

Product Datasheet - Technical Specifications



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ENVIRONMENTAL METER

FLIR EM54™



The FLIR EM54 is designed for HVAC/R professionals who need a cost-effective, accurate, and reliable environmental meter. It is ideal for inspecting and troubleshooting ducting systems within residential, commercial, and industrial facilities. The EM54 can help you verify that duct inlets and outlets have the specified volumetric flow – a prerequisite to an efficient functional system. Featuring humidity, wet bulb, and dew point functions, the EM54 can measure deviations from proper relative humidity levels. Plus, the included contact temperature probe is useful to check electric motors and thermal equipment components for proper operating temperatures. All it takes is one tool to get all the environmental and equipment temperature measurements you need.



ACCURATE AND RELIABLE

Rely on this affordable meter to provide accurate, high-quality data consistently, and complete your work without interruption

- Get accurate duct inlet and outlet air speed measurements with the external wide range, high-resolution anemometer
- Preserve and manage battery life with the programmable Auto Power Off (APO) timer and low battery indication
- Enjoy years of trouble-free operation from this rugged and reliable meter with a 3-year limited warranty

INSPECT AND TROUBLESHOOT EFFICIENTLY

Execute your work on a wide range of systems more efficiently

- Use the contact temperature probe to check electric motors and thermal equipment components for proper operating temperatures
- Get wet bulb and dew point calculations in addition to air temperature and relative humidity measurements
- Calculate the duct airflow (CFM/CMM) in your application using the air velocity measurement and duct geometry
- Use the MIN-MAX-AVG recording function for more meaningful results when the measured parameter fluctuates

EASY TO USE

Intuitively operate this simple, ergonomic meter

- Easily operate the well-marked function keys
- View readings clearly on the backlit multi-function display
- Freeze readings with the 'hold' function
- Easily adapt the measurement units to your application requirements

SPECIFICATIONS

Environmental Measurements	Range	Accuracy
Air Velocity, Vane Anemometer Probe	0.4 to 30 m/s 79 to 5906 ft/min 1.4 to 108.0 km/h 0.9 to 67.2 mph 0.8 to 58.3 knots	±3% +0.2 m/s ±3% +40 ft/min ±3% +0.8 km/h ±3% +0.4 mph ±3% +0.4 knots
Air Flow	0 to 999900 CMM (0 to 999900 CFM)	
Air Temperature	10 to 30°C (50 to 86°F) -30 to 9.9°C (-22 to 50°F) and 31 to 60°C (88 to 140°F)	±1°C (1.8°F) ±2°C (3.6°F)
Air Relative Humidity	5% to 98%	±3.5%
Dew Point (Calculated)	-30 to 60°C (-22 to 140°F)	±3°C (4.8°F)
Wet Bulb (Calculated)	-30 to 50°C (-22 to 122°F)	±3°C (4.8°F)
Contact Temperature, Type K Thermocouple	-99.9 to 99.9°C (-148 to 212°F)	±1.5% +1°C (1.8°F)
	100 to 1372°C (212 to 2502°F)	±1.5% +2°C (3.6°F)
General Information		
Display	Backlit, multifunction LCD	
Warranty	Limited 3 years	
Battery Type	1x 9 V included	
Battery Life	120 hours typical	
Battery Status Indicator	Low battery indication	
Auto Power Off (APO)	Configurable from 5 to 60 min in 8 increments	
Operating Temperature	0 to 50°C (32 to 122°F)	
Storage Temperature	-10 to 60°C (14 to 140°F)	
Certifications	CE, RCM	
Drop Test	1 m (3.3 ft), not including removeable probes	
Accessory Mount	Standard ¼-in - 20 mount for accessory	
Housing Material	Impact-resistant plastic	
Weight	283.9 g (10 oz) with battery installed, no external probes	
Box Contents	EM54 Environmental Meter, vane anemometer probe, Type-K thermocouple, soft carrying case, 9 V battery, tripod	

Dimensions	
Main Unit	275 x 65 x 45 mm (10.8 x 2.6 x 1.8 in)
Anemometer Body Length	150 mm (5.9 in)
Anemometer Cable Length	950 mm (37.4 in)
Anemometer Vane Diameter	70 mm (2.8 in)



Specifications are subject to change without notice.

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