



HUMIDITY SENSORS & MODULES

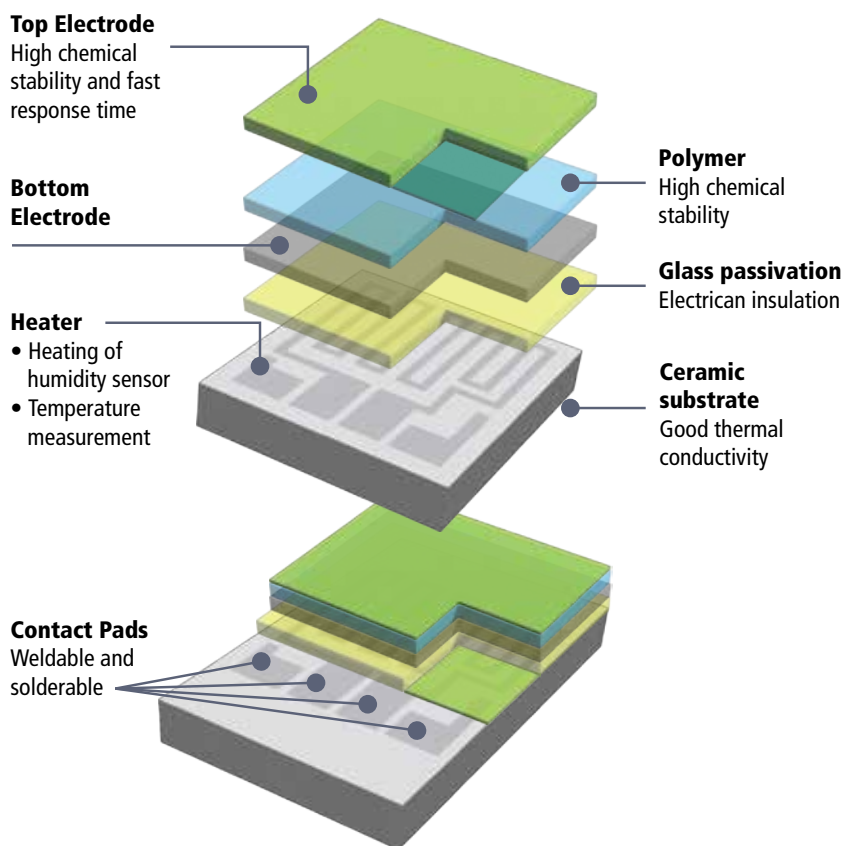
How does it work? Sensor & Polymer

The **sensor** consists of two metal plates (electrodes) and a non-conductive **polymer** between them. **Polymer**: A material made of long, repeating chains of molecules. The dielectric constant of the polymer changes with absorbed moisture.

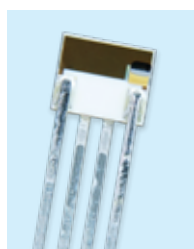
Humidity sensors: Passive elements

These are capacitive humidity sensors without electronics. The electronics and calibration must be done by the customer.

- Read-out signal: **Capacitance**
- Leaded and surface-mount options are available



P14 Rapid



P14 Rapid
Thermo



P14
FemptoCap



P14 Rapid
SMD Rapid



MK 33



K5-W



P14



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PROVIDING SWISS TECHNOLOGY WORLDWIDE

At IST we offer a fast design-in-process and ideal sensor operation conditions for the development of your application. The choice of materials, technologies, size, form and capabilities of our sensors is extremely vast. Our experts help you find the right ingredients to build the ideal sensor to suit your application.



Features:

- **Capacitance:** (at 30%RH and +23C)
= 140 ± 40 pF to 650 ± 150 pF
- **Operating Temp.:** -80°C to +190°C
- **Typical sensitivity:**
(at C30 = 150 pF/ 180 pF) =
0.25 pF/% RH Very low drift
- **Response time:** $0.3 \text{ s} \pm 0.2 \text{ s}$
(50 % RH to 0 % RH at +23 °C)
- Very stable at low humidity
- High chemical resistance
- Wide temperature range
- Condensation resistant
- Fast recovery time
- On-board temperature measurement
- Heating element
- Very low drift

Humidity sensors Active modules (HYT):

- These humidity-temperature modules have integrated electronics and contain a capacitive humidity sensor and a temperature sensor. IST AG performs and stores the calibration before shipment.
- Read-out signal: %RH and °C as a 14-bit digital I2C signal
- Several styles are available for different applications. An LCD module and test kit are also available for simple HYT evaluation.
- Moisture in oil-modules available

HYT modules (humidity & temperature):

- On-board temperature sensor
- **Operating Temp.:** -80°C to -90°C
- High chemical resistance
- Very stable at high humidity
- 9-point calibration before shipment
- Very low drift
- Wide humidity and temperature range (-40°C to +125°C)
- I2C protocol (14-bit digital)
- Addressable (up to 128 devices)
- VOC filter option

Digital Dew Point Transmitter

Optimal for low humidity / dry gas applications at high pressure (220 psi)

HTM.1/4NTP.
03.939.KK.
400.V3



HYT 271



HYT 221



HYT 939



HYT V1

**TELL US WHAT YOU'RE LOOKING FOR IN CONDUCTIVITY MEASURING
AND WE'LL CUSTOMIZE A SENSOR FOR YOUR APPLICATION**