Leak Test Connector Selection Guide





### **Introduction to FasTest**

# Leak Testing Today ...

Since 1985, *FasTest* advanced engineering creates connecting solutions that are easier, safer and more reliable while dramatically lowering your operating costs. With *FasTest*, you can expect increased operational throughput and a fast return on your investment.

Tens of thousands of satisfied customers have made the switch from their inadequate, unproductive leak test connectors to our engineered testing and filling solutions.

**FasTest** products are used by every major automotive manufacturer, top appliance companies, medical device manufacturers, aerospace, power generation, plus hundreds of other industries throughout the world.

Our complete selection of engineers products combined with extensive experience and expertise allows us to help you specify the right connector for your application. Small differences can diminish the suitability of a connector for your application. At *FasTest* we can modify standard products to fit your specific needs or engineer a total custom test system.



Cumbersome leak testing methods using jury-rigged adapters, fittings and test jigs is time-consuming, unreliable and may be unsafe to your workers.

**FasTest** connecting tools are available in many configurations - each precision engineered to perform specific pressure and vacuum test and built to fit your testing and process requirements.

**FasTest** offers extensive expertise to help you arrive at the optimum solution for your application and workflow. With over 50 patents and as the acknowledged expert in the field, chances are we've solved an application like yours, no matter how challenging.

Do as thousands of others have done. Make the switch from older inadequate or homemade jury-rigged adapters to *FasTest* engineered testing and filling solutions.

#### Seal Materials ...

Selecting the right seal material is critical to the reliability of the connector and the amount of maintenance required. *FasTest* manufactured seals exhibit superior wear resistance and maintain its sealing properties.

**FasTest** offers neoprene, urethane, Viton, EPDM, Buna-N, and FDA white neoprene. Our seals are manufactured via **FasTest** proprietary process which is why our seals are more durable, longer lasting and create a better leak tight connection.















H-18























#### Web Tools Search Tips: Connectors, Replacement

Seals and Instructions, etc.

Pages B4, D16, F6, G3, K7-K8

Custom App Form Page J6 Page K1 ReConnect Page K9 Warranty Page K9

\*See section pages for detailed selection guides



## **Technology Overview**

The FasTest "FI" Internal and "FE" External connectors provide fast, leak free connections for pressure and vacuum testing, fluid filling and flushing. The connectors are air-actuated and are ideal for automation to accommodate high volume production testing. Capable of sealing conventional and nonstandard surfaces, connects to any tube or pipe, smooth or thread. Compressed air activates the elastomeric seals. Uniform seal movement makes a virtually leak-proof connection, even over threaded, rough and oily surfaces. Testing, filling or flushing of the test piece is accomplished by introducing media through the FasTest connector.

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"FI" Connectors for Internal **Tubes / Female Threads** 



"FE" Connectors for External **Tubes / Male Threads** 

## **Sealing Materials**

**FasTest** offers many elastomer materials and durometers for the **FE** and **FI** connectors that are readily available to satisfy a wide variety of testing conditions and seal life requirements. 40 durometer Neoprene is the recommended sealing material for general testing applications. Neoprene provides excellent seal life and sealability for low abrasion applications, has good compression set characteristics and a temperature range

of -40° to 250°F. 60 durometer Urethane seals should be used for high abrasion (threads), high test pressure and high cycle duty applications. Urethane also has good resistance to petroleum oils. Additional elastomer formulations available for special temperature and test requirements are: Buna N, Fluorocarbon (Viton), EPDM and FDA White Neoprene.

#### **Test Piece Surfaces**

**FE** and **FI** connectors are designed to seal various types of surface conditions that may exist on the part or component to be tested. Test piece connection surfaces may be smooth, porous, out-of-round or threaded. In addition, the test connection end may be flared, beaded, swaged or have a formed end profile.



# **Test Fixture Requirements**

FasTest strongly recommends the FE and FI Series pneumatic operated connector and test piece be secured during pressure testing with a mechanical grip or fixture. The FE and FI Series are sealing only connectors and possess limited gripping capabilities. For vacuum testing, it is not necessary to secure the test piece or connector.

# **Custom Test Connectors**

Custom **FE** and **FI** connectors designed to a specific customer's requirements are available from **FasTest** to accommodate limited clearance, various profiles, surface conditions and other application requirements.

Please contact *FasTest* for additional assistance.



The **FE** or **FI** 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.





#### Features and Benefits - "FI Series"

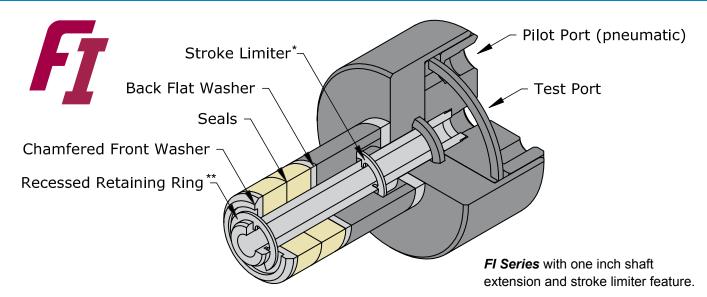
- Automated sealing inside holes and ports 0.310" to 3.005". Up to 6.00" on request
- Automated sealing of threaded ports 1/8" to 2-1/2" NPT, including BSPP, BSPT, Metric and UNF straight threaded ports
- Vacuum to 120 psi
- Replaceable seals in a range of sizes and materials
- Neoprene and Urethane as standard seal material.
   Buna N, Fluorocarbon, EPDM and FDA White
   Neoprene available

- Adaptable for pick and place and delicate robotic material handling applications
- Delicate touch seals thin wall material and will not scratch or mar test piece
- Expert help can evaluate and adapt to your special requirements
- · Extended shaft configurations available

#### Note:

Connectors with extended shafts are designed for sealing remote ports or for applications requiring connectors to be offset rather than side-by-side mounted which may be required when multiple test ports have close center to center distances. The extended shaft increases the distance of the seal from the connector body. 1" and 2" extended shafts are common sizes. The shaft is one piece and must be factory installed. Other size extensions are available per request.

# The Technology - "FI Series"



#### **How to Operate:**

- Step 1 Insert connector into test piece and secure test piece and connector.
- Step 2 Introduce pilot pressure to active seal.

  Generally, 60 to 90 psi pneumatic pilot pressure.

  Use of minimum required pilot pressure will prolong seal life.
- Step 3 Introduce test pressure:

  Maximum rated test pressure for FI Series models is 120 psi.
- \* Stroke limit standard feature with 1" and 2" shaft extension option.
- \*\* Recessed retaining ring standard feature for FI01 thru FI4's.



For threaded retaining nut option consult factory

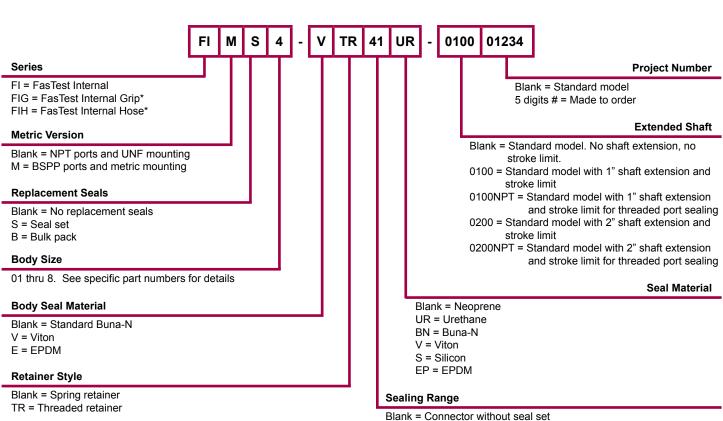
0.310" to 3.005". See specific part numbers for details

# "FI" and "FE" - Automated Tube and Thread Connectors

- Connects to Internal Tubes / Threads



# "FI Series" Part Number Key



#### Notes:

Part Number Keys are to assist in IDENTIFICATION ONLY. Verify new part numbers with factory; some configurations are not possible.

\* FIG and FIH - Contact factory for sizing and application assistance.

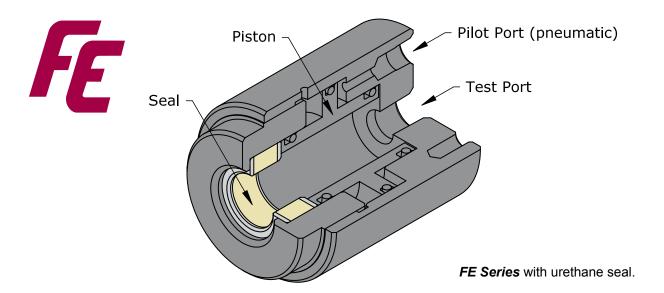


## Features and Benefits - "FE Series"

- Automated sealing over tubes and pipes 0.030" to 5.040"
- Automated sealing over threads 1/8" to 2-1/2" NPT including BSPP, BSPT, Metric and UNF straight threads
- Vacuum to 500 psi
- Replaceable seals in a range of sizes and materials
- Neoprene and Urethane as standard seal material.
   Buna N, Fluorocarbon, EPDM and FDA White
   Neoprene available

- Adaptable for pick and place and delicate robotic material handling applications
- Delicate touch seals thin wall material and will not scratch or mar test piece
- · Off-the-shelf sealing solutions
- Expert help can evaluate and adapt to your special requirements

# The Technology - "FE Series"

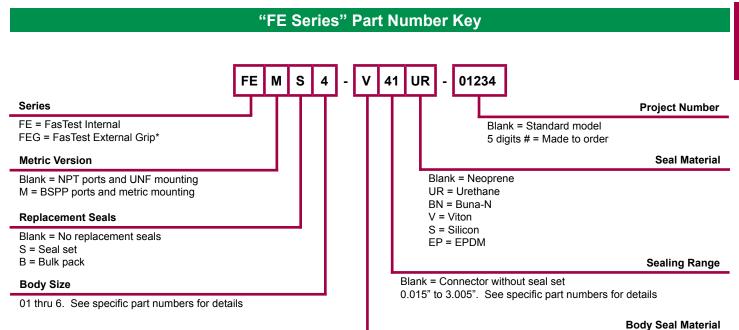


#### How to Operate:

- **Step 1** Insert test piece into connector and secure test piece and connector.
- Step 2 Introduce pilot pressure to active seal. Generally, 60 to 90 psi pneumatic pilot pressure for smooth tube applications. 90 to 120 psi for rough case and out-of-round parts.
  300 to 600 psi for threaded applications.
  Use of minimum required pilot pressure will prolong seal life.
- Step 3 Introduce test pressure: Maximum rated test pressure for FE Series models is 500 psi.

- Connects to Internal Tubes / Threads





Blank = Standard Buna-N

V = Viton

E = EPDM

#### Notes:

Part Number Keys are to assist in IDENTIFICATION ONLY.

Verify new part numbers with factory; some configurations are not possible.

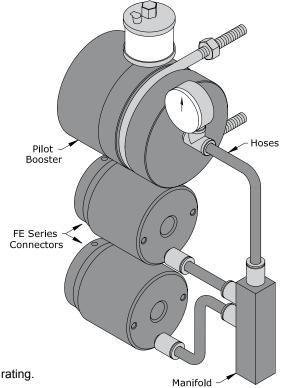
\* FEG - Contact factory for sizing and application assistance.



## Pilot Booster for Multiple FE Series Connector Applications



- Uses 30 65 psi regulated compressed air to produce up to 600 psi hydraulic pressure
- Simple in-line installation with standard FE Series Connectors
- · Safe air over oil pressure intensifier with limited displacement
- Multiple FE Series connector capacity
- Compact, lightweight design 4-1/2" x 4-1/4" body size weighs less than 5 pounds



#### **Pilot Booster with Accessory Kit PBA-02**

The PB-1015 Pilot Pressure Booster is a pressure intensifier designed to provide the 400 - 600 psi hydraulic pressure for sealing external threads and irregular surfaces with the FE Series Connectors. A sealing system consisting of an FE Connector, urethane main seal and PB-1015 Pressure Booster can produce the seal movement and long life performance needed in production testing applications.

Urethane sealing material is superior to neoprene material in high pressure, high abrasion and high cycle applications. The increased elastomer movement required for sealing irregular shapes or into threads requires urethane seal material. Up to 600 psi pilot pressure is needed to seal deep root external threads. Production testing of threads and hard to seal surfaces can now be automated using the Pilot Pressure Booster and a proper sized urethane seal set in a FE Series Connector.

**DO NOT** use the booster with the FI Series connectors due to lower pressure rating.

#### Pilot Booster, Accessories and Technical Data

Part Number	Description
PB-1015	Pilot Pressure Booster
PBH32	1 quart hydraulic oil, 60 SSU petroleum based
A02M3	Manifold - 1/8" NPT inlet with three 1/8" NPT outlets
A02M4	Manifold - 1/8" NPT inlet with four 1/8" NPT outlets
A02M5	Manifold - 1/8" NPT inlet with five 1/8" NPT outlets
AT021R	Run Tee - 1/8" NPT
H012X036	Hose - 10-32 male x 1/8" NPT male - 36" length
H012X072	Hose - 10-32 male x 1/8" NPT male - 72" length
H022X018	Hose - 1/8" NPT male x 1/8" NPT male - 18" length
H022X036	Hose - 1/8" NPT male x 1/8" NPT male - 36" length
H022X072	Hose - 1/8" NPT male x 1/8" NPT male - 72" length
PBA-01	Accessory Kit for FE01 Connectors 1 qt. oil, 0-600 psi gauge, run tee, 10-32 male x 1/8" NPT male - 72" hose
PBA-02	Accessory Kit for FE1-FE6 Connectors 1 qt. oil, 0-600 psi gauge, run tee, 1/8" NPT male x 1/8" NPT male - 72" hose

#### **Booster Guidelines**

FE01 - 8 Connectors

FE1 - 4 Connectors

FE2 - 2 Connectors

FE3 - 1 Connector

FE4 - 1 Connector

#### **Booster Technical Data**

Seals: Nitrile Material: Aluminum

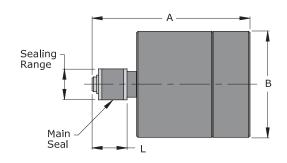
Inlet Pressure: 65 psi max.

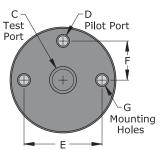
Outlet Pressure: 600 psi max. Pressure Ratio: 9.2 to 1 Displacement: 1.5 in.3 Inlet Port: 1/4" NPT



# FasTest Internal "FI" - Connectors for Internal Tubes and Bores







# Internal (FI) Connectors for Smooth Tubes - Neoprene Seals\*\*

Part	Sealing	Dim	Dim	Dim	Dim	Dim	Dim	Dim	Dim	Flow	Repair		Main Seals
Number	Range	Α	В	С	D	Е	F	G	L	Dia.	Kit	Seal Set*	Package (5)
FI01-0300	0.310"-0.330"	1.98"	1.25"	10-32	" UNF	0.80"	0.40"	10-32"	0.48"	0.06"	FIR01	FIS01-0300	FIB01-0300
FI01-01	0.330"-0.394"	1.50	1.20	10-32 0111		0.00	0.00	UNF	0.40	0.00	1 11(0)	FIS01-01	FIB01-01
FI1-11	0.394"-0.472"							4/4 00"				FIS1-11	FIB1-11
FI1-12	0.472"-0.551"	2.44"	1.57"	1/8" NPT		1.02"	0.51"	1/4-28" UNF	0.57"	0.13"	FIR1	FIS1-12	FIB1-12
FI1-13	0.551"-0.630"											FIS1-13	FIB1-13
FI2-21	0.630"-0.709"							1/4-28" UNF				FIS2-21	FIB2-21
FI2-22	0.709"-0.787"	2.44"	1.57"	1/8"	NPT	1.02"	0.51"		0.57"	0.17"	FIR1	FIS2-22	FIB2-22
FI2-23	0.787"-0.866"											FIS2-23	FIB2-23
FI3-31	0.866"-0.945"											FIS3-31	FIB3-31
FI3-32	0.945"-1.024"	2.61"	2.36"	1/8" NPT		1.60"	0.80"	1/4-28" UNF	0.71"	0.21"	FIR3	FIS3-32	FIB3-32
FI3-33	1.024"-1.102"							0141				FIS3-33	FIB3-33
FI4-41	1.102"-1.181"							FIS4-41	FIB4-41				
FI4-42	1.181"-1.260"	2.61"	2.36"	1/8" NPT		1.60"	0.80"	1/4-28" UNF	0.71"	0.28"	FIR3	FIS4-42	FIB4-42
FI4-43	1.260"-1.339"	1						OIVI				FIS4-43	FIB4-43
FI5-51	1.339"-1.457"			1/2" NPT	1/8" NPT	2.31"	1.16"	1/4-28" UNF	1.24"	0.56"	FIR6	FIS5-51	FIB5-51
FI5-52	1.457"-1.575"	3.68"	3.49"									FIS5-52	FIB5-52
FI5-53	1.575"-1.693"	1		141 1								FIS5-53	FIB5-53
FI6-61	1.693"-1.850"											FIS6-61	FIB6-61
FI6-62	1.850"-2.008"	3.68"	3.49"	1/2" NPT	1/8" NPT	2.31"	1.16"	1/4-28" UNF	1.24"	0.72"	FIR6	FIS6-62	FIB6-62
FI6-63	2.008"-2.165"	1		131 1	'\' '			OIVI				FIS6-63	FIB6-63
FI7-71	2.165"-2.305"											FIS7-71	FIB7-71
FI7-72	2.305"-2.445"	3.36"	4.20"	3/4" NPT	1/8" NPT	3.00"	1.50"	1/4-28" UNF	1.33"	0.92"	FIR7	FIS7-72	FIB7-72
FI7-73	2.445"-2.585"	1		INF	NPI			UINI				FIS7-73	FIB7-73
FI8-81	2.585"-2.725"	Ì			1/8" NPT					0.92"		FIS8-81	FIB8-81
FI8-82	2.725"-2.865"	3.36"	4.20"	" 3/4" NPT		3.00"	1.50"	1/4-28" UNF	1.33"		FIR7	FIS8-82	FIB8-82
FI8-83	2.865"-3.005"	1			וארו							FIS8-83	FIB8-83

<sup>\*</sup>Includes seals(s) and metal parts for one complete seal change.

Examples: FI1-12UR = Urethane FI1-12V = FKM (Viton) FI1-12BN = Buna N

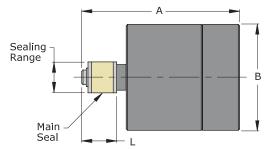
FI1-12<u>EP</u> = EPDM

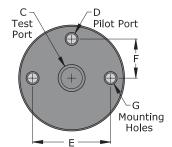
<sup>\*\*</sup>Optional seal materials are Urethane, FKM (Viton), Buna N and EPDM.



# FasTest Internal "FI" - Connectors for Internal Tubes and Bores







# Internal (FI) Connectors for Smooth Tubes - Urethane Seals\*\*

Part Number	Sealing Range	Dim A	Dim B	Dim C	Dim D	Dim E	Dim F	Dim G	Dim L	Flow Dia.	Repair Kit	Main Seal Set*	Main Seals Package (5)
FI01-0300UR	0.310"-0.330"	1.98"	1.25"	10.22	" I INIE	0.80"	0.40"	10-32"	0.48"	0.06"	FIR01	FIS01-0300UR	FIB01-0300UR
FI01-01UR	0.330"-0.394"	1.90	1.25	1.25" 10-32" UNF		0.60	0.40	UNF	0.46	0.00	FIRUI	FIS01-01UR	FIB01-01UR
FI1-11UR	0.394"-0.472"							444.000				FIS1-11UR	FIB1-11UR
FI1-12UR	0.472"-0.551"	2.44"	1.57"	1/8" NPT		1.02"	0.51"	1/4-28" UNF	0.57"	0.13"	FIR1	FIS1-12UR	FIB1-12UR
FI1-13UR	0.551"-0.630"											FIS1-13UR	FIB1-13UR
FI2-21UR	0.630"-0.709"											FIS2-21UR	FIB2-21UR
FI2-22UR	0.709"-0.787"	2.44"	1.57"	1/8"	NPT	1.02"	0.51"	1/4-28" UNF	0.57"	0.17"	FIR1	FIS2-22UR	FIB2-22UR
FI2-23UR	0.787"-0.866"											FIS2-23UR	FIB2-23UR
FI3-31UR	0.866"-0.945"								0.71"	0.21"	FIR3	FIS3-31UR	FIB3-31UR
FI3-32UR	0.945"-1.024"	2.61"	2.36"	1/8"	NPT	1.60"	0.80"	1/4-28" UNF				FIS3-32UR	FIB3-32UR
FI3-33UR	1.024"-1.102"											FIS3-33UR	FIB3-33UR
FI4-41UR	1.102"-1.181"											FIS4-41UR	FIB4-41UR
FI4-42UR	1.181"-1.260"	2.61"	2.36"	1/8"	NPT	1.60"	0.80"	1/4-28" UNF	0.71"	0.28"	FIR3	FIS4-42UR	FIB4-42UR
FI4-43UR	1.260"-1.339"											FIS4-43UR	FIB4-43UR
FI5-51UR	1.339"-1.457"											FIS5-51UR	FIB5-51UR
FI5-52UR	1.457"-1.575"	3.68"	3.49"	1/2" NPT	1/8" NPT	2.31"	1.16"	1/4-28" UNF	1.24"	0.56"	FIR6	FIS5-52UR	FIB5-52UR
FI5-53UR	1.575"-1.693"											FIS5-53UR	FIB5-53UR
FI6-61UR	1.693"-1.850"				1/8" NPT							FIS6-61UR	FIB6-61UR
FI6-62UR	1.850"-2.008"	3.68"	3.49"	1/2" NPT		2.31"	1.16"	1/4-28" UNF	1.24"	0.72"	FIR6	FIS6-62UR	FIB6-62UR
FI6-63UR	2.008"-2.165"	1		'*'	'\'' '			Oivi				FIS6-63UR	FIB6-63UR
FI7-71UR	2.165"-2.305"											FIS7-71UR	FIB7-71UR
FI7-72UR	2.305"-2.445"	3.36"	4.20"	3/4" NPT	1/8" NPT	3.00"	1.50"	1/4-28" UNF	1.33"	0.92"	FIR7	FIS7-72UR	FIB7-72UR
FI7-73UR	2.445"-2.585"			NPT	INI			ON				FIS7-73UR	FIB7-73UR
FI8-81UR	2.585"-2.725"			3/4" NPT								FIS8-81UR	FIB8-81UR
FI8-82UR	2.725"-2.865"	3.36"	4.20"		1/8" NPT	3.00"	1.50"	1/4-28" UNF	1.33"	0.92"	FIR7	FIS8-82UR	FIB8-82UR
FI8-83UR	2.865"-3.005"	1		INFI	INFI							FIS8-83UR	FIB8-83UR

<sup>\*</sup>Includes seals(s) and metal parts for one complete seal change.

Examples: FI2-21 = Neoprene

FI2-21<u>V</u> = FKM (Viton)

FI2-21BN = Buna N

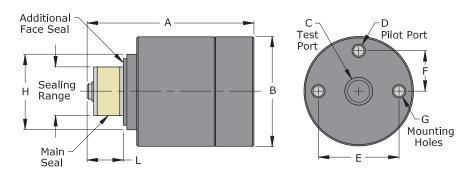
FI2-21EP = EPDM

<sup>\*\*</sup>Optional seal materials are Neoprene, FKM (Viton), Buna N and EPDM.



# FasTest Internal "FI" - Connectors for Internal Threads





# Internal (FI) Connectors for NPT, BSPP and BSPT Threads - Urethane Seals

Part Number	Sealing Range	Dim A	Dim B	Dim C	Dim D	Dim E	Dim F	Dim G	Dim H	Dim L	Flow Dia.	Repair Kit	Main Seal Set*	Main Seals Package (5)					
FI01-1/8NPT	1/8"	1.98"	1.25"	10-32	" UNF	0.80"	0.40"	10-32" UNF	0.62"	0.48"	0.06"	FIR01	FIS01-1/8NPT	FIB01-1/8NPT					
FI1-1/4NPT	1/4"	2.44"	1.57"	1/8"	NPT	1.02"	0.51"	1/4-28" UNF	0.76"	0.57"	0.13"	FIR1	FIS1-1/4NPT	FIB1-1/4NPT					
FI2-3/8NPT	3/8"	2.44"	1.57"	1/8"	NPT	1.02"	0.51"	1/4-28" UNF	0.88"	0.57"	0.17"	FIR1	FIS2-3/8NPT	FIB2-3/8NPT					
FI2-1/2NPT	1/2"	2.44"	1.57"	1/8"	1/8" NPT		0.51"	1/4-28" UNF	1.07"	0.57"	0.17"	FIR1	FIS2-1/2NPT	FIB2-1/2NPT					
FI3-3/4NPT	3/4"	2.61"	2.36"	1/8"	NPT	1.60"	0.80"	1/4-28" UNF	1.26"	0.71"	0.21"	FIR3	FIS3-3/4NPT	FIB3-3/4NPT					
FI4-1NPT	1"	2.61"	2.36"	1/8"	NPT	1.60"	0.80"	1/4-28" UNF	1.57"	0.71"	0.28"	FIR3	FIS4-1NPT	FIB4-1NPT					
FI5-1 1/4NPT	1-1/4"	3.68"	3.49"	1/2" NPT	1/8" NPT	2.31"	1.16"	1/4-28" UNF	1.88"	1.24"	0.56"	FIR6	FIS5-1 1/4NPT	FIB5-1 1/4NPT					
FI6-1 1/2NPT	1-1/2"	3.68"	3.49"	1/2" NPT	1/8" NPT	2.31"	1.16"	1/4-28" UNF	2.13"	1.24"	0.72"	FIR6	FIS6-1 1/2NPT	FIB6-1 1/2NPT					
FI7-2NPT	2"	2 26"	4 20"	3/4"	1/8"	3 00"	1.50"	1/4-28"	2.75"	1.33"	0.02"	EID7	FIS7-2NPT	FIB7-2NPT					
FI7-2 1/2NPT	2-1/2"	3.36"	3.36"	3.36"	3.36"	3.36"	3.36"	4.20"	NPT	NPT	3.00"	1.50	UNF	2.73	1.33	0.92"	FIR7	FIS7-2 1/2NPT	FIB7-2 1/2NPT

<sup>\*</sup>Includes seals(s) and metal parts for one complete seal change.

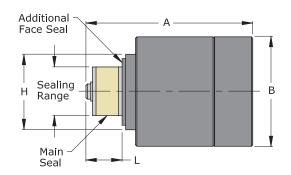
NPT per SAE J476a BSPP per ISO 228

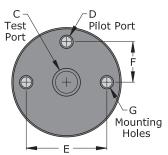
BSPT per ISO 7, JIS B8363 and B2351



# FasTest Internal "FI" - Connectors for Internal Threads







# Internal (FI) Connectors for SAE O-Ring Port Threads - Urethane Seals

Part Number	Sealing Range	Dim A	Dim B	Dim C	Dim D	Dim E	Dim F	Dim G	Dim H	Dim L	Flow Dia.	Repair Kit	Main Seal Set*	Main Seals Package (5)
FI01-4SAE	-4 (7/16-20)	1.98"	1.25"	10-32	10-32" UNF		0.40"	10-32" UNF	0.62"	0.48"	0.06"	FIR01	FIS01-4SAE	FIB01-4SAE
FI1-5SAE	-5 (1/2-20)	0.44"	4 57"	4 (0"	NDT	4 00"	0.54"	1/4-28"	0.76"	0.57"	0.40"	FID4	FIS1-5SAE	FIB1-5SAE
FI1-6SAE	-6 (9/16-18)	2.44"	1.57"	1/8" NPT		1.02"	0.51"	UNF	0.76"	0.57	0.13"	FIR1	FIS1-6SAE	FIB1-6SAE
FI2-7SAE	-8 (3/4-16)	2.44"	1.57"	1/8"	1/8" NPT		0.51"	1/4-28" UNF	0.88"	0.57"	0.17"	FIR1	FIS2-7SAE	FIB2-7SAE
FI3-8SAE	-10 (7/8-14)	2.61"	2 26"	2.36" 1/8" NPT		1.60"	0.80"	, 1/4-28" UNF 1.	1.26"	0.71"	0.21"	FIR3	FIS3-8SAE	FIB3-8SAE
FI3-9SAE	-12 (1 1/16-12)	2.01	2.30			1.60	0.60		1.20	0.71			FIS3-9SAE	FIB3-9SAE
FI4-10SAE	-14 (1 3/16-12)	2.61"	2.36"	1/8" NPT		1.60"	0.80"	1/4-28" UNF	1.57"	0.71"	0.28"	FIR3	FIS4-10SAE	FIB4-10SAE
FI4-11SAE	-16 (1 5/16-12)	2.01	2.30			1.00				0.71	0.20	FIKS	FIS4-11SAE	FIB4-11SAE
FI5-12SAE	-20 (1 5/8-12)	3.68"	3.49"	1/2" NPT	1/8" NPT	2.31"	1.16"	1/4-28" UNF	1.88"	1.24"	0.56"	FIR6	FIS5-12SAE	FIB5-12SAE
FI6-13SAE	-24 (1 7/8-12)	3.68"	3.49"	1/2" NPT	1/8" NPT	2.31"	1.16"	1/4-28" UNF	2.13"	1.24"	0.72"	FIR6	FIS6-13SAE	FIB6-13SAE
FI7-14SAE	-32 (2 1/2-12)	3.36"	4.20"	3/4" NPT	1/8" NPT	3.00"	1.50"	1/4-28" UNF	2.75"	1.33"	0.92"	FIR7	FIS7-14SAE	FIB7-14SAE

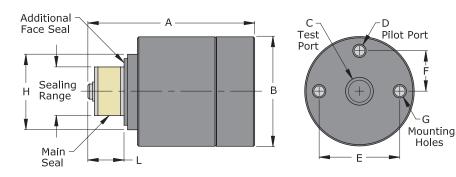
<sup>\*</sup>Includes seals(s) and metal parts for one complete seal change.

O-Ring Port per SAE J1926 or ISO 11926



# FasTest Internal "FI" - Connectors for Internal Threads





# Internal (FI) Connectors for Metric ISO O-Ring Port Threads - Urethane Seals

Part Number	Sealing Range	Dim A	Dim B	Dim C	Dim D	Dim E	Dim F	Dim G	Dim H	Dim L	Flow Dia.	Repair Kit	Main Seal Set*	Main Seals Package (5)					
FI01-M10	M10 x 1.0	1.98"	1.25"	10-32	10-32" UNF		0.40"	10-32" UNF	0.62"	0.48"	0.06"	FIR01	FIS01-M10	FIB01-M10					
FI1-M12	M12 x 1.5												FIS1-M12	FIB1-M12					
FI1-M14	M14 x 1.5	2.44"	1.57"	1/8"	NPT	1.02"	0.51"	1/4-28" UNF	0.76"	0.57"	0.13"	FIR1	FIS1-M14	FIB1-M14					
FI1-M16	M16 x 1.5												FIS1-M16	FIB1-M16					
FI2-M18	M18 x 1.5												FIS2-M18	FIB2-M18					
FI2-M20	M20 x 1.5	2.44"	1.57"	1/8"	NPT	1.02"	0.51"	1/4-28" UNF	0.88"	0.57"	0.17"	FIR1	FIS2-M20	FIB2-M20					
FI2-M22	M22 x 1.5												FIS2-M22	FIB2-M22					
FI3-M24	M24 x 1.5		2.36"															FIS3-M24	FIB3-M24
FI3-M26	M26 x 1.5	0.64"		1/8" NPT		1.60"	0.00"	1/4-28"	1 26"	0.71"	0.21"	FIR3	FIS3-M26	FIB3-M26					
FI3-M27	M27 x 2	2.01		1/0	NP1	1.00	0.60	UNF	1.20	0.71	0.21	IIKS	FIS3-M27	FIB3-M27					
FI3-M28	M28 x 1.5												FIS3-M28	FIB3-M28					
FI4-M30	M30 x 1.5												FIS4-M30	FIB4-M30					
FI4-M33	M33 x 2	2.61"	2.36"	1/8"	NPT	1.60"	0.80"	1/4-28" UNF	1.57"	0.71"	0.28"	FIR3	FIS4-M33	FIB4-M33					
FI4-M36	M36 x 2												FIS4-M36	FIB4-M36					
FI5-M42	M42 x 2	3.68"	3.49"	1/2" NPT	1/8" NPT	2.31"	1.16"	1/4-28" UNF	1.88"	1.24"	0.56"	FIR6	FIS5-M42	FIB5-M42					
FI6-M48	M48 x 2	3.68"	3.49"	1/2" NPT	1/8" NPT	2.31"	1.16"	1/4-28" UNF	2.13"	1.24"	0.72"	FIR6	FIS6-M48	FIB6-M48					
FI7-M60	M60 x 2	3.36"	4.20"	3/4" NPT	1/8" NPT	3.00"	1.50"	1/4-28" UNF	2.75"	1.33"	0.92"	FIR7	FIS7-M60	FIB7-M60					

<sup>\*</sup>Includes seals(s) and metal parts for one complete seal change.

O-Ring Port per ISO 6149

Metric Flat Face Port per DIN 3852 Part 1 (ISO 9974)



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