



# HYT 271

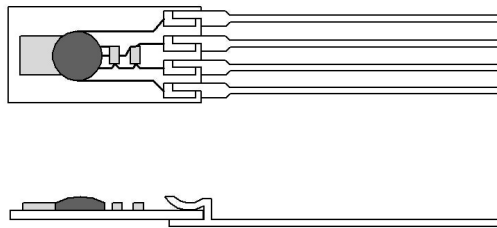
## Digital Humidity and Temperature Module

### 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
- I<sup>2</sup>C protocol (address 0x28 or alternative address)
- Interchangeable without adjustments

#### Illustration<sup>1)</sup>



1) For actual size, see mechanical dimensions

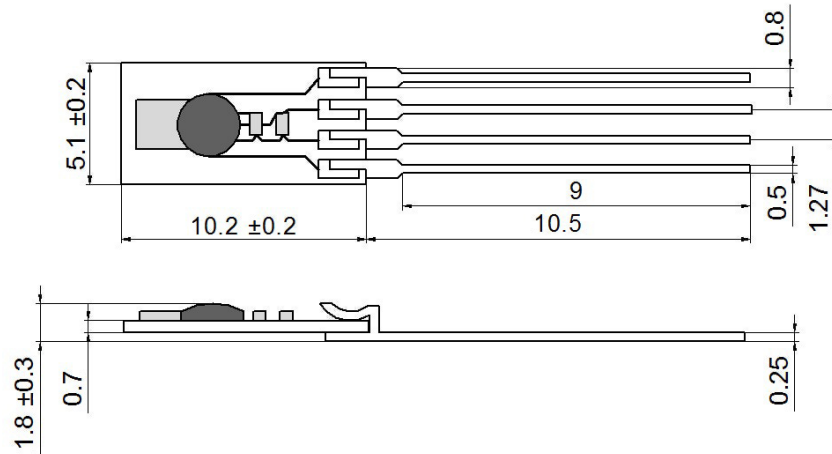
#### Technical Data

Operating temperature range:	-40 °C to +125 °C <sup>2)</sup>	
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:	I <sup>2</sup> C, 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 <sub>63</sub> :	< 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)

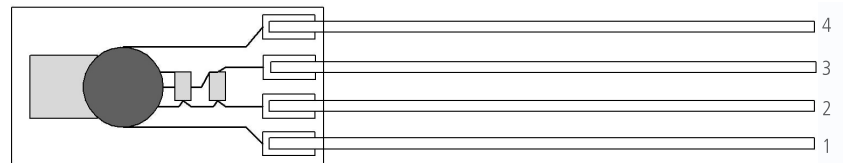
<sup>2)</sup> At temperatures > +50 °C over a longer period of time, an increased long-term drift can occur. Customer-specific alternatives available.



## Mechanical Dimensions



## Pin Assignment



1	2	3	4
SDA	GND	VDD	SCL

## Order Information

Order code	HYT 271 150.00066
------------	----------------------

## Additional Electronics

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

## Additional Documents

Application Note:	Document name: AHHYTM_E
-------------------	----------------------------



Innovative Sensor Technology IST AG, Stegrütistrasse 14, 9642 Ebnat-Kappel, Switzerland  
Phone: +41 71 992 01 00 | Fax: +41 71 992 01 99 | Email: info@ist-ag.com | www.ist-ag.com