

# FN / INTERNAL SEALING CONNECTION TOOL

Internal thread grip and seal tool that uses threaded collets to grip threaded bores for high pressures.

## CONNECTS TO:



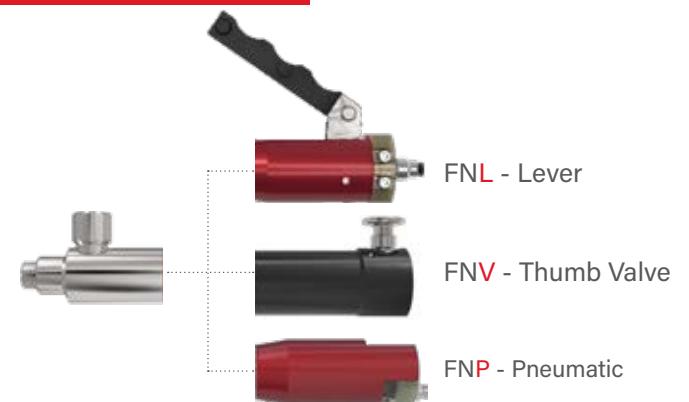
## SPECIFICATIONS

Pressure Rating	Operating Temperatures	Materials of Construction
Vacuum to 5000 psi (345 bar)	-40°F to +250°F (-40°C to +121°C)	Anodized Aluminum, Stainless Steel, Potted PCA
Termination Port		Seal Material*
BSPP (G) or FNPT		Buna-N

\*Additional seal material types available, consult factory.  
 \*\* Operating Temp: 32°F-100°F (0°C-38°C) for ICON™.

**i** Side load rating varies depending on size and insertion.

## ACTUATION OPTIONS



- 1** Pressure assisted grip and proprietary design locks the connector securely in the port, even when used in dynamic hydraulic applications
- 2** Instant threaded sealing connection up to 5,000 psig without tape, sealant, or wrenches - significantly reduces process time
- 3** Split collet design locks securely and will not damage threaded ports
- 4** Self aligning connector requires no operator adjustment
- 5** Quick and easy seal replacement to minimize down time, maintenance and tool inventory

## ICON™ TECHNOLOGY



## ACCESSORIES

See p. 105



# ICON™ INTELLIGENT CONNECTION TECHNOLOGY

FasTest's ICON™ adds sensing capabilities to our mechanical Sealing Connection Tools. ICON™ Tools include instant LED visual feedback and data output to improve sealing connection accuracy, maximize production efficiency, and optimize maintenance.

## ICON™ features:



### SURE SEAL™

Instant LED feedback verifies a good connection prior to starting a test.

## System Overview:

CONNECTED

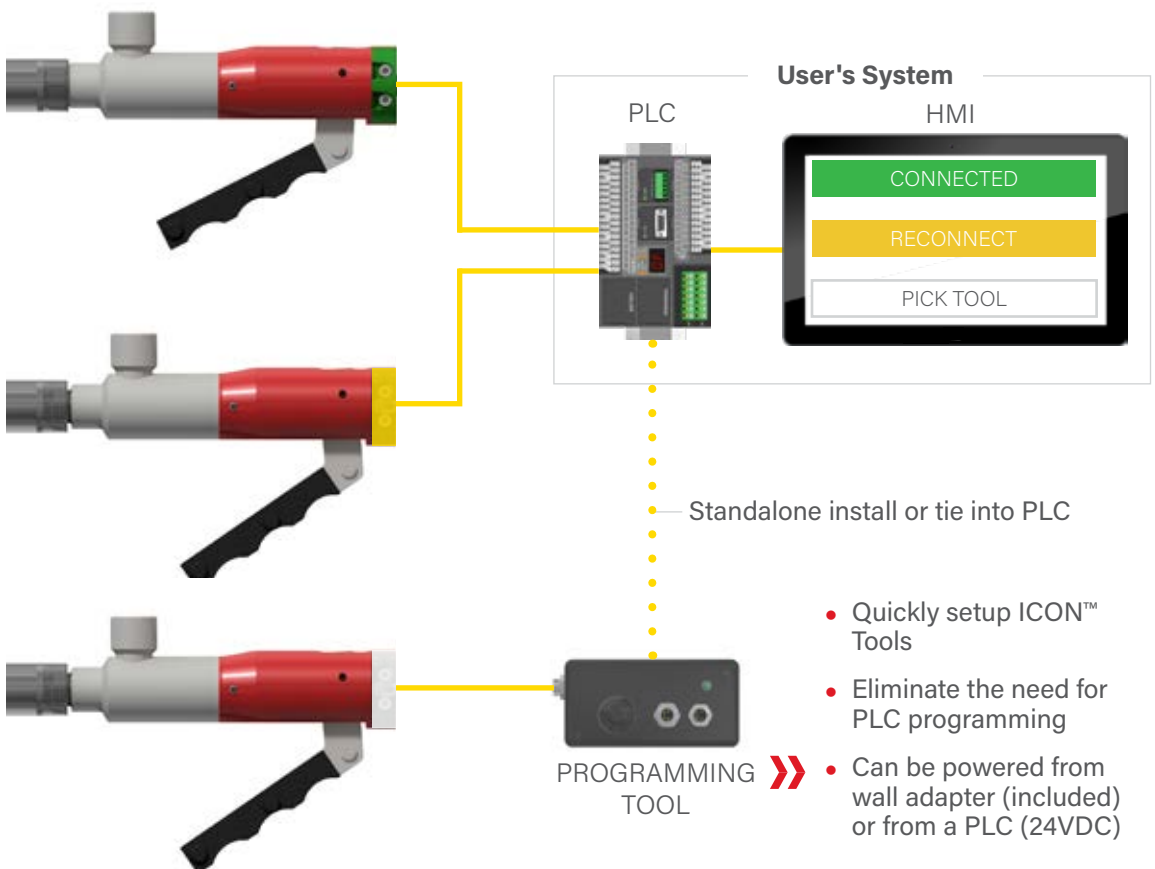
Verify connections are good prior to starting a leak test and provide operators instant positive feedback to simplify training.

RECONNECT

Recognize short connects before hazardous spills occur in functional testing, or prevent wasteful False Positive results in leak testing.

PICK TOOL

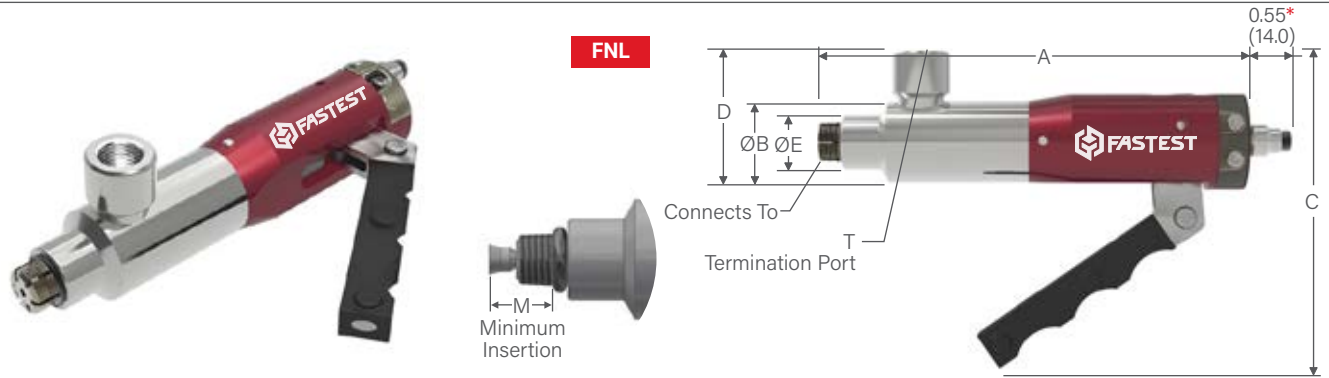
Controllable LED signals operator to use specific tool.



Standalone install or tie into PLC

- Quickly setup ICON™ Tools
- Eliminate the need for PLC programming
- Can be powered from wall adapter (included) or from a PLC (24VDC)

# FN / INTERNAL CONNECTIONS / NPT



## Ordering Information

Connects To	Pressure Rating	FNL Part Number (with Lever)	FNV Part Number (with Thumb Valve)	FNP Part Number (with Pneumatic Pilot)	Replacement Seals Pack (5)	Rebuild Kit	ICON™ Repair Kit (FNL / FNP)
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**FasMate® FN | NPT**

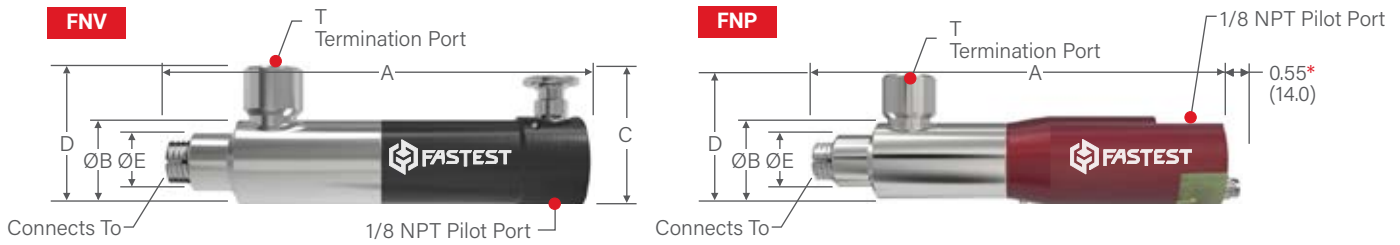
1/8 NPT	5000 (345)	FNL022021[*]	FNV022021	FNP022021[*]	S1108B70	RFN022021	RFNLBG1CV04ANA RFNLBG1CV04SSR
	2500 (172)	FNLR022021[*]	FNVR022021	FNPR022021[*]			
	5000 (345)	FNL022025[*]	FNV022025	FNP022025[*]			
1/4 NPT	5000 (345)	FNL042041[*]	FNV042041	FNP042041[*]	S21250327B60	RFN042041	RFNLBG1CV04ANA RFNLBG1CV04SSR
	2500 (172)	FNLR042041[*]	FNVR042041	FNPR042041[*]			
	5000 (345)	FNL042045[*]	FNV042045	FNP042045[*]			
3/8 NPT	5000 (345)	FNL062061[*]	FNV062061	FNP062061[*]	S1112B70	RFN062061	RFNLBG1CV04ANA RFNLBG1CV04SSR
	2500 (172)	FNLR062061[*]	FNVR062061	FNPR062061[*]			
	5000 (345)	FNL062065[*]	FNV062065	FNP062065[*]			
1/2 NPT	5000 (345)	FNL082081[*]	FNV082081	FNP082081[*]	S1208B70	RFN082081	RFNLBG4CV04ANA RFNLBG4CV04SSR
		FNL082085[*]	FNV082085	FNP082085[*]			
3/4 NPT	3500 (241)	FNL122121[*]	FNV122121	FNP122121[*]	S1315B50	RFNBG5	RFNLBG5CV04ANA RFNLBG5CV04SSR
		FNL122125[*]	FNV122125	FNP122125[*]			

Reduced Thread Connectors [FNxRxxxxx]; The "R" in the part number indicates a shorter collet length for shallow ports.

**Port specifications:** NPT per SAE J476 or ANSI B1.20

### \*How To Add ICON™ to FN

Signal Output	Part Number Suffix	Example
FNL Connector without ICON™	None	FNL022021
FNL with ICON™: Analog Output Signal	CV04ANA	FNL022021 <b>CV04ANA</b>
FNL with ICON™: Solid State Relay	CV04SSR	FNL022021 <b>CV04SSR</b>



\*Dimension only applies to FN with ICON™ Technology (Base Part Numbers that include "CV04ANA" or "CV04SSR").

Dimensions									
A (FNL)	A (FNV)	A (FNP)	B	C (FNL)	C (FNV)	D	E	M	T

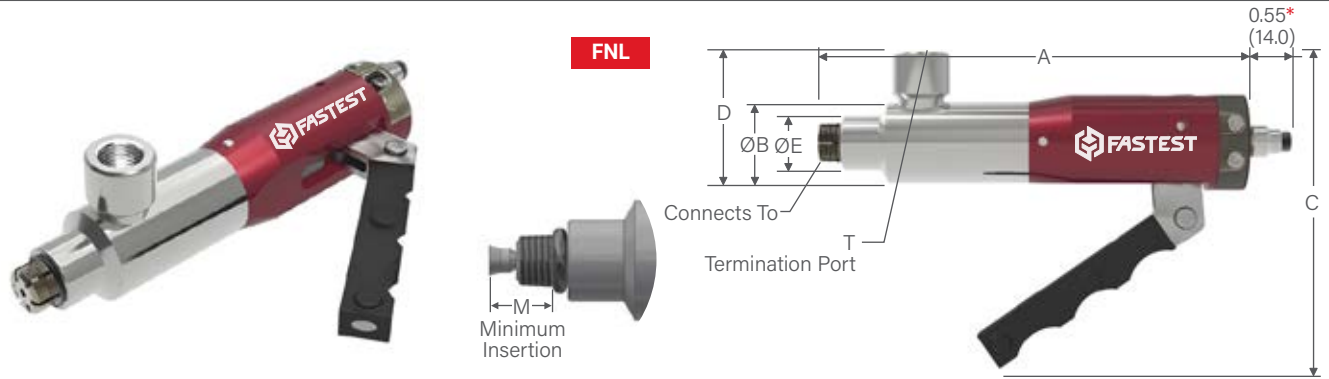
4.80 (121.9)	5.13 (130.3)	4.90 (124.5)	1.06 (26.9)	3.70 (94.0)	1.58 (40.1)	1.50 (38.1)	0.65 (16.5)	0.55 (14.0)	1/8 NPT
								0.30 (7.6)	
								0.55 (14.0)	
5.00 (127.0)	5.21 (132.3)	5.00 (127.0)	1.06 (26.9)	4.00 (101.6)	1.58 (40.1)	1.70 (43.2)	0.72 (18.3)	0.67 (17.0)	1/4 NPT
								0.39 (9.9)	
								0.67 (17.0)	
5.00 (127.0)	5.05 (128.3)	4.80 (121.9)	1.25 (31.8)	3.90 (99.1)	1.58 (40.1)	1.86 (47.2)	0.86 (21.8)	0.67 (17.0)	3/8 NPT
								0.47 (11.9)	
								0.67 (17.0)	
5.27 (133.9)	5.27 (133.9)	5.34 (135.6)	1.43 (36.3)	4.40 (111.8)	1.85 (47.0)	2.33 (59.2)	1.09 (27.7)	0.76 (19.3)	1/2 NPT
									1/2 BSPP (G)
8.17 (207.5)	8.75 (222.2)	8.75 (222.2)	1.78 (45.2)	5.10 (129.5)	2.11 (53.6)	2.93 (74.4)	1.49 (37.8)	0.63 (16.0)	3/4 NPT

Dimensions: inch (mm)  
Pressure Rating: psi (bar)



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# FN / INTERNAL CONNECTIONS / BSPP (G)/T



Ordering Information							
Connects To	Pressure Rating	FNL Part Number (with Lever)	FNV Part Number (with Thumb Valve)	FNP Part Number (with Pneumatic Pilot)	Replacement Seals Pack (5)	Rebuild Kit	ICON™ Repair Kit (FNL / FNP)

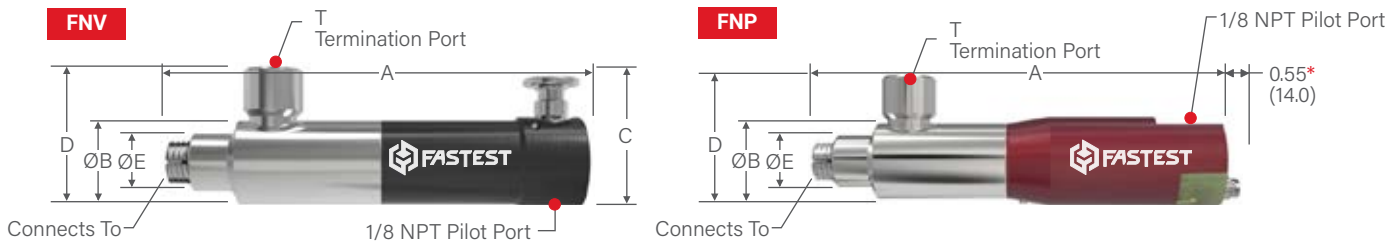
**FasMate® FN | BSPP (G)**

1/8 BSPP (G)	5000 (345)	FNL026021[*]	FNV026021	FNP026021[*]	S1108B70	RFN026021	RFNLBG1CV04ANA RFNLBG1CV04SSR
	2500 (172)	FNLR026021[*]	FNVR026021	FNPR026021[*]			
	5000 (345)	FNL026025[*]	FNV026025	FNP026025[*]			
	2500 (172)	FNLR026025[*]	FNVR026025	FNPR026025[*]			
1/8 BSPT	5000 (345)	FNL026T025[*]	FNV026T025	FNP026T025[*]			
1/4 BSPP (G)	5000 (345)	FNL046041[*]	FNV046041	FNP046041[*]	S21250327B60	RFN046041	
	2500 (172)	FNLR046041[*]	FNVR046041	FNPR046041[*]			
	5000 (345)	FNL046045[*]	FNV046045	FNP046045[*]			
	2500 (172)	FNLR046045[*]	FNVR046045	FNPR046045[*]			
1/4 BSPT	5000 (345)	FNL046T045[*]	FNV046T045	FNP046T045[*]			
3/8 BSPP (G)	5000 (345)	FNL066061[*]	FNV066061	FNP066061[*]	S1112B70	RFN066061	
		FNL066065[*]	FNV066065	FNP066065[*]			
3/8 BSPT		FNL066T065[*]	FNV066T065	FNP066T065[*]			
1/2 BSPP (G)	5000 (345)	FNL086081[*]	FNV086081	FNP086081[*]	S1208B70	RFN086081	
		FNL086085[*]	FNV086085	FNP086085[*]			
		FNL086T085[*]	FNV086T085	FNP086T085[*]			
1/2 BSPT							
3/4 BSPP (G)	3500 (241)	FNL126121[*]	FNV126121	FNP126121[*]	S1315B50	RFNBG5	
		FNL126125[*]	FNV126125	FNP126125[*]			
3/4 BSPT		FNL126T125[*]	FNV126T125	FNP126T125[*]			

Reduced Thread Connectors [FNxRxxxxx]; The "R" in the part number indicates a shorter collet length for shallow ports.

**Port Specifications:** BSPP (G) per ISO 228, BS 2779, DIN 3852 Part 2 Type A and B; BSPT per ISO 7 or BS 21

*How To Add ICON™ to FN		
Signal Output	Part Number Suffix	Example
FNL Connector without ICON™	None	FNL022021
FNL with ICON™: Analog Output Signal	CV04ANA	FNL022021 <b>CV04ANA</b>
FNL with ICON™: Solid State Relay	CV04SSR	FNL022021 <b>CV04SSR</b>



\*Dimension only applies to FN with ICON™ Technology (Base Part Numbers that include "CV04ANA" or "CV04SSR").

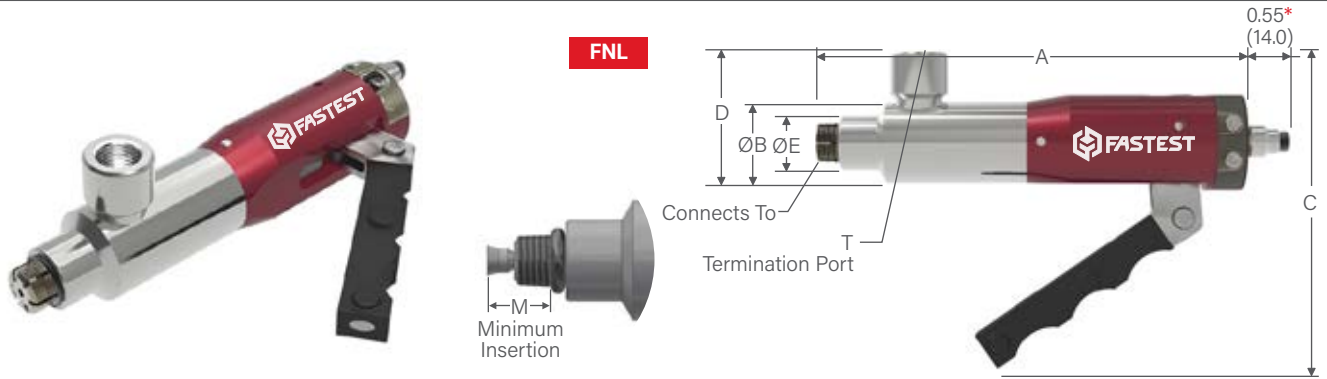
Dimensions									
A (FNL)	A (FNV)	A (FNP)	B	C (FNL)	C (FNV)	D	E	M	T
4.80 (121.9)	5.13 (130.3)	4.90 (124.5)	1.06 (26.9)	3.70 (94)	1.58 (40.1)	1.50 (38.1)	0.65 (16.5)	0.55 (14.0)	1/8 NPT
								0.27 (6.9)	1/8 NPT
								0.55 (14.0)	1/8 BSPP (G)
								0.27 (6.9)	1/8 BSPP (G)
5.00 (127)	5.21 (132.3)	5.00 (127.0)	1.06 (26.9)	4.00 (101.6)	1.58 (40.1)	1.70 (43.2)	0.72 (18.3)	0.67 (17.0)	1/4 NPT
								0.39 (9.9)	1/4 NPT
								0.67 (17.0)	1/4 BSPP (G)
								0.39 (9.9)	1/4 BSPP (G)
5.00 (127)	5.05 (128.3)	4.80 (121.9)	1.25 (31.8)	3.90 (99.1)	1.58 (40.1)	1.86 (47.2)	0.86 (21.8)	0.67 (17.0)	3/8 NPT
									3/8 BSPP (G)
									3/8 BSPP (G)
5.27 (133.9)	5.27 (133.9)	5.34 (135.6)	1.43 (36.3)	4.40 (111.8)	1.85 (47.0)	2.33 (59.2)	1.09 (27.7)	0.76 (19.3)	1/2 NPT
									1/2 BSPP (G)
									1/2 BSPP (G)
8.17 (207.5)	8.75 (222.2)	8.75 (222.2)	1.78 (45.2)	5.10 (129.5)	2.11 (53.6)	2.93 (74.4)	1.49 (37.8)	0.63 (16.0)	3/4 NPT
									3/4 BSPP (G)
									3/4 BSPP (G)

Dimensions: inch (mm)  
Pressure Rating: psi (bar)



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# FN / INTERNAL CONNECTIONS / SAE O-RING



Ordering Information							
Connects To	Pressure Rating	FNL Part Number (with Lever)	FNV Part Number (with Thumb Valve)	FNP Part Number (with Pneumatic Pilot)	Replacement Seals Pack (5)	Rebuild Kit	ICON™ Repair Kit (FNL / FNP)

**FasMate® FN** | SAE O-Ring

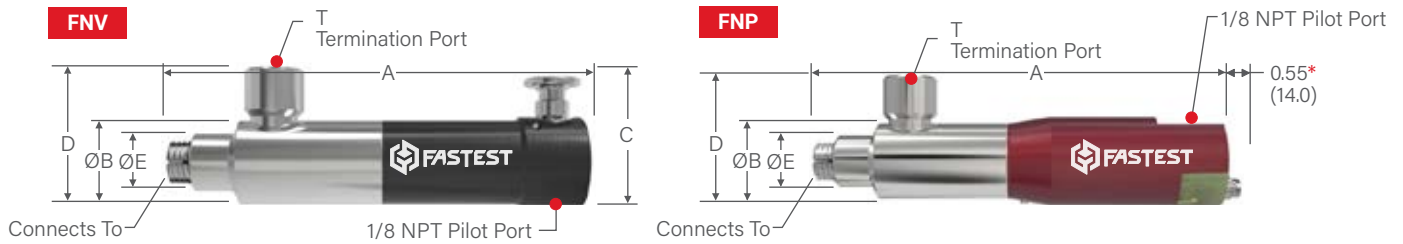
-3 [3/8-24]	2500 (172)	FNLR034021[*]	FNVR034021	FNPR034021[*]	S1108B70	RFN022021	RFNLBG1CV04ANA RFNLBG1CV04SSR
		FNLR034025[*]	FNVR034025	FNPR034025[*]			
-4 [7/16-20]	5000 (345)	FNL044021[*]	FNV044021	FNP044021[*]	S1109B70	RFN044021	
	2500 (172)	FNLR044021[*]	FNVR044021	FNPR044021[*]			
	5000 (345)	FNL044025[*]	FNV044025	FNP044025[*]			
	2500 (172)	FNLR044025[*]	FNVR044025	FNPR044025[*]			
-4 [7/16-24]	2500 (172)	FNL044K021[*]	FNV044K021	FNP044K021[*]	S21250327B60	RFN054041	
		FNLR044K025[*]	FNVR044K025	FNPR044K025[*]			
-5 [1/2-20]	5000 (345)	FNL054041[*]	FNV054041	FNP054041[*]	S1111B70	RFN064041	
	2500 (172)	FNLR054041[*]	FNVR054041	FNPR054041[*]			
	5000 (345)	FNL054045[*]	FNV054045	FNP054045[*]			
	2500 (172)	FNLR054045[*]	FNVR054045	FNPR054045[*]			
-6 [9/16-18]	5000 (345)	FNL064041[*]	FNV064041	FNP064041[*]	S1207B70	RFN084061	
	2500 (172)	FNLR064041[*]	FNVR064041	FNPR064041[*]			
	5000 (345)	FNL064045[*]	FNV064045	FNP064045[*]			
	2500 (172)	FNLR064045[*]	FNVR064045	FNPR064045[*]			
-8 [3/4-16]	5000 (345)	FNL084061[*]	FNV084061	FNP084061[*]	S2M0401600B70	RFN104081	
		FNL084065[*]	FNV084065	FNP084065[*]			
-10 [7/8-14]	5000 (345)	FNL104081[*]	FNV104081	FNP104081[*]	S1315B50	RFNBG5	
		FNL104085[*]	FNV104085	FNP104085[*]			
-12 [1 1/16-12]	3500 (241)	FNL124121[*]	FNV124121	FNP124121[*]			

Reduced Thread Connectors [FNxRxxxxx]; The "R" in the part number indicates a shorter collet length for shallow ports.

**Port Specifications:** SAE O-Ring per SAE J1926 or ISO 11926

*How To Add ICON™ to FN		
Signal Output	Part Number Suffix	Example
FNL Connector without ICON™	None	FNL022021
FNL with ICON™: Analog Output Signal	CV04ANA	FNL022021 <b>CV04ANA</b>
FNL with ICON™: Solid State Relay	CV04SSR	FNL022021 <b>CV04SSR</b>





\*Dimension only applies to FN with ICON™ Technology (Base Part Numbers that include "CV04ANA" or "CV04SSR").

Dimensions									
A (FNL)	A (FNV)	A (FNP)	B	C (FNL)	C (FNV)	D	E	M	T
4.80 (121.9)	5.13 (130.3)	4.90 (124.5)	1.06 (26.9)	3.70 (94.0)	1.58 (40.1)	1.50 (38.1)	0.65 (16.5)	0.30 (7.6)	1/8 NPT
									1/8 BSPP (G)
4.80 (121.9)	5.13 (130.3)	4.90 (124.5)	1.06 (26.9)	3.70 (94.0)	1.58 (40.1)	1.50 (38.1)	0.65 (16.5)	0.55 (14.0)	1/8 NPT
								0.34 (8.6)	1/8 NPT
								0.55 (14.0)	1/8 BSPP (G)
								0.34 (8.6)	1/8 BSPP (G)
								0.37 (9.4)	1/8 NPT
5.00 (127.0)	5.21 (132.3)	5.00 (127.0)	1.06 (26.9)	4.00 (101.6)	1.58 (40.1)	1.70 (43.2)	0.72 (18.3)	0.67 (17.0)	1/4 NPT
								0.39 (9.9)	
								0.67 (17.0)	1/4 BSPP (G)
								0.39 (9.9)	
5.00 (127.0)	5.21 (132.3)	5.00 (127.0)	1.06 (26.9)	3.90 (99.1)	1.58 (40.1)	1.86 (47.2)	0.79 (20.1)	0.67 (17.0)	1/4 NPT
								0.41 (10.4)	
								0.67 (17.0)	1/4 BSPP (G)
								0.41 (10.4)	
5.27 (133.9)	5.27 (133.9)	5.34 (135.6)	1.43 (36.3)	4.40 (111.8)	1.85 (47.0)	2.33 (59.2)	1.09 (27.7)	0.76 (19.3)	3/8 NPT
									3/8 BSPP (G)
5.27 (133.9)	5.27 (133.9)	5.34 (135.6)	1.43 (36.3)	4.40 (111.8)	1.85 (47.0)	2.33 (59.2)	1.25 (31.8)	0.76 (19.3)	1/2 NPT
									1/2 BSPP (G)
8.17 (207.5)	8.75 (222.2)	8.75 (222.2)	1.78 (45.2)	5.10 (129.5)	2.11 (53.6)	2.93 (74.4)	1.49 (37.8)	0.63 (16.0)	3/4 NPT

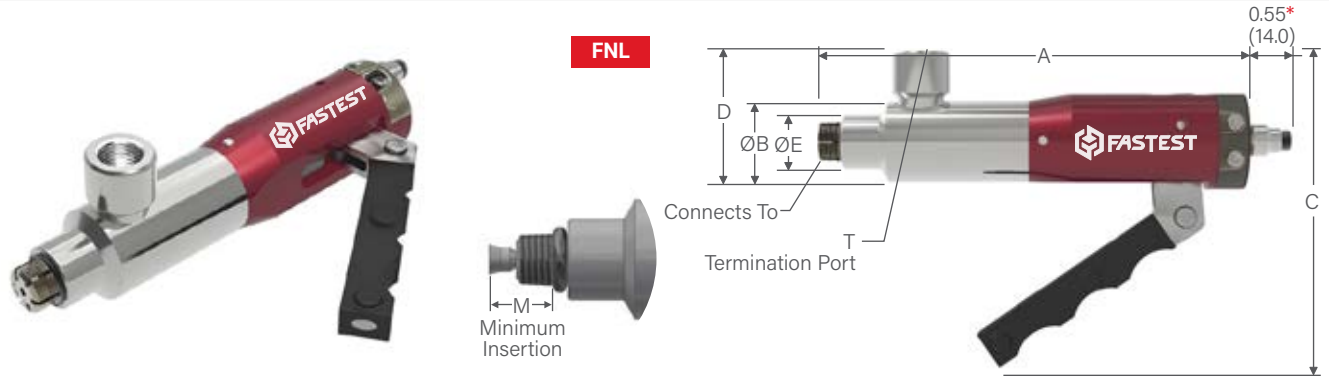
Dimensions: inch (mm)  
Pressure Rating: psi (bar)



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# FN / INTERNAL CONNECTIONS / METRIC



## Ordering Information

Connects To	Pressure Rating	FNL Part Number (with Lever)	FNV Part Number (with Thumb Valve)	FNP Part Number (with Pneumatic Pilot)	Replacement Seals Pack (5)	Rebuild Kit	ICON™ Repair Kit (FNL / FNP)
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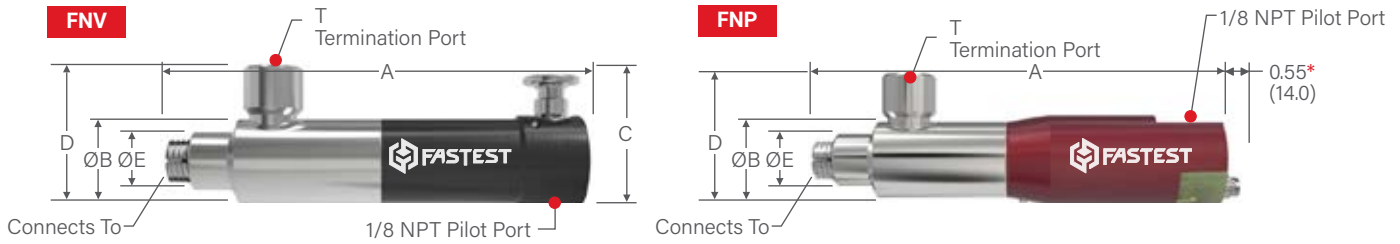
**FasMate® FN** | ISO O-Ring Metric

M10 × 1.0	5000 (345)	FNL108021[*]	FNV108021	FNP108021[*]	S1108B70	RFN108021	RFNLBG1CV04ANA RFNLBG1CV04SSR
	2500 (172)	FNLR108021[*]	FNVR108021	FNPR108021[*]			
	5000 (345)	FNL108025[*]	FNV108025	FNP108025[*]			
	2500 (172)	FNLR108025[*]	FNVR108025	FNPR108025[*]			
M10 × 1.25	2500 (172)	FNLR108D021[*]	FNVR108D021	FNPR108D021[*]	S1203B60	RFN128041	
		FNLR108D025[*]	FNVR108D025	FNPR108D025[*]			
M10 × 1.5	2500 (172)	FNLR108E021[*]	FNVR108E021	FNPR108E021[*]	S1203B60	RFN128041	
		FNLR108E025[*]	FNVR108E025	FNPR108E025[*]			
M12 × 1.0	5000 (345)	FNL128C041[*]	FNV128C041	FNP128C041[*]	S1203B60	RFN128041	
	2500 (172)	FNLR128C041[*]	FNVR128C041	FNPR128C041[*]	S21250327B60		
	5000 (345)	FNL128C045[*]	FNV128C045	FNP128C045[*]	S1203B60		
	2500 (172)	FNLR128C045[*]	FNVR128C045	FNPR128C045[*]	S21250327B60		
M12 × 1.25	2500 (172)	FNLR128D041[*]	FNVR128D041	FNPR128D041[*]	S1203B60	RFN128041	
		FNLR128D045[*]	FNVR128D045	FNPR128D045[*]			
M12 × 1.5	2500 (172)	FNLR128041[*]	FNVR128041	FNPR128041[*]	S1203B60	RFN128041	
		FNLR128045[*]	FNVR128045	FNPR128045[*]			
M14 × 1.5	5000 (345)	FNL148045[*]	FNV148045	FNP148045[*]	S21250327B60	RFN148041	
	2500 (172)	FNLR148041[*]	FNVR148041	FNPR148041[*]	S1203B60		
	2500 (172)	FNLR148045[*]	FNVR148045	FNPR148045[*]			
M16 × 1.5	5000 (345)	FNL168065[*]	FNV168065	FNP168065[*]	S21200445B70	RFN168061	
	2500 (172)	FNLR168061[*]	FNVR168061	FNPR168061[*]			
	2500 (172)	FNLR168065[*]	FNVR168065	FNPR168065[*]			
M18 × 1.5	5000 (345)	FNL188065[*]	FNV188065	FNP188065[*]	S1206B70	RFN188061	
M20 × 1.5	5000 (345)	FNL208065[*]	FNV208065	FNP208065[*]	S21390576B70	RFN208061	
M22 × 1.5	5000 (345)	FNL228X085[*]	FNV228X085	FNP228X085[*]	S1208B70	RHN228081	

Reduced Thread Connectors Available up to M16 [FNxRxxxxxx]; The "R" in the part number indicates a shorter collet length for shallow ports.

**Port Specifications:** BSPP (G) per ISO 228, BS 2779, DIN 3852 Part 2 Type A and B; BSPT per ISO 7 or BS 21

*How To Add ICON™ to FN		
Signal Output	Part Number Suffix	Example
FNL Connector without ICON™	None	FNL022021
FNL with ICON™: Analog Output Signal	CV04ANA	FNL022021 <b>CV04ANA</b>
FNL with ICON™: Solid State Relay	CV04SSR	FNL022021 <b>CV04SSR</b>



\*Dimension only applies to FN with ICON™ Technology (Base Part Numbers that include "CV04ANA" or "CV04SSR").

Dimensions									
A (FNL)	A (FNV)	A (FNP)	B	C (FNL)	C (FNV)	D	E	M	T
4.80 (121.9)	5.13 (130.3)	4.90 (124.5)	1.06 (26.9)	3.70 (94.0)	1.58 (40.1)	1.50 (38.1)	0.65 (16.5)	0.55 (14.0)	1/8 NPT
								0.30 (7.6)	
								0.55 (14.0)	1/8 BSPP (G)
								0.30 (7.6)	
5.00 (127.0)	5.21 (132.3)	5.00 (127.0)	1.06 (26.9)	4.00 (101.6)	1.58 (40.1)	1.70 (43.2)	0.72 (18.3)	0.32 (8.1)	1/8 NPT
								0.34 (8.6)	1/8 BSPP (G)
									0.67 (17.0)
								0.38 (9.7)	
								0.38 (9.7)	
								5.00 (127.0)	5.21 (132.3)
0.67 (17.0)	1/4 BSPP (G)								
0.43 (10.9)	1/4 NPT								
5.00 (127.0)	5.05 (128.3)	4.80 (121.9)	1.25 (31.8)	3.90 (99.1)	1.58 (40.1)	1.86 (47.2)	0.86 (21.8)	0.43 (10.9)	1/4 BSPP (G)
								0.67 (17.0)	3/8 BSPP (G)
								0.43 (10.9)	3/8 NPT
5.27 (133.9)	5.27 (133.9)	5.34 (135.6)	1.43 (36.3)	4.40 (111.8)	1.85 (47.0)	2.33 (59.2)	1.00 (25.4)	0.43 (10.9)	3/8 BSPP (G)
								0.55 (14.0)	3/8 BSPP (G)
								0.72 (18.2)	3/8 BSPP (G)
5.27 (133.9)	5.27 (133.9)	5.34 (135.6)	1.43 (36.3)	4.40 (111.8)	1.85 (47.0)	2.33 (59.2)	1.09 (27.7)	0.57 (14.5)	1/2 BSPP (G)

Dimensions: inch (mm)  
Pressure Rating: psi (bar)



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