

General

The Lincoln Model 277539 is designed to meet the requirements for dispensing Diesel Exhaust Fluid (DEF). DEF is a urea-based mixture which is specially formulated for use in the new emissions systems that utilize selective catalytic reduction (SCR). SCR under the trade name of Ad Blue is in widespread use in Europe. Based on the meter's construction, it will also meet the needs of other various chemical applications.

The transmitter is mounted on the meter and can be wired to batch controllers, remote counters and other electronically operated instruments that can accept pulses from a reed switch, and have scaling capabilities. The oval gear transmitter is contained in a plastic housing.

Operation

As fluid passes through the metering chamber by entering the inlet port, the internal gears rotate forcing the fluid to exit through the outlet port. Each rotation of the gear displaces a given volume of fluid. Controlled clearances between the gears and chamber wall insure minimum leakage.

As the gears rotate, a magnet on each end of the gear causes the reed switch to open and close. Contact closures from the switch are transmitted to a remote batch controller or counter.

Applications

This transmitter is normally connected to metering systems that have scaling capabilities and that can accept a reed switch pulse.

Typical applications are automated motor oil batching systems, antifreeze dispensing systems and other applications that require totalizing meter flow and monitoring rate of fluid flow passing through the meter.

CAUTION

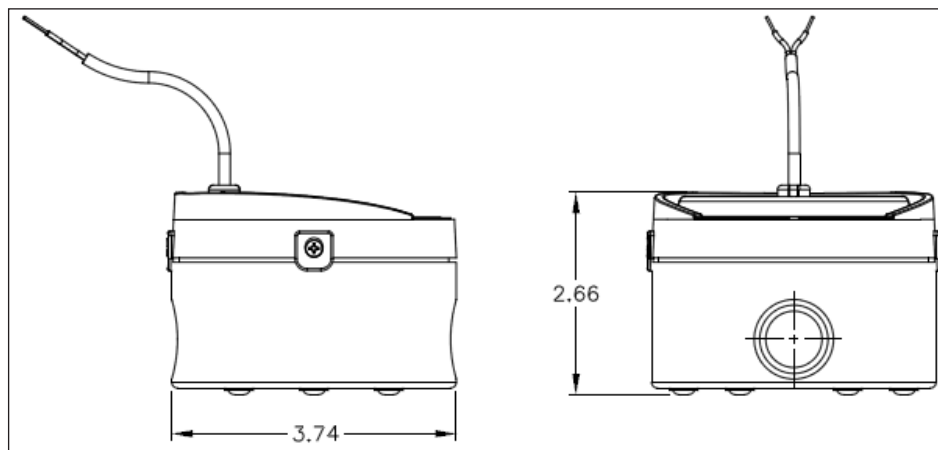
The use of meters in applications other than those described in this document may result in inaccuracy and possible meter failure. Each meter is designed for use with a specific type of fluid.



Do not use petroleum-based products in a meter designed for water-based fluids, or water-based fluids in a meter designed for petroleum-based products. Fluids must be properly filtered before entering the meter. Foreign particles will cause inaccuracy as well as possible malfunction of the meter. Warranties are void in the circumstances described above.

FEATURES

- 145 PSI rating
- Leakproof, magnetic drive
- Does not require external power
- Rugged, corrosion resistant plastic enclosure
- Hermetically sealed reed switch output
- Compatible with most flow controllers and counters with scaling capabilities
- Only two parts to reduce maintenance costs
- Accuracy to $\pm 1.0\%$
- Humidity and moisture resistant transmitter



Specifications

Maximum Flow	8 GPM
Minimum Flow	0.25 GPM
Operating Pressure (Maximum)	145 PSI
Operating Pressure (Minimum)	5 PSI
Operating Temperature (Maximum)	140° F
Operating Temperature (Minimum)	-4° F
Accuracy	±1.0%
Weight	1.3 lbs.
Pulse Rate	95 pulses/quart
Reed Switch Rating	120V AC @ 10 watts
Inlet & Outlet Connections	1/2" BSPP

Materials

Materials	Oval gear meter
Housing	PVC
Internal gears	LCP — Plastic (Vectra)
Spindle	SS 1.4301

Note: The meter is manufactured out of bar stock material and the internal parts are made in stainless steel and Vectra in a zinc-free process.

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