

Specially designed for HVAC, the FHT31 series by Focusens is a cost effective, highly accurate and reliable solution for measuring relative air humidity and temperature.

The enclosure minimizes installation costs and provides outstanding protection against contamination and condensation, thus ensuring flawless operation.

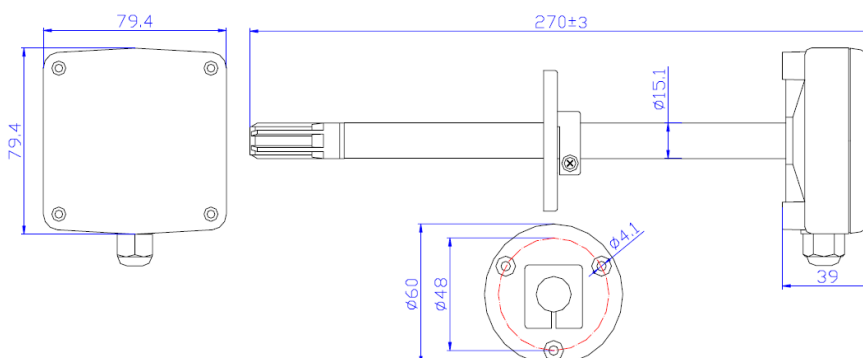
The FHT31 employs the new humidity / temperature Sensirion sensor element SHT21 with excellent long term stability and resistance against pollutants. In combination with a long calibration experience, the FHT31 provides a measurement accuracy of $\pm 3\%RH$ and is available for duct-mounted with current, voltage output.



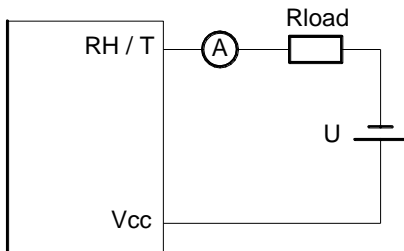
Technical Data

Parameter	Temperature	Relative Humidity
Measurement Range	0...+50°C -40...+60°C -20...+80°C	0...100% RH
Accuracy at 25°C	$\pm 0.3^\circ C$	$\pm 3\% RH$ (20...80% RH)
Stability	$< 0.1^\circ C / \text{year}$	$< 0.5\%RH / \text{year}$
Response	$< 15s$	$< 12s(63\%)$
power supply	2-wire: 12...24V 3-wire: 15...24V	
Output	2-wire: 4...20mA 3-wire: 4...20mA / 0...1/5/10V	
Load	2-wire: (VDD - 7V) / 0.02A 3-wire: Current mode less than 500 Ω , Voltage mode greater than 10k Ω	
Sensor protection	membrane filter	
Housing material	Polycarbonate	
Protection grade	IP65	

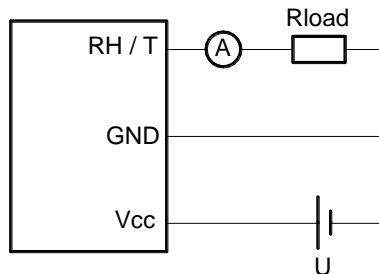
Dimensions (mm)



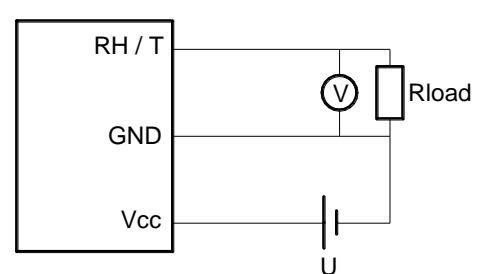
Connection Diagram



2-wire current mode



3-wire current mode



3-wire voltage mode

Ordering Guide

SERIES	OUTPUT	T-SCALING	DISPLAY
FHT31	(A) 2-wire current mode 4...20mA	(T1) 0...+50°C	(D) LCD
	(B) 3-wire current mode 4...20mA	(T2) -40...+60°C	
	(D) 3-wire voltage mode 0...10V	(T3) -20...+80°C	
	(E) 3-wire voltage mode 0...5V		
	(F) 3-wire voltage mode 0...1V		