Measurement and Control Technology

Keep a firm grip on temperature
and humidity

≈condair

Sensors for special applications or other cable lengths available on request

HygroDat 100 Combined precision sensor

Combined sensor for the precise measurement of humidity and temperature. The measurement devices are calibrated at 5 points over the entire measurement range for the highest level of accuracy.

Model	Item No.
HygroDat 100/24 Poly (plastic housing)	1116930
HygroDat 100/24 Alu (aluminum housing)	1116932
Sensor HIA 1.5 (1.5 m cable)	1117245
Sensor HIA 10 (10 m cable)	1117247
Duct assembly flange	1115343

Technical data:

Humidity measurement range	6 to 100% RH
Measurement accuracy	
• with 5-point calibration at 25°C	±0.5%
• with 5-point calibration at 0 to 50°C	±1%
• without calibration	±2%
Reproducibility	≤ 0.3%
Long-term stability over 1 year	≤ 1%
Measurement range for temperature	-20 to 8°C
Measurement accuracy	±0.5 K
Reproducibility	±0.1 K
Operating temperature	
• Controller box	-10 to +50°C
• Sensor	-20 to +80°C
Power supply	90 to 260 V AC
Sensor signal output	0 to 1 V, 0 to 10 V,
(can optionally be set using the switch)	0 to 20 mA, 4 to 20 mA
Degree of protection	IP65

DCC Duct humidity regulator (two-piece)

With an LCD display and keyboard for assembly on a wall and an external capacitive humidity sensor

Technical data: Item No. 2524836

Regulation range	0 to 100% RH
Regulation signal	0 to 10 V, 0 to 20 mA, on/off
Accuracy	±3% (at 55% RH; 25°C)
Power supply	24 V AC
Sensor length	200 mm
Ambient temperature	-10 to +50°C, < 95% RH
Air speed	max 10 m/s
Degree of protection	IP30 (display), IP56 (sensor)

RCC Room humidity regulator

With an LCD display and keyboard for assembly on a wall and an internal capacitive humidity sensor

Technical data: Item No. 2521289

Regulation range	0 to 100% RH
Regulation signal	0 to 10 V, 0 to 20 mA, on/off
Accuracy	±3% (at 55% RH; 25°C)
Power supply	24 V AC
Ambient temperature	-10 to +50°C, < 95% RH
Degree of protection	IP30

FHK 230 Humidity sensor for duct assembly

Humidity sensor for assembly in a duct with a 230 V power supply and galvanically isolated electronics. The output is 0–10 V, corresponding to 0–100% RH.

Technical data: Item No. 2008214

Nominal voltage	230 V AC
Output (galvanically isolated)	0 to 10 V
Working range	30 to 100% RH / 0 to 80°C
Measurement accuracy	±2.5% RH
Ambient temperature	0 to 50°C on the housing
Sensor length	185 mm
Degree of protection	IP54

FHK 24 Humidity sensor for duct assembly

Humidity sensor for assembly in a duct with a 24 V power supply

Technical data: Item No. 2543948

Operating voltage	15–35 V DC / 24 V AC ±20%
Electricity consumption	< 15 mA
Output	0 to 10 V
Temperature range	
Operation	-5 to +50°C
Storage	-25 to +60°C
Degree of protection	IP65

FHR 230 Humidity sensor for assembly in a room

Humidity sensor for assembly on a wall with a 230 V power supply and galvanically isolated electronics. The output is 0–10 V, corresponding to 0–100% RH.

Technical data: Item No. 2008215

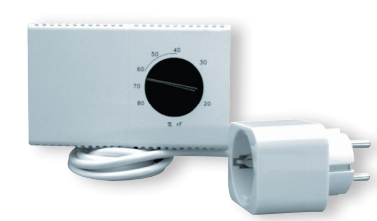|	
Nominal voltage	230 V AC
Output (galvanically isolated)	0 to 10 V
Working range	30 to 100% RH / 0 to 80°C
Measurement accuracy	±2.5% RH
Ambient temperature	0 to 50°C on the housing
Degree of protection	IP20

FHR 24 Humidity sensor for assembly in a room

Humidity sensor for assembly on a wall with a 24 V power supply

Technical data: Item No. 2543947

Operating voltage	15–35 V DC / 24 V AC ±20%
Electricity consumption	< 10 mA
Output	0 to 10 V, 0 to 100% RH
Temperature range	
Operation	-5 to +55°C
Storage	-25 to +60°C
Degree of protection	IP30

H-O-B-S/H-O-E-S
Hygrostat switches to control humidification and dehumidification

Model	Item No.
H-O-B-S (humidification)	2001999
H-O-E-S (dehumidification)	2001998

Technical data:	
Setting range	20 to 80% RH
Switching differential	±4% RH
Operating temperature	0 to 40°C
Degree of protection	IP20

HA 33 **Plug hygrostat for humidification control**

Technical data:	Item No. 2009281
Setting range	30 to 90% RH
Switching differential	1%
Power	230 V / 50 Hz
Time constants	2 min
Operating temperature	0 to 40°C
Operating humidity (non-condensed)	5 to 90% RH
Device color	white
Degree of protection	IP20

FAS **Dew point sensor to control dehumidification (mechanical)**

For the automatic avoidance of the formation of condensation on cold surfaces when the air conditions are changing.

Technical data:	Item No. 2000911
Setting range	30 to 100% RH
Switching differential	±4% RH
Operating temperature	0 to 60°C
Degree of protection	IP20

TW-Ö/S **Electronic dew point sensor for pipe assembly (IP65)**

For the automatic avoidance of the formation of condensation on cold surfaces when the air conditions are changing.

Technical data:	Item No. 2540071
Setting range	80 to 100% RH
Internal power consumption	5 mA, with a relay max 20 mA
Power supply	24 V AC/DC
Degree of protection	IP65

AH-30W **Electronic internal/external hygrostat** suitable for wet areas

Technical data:	Item No. 2540070
Setting range	0 to 100% RH
Output	0 to 10 V, on/off
Switching differential	±2% RH
Sensor length	41 mm
Housing temperature	-10 to +65°C
Power supply	24 V AC/DC
Degree of protection	IP65

LHK-2 **Duct hygrostat to control humidification or dehumidification**

Technical data:	Item No. 2543799
Setting range	30 to 90% RH
Switching differential	±3% RH
Sensor length	270 mm
Ambient temperature	max 70°C
Air speed	max 5 m/s
Degree of protection	IP30

LHR-2 **Internal hygrostat to control humidification and dehumidification**

Technical data:	Item No. 2543798
Setting range	30 to 90% RH
Switching differential	±3% RH
Ambient temperature	max 70°C
Degree of protection	IP21

H6BC **Duct hygrostat to control humidification and dehumidification (two-stage)**

With two microswitches and a switching range for separate control of the devices which can be set internally.

Technical data:	Item No. 2011566
Setting range	15 to 95% RH
Switching range	6 to 25% RH
Sensor length	156 mm
Ambient temperature	max 70°C
Air speed	max 10 m/s
Degree of protection	IP30

Accessories: Item No. 2011565
Set to increase the degree of protection to IP55

Calibrating salts

Sensor-Check SC Calibration kits

Condair humidity standards for precise calibration of the Condair Hygrodat, ms1 and ms200 measuring devices.

Calibration set (calibration point at 15 to 30°C)	Item No.
Sensor-Check SC-11 (11.3% RH)	1110885
Sensor-Check SC-33 (32.4% RH)	1110855
Sensor-Check SC-53 (52.9% RH)	1110857
Sensor-Check SC-75 (75.6% RH)	1110859
Sensor-Check SC-90 (89.9% RH)	1110896
Adapter for the Sensor-Check (ø 13 mm)	1107345
Complete set in a case	1117847

Differential pressure switch

DDS-1 Differential pressure switch to monitor the flow in the air ducts

Technical data:	Item No. 2002042
Setting range	5 to 20 mbar

LSW-1 Airflow monitor

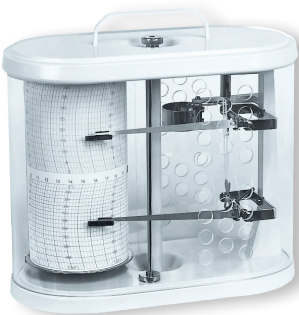| Technical data:	Item No. 2556447
Setting range	0.2–8 m/s
Switching hysteresis approx.	0.5 m/s
Voltage	230 V / 50 Hz
Power consumption	3 VA
Contact current capacity	AC 250 V / 5 A / 300 ind. VA

HTB2 Thermo-Hygrograph

The thermo-hygrograph is used for the independent recording of temperature and relative humidity in the field of building services, air conditioning and storage technology, industry, and research. The measurement values are recorded using a bimetallic strip and a maintenance-free plastic element. Long-life electronic movement.
The device is tailored to the individual requirements in terms of measurement range, measurement element, and nominal recording time.

Technical data:	Item No. see table
Humidity measurement element	plastic measurement element, maintenance-free, safe against
excessive humidity	
Measurement range	0 to 100% RH
Tolerance	±3% RH
Measurement element temperature	Bimetallic aging process
Measurement range*	-35 to +80°C
Tolerance	±0.5°C
Design	Stainless materials, resistant against normal weather conditions, high-quality chrome plated parts, stove-enameled, cover Plexiglas
Nominal recording time*	24 h / 7 days, 14 days, 31 days, can be switched to 24 h / 7 days
Recording strips	1 set corresponding to the recording time and measurement range
Pen	Fiber-tip pen in violet
Dimensions	285 x 140 x 280 mm
Weight	3 kg
Power supply	1.5 V battery (two batteries)

* Please indicate when ordering

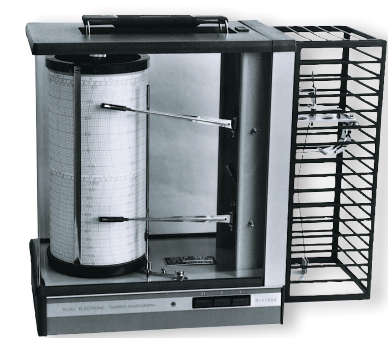| Nominal recording time	Item No.				
	24 h	7 days	14 days	31 days	24 h / 7 days
Measurement range	with a maintenance-free plastic measurement elemen				
-20 to +60°C	2002044	2002047	2002065	2011562	2002076
-10 to +50°C	2002043	2011561	2002061	2002072	2002077
0 to 40°C	2002045	2002050	2002063	2002074	2002079
0 to 50°C	2011560	2002049	2002062	2002073	2002078

For designs with fine measurement elements or rapidly reacting special fine measurement elements, please ask the your local regional center of Walter Meier (Klima Deutschland) GmbH.

Thermo-Hygrograph

Accessories:
Recording strips for HTB2

Recording time 24 hours
Quantity: 100 sheets

Measurement range	Item No.
-20 to +60°C	2002016
-10 to +50°C	2002017
0 to 40°C	2002019
0 to 50°C	2002018

Recording time 7 days
Quantity: 100 sheets

Measurement range	Item No.
-20 to +60°C	2002023
-10 to +50°C	2011554
0 to 40°C	2011555
0 to 50°C	2002025

Recording time 31 days
Quantity: 13 sheets

Measurement range	Item No.
-20 to +60°C	2002009
-10 to +50°C	2002010
0 to 40°C	2002012
0 to 50°C	2002011
Replacement pen	2006876

Isuzu 200803 **Thermo-Hygrograph**

The electronic thermo-hygrograph is used for the independent recording of temperature and relative humidity in the field of building services, air conditioning and storage technology, industry and research. The measurement values are recorded using a bimetallic strip and a fine measurement element. The rotation of the drum is by means of a quartz-controlled clockwork mechanism and can be switched between 24 hours, 7 days or 31 days nominal recording time using push buttons.

Technical data:	Item No. 22002059
Humidity measurement element	Fine measurement element
Measurement range	0 to 100% RH
Tolerance	±2% RH
Measurement element temperature	Bimetallic aging process
Measurement range	-15 to +40°C
Tolerance	±0.5°C
Design	Stainless materials, resistant against normal weather conditions, housing plastic, cover Plexiglas
Quartz clock with	Nominal recording time of 24 h, 7
days,	
Battery operated	31 days, can be switched, using push buttons
Recording strips	1 set of recording paper corresponding to the measurement range
Pen	Fiber-tip pen in blue
Dimensions	285 x 140 x 280 mm
Weight	2.5 kg
Power supply	1.5 V battery (two batteries)

Accessories:
Recording strips for Isuzu 200803

Recording time 24 hours
Quantity: 400 sheets

	Item No.
Measurement range -15 to +45°C	2002060

Recording time 7 days
Quantity: 55 sheets

	Item No.
Measurement range -15 to +45°C	2002067

Recording time 31 days
Quantity: 15 sheets

	Item No.
Measurement range 15 to 45°C	2002064

Fiber-tip pen	2002069

ms200
Rapid humidity and temperature measuring device

Compact measuring device with a large, illuminated LCD display for rapid and precise determination of air temperature, relative and absolute humidity, and dew point temperature. Additional functions such as hold, max, min, and average value expand the area of application. Two-point calibration (humidity) and one-point calibration (temperature) for high measurement accuracy.

Technical data:	Item No. 2510779
Measurement range for humidity	0 to 98% RH
Measurement accuracy	±2% RH
Resolution	0.1%
Measurement range for temperature	-20 to +50°C
Measurement accuracy	±0.3°C (0 to 40°C)
otherwise ±0.5°C	
Resolution	±0.1°C
Power supply	4 x 1.5 V batteries (AA)
Ambient temperature	-20 to +5°C
Weight	400 g

ms210
Rapid humidity and temperature measuring devices with a remote sensor (cable length 1 m)

Compact measuring device with a large, illuminated LCD display for rapid and precise determination of air temperature, relative and absolute humidity, and dew point temperature. Additional functions such as hold, max, min, and average value expand the area of application. Two-point calibration (humidity) and one-point calibration (temperature) for high measurement accuracy.

Technical data:	Item No. 2510779
Measurement range for humidity	0 to 98% RH
Measurement accuracy	±2% RH
Resolution	0.1%
Measurement range for temperature	-20 to +50°C
Measurement accuracy	±0.3°C (0 to 40°C)
otherwise ±0.5°C	
Resolution	±0.1°C
Power supply	4 x 1.5 V batteries (AA)
Ambient temperature	-20 to +5°C
Weight	400 g

Accessories:	Item No.
• Hard shell case	2510780
• Metal mesh filter	2510781
to protect the measuring cells from coarse dust and in the case of average dust exposure	
• Sintered metal filter	2510782
(stainless) to protect the measuring cells from fine dust or in the case of high dust exposure	

Calibrating salts
(see Sensor-Check SC)

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