

# RM33 & RM52

## HVAC Relative Humidity and Temperature Transmitter

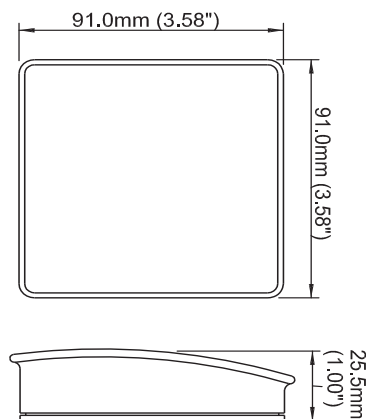
The RM series of relative humidity and temperature transmitters offers a comprehensive range of output signals and measurement ranges. The transmitters are housed in a wall mounting enclosure making these instruments ideal for HVAC and building management applications.



### Highlights

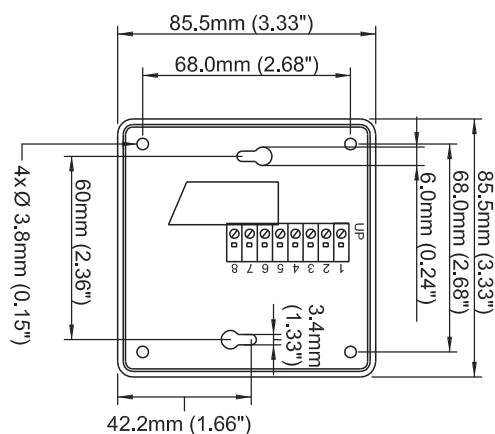
- Designed for low cost HVAC applications
- Quick installation: electrical rear connection with screw terminals
- Excellent long term stability

### Dimensions



### Technical Specifications

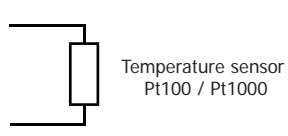
Performance	
Measurement range (RH)	0–100% RH
Measurement range (T)	0 to +50°C (+32 to +122°F)
Accuracy @ 23°C (73°F) Humidity	RM52: <math>\pm 2\%</math> RH (10–90% RH) RM33: <math>\pm 3\%</math> RH (30–80% RH)
Accuracy @ 23°C (73°F) Temperature	RM52: $\pm 0.2^\circ\text{C}$ ( $\pm 0.36^\circ\text{F}$ ) RM33: $\pm 0.3^\circ\text{C}$ ( $\pm 0.54^\circ\text{F}$ )
Temperature influence	$\pm 0.05\%$ RH/ $^\circ\text{C}$ ( $\pm 0.027\%$ RH/ $^\circ\text{F}$ )
Stability – RH Sensor	$\pm 1\%$ RH/year
Response time – RH Sensor	<math>< 10</math> sec typical (for 90% of the step change)
Electrical Specifications	
Output signal	0 to 1, 0 to 5, 0 to 10 V 4–20 mA (2-wire)
Supply voltage	14 to 35 V DC (for 0 to 5 / 0 to 10 V output) 4.5 to 35 V DC (for 0 to 1 V / 4-20 mA {RH only} output) 14 to 26 V AC (for all output ranges)
Supply voltage influence	$\pm 0.01\%$ RH/V typical
Operating Specifications	
Operating humidity Housing, storage	10-90% RH
Operating temperature Electronics Storage	0 to +50°C (+32 to +122°F) -40 to +75°C (-40 to +167°F)
PRT	
Measurement range	Pt100/1000: -50 to +200°C (-58 to +392°F)
Accuracy	Pt100/1000: $\pm 0.15\%$
Mechanical Specifications	
Ingress protection	N/A
Housing material	White molded polymer
Dimensions	91 x 91 x 25.5mm (3.58 x 3.58 x 1.00")
Filter	N/A
Weight	85g (3oz)
Electrical connections	Screw terminals



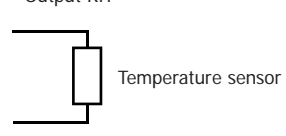
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## Electrical Connections

Voltage output	
Pin 1	Pin 1
Pin 2	Pin 2
Pin 3	Pin 3
Pin 4	Output temperature +
Pin 5	Output RH +
Pin 6	Common ground
Pin 7	Power supply V+
Pin 8	Pin 8
	Humidity with temperature sensor



mA output	
Pin 1	Output RH +
Pin 2	Output RH -
Pin 3	Pin 3
Pin 4	Output temperature +
Pin 5	Output RH +
Pin 6	Pin 5
Pin 7	Pin 6
Pin 8	Pin 7
	Humidity with temperature sensor



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Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice. Please contact us for latest version.

Issue No: RM33&52\_97182\_V4\_UK\_0616