

Installation Guide

FPI Mag Cathodic Protection during Installation

Cathodic protection is a technique used to control the corrosion of a metal surface by making it the cathode of an electrochemical cell. A simple method of protection connects the metal to be protected to a more easily corroded "sacrificial metal" to act as the anode. The sacrificial metal then corrodes instead of the protected metal.

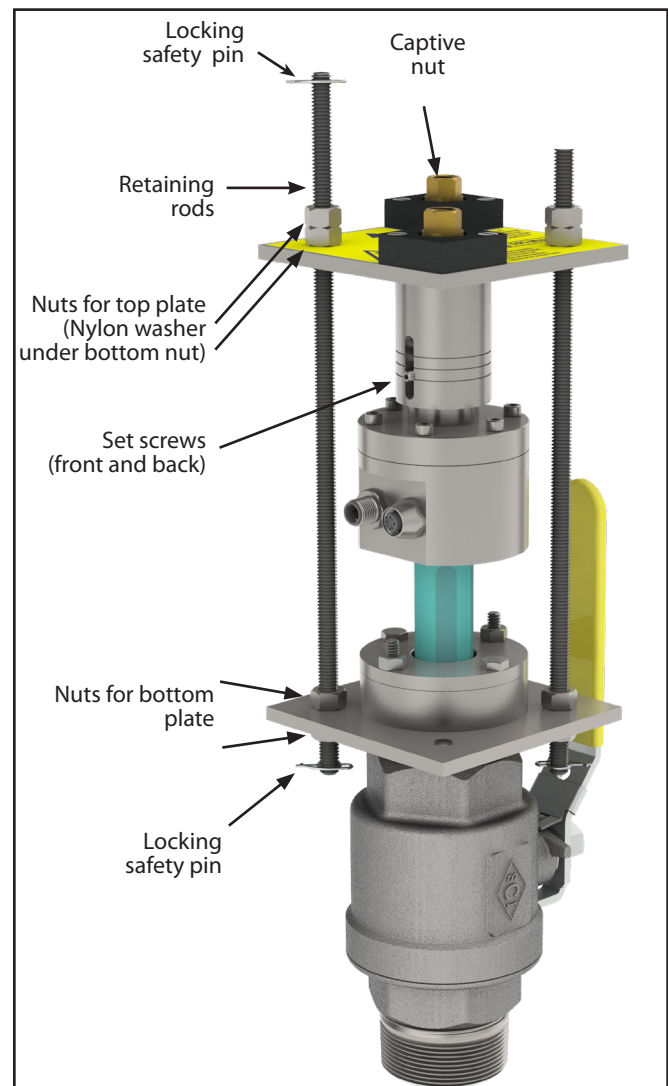
In the case of electromagnetic technology used on a pipe line that also has cathodic protection, the meter may experience problems reading the low voltage signal needed for flow/velocity detection. The best way to overcome this interference from the cathodic protection is to isolate the meter electrically from the pipe. See the diagram at right of how the meter is isolated for more information.

FPI Mag Cathodic Protection kit, FPI-CATH-K, consists of a 3/8" top plate and washer spacer. The individual components are shown below:

PN	Description	Quantity
MIM040	Nylon unthreaded shoulder washers (two are for spares)	4
MIM084	FPI Mag top plate and heavy spring	1
92119	Set screws	2

The top plate assembly supplied with the FPI Cathodic Protection kit must be installed before the sensor is installed in the pipe.

1. Note: With the flow direction arrow on the top plate facing away from you, the sensor quick locking disconnects, or sensor cables will be on your Left side.
2. Using a 3/32" Allen wrench or hex key, remove the two set screws that are used to indicate spring tension.
3. Replace the original top plate assembly with the new top plate assembly provided in the kit, leaving the spring in place. With the flow direction arrow facing away from you, the sensor quick disconnects, or sensor cables must be on your left.
4. Reinstall the two set screws to retain the top plate assembly. Do not overtighten. The two set screws included in the kit are spares.
5. Using the long-threaded rods, install the sensor as described in the FPI Mag Instruction, Operation and Maintenance Manual.
6. Install the short-threaded rods with the Nylon electrical-insulating sleeve washers in the holes in the top plate under the bottom nut.
7. Install the locking safety pins in the ends of the short-threaded rods.
8. The long-threaded rods can now be removed.



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