

INSTALLATION AND OPERATING INSTRUCTIONS

Standard and Connection Verification versions: read and understand each of the following procedures before operating the connector.

1. Installation of New Seals
2. Mounting the Connector
3. Attachment of Pilot Pressure and Test Media Supply Lines
4. Connection Verification™ Wiring Diagram
5. Connector Operation Instructions

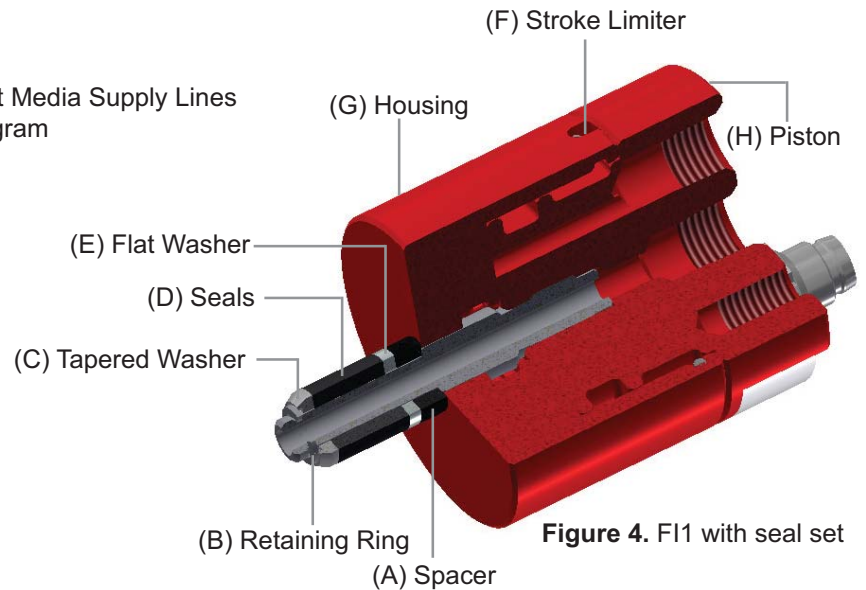


Figure 4. FI1 with seal set

1. Installation of New Seals

- 1.1. For new seal installation/replacement, remove retaining ring (B) from shaft tip and slide off old seal (D) and washers (C & E). Spacer (A) is to remain on connector shaft.
- 1.2. A seal set (FIS-XXX) contains elastomer seals, two washers and a retaining ring. Verify that seals and washers are the same size (outside diameter).
- 1.3. Assemble seal set onto shaft per Figure 4.
- 1.4. Attach new retaining ring (B) to groove in shaft tip. **Flat side of retaining ring must face away from washer.**
- 1.5. A tapered washer (C) with a counterbore is used at the shaft end on all FI01, FI1, FI2, FI3 and FI4 connectors. The retaining ring will be contained within the counterbore when pilot pressure is delivered to the connector.

2. Mounting the Connector

The connector must be secured to the test piece with a mechanical or other device to assure the connector is not uncoupled from the test piece by the uncoupling force of the test itself. The securing or holding device may be a fixture, clamp, cylinder or other appropriate means that prevents ejection of the test piece from the connector.

Uncoupling force example:

Test piece has a ½" O.D. and is tested at 100 psi maximum. Uncoupling force = area (πr^2) x pressure = $\pi(.25)^2 \times 100 \approx 20$ lbs. Secured device should be designed to withstand this force and include an adequate margin for safety. Do not activate the connector without an adequate and safe securing mechanism.

Mount the FasTest FI connector to the fixture or appropriate device using either threaded mounting holes on the rear of the connector body, or appropriate adapter.

3. Attachment of Pilot Pressure and Test Media Supply Lines

3.1. Attach pilot pressure line to pilot port “K”, Figure 5. Note: A pneumatic regulated source is required to maximize seal life and assure optimum seal-ability for the application. The pilot pressure should be minimized to maintain sealing on the test piece without excessive compression of seal. Excess pilot pressure may reduce the life of the seal

3.2. Attach test media line to test port “J”, Figure 5.

3.3. Provide a means whereby test pressure will not be introduced until pilot pressure required to seal is reached. The means should also provide quick exhaust of test pressure in the event pilot pressure falls below the minimum required to seal.

Note: Test and pilot pressure should not be regulated by the same regulator. Failure to comply may result in harm.

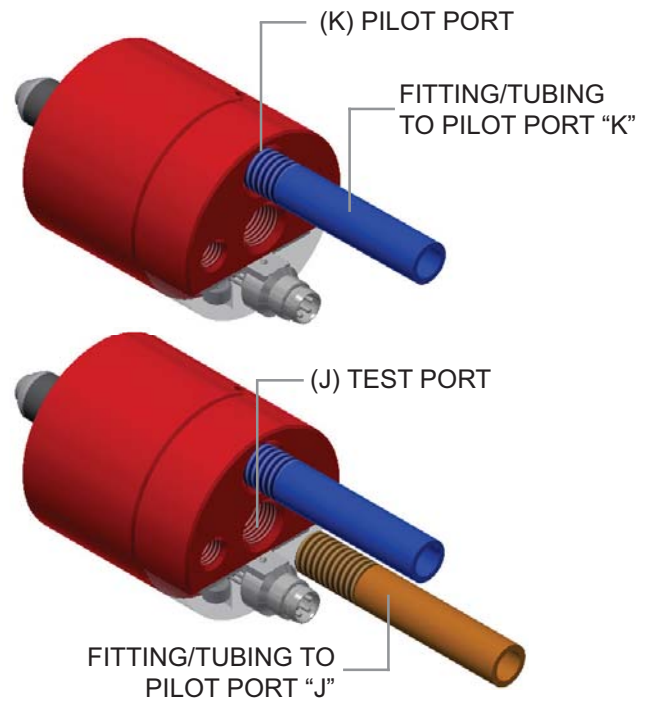
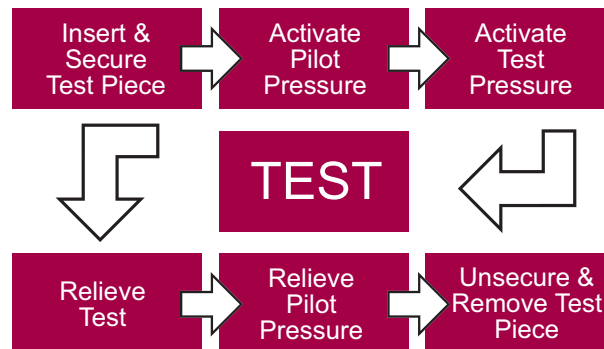


Figure 5. Attachment of Lines

4. Connection Operation

FasTest recommends that both the FI connector and the test piece are secured by mechanical devices before proceeding with the following sequence:

Activate connector testing sequence as shown below.



- 4.1. Place the test piece over the end of the connector and secure. Make sure the test piece is inserted to the required minimum insertion length. This will assure proper location relative to the seals. Make sure the connector and test piece are secure.
- 4.2. Apply pilot pressure to seal against the part. Generally, a 60 to 90 psi pneumatic pilot pressure source is required. CAUTION: Do not activate PILOT or TEST PRESSURE without test piece in place.
- 4.3. With pilot activated, introduce gas or liquid through the FasTest FI connector.
- 4.4. Perform testing operation.
- 4.5. Relieve test pressure.
- 4.6. Relieve pilot pressure.
- 4.7. Remove test piece.