

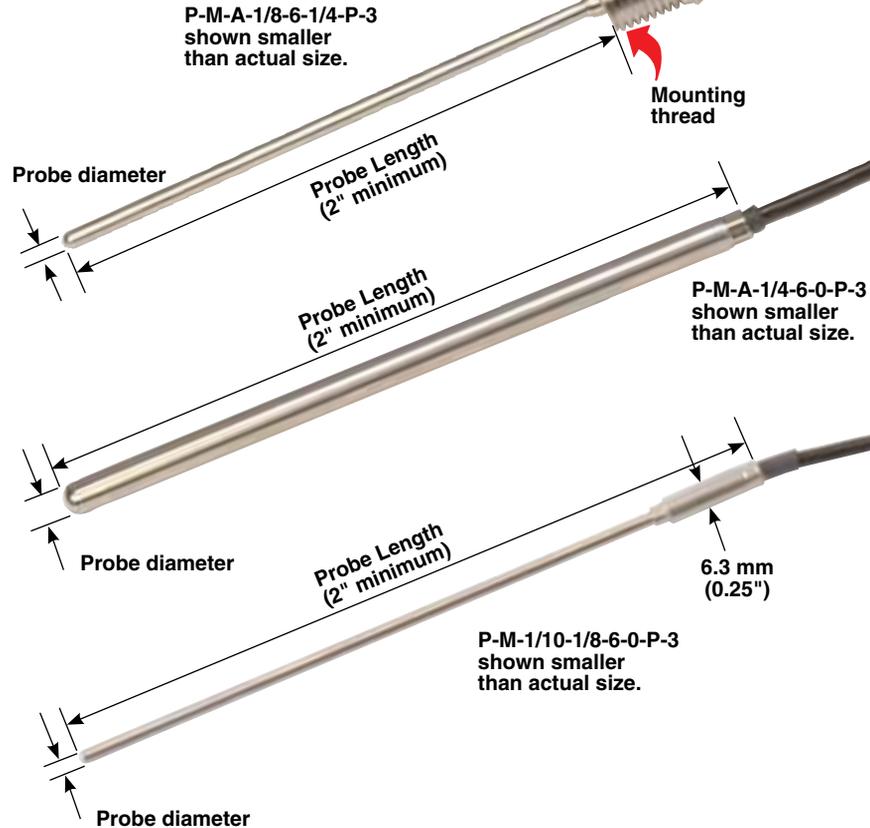
# Ultra Precise Immersion RTD Sensors



1 m of 4-wire, #26 AWG stranded cable with stripped ends standard (see table for insulation options).

## PM Series

- ✓ Pt100 (100Ω @ 0°C 0.00385Ω/Ω/°C) Platinum RTDs with 1/10 DIN, 1/3 DIN, or Class "A" Accuracies
- ✓ Temperature Range -100 to 400°C (-148 to 752°F) Depending on Cable and Accuracy Selected
- ✓ 4-Wire Construction in 6 and 3 mm (1/4 and 1/8") Diameters
- ✓ A Range of Mounting Threads and Cable Materials are Available



## Standard Dimensions

To Order					
Accuracy	Sensor Diameter	Mounting Thread	PVC Insulated Model Number 6" Probe Length	PFA Insulated Model Number 6" Probe Length	Fiberglass Insulated Model Number 6" Probe Length
1/10 DIN	1/8"	None	P-M-1/10-1/8-6-0-P-3	P-M-1/10-1/8-6-0-T-3	P-M-1/10-1/8-6-0-G-3
		1/8 NPT	P-M-1/10-1/8-6-1/8-P-3	P-M-1/10-1/8-6-1/8-T-3	P-M-1/10-1/8-6-1/8-G-3
	1/4"	None	P-M-1/10-1/4-6-0-P-3	P-M-1/10-1/4-6-0-T-3	P-M-1/10-1/4-6-0-G-3
		1/8 NPT	P-M-1/10-1/4-6-1/8-P-3	P-M-1/10-1/4-6-1/8-T-3	P-M-1/10-1/4-6-1/8-G-3
1/3 DIN	1/8"	None	P-M-1/3-1/8-6-0-P-3	P-M-1/3-1/8-6-0-T-3	P-M-1/3-1/8-6-0-G-3
		1/8 NPT	P-M-1/3-1/8-6-1/8-P-3	P-M-1/3-1/8-6-1/8-T-3	P-M-1/3-1/8-6-1/8-G-3
	1/4"	None	P-M-1/3-1/4-6-0-P-3	P-M-1/3-1/4-6-0-T-3	P-M-1/3-1/4-6-0-G-3
		1/8 NPT	P-M-1/3-1/4-6-1/8-P-3	P-M-1/3-1/4-6-1/8-T-3	P-M-1/3-1/4-6-1/8-G-3
Class A	1/8"	None	P-M-A-1/8-6-0-P-3	P-M-A-1/8-6-0-T-3	P-M-A-1/8-6-0-G-3
		1/8 NPT	P-M-A-1/8-6-1/8-P-3	P-M-A-1/8-6-1/8-T-3	P-M-A-1/8-6-1/8-G-3
	1/4"	None	P-M-A-1/4-6-0-P-3	P-M-A-1/4-6-0-T-3	P-M-A-1/4-6-0-G-3
		1/8 NPT	P-M-A-1/4-6-1/8-P-3	P-M-A-1/4-6-1/8-T-3	P-M-A-1/4-6-1/8-G-3

For longer sheath length, change "-6" in model to desired length in inches for additional cost when longer than 8". For Silicone Rubber insulated cable, change "-P", "-T" or "-G" to "-S" in the model number and use PFA pricing. For longer cable lengths, change "-3" to desired length in feet for additional cost for PVC, for PFA or Silicone Rubber and for fiberglass. For shielding on PVC, PFA or Fiberglass insulated cables, change "P", "T" or "G" to "PS", "TS" or "GS" for additional cost. Mounting threads also available in 1/4 NPT, 3/8 NPT and 1/2 NPT at the same price. 1/8" diameter sensors without threaded fittings and with "P", "PS", "TS", "GS" and "S" cables include a transition fitting at the end of the sheath.

**Ordering Examples:** P-M-1/10-1/8-6-1/4-P-3, immersion sensor with 1/8" diameter sheath 6" long with 1/4 NPT mounting thread, 1/10 DIN accuracy, 4-Wire PVC cable 3' long with stripped leads.

P-M-1/10-1/4-6-0-P-3, immersion sensor with 1/4" diameter sheath 6" long with no mounting thread, 1/10 DIN accuracy, 4-Wire PVC cable 3' long with stripped leads.

Interchangeability in °C			
Temp °C	Class A	1/3 DIN	1/10 DIN
-100	0.35		
-50	0.25	0.18	
0	0.15	0.10	0.03
100	0.35	0.27	0.08
200	0.55	0.43	
250	0.65	0.52	
300	0.75		
350	0.85		
400	0.95		
450	1.05		

Cable Options Temperature Range	
PVC Insulated	-29 to 100°C (-20 to 212°F)
PFA Insulation	-100 to 250°C (-148 to 482°F)
Fiberglass Insulation	-73 to 400°C (-99 to 753°F)
Silicone Insulated	-50 to 200°C (-58 to 392°F)



Photo by Craig Terry, courtesy of Chemical Engineering Program at Rowan University

Omega's Ultra-Precise RTD sensors are used in a wide variety of applications where accuracy and precise temperature measurement means the difference between failure and success. Why not join the growing list of customers utilizing the best the market has to offer.

**Metric Dimensions**

To Order					
Accuracy	Sensor Diameter	Mounting Thread	PVC Insulated Model Number 150 mm Probe Length	PFA Insulated Model Number 150 mm Probe Length	Fiberglass Insulated Model Number 150 mm Probe Length
1/10 DIN	3 mm	None	P-M-1/10-M30-150-0-P-1	P-M-1/10-M30-150-0-T-1	P-M-1/10-M30-150-0-G-1
		M6x1	P-M-1/10-M30-150-M6-P-1	P-M-1/10-M30-150-M6-T-1	P-M-1/10-M30-150-M6-G-1
	6 mm	None	P-M-1/10-M60-150-0-P-1	P-M-1/10-M60-150-0-T-1	P-M-1/10-M60-150-0-G-1
		M8x1	P-M-1/10-M60-150-M8-P-1	P-M-1/10-M60-150-M8-T-1	P-M-1/10-M60-150-M8-G-1
1/3 DIN	3 mm	None	P-M-1/3-M30-150-0-P-1	P-M-1/3-M30-150-0-T-1	P-M-1/3-M30-150-0-G-1
		M6x1	P-M-1/3-M30-150-M6-P-1	P-M-1/3-M30-150-M6-T-1	P-M-1/3-M30-150-M6-G-1
	6 mm	None	P-M-1/3-M60-150-0-P-1	P-M-1/3-M60-150-0-T-1	P-M-1/3-M60-150-0-G-1
		M8x1	P-M-1/3-M60-150-M8-P-1	P-M-1/3-M60-150-M8-T-1	P-M-1/3-M60-150-M8-G-1
Class A	3 mm	None	P-M-A-M30-150-0-P-1	P-M-A-M30-150-0-T-1	P-M-A-M30-150-0-G-1
		M6x1	P-M-A-M30-150-M6-P-1	P-M-A-M30-150-M6-T-1	P-M-A-M30-150-M6-G-1
	6 mm	None	P-M-A-M60-150-0-P-1	P-M-A-M60-150-0-T-1	P-M-A-M60-150-0-G-1
		M8x1	P-M-A-M60-150-M8-P-1	P-M-A-M60-150-M8-T-1	P-M-A-M60-150-M8-G-1

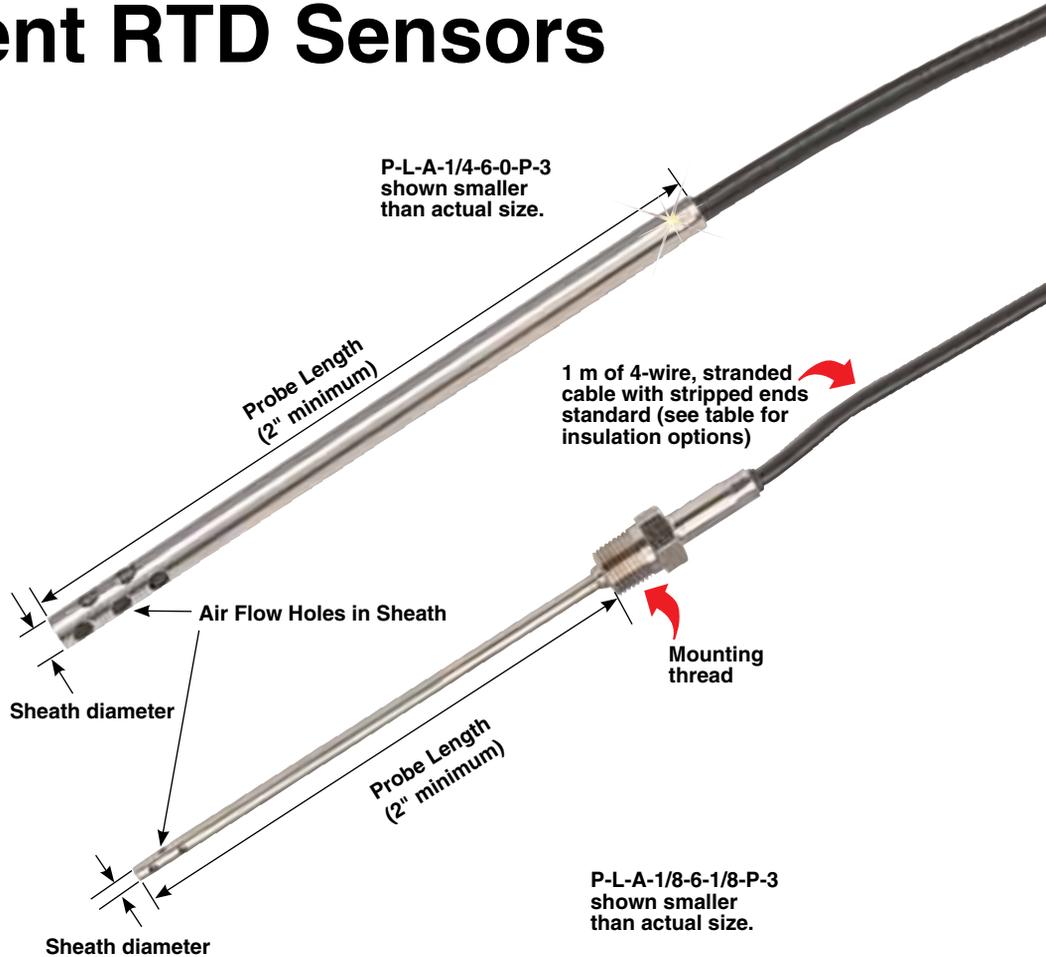
For longer sheath length, change "-150" in model number to desired length in millimeters for additional cost to the price when longer than 200 mm. For Silicone Rubber insulated cable, change "-P", "-T" or "-G" to "-S" in the model number and use PFA pricing. For longer cable lengths, change "-1" to desired length in meters for additional cost per meter for PVC, for PFA or Silicone Rubber and for fiberglass. For shielding on PVC, PFA or Fiberglass insulated cables, change "P", "T" or "G" to "PS", "TS" or "GS" for additional cost per meter to the price. Mounting threads also available in M8x1 and M10x1 at the same price (Note: M6 threads not available on 6 mm Dia probes). 3 mm diameter sensors without threaded fittings and with "P", "PS", "TS", "GS" and "S" cables include a transition fitting at the end of the sheath.

**Ordering Examples:** P-M-1/10-M30-100-M6-P-1, immersion sensor with 3 mm diameter sheath 120 mm long with M6x1 mounting thread, 1/10 DIN accuracy, 4-Wire PVC cable 1 meter long with stripped leads.

P-M-1/10-M60-125-0-P-1, immersion sensor with 6 mm diameter sheath 125 mm long with no mounting thread, 1/10 DIN accuracy, 4-Wire PVC cable 1 meter long with stripped leads.

# Ultra Precise Air and Gas Measurement RTD Sensors

- ✓ Pt100 (100Ω @ 0°C 0.00385Ω/Ω/°C) Platinum RTDs with Class "A", 1/3 DIN and 1/10 DIN Accuracies
- ✓ Temperature Range -100 to 400°C (Depending on Cable and Accuracy Selection)
- ✓ 4-Wire Construction in 6 and 3 mm (1/4" and 1/8") Diameters
- ✓ A Range of Mounting Threads and Cable Materials are Available



## Standard Dimensions

To Order						
Accuracy	Sensor Diameter	Mounting Thread	PVC Insulated Model Number 6" Probe Length	PFA Insulated Model Number 6" Probe Length	Fiberglass Insulated Model Number 6" Probe Length	
1/10 DIN	1/8	None	P-L-1/10-1/8-6-0-P-3	P-L-1/10-1/8-6-0-T-3	P-L-1/10-1/8-6-0-G-3	
		1/8 NPT	P-L-1/10-1/8-6-1/8-P-3	P-L-1/10-1/8-6-1/8-T-3	P-L-1/10-1/8-6-1/8-G-3	
	1/4	None	P-L-1/10-1/4-6-0-P-3	P-L-1/10-1/4-6-0-T-3	P-L-1/10-1/4-6-0-G-3	
		1/8 NPT	P-L-1/10-1/4-6-1/8-P-3	P-L-1/10-1/4-6-1/8-T-3	P-L-1/10-1/4-6-1/8-G-3	
1/3 DIN	1/8	None	P-L-1/3-1/8-6-0-P-3	P-L-1/3-1/8-6-0-T-3	P-L-1/3-1/8-6-0-G-3	
		1/8 NPT	P-L-1/3-1/8-6-1/8-P-3	P-L-1/3-1/8-6-1/8-T-3	P-L-1/3-1/8-6-1/8-G-3	
		1/4	None	P-L-1/3-1/4-6-0-P-3	P-L-1/3-1/4-6-0-T-3	P-L-1/3-1/4-6-0-G-3
	1/8 NPT		P-L-1/3-1/4-6-1/8-P-3	P-L-1/3-1/4-6-1/8-T-3	P-L-1/3-1/4-6-1/8-G-3	
	Class A		1/8	None	P-L-A-1/8-6-0-P-3	P-L-A-1/8-6-0-T-3
		1/8 NPT		P-L-A-1/8-6-1/8-P-3	P-L-A-1/8-6-1/8-T-3	P-L-A-1/8-6-1/8-G-3
1/4		None	P-L-A-1/4-6-0-P-3	P-L-A-1/4-6-0-T-3	P-L-A-1/4-6-0-G-3	
	1/8 NPT	P-L-A-1/4-6-1/8-P-3	P-L-A-1/4-6-1/8-T-3	P-L-A-1/4-6-1/8-G-3		

For longer sheath length, change "-6" in model number to desired length in inches for additional cost per inch to price when longer than 8". For Silicone Rubber insulated cable, change "P", "T" or "G" to "S" in the model number and use PFA pricing. For longer cable lengths, change "3" to desired length in feet for additional cost per foot for PVC, for PFA or silicone rubber and for fiberglass. For shielding on PVC, PFA or Fiberglass insulated cables, change "P", "T" or "G" to "PS", "TS" or "GS" for additional cost per foot to the price. Mounting threads also available in 1/4 NPT, 3/8 NPT and 1/2 NPT at the same price. 1/8" diameter sensors without threaded fittings and with "P", "PS", "TS", "GS" and "S" cables include a transition fitting at the end of the sheath.

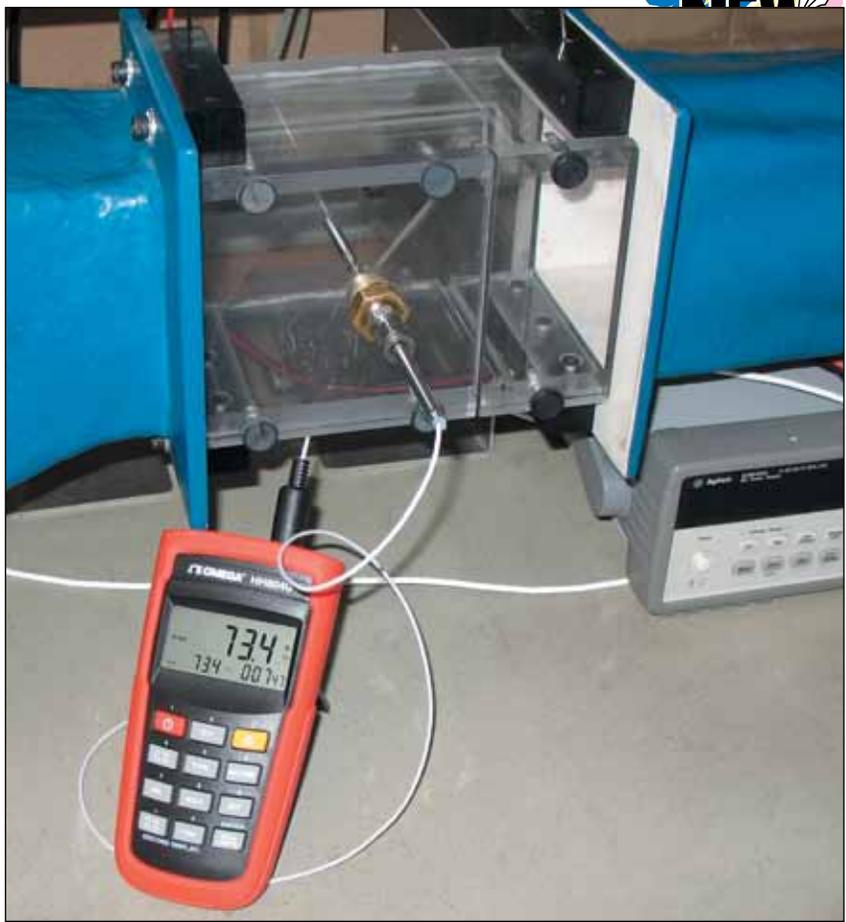
**Ordering Examples:** P-L-1/10-1/8-6-1/4-P-3, air sensor with 1/8" diameter sheath 6" long with 1/4 NPT mounting thread, 1/10 DIN accuracy, 4-wire PVC cable 3' long with stripped leads.

P-L-1/10-1/4-6-0-P-3, air sensor with 1/4" diameter sheath 6" long with no mounting thread, 1/10 DIN accuracy, 4-wire PVC cable 3' long with stripped leads.

These sensors are designed for use in air and gas applications. Vent holes at the tip of the sensor allow the air or gas to directly pass around the RTD element providing the fastest, most accurate measurement possible.

Interchangeability in °C			
Temp °C	Class A	1/10 DIN	1/100 DIN
-100	0.35		
-50	0.25	0.18	
0	0.15	0.10	0.03
100	0.35	0.27	0.08
200	0.55	0.43	
250	0.65	0.52	
300	0.75		
350	0.85		
400	0.95		
450	1.05		

Cable Options Temperature Range	
PVC Insulated	-29 to 100°C (-20 to 212°F)
PFA PTFE Insulation	-100 to 250°C (-148 to 482°F)
Fiberglass Insulation	-73 to 400°C (-99 to 753°F)
Silicone Insulated	-50 to 200°C (-58 to 392°F)



P-L-A-1/4-6-0-T-3 Class A Air Sensor with optional HH804U hand held meter shown smaller than actual size. For more information on HH804U visit [omega.com/hh804u](http://omega.com/hh804u)

**Metric Dimensions**

To Order					
Accuracy	Sensor Diameter	Mounting Thread	PVC Insulated Model Number 150 mm Probe Length	PFA Insulated Model Number 150 mm Probe Length	Fiberglass Insulated Model Number 150 mm Probe Length
1/100 DIN	3 mm	None	P-L-1/10-M30-150-0-P-1	P-L-1/10-M30-150-0-T-1	P-L-1/10-M30-150-0-G-1
		M6x1	P-L-1/10-M30-150-M6-P-1	P-L-1/10-M30-150-M6-T-1	P-L-1/10-M30-150-M6-G-1
	6 mm	None	P-L-1/10-M60-150-0-P-1	P-L-1/10-M60-150-0-T-1	P-L-1/10-M60-150-0-G-1
		M8x1	P-L-1/10-M60-150-M8-P-1	P-L-1/10-M60-150-M8-T-1	P-L-1/10-M60-150-M8-G-1
1/10 DIN	3 mm	None	P-L-1/3-M30-150-0-P-1	P-L-1/3-M30-150-0-T-1	P-L-1/3-M30-150-0-G-1
		M6x1	P-L-1/3-M30-150-M6-P-1	P-L-1/3-M30-150-M6-T-1	P-L-1/3-M30-150-M6-G-1
	6 mm	None	P-L-1/3-M60-150-0-P-1	P-L-1/3-M60-150-0-T-1	P-L-1/3-M60-150-0-G-1
		M8x1	P-L-1/3-M60-150-M8-P-1	P-L-1/3-M60-150-M8-T-1	P-L-1/3-M60-150-M8-G-1
Class A	3 mm	None	P-L-A-M30-150-0-P-1	P-L-A-M30-150-0-T-1	P-L-A-M30-150-0-G-1
		M6x1	P-L-A-M30-150-M6-P-1	P-L-A-M30-150-M6-T-1	P-L-A-M30-150-M6-G-1
	6 mm	None	P-L-A-M60-150-0-P-1	P-L-A-M60-150-0-T-1	P-L-A-M60-150-0-G-1
		M8x1	P-L-A-M60-150-M8-P-1	P-L-A-M60-150-M8-T-1	P-L-A-M60-150-M8-G-1

For longer sheath length, change "-150" in model number to desired length in millimeters for additional cost per 25 mm to the price when longer than 200 mm. For silicone rubber insulated cable, change "-P", "-T" or "-G" to "-S" in the model number and use PFA pricing. For longer cable lengths, change "-1" to desired length in meters for additional cost per meter for PVC, for PFA or silicone rubber and for fiberglass. For shielding on PVC, PFA or Fiberglass insulated cables, change "P", "T" or "G" to "PS", "TS" or "GS" for additional cost per meter to the price. Mounting threads also available in M8x1 and M10x1 at the same price (Note: M6 threads not available on 6 mm Dia probes). 3 mm diameter sensors without threaded fittings and with "P", "PS", "TS", "GS" and "S" cables include a transition fitting at the end of the sheath.

**Ordering Examples:** P-L-1/10-M30-150-M6-P-1, air sensor with 3 mm diameter sheath 150 mm long with M6x1 mounting thread, 1/100 DIN accuracy, 4-wire PVC cable 1 m long with stripped leads.  
P-L-1/10-M60-150-0-P-1, air sensor with 6 mm diameter sheath 150 mm long with no mounting thread, 1/100 DIN accuracy, 4-wire PVC cable 1 m long with stripped leads.

