

DM509 & 535

Hand-held Relative Humidity and Temperature Transmitters



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 in different configurations
- Lightweight and portable
- Simple to operate
- Long term stability: $\pm 1\%$ RH over 12 months

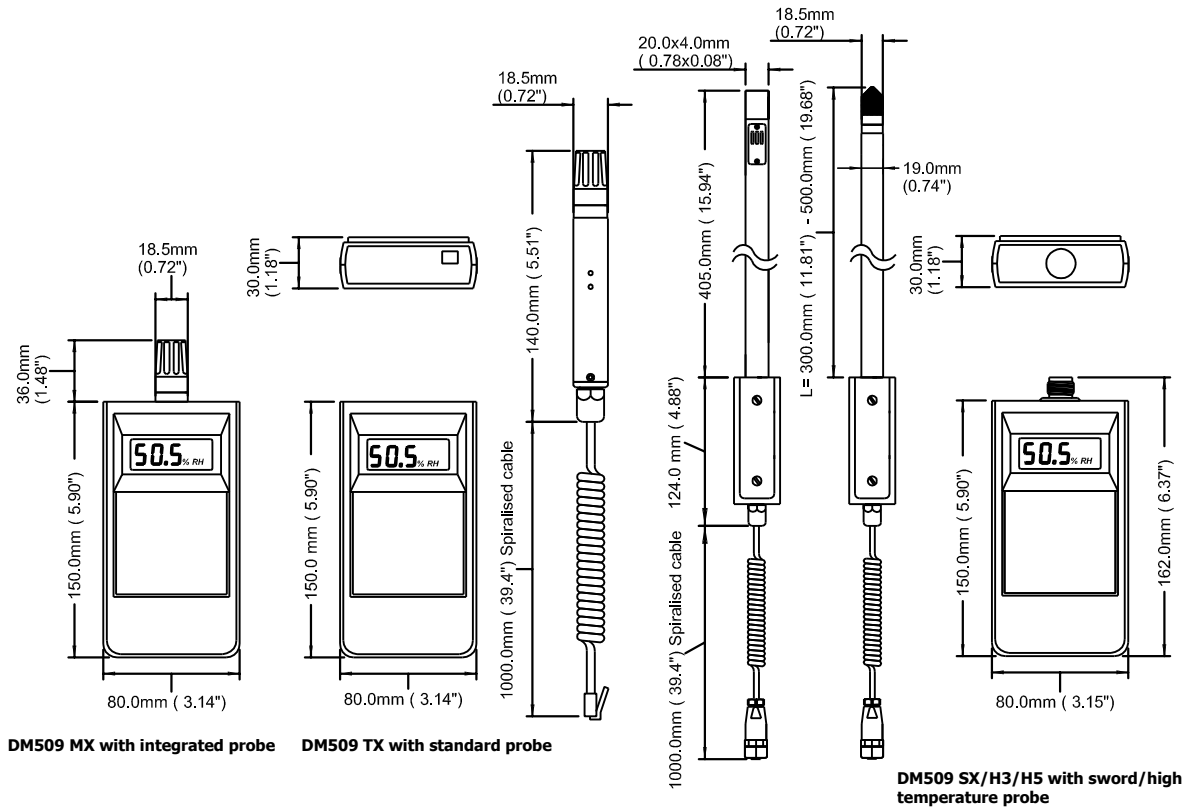
Technical Specifications

Performance	
Measurement range (RH)	0–100% RH
Measurement and operating range (T)	
Fixed and standard probe	-20 to +60°C / -4 to +140°F
Sword probe	-20 to +100°C / -4 to +212°F
Remote probe	-20 to + 150°C / -4 to +302°F
Accuracy at 25°C / 77°F	
Humidity	
Fixed probe	$\pm 2\%$ RH (10–90% RH)
Remote probe	$\pm 2\%$ RH (5–95% RH)
Accuracy at 25°C / 77°F	$\pm 0.2^\circ\text{C}$ / $\pm 0.36^\circ\text{F}$ (Pt100 1/3 DIN direct / Models MX & TX have Pt1000)
Stability – RH Sensor	$\pm 1\%$ RH/year
Response time – RH Sensor	<10 sec typical (for 90% of the step change)
Electrical output/input	
Supply voltage	9 VDC alkaline batteries (200 hours battery life approx)
Operating conditions	
Operating humidity	
Probe, Housing, Storage	5–95% RH (non-condensing)
Operating temperature	
Hand meter	-20 to +60°C / -4 to +140°F
Mechanical specification	
Ingress protection	IP32
Housing material: Meter	Moulded polymer housing
Weight	DM509 + probe: 260g / 9.17oz DM509 + fixed measurement head: 140g / 4.94oz DM509 + sword: 700g / 24.7oz DM509 + tube 500mm : 800g / 19.6" : 28.2oz
Electrical connections	RH: 3-wire T: 2-wire
Display resolution	3½ digit LCD, 10mm / 0.39" characters % RH, °C, °F, g/m ³ , °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	Control Kit HKC
Leather carrying case	A000160
PVDF Filter	A000014
Protection cap with wire-mesh filter	A000021
Stainless steel sintered filter, arrow shape	A000026

Dimensions



Order codes

Relative humidity and temperature handheld device 0–100% RH, 2% accuracy

DM509 MX 01

Sensor type configuration	
Fixed probe	MX
Standard probe	TX
Sword type probe	SX
Remote high temperature probe, 300.0mm / 1.8"	H3
Remote high temperature probe, 500.0mm / 19.6"	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

Relative humidity and temperature hand-held instrument DM535, with temperature display 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_97201_V1_UK_1009