15 Volt direct current	

RH performance specifications:

<i>Resolution</i>	0.5% RH min. 0.3% RH typical
<i>Absolute accuracy</i>	10-90% < 2% RH 0-10% 2-4% RH 90-100% 2-4% RH
<i>Range</i>	0-100%
<i>Reaction time</i>	4 sec.
<i>Long-term stability</i>	< 1% RH/year

T performance specifications:

<i>Resolution</i>	0.04 °C min. 0.01 °C typical
<i>Absolute accuracy</i>	0.5 °C at 25 °C
<i>Range</i>	- 40 °C min. + 70 °C max.
<i>Reaction time</i>	5 sec.