

What is it?

A Lutz-JESCO America Corporation Leakage Probe is used to detect leakage in the event of diaphragm failure. The diaphragm of a metering pump separates the liquid end components from the rest of the pump and protects the pumps internals from the chemical.

What does it do?

With the application of a Leakage Probe as a monitor device, an alarm is given and the pump is switched off as soon as leakage within the pump occurs. Upon alarm notification, the diaphragm should be replaced and the pump evaluated for further damage. The Leakage Probe can be reused after thorough cleaning and complete drying (including inside.)

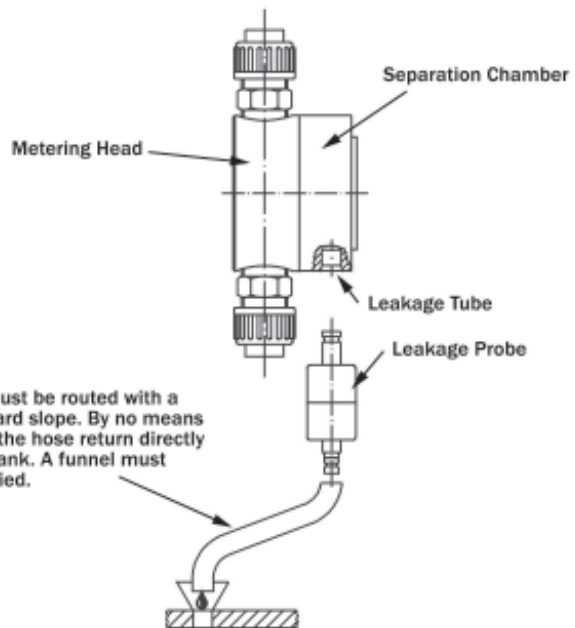
What happens without it?

While durable materials are used for the diaphragm of a metering pump, accidental diaphragm failure might occur as a result of wear and tear or inadmissible pressure peaks. The diaphragm of a metering pump separates the pump head from the rest of the pump and protects the pump's gear from the chemical. To avoid further damage through continuous discharge of aggressive media, the metering pump should be switched off automatically and maintenance personnel notified. Without a Leak Detector this process needs to occur manually.

How does it work?

The leakage probe can be mechanically inserted into the separation chamber or the leakage tube of the standard diaphragm flange, respectively. Electrically the leakage probe is connected to a relay. If the chemical comes in contact with the leakage probe, a circuit loop is closed and the relay will switch. This make-and-break contact can be included in the pump's power circuit and/or it can be used for sending an alarm.

The evaluation of the leakage is done with the assistance of a relay. The wires coming out of the Leakage Probe are connected to the relay (p/n 44300072.) The relay provides a no-load current (24VAC/50Hz/60Hz) toward the Leakage Probe. If a diaphragm ruptures, the leakage probe is moistened by the chemical and the circuit is closed due to the chemical's different conductivity. The relay switches.

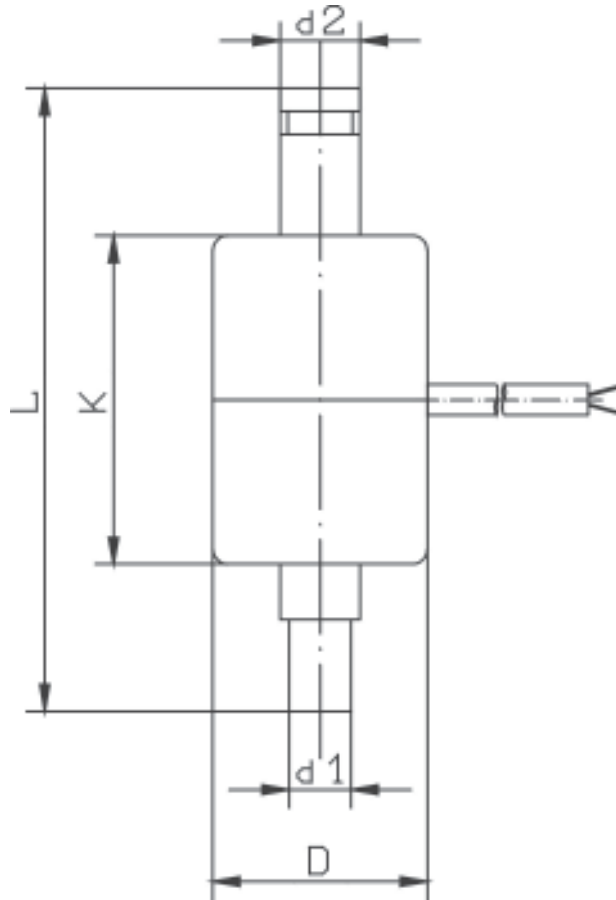


Assembly

Remove leakage tube and insert Leakage Probe.
Note: If the leakage tube is glued in, a hose can be used to connect the leakage probe.



The sensitivity of the relay is adjustable. If the relay is connected to rod electrodes; the conductivity of the liquid must be at least 10 μ S. For well-conducting liquids, the relay should be less sensitive (i.e. malfunctions may occur if the atmosphere around the rod electrodes is humid.) Maximum sensitivity is to be chosen for poorly conducting liquids.



Selection Table

| Leakage Probe for | d1 | d2 | D | K | L | Part Number |
|------------------------------------------------------------------|----|----|----|----|------|-------------|
| MAGDOS LC MAGDOS LT MAGDOS DE/DX 01-20 MEMDOS E/DX 4-76 | 10 | 8 | 28 | 43 | 81.5 | 13125200 |
| MAGDOS DE/DX 40-100 MEMDOS E/DX 110-156 | 16 | 16 | 40 | 46 | 93.0 | 13125204 |
| MEMDOS E/DX 160-300 2300 Series | 21 | 21 | 36 | 50 | 93.5 | 13125208 |