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16633 Foltz Parkway
Strongsville, Ohio 44149
+1 (440) 572-1500
sales@clarkreliance.com
www.clarkreliance.com

Level Measurement Solutions
MADE IN THE USA

SHOP PARTS ONLY ONLINE

JERGUSON®
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16633 Foltz Parkway, Strongsville, OH 44149 USA Phone: +1 440.572.1500 Fax: +1 440.238.8828
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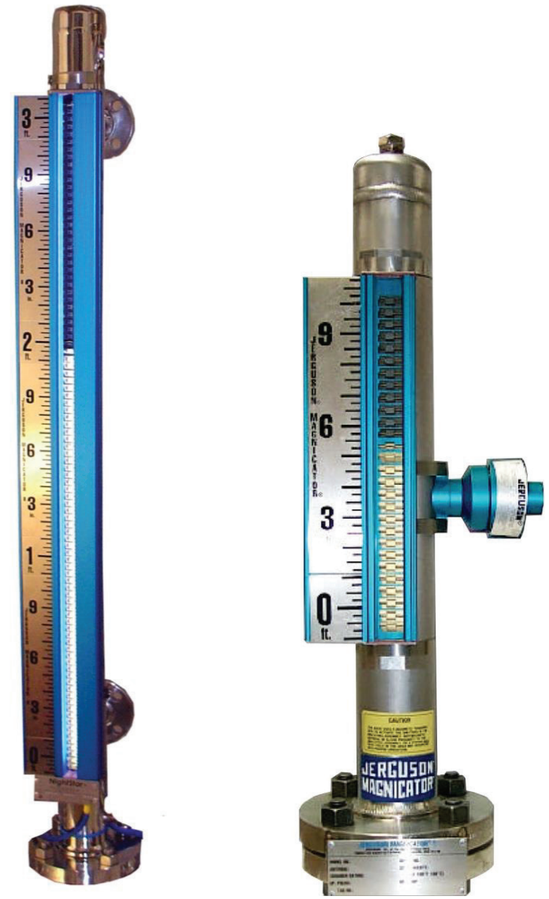
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Installation, Operation, & Maintenance Instructions
IOM M500.01
March 2017

JERGUSON®

MAGNICATOR®



The Jerguson Magnicator is designed to safely determine the level of liquids and liquid interfaces. The operation of the Magnicator is both simple and unique. The patented magnetic circuit provides the best combination for floats and indicators available. The magnets in the float actuate the indicator flags as the level rises or falls. The indicator tracks the float exactly, which in turn provides an accurate level measurement.

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PRECAUTIONS:

To obtain performance from your Magnetic Level Indicator (MLI), the following precautions should be observed.

1. For Mini-Magnicator, refer to specific float instructions on page 3.

2. The float chamber and float contained in your Magnicator are designed and manufactured to meet the exact specifications for your particular process conditions. Do not use this indicator with liquids of different densities or under different operating process conditions for which it is rated without careful review of the new application.

3. The Magnicator must be operated in an area free of magnetic forces or matter which will influence the magnetic circuit. This includes items such as steel support straps, heater wires, and steel steam trace tubing. Generally speaking, all carbon steel material should be kept at least 12 inches (305mm) away from the MLG column. Contact the factory if this clearance cannot be obtained.

4. Do not hydrostatic test the magnetic level indicator with the float inside the chamber. The float is designed for maximum operating pressure only. Exceeding of this pressure may affect the performance of the float.

5. On models BEF, care must be taken not to bend or deform extension rod, as this may hinder the float movement.

6. Check tag number and serial number engraved on float, and confirm they match the information located on the nameplate of the MLI chamber.

INSTALLATION:

To install your Magnicator, perform the steps described below.

1. Unpack and inspect each unit upon receipt. The float is removed from the Magnicator and packed in a protective tube that is temporarily attached behind the indicator scale for shipment. The float should remain in this protective tube until it will be installed inside the MLI chamber.

2. The MLI must be installed vertically and level.

3. Block valves should be installed between the process vessel and the MLI.

4. Composition gaskets are supplied for the access flanges. If composition gaskets are not suitable for your process, appropriate gaskets should be used. Check tag and serial number of float to assure correct match. Remove tag prior to operation.

5. Install float, be sure to remove the instruction tag and to clean off any foreign matter, especially metal particles which may have become attracted to the magnet assembly inside the float. The top of the float is marked and must be installed toward the top of the MLI.

For Model EF (End Flanged)
Float stop plates with springs are supplied and should be installed between the Magnicator and mating flange/block valves

For Model BEF (Bottom End Flanged)
Floats are factory installed on top mount level indicators and packed to protect it from damage. Remove all the packing material before installation.

MAGNICATOR®
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OPERATION:

1. Putting MLI in service:
   - Check that the operating conditions are within the rating of the MLI. Each Magnicator has a permanent name plate engraved with the rating and process conditions.
   - Check to see that all vent and drain valves and plugs (if applicable) are securely closed.
   - Flag Indication: Black = Vapor Space, Yellow = Liquid Space (all flags should be in the black position). Alternate color flag indication: White = Vapor Space, Red = Liquid Space (all flags should be in the white position).
   - Slowly open the upper isolation valve. Upper isolation valve must be opened first to equalize the pressure between the chamber and tank / vessel.
   - Slowly open the lower isolation valve. The float will rise with the liquid level in the chamber. The magnet assembly is positioned in the float so it will ride at the surface of the liquid (or at the interface between two liquids when specified). Flags will turn yellow with the liquid level.
2. Preparing MLI for maintenance:
   - Close lower isolation valve.
   - Close upper isolation valve.
   - Slowly open vent valve to release the pressure from the MLI chamber.
   - Slowly open drain valve to drain liquid from the MLI chamber.

MAINTENANCE:

The Magnicator Magnetic Level Indicator is a simple device which requires a minimum amount of maintenance. The maintenance normally consists of cleaning the chamber. The frequency of cleaning will depend on the process in which it is installed in. When enough foreign matter collects in the chamber to restrict the movement of the float, it will be necessary to isolate the chamber and drain out the accumulation of dirt from the MLI. The chamber can be flushed by using the vent and drain connections. In extreme cases, it may be necessary to remove the float, and mechanically clean the float and chamber. Some processes may dictate the use of a suitable solvent for cleaning. In the event the float should be removed, refer to steps given under INSTALLATION.

Caution: Only clean indicators with a damp cloth to avoid electrostatic charge of non-metallic components.

Mini-Mag Float Installation Procedure

Using the following steps to install the float inside of the chamber. All other setup and maintenance procedures should be done in accordance with the Magnicator Installation, Operation & Maintenance.

- Find the arrow on the tag that is etched onto the float. The arrow tip locates the proper pole of the magnet inside of the float.
- Insert float into the chamber with the arrow tip, and magnet, facing towards the indicator.

Completing these steps will ensure proper coupling between the magnets in the float and the indicator during startup and operation.

Available Certifications:

ATEX	EU	RUSSIAN	CANADA
CE Ex II2 GD Ex h IIC T6…T1 Gb Ex h IIIC T450C…T85C Db	PED Available Contact Factory	EAC	CRNs Available by Province

Certificate #CR17ATEX1001

External temperature of components and T code is based on internal process temperature. When operating with no added accessories, the external temperature can only be equal to or less than the process temperature. Take caution when installing accessories that may generate their own heat. Always ensure the rating of the equipment meets or exceeds the requirements of the hazardous location.