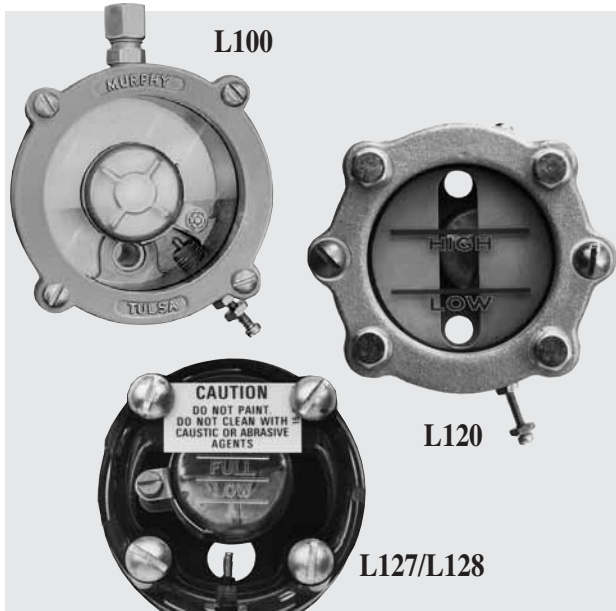


# Float Actuated Oil Level Swichgage® instrument

0710176  
Revised 03-07  
Catalog Section 15



## For Small Engines and Pumps

- See Oil Level and Condition Without Shutting Down
- Shutdown or Alarm on Low Lube Level
- Adjustable Limit Switch for Alarm and/or Shutdown
- Save on Reduced Downtime and Repair Costs
- Simple Installation



### Description

These float actuated Oil Level Swichgage instruments are a combination oil level sight gage and adjustable, low and/or high limit switch. The limit switches are normally open during operation—yet close if the level drops (or rises) to where the float contacts the limit screw. The contact completes a circuit to ground a magneto or trip a Murphy magnetic switch. The magnetic switch can be used to activate alarms and/or shutdown. Models are also available without limit switches.

### Application

The level instruments described above can be used on a variety of crankcases, pump gearcases, or oil reservoirs—primarily on small engines and pumps. The following list displays the model and its typical application:

- L100**†: Small engines and pumps with non-vented crankcase.
- L100W**†: Small engines and pumps with vented crankcase.
- L120**: Machined surface on crankcase such as Witte, National-Oilwell/Garland.
- L127**: Machined surface on crankcase, specifically, Fairbanks-Morse ZC Series and Bell Engines.
- L128**: Machined surface on crankcase, specifically, Arrow and Continental Emsco/Climax.

### Specifications

- **Maximum Pressure Rating (all models):**  
30 psi (207 kPa) [2.07 bar]
- **L100 and L100W**  
**Case:** Die cast aluminum  
**Float:** Brass  
**Rating:** 2 A @ 30 VAC/DC  
**Vent Fitting:** 1/4 in. (6 mm) tube x 1/8 NPT  
**Inlet Fitting:** Hex Nipple 1/4 NPT  
**Hardware (shipped loose)**  
**L100:**
  - Copper Tubing: 1/4 x 48 in. dia. (6 mm x 1.2 m)
  - Reducer Bushing: 1/2 NPT x 1/4 NPT
  - Close Nipple: 1/2 NPT
  - Tee: 1/2 NPT, black pipe
  - Wire: 16 AWG x 24 in. (1.5 mm<sup>2</sup> x 610 mm)**L100W:**
  - Vent Tube: 1/4 x 3-3/8 in. (6 x 86 mm)
  - Reducer Bushing: 3/4 NPT x 1/4 NPT
  - Close Nipple: 3/4 NPT
  - Tee: 3/4 NPT, black pipe
  - Wire: 16 AWG x 24 in. (1.5 mm<sup>2</sup> x 610 mm)
- **L120**  
**Case:** Cast Aluminum  
**Float:** Brass  
**Rating:** 2 A @ 30 VAC/DC  
**Mounting Bolts:** 1/4-20 UNC-2A (4 req'd)

### ■ L127 and L128

- Case:** TROGAMID® Nylon
- Float:** Brass
- Rating:** 2 A @ 30 VAC/DC
- Wire:** 16 AWG x 48 in. (1.5 mm<sup>2</sup> x 1.2 m)
- Mounting Bolts:**
  - L127: 1/4-20 NC x 2 in. (4 required)
  - L128: 3/8-16 NC x 3/4 in. (2 required)

### Warranty

A limited warranty on materials and workmanship is given with this FW Murphy product. A copy of the warranty may be viewed or printed by going to [www.fwmurphy.com/support/warranty.htm](http://www.fwmurphy.com/support/warranty.htm)

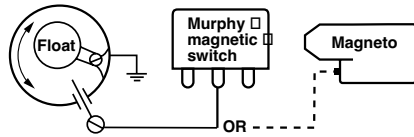
† Models available with high and low options. See *How to Order* on reverse side

\*\*Products covered by this bulletin comply with EMC Council directive 89/336/EEC regarding electromagnetic compatibility except as noted.



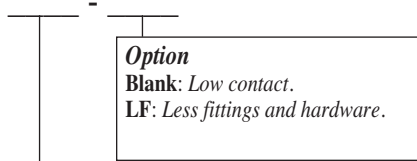
## Typical Wiring Diagram

Below is a typical wiring diagram for a level Switchgauge instrument. A Switchgauge instrument can be connected to a Murphy magnetic switch or magneto. Switch Contact Rating is 2 A @ 30 VAC/DC resistive.



## How to Order

Specify base model designator and options in sequence shown below. Example: **L100-HL**.



### Base Model (refer to "Application" section)

**L100:** Sight gage with low limit switch.

**L100W:** Same as L100 except fittings.

**L120:** Sight gage with low limit switch.

**L127:** Sight gage with low limit switch.

**L128:** Sight gage with low limit switch.

## Dimensions

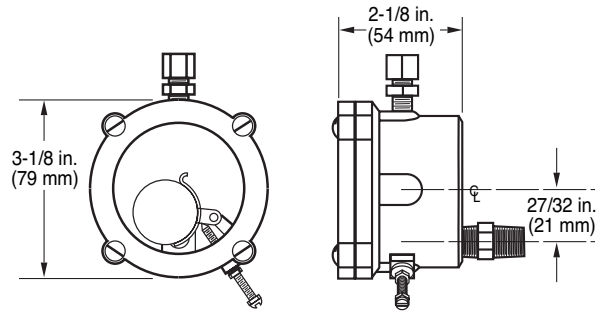
### L100 and L100W

#### Shipping Dimensions:

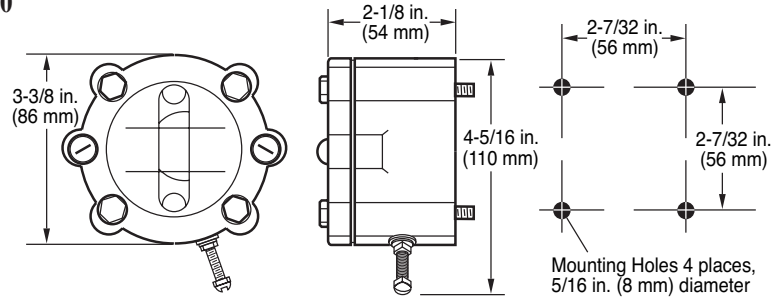
- L100: 5-1/4 x 5-1/4 x 5-1/2 in. (133 x 133 x 140 mm)
- L100W: 4-3/4 x 4-3/4 x 3-1/4 in. (121 x 121 x 83 mm)

#### Shipping Weight:

- L100: 2 lbs. (0.91 kg)
- L100W: 2 lbs. (0.91 kg)



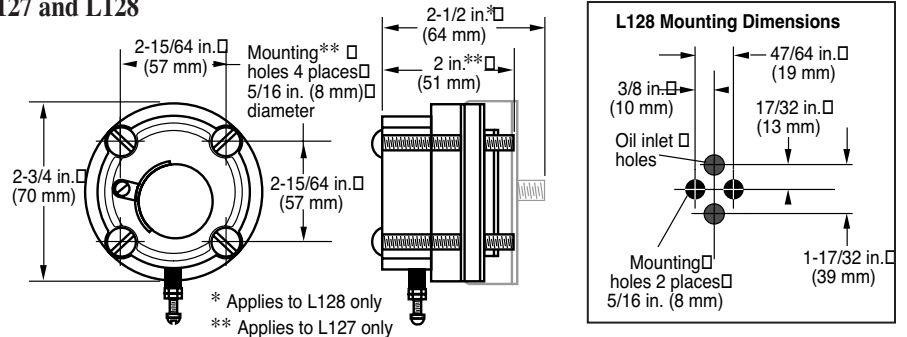
### L120



Shipping Weight: 1 lb 8 oz (0.68 kg)

Shipping Dimensions: 4-3/4 x 4-3/4 x 3-1/4 in. (121 x 121 x 83 mm)

### L127 and L128



Shipping Weight:

- L127: 8 oz (0.23 kg)
- L128: 10 oz (0.36 kg)

Shipping Dimensions (L127 and L128):

4-3/4 x 4-3/4 x 3-1/4 in. (121 x 121 x 83 mm)

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