

# EE05 Series

## Humidity and Temperature Transmitter with Frequency Output

EE05 small size humidity transmitter for the range of 10...90% RH is designed for low cost applications such as climate control, humidifiers and dehumidifiers, storage monitoring, processing of granulated materials. The appropriate filter cap makes a successful operation of EE05 possible, even in harsh environments.

The frequency output with TTL level makes EE05 ideal for data acquisition, control systems and data loggers as there is no need for A/D conversion.

The well proved E+E humidity sensors HC200 guarantee excellent long term stability and resistance against chemical pollutants.



### Typical Applications

dehumidifiers and humidifiers  
 storage rooms  
 swimming halls  
 museums  
 data loggers

### Features

compact case size  
 passive temperature sensor  
 wettable  
 long term stability  
 frequency output with TTL-level  
 easy installation

### Technical Data

#### Measuring values

##### Relative humidity

Sensor	HC200
Output signal	frequency output calibrated to 50 kHz at 76% RH
Working range <sup>1)</sup>	10...90% RH
Accuracy at 20 degC	± 3% RH

##### Temperature

Sensor	Pt1000 (class B, DIN EN 60751) other temperature sensors on request
Working range	-20...+80 degC
Output signal	sensor element passed through

#### General

Supply voltage	5 VDC ± 10 %
Current consumption	max. 1.5 mA
Electrical connection	4 wires, shielded PVC-cable LIYCY 4 x 0.14 mm <sup>2</sup> , length 1 m
Max. connection length	20 m (depends on the type of cable)
Housing	Polycarbonat / IP65
Sensor protection	membrane filter, sintered bronze filter

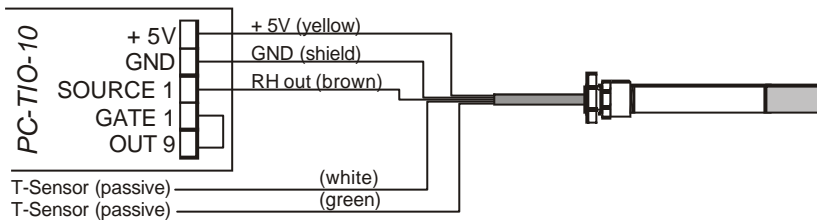
1) Refer to the working range of the humidity sensor HC200!

## Pulse Rate Humidity [kHz]

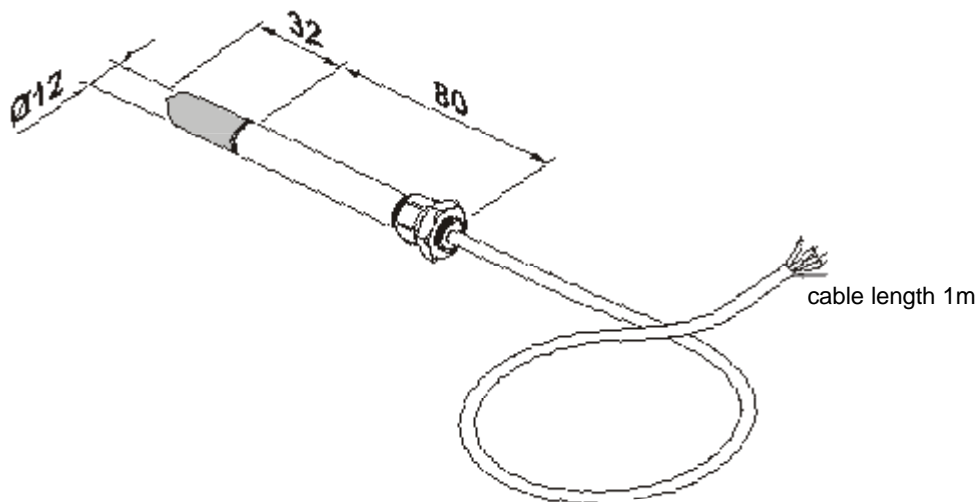
% RH	0	1	2	3	4	5	6	7	8	9
10	61,137	59,849	59,571	59,302	59,043	58,792	58,549	58,313	58,085	57,862
20	57,646	57,435	57,230	57,030	56,834	56,644	56,457	56,275	56,097	55,922
30	55,752	55,584	55,420	55,259	55,101	54,945	54,793	54,643	54,495	54,350
40	54,208	54,067	53,928	53,792	53,657	53,524	53,393	53,264	53,136	53,010
50	52,885	52,762	52,640	52,519	52,400	52,282	52,165	52,049	51,934	51,820
60	51,707	51,595	51,484	51,374	51,264	51,156	51,048	50,940	50,834	50,728
70	50,622	50,518	50,413	50,310	50,206	50,103	50,001	49,899	49,798	49,696
80	49,596	49,495	49,395	49,295	49,195	49,096	48,997	48,898	48,799	48,700
90	48,602									

## Connection Diagram

concrete example for Timing I/O card "PC-TIO-10" from National Instruments



## Housing dimensions (mm)



## Order Information

## Order Example

MODEL	TEMPERATURE SENSOR	FILTER
humidity	temperature (Pt1000B) (others on request)	membrane filter (1) sintered bronze filter (2)
EE05-		

### EE05-Pt1000B-2

model: humidity transmitter  
 temperature sensor: Pt1000 Din B  
 filter: sintered bronze filter