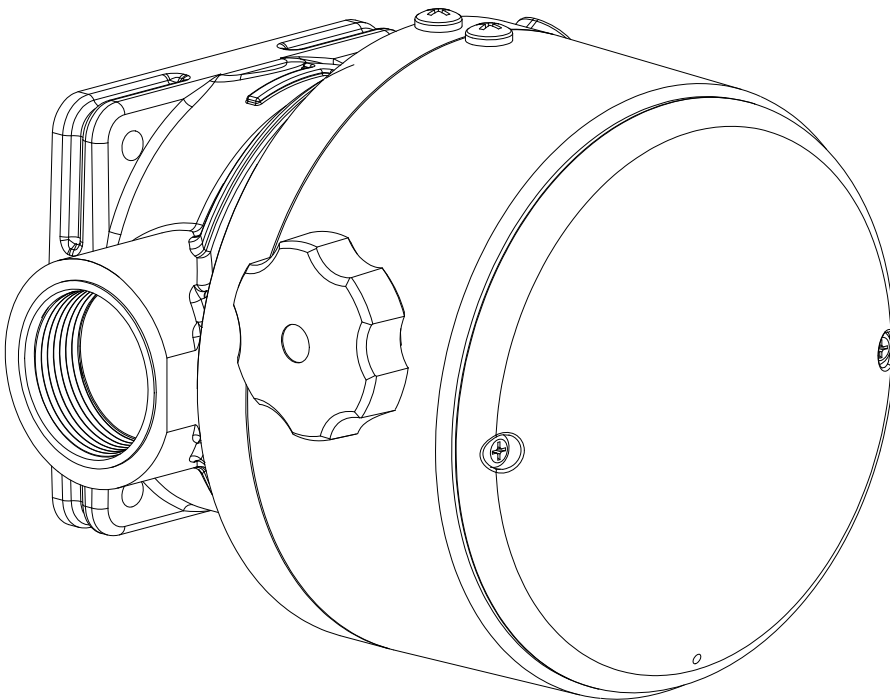


Volume meters

Models 962 and 963, series C



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Read manual prior to installation or use of this product. Keep manual nearby for future reference.

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Explanation of signal words for safety



This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



SAFETY INSTRUCTIONS

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.



DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

Indicates a hazardous situation which, if not avoided will result in death or serious injury.



Notice

Failure to comply with any danger, warning, caution, or notice, as well as any unintended or misuse, will result in loss of claim for warranty or liability for this equipment.

Safety instructions

To ensure safe and efficient operation, it is essential to read each of these warnings and precautions and to carefully follow all instructions listed in this manual.

- Improper use or installation of the product can cause serious bodily injury or death.
- **Do not** smoke near meter or use meter near an open flame when measuring flammable fluids. Fire could result.
- Do not exceed 1,000 psi (68,9 bar) line pressure.
- A filter should be used on the meter outlet to insure no foreign material is transferred to the fuel tank.
- To minimize static electricity build up, use only static wire conductive hose when metering flammable fluids, and keep the fill nozzle in contact with the container being filled during the filling process.
- Do not install additional foot valve or check valve during installation without pressure relief valve. Cracking may result.
- This product should not be used for fluid transfer into aircraft.
- This product is not suited for use with fluids for human consumption.

General description

The Lincoln series 900 Meter is a rotating disc flow meter. The meter uses wheel counters for registering either U.S. gallons or litres.

Meter models

- **Model 962** : measures flow in U.S. gallons.
- **Model 963** : measures flow in liters.

Both units are used for measuring oil lubricants such as standard engine oils and transmission fluids.

Fluid Compatibility

The 962 and 963 are compatible with the following fluids:

- Automatic transmission fluids.
- Engine oils up to SAE 30.

If in doubt about compatibility of a specific fluid, contact supplier of fluid to check for any adverse reactions to the wetted materials shown on the parts list.

Safety

The safety of Lincoln series 900 meters is proven by their listing with:

- Underwriters Laboratories Inc. a nationally recognized independent organization for testing of Products to ensure public safety.
- Canadian Standards Association, a Canadian organization for testing of products to ensure public safety.

Notice

Purge new metering systems must prior to installation of metering control valve to remove contaminants from system.

Table 1

Specifications

Description	Specification
Flow range	4–40 gal./min. (15–115 l/min.)
Maximum working pressure	1,000 psi (68,9 bar)
Inlet/outlet	1 in. (25,4mm)/1 in. (25,4mm)

Fig. 1

Models 962 and 963

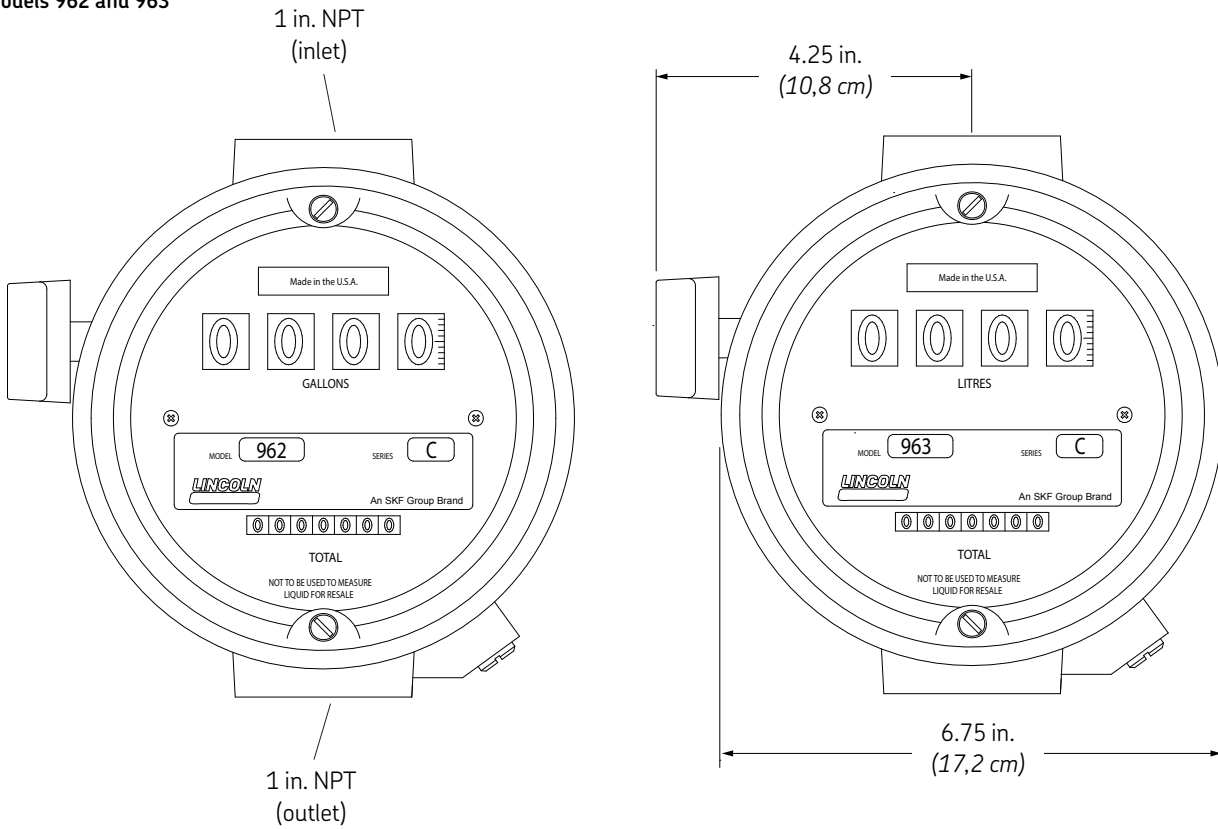
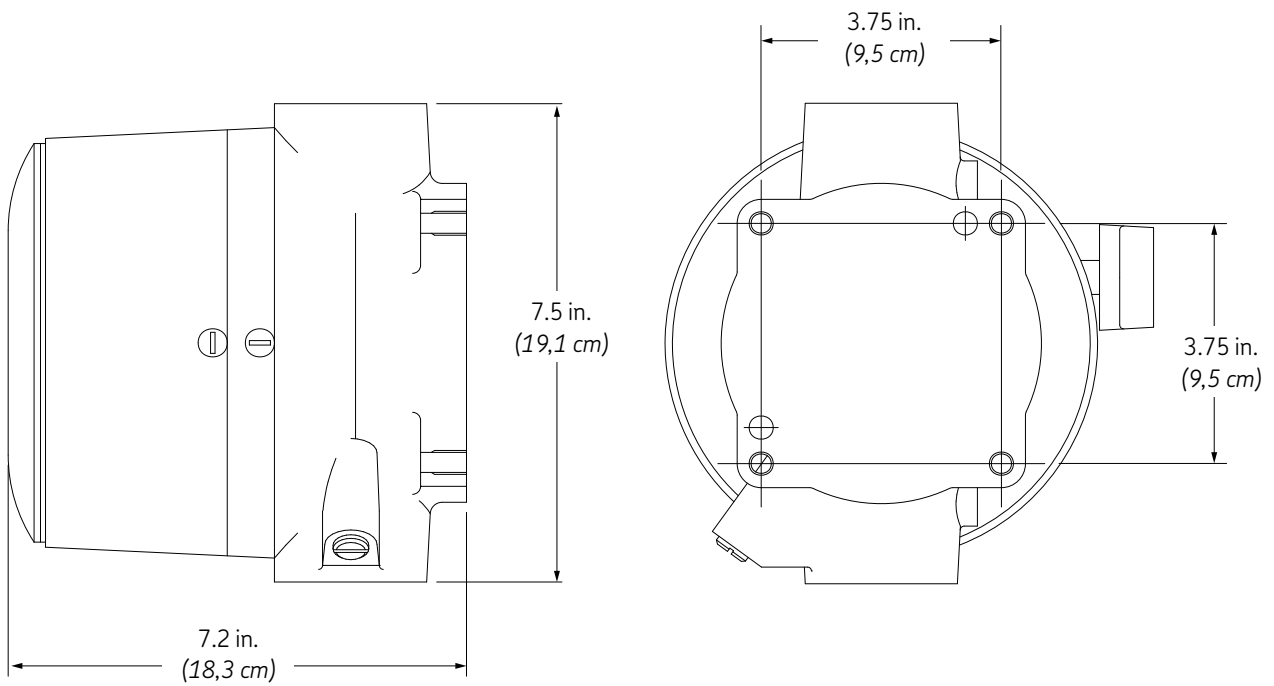


Fig. 2

Models 962 and 963



Installation

The 900 series meter consists of a chamber housing, measuring chamber, gear train, counter assembly, and cover.

The design of the meter is such that it can be completely disassembled without disturbing the piping.

- 1 Determine direction for fluid to flow.
- 2 Install meter observing directional arrow on nutating disk assembly housing (1) (→ fig. IPB, pg.6).

Operating instructions

For accurate measurement and to prevent meter damage, meter and piping must always be filled with liquid and free of air.

Meter should be calibrated per instructions in this manual prior to its use.

- 1 Stop flow of liquid.
- 2 Reset register to "0" using reset knob (4) (→ fig. IPB, pg.6).

Meter is ready for use.

Maintenance

Meter should operate maintenance free. However, certain liquids can dry out while in meter housing, causing the meter to stop. If this happens, meter should be thoroughly cleaned (→ **Cleaning instructions**).

Cleaning instructions

Run a flushing fluid through meter. For a more thorough cleaning, disassemble meter per **Assembly and disassembly** section, **Meter chamber assembly** subsection. Rinse all meter components. Recalibrate meter following calibration instructions.

Storage

If meter is to be stored for a period of time, clean thoroughly. This will help protect meter from damage.

Repair

Meters needing repair should be taken to an authorized repair shop or returned to factory for service. Meters must be thoroughly triple-rinsed before being taken in for repair.

Prior to service, adhere to the following instructions:

- If meter was used for a fluid other than a petroleum product, it must be triple-rinsed and accompanied by a note indicating the chemicals that have been pumped through the unit.
- Meters not adhering to these specifications may be refused service at either the repair shop or at the factory.

When ordering repair parts, be sure to give replacement part number, date of manufacture and meter series number. This will ensure that the correct replacement part is supplied.

Calibration

The Lincoln series 900 meters can be calibrated for either U.S. gallons or litres. Calibration is required upon installation, after disassembly, after significant wear or when metering a different viscosity fluid. Depending on the model, series 900 meters are calibrated at the factory metering gasoline in either U.S. gallons or litres. Calibration must be done between 6 and 40 gal./min. (23 and 151 l/min.).

A proving container or a container of **known** volume will be needed for the calibration procedure. It is recommended that the container's volume be at least five times larger than the unit of calibration. For example, a five-gallon container should be used when calibrating for gallons.

The meter is factory calibrated for a SAE 30 weight oil at room temperature and tested for accuracy at 3 gal./min. (11,4 l/min.) and 30 gal./min. (113,6 l/min.).

Fig. IPB

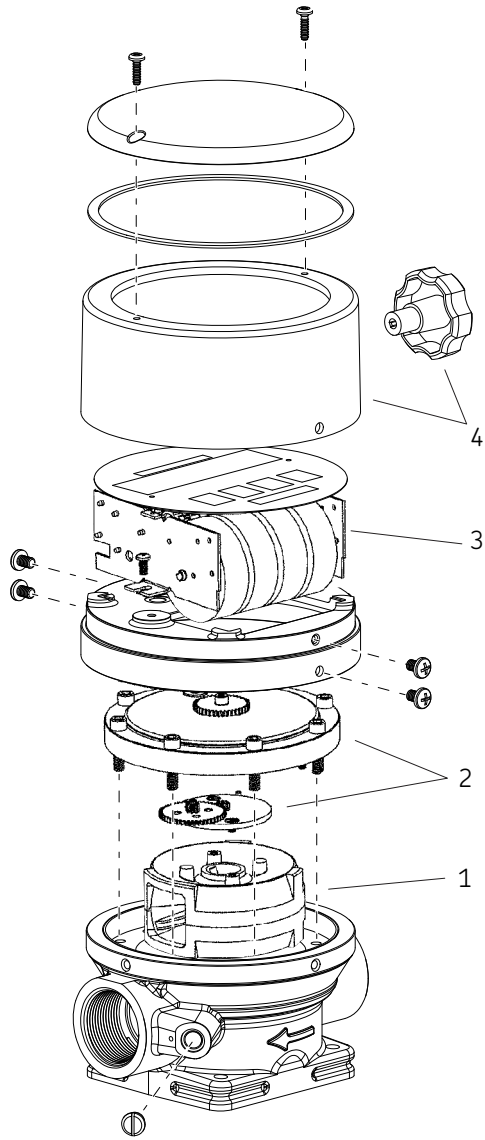


Table 2

Service kits

Item #	Kit	Part no.	Parts included	Qty.
1	Nutating disk assembly	279060	Chamber Control plate assembly Disc assembly 8-32 x 1/4 in. screw, stainless	1 1 1 2
2	Control plate assembly	279061	Control plate assembly O-ring, 0.008 in. (0.203 mm) O-ring, 0.157 in. (3.99 mm) Gear assembly Washer, calibrator 8-32 x 1/4 in. screw, stainless	1 1 1 1 1 2
3	Register	279062 (model 962) 279074 (model 963)	Register assembly (gallons) Register assembly (liters)	1 1
4	Cover register housing and reset knob	279063	Cover register Reset knob	1 1