

# DM509 & 535

## Hand-held Relative Humidity and Temperature Instruments



The DM Series is a range of portable, battery-operated thermohygrometers. Available with a number of different probe configurations and with display of relative humidity, dew point, absolute humidity and temperature, the DM Series is suitable for a wide range of applications.

### Highlights

- Displays % RH, dew point, absolute humidity, or temperature
- Available with many probe styles and display configurations
- Lightweight and portable
- Simple to operate
- Long term stability:  $\pm 1\%$  RH over 12 months

### Technical Specifications

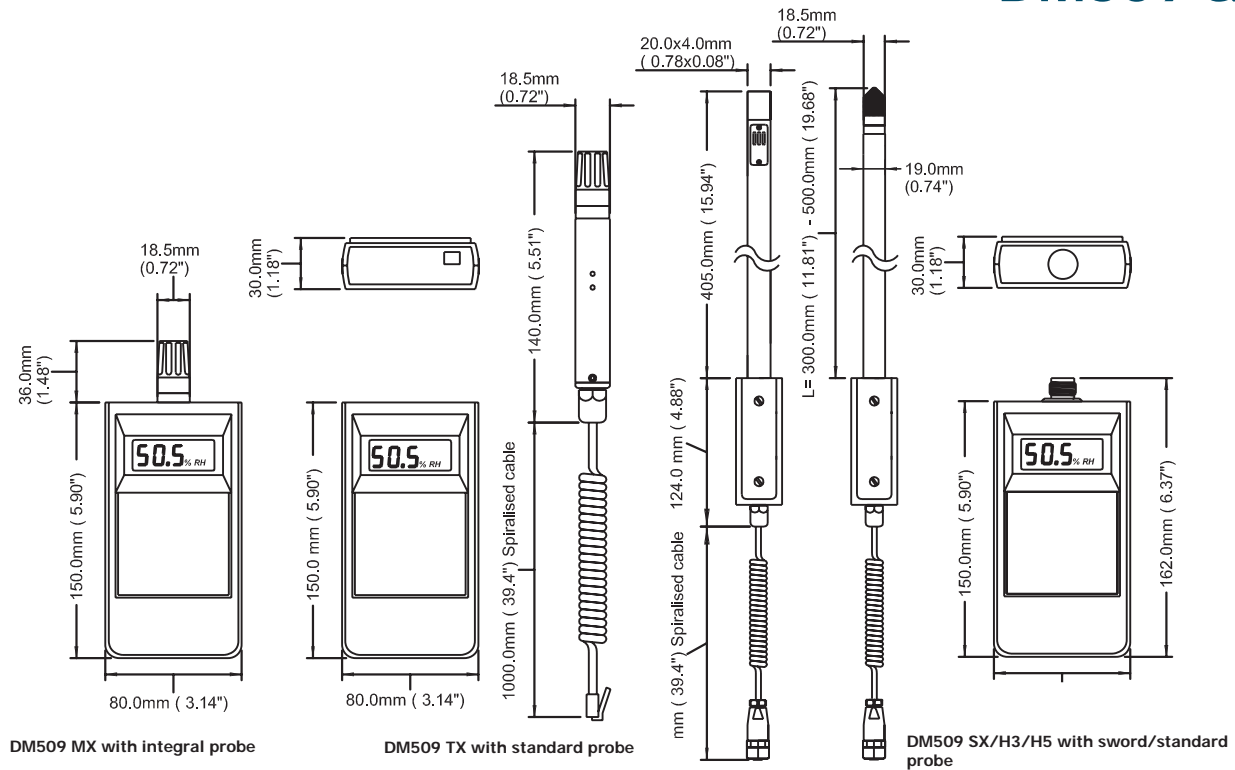
Performance	
<b>Measurement range (RH)</b>	0–100% RH
<b>Measurement and operating range (T)</b>	
Fixed and standard probe	-4 to +140°F / -20 to +60°C
Sword probe	-4 to +212°F / -20 to +100°C
Remote probe	-4 to +302°F / -20 to +150°C
<b>Accuracy at 25°C / 77°F</b>	
<b>Humidity</b>	
Fixed probe	$\pm 2\%$ RH (10–90% RH)
Remote probe	$\pm 2\%$ RH (5–95% RH)
<b>Accuracy at 25°C / 77°F</b>	
<b>Temperature</b>	$\pm 0.36^\circ\text{F}$ / $\pm 0.2^\circ\text{C}$ (Pt100 1/3 DIN direct)
<b>Temperature influence</b>	$\pm 0.03\%$ RH/°F / $\pm 0.05\%$ RH/°C
<b>Stability – RH Sensor</b>	$\pm 1\%$ RH/year
<b>Response time – RH Sensor</b>	<10 sec typical (for 90% of the step change)
Electrical output/input	
<b>Supply voltage</b>	9 VDC alkaline batteries (200 hours battery life approx)
Operating conditions	
<b>Operating humidity</b>	
Probe, Housing, Storage	5–95% RH (non-condensing)
<b>Operating temperature</b>	
Hand meter	-4 to +140°F / -20 to +60°C
Mechanical specification	
<b>Ingress protection</b>	IP32
<b>Housing material: Meter</b>	Molded polymer housing
<b>Weight</b>	
	DM509 w/remote probe: 9.2oz / 260g
	DM509 w/fixed probe: 5oz / 140g
	DM509 w/sword probe: 25oz / 700g
	DM509 w/20" HT probe: 29oz / 800g
<b>Electrical connections</b>	
	RH: 3-wire
	T: 2-wire
<b>Display resolution</b>	3½ digit LCD, 0.39" / 10mm characters % RH, °C, °F, g/m <sup>3</sup> , °Cdp/°Fdp

### Accessories and spare parts

You can check your hygrometer with the control kit HKC which is based on the principle of non-saturated salt solutions. Refer to technical data sheet CONTROL KIT	<b>Control Kit HKC</b>
Leather carrying case	<b>A000160</b>
PVDF Filter	<b>A000014</b>
Protection cap with wire-mesh filter	<b>A000021</b>
Stainless steel sintered filter, arrow shape	<b>A000026</b>

Dimensions

DM509 & 535



Order codes

Relative humidity and temperature handheld device 0–100% RH,

DM509 MX 01

Sensor type configuration	
Fixed integral probe	MX
Standard remote probe	TX
Sword type probe	SX
Remote high temperature probe, 12" / 300.0mm	H3
Remote high temperature probe, 20" / 500.0mm	H5

Temperature configuration	
Temperature display in °C	01
Temperature display in °F	02

Relative humidity and temperature hand-held device 0–100% RH, <2% accuracy with RH, dew point, absolute humidity and temperature readings.

DM535 02

Temperature configuration	
Temperature display in °C	01
Temperature display in °F	02

Example: DM509 MX 01

Relative humidity and temperature hand-held instrument DM509, with fixed sensor and temperature display in °C

Example: DM535 02

RH, absolute humidity, dew point and temperature handheld meter DM535, with temperatures displayed in °F

Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice. Please contact us for latest version. Ref: DM509 & 535\_1001US\_P



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