

# Humidity module for dew point monitoring



Digital RH/T module, in a 16 bar pressure tight TO housing

Digital humidity and temperature module in standard TO39 housing with glass sealed wires and a meshed steel filter; sensor element and calibration for low humidity levels <10% RH, suitable for dew point down to -40°C Td (RH & T outputs)

**Product Name:** HYT 939 K5

**Operating humidity range:** 0 % RH to 10 % RH**Operating temperature range:**  $0 \degree C to +60 \degree C$ 

**Accuracy humidity:** ±0.5 %RH (0...5 %RH), ±1.0 %RH (5...10 %RH)

Accuracy temperature: ±0.2 °C

**Digital interface:** I<sup>2</sup>C, default address 0x28

**Operating voltage:** 2.7 V to 5.5 V

**Current consumption:**  $< 1\mu A$  in sleep mode,  $< 22\mu A$  at 1Hz measuring rate

**Dimensions:**  $9 \text{ mm x } 5.2 \text{ mm } (\emptyset \text{xH})$ 

Connections: TO-39, 4 wires

Wire dimensions:  $13.5 \times 0.45 \text{ mm } (Lx\emptyset)$ 

**Product code: 153398** 

# **Product details**

#### **Benefits & Characteristics of the HYT 939**

Mechanically robust and with a chemical and condensed waterproof sensing area, the digital IST AG HYT 939 humidity module excels with the special robust construction withstanding peak loading at high temperatures. The HYT 939 is also ideal for high pressure applications and is also offered with a pressure tight packaging. Precisely calibrated, the HYT 939 delivers an accuracy of ±1.8 % RH and ±0.2 °C and combines the advantages of a precise, capacitive polymer humidity sensor with the high integration density and functionality of an ASIC. The digital software integrated in the module processes the measured data and delivers the physical parameters of relative humidity and temperature over the I²C compatible interface as digital values. The HYT 939 humidity module is therefore fully interchangeable without adjustment and both the linearity error as well as temperature drift are corrected "on-chip" through computation resulting in an outstanding accuracy over a wide range of applications.

Further advantages of the HYT 939 digital humidity module include:

- Calibrated and temperature compensated
- Excellent humidity/temperature accuracy and stability
- High chemical resistance
- I2C protocol (address 0x28 or alternative address)
- Wide humidity and temperature range (0 % RH to 100 % RH and -40 °C to  $\pm$ 125 °C)
- Very low drift
- Very stable at high humidity
- Interchangeable without adjustments
- Pressure-resistant version (up to 16 bar) upon request

# Option: High-end humidity calibration HYT modules

With the development of a high end humidity calibration and measurement set up, the HYT sensor family boasts the accuracy of up to  $\pm$ 1.4 % RH and sets new standards

for moisture measurement with low hysteresis and easy plug-and-play interchangeability.

Our three HYT models can be ordered with a tailored calibration, which allows an accuracy of higher than +/- 1.4 % RH when used in combination with a limited range of 0-50 % RH. For dew point applications measuring in the range of 0-5 % RH, you can even reach an accuracy of < +/- 0.5 % RH.

Contact our experts for more information.

# Quality

Consistent with the well-known, high-quality standards in Switzerland, IST AG is certified according to ISO 9001:2015 (quality) and ISO 14001:2015 (environment). Appropriate processes are part of our daily work. They are regularly audited and extended parallel to the growth of our company.

> Read more

# The online shop

# **Quantity (pieces) Price (per piece)**

10-49 CHF 65.00

50-99 CHF 60.00

Sklad: **103**