

Notes

1. Do not replace studs or nuts without contacting FMC Technologies Measurement Solutions, Inc. for correct stud material.
2. Use two nuts per stud, one under solenoid bracket (not shown) and one to fasten bracket to valve.

3. Handling, Cleaning, and Installation of Teflon Encapsulated O-Rings

3.1 Handling

At no time prior to installation should Teflon encapsulated O-rings be removed from their protective packaging and be allowed to contact any surface which will scratch, dent, cut, or allow abrasive materials such as rust, metal chips, filings, or dirt to adhere to the Teflon surface. If the Teflon surface exhibits visible marks, the O-ring should be inspected to determine if the O-ring is damaged and to what extent the damage will affect O-ring performance.

3.2 Cleaning O-Rings

- a. Before installing O-rings, all surfaces which will come in contact with the Teflon O-ring must be visually inspected for any surface finish or object which will damage the Teflon surface such as metal chips, burrs, or sharp edges.
- b. Never wipe contamination off an O-ring with a cloth or paper towel. Dip O-ring in a clean solvent or kerosene and blow dry.
- c. Installer's hands must be clean when handling O-rings.

3.3 Installation

- a. After surfaces which will contact O-ring have been cleaned and blown dry, visually inspect O-ring for defects or contamination. If O-ring is acceptable, lubricate O-ring with a silicone lubricant making sure the lubricated surface does not pickup contamination.

- b. **Never use sharp objects** such as screwdrivers, nails, knives, or other metal objects to assist in the installation of an O-ring. Only blunt wood or plastic custom-designed installation tools should be used.
- c. Installation of O-rings over shafts which are threaded or have sharp shoulders, grooves, or keyways should be accomplished as follows:
 - 1) Installation over a shoulder from a small diameter to a larger diameter shaft should be accomplished by taping the shoulder edges with either masking tape or duct tape to create a barrier between the metal edge and O-ring.
- d. Installation of an O-ring over threads should be accomplished by either taping the threads with masking or duct tape and pushing the O-ring over the taped threads into final position, or roll a thin, stiff plastic sheet, similar to metal shim stock, into a tube and slip O-ring over the tube. Slip tube and O-ring over threads until threads are completely covered and then push O-ring into position.

3.4 O-Ring Removal

Except for installation into a standard open O-ring groove, removal of a Teflon encapsulated O-ring from a groove on a shaft or from the O-ring retainer in a 200 series valve, will always cause damage to the O-ring. Therefore, it is **very important** to inspect, clean, and handle O-rings as described above before installation to preclude having to remove and therefore damage the O-ring.

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.

Headquarters:

1803 Gears Road, Houston, TX 77067 USA, Phone: 281/260-2190, Fax: 281/260-2191

Gas Measurement Products:

Erie, PA USA Phone 814/898-5000

Thetford, England Phone (44) 1842-82-2900

Kongsberg, Norway Phone (47) 32/286-700

Buenos Aires, Argentina Phone 54 (11) 4312-4736

Integrated Measurement Systems:

Corpus Christi, TX USA Phone 361/289-3400

Kongsberg, Norway Phone (47) 32/286-700

San Juan, Puerto Rico Phone 787/274-3760

United Arab Emirates, Dubai Phone 971 +4/331-3646

Liquid Measurement Products:

Erie, PA USA Phone 814/898-5000

Los Angeles, CA USA Phone 661/702-8660

Slough, England Phone (44) 1753-57-1515

Ellerbek, Germany Phone (49) 4101-3040

Barcelona, Spain Phone (34) 93/201-0989

Moscow, Russia Phone (7) 495/564-8705

Melbourne, Australia Phone (61) 3/9807-2818

Beijing, China Phone (86) 10/6500-2251

Singapore Phone (65) 6861-3011

Chennai, India Phone (91) 44/450-4400

Visit our website at www.fmctechnologies.com