



Main characteristics

- Interchangeable without recalibration
- Linearised and compensated humidity measurement
- Operating range: 0 ... 100 %rh, -40 ... +95 °C
- Output signal:
 - Humidity: analogue and digital
 - Temperature: Pt100 Ω 1/3 DIN
- Capacitive thin film humidity sensor
- Sensor response time: 10 seconds
- Possibilities of memorization data (100 words)
- Duration memorization data: 3 years
- Communication on I²C bus
- Possibility of linearization to a specific isotherm (on request)

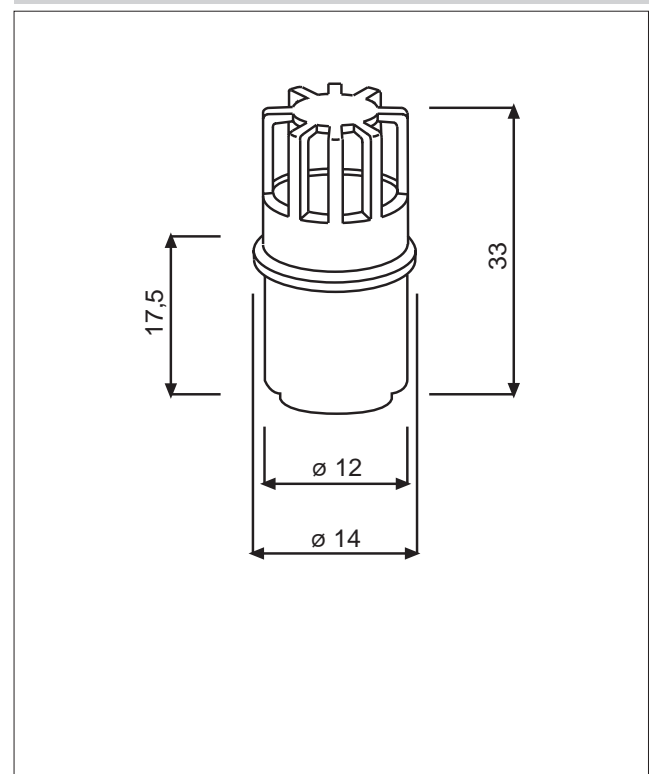
The concept of the S7000 is its interchangeability without the need of a recalibration due to a miniaturised electronic circuitry (ASIC).

The small size allows its integration in any equipment. The plug-and-play system guarantees fast replacement also for non-skilled staff.

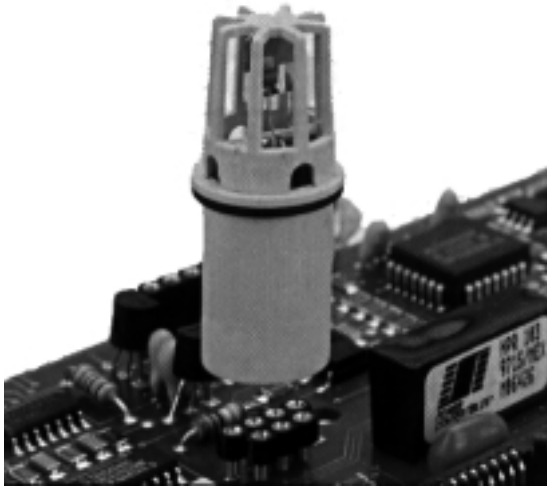
TECHNICAL DATA

	Humidity	Temperature
Connections	3wires	3wires
Accuracy @ 23 °C	Hysteresis and non-linearity included ± 1,5 %rh (5...95 %rh) ± 2 %rh (< 5 %rh, > 95 %rh)	Pt100 Ω 1/3 DIN direct: ± 0,2 °C
Resolution	0,124 %RH	/
Measuring range	0 ... 100 %RH	-40...+95 °C
Sensor response time	(90% of scale for a step change from 11% to 75 %rh) < 10 sec	/
Output signal	0 ... 1V Digital, variable frequency output	Pt100 Ω direct 1/3 DIN (3wires)
Supply: E	5 VDC ±5%	
Impedence: R	Voltage: R > 5kΩ Digital: CMOS compatible	/
Consumption	≤ 1,5 mA max.	
Operating range		
Measuring head	0 ... 100 %RH	-40 ... +95 °C
Housing	0 ... 100 %RH	-30 ... +85 °C
Storage	0 ... 100 %RH	-40 ... +85 °C
Housing		
Dimension	33mm, ø 14mm	
Material	NORYL PPO UL 94 V0	
Weight	3 g	
Electrical connections	Connector	

DIMENSIONS



APPLICATION EXAMPLE

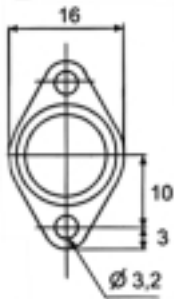


The sensor must be installed in a position to permit measurement of actual relative humidity in the room, protected against all interfering factors such as, for example, condensation, heat sources, pollution and pressure variations. If installed with humidity generators, the best measurement is obtained in the presence of completely vaporized air (without suspended drops of water).

ACCESSORIES

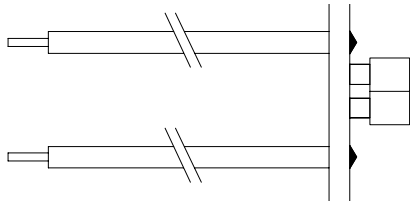
Wall mounting fixing clamp

Cod.: 1A01210



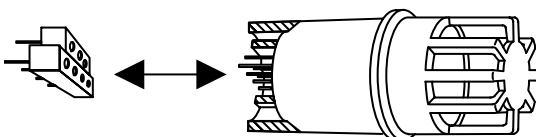
Connecting kit with wires:

Cod.: 6A06350



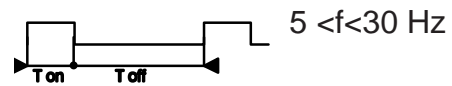
Connecting kit for PCBs

Cod.: 6A05130



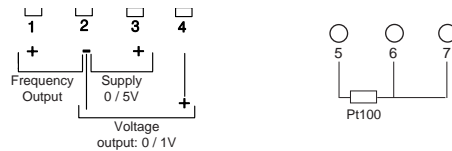
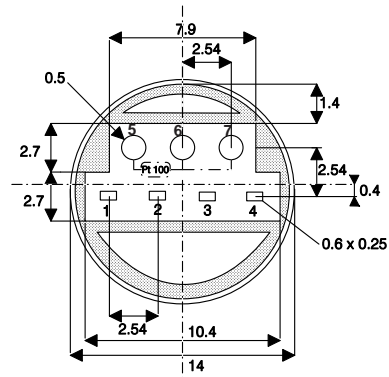
DIGITAL OUTPUT S7000

It is characterised by a variable frequency pulse train in function of the relative humidity.

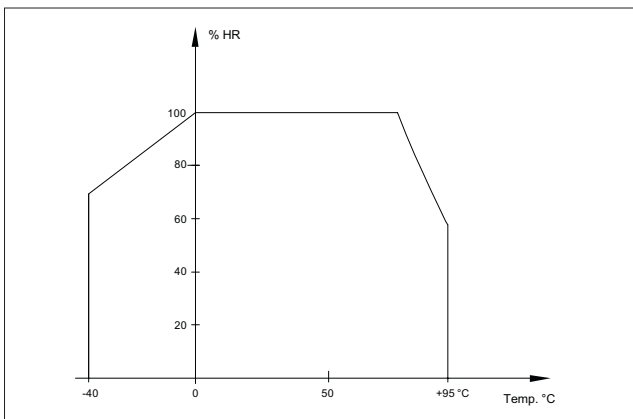


$$HR \% = [(Ton/Toff) * 2049 - 1] / 16.12$$

CONNECTION OF S7000



MEASURING RANGE



ORDERING CODE

S7000	
Temperature output	
No temperature	0
Pt100 direct (standard)	1

GEFRAN spa reserves the right to make any kind of design or functional modification at any moment without prior notice

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