RMS-HCD

RMS-HCD-S

RMS-HCD-IC102

Benefits

- Measures relative humidity and temperature
- Outstanding accuracy, repeatability and long-term stability
- Advanced probe housing and construction
- Compatible with RMS data loggers and RMS software
- Low power consumption

Applications

- Pharmaceutical monitoring
- Food monitoring
- Museum monitoring
- Monitoring conforming to GxP and FDA CFR PART 11

Technical data

- Range of application (humidity) 0...100 %RH
- Range of application (temperature)
  RMS-HCD-S -40...85 °C
  RMS-HCD-IC -100...200 °C[1] Measuring head
  -40...85 °C Electronics
- Humidity sensor HYGROMER HT-1
- Long-term stability <1 %RH/year
- Accuracy ±0.8 %RH, ±0.1 K @ 23 °C
- Factory-adjustment @ 23 °C and 10, 35, 80 %RH
- Material PC, PPS, stainless steel 1.4301

Order code	Type
RMS-HCD-S	Standard probe, black
RMS-HCD-S3	Standard probe, white
RMS-HCD-IC102	Industrial probe, 2 m cable

Possible filters

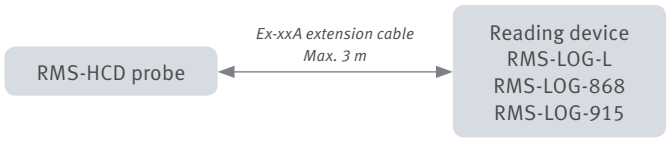
Order code	Filter carrier	Filter element	Pore size	Application range
SPA-PCB-PE	Polycarbonate, black	Polyethylene, white	40-50 µm	-50...100 °C
SPA-PCB-PTFE		PTFE, white	10 µm	
SPA-PCB-WM		Wire mesh 1.4401		
SPA-PCW-PE	Polycarbonate, white	Polyethylene, white	40-50 µm	
SPA-PCW-PTFE		PTFE, white	10 µm	
SPA-PCW-WM		Wire mesh 1.4401		
SPA-PE	No filter carrier, only filter	Polyethylene	40-50 µm	
SPA-PTFE		PTFE, white	10 µm	-100...200 °C

59083E/2019-06

Possible extension cables

It is possible to extend the distance between the probe and its reading device with an extension cable.

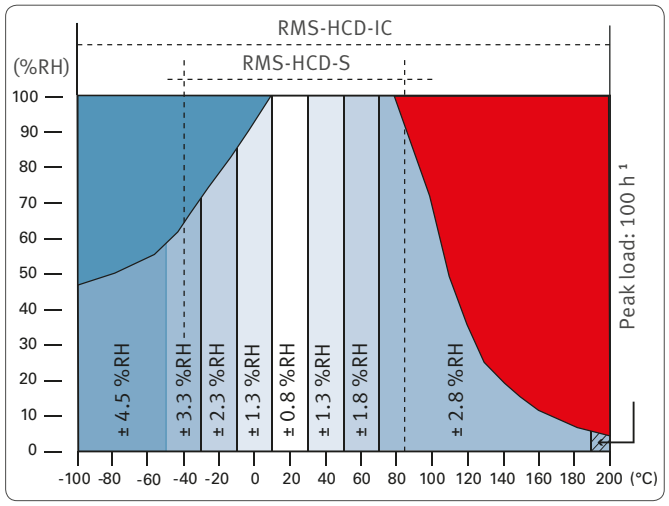
- Passive connections are possible up to 5 m (see table below for possible options).



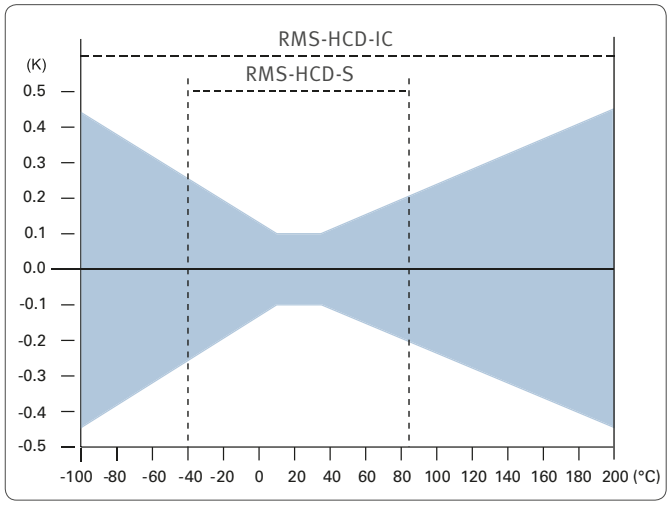
Order code	Cable length	Color
E2-01A	1 m	Black
E2-02A	2 m	
E3-01A	1 m	White
E3-02A	2 m	

Technical information

Humidity window



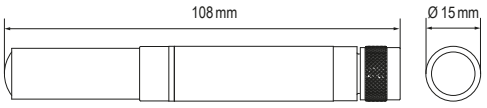
Temperature window



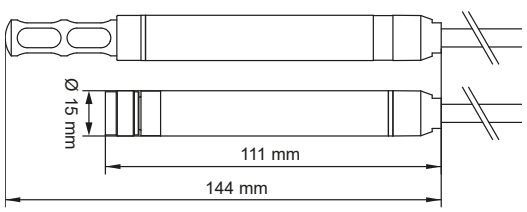
Technical data

Humidity sensor	HYGROMER HT-1
Temperature sensor	PT 1000, Class 1/3 B (RMS-HCD-S) PT 100, Class 1/3 B (RMS-HCD-IC)
Operating humidity	0...100 %RH
Operating temperature	-40...+85 °C RMS-HCD-S -40...+85 °C RMS-HCD-IC Electronics -100...200 °C [1] RMS-HCD-IC Sensor head
Accuracy @ 23 °C	±0.8 %RH ±0.1 K
Long-term stability	1 %RH / year
Startup time	50 ms (RMS-HCD-S) 90 ms (RMS-HCD-IC)
Measurement interval	500 ms
Response time sensor	τ63: ‹15 s without filter, (temperature and humidity)
Maximum wind velocity	3.5 m/s without filter
Supply voltage	2.8...5.5 VDC (RMS-HCD-S) 3.3...5.5 VDC (RMS-HCD-IC)
Current consumption	0.5 mA (RMS-HCD-S) ‹3 mA (RMS-HCD-IC)
Protection rating	IP65 (except sensor area)
Material	PC, PPS, stainless steel 1.4301 (HCD-SX) PC, PPS, stainless steel 1.4301 (HCD-IC)
Digital interface	UART
Protocol	Modbus RTU
Compatible devices	RMS-LOG-L RMS-LOG-868 RMS-LOG-915
Compliance	GAMP5 FDA 21 CFR Part 11

RMS-HCD-S, RMS-HCD-S3



RMS-HCD-IC102



[1] *Peak load: 100 h. Maximum permissible continuous load: 190 °C*

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