



Features

- **Outputs**
 - Single humidity 0-10 Vdc or 4-20 mA
 - Humidity and temperature 0-10 Vdc or 4-20 mA
 - Humidity 0-10 Vdc with passive (direct) temperature output such PT100, PT1000, Nickel, NTC and PTC
- **Sensing ranges**
 - Humidity 0 to 100% r.H.
 - Temperature -20 to +80°C
- **Accuracy**
 - Humidity +/- 3% (40 to 60% r.H.), @ +20°C otherwise +/- 5%
 - Temp. +/- 0.3°C @ +20°C HOT 010 / HOTT 010
+/- 0.5°C @ +20°C HOT 420 / HOTT 420
- **Long-term stability**
- **Small hysteresis**

Technical data

Measuring humidity range	0 to 100% r.H.
Working humidity range	10 to 90% r.H.
Measuring temp. range	-20 to +80°C
Power supply	24 Vac/dc for 0-10 Vdc output 15-36 Vdc, RI<500Ohm for 4-20 mA output
Hum. output	0-10 Vdc or 4-20 mA (see ordering and wiring)
Temp. output	0-10 Vdc, 4-20 mA or passive (see ordering and wiring)
Humidity sensor	Capacitive humidity sensor
Temp. sensor	NTC sensing element beta for 4-20 mA and 0-10 Vdc versions
Hum. accuracy	+/- 3% (40 to 60% r.H.), @ +20°C otherwise +/- 5%
Temp. accuracy	+/- 0.3°C @ +20°C for HOT 010 / HOTT 010 +/- 0.5°C @ +20°C for HOT 420 / HOTT 420
Housing material	Plastic
Housing dimensions	72x64x39 mm excluding cable entry gland

Ordering

Type no.	Humidity output	Temp. output	Temp. range
HOT 010	0-10 Vdc	--	--
HOT 420	4-20 mA	--	--
HOTT 010	0-10 Vdc	0-10 Vdc	-20 to +80°C
HOTT 420	4-20 mA	4-20 mA	-20 to +80°C
HOTT 010 PT100	0-10 Vdc	PT100	-20 to +80°C
HOTT 010 PT1000	0-10 Vdc	PT1000	-20 to +80°C
HOTT 010 Ni1000	0-10 Vdc	Ni1000	-20 to +80°C
HOTT 010 NTC 1.8K	0-10 Vdc	NTC 1.8K	-20 to +80°C
HOTT 010 NTC 10K	0-10 Vdc	NTC 10K	-20 to +80°C
HOTT 010 NTC 20K	0-10 Vdc	NTC 20K	-20 to +80°C

All above units measure humidity within 0-100% r.H.

Application/Description

HOT is outdoor humidity transmitter and is used for sensing the relative humidity (r.H.).

HOTT is a combined outdoor humidity and temperature transmitter used for sensing relative humidity and temperature.

The HOT measures the relative humidity with the help of a capacitive humidity sensor, which via the built-in electronic gives 0-10 Vdc or 4-20 mA output signal .

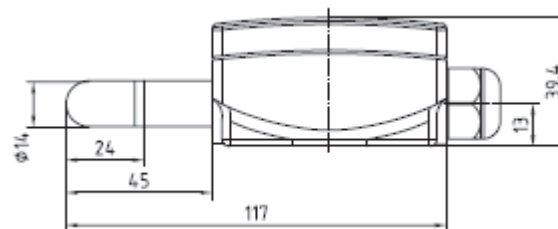
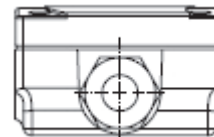
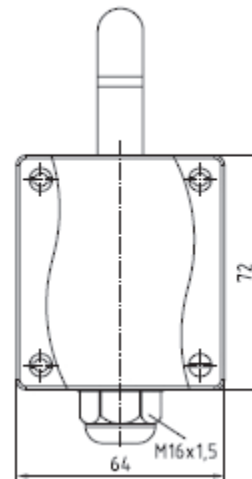
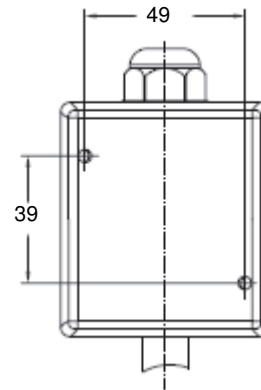
The HOTT is like HOT and measures also temperature with the help of a thermistor sensing element, which via the built-in electronic gives 0-10 Vdc or 4-20 mA output signal .

Electronic and wiring connection is suited inside the IP65 housing.

Passive direct output such PT100, PT1000, NI1000, NTC, PTC are also available, HOTT 010 PT 1000 (for example).

The IP 65 plastic housing is supplied with a plastic cable entry gland.

Dimensions (mm)



Electrical connection

HOT 010
1 - GND
2 + Power supply 24 Vac/dc
4 Output 0-10 Vdc (humidity)

HOT 420
1 Power supply 15-36 Vdc
2 Output 4-20 mA, (humidity) RI<500

HOTT 010
1 - GND
2 + Power supply 24 Vac/dc
4 Output 0-10 Vdc (humidity)
6 Output 0-10 Vdc (temperature)

HOTT 420
1 Power supply 15-36 Vdc
2 Output 4-20 mA (humidity), RI<500 Ohm
3 Output 4-20 mA (temperature), RI<500 Ohm

HOTT 010 PT 1000 (for example)
1 - GND
2 + Power supply 24 Vac/dc
4 Output 0-10 Vdc (humidity)
7 PT 1000 (example) (temperature)
8 PT 1000 (example) (temperature)

HOTT 420 PT 1000 (for example)
1 Power supply 15-36 Vdc
2 Output 4-20 mA, (humidity) RI<500
7 PT 1000 (example) (temperature)
8 PT 1000 (example) (temperature)

Humidity schedule

% r. H.	V	mA
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

Temperature schedule

°C	V	mA
-20	0	4,0
-15	0,5	4,8
-10	1,0	5,6
-5	1,5	6,4
0	2,0	7,2
5	2,5	8,0
10	3,0	8,8
15	3,5	9,6
20	4,0	10,4
25	4,5	11,2
30	5,0	12,0
35	5,5	12,8
40	6,0	13,6
45	6,5	14,4
50	7,0	15,2
55	7,5	16,0
60	8,0	16,8
65	8,5	17,6
70	9,0	18,4
75	9,5	19,2
80	10,0	20,0

See separate schedule for passive sensors,
temperature vs resistance schedule.

We reserve the right to make changes in our products without any notice
which may effect the accuracy of the information contained in this leaflet.