

## Digital Hand-held meter for % Relative Humidity and Temperature

### Series DM-509



The DM-509 series are portable, battery operated, thermo-hygrometers and designed for easy use. The unit features a large high contrast 10 mm (0.4") LCD-display with low battery indication. It will provide up to 200 hours of continuous operation on a 9V alkaline battery. Automatic power-off function saves battery life. Optional are several dust filters

and a leather carrying case to protect the meter. There are several types:

- 1] Low-cost version with fixed sensor head and equipped with our M-type humidity sensor element for 10-95 %RH.
- 2] High accuracy version with separate probe on spiralled cable equipped with our interchangeable T-sensor element. The T-sensor element has a very good linearity. The sensor

can be replaced, keeping the accuracy within  $\pm 2$  %RH without new calibration.

- 3] Version for industrial applications are equipped with T-sensor element. There are several probes like a stainless steel sword probe for measurement between layers of paper and a high temperature stainless steel probe for up to 150 °C.

### Ordering Information

Model	Description
DM-509-M-01	Hand-held meter with fixed probe, temp. in °C
DM-509-M-02	Hand-held meter with fixed probe, temp. in °F
DM-509-T-03	Hand-held meter with separate probe, temp. in °C
DM-509-T-04	Hand-held meter with separate probe, temp. in °F
DM-509-X-11	Hand-held meter including sword probe, -20..+100 °C
DM-509-X-12	Hand-held meter including $\varnothing$ 19 x 300 mm, -20..+150 °C
DM-509-X-13	Hand-held meter including $\varnothing$ 19 x 500 mm, -20..+150 °C
Part number	Accessories
A-000160	Leather case
A-000014	PVDF filter
A-000021	Protection cap with wire-mesh filter
A-000026	Sintered SS dust filter arrow shape

Easy to operate

Large high contrast LCD

Long battery life

Auto power off

Low cost type

High accuracy type

Industrial high temp. probes

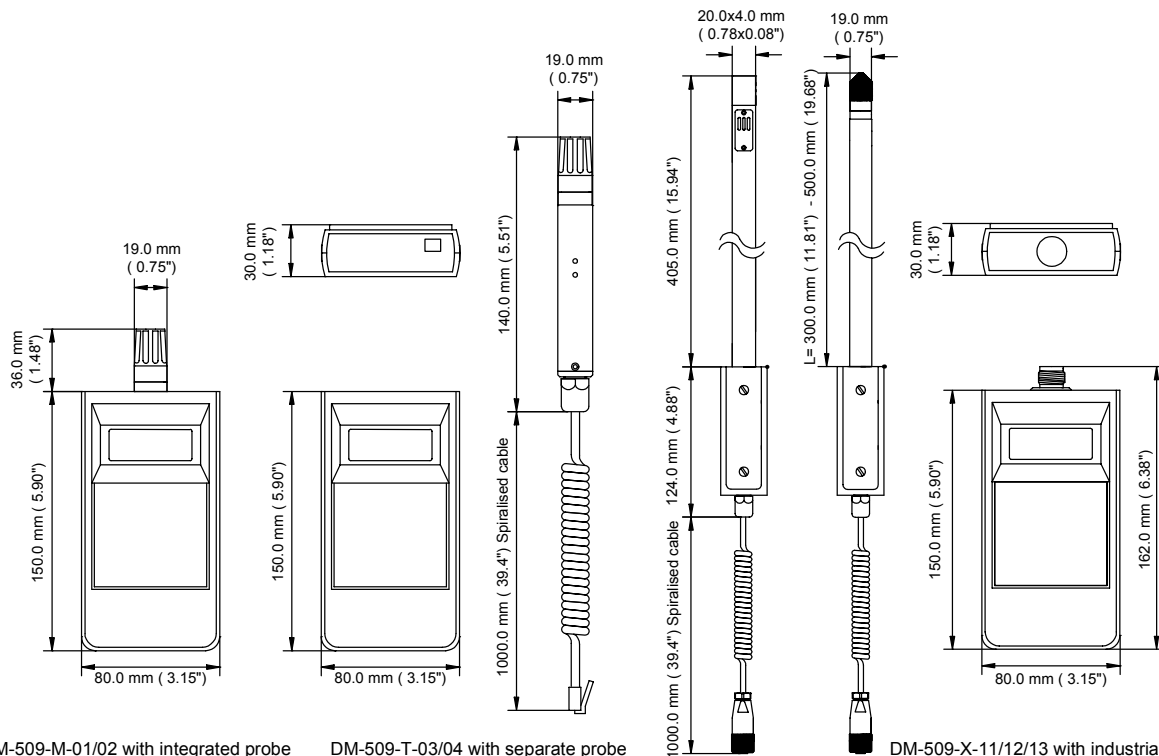


Rense Instruments BV  
Burg. v. Campenhoutstraat 61  
NL-4921 KR MADE  
THE NETHERLANDS  
Phone +31 162 470580  
Fax +31 162 437566

E-mail [sales@rense.nl](mailto:sales@rense.nl)  
Internet [www.rense.nl](http://www.rense.nl)

# Specifications DM-509

Measuring range %RH	0..100 %RH
Resolution %RH	0.1 %RH
Resolution temperature	0.1 °C
Operating temperature - standard probe	-20..+60 °C (-4..+140 °F)
- tip sword probe	-20..+100 °C SS-316
- tip high temp. probe	-20..+150 °C SS-316
Accuracy humidity @25 °C	± 2 %RH typ. 10..95 %RH for M-sensor 5..95 %RH for T-sensor
Accuracy temperature	± 0.2 °C + 1 digit (-20..+60 °C)
Temperature influence	0.05 %RH/ °C typ.
Response time	30 sec for 90 % deviation (flow 1 m/s)
Power supply	9 V Alkaline battery (6F22 IEC)
Auto-Power off	approx. 12 minutes
Low battery	BAT indication on display
Battery life	approx. 200 hours (alkaline battery)
Weight	0.2 Kg (0.45 lb)
Display	3 ½ digit LCD 10 mm (0.4") LCD
Dimensions	80 x 150 x 30 mm (indicator only) (3.14 x 5.9 x 1.18")
Protection grade	electronics IP32, sensor IP20



DM-509-M-01/02 with integrated probe

DM-509-T-03/04 with separate probe

DM-509-X-11/12/13 with industrial probe

## Warranty

All products manufactured by RENSE Instruments are warranted to be defect free in material and workmanship for a period of one year after delivery.



RENSE INSTRUMENTS B.V.  
B. v. Campenhoutstraat 61  
NL-4921 KR MADE  
THE NETHERLANDS

Phone +31-162-470580  
Fax +31-162-437566  
E-mail sales@rense.nl  
Internet www.rense.nl