



# HUMIDITY

## 2% WALL- AND DUCT-MOUNT RELATIVE HUMIDITY TRANSMITTERS HM\_60, HM\_70 SERIES

### DESCRIPTION

Vaisala's **Models HM\_60 and HM\_70 Wall- and Duct-Mount Relative Humidity Transmitters** have been specifically designed for use in HVAC/BAS and pharmaceutical applications. These instruments measure relative humidity from 0% to 100%. They are easily installed and meet the European CE standards.

Five-minute field calibration is possible using the Model HMK 41K Humidity Calibrator. When accuracy adjustment or sensor replacement is necessary, the transmitter can be calibrated in seconds with a single potentiometer without disturbing operation. This saves hours of maintenance time and assures high accuracy.

### FEATURES

- Comes with NIST certificate
- Full 0% to 100% RH measurement
- State-of-the-art replaceable sensor technology
- ±2% RH accuracy
- Electronic, on-site one-point calibration
- Two-wire, 4-20 mA output (HMW 60)
- Voltage output (HMW 70)
- Easy installation with wall mounting
- Temperature compensated
- Optional built-in temperature transmitter
- OSA mounting brackets available



HMW 60  
or  
HMW 70



HMD 60  
or  
HMD 70



HUMIDITY

### SPECIFICATIONS

#### HM\_60, HM\_70

<b>Sensor</b>	Capacitive and replaceable Humicap® 180
<b>Input voltage (60)</b>	10-35 VDC (signal dependent)
<b>Input voltage (70)</b>	14-24 VAC/VDC
<b>Output signal</b>	
<b>HM_60</b>	4-20 mA, 700Ω @ 24 VDC
<b>HM_70</b>	0-1, 0-5, 0-10V, 3000Ω min
<b>Electrical connections</b>	Screw terminals (20-16 AWG)
<b>Wall-mounted box</b>	ABS plastic
<b>Duct housing</b>	Cast aluminum NEMA 4 (IP55)
<b>Output range</b>	0% to 100% RH
<b>Transmitter temp range</b>	
<b>Wall Mount</b>	23° to 131°F (-5° to 55°C)
<b>Duct Mount</b>	-4° to 176°F (-20° to 80°C)
<b>Operating temp range</b>	
<b>Electronics</b>	23° to 131°F (-5° to 55°C)
<b>Duct Sensor Tip</b>	-4° to 176°F (-20° to 80°C)
<b>Accuracy @ 68°F (20°C)</b>	±2% RH (0% to 90% RH) ±3% RH (90% to 100% RH) Temperature - better than .1%

<b>Weight</b>	
<b>Room</b>	0.32 lb (0.14 kg)
<b>Duct</b>	1.68 lb (0.76 kg)
<b>Agency approvals</b>	CE, NIST certificate
<b>HMK 41</b>	
<b>Sensor</b>	Capacitive and replaceable
<b>Operation</b>	Handheld, onsite calibrator
<b>Operating temp</b>	-40° to 140°F (-40° to 60°C)
<b>Measuring range</b>	0% to 100% RH, -40° to 140°F (-22° to 78°C)
<b>Reference probe accuracy</b>	±1% RH (0% to 90% RH) ±2% RH (90% to 100% RH)
<b>Storage temp</b>	-4° to 140°F (-20° to 60°C)
<b>Temp coefficient</b>	+0.04% RH/°C typical
<b>Battery</b>	Four AA (LR6)(not included)
<b>Weight</b>	2.1 lb (0.95 kg)
<b>Agency approvals</b>	CE, NIST certificate
<b>Warranty</b>	1 year

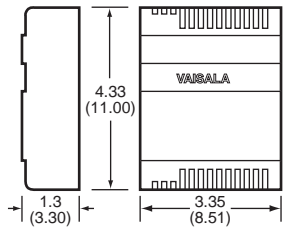


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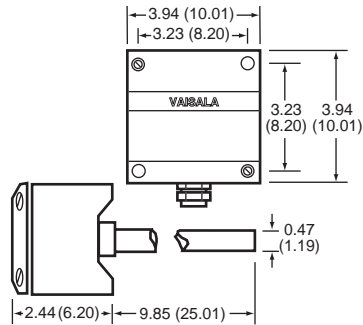
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### DIMENSIONS

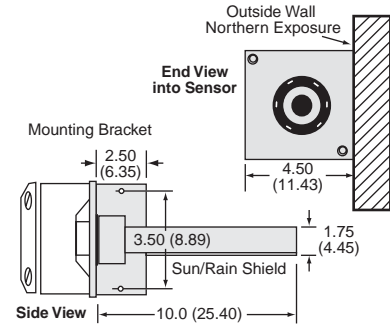
in  
(cm)



**HMW 60/HMW 70**

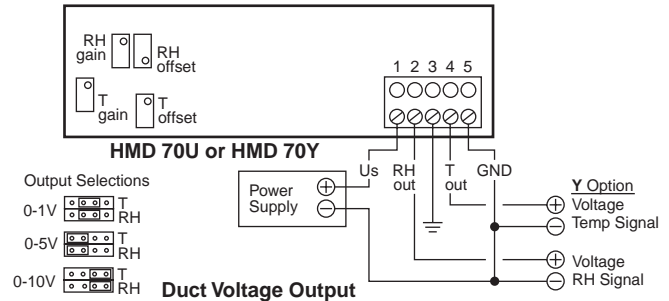
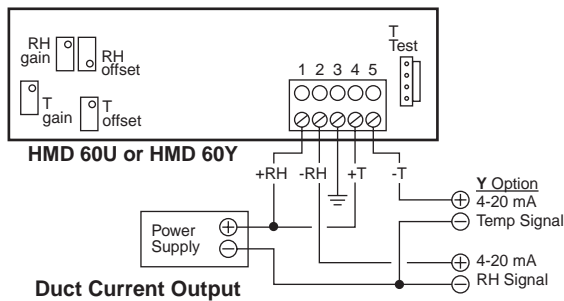
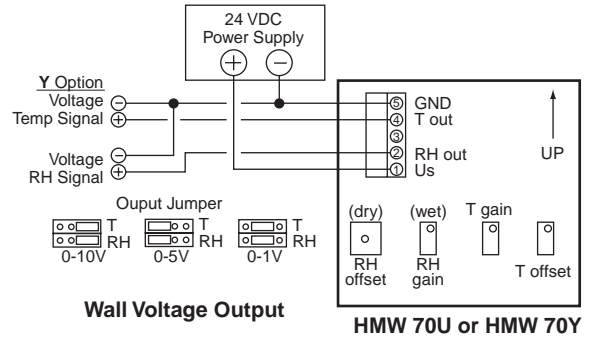
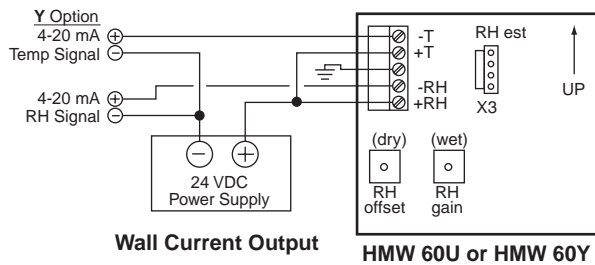


**HMD 60/70 Duct RH**



**WMK-20 Outside Air Bracket**

### WIRING



### ORDERING INFORMATION

MODEL	DESCRIPTION
HMW 60U	Wall mount, 4-20 mA output
HMW 70U	Wall mount, 0-1 VDC, 0-5 VDC, 0-10 VDC outputs
HMW 60Y	Wall mount, humidity with 4-20 mA output, temperature with 4-20 mA output
HMW 70Y	Wall mount, humidity, and temperature, 0-1 VDC, 0-5 VDC, 0-10 VDC outputs
HMD 60U	Duct RH transmitter, 4-20 mA output
HMD 70U	Duct RH transmitter 0-1V, 0-5V, 0-10V output
HMD 60Y	Duct RH and temperature transmitter, 4-20 mA output
HMD 70Y	Duct RH and temperature transmitter, 0-1V, 0-5V, 0-10V output

### RELATED PRODUCTS

HMK 41K	1% electronic calibrator with calibration cable
HUMICAP180	Replaceable humidity sensor (replaces 0062HM)
WMK-20	OSA/Wall-mount bracket

## Vaisala HMD60U/Y humidity transmitter

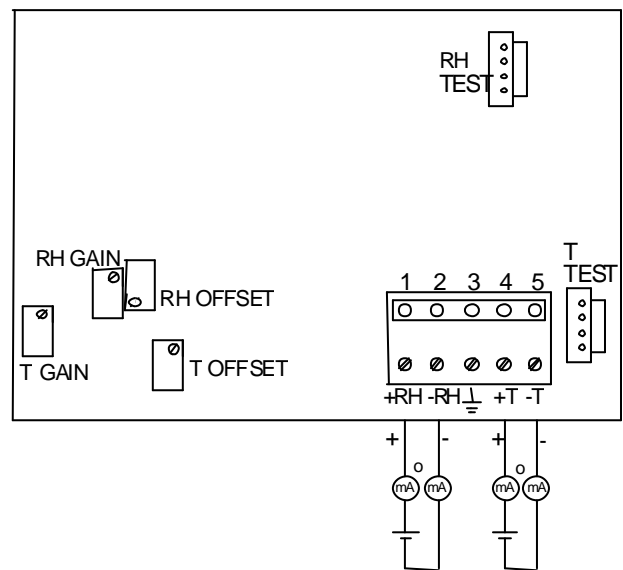
<b>Output quantities:</b>	Relative humidity (%), temperature ( °C/°F ) in model HMD60Y
<b>Supply voltage:</b>	10...35 VDC ( $R_L = 0 \Omega$ ), 20...35 VDC ( $R_L = 500 \Omega$ )
<b>Output signals:</b>	4...20 mA ( corresponding 0...100% RH, -20...+80°C )
<b>Screw terminals:</b>	0.5...1.5 mm <sup>2</sup>

### Wiring

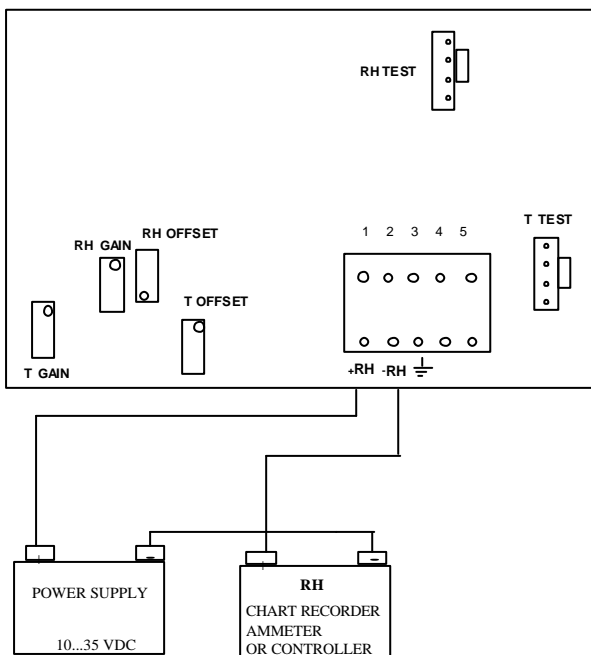
Signal cables are connected to a removable 5-pole screw connector. The figure on the right shows the electrical connections.

The same connections are shown below in an alternative way.

RH test and T test connectors are used with the HMI41 indicator equipped with an appropriate probe and optional calibration cable.



### HMD60U



### HMD60Y

