

# MODEL 1618 / 14308 INSTALLATION INSTRUCTIONS

## GRAVITY FLOW RESERVE OIL SYSTEMS

For gravity flow, the minimum recommended head pressure is 12 feet (4.6 psig). In many instances, due to oil viscosity or temperature, it may be necessary to preheat the oil before it enters the meter.

## PRESSURIZED RESERVE OIL SYSTEMS

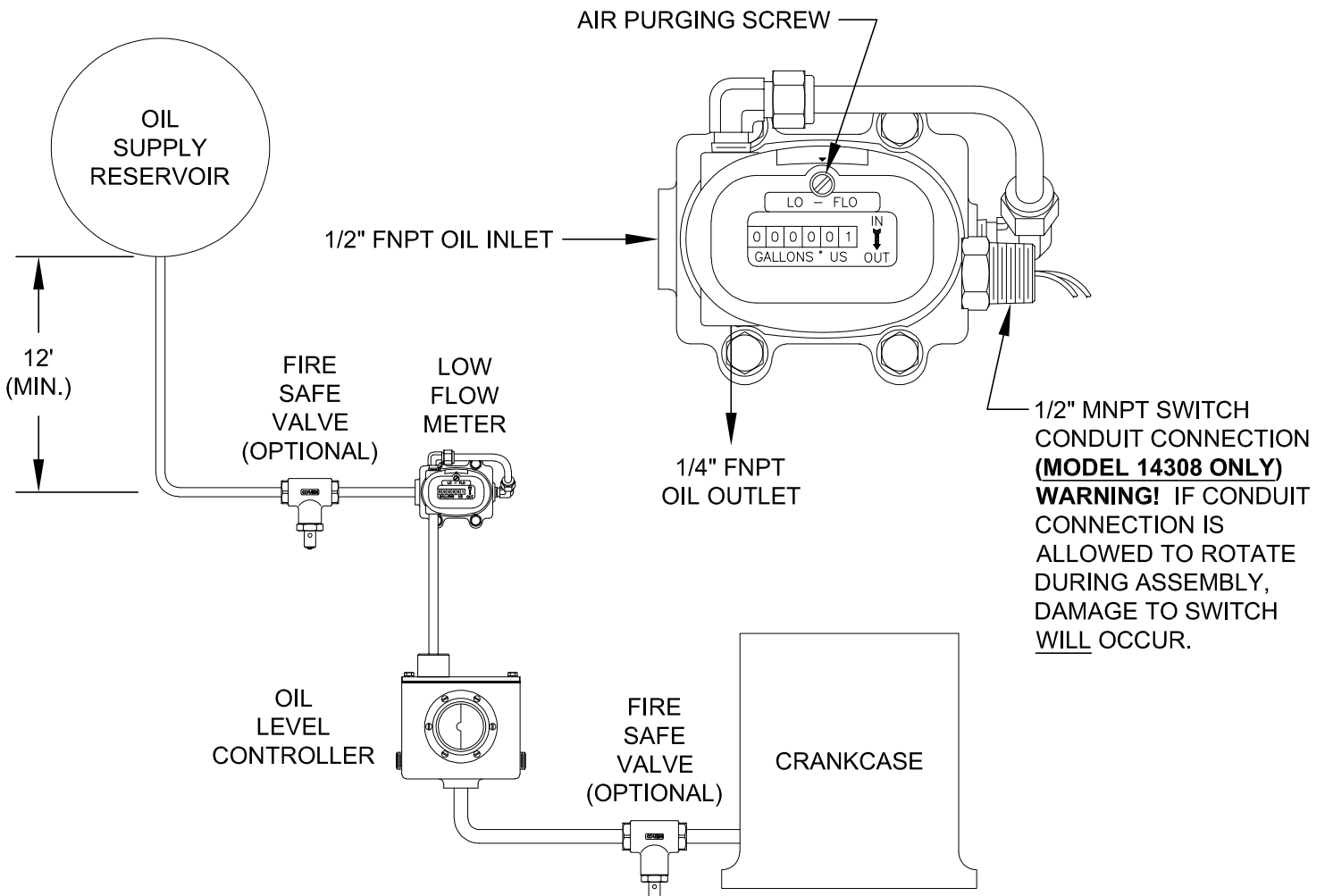
In many pressurized installations, it is not necessary to preheat the oil before it enters the meter. The meter must not be subjected to internal pressures in excess of 50 psig.

## FIRE SAFE INSTALLATIONS

When the meter is used in "Fire Safe" installations, (1) Kenco model 50-KFS Fire Safe valve should be installed on the meter inlet side or ahead of the meter's oil preheater. If an oil preheater is used, ensure that valve is not close enough to heater to melt the valve fuse element. This will cause the valve to actuate and shut off the flow of oil.

## IMPORTANT INSTALLATION NOTES

- Mounting holes are provided on bottom of meter. See opposite side of sheet for size and locations.
- Mounting orientation does not matter as long as all air is purged out of the meter.
- Pipe thread sealants which are soluble to any extent must not be used. Teflon tape is recommended.
- **Do not** overtighten connections. Meter housing is constructed from aluminum and overtightening can crack the housing.
- Model 14308 switch leads are potted with epoxy inside the 1/2" MNPT conduit connection. **Never** allow the connection to rotate when installing or removing conduit. **Always** use a backup wrench to hold the connection in place to prevent damage to the switch.
- **Do not** blow compressed air through the meter to check operation. This can damage some of the internal working parts due to the high operational speed created.
- All air must be bled from the meter after installation. A purge screw located above the mechanical counter is provided for this purpose.



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# KENCO LOW FLOW METER MODELS 1618 AND 14308

## APPLICATION

The Kenco Low Flow Meter provides an accurate record of the amount of lubricating oil required to maintain a constant oil level in the crankcase of an engine or compressor. This meter has been used in gas and oil transmission services for many trouble-free years of service.

## OPERATING PRINCIPLE

The Kenco Low Flow Meter is a positive displacement double action, single piston meter. The piston strokes and actuates a mechanical counter that registers the amount of oil flowing through the meter. Each piston stroke equals and registers 0.01 gallon of flow. There are two models available. The model 1618 with a mechanical counter only and the model 14308 with a mechanical counter and a reed switch. The 14308 reed switch is actuated by a magnet mounted onto the surface of the piston. The switch closes every other piston stroke thus completing a circuit every 0.02 gallon. The mechanical counter is immersed in oil assuring maximum wear resistance from vibration. The meter is installed in line between a Kenco oil storage tank and a Kenco oil level controller. The orientation of the meter does not matter as long as all the air is purged out.

## COMMON SPECIFICATIONS FOR MODELS 1618 AND 14308

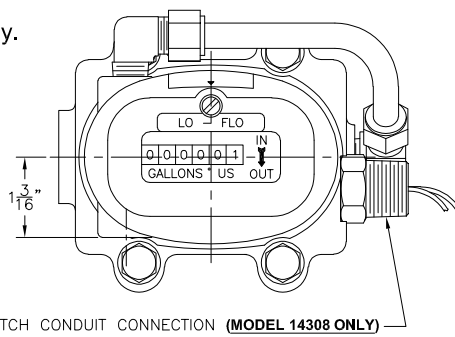
- Flow Rate Range: 0.05 to 5 gallons per hour
- Working Pressure Range: 4.6 to 50 psig
- Mechanical Counter Range: 9999.99 gallons
- Mechanical Counter Resolution: 0.01 gallon

## SWITCH SPECIFICATIONS FOR MODEL 14308 ONLY

- Type: Hermetically Sealed Reed
- Circuitry: S.P.S.T. Normally Open
- Contact Resolution: 0.02 gallon
- Maximum Voltage: 100 VDC; 140 VAC
- Maximum Current: 0.25 Amps DC; 0.18 Amps AC
- Maximum Power: 7 Watts

## TECHNICAL DRAWING

- Switch conduit connection and 22 AWG switch leads are applicable to model 14308 only.
- Dimensions are for reference purposes only and are subject to change at any time without notice.



## 30 WT. OIL FLOW CHARACTERISTICS

