



SERIES RHP | HUMIDITY/TEMPERATURE TRANSMITTERS



Duct mount



OSA (outside air)
with radiation shield



OSA (outside air)
with sintered filter



OSA
(outside air)

FEATURES/BENEFITS

- 2%, 3%, or 5% accuracy models to meet project requirements
- Integral temperature sensors reduces number of devices to install
- Radiation shield option protects sensor from radiant heating effects allowing for accurate readings even when mounted in direct sunlight

APPLICATIONS

- Air economizers
- Outdoor temperature and relative humidity reference for building systems

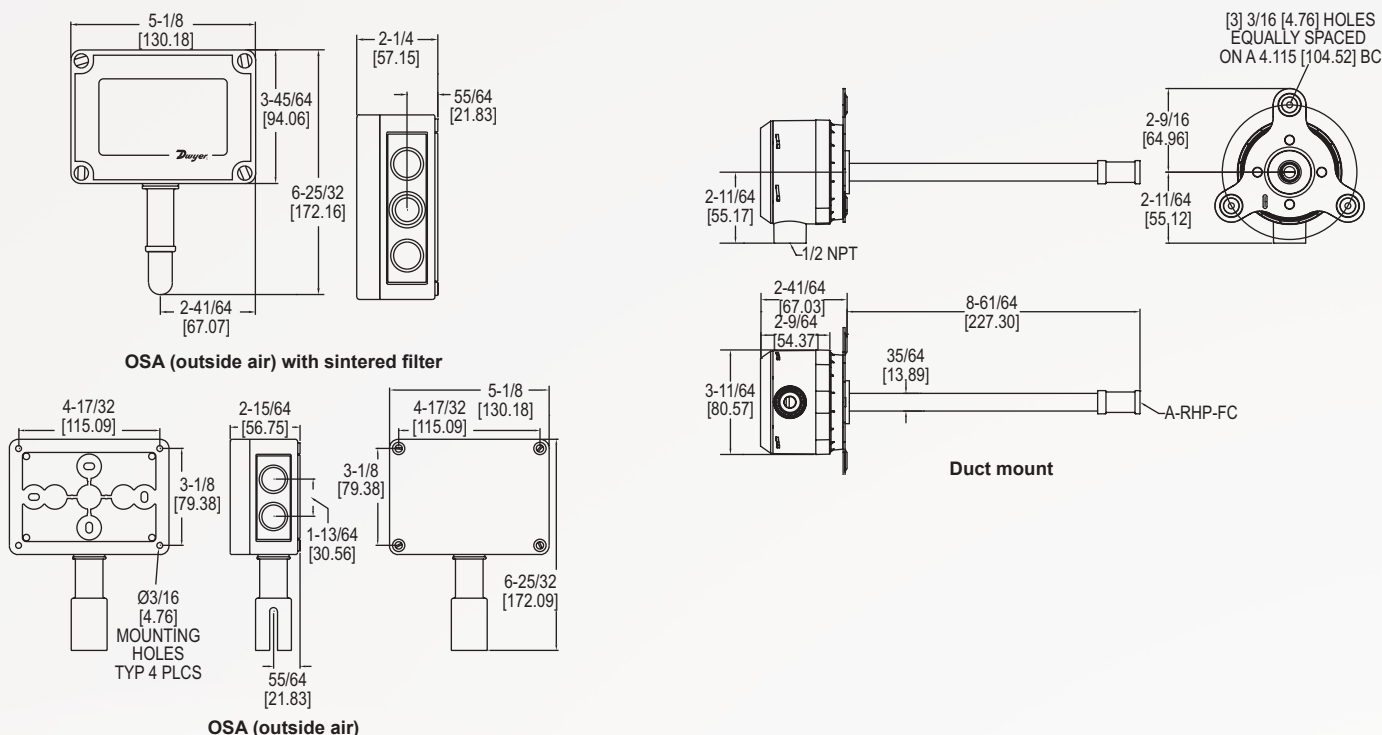
DESCRIPTION

The **Series RHP Humidity/Temperature Transmitters** combine the voltage or current humidity transmitter output with a passive temperature thermistor or RTD output. The polymer capacitance humidity sensor reduces longterm affect of condensation, fog, or high humidity. The humidity sensors are available with 2%, 3% or 5% accuracies. Duct mounted transmitters are available with an optional two-line alpha numeric LCD display.

SPECIFICATIONS

Relative Humidity Range	0 to 100% RH.
Temperature Range	-40 to 140°F (-40 to 60°C).
Accuracy, RH	RHP-2XXX ±2% 10-90% RH @ 25°C; RHP-3XXX ±3% 20-80% RH @ 25°C; RHP-5XXX ±5% 20-80% RH @ 25°C.
Accuracy, Thermistor Temp Sensor	±0.2°C @ 25°C (±0.36°F @ 77°F).
Accuracy, RTD Temp Sensor	DIN Class B; ±0.3°C @ 0°C (±0.54°F @ 32°F).
Accuracy, Solid State Band Gap	±0.9°F @ 77°F (±0.3°C @ 25°C).
Hysteresis	±1%.
Repeatability	±0.1% typical.
Temperature Limits	-40 to 140°F (-40 to 60°C).
Storage Temperature	-40 to 176°F (-40 to 80°C).
Compensated Temperature Range	-4 to 140°F (-20 to 60°C).
4-20 mA Loop Powered Models	Power requirements: 10-35 VDC; Output signal: 4-20 mA.
0-5/10 V Output Models	Power requirements: 15-35 VDC or 15-29 VAC; Output signal: 0-10 V @ 5 mA max.
Response Time	15 s.
Electrical Connections	Removable screw terminal block.
Conduit Connection	Duct mount: 1/2" NPS; OSA: PG11 or PG16 (1/2" conduit) knockouts.
Drift	< 1% RH/year.
RH Sensor	Capacitance polymer.
Temperature Sensor	Types 1, 2, 3: Solid state band gap; Curves A, B, C: Thermistor; Curves D, E: Platinum RTD DIN 385.
Enclosure	Duct mount: PBT; OSA: Polycarbonate.
Enclosure Rating	Duct mount: NEMA 4X (IP66) for housing only; OSA: NEMA 4X (IP66).
Display	Duct mount only, optional 2-line alpha numeric, 8 characters/line.
Display Resolution	RH: 0.1%; 0.1°F (0.1°C).
Weight	Duct mount: .616 lb (.3 kg); OSA: 1 lb (.45 kg).
Agency Approvals	CE.

DIMENSIONS



HOW TO ORDER

Use the **bold** characters from the chart below to construct a product code.

SERIES	ACCURACY	HOUSING TYPE	RH OUTPUT	OPTIONS	TEMPERATURE SENSOR
RHP : RH/passive temperature sensor transmitter	-2 : 2% accuracy -3 : 3% accuracy -5 : 5% accuracy	D : Duct mount with plastic hydrophobic filter O : OSA (outside air) S : OSA with sintered filter* R : Radiation shield	1 : 4-20 mA 2 : 0-10 V 3 : 0-5 VDC	-LCD : LCD display -NIST : NIST traceable calibration certificate	0 : None 1 : 4-20 mA 2 : 0-10 VDC 3 : 0-5 VDC A : 10K @ 25°C thermistor type III B : 10K @ 25°C thermistor type II C : 3K @ 25°C thermistor D : 100 Ω RTD DIN 385 E : 1K Ω RTD DIN 385 F : 20K Ω @ 25°C thermistor

*Use OSA with sintered filter models when purchasing Series RHRS separately.

ACCESSORIES

Model	Description
A-RHP-FC	Replacement plastic hydrophobic filter
A-RHP-RT	Retrofit tool for fitting O-ring on RHP-D/M models for new filter A-RHP-FC

ORDER ONLINE TODAY!

dwyer-inst.com/Product/SeriesRHP



DWYER INSTRUMENTS, INC.