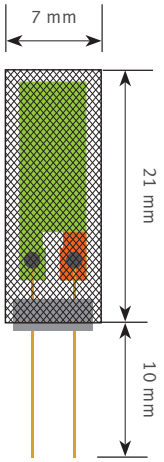
Humidity Sensor

HYGROMER HH1-SK

HM HH1-SK



Dimension

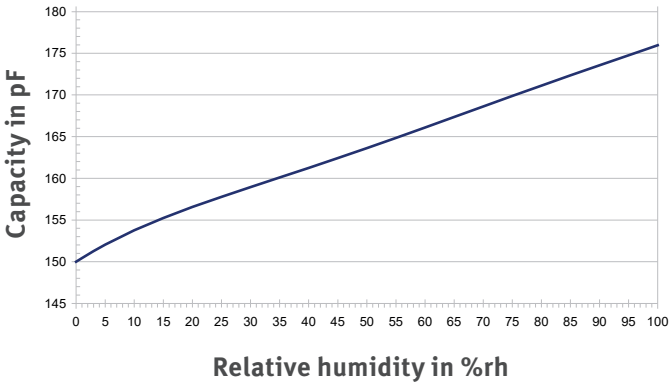
Advantages

- Designed for the use in H_2O_2 environment
- Advanced chemical resistant sensor
- Application range: -50...100 °C / 0...100 %rh
- Advanced sensor construction, mechanical robust
- Response time < 15 s

Applications

- Decontamination & sterelization processes
- Sterilization of medical equipment, incubators and clean rooms
- Pharmaceutical industry

Standardised characteristic HH1-SK



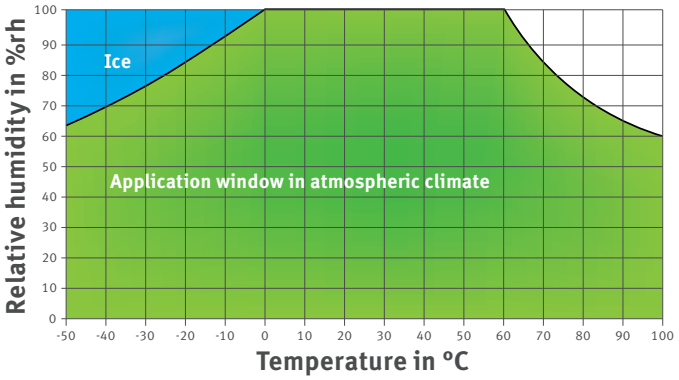
Characteristic polynomial

5th degree polynomial

Y = A0 + A1*x + A2*x2 + A3*x3 + A4*x4 + A5*x5

A0 = 150
A1 = 0.45064
A2 = -8.8894E-03
A3 = 1.64369E-04
A4 = -1.3683E-06
A5 = 4.2252E-09

Temperature/Humidity/Parameters HH1-SK



Technical Data

Capacity	150 pF ±50 pF
Humidity operating range	0...100 %rh
Temperature operating	-50...100 °C
Accuracy at 23°C at optimal characteristic curve	±1.5 rh
Hysteresis (4 hours each at 15 %rh - 90 %rh - 15 %rh)	<1.0 %rh
Response time	<10 seconds (t_{63}, 23 °C and 1 m/sec. wind speed)
Long-term stability	<1 %rh / year
Uncompensated temperature deviation	Approximately -0.15 %rh / °C between 30...90 %rh
Frequency range	1...50 kHz
Max. Voltage	±12 VDC

The shown data are guide values. The resistance of the sensor strongly depends on the temperature and humidity conditions as well as on exposure duration to the pollutant. Allowed fault caused from the pollutant: ±2 %rh (10...90 %rh)

Contaminant/Pollutant	Formula	MAC value		Permissible constant concentration					
				IN-1		HH-1		HT-1	
		ppm	mg/m³	ppm	mg/m³	ppm	mg/m³	ppm	mg/m³
Hydrogen peroxide	H_2O_2	1	1.4	90	130	880	1200	90	130

59123E/2023-06

rotronic
MEASUREMENT SOLUTIONS
A PST BRAND