

# 4-1/2 in. (114 mm) Dial Level Gage

## OPLH/OPLHACS Series

The OPLHC/OPLHACS Series Level gages are combination level-indicating gages with adjustable low- and high-limit switches. Limit switches can be wired directly to electric pilot circuits to operate alarms, shut down or start/stop pumps to maintain predetermined levels.

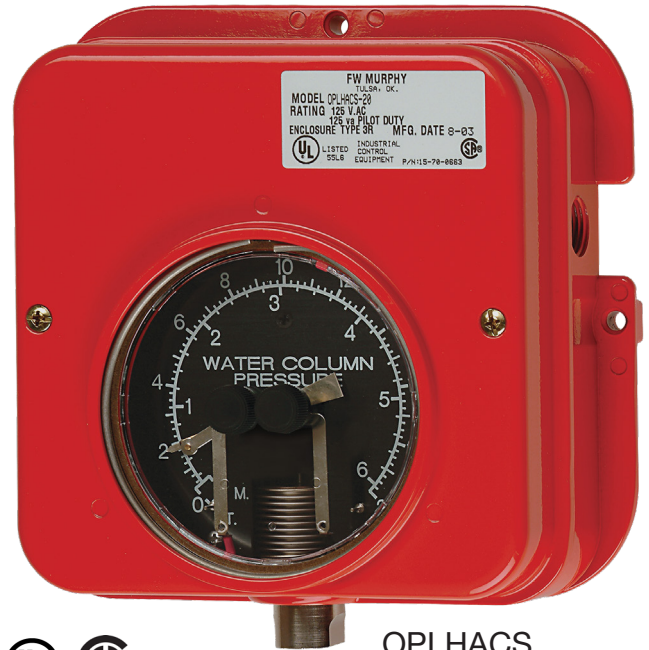
Surface-mount or panel-mount enclosures are available for both model series. All models feature a 4-1/2 in. (114 mm) dial for easy viewing. Adjustable limit switches are accessible from the front of the gage.

Specialized models are available for specific applications involving engines or electric motors.

**OPLHC/OPLHACS** Series include two adjustable, pilot duty, pointer type contacts. Contacts have self-cleaning motion to enhance electrical continuity. Models are available with a rugged bourdon tube or a 316 stainless steel bellows sensing element for greater accuracy and sensitivity in lower ranges.

**OPLHBP/OPLHABPS** Internal latching control relays are available to provide ON/OFF automation for electric motor applications.

OPLHC and OPLHACS series are available in indication only models (OPLHAGS). See the following pages to determine the model for your application.



OPLHACS

Selected configurations are third-party listed. Consult FW Murphy for details.

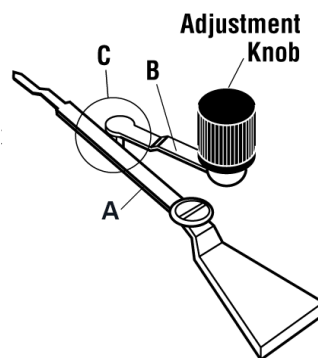
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### Applications

- Saltwater Disposal Systems
- Waterflood Systems
- Diesel Day Tanks
- Oil Storage Tanks

### Basic Operation

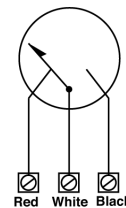
The OPLHC/OPLHACS Series operates from static head pressure. Pressure is transmitted to the process connection of the gage. From here, the pressure flexes the bourdon tube or operates the 316 stainless steel bellows (depending on which model you have). The bourdon tube/bellows operates the stainless steel rotary geared movement, which in turn operates the indicating pointer on the face of the dial. When the pointer (A) closes with the limit contact



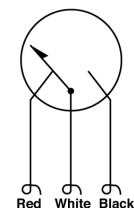
(B), a control circuit (C) is completed and signals an alarm and/or shutdown or starts/stops a pump.

### Internal Wiring

#### OPLHC and OPLHACS Series

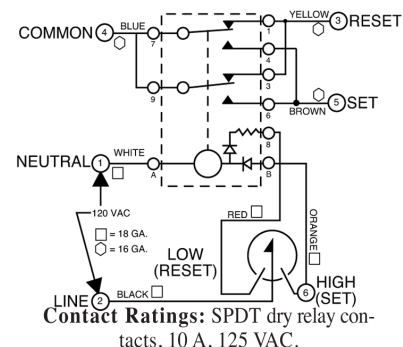


#### OPLHFC Series



**Contact Ratings:** SPDT center off;  
2 A, 30 VDC, 1 A, 125 VAC pilot duty.

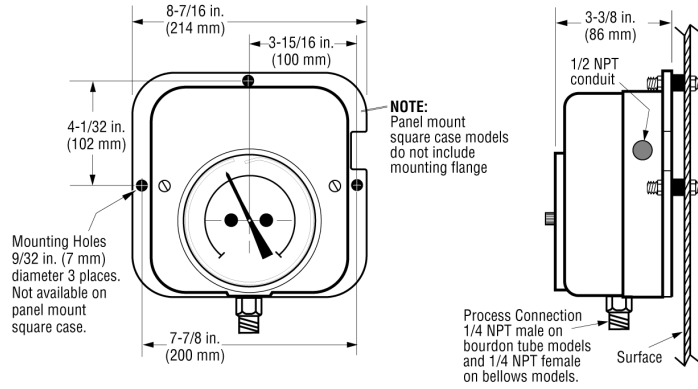
#### OPLHBP Series



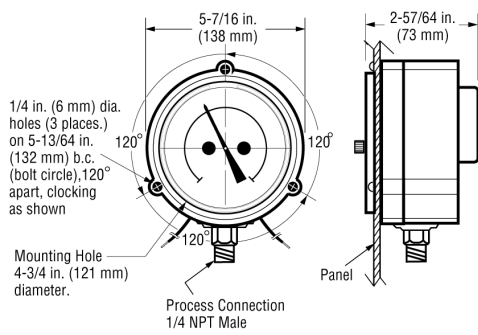
**Contact Ratings:** SPDT dry relay contacts, 10 A, 125 VAC.

# Dimensions

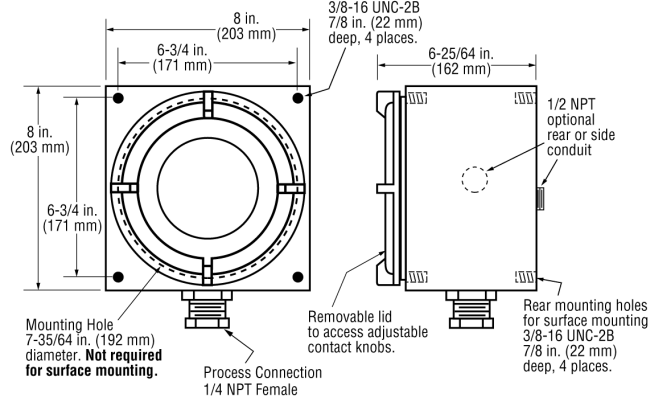
## Surface / Panel Mount Enclosure (Square Case)



## Panel Mount Enclosure (Round Case)

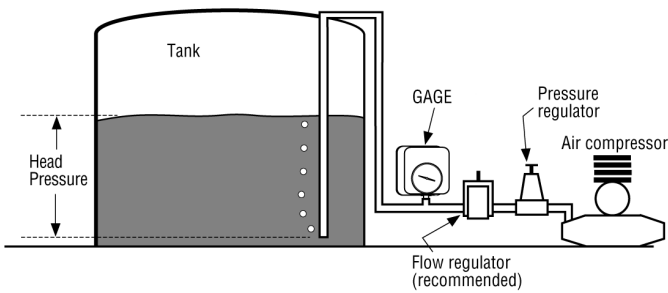


## Explosion-proof Enclosure ("EX" Option)

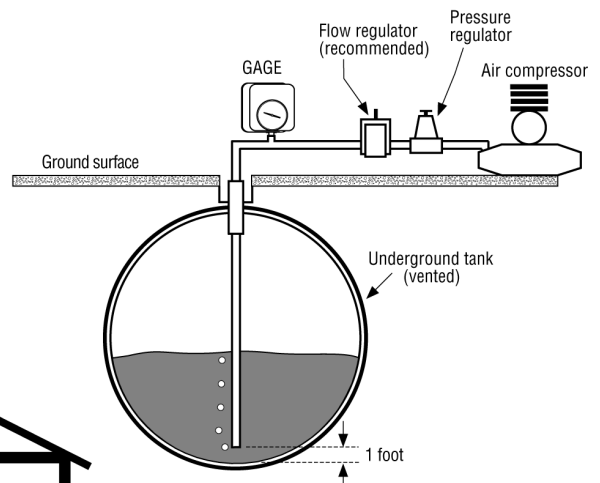


# Typical Applications

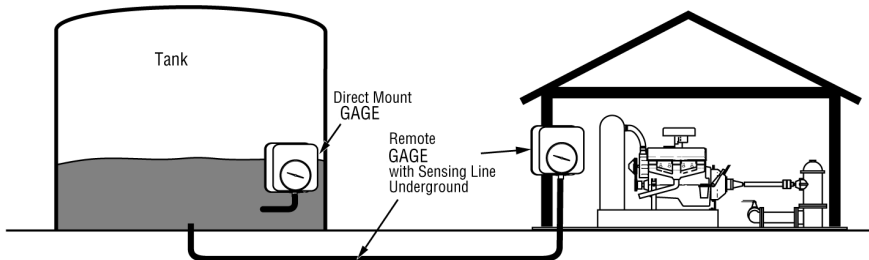
## Above Ground Tank



## Below Ground Tank



## Direct and Remote Tank



# Specifications

<b>OPLH / OPLHA Series</b>		<b>OPLHC*</b>	<b>OPLHFC</b>	<b>OPLHACS</b>	<b>OPLHBP</b>
<b>Enclosure Type (die cast aluminum)</b>					
• Surface mount, square case	•	•	•	•	•
• Panel mount, round case	•	•	•	•	•
• Panel mount, square case	•	•	•	•	•
<b>Limit Switch Ratings</b>					
• Pointer Contacts: SPDT center off; 2 A, 30 VDC, 1 A, 125 VAC	•	•	•	•	•
<b>Latching Control Relay</b>					
• SPDT, 10 A @ 120 VAC (standard)	•	•	•	•	•
• DPDT, 12 VDC (Optional)	•	•	•	•	•
• DPDT, 24 VAC (Optional)	•	•	•	•	•
• DPDT, 24 VDC (Optional)	•	•	•	•	•
<b>Sensing Element</b>					
• Bourdon Tube, Bronze/Brass (standard)	•	•	•	•	•
• Bellows, 316 Stainless Steel (standard)	•	•	•	•	•
<b>Process Connections</b>					
• 1/4 NPT Male	•	•	•	•	•
• 1/4 NPT Female	•	•	•	•	•
<b>Geared Movement: 300 series stainless steel</b>					
<b>Accuracy (standard calibration is for water)</b>					
• ±2% first/last quarters of scale, 1% middle half scale <sup>(1)</sup>	•	•	•	•	•
<b>OPTIONS AVAILABLE (specify when ordering)</b>					
• Environment sealed for isolation from the elements (ES) <sup>(2)</sup>	•	•	•	•	•
• Explosion-proof case; Class I, Div. I, Groups C & D (EX)	•	•	•	•	•
• Explosion-proof less case; internal gage mechanism without case (EL)	•	•	•	•	•
• Less case; internal gage mechanism without case (LC)	•	•	•	•	•
• Tickler contact (TA)	•	•	•	•	•
<b>RANGES AVAILABLE (specify when ordering)</b>					
• 0–5 ft. (0–1.5 m) dual scale dial	•	•	•	•	•
• 0–10 ft. (0–3 m) dual scale dial	•	•	•	•	•
• 0–20 ft. (0–6 m) dual scale dial	•	•	•	•	•
• 0–30 ft. (0–9 m) dual scale dial	•	•	•	•	•

\* Bourdon tube, 316 SS optional.

<sup>(1)</sup> Bourdon tube (OPLHC) models in the 20 ft. (6 m) range have an accuracy of 3% full scale.

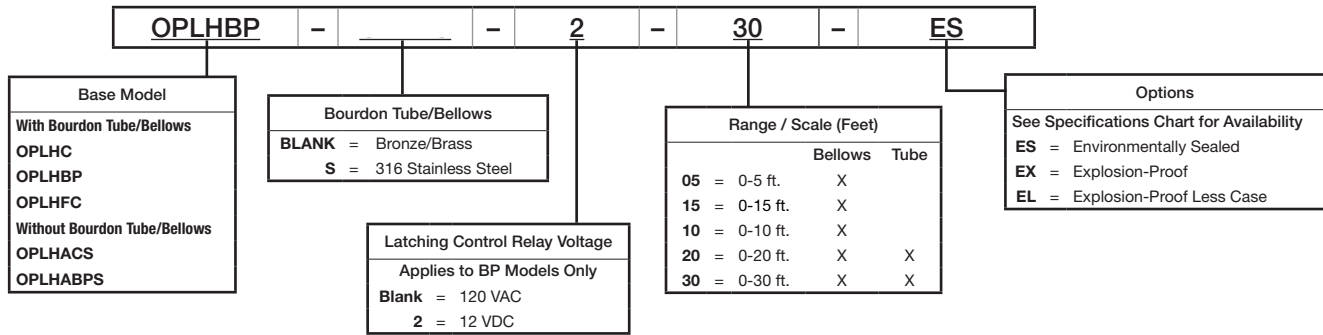
<sup>(2)</sup> ES option available for the 20 ft. (6 m) range models and above.

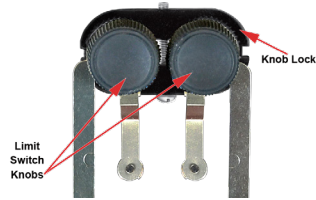
### NOTES:

- Options may not be available in combination. Consult factory.
- Over range is not to exceed 10% FS above full range.
- Calibration is for water. Specify for other liquids.
- Add **TOTAL** height of liquid above the pressure connection to determine correct range (dial scale).  
For elevated tanks subtract the tank elevation from gage reading to determine actual tank level.  
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# How to Order

Options listed below. All configurations may not be available. Call your sales representative or FW Murphy for more information.



Part Number	Model and Description	Notes
05000610	Tamper-proof Contact Accessory	

Approximate Shipping Weight and Dimensions		
Model	Weight	Dimension
OPLH, OPLHACS Series	8 lb. (3.6 kg)	16 x 11 x 5-1/2 in. (406 x 279 x 140 mm)
Explosion-proof	22 lb. (10 kg)	12 x 12 x 9 in. (305 x 305 x 229 mm)