

Lube Level Maintainer – Model LM500-TF-ATEX



Features

- **ATEX Certified**, Zone 2, Category 3G
 - **Ex ic IIC T5 Gc X** -20°C < Ta < 85°C
 - **Environmental Sealing:** IP54
 - **Test Feature (TF)** allows test of float and switch
 - **Direct Mount (DM)** capable
 - Eliminates under/overflow due to “human error”
 - See oil level and condition without shutting down
 - Simple installation
 - Automatically maintains lube level
 - Low level, 3-wire, snap-action switch
 - Positive sealing Thumb-Valve™
- Not intended for use with fuel

The Murphy LM500-TF-ATEX Oil Level Maintainer includes a test feature that confirms both the float and switch are operating correctly with a single press of the test button. The LM500 series maintains the crankcase oil level of an engine, pump or compressor. Adjusted to the correct running-oil-level, it will replenish oil as it is used. The low-level switch will alarm and/or shutdown the equipment if supply oil is lost and the equipment continues to use oil.

Application

The LM500-TF-ATEX maintains oil level on any size engine. It also supports installations that require a 3-wire, snap-action switch. Refer to LM500 Series Flow Rate Chart for application data.

Test Feature

The form C (3-wire) contact allows a controller/annunciator to be wired as a closed-loop system, resulting in a reliable fault-sensitive circuit.

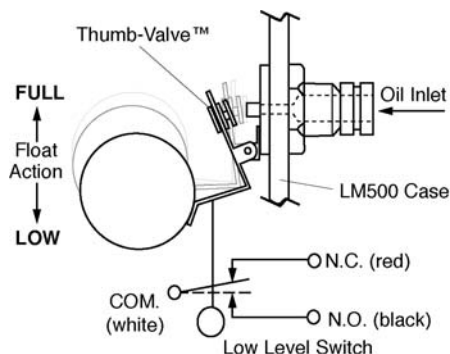
How the LM500 Maintains Levels

As crankcase oil level drops, the LM500 float also drops and opens the Thumb-Valve™. This allows oil to flow from the supply tank, through the LM500, and into the crankcase. When proper level is achieved in the crankcase, the LM500 float rises, causing the Thumb-Valve™ to close off further oil flow.

The simple and unique Thumb-Valve™ is non-clogging and provides a positive, leak-free seal.

Thumb-Valve Operation

If the clean oil supply is depleted and oil level continues to fall, the low level switch will operate an alarm or equipment shutdown.



Specifications

Crankcase Balance Vent Connection: 1/2 NPTF (top).

Inlet Connection: 1/2 NPTF removable screen (side).

Outlet Connection:

2 x 3/4 NPTF (side)

1 x 3/4 NPTF (bottom)

Thumb-Valve™ Material: Viton.

Snap-switch: SPDT rating 30VAC/VDC@75mA Max.

Wire leads: 18 AWG x 15 in. ± 1 in. (355 mm) length.

Conduit Connection: 1/2 inch conduit (female, top).

Case: Die cast aluminum

Lens: Clear “Frog Eye” non-staining, high impact, high temperature polycarbonate; UV and heat stabilized.

Dial: High visibility white background with solid green band for normal level indication.

Maximum Inlet Pressure: 9.50 psi/25 ft. oil (head pressure).

Maximum Case Pressure: 15 psi (103 kPa).

Maximum Differential: 2 in. (51 mm) between running and stopped.

ATEX Operating Temperature: -20°C (-4°F) to 85°C (185°F).

Float: 304 Stainless Steel

Flow Rates: Refer to LM500 Series Flow Rates chart for application data.

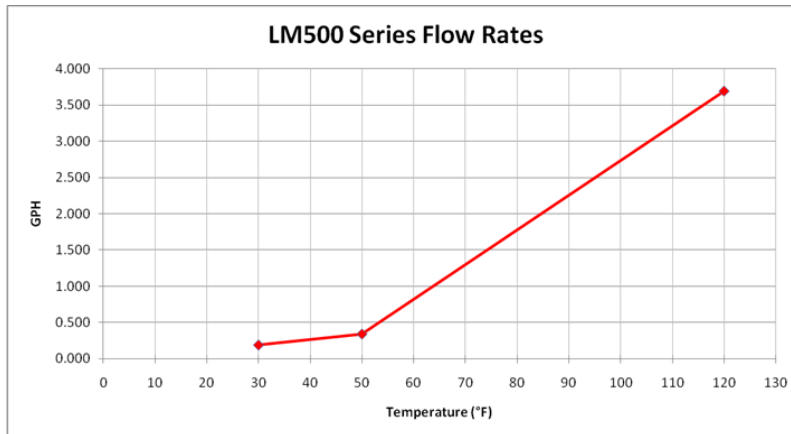
Dimensions: Overall 6-9/16 inch tall x 6-3/16 inch deep x 3-1/2 deep. For exact dimensions, refer to document “00-02-0745 LM500-TF-ATEX Installation Instructions”.

LM500/LM500-TF Shipping Dimensions: 9.5 x 7.5 x 11 in. (241.3 x 190 x 279.4 mm).

LM500/LM500-TF Shipping Weight: 3 lbs. 13.44 oz (1.74 kg)

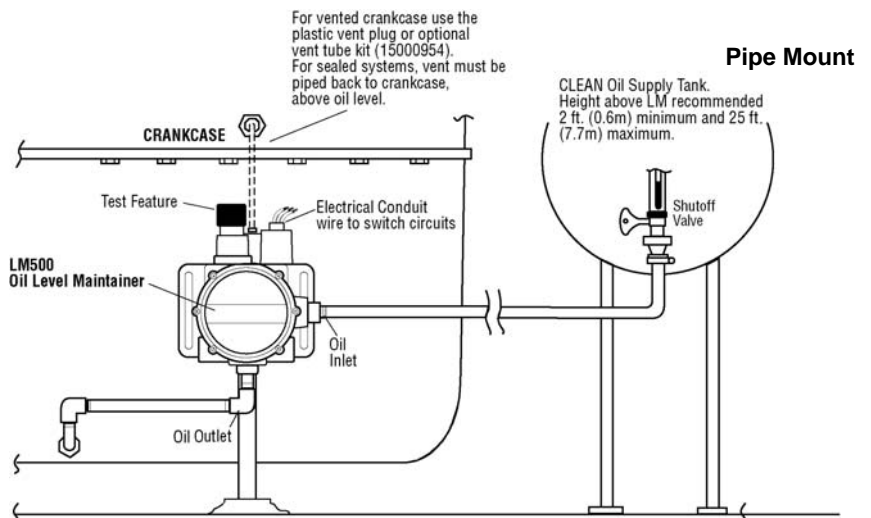
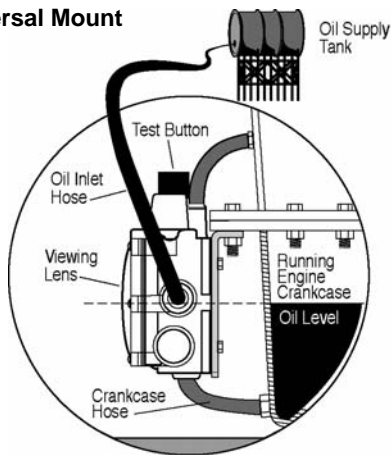
LM500 Series Flow Rates

LM500 Series Flow Rates are based on SAE 40 motor oil @ 2 ft. head pressure. Friction losses due to piping are not considered.

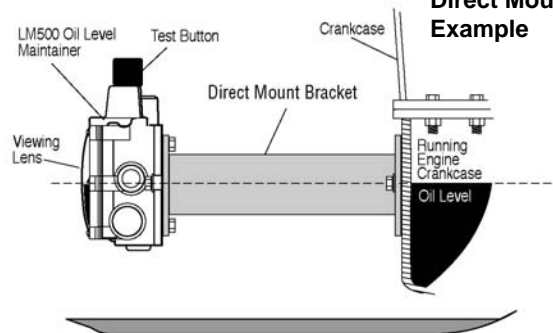


Typical Installations

Universal Mount

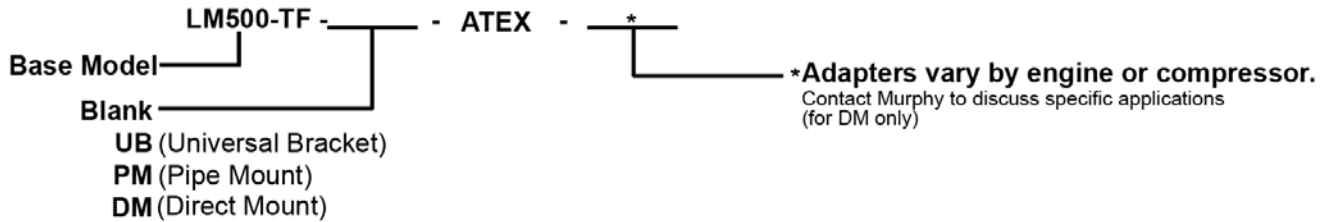


Direct Mount Example



How to Order

To order the LM500-TF-ATEX use the model number designation diagram below. (Example for Pipe Mount: **LM500-TF-PM-ATEX**)



Mounting Brackets with Hardware

In addition to the direct mounting option, Murphy offers two mounting brackets for the LM500-TF-ATEX. The Pipe Bracket Kit fits a 7/8 in. (22 mm) diameter pipe (see typical installation below). The Universal Bracket Mount Kit allows various mounting methods.

For exact dimensions, refer to document "00-02-0745 LM500-TF-ATEX Installation Instructions".

Accessories (Specify part number)

Description	Part Number
Hose Kit	15000355
1/2NPT x 1/2 in. Hose Barbed Fitting	89080801
3/4NPT x 1 in. Hose Barbed Fitting	89081001
Pipe Bracket Kit	15000518
Universal Bracket Mount Kit	15000519

Hose Kit: 15000355

One 1/2 in. (13 mm) I.D. x 3 ft. (914 mm) long hose
One 1 in. (25 mm) I.D. x 3 ft. (914 mm) long hose
Two 1/2 in. (13 mm) worm gear clamp
Two 1 in. (25 mm) worm gear clamp
Two 1/2 NPT x 1/2 in. (13 mm) barbed fitting
Two 3/4 NPT x 1 in. (25 mm) barbed fitting

ENOVATION CONTROLS CORPORATE HEADQUARTERS
5311 S 122ND EAST AVENUE
TULSA, OK 74146

ENOVATION CONTROLS – SAN ANTONIO OFFICE
5757 FARINON DRIVE
SAN ANTONIO, TX 78249

ENOVATION CONTROLS – HOUSTON OFFICE
105 RANDON DYER RD
ROSENBERG, TX 77471

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SALISBURY SP1 1QZ UK

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USA (ROSENBERG) - ISO 9001:2008 FM 28221
UK-ISO 9001:2008 FM 20422
CHINA-ISO 9001:2008 FM 523851
Registered Facilities

Printed in the USA

Warranty - A limited warranty on materials and workmanship is given with this Murphy product.
A copy of the warranty may be viewed or printed by going to <http://www.fwmurphy.com/warranty>.