

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

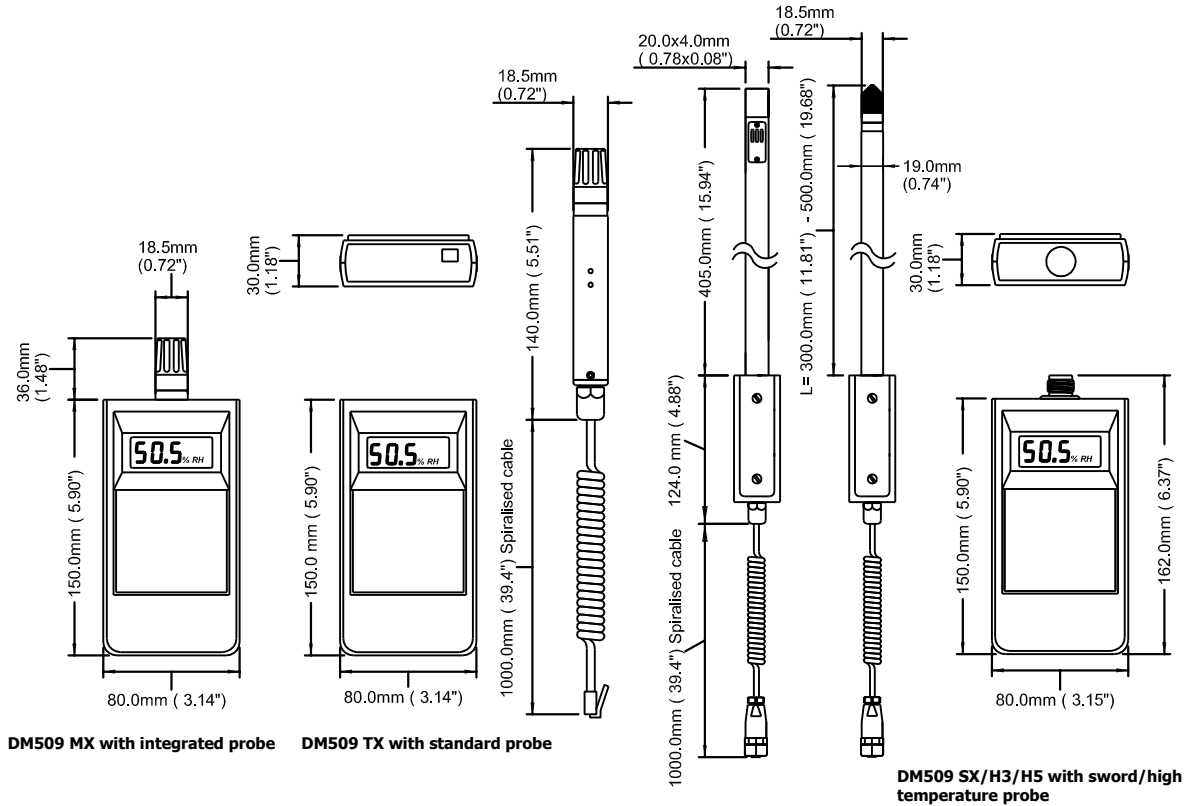
Technical Specifications

| 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