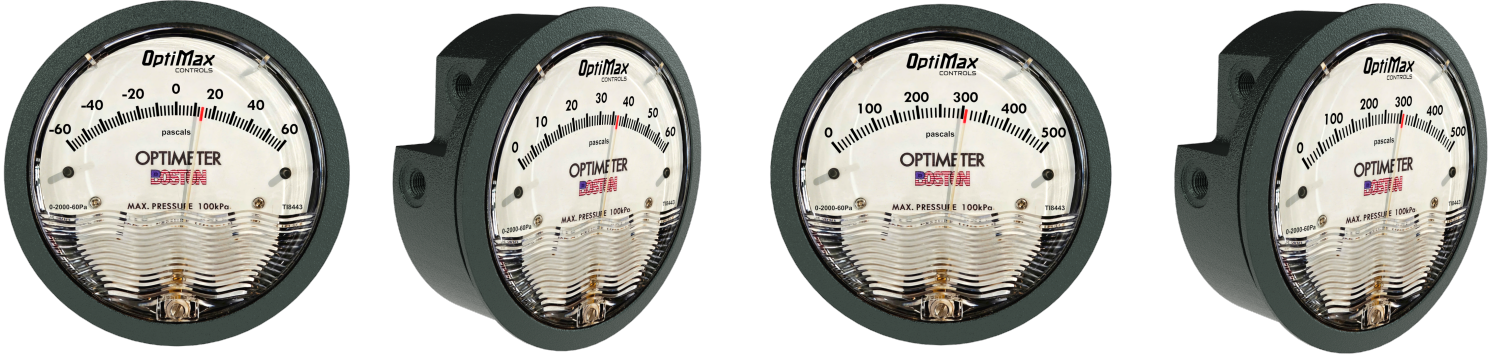


## OPTIMAX PresSense Series OPTIMETER DIFFERENTIAL PRESSURE GAUGE OD Model – Installation, Operation Manual



The Optimeter Series Differential Pressure Gauges embody excellence in precision measurement, offering accurate readings of positive, negative, or differential pressures. Crafted with meticulous attention to detail and advanced technology, these gauges provide a reliable solution for diverse applications, ensuring optimal performance in every scenario.

### Specifications

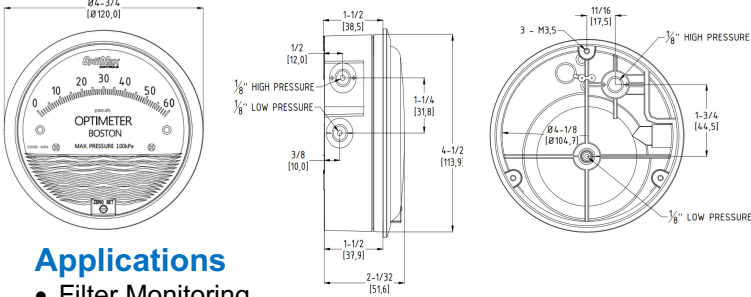
Service	Air and non-corrosive, non-combustible compatible gases
Standard Accuracy	±2% and up to 1% for high precise measurements
Pressure Limits	Suitable for pressures ranging from -0.7 to 1bar (-70 to 100 KPa)
Temperature Limits	Operational between 5°F to 140°F (-15°C to 60°C)
Housing	Sturdy die-cast aluminum case and bezel with PC cover. <b>Optional ABS polymer casing</b> — lightweight, corrosion-resistant, and cost-effective for indoor HVAC applications.
Protection	IP67 rated for reliable performance in various environments
Size	Compact design with a 4" (101.5mm) diameter dial face and 4-9/16" (115.5mm) diameter opening for flushing mount.
Weight	15.52oz (440g)
Connections	1/8" NPT female high and low pressure taps for easy installation.
Mounting	Flush or surface mountable in vertical position for convenience
Accessories	Standard accessories included for seamless integration into systems. O-S10, including two 1/8"NPT pipe plugs, two 1/8" NPT to 3/16" rubber tubing adapters and three flushing mounting adapters with screws.
Compliance	Meets the technical requirements of EU Directive 2011/65/EU (RoHS II).

Model	Range Pa	Model	Range inch wc
OD-N-60NPa**	10-0-50	OD-N-00N**	0.05-0-.2
OD-N-60Pa**	0-60	OD-N-00**	0-.25
OD-N-100Pa*	0-100	OD-N-0*	0-.50
OD-N-125Pa*	0-125	OD-N1	0-1.0
OD-N-250Pa	0-250	OD-N2	0-2.0
OD-N-500Pa	0-500	OD-N3	0-3.0
OD-N-750Pa	0-750	OD-N4	0-4.0
Model	Range KPa	OD-N5	0-5.0
OD-N-1Kpa	0-1	OD-N6	0-6.0
OD-N-1.5KPa	0-1.5	OD-N8	0-8.0
OD-N-2KPa	0-2	OD-N10	0-10
OD-N-3KPa	0-3	OD-N12	0-12
OD-N-4KPa	0-4	OD-N15	0-15
OD-N-5KPa	0-5	OD-N20	0-20
OD-N-8KPa	0-8	OD-N30	0-30
OD-N-10KPa	0-10	OD-N40	0-40
Model	Range cm wc	Model	Range mm wc
OD-N-15CM	0-15	OD-N-6MM**	0-6
OD-N-20CM	0-20	OD-N-10MM*	0-10
OD-N-25CM	0-25	OD-N-15MM*	0-15
OD-N-50CM	0-50	OD-N-25MM	0-25
OD-N-80CM	0-80	OD-N-30MM	0-30
OD-N-100CM	0-100	OD-N-50MM	0-50
Zero Center Range Pa		OD-N-80MM	0-80
OD-Z-60Pa**	30-0-30	OD-N-100MM	0-100
OD-Z-120Pa*	60-0-60	OD-N-150MM	0-150
OD-Z-250Pa	125-0-125	OD-N-250MM	0-250
OD-Z-500Pa	250-0-250	OD-N-300MM	0-300
Zero Center Range Kpa		OD-N-500MM	0-500
OD-Z-1KPa	.5-0-.5	Zero Center Rang inch wc	
OD-Z-2KPa	1.0-0-1.0	O2300-00**	.125-0-.125
Zero Center Range cm wc		O2300-0*	.25-0-.25
OD-Z-4CM	2-0-2	OD-Z1	.5-0-.5
OD-Z-10CM	5-0-5	OD-Z2	1-0-1
OD-Z-20CM	10-0-10	OD-Z4	2-0-2
		OD-Z10	5-0-5

### OPTIMAX PresSense Series

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#### Applications

- Filter Monitoring
- Air Velocity Measurement
- Blower Vacuum Monitoring
- Fan Pressure Indication
- Duct, Room, or Building Pressures
- Clean Room Pressure Indication

#### Installation and Configuration

	<b>Do not install Optimeter where is vibrated</b>
	<b>Do not install Optimeter positioned horizontally or in corrosive areas</b>
	<b>WARNING: Prior to installation, ensure that the application range aligns with the gauge range to prevent potential damage</b>
	<b>WARNING: The operational temperature of the gauge should not exceed 140°F (60°C)</b>

#### Mounting

Ensure the gauge is mounted vertically and free from vibration.

#### Surface Mount:

- Drill three equally spaced 120° holes, each with a diameter of 4.5 mm, on the mounting panel as illustrated in Figure 1. Securely fasten the gauge to the panel using the three short mounting screws provided in the accessory kit.
- Utilizing the three mounting adapters and short screws from the accessory kit, affix the adapters to the bottom of the gauge as depicted in Figure 2. Proceed to securely mount the gauge onto the surface using the three long screws provided.

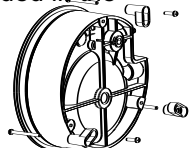
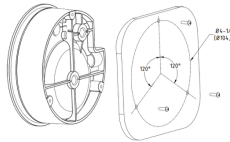


Figure 2

#### Flush (Panel) Mount:

- As shown in Figure 3, prepare a 4-9/16" (115.5 mm) diameter opening in the installation panel. Insert the gauge into the opening. Attach the three mounting adapters and short screws from the accessory kit to the bottom of the gauge. Securely fasten the gauge onto the panel using the three long screws provided.

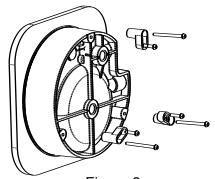


Figure 3

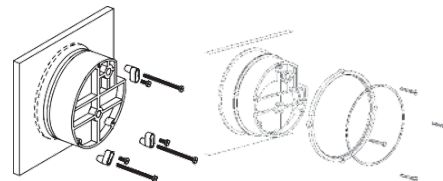
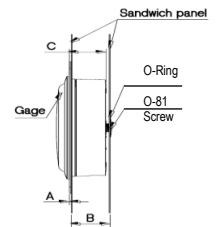


Figure 4

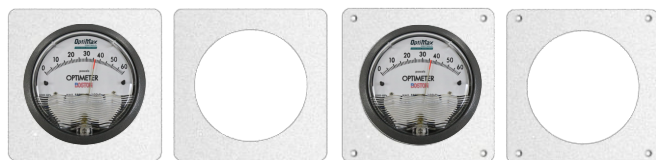
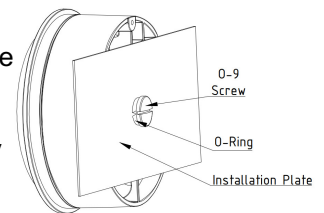
#### Flush (Sandwich Panel) Mount:

- Prepare a 4-9/16" (115.5 mm) diameter opening on one side of the sandwich panel. Insert the gauge into the opening and fit the O-1/O-2 panel. Securely fasten the O-81 accessory into the pressure port located on the bottom of the gauge from the other side of the sandwich panel. Please note that the accessories O-1/O-2 and O-81 need to be ordered separately.



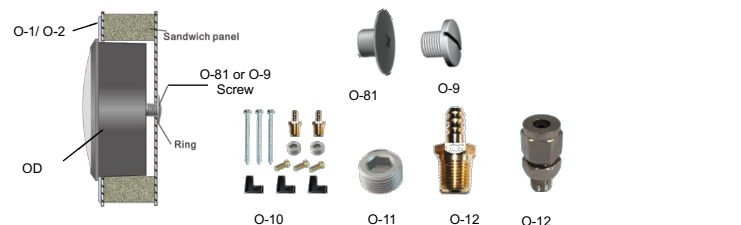
#### Other Installation Methods:

- As illustrated in Figure 5, secure the O-9 accessory into the pressure port located on the bottom of the gauge. Accessory O-9 needs to be ordered



Mounting Plate O-1

Mounting Plate O-2



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#### Re-Zero Procedure:

After installation, it's necessary to re-zero the gauge. Utilize a suitable slotted screwdriver to adjust the zero-screw located at the bottom of the transparent cover, ensuring that the pointer indicates the zero position on the dial. This adjustment should be performed when both pressure ports are open to the air simultaneously.

#### Pressure Connection:

Properly connect one of the two "Positive" (+) and "Negative" (-) pressure ports as required using the standard accessories provided. The two pairs of pressure ports are located on the side and back of the gauge. Finally, seal off the unused pair of ports using the pipe plugs provided in the accessory kit.

#### Operation:

- Positive Pressure: Connect tubing from the pressure source to one of the high-pressure ports, ensuring the other high-pressure port is securely plugged. Vent one or both low-pressure ports to the atmosphere.
- Negative Pressure: Connect tubing from the vacuum source to one of the low-pressure ports, ensuring the other low-pressure port is securely plugged. Vent one or both high-pressure ports to the atmosphere.
- Differential Pressure: Connect tubing from the higher-pressure source to one high-pressure port and from the lower-pressure source to one low-pressure port. Ensure both unused ports are securely plugged.
- In dusty environments, consider installing a Filter Vent Plug in the open port to maintain the gauge's cleanliness.
- Portable Use: Utilize a 1/8" pipe thread to rubber tubing adapter for temporary setups. Connect to the pressure source with flexible rubber or vinyl tubing.
- Permanent Installation: Use 1/4" O.D. or larger copper or aluminum tubing.

#### Maintenance:

- No lubrication or periodic servicing required.
- Keep the case exterior and cover clean.
- Periodically vent both sides of the gauge to the atmosphere and re-zero by disconnecting pressure lines.
- Optional vent valves recommended for permanent installations.
- The Series O-2000 is not field serviceable; contact customer service for repair needs.

#### Warning:

- Attempted field repair may void warranty.
- User recalibration or repair is not recommended.

#### Warranty:

- Warranty coverage extends for twenty-four (24) months from the production date, offering comprehensive protection and peace of mind.
- Attempted field repair may void warranty.
- User recalibration or repair is not recommended.

#### Troubleshooting Tips:

##### Gauge won't indicate or is sluggish:

- Ensure duplicate pressure port is plugged.
- Check for diaphragm rupture due to overpressure.
- Inspect for blocked, pinched, or leaking fittings or sensing lines.
- Verify cover tightness and condition of O-ring.
- Ensure proper location of pressure sensor.
- Consider ambient temperature; for operation below 20°F (-7°C), request the low-temperature (LT) option.

USA: California Proposition 65

**⚠ WARNING: Cancer and Reproductive Harm –**  
[www.P65warnings.ca.gov](http://www.P65warnings.ca.gov)

Literature Number OD Optimax Dial Gauges - IOM 2026

Supersedes New

Stock location Online / Boston