Innovative Sensor Technology

physical. chemical. biological.

HYT 271

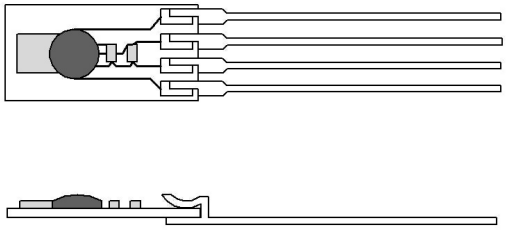
Digital Humidity and Temperature Module

Optimal for all general purpose humidity applications

Benefits & Characteristics

- Fast response time
- High chemical resistance
- Very low drift
- Very stable at high humidity
- Excellent humidity/temperature accuracy and stability
- Wide humidity and temperature range
- I²C protocol (address 0x28 or alternative address)
- Interchangeable without adjustments

Illustration[1)]



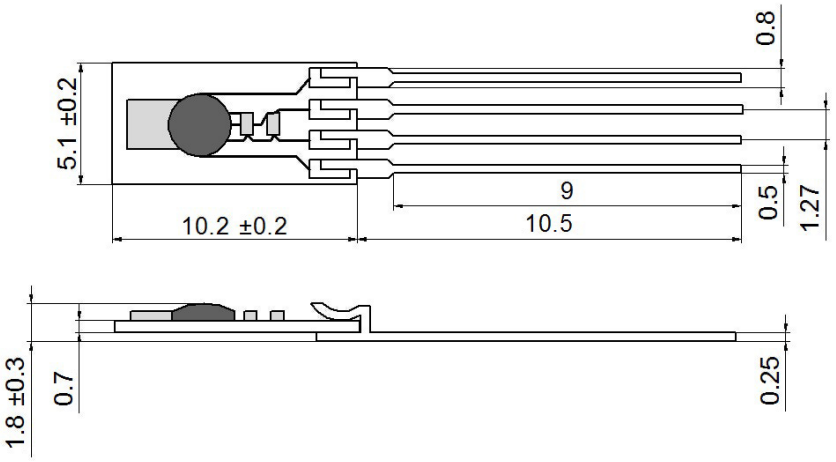
1) For actual size, see mechanical dimensions

Technical Data

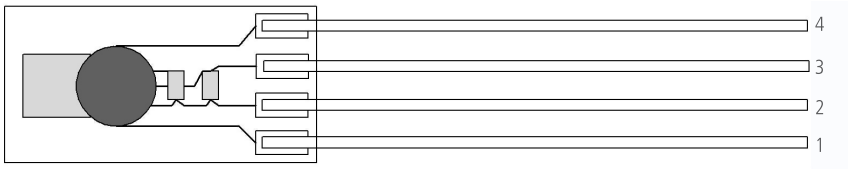
Operating temperature range:	-40 °C to +125 °C [2)]	
Operating humidity range:	0 % RH to 100 % RH	
Hysteresis:	< ±1 % RH	
Linearity error:	< ±1 % RH	
Temperature error:	0.05 % RH/K (0 °C to +60 °C)	
Operating voltage:	2.7 V to 5.5 V	
Current consumption (nominal):	< 22 µA at 1 Hz measuring rate; 850 µA max.	
Current consumption (sleep):	< 1 µA	
Digital interface:	I²C, address 0x28 or alternative address	
Operating voltage (limits):	-0.3 V to 6 V	
Storage conditions:	-20 °C to +50 °C	
	Humidity	Temperature
Accuracy :	±1.8 % RH at +23 °C (0 % RH to 90 % RH)	±0.2 K (0 °C to +60 °C)
Reproducibility:	±0.2 % RH	±0.1 K
Resolution:	0.03 % RH	0.015 °C
Response time t_{63}:	< 4 s	< 5 s
Long-term drift:	< 0.5 % RH/a (at +23 °C and 30 % RH to 70 % RH - laboratory conditions)	< 0.05 K/a
Measuring principle:	Capacitive polymer humidity sensor	PTAT (integrated)

[2)] At temperatures > +50 °C over a longer period of time, an increased long-term drift can occure. Customer-specific alternatives available.

Mechanical Dimensions



Pin Assignment



1	2	3	4
SDA	GND	VDD	SCL

Order Information

	HYT 271
Order code	150.00066

Additional Electronics

	Document name:
LabKit:	DHHYTLabKit_E
LCD module:	DHLCD-Modul_E

Additional Documents

	Document name:
Application Note:	AHHYTM_E

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