



# HYT 221

## Digital Humidity and Temperature Module

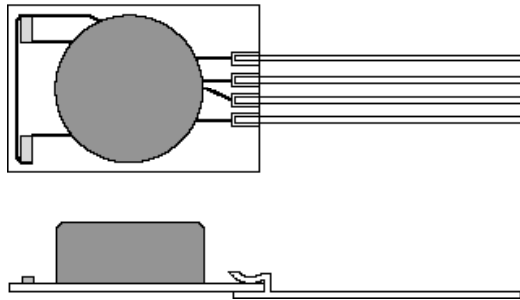
### Optimal for critical application areas



#### Benefits & Characteristics

- Calibrated and temperature compensated
- High chemical resistance
- Wide humidity and temperature range
- Very stable at high humidity
- Mechanically robust
- Excellent humidity/temperature accuracy and stability
- I<sup>2</sup>C protocol (address 0x28 or alternative address)
- Very low drift
- Interchangeable without adjustments

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



1) For actual size, see mechanical dimensions

#### Technical Data

Operating temperature range:	-40 °C to +125 °C
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:	0.02 % RH	+0.015 °C
Response time $t_{63}$ :	< 12 s with membrane filter	< 12 s with membrane filter
Long-term drift:	< 0.5 % RH/a	< 0.05 K/a
Measuring principle:	Capacitive polymer humidity sensor	PTAT (integrated)



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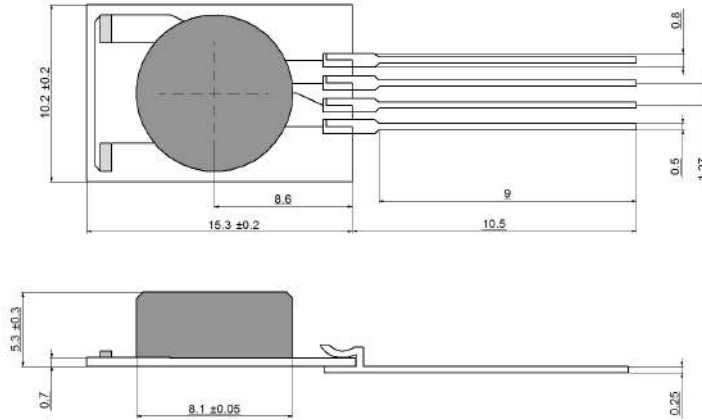
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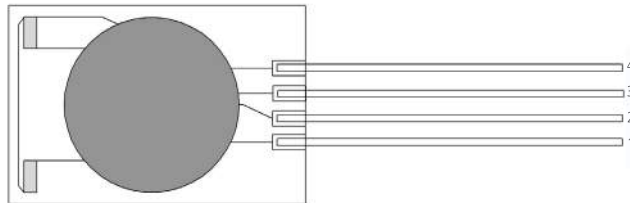


INNOVATIVE SENSOR TECHNOLOGY

#### Mechanical Dimensions



#### Pin Assignment



1	2	3	4
SDA	GND	VCC	SCL

#### Order Information

Order code	HYT 221 150.00068
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#### Additional Electronics

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



HUMIDITY



TEMPERATURE



FLOW



CONDUCTIVITY

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INNOVATIVE SENSOR TECHNOLOGY

### Additional Documents

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Application Note:

Document name:

AHHYTM\_E



INNOVATIVE SENSOR TECHNOLOGY

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