Innovative Sensor Technology

physical. chemical. biological.

HYT 939

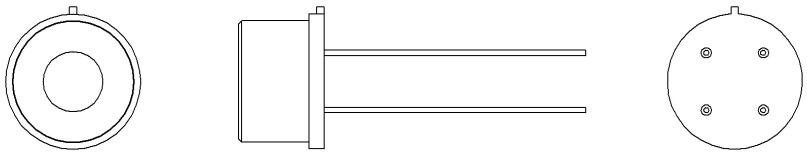
Digital Humidity and Temperature Module

Optimal for highly sophisticated, industrial applications

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
- Pressure-resistant version up to 16 bar upon request

Illustration[1)]



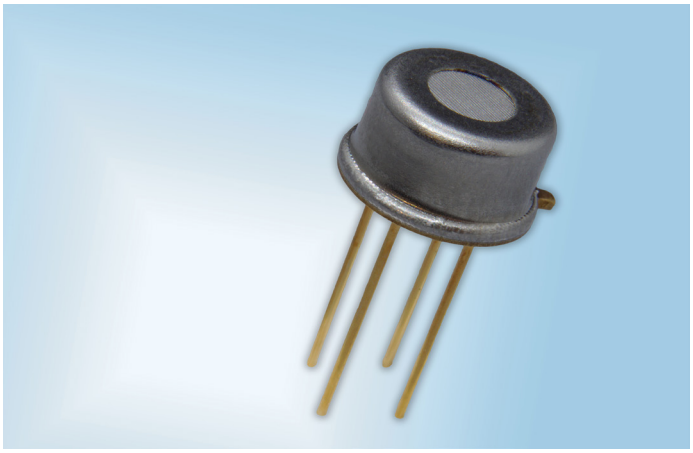
1) For actual size, see mechanical dimensions

Technical Data

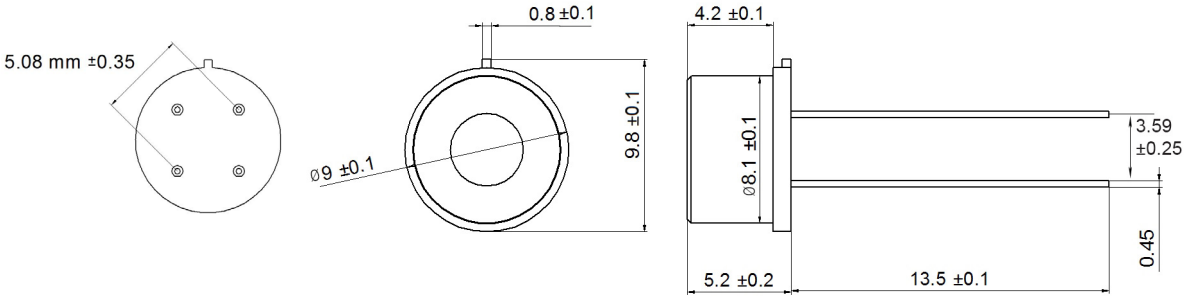
Operating temperature range:	-40 °C to +125 °C
Operating humidity range:	0 % RH to 100 % RH
Hysteresis:	< ±1 % RH
Linearity error:	< ±1 % RH
Temperature error:	0.05 % RH/K (0 °C to +60 °C)
Operating voltage:	2.7 V to 5.5 V
Current consumption (nominal):	< 22 µA at 1 Hz measuring rate; 850 µA max.
Current consumption (sleep):	< 1 µA
Digital interface:	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:	0.02 % RH	0.015 °C
Response time t_{63}:	< 10 s with metal mesh filter	< 10 s with metal mesh filter
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)

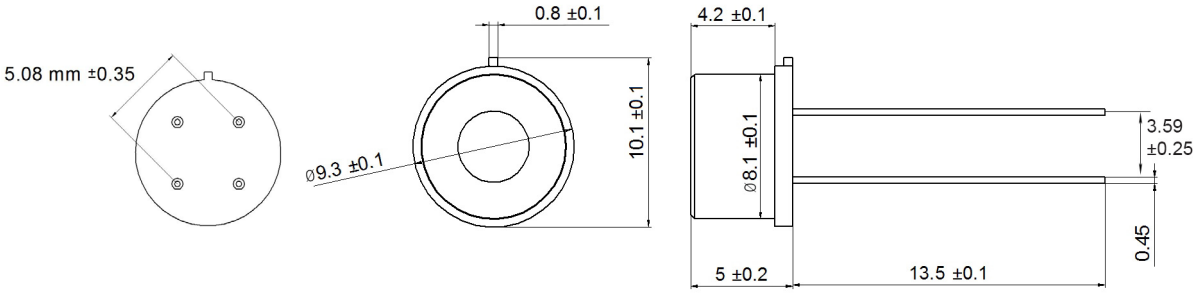
Product image



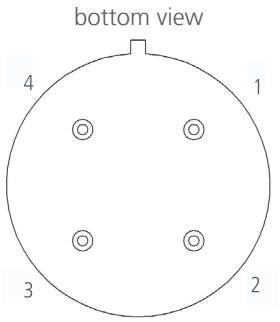
Mechanical Dimensions - HYT 939



Mechanical Dimensions - HYT 939p



Pin Assignment



1	2	3	4
SCL	VCC	GND	SDA

Order Information

	HYT 939
Order code	103922
Former order code	*150.00067*

Order Information - Pressure-tight up to 16 bar

	HYT 939p
Order code	103941
Former oder code	*150.00096*

Additional Electronics

	Document name:
LabKit:	DHHYTLabKit_E

Additional Documents

	Document name:
Application Note:	AHHYTM_E

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