

Dewpoint Transmitters Chilled Mirror Technology

RHCM Series
Starts at
\$1286²⁵



Optional†

- ✓ No Routine Calibration Needed
- ✓ Minimum Drift
- ✓ ±1°F Dewpoint Accuracy
- ✓ 24 Vdc, 24 Vac, 115 Vac, and 230 Vac Power Available
- ✓ RTD Simulator or 4 to 20 mA Output

Applications

- ✓ HVAC/Energy Management
- ✓ Clean Rooms
- ✓ Dry Rooms
- ✓ Computer Rooms
- ✓ Environmental Laboratories
- ✓ Semiconductor Manufacturing

The RHCM Series is a family of low-cost, high-performance chilled mirror dewpoint transmitters. The sensor provides accurate long-term repeatability and high reliability for process control and energy management. The RHCM-10 sensor electronics are housed in a rugged enclosure that can be wall mounted for climate control. The RHCM-20 and RHCM-30 sensors are designed to be either pipe or duct mounted for process control in HVAC/energy management applications. Field calibration is not required and ambient temperature effects, hysteresis, and calibration drift with age are all virtually eliminated.

The RHCM Series offers a wide range of user-specified power inputs including 24 Vdc, 24 Vac, 115 Vac, and 230 Vac, encompassing many applications. The user-specified outputs include 100 Ω Platinum



All models shown smaller than actual size.

RHCM-20 duct mount, \$1286.25

RHCM-30 pipe mount, \$1307.50

RHCM-10 wall mount, \$1417.50

RTD (4-wire) or 4 to 20 mA, which can be scaled over 3 different temperature ranges of 0 to 100°F, 0 to 50°C, and -40 to 140°F. Either output can be directly connected to a panel meter, controller, or data acquisition system.

Specifications

Accuracy: ±1.0°F, max

Repeatability: ±1.0°F, max

Hysteresis: None

Response Time:

2-min, duct/pipe; 4-min, wall

Power: 24 ±6 Vdc @ 350 mA;
24 Vac @ ±10%; 115 Vac @ ±10%;
230 Vac @ ±10%

Power Consumption: 10 W max

RTD Output: 100 Ω Pt, 4-wire

Operating Range, Sensor:
-18 to 71°C (0 to 160°F)

Current Output: 4 to 20 mA, scaled to range of 0 to 100°F, 0 to 50°C or -40 to 140°F; all ranges also provide 1 to 5 Vdc using 250 Ω shunt

Operating Range, Housing:
0 to 50°C (32 to 120°F)

Flow Rate: 300 to 3000' per minute (duct/pipe mount)

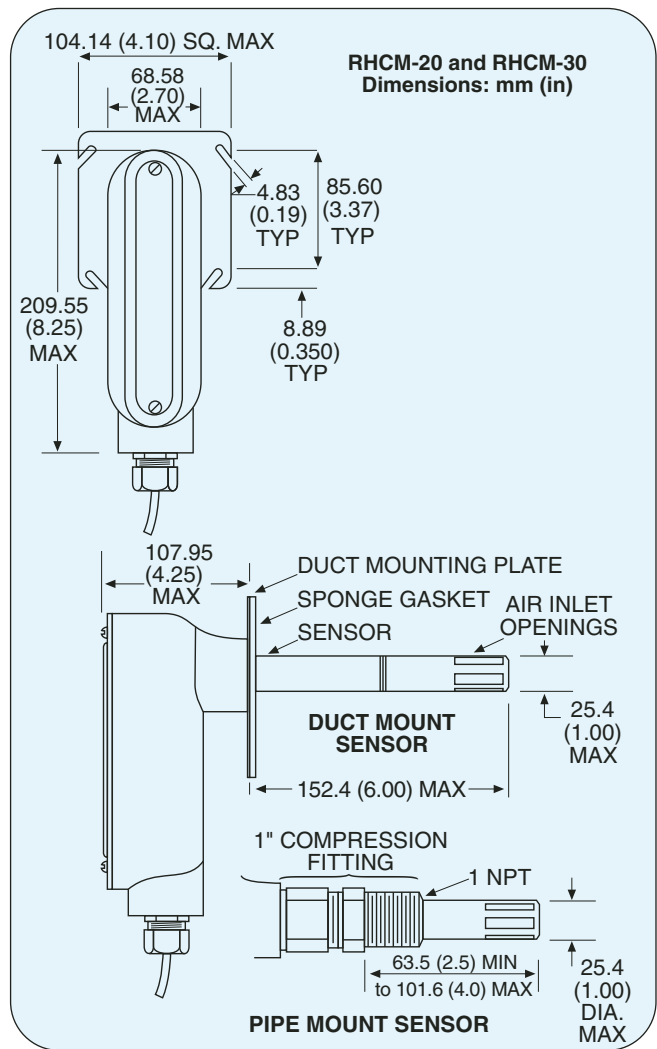
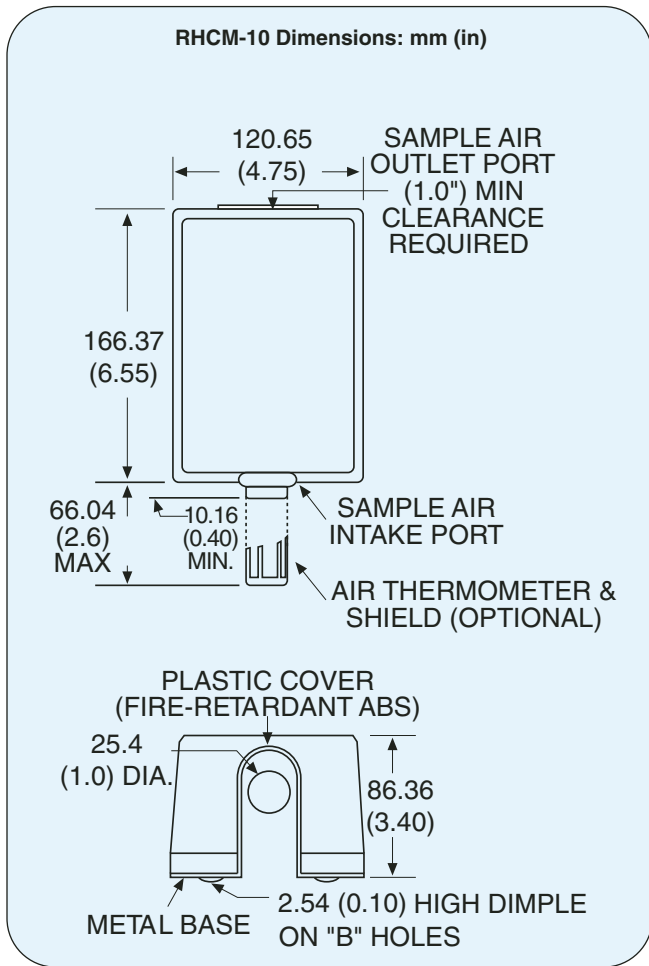
Max Pressure: 0 to 5 psig

Humidity: 10 to 90% RH @ 27°C (80°F)

Ship Weight: 4.55 kg (10 lb)

Dry Weight: 2.73 kg (6 lb)

† Refer to footnote on page Hu-46 for NIST calibration ordering information.



Output Options

Order Code	Add'l Price	Output (Scale)
PT100	N/C	100 Ω RTD
100F	\$157.50	4 to 20 mA (0 to 100°F)
50C	157.50	4 to 20 mA (0 to 50°C)
140F	157.50	4 to 20 mA (-40 to 140°F)

Power Supply Options

Order Code	Add'l Price	Description
1	N/C	24 Vdc
2	\$173.25	24 Vac
3	173.25	115 Vac
4	173.25	230 Vac

MOST POPULAR MODEL HIGHLIGHTED!

To Order (Specify Model Number)

Model No.	Price	Description
RHCM-10-(*)-(**)	\$1417.50	Wall mount dewpoint transmitter
RHCM-10T-(*)-(**)-(***)	1627.50	Wall mount dewpoint/temperature transmitter
RHCM-20-(*)-(**)	1286.25	Duct mount dewpoint transmitter
RHCM-30-(*)-(**)	1307.25	Pipe mount dewpoint transmitter
TX4-100	35.00	4 conductor shielded transmitter cable, 30 m (100')
CAL-3-HU†	125.00	NIST-traceable calibration
PSR-24S	60.00	Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, screw terminals, UL
PSR-24L	60.00	Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, stripped leads, UL
PSR-24L-230	60.00	Regulated power supply, European plug, 230 Vac input, 24 Vdc output, 400 mA, stripped leads, CE
PSU-93	40.00	Unregulated power supply, 16 to 23 Vdc, 300 mA max, screw terminal

Comes complete with operator's manual.

* Insert power code from power supply options chart (1, 2, 3 or 4).

** Insert output code for dewpoint range from the output options chart (PT100, 100F, 50C or 140F).

*** Insert second output code for ambient temperature output from the output options chart (PT100, 100F, 50C or 140F).

Ordering Examples: RHCM-10T-1-50C-50C, dewpoint/temperature transmitter with 24 Vdc power, a dew point output of 4 to 20 mA (0 to 50°C) and an ambient temperature output of 4 to 20 mA = 0 to 50°C with CAL-3-HU, NIST-traceable calibration, \$1627.50 + 157.50 + 1570.50 + 125 = \$2067.50.

RHCM-10-1-PT100, dewpoint/temperature transmitter with 24 Vdc power, a dew point output of 100 Ω RTD, \$1417.50.



UNITED STATES

www.omega.com
1-800-TC-OMEGA
Stamford, CT.

CANADA

www.omega.ca
Laval(Quebec)
1-800-TC-OMEGA

GERMANY

www.omega.de
Deckenpfronn, Germany
0800-8266342

UNITED KINGDOM

www.omega.co.uk
Manchester, England
0800-488-488

FRANCE

www.omega.fr
Guyancourt, France
088-466-342

CZECH REPUBLIC

www.omegaeng.cz
Karviná, Czech Republic
596-311-899

BENELUX

www.omega.nl
Amstelveen, NL
0800-099-33-44



More than 100,000 Products Available!

• Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Glass Bulb Thermometers, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders Relative Humidity Measurement Instruments, RTD Probes, Elements and Assemblies, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples Thermowells and Head and Well Assemblies, Transmitters, Wire

• Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

• pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

• Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

• Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

• Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters