

FUGTIGHED



HYGROSTATER

**Room hygro-thermostat,
mechanical, one-step**

S+S REGELTECHNIK

The mechanical room hygro-thermostat **HYGRASREG® RHT**, a room hygrostat with (bimetal) temperature controller, is used for controlling and monitoring the relative humidity (humidifying and dehumidifying) and the temperature in office and residential rooms, baths, winter gardens, labs, computer rooms, etc. RHT is applied in dust-free, pollutant-free, non-aggressive air.

RHT


TECHNICAL DATA
HYGROSTAT

Switching capacity: (Contact load)	24...230 V AC > 24 V in dry rooms only according to VDE 0110 Dehumidifying: 5 (0.2) A, min. 100 mA Humidifying: 3 (0.2) A, min. 100 mA
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Setting range: 35...100% r. H.

Contact: 2 changeover contact

Sensor element: plastic fibres

Tolerance: max. 3% r. H.

Operating difference: approx. 4% r. H.

Housing temperature: 0...+60 °C

FUNCTION
Humidifying: wire terminals 5 and 6
Dehumidifying: wire terminals 5 and 7

THERMOSTAT

Switching capacity: 10 (4) A, 24/230V AC

Control range: +10...+35 °C

Contact: 1 changeover contact (potential-free)

Sensor element: bimetal,
with thermal feedback

FUNCTION
Heating: wire terminals 2 and 5
Cooling: wire terminals 3 and 5

Housing: plastic, material ABS,
colour pure white (similar to RAL 9010)

Dimensions: 127.5 x 75 x 28.6 mm

Installation: wall mounting or
on in-wall flush box, Ø 55 mm

Electrical connection: 0.14 - 2.5 mm²,
via terminal screws

Protection class: II (according to EN 60 730)

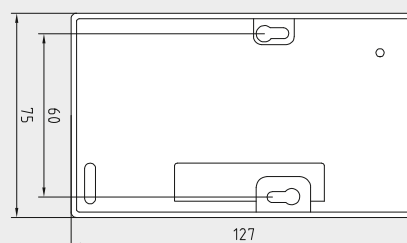
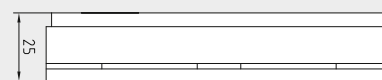
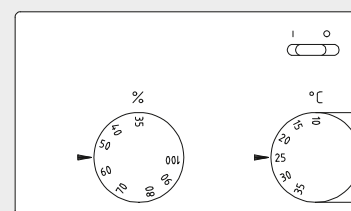
Protection type: **IP 30** (according to EN 60 529)

Standards: CE conformity,
EMC directive 2014/30/EU,
low-voltage directive 2014/35/EU

ACCESSORIES
When mounting indoor room enclosures on in-wall flush boxes with horizontal fixing holes, adapter frame **ARA 1.7 E** must be included in the order.

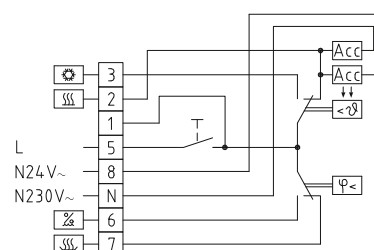
Dimensional drawing

RHT



Connecting diagram

RHT


HYGRASREG® RHT Room hygro-thermostat

Type/WG02	Setting Range Humidity	Temperature	Steps	Features	Item No.	Price
RHT	External setting					
RHT-1	35...100% r. H.	+10...+35 °C	one-step	main switch	1202-4010-0000-000	158,22 €
ACCESSORIES						
ARA 1,7 E	Adapter frame for in-wall flush boxes				7100-0060-4000-000	6,72 €

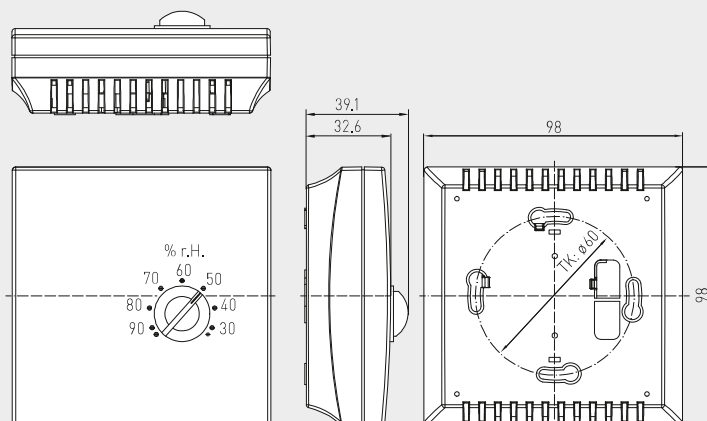
Mechanical room hygrostat **HYGRASREG® RH-2** with switching output (with single-pole microswitch as two-position controller with humidity sensor) working without external voltage, with humidity measuring element made of stabilized synthetic gauze, optional with setpoint setter for switchpoint adjustment (external or internal setting) in an elegant housing made of plastic, with snap-on lid, base with 4-hole attachment for installation on vertically or horizontally installed in-wall flush boxes, with predetermined breaking point for on-wall cable entry. RH-2 is used for controlling and monitoring the relative humidity in office and residential rooms, baths, labs, control cabinets, computer rooms, etc., as minimum or maximum hygrostat. It is used in dust-free, pollutant-free, non-aggressive air.

TECHNICAL DATA

Switching capacity: (Contact load)	24 V AC/DC dehumidifying: 5 (0.2) A, min. 100 mA humidifying: 3 (0.2) A, min. 100 mA
Setting range:	25 ... 95 % r. H.
Contact:	1 changeover contact
Sensor element:	plastic fibres
Operating difference:	approx. 4 % r. H.
Tolerance:	max. 3 % r. H.
Housing temperature:	0...+40 °C
Housing:	plastic, material ABS, colour pure white (similar to RAL 9010)
Dimensions:	98 x 98 x 39 mm (Baldur 2, with Potentiometer)
Electrical connection:	0.14 - 2.5 mm ² , via terminal screws
Installation:	wall mounting or on in-wall flush box Ø 55 mm, base with 4-hole for mounting on vertically or horizontally installed in-wall flush boxes for cable entry from the back, with predetermined breaking point for on-wall cable entry from top / bottom in case of plain on-wall installation
Protection class:	III (according to EN 60 730)
Protection type:	IP 30 (according to EN 60 529)
Standards:	CE conformity, EMC directive 2014 / 30 / EU, low-voltage directive 2014 / 35 / EU
FUNCTION	humidifying: wire terminals 1 and 3 dehumidifying: wire terminals 1 and 2

Dimensional drawing

Housing Baldur 2 RH-2



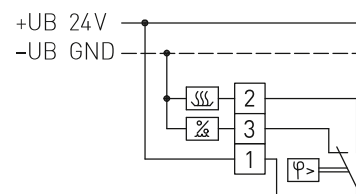
RH-2
(with external
setting)



RH-2U
(with internal
setting)

Connecting diagram

RH-2



HYGRASREG® RH-2 Room hygrostat, *Standard*

Type / WG01	Setting Range Humidity	Hysteresis	Output	Steps	Item No.	Price
RH-2					External setting	
RH-2	25...95 % r. H.	approx. 4 % r. H.	1x Changeover contact	one-step	1202-40C0-0010-000	79,05 €
RH-2 U					Internal setting	
RH-2 U	25...95 % r. H.	approx. 4 % r. H.	1x Changeover contact	one-step	1202-40C0-0020-000	81,46 €

**Room hygrostats and
humidity and temperature sensors ($\pm 2.0\%$),
electronic, two-step,
with continuous / switching outputs**

Electronic room hygrostat and/or room thermostat **HYGRASREG® RHT-30** with one continuous and two switching outputs, adjustable switching thresholds, with / without optional display for indicating ACTUAL humidity and/or ACTUAL temperature (accuracy class $\pm 2.0\%$ r.H.).

The setpoints can be allocated to the relative humidity and/or to the temperature.

It is suitable for regulating and monitoring relative humidity (humidifying and dehumidifying) and/or the temperature (heating and cooling), e.g. in ventilation and air conditioning ducts, laboratories, production facilities, climatic test cabinets, indoor swimming pools, greenhouses, etc., to control humidifying and dehumidifying equipment or heating system control. The measuring transducers are designed for exact humidity/temperature measurement. The RHT-30 uses a digital, long-term stable sensor as a measuring element. It is used in dust-free, unpolluted, non-aggressive air.

TECHNICAL DATA

Power supply:	24 V AC ($\pm 20\%$), 15...36 V DC
Load resistance:	$R_L > 5 \text{ k}\Omega$
Power consumption:	$< 1,5 \text{ VA} / 24 \text{ V DC}$, $< 3,5 \text{ VA} / 24 \text{ V AC}$
Sensor:	digital humidity sensor with integrated temperature sensor , low hysteresis, high long-term stability
Setting range:	5...95 % r.H. (Humidity) +5...+45 °C (Temperature) (switch steps 1 and 2 are separately adjustable)
Operating difference:	Mode 1: both switch steps are freely adjustable (rel. humidity) Mode 2: 5 % between both switch steps (rel. humidity) Mode 3: both switch steps freely adjustable (temperature) Mode 4: switch step 1 (temperature), switch step 2 (rel. humidity) (adjustable via DiP switches)
Output:	potential-free changeover contacts (2x changeover contact 24 V, 1A ohmic load, separately adjustable, 1x 0 - 10 V)
Deviation, humidity:	typically $\pm 2.0\%$ (20...80 % r.H.) at +25 °C, otherwise $\pm 3.0\%$
Deviation, temperature:	typically $\pm 0.2 \text{ K}$ at +25 °C
Ambient temperature:	storage -35...+85 °C; operation -30...+70 °C, non-precipitating
Long-term stability:	$\pm 1\%$ per year
Housing:	plastic, material ABS, colour pure white (similar to RAL 9010)
Housing dimensions:	98 x 98 x 35 mm (Baldur 2)
Installation:	wall mounting or on in-wall flush box, $\varnothing 55 \text{ mm}$, base with 4-hole for mounting on vertically or horizontally installed in-wall flush boxes for cable entry from the back, with predetermined breaking point for on-wall cable entry from top / bottom in case of plain on-wall installation
Protection class:	III (according to EN 60 730)
Protection type:	IP 30 (according to EN 60 529)
Electrical connection:	0.14 - 1.5 mm ² , via terminal screws
Standards:	CE conformity, EMC directive 2014 / 30 / EU
Optional:	two-line display with illumination , cutout approx. 36x15 mm (W x H), for displaying ACTUAL humidity and/or ACTUAL temperature respectively for setpoint adjustment

FUNCTION

Humidifying/heating:	1st step: wire contacts 11 - 12. If actual humidity falls more than 3% r.H. / 1 K (hysteresis) below switching threshold S1, the changeover contact switches to 11 - 12. 2. step: wire contacts 21 - 22. If actual humidity falls more than 3% r.H. / 1 K (hysteresis) below switching threshold S2, the changeover contact switches to 21 - 22. Terminal 2: output relative humidity / temperature
Dehumidifying/cooling:	1st step: wire contacts 11 - 13. When actual humidity exceeds switching threshold S1, the changeover contact switches to 11 - 13. 2. step: wire contacts 21 - 23. When actual humidity exceeds switching threshold S2, the changeover contact switches to 21 - 23. Terminal 2: output relative humidity / temperature

The **1st line** of the display shows the **ACTUAL humidity** in % r.H. and the **ACTUAL temperature** in °C. The displays showing the ACTUAL values alternate in a 3-second rhythm. Resolution: 1/10 % r.H. or 1/10 °C.

The **2nd line** shows information about the **switching status of the relay** (as a circuit), and indicates the **switching value** in % r.H. or °C (adjustable via the corresponding set potentiometer). The readouts of the switching thresholds for the first and second relay are displayed alternately at an interval of twenty seconds.

For improved legibility, backlighting is provided.

Display readout **RHT-30**





S+S REGELTECHNIK

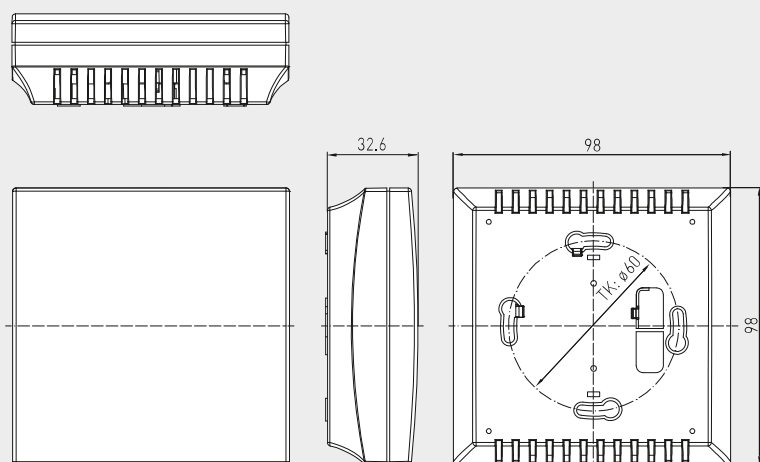
HYGRASREG® RHT-30

Room hygrostats and
humidity and temperature sensors ($\pm 2.0\%$),
electronic, two-step,
with continuous/switching outputs



Dimensional drawing

RHT-30 U

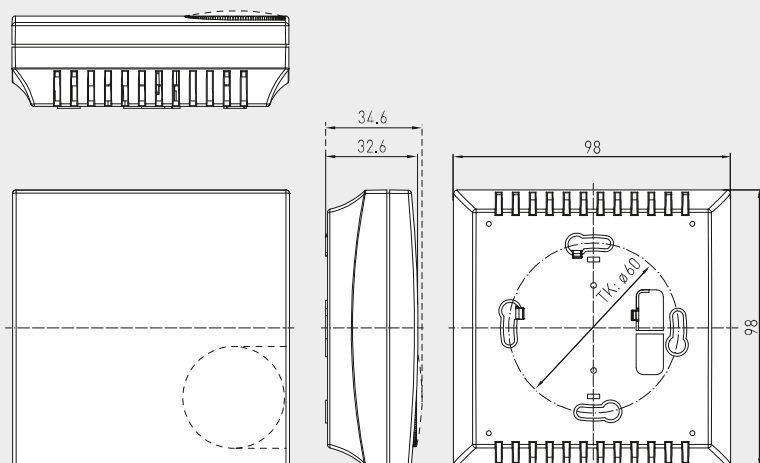


RHT-30 U
with internal setting



Dimensional drawing

RHT-30



RHT-30



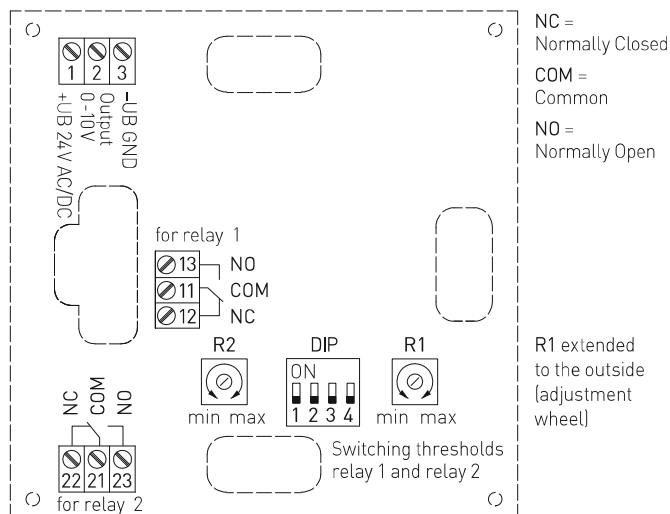
RHT-30
with display



Room hygrostats and
humidity and temperature sensors ($\pm 2.0\%$),
electronic, two-step,
with continuous / switching outputs

Schematic diagram

RHT - 30



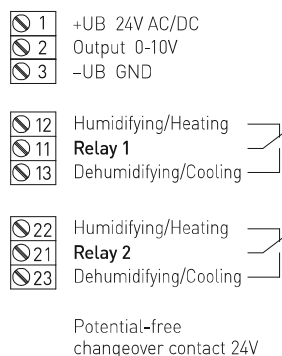
DIP switches

RHT - 30

Function mode	DIP 1	DIP 2
Mode 1 (2x 5...95% r.H.) (default)	OFF	OFF
Mode 2 (5...95% r.H. + 5% r.H.)	ON	OFF
Mode 3 (2x +5...+45°C)	OFF	ON
Mode 4 (5...95% r.H. / +5...+45°C)	ON	ON
Output	DIP 3	
Temperature	ON	
Relative humidity (default)	OFF	
Backlighting	DIP 4	
activated	ON	
deactivated (default)	OFF	

Connecting diagram

RHT - 30



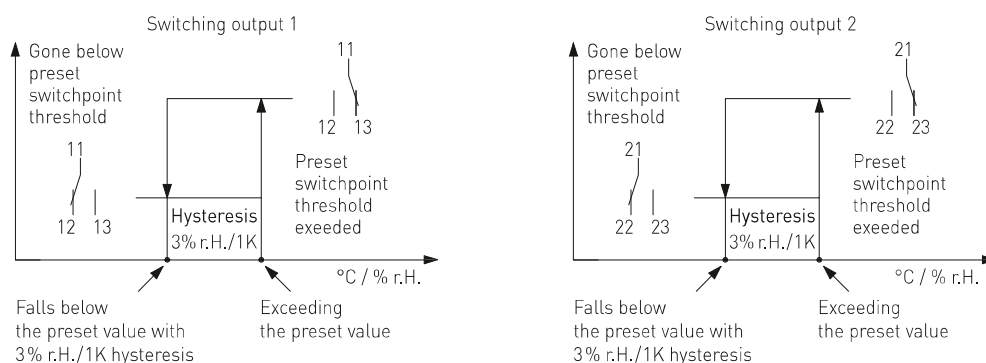
Supply	AC	DC
→ 1	24 V~	24 V DC
→ 3	0 V	GND

12 (A1) →	Relay 1 Breaker contact
11 (W1) →	Relay 1 Changeover contact
13 (B1) →	Relay 1 Normally open contact

22 (A2) →	Relay 2 Breaker contact
21 (W2) →	Relay 2 Changeover contact
23 (B2) →	Relay 2 Normally open contact

Switching output

RHT - 30



Mode 1: Independent switchpoints for both relay outputs can be defined in the range of 5...95% r.H. by the control knobs (setpoint 1 for relay 1, setpoint 2 for relay 2, see schematic diagram). When the respective switchpoint is exceeded, the corresponding relay switches over (changeover contact 1 switches from position 2 to position 3). When the pre-set switchpoint is undershot again by more than 3% r.H. (hysteresis), the respective switching output switches back to the initial position (changeover contact 1 switches from position 3 to position 2).

Mode 2: In Mode 2, only control knob setpoint 1 is active (setpoint 2 without function)! The switchpoint for the first relay is defined in the range of 5...95% r.H. by the control knob setpoint 1 (see schematic diagram). The switchpoint for the second relay output is invariably defined in mode 2 as "Switchpoint 1 + 5% r.H.". Hysteresis of 3% r.H. is also predefined for each switching output in mode 2.

Mode 3: Independent switchpoints for both relay outputs can be defined in the range of +5...+45°C by the control knobs (setpoint 1 for relay 1, setpoint 2 for relay 2). If the respective switchpoint is exceeded, the corresponding relay switches over. If the pre-set threshold value is undershot again by 1 K (hysteresis), the respective switching output switches back to the initial position. The thresholds of the setting range (temperature) are 5°C above the minimum or below the maximum range value respectively.

Mode 4: In mode 4, the control knob is allocated to setpoint 1 of the temperature, while control knob is allocated to setpoint 2 of the relative humidity. The switchpoints can be adjusted in the range of +5...+45°C or 5...95% r.H. The thresholds of the setting range (temperature) are 5°C above the minimum or below the maximum range value respectively. The control knob for the temperature can be operated from outside, if necessary.



Humidity table

MR: 0 ...100% r. H.

% r.H.	U _A in V	% r.H.	U _A in V
0	0.0	50	5.0
5	0.5	55	5.5
10	1.0	60	6.0
15	1.5	65	6.5
20	2.0	70	7.0
25	2.5	75	7.5
30	3.0	80	8.0
35	3.5	85	8.5
40	4.0	90	9.0
45	4.5	95	9.5
Continued at the right...		100	10.0

Temperature table

MR: 0 ...+50 °C

°C	U _A in V
0	0.0
5	1.0
10	2.0
15	3.0
20	4.0
25	5.0
30	6.0
35	7.0
40	8.0
45	9.0
50	10.0

RHT-30
with displayHYGRASREG® RHT - 30 Room hygrostats and humidity and temperature sensors ($\pm 2.0\%$)

Type / WG02	Setting Range Humidity Temperature	Output	Steps	Display	Item No.	Price
RHT-30					External setting	
RHT-30W	5...95% r. H. +5...+45 °C	2 x Changeover contact, 1x 0-10 V	two-step		1202-4077-1011-200	175,92 €
RHT-30W LCD	5...95% r. H. +5...+45 °C	2 x Changeover contact, 1x 0-10 V	two-step	■	1202-4077-1211-200	188,57 €
RHT-30-U					Internal setting	
RHT-30W U	5...95% r. H. +5...+45 °C	2 x Changeover contact, 1x 0-10 V	two-step		1202-4077-1021-200	173,38 €

**On-wall hygrostats and humidity sensors ($\pm 2.0\%$),
electronic, one-step,
with switching outputs**

Electronic hygrostat and humidity sensor **HYGRASREG® AH-40** with one switching output, adjustable switching threshold and display for displaying ACTUAL humidity (accuracy class $\pm 2.0\%$ r.H.) and for setting the target humidity.

It is suitable for controlling and monitoring the relative air humidity, e.g. in laboratories, production rooms, climatic exposure test cabinets, swimming pools, greenhouses etc., for controlling humidifying and dehumidifying facilities. The measuring transducers are designed for exact detection of humidity. The AH-40 uses a digital, long-term stable sensor as a measuring element for measuring humidity. It is used in dust-free, unpolluted, non-aggressive air.

TECHNICAL DATA

Power supply:	24 V AC ($\pm 20\%$) 15...36 V DC
Power consumption:	< 1.1 VA / 24 V DC < 2.2 VA / 24 V AC
Sensors:	digital humidity sensor , small hysteresis, high long-term stability
Sensor protection:	plastic sinter filter, \varnothing 16 mm, L = 35 mm, exchangeable (optional metal sinter filter, \varnothing 16 mm, L = 32 mm)
Setting range:	5...95 % r.H.
Output:	potential-free changeover contact (24 V), 1 A ohmic load
Deviation, humidity:	typically $\pm 2.0\%$ (20...80 % r.H.) at +25 °C, otherwise $\pm 3.0\%$
Ambient temperature:	storage -35...+85 °C; operation -30...+75 °C, non-precipitating
Long-term stability:	$\pm 1\%$ per year
Housing:	plastic, UV-resistant, material polyamide, 30 % glass-globe reinforced, with quick-locking screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016), housing cover for display is transparent!
Housing dimensions:	72 x 64 x 43.3 mm (Tyr 1 with display)
Electrical connection:	0.14 - 1.5 mm ² , via terminal screws
Cable connection:	cable gland , plastic (M 16 x 1.5; with strain relief, exchangeable, max. inner diameter 10.4 mm) or M12 connector according to DIN EN 61076-2-101 (optional on request)
Protective tube:	stainless steel V2A (1.4301), \varnothing 16 mm, NL = 55 mm
Prozessanschluss:	by screws
Protection class:	III (according to EN 60 730)
Protection type:	IP65 (according to EN 60 529) Housing tested, TÜV SÜD, Report No. 713139052 (Tyr 1)
Standards:	CE conformity, electromagnetic compatibility according to EN 61 326, EMC directive 2014 / 30 / EU
Display:	two-line display with illumination , cutout approx. 36 x 15 mm (W x H), for displaying actual humidity and for setting the target humidity
Displaying:	The 1 st line of the display shows the relative humidity . The 2 nd line shows on the left side the information regarding the switching status of the relay (as a circuit), as well as the switching value readout in % r.H. on the right side (adjustable using the set potentiometer). ○ Circuit, empty = relay in idle state ● Circuit, full = relay energised
FUNCTION	actual humidity < switching value contact 11-12 closed (LED OFF) actual humidity > switching value contact 11-13 closed (LED ON)

AH-40
with display and
metal sinter filter
(optional)



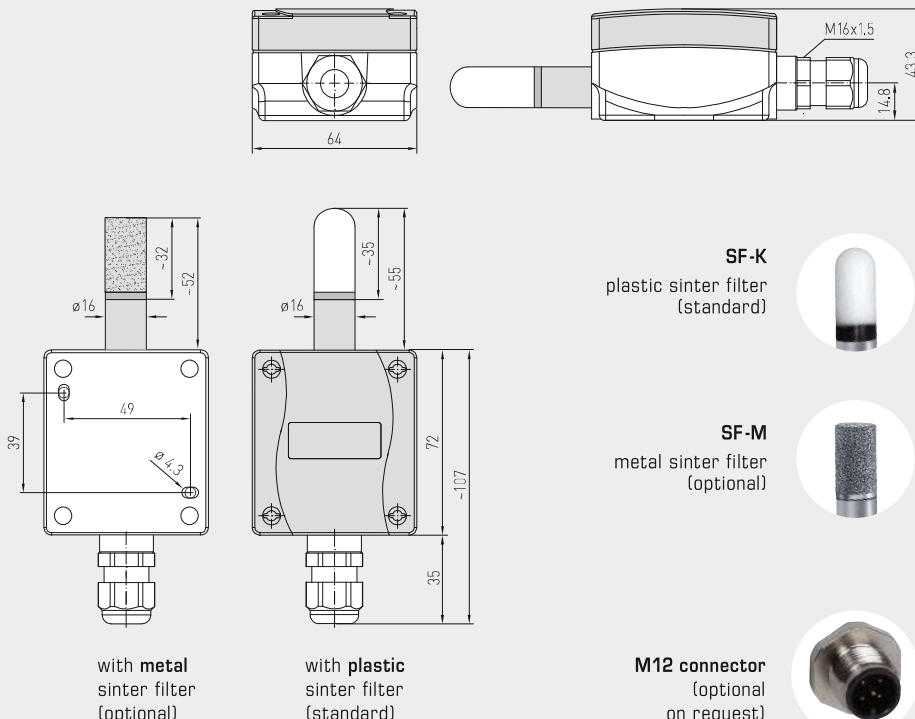
Display
standard

AH-40



Dimensional drawing

AH-40

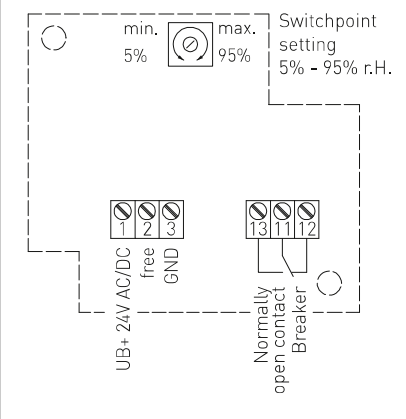


AH-40
with display and
plastic sinter filter
(standard)



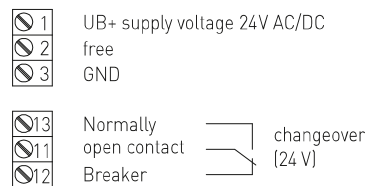
Schematic diagram

AH-40



Connecting diagram

AH-40



HYGRASREG® AH-40 On-wall hygrometers and humidity sensors ($\pm 2.0\%$), *Premium*

Type/WG01	Setting Range Humidity	Output	Steps	Display	Item No.	Price
AH-40-U						
AH-40W LCD	5...95% r.H.	1 x Changeover contact	one-step	■	1202-1065-0221-000	172,77 €
Optional:	Cable connection with M12 connector according to DIN EN 61076-2-101					on request

ACCESSORIES

SF-M	Metal sinter filter, \varnothing 16 mm, L = 32 mm, exchangeable stainless steel V4A (1.4404)	7000-0050-2200-100	40,31 €
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**On-wall hygrostats and
humidity and temperature sensors ($\pm 2.0\%$),
electronic, two-step, with multi-range switching
and continuous/switching output**

Electronic on-wall hygrostat and/or on-wall thermostat **HYGRASREG® AHT-30** with a continuous and two switching outputs, adjustable switching thresholds and display for indicating ACTUAL humidity and/or ACTUAL temperature (accuracy class $\pm 2.0\%$ r.H.). The setpoints can be allocated to the relative humidity and/or to the temperature.

It is suitable for regulating and monitoring relative humidity (humidifying and dehumidifying) and/or the temperature (heating and cooling), e.g. in laboratories, production facilities, climatic test cabinets, indoor swimming pools, greenhouses, etc., to control humidifying and dehumidifying equipment or heating system control. The measuring transducers are designed for exact humidity/temperature measurement. The AHT-30 uses a digital, long-term stable sensor as a measuring element. It is used in dust-free, unpolluted, non-aggressive air.

TECHNICAL DATA

Power supply:	24 V AC / DC ($\pm 20\%$)
Power consumption:	< 1,5 VA / 24 V DC, < 3,5 VA / 24 V AC
Sensor:	digital humidity sensor with integrated temperature sensor , low hysteresis, high long-term stability
Sensor protection:	plastic sinter filter, \varnothing 16 mm, L = 35 mm, exchangeable (optional metal sinter filter, \varnothing 16 mm, L = 32 mm)
Setting range:	5...95 % r.H. (humidity) Multi-range switching with 4 switchable measuring ranges (see table) -35...+35 °C; -35...+75 °C; 0...+50 °C; 0...+80 °C (temperature) (Switch steps 1 and 2 are separately adjustable)
Operating difference:	Mode 1: both switch steps are freely adjustable (rel. humidity) Mode 2: 5 % between both switch steps (rel. humidity) Mode 3: both switch steps freely adjustable (temperature) Mode 4: switch step 1 (temperature), switch step 2 (rel. humidity) (adjustable via DiP switches)
Output:	potential-free changeover contacts (2 x changeover contact 24 V, 1 A ohmic load, separately adjustable, 2 x 0 - 10 V for U variant or 4...20 mA for I variant)
Deviation, humidity:	typically $\pm 2.0\%$ (20...80 % r. H.) at +25 °C, otherwise $\pm 3.0\%$
Deviation, temperature:	typically ± 0.4 K at +25 °C
Ambient temperature:	storage -35...+85 °C; operation -30...+75 °C, non-precipitating
Long-term stability:	$\pm 1\%$ per year
Housing:	plastic, UV-resistant, material polyamide, 30 % glass-globe reinforced, with quick-locking screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016), housing cover for display is transparent!
Housing dimensions:	126 x 90 x 50 mm (Tyr2)
Cable connection:	cable gland , plastic (M 16 x 1.5; with strain relief, exchangeable, max. inner diameter 10.4 mm) or M12 connector according to DIN EN 61076-2-101 (optional on request)
Protective tube:	stainless steel V2A (1.4301), \varnothing 16 mm, NL = 55 mm (see dimensional drawing)
Protection class:	III (according to EN 60730)
Protection type:	IP 65 (according to EN 60529)
Electrical connection:	0.14 - 1.5 mm ² , via terminal screws
Standards:	CE conformity, EMC directive 2014/30/EU
Display:	three-line display with illumination , cutout approx. 70 x 40 mm (W x H), for displaying ACTUAL humidity and/or ACTUAL temperature or for setpoint adjustment

FUNCTION

Humidifying/heating:	1st step: wire contacts 11 - 12. If actual humidity falls more than 3 % r.H. / 1 K (hysteresis) below switching threshold S1, the changeover contact switches to 11 - 12. 2nd step: wire contacts 21 - 22. If actual humidity falls more than 3 % r.H. / 1 K (hysteresis) below switching threshold S2, the changeover contact switches to 21 - 22. Terminal 2: output relative humidity / terminal 3: output temperature
Dehumidifying/cooling:	1st step: wire contacts 11 - 13. When actual humidity exceeds switching threshold S1, the changeover contact switches to 11 - 13. 2nd step: wire contacts 21 - 23. When actual humidity exceeds switching threshold S2, the changeover contact switches to 21 - 23. Terminal 2: output relative humidity / terminal 3: output temperature



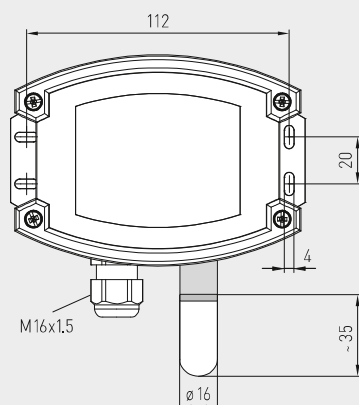
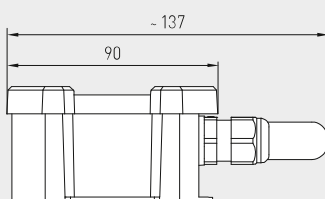
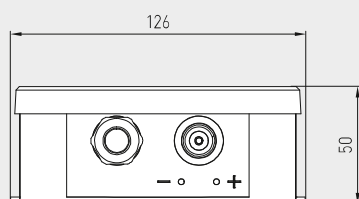
S+S REGELTECHNIK

HYGRASREG® AHT-30

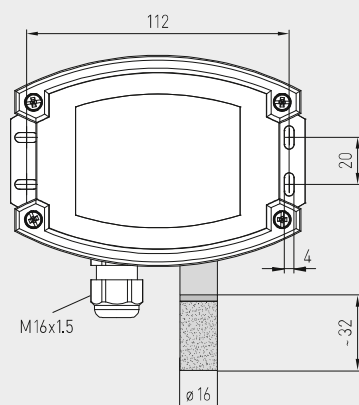
On-wall hygrometers and
humidity and temperature sensors ($\pm 2.0\%$),
electronic, two-step, with multi-range switching
and continuous/switching output

Dimensional drawing

AHT-30

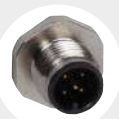


SF-K
plastic sinter filter
(standard)



SF-M
metal sinter filter
(optional)

M12 connector
(optional on request)



AHT-30
with display and
plastic sinter filter
(standard)



AHT-30
with display and
metal sinter filter
(optional)



WS-03

Weather and sun protection hood
(optional)



Display readout

The **1st line** of the display shows the **ACTUAL humidity** in % r.H. and the **ACTUAL temperature** in °C. The displays showing the ACTUAL values alternate in a 3-second rhythm. The resolution is 1/10 % r.H. or 1/10 °C.

The **3rd line** shows information about the **switching status of relay 1 and 2** (as circuits) on the left, and on the right for the **switching values of relay 1 and 2** in % r.H. or °C (adjustable via the corresponding set potentiometer). The reference to respective measured value (relative humidity or temperature) is determined by the mode selected.

For improved legibility, backlighting is provided.

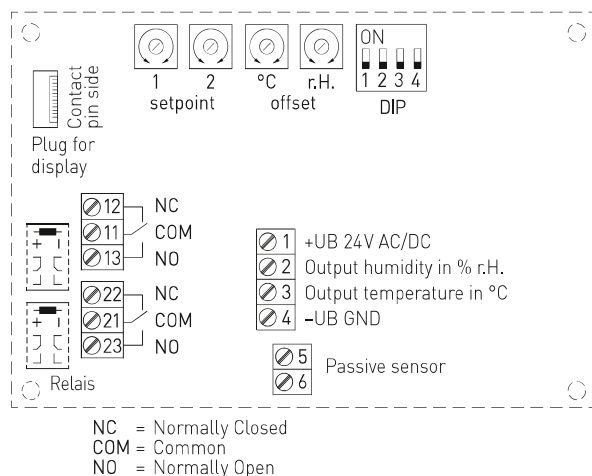
On-wall hygrostats and
humidity and temperature sensors ($\pm 2.0\%$),
electronic, two-step, with multi-range switching
and continuous/switching output



S+S REGELTECHNIK

Schematic diagram

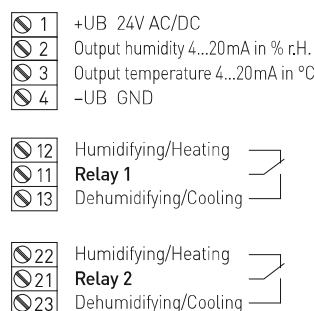
AHT-30



DIP switches	AHT-30	
Function mode	DIP 1	DIP 2
Mode 1 (2x 5...95% r.H.) (default)	OFF	OFF
Mode 2 (5...95% r.H. + 5% r.H.)	ON	OFF
Mode 3 (2x -35...+80 °C)	OFF	ON
Mode 4 (5...95% r.H. / -35...+80 °C)	ON	ON
Temperature range	DIP 3	DIP 4
-35...+35 °C	OFF	OFF
0...+80 °C	ON	OFF
0...+50 °C (default)	OFF	ON
-35...+75 °C	ON	ON

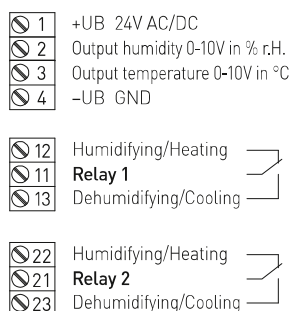
Connecting diagram

AHT-30-I



Connecting diagram

AHT-30-U



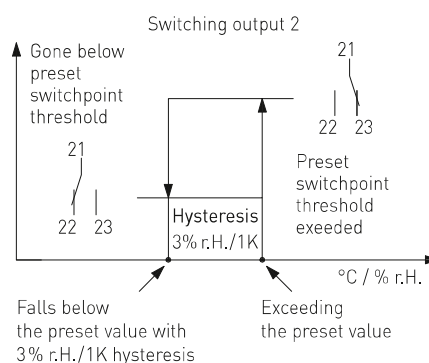
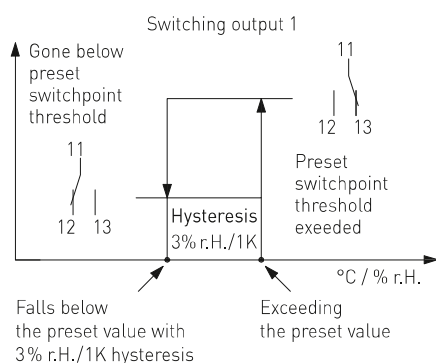
Supply	AC	DC
→ 1	24 V~	24 V DC
→ 4	0 V	GND

12 (A1) →	Relay 1 Breaker contact
11 (W1) →	Relay 1 Changeover contact
13 (B1) →	Relay 1 Normally open contact

22 (A2) →	Relay 2 Breaker contact
21 (W2) →	Relay 2 Changeover contact
23 (B2) →	Relay 2 Normally open contact

Switching output

AHT-30



Mode 1: Independent switchpoints for both relay outputs can be defined in the range of 5...95% r.H. by the control knobs (setpoint 1 for relay 1, setpoint 2 for relay 2, see schematic diagram). When the respective switchpoint is exceeded, the corresponding relay switches over (changeover contact 1 switches from position 2 to position 3). When the pre-set switchpoint is undershot again by more than 3% r.H. (hysteresis), the respective switching output switches back to the initial position (changeover contact 1 switches from position 3 to position 2).

Mode 2: In Mode 2, only control knob setpoint 1 is active (setpoint 2 without function). The switchpoint for the first relay is defined in the range of 5...95% r.H. by the control knob setpoint 1 (see schematic diagram). The switchpoint for the second relay output is invariably defined in mode 2 as "Switchpoint 1 + 5% r.H.". Hysteresis of 3% r.H. is also predefined for each switching output in mode 2.

Mode 3: Independent switchpoints within the temperature range (selectable via DIP switches) for both relay outputs can be defined by the control knobs (setpoint 1 for relay 1, setpoint 2 for relay 2). If the respective switchpoint is exceeded, the corresponding relay switches over. If the pre-set threshold value is undershot again by 1 K (hysteresis), the respective switching output switches back to the initial position. The thresholds of the setting range (temperature) are 5 °C above the minimum or below the maximum range value respectively.

Mode 4: In mode 4, the control knob is allocated to setpoint 1 of the temperature, while control knob is allocated to setpoint 2 of the relative humidity. The switchpoints can be set within the temperature range (selectable via DIP switches) or from 5...95% r.H. (humidity). The thresholds of the setting range (temperature) are 5 °C above the minimum or below the maximum range value respectively.



S+S REGELTECHNIK

HYGRASREG® AHT - 30

On-wall hygromats and
humidity and temperature sensors ($\pm 2.0\%$),
electronic, two-step, with multi-range switching
and continuous/switching output

AHT-30
with display



Temperature table
MR: $-35\dots+75^\circ\text{C}$

$^\circ\text{C}$	U_A in V	I_A in mA
-35	0.0	4.0
-30	0.5	4.7
-25	0.9	5.5
-20	1.4	6.2
-15	1.8	6.9
-10	2.3	7.6
-5	2.7	8.4
0	3.2	9.1
5	3.6	9.8
10	4.1	10.5
15	4.5	11.3
20	5.0	12.0
25	5.5	12.7
30	5.9	13.5
35	6.4	14.2
40	6.8	14.9
45	7.3	15.6
50	7.7	16.4
55	8.2	17.1
60	8.6	17.8
65	9.1	18.5
70	9.5	19.2
75	10.0	20.0

Temperature table
MR: $-35\dots+35^\circ\text{C}$

$^\circ\text{C}$	U_A in V	I_A in mA
-35	0.0	4.0
-30	0.7	5.1
-25	1.4	6.3
-20	2.1	7.4
-15	2.9	8.6
-10	3.6	9.7
-5	4.3	10.9
0	5.0	12.0
5	5.7	13.1
10	6.4	14.3
15	7.1	15.4
20	7.9	16.6
25	8.6	17.7
30	9.3	18.9
35	10.0	20.0

Temperature table
MR: $0\dots+50^\circ\text{C}$

$^\circ\text{C}$	U_A in V	I_A in mA
0	0.0	4.0
5	1.0	5.6
10	2.0	7.2
15	3.0	8.8
20	4.0	10.4
25	5.0	12.0
30	6.0	13.6
35	7.0	15.2
40	8.0	16.8
45	9.0	18.4
50	10.0	20.0

Temperature table
MR: $0\dots+80^\circ\text{C}$

$^\circ\text{C}$	U_A in V	I_A in mA
0	0.0	4.0
5	0.6	5.0
10	1.3	6.0
15	1.9	7.0
20	2.5	8.0
25	3.1	9.0
30	3.8	10.0
35	4.4	11.0
40	5.0	12.0
45	5.6	13.0
50	6.3	14.0
55	6.9	15.0
60	7.5	16.0
65	8.1	17.0
70	8.8	18.0
75	9.4	19.0
80	10.0	20.0

Humidity table
MR: $0\dots100\%$ r. H.

% r.H.	U_A in V	I_A in mA
0	0.0	4.0
5	0.5	4.8
10	1.0	5.6
15	1.5	6.4
20	2.0	7.2
25	2.5	8.0
30	3.0	8.8
35	3.5	9.6
40	4.0	10.4
45	4.5	11.2
50	5.0	12.0
55	5.5	12.8
60	6.0	13.6
65	6.5	14.4
70	7.0	15.2
75	7.5	16.0
80	8.0	16.8
85	8.5	17.6
90	9.0	18.4
95	9.5	19.2
100	10.0	20.0

HYGRASREG® AHT - 30 On-wall hygromat and humidity and temperature sensor ($\pm 2.0\%$), *Deluxe*

Type / WG02	Setting Range Humidity	Temperature	Output	Steps	Display	Item No.	Price
AHT-30-I						I-variant	
AHT-30W-I LCD	5...95 % r. H.	−35...+75 °C −35...+35 °C 0...+50 °C 0...+80 °C	2 x changeover contact, 2x 4...20 mA	two-step	■	1202-7127-2421-000	224,59 €
AHT-30-U						U-variant	
AHT-30W-U LCD	5...95 % r. H.	−35...+75 °C −35...+35 °C 0...+50 °C 0...+80 °C	2 x changeover contact, 2x 0-10 V	two-step	■	1202-7127-1421-000	224,59 €
Optional:	Cable connection with M12 connector according to DIN EN 61076-2-101					on request	
ACCESSORIES							
SF-M	Metal sinter filter, Ø 16 mm, L = 32 mm, exchangeable stainless steel V4A (1.4404)					7000-0050-2200-100	40,31 €
WS-03	Weather and sun protection hood, 200 x 180 x 150 mm, stainless steel V2A (1.4301)					7100-0040-6000-000	42,61 €

Duct hygrostats including mounting flange, mechanical, one-step, with switching output

Mechanical duct hygrometer **HYGRASREG® KH-10** with switching output as one-step hygrometer. It works without external voltage and is used for controlling and monitoring the relative humidity in ventilation and air conditioning ducts, laboratories, production facilities, climatic test cabinets, indoor swimming pools, greenhouses, etc. to control humidifying and dehumidifying equipment, as minimum guard, or maximum hygrometer. KH-10 is applied in dust-free, pollutant-free, non-aggressive air.

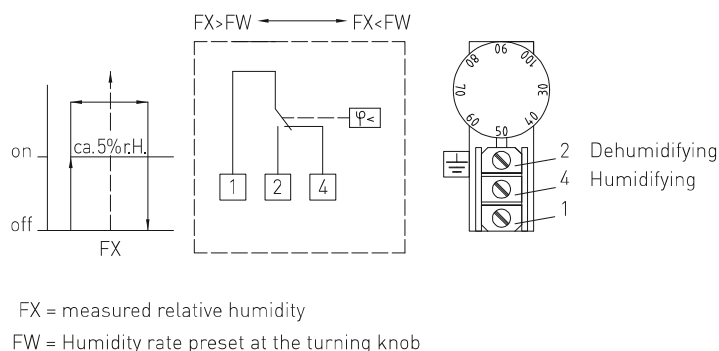
TECHNICAL DATA

Switching capacity:	15 (2) A; 24...250 V AC, min. 100 mA (Contact load) > 24 V in dry rooms only according to VDE 0110
Setting range:	35...100 % r. H.
Contact:	dust-proof microswitch as single-pole, potential-free changeover contact (gold-plated optional)
Housing:	plastic, UV-resistant, material polyamide, 30 % glass-globe reinforced, colour traffic white (similar to RAL 9016)
Housing dimensions:	108 x 70 x 73.5 mm (Thor2)
Cable connection:	cable gland , plastic (M20 x 1.5; with strain relief, exchangeable, inner diameter 8 - 13 mm)
Ambient temperature:	0...+60 °C
Operating difference:	approx. 3...6 % r. H.
Measuring accuracy:	typically ± 4 % r. H.
Controlled medium:	air, unpressurised, non-aggressive
Average temperature coefficient:	0.2 % / K; at +20 °C and 50 % r. H.
Flow rate:	max. 8 m/s
Sensor sleeve:	made of brass nickel-plated, Ø 20 mm, NL = 223 mm
Electrical connection:	0.14 - 1.5 mm², via terminal screws
Protection class:	I (according to EN 60 730)
Protection type:	IP 65 (according to EN 60 529)
Standards:	CE conformity, EMC directive 2014/30/EU, low-voltage directive 2014/35/EU

FUNCTION

Humidifying:	Wire contacts 1 - 4. Switch points ON/OFF are approx. 2.5 % r. H. above or below the selected value.
Dehumidifying:	Wire contacts 1 - 2. Switch points ON/OFF are approx. 2.5 % r. H. above or below the selected value.

Schematic diagram

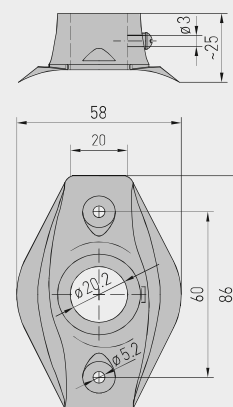


KH-10-U
(with internal
setting)



Dimensional
drawing

MF-20-K





S+S REGELTECHNIK

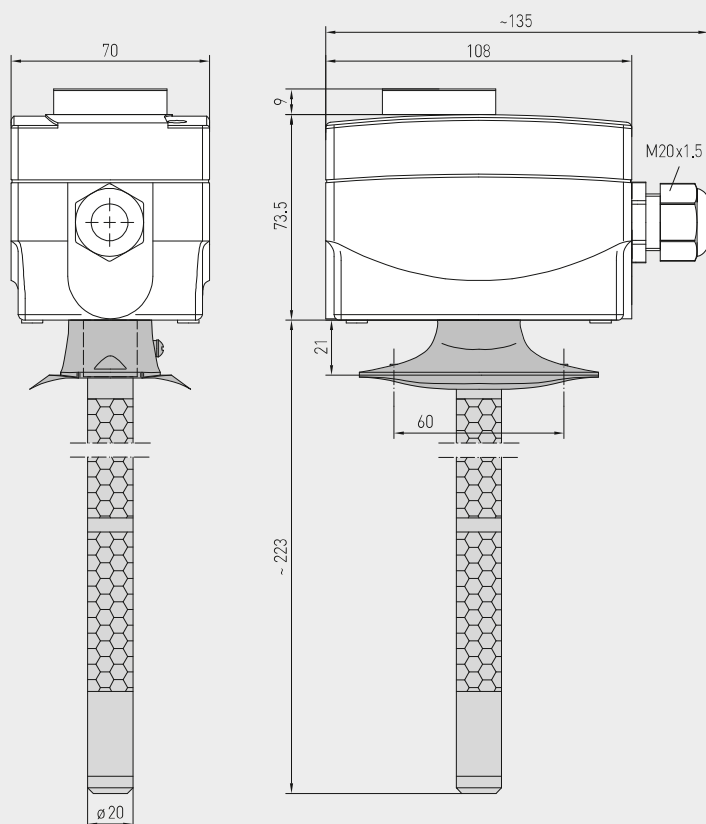
HYGRASREG® KH - 10

Duct hygrostats including mounting flange,
mechanical, one-step,
with switching output

Dimensional drawing

KH-10

KH-10
(with external
setting)



MF-20-K

Mounting flange,
plastic



HYGRASREG® KH - 10 Duct hygrostats, mechanical, *Standard*

Type / WG01	Setting Range Humidity	Steps	Features	Item No.	Price
KH-10				External setting	
KH-10	35...100 % r. H.	one-step	–	1202-3012-0010-000	218,44 €
KH-10-U				Internal setting	
KH-10 U	35...100 % r. H.	one-step	Setpoint setter concealed	1202-3012-0020-000	216,12 €

ACCESSORIES

MF-20-K	Mounting flange for KH, plastic, for duct installation (included in the scope of delivery)	7100-0030-4000-000	9,10 €
WH-20	Wall bracket for KH for on-wall mounting	1200-0010-4000-000	11,88 €

For further information see last chapter!

Duct hygrostats and humidity sensors ($\pm 2.0\%$), including mounting flange, electronic, one-step, with switching outputs

Electronic hygrostat and humidity sensor **HYGRASREG® KH-40** with one switching output, adjustable switching threshold and display for displaying ACTUAL humidity (accuracy class $\pm 2.0\%$ r.H.) and for setting the target humidity. It is suitable for controlling and monitoring the relative air humidity, e.g. in ventilation and air conditioning ducts, laboratories, production rooms, climatic exposure test cabinets, swimming pools, greenhouses etc., for controlling humidifying and dehumidifying facilities. The measuring transducers are designed for exact detection of humidity. The KH-40 uses a digital, long-term stable sensor as a measuring element for measuring humidity. It is used in dust-free, unpolluted, non-aggressive air.

TECHNICAL DATA

Power supply:	24 V AC ($\pm 20\%$) and 15...36 V DC
Power consumption:	< 1.1 VA / 24 V DC; < 2.2 VA / 24 V AC
Sensors:	digital humidity sensor , small hysteresis, high long-term stability
Sensor protection:	plastic sinter filter, \varnothing 16 mm, L = 35 mm, exchangeable (optional metal sinter filter, \varnothing 16 mm, L = 32 mm)
Setting range:	5...95 % r. H.
Output:	potential-free changeover contact (24 V), 1 A ohmic load
Deviation, humidity:	typically $\pm 2.0\%$ (20...80 % r. H.) at +25 °C, otherwise $\pm 3.0\%$
Ambient temperature:	storage –35...+85 °C; operation –30...+75 °C, non-precipitating
Long-term stability:	$\pm 1\%$ per year
Housing:	plastic, UV-resistant, material polyamide, 30 % glass-globe reinforced, with quick-locking screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016), housing cover for display is transparent!
Housing dimensions:	72 x 64 x 43.3 mm (Tyr 1 with display)
Cable connection:	cable gland , plastic (M 16 x 1.5; with strain relief, exchangeable, max. inner diameter 10.4 mm) or M12 connector according to DIN EN 61076-2-101 (on request)
Protective tube:	PLEUROFORM™ , material polyamide (PA6), with torsion protection, \varnothing 20 mm, NL = 235 mm, $v_{\max} = 30$ m/s (air) (on request, optional stainless steel V2A (1.4301), \varnothing 16 mm)
Process connection:	by mounting flange, plastic (included in the scope of delivery)
Electrical connection:	0.14 - 1.5 mm ² , via terminal screws
Protection class:	III (according to EN 60730)
Protection type:	IP65 (according to EN 60529) in the built-in state Housing tested, TÜV SÜD, Report No. 713139052 (Tyr 1)
Standards:	CE conformity, electromagnetic compatibility according to EN 61326, EMC directive 2014/30/EU
Display:	two-line display with illumination , cutout approx. 36 x 15 mm (W x H), for displaying actual humidity and for setting the target humidity
Displaying:	The 1st line of the display shows the relative humidity . The 2nd line shows on the left side the information regarding the switching status of the relay (as a circuit), as well as the switching value readout in % r.H. on the right side (adjustable using the set potentiometer). ○ Circuit, empty = relay in idle state ● Circuit, full = relay energised
FUNCTION	actual humidity < switching value contact 11-12 closed (LED OFF) actual humidity > switching value contact 11-13 closed (LED ON)

SF-K

Plastic sinter filter (standard)



SF-M

Metal sinter filter (optional)



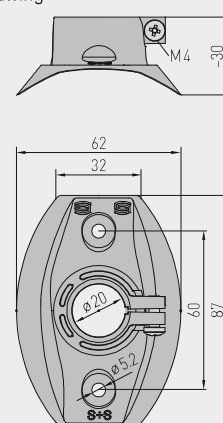
MFT-20-K

Mounting flange, plastic



Dimensional drawing

MFT-20-K



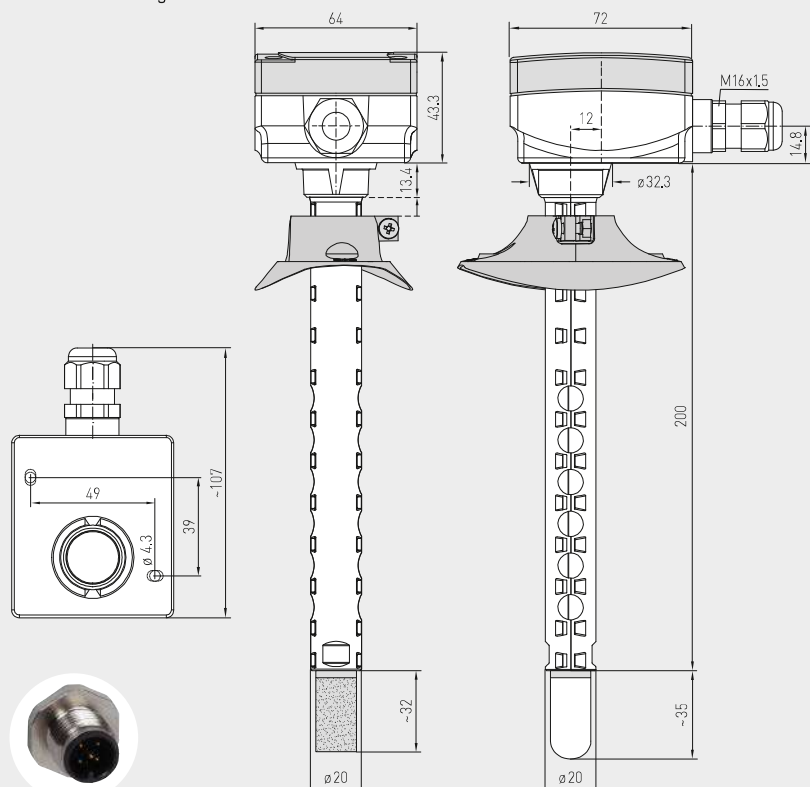
Display standard

KH-40





Dimensional drawing



M12 connector
(optional on request)

with metal
sinter filter
(optional)

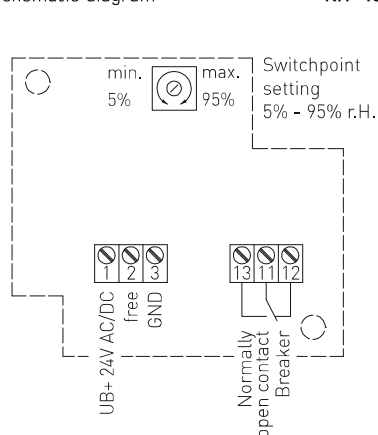
with plastic
sinter filter
(standard)

KH-40

KH-40
with display and
plastic sinter filter
(standard)

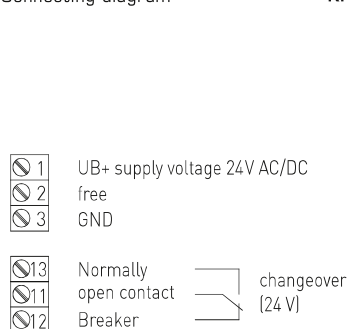


Schematic diagram



KH-40

Connecting diagram



KH-40

HYGRASREG® KH-40

Duct hygrostats and humidity sensors ($\pm 2.0\%$), *Premium*

Type / WG01	Setting Range Humidity	Output	Steps	Display	Item No.	Price
KH-40						
KH-40W LCD	5...95 % r. H.	1 x Changeover contact	one-step		1202-3065-0221-000	173,91 €
Optional:	Cable connection with M12 connector according to DIN EN 61076-2-101					on request

ACCESSORIES

SF-M	Metal sinter filter, Ø 16 mm, L = 32 mm, exchangeable stainless steel V4A (1.4404)	7000-0050-2200-100	40,31 €
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**Duct hygrostats and
humidity and temperature sensors ($\pm 2.0\%$), incl. mounting flange,
electronic, two-step, with multi-range switching
and continuous/switching output**

Electronic duct hygrostat and/or duct thermostat **HYGRASREG® KHT-30** with a continuous and two switching outputs, adjustable switching thresholds and display for indicating ACTUAL humidity and/or ACTUAL temperature (accuracy class $\pm 2.0\%$ r.H.). The setpoints can be allocated to the relative humidity and/or to the temperature.

It is suitable for regulating and monitoring relative humidity (humidifying and dehumidifying) and/or the temperature (heating and cooling), e.g. in ventilation and air conditioning ducts, laboratories, production facilities, climatic test cabinets, indoor swimming pools, greenhouses, etc., to control humidifying and dehumidifying equipment or heating system control. The measuring transducers are designed for exact humidity/temperature measurement. The KHT-30 uses a digital, long-term stable sensor as a measuring element. It is used in dust-free, unpolluted, non-aggressive air.

TECHNICAL DATA

Power supply:	24 V AC / DC ($\pm 20\%$)
Power consumption:	< 1,5 VA / 24 V DC, < 3,5 VA / 24 V AC
Sensor:	digital humidity sensor with integrated temperature sensor , low hysteresis, high long-term stability
Sensor protection:	plastic sinter filter, \varnothing 16 mm, L = 35 mm, exchangeable (optional metal sinter filter, \varnothing 16 mm, L = 32 mm)
Setting range:	5...95 % r.H. (humidity) Multi-range switching with 4 switchable measuring ranges (see table) -35...+35 °C; -35...+75 °C; 0...+50 °C; 0...+80 °C (temperature) (Switch steps 1 and 2 are separately adjustable)
Operating difference:	Mode 1: both switch steps are freely adjustable (rel. humidity) Mode 2: 5 % between both switch steps (rel. humidity) Mode 3: both switch steps freely adjustable (temperature) Mode 4: switch step 1 (temperature), switch step 2 (rel. humidity) (adjustable via DIP switches)
Output:	potential-free changeover contacts (2 x changeover contact 24 V, 1 A ohmic load, separately adjustable, 2x 0 - 10V for U variant or 4...20mA for I variant)
Deviation, humidity:	typically $\pm 2.0\%$ (20...80 % r.H.) at +25 °C, otherwise $\pm 3.0\%$
Deviation, temperature:	typically $\pm 0.2\text{ K}$ at +25 °C
Ambient temperature:	storage -35...+85 °C; operation -30...+75 °C, non-precipitating
Long-term stability:	$\pm 1\%$ per year
Housing:	plastic, UV-resistant, material polyamide, 30 % glass-globe reinforced, with quick-locking screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016), housing cover for display is transparent!
Housing dimensions:	126 x 90 x 50 mm (Tyr2)
Cable connection:	cable gland , plastic (M 16 x 1.5; with strain relief, exchangeable, max. inner diameter 10.4 mm) or M12 connector according to DIN EN 61076-2-101 (optional on request)
Protective tube:	PLEUROFORM™ , material polyamide (PA6), with torsion protection, \varnothing 20 mm, NL = 235 mm, $v_{\max} = 30$ m/s (air) (optional available on request stainless steel V2A (1.4301), \varnothing 16 mm)
Protection class:	III (according to EN 60730)
Protection type:	IP 65 (according to EN 60529)
Electrical connection:	0.14 - 1.5 mm ² , via terminal screws
Standards:	CE conformity, EMC directive 2014/30/EU
Display:	three-line display with illumination , cutout approx. 70 x 40 mm (W x H), for displaying ACTUAL humidity and/or ACTUAL temperature or for setpoint adjustment

FUNCTION

Humidifying/heating:	1st step: wire contacts 11 - 12. If actual humidity falls more than 3 % r.H. / 1 K (hysteresis) below switching threshold S1, the changeover contact switches to 11 - 12. 2nd step: wire contacts 21 - 22. If actual humidity falls more than 3 % r.H. / 1 K (hysteresis) below switching threshold S2, the changeover contact switches to 21 - 22. Terminal 2: output relative humidity / terminal 3: output temperature
Dehumidifying/cooling:	1st step: wire contacts 11 - 13. When actual humidity exceeds switching threshold S1, the changeover contact switches to 11 - 13. 2nd step: wire contacts 21 - 23. When actual humidity exceeds switching threshold S2, the changeover contact switches to 21 - 23. Terminal 2: output relative humidity / terminal 3: output temperature



S+S REGELTECHNIK

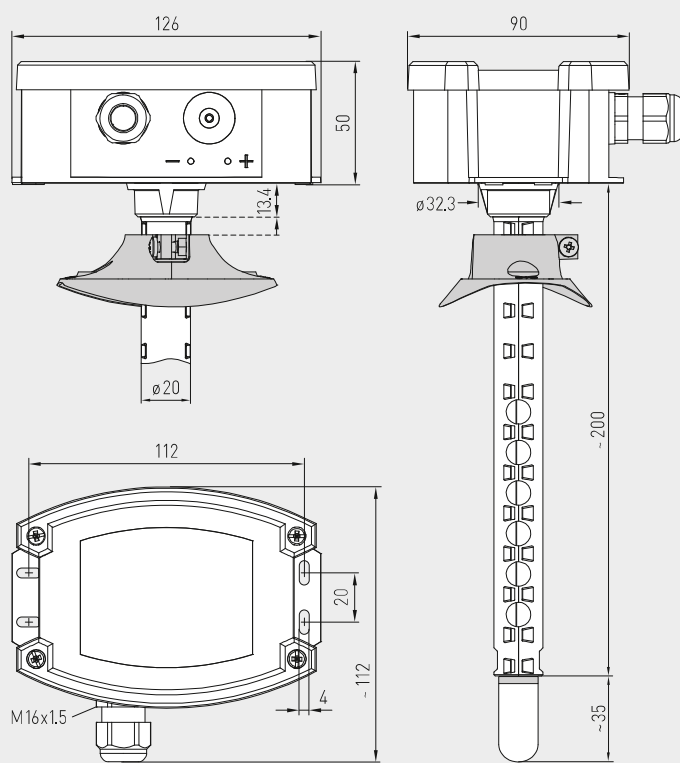
HYGRASREG® KHT - 30

Duct hygromats and
humidity and temperature sensors ($\pm 2.0\%$), incl. mounting flange,
electronic, two-step, with multi-range switching
and continuous/switching output



Dimensional drawing

KHT-30



SF-K
plastic sinter filter
(standard)



SF-M
metal sinter filter
(optional)



M12 connector
(optional on request)



KHT-30
with display and
plastic sinter filter
(standard)

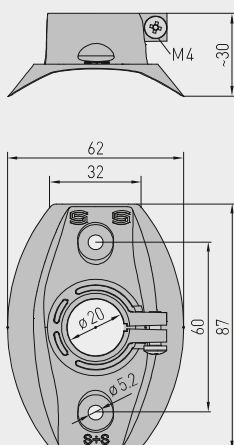


KHT-30
with display and
metal sinter filter
(optional)

Dimensional drawing

MFT-20-K

MFT-20-K
Mounting flange,
plastic



Display readout

The **1st line** of the display shows the **ACTUAL humidity** in % r.H. and the **ACTUAL temperature** in °C. The displays showing the ACTUAL values alternate in a 3-second rhythm. The resolution is 1/10 % r.H. or 1/10 °C.

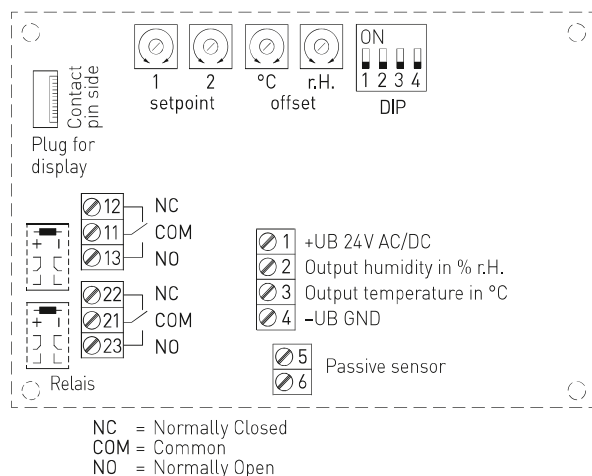
The **3rd line** shows information about the **switching status of relay 1 and 2** (as circuits) on the left, and on the right for the **switching values of relay 1 and 2** in % r.H. or °C (adjustable via the corresponding set potentiometer). The reference to respective measured value (relative humidity or temperature) is determined by the mode selected.

For improved legibility, backlighting is provided.

Duct hygromats and
humidity and temperature sensors ($\pm 2.0\%$), incl. mounting flange,
electronic, two-step, with multi-range switching
and continuous/switching output

Schematic diagram

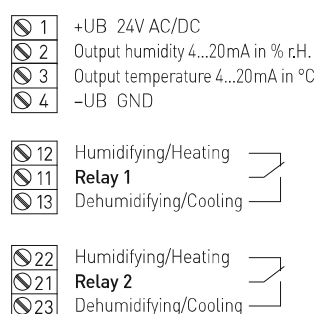
KHT-30



DIP switches	KHT-30	
Function mode	DIP 1	DIP 2
Mode 1 (2x 5...95% r.H.) (default)	OFF	OFF
Mode 2 (5...95% r.H. + 5% r.H.)	ON	OFF
Mode 3 (2x -35...+80 °C)	OFF	ON
Mode 4 (5...95% r.H. / -35...+80 °C)	ON	ON
Temperature range	DIP 3	DIP 4
-35...+35 °C	OFF	OFF
0...+80 °C	ON	OFF
0...+50 °C (default)	OFF	ON
-35...+75 °C	ON	ON

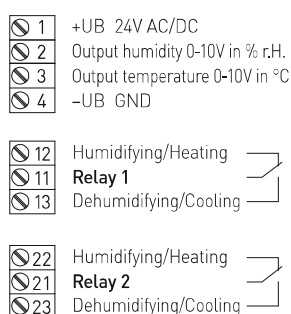
Connecting diagram

KHT-30-I



Connecting diagram

KHT-30-U



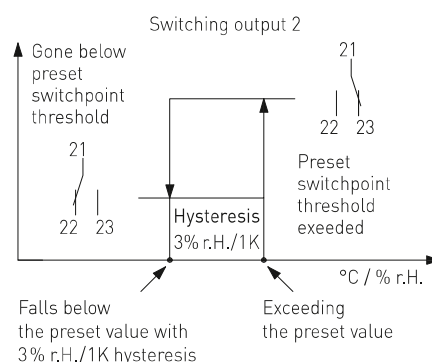
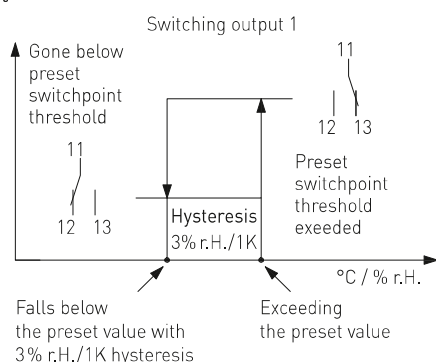
Supply	AC	DC
→ 1	24 V~	24 V DC
→ 4	0 V	GND

12 (A1) →	Relay 1 Breaker contact
11 (W1) →	Relay 1 Changeover contact
13 (B1) →	Relay 1 Normally open contact

22 (A2) →	Relay 2 Breaker contact
21 (W2) →	Relay 2 Changeover contact
23 (B2) →	Relay 2 Normally open contact

Switching output

KHT-30



Mode 1: Independent switchpoints for both relay outputs can be defined in the range of 5...95% r.H. by the control knobs (setpoint 1 for relay 1, setpoint 2 for relay 2, see schematic diagram). When the respective switchpoint is exceeded, the corresponding relay switches over (changeover contact 1 switches from position 2 to position 3). When the pre-set switchpoint is undershot again by more than 3% r.H. (hysteresis), the respective switching output switches back to the initial position (changeover contact 1 switches from position 3 to position 2).

Mode 2: In Mode 2, only control knob setpoint 1 is active (setpoint 2 without function)! The switchpoint for the first relay is defined in the range of 5...95% r.H. by the control knob setpoint 1 (see schematic diagram). The switchpoint for the second relay output is invariably defined in mode 2 as "Switchpoint 1 + 5% r.H.". Hysteresis of 3% r.H. is also predefined for each switching output in mode 2.

Mode 3: Independent switchpoints within the temperature range (selectable via DIP switches) for both relay outputs can be defined by the control knobs (setpoint 1 for relay 1, setpoint 2 for relay 2). If the respective switchpoint is exceeded, the corresponding relay switches over. If the pre-set threshold value is undershot again by 1 K (hysteresis), the respective switching output switches back to the initial position. The thresholds of the setting range (temperature) are 5 °C above the minimum or below the maximum range value respectively.

Mode 4: In mode 4, the control knob is allocated to setpoint 1 of the temperature, while control knob is allocated to setpoint 2 of the relative humidity. The switchpoints can be set within the temperature range (selectable via DIP switches) or from 5...95% r.H. (humidity). The thresholds of the setting range (temperature) are 5 °C above the minimum or below the maximum range value respectively.



S+S REGELTECHNIK

HYGRASREG® KHT - 30

Duct hygromats and
humidity and temperature sensors ($\pm 2.0\%$), incl. mounting flange,
electronic, two-step, with multi-range switching
and continuous/switching output



KHT-30
with display

Temperature table
MR: $-35\ldots+75\text{ }^{\circ}\text{C}$

$^{\circ}\text{C}$	U_A in V	I_A in mA
-35	0.0	4.0
-30	0.5	4.7
-25	0.9	5.5
-20	1.4	6.2
-15	1.8	6.9
-10	2.3	7.6
-5	2.7	8.4
0	3.2	9.1
5	3.6	9.8
10	4.1	10.5
15	4.5	11.3
20	5.0	12.0
25	5.5	12.7
30	5.9	13.5
35	6.4	14.2
40	6.8	14.9
45	7.3	15.6
50	7.7	16.4
55	8.2	17.1
60	8.6	17.8
65	9.1	18.5
70	9.5	19.2
75	10.0	20.0

Temperature table
MR: $-35\ldots+35\text{ }^{\circ}\text{C}$

$^{\circ}\text{C}$	U_A in V	I_A in mA
-35	0.0	4.0
-30	0.7	5.1
-25	1.4	6.3
-20	2.1	7.4
-15	2.9	8.6
-10	3.6	9.7
-5	4.3	10.9
0	5.0	12.0
5	5.7	13.1
10	6.4	14.3
15	7.1	15.4
20	7.9	16.6
25	8.6	17.7
30	9.3	18.9
35	10.0	20.0

Temperature table
MR: $0\ldots+50\text{ }^{\circ}\text{C}$

$^{\circ}\text{C}$	U_A in V	I_A in mA
0	0.0	4.0
5	1.0	5.6
10	2.0	7.2
15	3.0	8.8
20	4.0	10.4
25	5.0	12.0
30	6.0	13.6
35	7.0	15.2
40	8.0	16.8
45	9.0	18.4
50	10.0	20.0

Temperature table
MR: $0\ldots+80\text{ }^{\circ}\text{C}$

$^{\circ}\text{C}$	U_A in V	I_A in mA
0	0.0	4.0
5	0.6	5.0
10	1.3	6.0
15	1.9	7.0
20	2.5	8.0
25	3.1	9.0
30	3.8	10.0
35	4.4	11.0
40	5.0	12.0
45	5.6	13.0
50	6.3	14.0
55	6.9	15.0
60	7.5	16.0
65	8.1	17.0
70	8.8	18.0
75	9.4	19.0
80	10.0	20.0

Humidity table
MR: $0\ldots100\%$ r. H.

% r.H.	U_A in V	I_A in mA
0	0.0	4.0
5	0.5	4.8
10	1.0	5.6
15	1.5	6.4
20	2.0	7.2
25	2.5	8.0
30	3.0	8.8
35	3.5	9.6
40	4.0	10.4
45	4.5	11.2
50	5.0	12.0
55	5.5	12.8
60	6.0	13.6
65	6.5	14.4
70	7.0	15.2
75	7.5	16.0
80	8.0	16.8
85	8.5	17.6
90	9.0	18.4
95	9.5	19.2
100	10.0	20.0

HYGRASREG® KHT - 30 Duct hygromat and humidity and temperature sensor ($\pm 2.0\%$), *Deluxe*

Type/ WG02	Setting Range		Output	Steps	Display	Item No.	Price
	Humidity	Temperature					
KHT-30-I						I-variant	
KHT-30W-I LCD	5...95% r. H.	-35...+75 °C -35...+35 °C 0...+50 °C 0...+80 °C	2 x changeover contact, 2x 4...20 mA	two-step	■	1202-8127-2421-000	224,59 €
KHT-30-U						U-variant	
KHT-30W-U LCD	5...95% r. H.	-35...+75 °C -35...+35 °C 0...+50 °C 0...+80 °C	2 x changeover contact, 2x 0-10 V	two-step	■	1202-8127-1421-000	224,59 €
Optional:	Cable connection with M12 connector according to DIN EN 61076-2-101					on request	
ACCESSORIES							
SF-M	Metal sinter filter, Ø 16 mm, L= 32 mm, exchangeable stainless steel V4A (1.4404)					7000-0050-2200-100	40,31 €



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