

PF211

HVAC Relative Humidity Probe



PF211 relative humidity probes are equipped with the Hygrosmart relative humidity sensor/converter. This interchangeable module has miniaturized electronics and does not require recalibration.

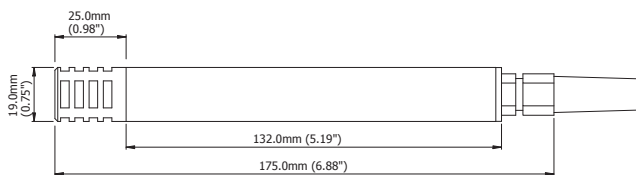
Highlights

- Designed for HVAC and Environmental Control applications
- Based on the interchangeable Hygrosmart module

Technical Specifications

Performance	
Measurement range (RH)	0–100% RH
Measurement range (T)	-30 to +70°C (-22 to +158°F)
Accuracy at 23°C (73°F) Humidity	<±2% RH (5–95% RH)
Accuracy at 23°C (73°F) Temperature	±0.2°C (±0.36°F)
Stability – RH Sensor	<±1% RH/year
Response time – RH Sensor	<10 sec typical (for 90% of the step change)
Electrical output/input	
Output signal (RH)	4–20 mA, 0–10 V
Output signal (T)	3-wire 1/3 DIN Pt100 direct
Supply voltage	10–32 V DC for 4–20 mA output 15–32 V DC for 0–10 V output 24 V AC ±10% (PF211B)
Load resistance	Output 4–20 mA: $R_{load} < ((U_v - 9)/0.02)$ Output 0–10 V: $R > 1K \Omega$
Current consumption	20 mA max
Operating conditions	
Operating temperature Probe, Housing, Storage	-30 to +70°C (-22 to +158°F)
Mechanical specification	
Ingress protection	IP54
Housing material	ABS
Dimensions	L=175mm, ϕ 19mm (L=6.89", ϕ 0.75")
Weight	184g (6.49oz)
Electrical connections	5 or 6-wire output cable, 3m (9.8')

Dimensions



Accessories and Spare Parts

Mounting clip	2510387
Molded polymer fitting	3401135
Fixing collar	3420085
SS sintered filter	H4
ABS cap slotted with PTFE filter, white	Z2
Hygrosmart with Pt100 output (RH = 0.2-1 V)	17-4-00-1
Hygrosmart with Pt100 output (RH = 0-1 V)	17-0-00-1

Electrical Connections

PF 211-A: 4-20 mA output 2-wire	
Cable	Connector
Red	Output RH +
Blue	Output RH -
White	 Pt100
Yellow	
Green	

PF 211-B: V output (0-10 V)	
Cable	Connector
Red	Power supply V +
Black	Common ground
Blue	Output RH +
White	 Pt100
Yellow	
Green	

Ordering Codes

To construct the order code, select the relevant feature from the tables below, starting with the base model, which is {Feature A} and then add on options to create a string: {Feature A}+{Feature B}+{Feature C}+{Feature D}

Order example: PF211+A+C+Z2

Relative humidity probe PF211, output signal 4-20 mA , 3m (9.8') cable, ABS cap slotted with PTFE filter, white

