



Features

- For remote probe installations in demanding applications
- High tolerance of chemicals
- Excellent accuracy and stability
- Two probe lengths available
- For high humidity in industry and meteorology
- Adjustable installation depth
- Measurement up 150C and down to -40C

Technical Data

RH sensor	Capacitive
Measuring range	0...100%rH
Temperature Sensor	NTC10K (Pt100 classA @-40...150C)
Measuring range	0-20...80C, extended -40...150C

Accuracy

RH@T=15...35C	+/-1,5%UR 0-90%rH
	+/-2%@90-100%rH
Rest of T-range	+/-1,5% + 1,5% of the measured %rH
Repeatability	0,4%rH
Temp	+/-0,3C@0-70C, Pt100 +/-0,3C
	+/-0,4C@-20...+0C, +70...+80C
Repeatability	0,05C

Ambient range

Probe	-20/...+100C, Extended -40...+150C
Housing	-5/+60C Electronics working temp.

Protection Class

IP66

Output Ranges

RH & T	4-20mA = 0-100%/-20-+80C
RH & T	4-20mA = 0-100%/-40-+150C
RL	Max 0 (Vdc-12/0.022
	22mA outside measuring the range

Power Supply

12-40Vdc

These products meets the requirements of CE-approval Options

A 4-digit optional LCD display allows to display the measured parameters in a continuous or sequential mode.

Various accessories are available for installation for example to fix a probe to the duct.

It can be used the FDM flange, a 3/8" universal biconical connection or a PG16 metal cable gland dia 10-14mm

Description

The PHT-series of transmitters measure temperature and relative humidity.

The models with analogue output provide a signal suitable for transmission to a remote display, recorder, DDC or PLC.

The PHT are suitable to be inserted in a 4-20mA current loop.

The PHT are designed for temperature and humidity control in air-conditioning and ventilation applications (HVAC/BEMS) in the following sectors:

- Pharmacy
- Museums
- Ventilation Ducts
- Gyms
- Green House
- Industrial and Civil Sectors
- Clean Rooms
- Canteens
- Crowded Places
- Auditoria
- High-Density Farms

The PHT measure relative humidity with a well proven temperature compensated capacitive sensor that assures and reliable measurements in the course of time.

A stainless steel 20um filter protects the sensor against dust and particles (other filters are available for different applications).

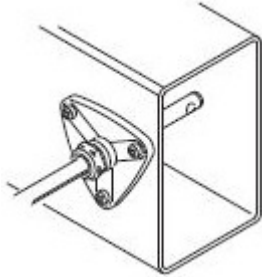
The transmitters are factory calibrated and no further adjustments are required

Ordering

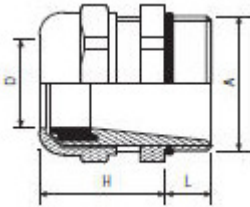
PHT 2135	Probe 135mm RH & T Transmitter 2m cable
PHT 5135	Probe 135mm RH & T Transmitter 5m cable
PHT 10135	Probe 135mm RH & T Transmitter 10m cable
PHT 2335	Probe 335mm RH & T Transmitter 2m cable
PHT 5335	Probe 535mm RH & T Transmitter 5m cable
PHT 10335	Probe 1035mm RH & T Transmitter 10m cable
EXT 40150	Suppl. for measurement range -40/+150C
DLCD	4-digit display
FDM	Flange for Duct Mounting
FWS 125	Holder Vertical Mounting 125mm Wall Distance
P8	20um stainless steel grid and POCAN for dia 14mm probe
DCAL	Calibration certificate on request

Installation notes

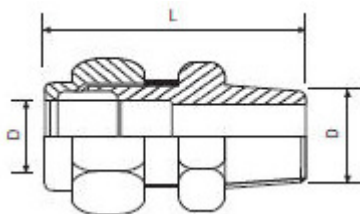
To fix the probe inside a ventilation duct, a pipe etc, use for example FDM flange a, PG16 metal gland dia 10...14mm or a biconical connection



FDM Flange



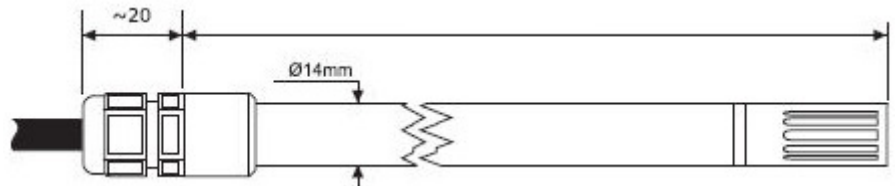
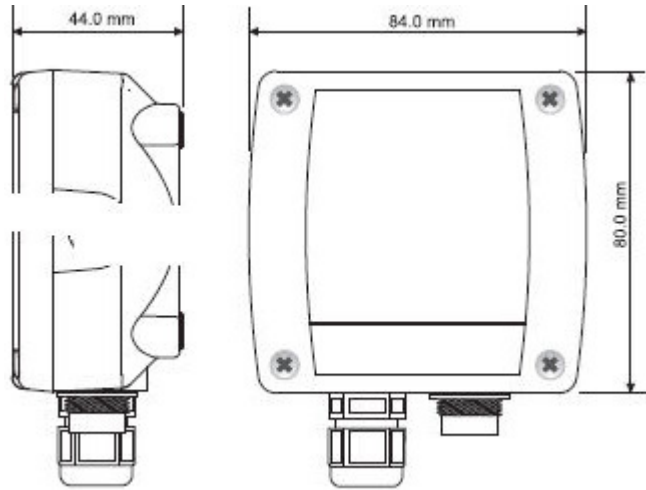
PG16 Metal Gland
D = 10...14mm
L = 6,5mm
H = 23mm
A = PG16



Universal biconical connector

L = 35mm
D = 14mm
A = 3/8

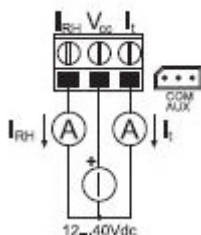
Dimensions



Electrical connections

Follow the connection schemes shown below, the maximum load resistance that can be connected to each 4-20mA output depends on the power supply V_{cc} , according to relation:

$RL_{Max} = V_{cc} - 12 / 0.022$, e.g. if $V_{cc} = 24V_{dc}$ the max load is $RL_{Max} = 545\Omega$



Relative humidity probe calibration

The PHT transmitters are supplied factory calibrated and ready to use.

If necessary, it is possible to calibrate the relative humidity sensor using the saturated salt solution HD75 (75%rH saturated salt solution) and HD33 (33%rh saturated salt solution) and connecting the instrument to the PC using the HD48Cal kit.

The HD48Cal kit includes CP27 with incorporated converter USB/RS232 for the transmitters connection to the PC and a CD-ROM for windows operating systems, that guides the user in the relative humidity probe calibration procedure.