



HYT 221 (with membrane filter)

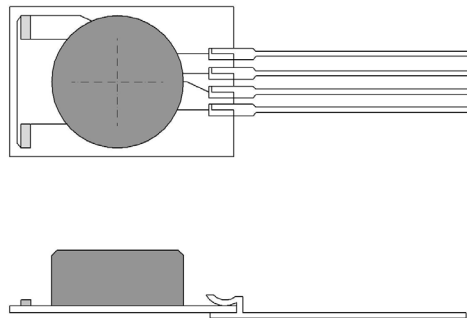
Digital Humidity and Temperature Module

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
- I²C protocol (address 0x28 or alternative address)
- Very low drift
- Interchangeable without adjustments

Illustration¹⁾



1) For actual size, see mechanical dimensions

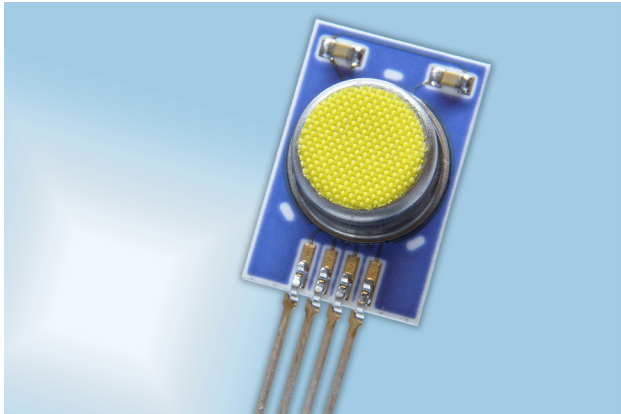
Technical Data

| | | |
|--------------------------------|---|-------------------------|
| 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 ² 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 |

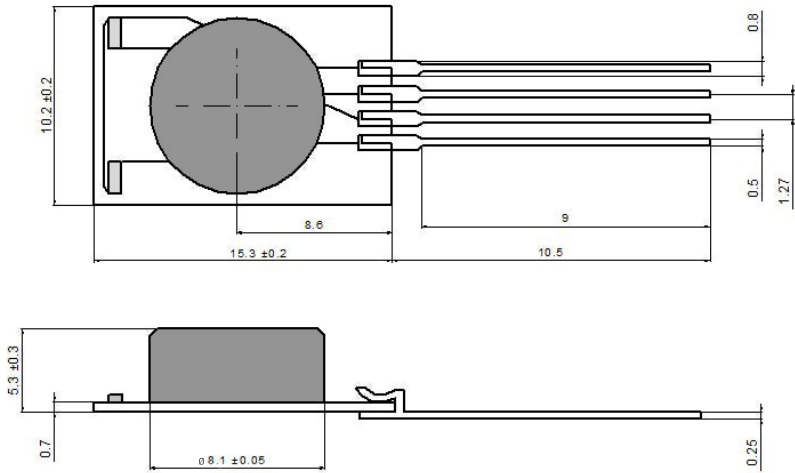


| | | |
|--------------------------|------------------------------------|-----------------------------|
| Response time t_{63} : | < 10 s with membrane filter | < 10 s with membrane filter |
| Long-term drift: | < 0.5 % RH/a | < 0.05 K/a |
| Measuring principle: | Capacitive polymer humidity sensor | PTAT (integrated) |

Product Photo

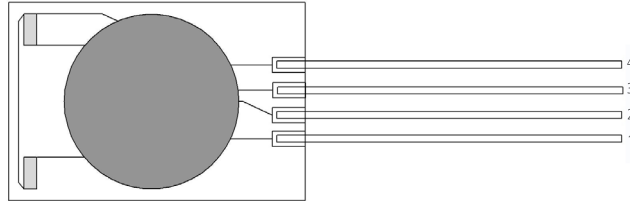


Mechanical Dimensions





Pin Assignment



| | | | |
|-----|-----|-----|-----|
| 1 | 2 | 3 | 4 |
| SDA | GND | VCC | SCL |

Order Information

| | | |
|--------------------------------|--------------|------------------------|
| Description: | Item number: | Former main reference: |
| HYT 221 (with membrane filter) | 103923 | 150.00068 |

Additional Electronics

| | | |
|--------------|--------------|------------------------|
| Description: | Item number: | Former main reference: |
| HYT LabKit | 103925 | 150.00073 |

Additional Note

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

