

KH-30

Duct hygrostat, electronic



Summary

Electronic air duct hygrostats for monitoring, control and limitation of relative humidity in HVAC units – air ducts, air handling units, greenhouses etc.

Applications

- HVAC control systems – humidity limitation, humidity control etc.

Function

The sensor measures relative humidity. Measured value is transform to electrical signal 0...10 V. It is also possible to set up two switchpoints for two changeover contacts. Switchpoints are set by turning knobs inside device. Please read carefully internal settings information!

Technical data

Power	24 V AC/DC (optional 230 V AC via external power supply unit)
Consumption	< 2 VA / 24 V DC
Output	2x potential-free changeover contact (24 V) 1x 0...10 V correspond 0...100 % r.H.
Cover	polyamide reinforced with glass fibre (30 %), white colour
Ambient temperature	-10...65°C
Max. air velocity	8 m/s
Dimensions of the housing	108 x 70 x 73.5 mm
Pocket	metal, NL= 190 mm, Ø= 20 mm
Protection degree	IP65 according EN 60529
Protection class	III according EN 60730
Cable gland	M 16x1,5; including strain relief
Electrical terminals	screw terminals, for wires 0.14 .. 2.5 mm ²
Hysteresis	max. 3 % r.H.
Setpoint range	5 ... 95 % r.H.
Deviation	± 3 % r.H. (20...90 %) at 20 °C; otherwise ± 5 r.H.

Long-term stability

± 1 % per year

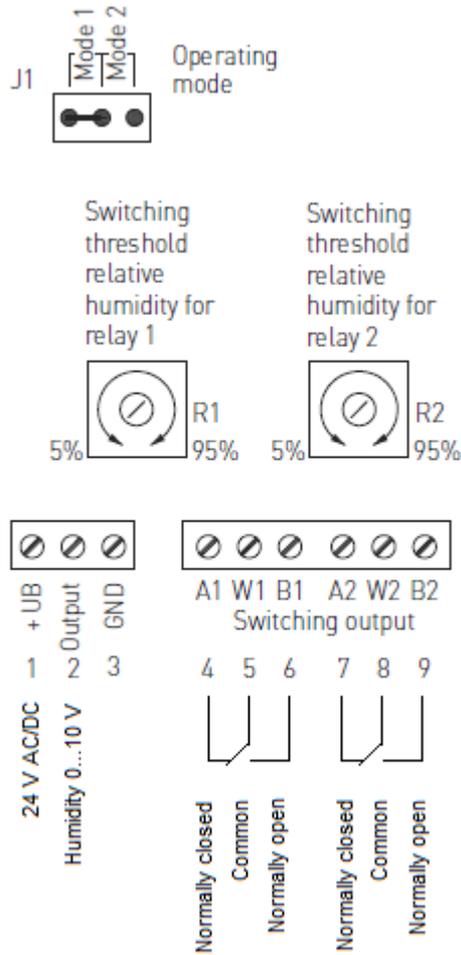
Accessories

optional:

single-line display 36x15 mm (for display actual humidity respectively for humidity setpoint adjustment)

MF-20-K mounting flange (see below)

Terminals



Internal settings

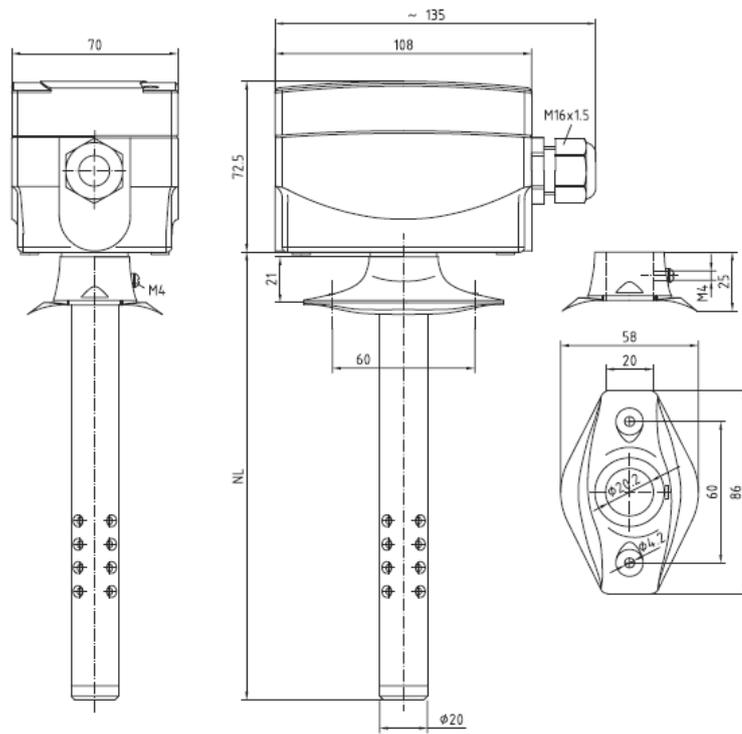
Mode 1:

Switch point for both relay outputs can be defined independent from each other in the range of 5% ... 95% r.H. by turning control knobs (R1 for relay 1, R2 for relay 2). When the respective switchpoint is exceeded, the corresponding relay switches over (changeover contact switches from position A to position B). When the present switchpoint is undershot again by more than 3% r.H. (hysteresis), the respective switching output switches back to initial position (changeover contact switches from position B to position A).

Mode 2:

Only control knob R1 is active (R2 without function)! The switchpoint for the first relay is defined in the range of 5% ... 95% r.H. by turning control knob R1. The switch point for the second relay output is in mode 2 invariably defined as switchpoint 1 + 5% r.H. A hysteresis of 3% r.H. is predefined for each switching output also in mode 2.

Dimensions



04/2014 Subject to technical changes.