

Humidity and Temperature Transmitter with replaceable “Humi-chip” sensor for Artificial Snow Making line **HS**

HS transmitter uses the “**Humi-chip**” sensor, a highly accurate condensation resistant capacitive sensor integrated in a single silicon microchip and coupled with a Pt100 for temperature measurement. This technology provides accurate process measurements, reliability and excellent long-term stability. The **HS** has been specifically designed for artificial snow making. This application requires a responsive sensor that is able to work in both freezing and damp conditions. The “**Humi-chip**” module that incorporates the sensor can be easily field replaced without the need for re-calibration.

Environmental limits:

- 40...+80°C.

Stability:

Long term drift: <0.5 RH%/per year.

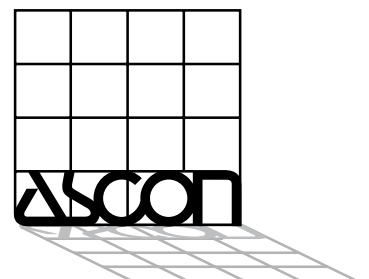
Two isolated analogue outputs:

For Humidity (HR) and Temperature (T) measurement



E

ISO 9001 Certified



Characteristics at 25°C environmental temperature

Relative Humidity	Range	0...100% RH
	Output	4...20mA 2 wire; 500Ω max.
	Accuracy (figure 2)	1.8% between 10...90% RH, non-linearity, hysteresis & repeatability included
	Working limits	see figure 1
	Typical long-term drift	< 0.5 RH%/year
Temperature	Available ranges	-40...+60°C (-40...+140°F) -20...+30°C (-4...+86°F) Other ranges available (set through PC) between -40...+80°C (-40...176°F)
	Output	4...20mA 2 wire; 500Ω max. Isolated vs. Humidity output
	Accuracy (figure 2)	<0.3°C
	RTD output - as alternative to the mA output	(PT100 IEC 751) Tolerance: Class A (1/2 DIN) - 3 wire connection
	Power supply	10...30Vdc Power consumption 2W max.
General characteristics	Electrical connection	4 pole threaded connector, AWG20 wires 7 pole threaded connector, AWG20 wires (with RTD)
	Electromagnetic compatibility	Compliance to CE standards EN 50081-2, EN 50082-2
	Environmental temperature housing	-40...+80°C (-40...176°F)



ASCON spa
Via Falzarego, 9/11
20021 Baranzate
(Milano) Italy
Tel. +39 02 333 371
Fax +39 02 350 4243
www.ascon.it
sales@ascon.it

ASCON FRANCE
BP 76
77202 Marne Vallée -
Cedex 01
Tél. +33 (0) 1 64 30 62 62
Fax +33 (0) 1 64 30 84 98
www.ascon.fr
ascon.france@ascon.fr
AGENCE SUD-EST
Tél. +33 (0) 4 74 27 82 81
Fax +33 (0) 4 74 27 81 71

ASCON CORPORATION
1884 East Fabyan Parkway
Batavia, Illinois 60510
Tel. +1 630 482 2950
Fax +1 630 482 2956
www.asconcorp.com
info@asconcorp.com

WORLDWIDE NETWORK OF DIRECT SALES CENTERS, DISTRIBUTORS AND SYSTEM INTEGRATORS

Europe

Belgium, Croatia, Czech Rep., Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Holland, Ireland, Norway, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine

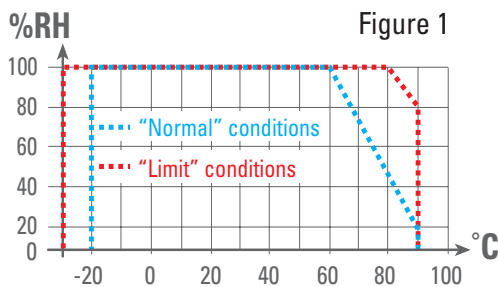
Americas

Argentina, Brazil, Canada, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela

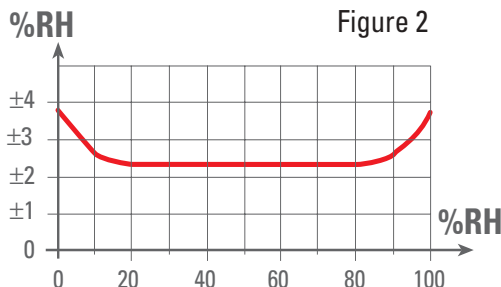
Other locations

Algeria, Australia, China, Egypt, Hong Kong, India, Indonesia, Iran, Israel, Malaysia, Morocco, New Zealand, Pakistan, Saudi Arabia, Singapore, Taiwan, Thailand, Tunisia, South Africa & South East Africa, UAE

Working limits of "Humi-chip" module



Humidity accuracy

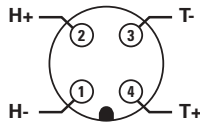


The measured reading tolerance is guaranteed through the "Normal" working conditions. An extended period at "Limit" conditions may generate a permanent drift up to +2% RH.

Electrical connections

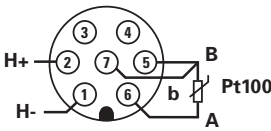
4 pole model (male, cable site)

- 1 = H-
- 2 = H+
- 3 = T-
- 4 = T+

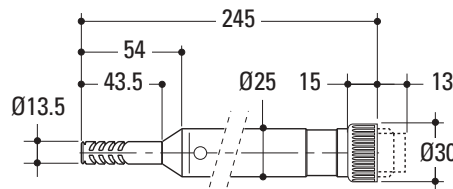


7 pole model (male, cable site)

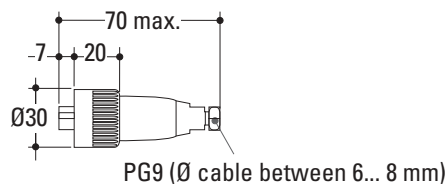
- 1 = H-
- 2 = H+
- 3 = NC
- 4 = NC
- 5 = B (Pt100)
- 6 = A (Pt100)
- 7 = b (Pt100)



Dimensions



Connector



Ordering code

Line Standard model

Model: **HS** - **A** / **B** **0** - **0** **0**

Filter _____
Temperature Output _____

Filter	A
Not fitted	0
Stainless steel wire mesh	R

Temperature Output - Temperature range	B	
Not fitted	0	
4...20mA	-20...+30°C	2
	-40...+60°C	5
PT100	Configurable (-40...+80°C)	C
		P

Example: Model **HS-0/50-00**

Humidity transmitter, without filter, Temperature Output with range -40...+60°C.