

**EVOLUTION**  
MEASUREMENT

---

# **Scanivalve**

## **PNEUMATIC CONNECTOR, TUBING, & ACCESSORY CATALOG**

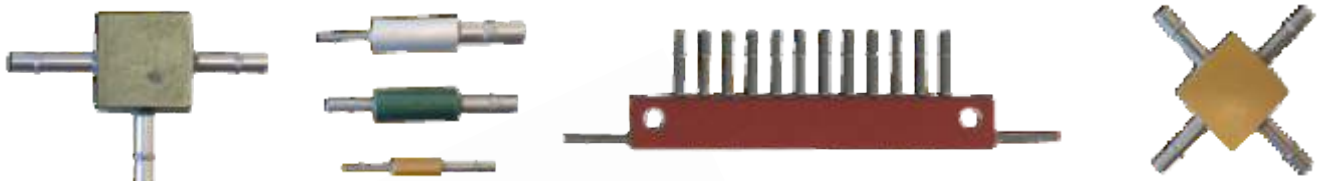
### *Pneumatic Quick Connectors*



### *Plastic Tubing and Adaptors*



### *Tube Connectors and Manifolds*



### *Plumbing Tools*



# Contents

---

<b>Plastic Tubing</b>	<b>1</b>
Nylon Tubing	1
Teflon Tubing (Clear)	1
Vinyl Tubing (Clear)	1
Urethane Tubing (Clear)	1
<b>Plastic Tubing Specifications</b>	<b>2</b>
<b>Tubing Clamps and Sealant</b>	<b>3</b>
Helical Tubing Clamps	3
Pipe Sealant	3
<b>Tubulations and Specialized Tubing Tools</b>	<b>4</b>
Bulged Stainless Steel Tubulations	4
Tubing Push on Tool	4
<b>Specialized Tubing Tools</b>	<b>5</b>
NYCLMP Screw-Back Tool	5
<b>Tube/Pipe Connectors</b>	<b>6</b>
Pipe Connectors	6
Tube Adaptors for X-Lok Compression Fittings (1500psi)	6
<b>X-Lok Adaptors</b>	<b>7</b>
X-Lok to Tubulation	7
Tube Inserts for X-Lok Compression Fittings	7
<b>Pressure Taps and Patch</b>	<b>8</b>
Pressure Tap	8
Pressure Patch	8
<b>Pneumatic Connectors</b>	<b>9</b>
Quick Disconnect (50-100psi)	9
Model D (300psi)	10
24C, 48C, and 64C	11
24C Pneumatic Connectors (500psi)	12
48C Pneumatic Connectors (500psi)	12
64C Pneumatic Connectors (100psi)*	12
ZOC (500psi)	13
32MPS (100psi)	14
70MPS (500psi)	14
<b>Pneumatic Connectors - High Pressure</b>	<b>15</b>
Model L (1500psi)	15
<b>Rectangular Connectors</b>	<b>16</b>
RC2 (300psi)	16
RPC (100-500psi*)	17
<b>Pneumatic Manifolds (500PSI)</b>	<b>18</b>
<b>Tube Connectors</b>	<b>19</b>
<b>Quick Couplers</b>	<b>20</b>
<b>Pneumatic Calibration/Purge Valve</b>	<b>21</b>

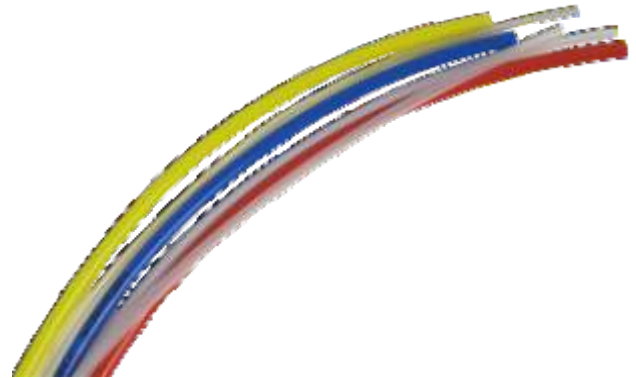
---

# Plastic Tubing

Scanivalve stocks clear plastic tubing for many applications including:

- Wind Tunnel Tests
- Flight Tests
- Gas Turbine and Diesel Tests
- R&D and Laboratory Use
- Industrial Test

Available stock materials are urethane, Nylon, vinyl and Teflon. Sizes are available to fit over .031 inch through .125 inch tubulations. Tubing is sold by the spool.



## Nylon Tubing

This tubing is rated at 110°C\* and is ideal for gas turbine testing. It fits snugly over our stainless steel tubulations and can be used without helical tubing clamps to 100 psi, or up to 1500 psi (burst pressure NYLN-063) with helical tubing clamps and sealant. As a special order, NYLN-125HW can be ordered in a variety of colors.

## Teflon Tubing (Clear)

This chemically inert tubing is rated at 260°C\*. It uses the same helical tubing clamps as the Nylon tubing. Size .063 Teflon tubing has a recommended working pressure of 500 psi at 21°C.

## Vinyl Tubing (Clear)

This tough, lightweight tubing carries a 65°C\* rating. It fits snugly over our stainless steel tubulations, and can be used with or without our helical tubing clamps. It can be used for short duration tests up to 30 psi without helical clamps. Size .063 vinyl tubing has a recommended working pressure of 90 psi at 21°C.

## Urethane Tubing (Clear)

Urethane tubing has a temperature rating of 95°C\*. It is ideal for low pressure tests in wind tunnel models. The tubing is extremely flexible, resilient, and resistant to kinking. It fits snugly over our stainless steel tubulations and is resistant to weather, tearing, abrasion and impact. Size .063 urethane has a recommended working pressure of 100 psi at 21°C.

## Tubing Material Sizes Typically Stocked

For use on:	Vinyl	Nylon 6/6 (Clear)	Urethane	Teflon (PTFE)
.031 Inch (0.79mm) O.D. SS Tubulation			URTH-031 (I.D.)	
.040 Inch (1.02mm) O.D. SS Tubulation	VINL-040 (I.D.)	NYLN-040† (I.D.)	URTH-040 (I.D.)	TFLN-040 (I.D.)
.063 Inch (1.59mm) O.D. SS Tubulation	VINL-063 (I.D.)	NYLN-063 (I.D.)	URTH-063 (I.D.)	TFLN-063 (I.D.)
.125 Inch (3.18mm) O.D. SS Tubulation	VINL-125**† (I.D.)	NYLN-125HW (I.D.)		TFLN-125** (I.D.)

\* Temperature ratings are referenced to atmospheric pressure of 14.7 psia nominal.

\*\* Do not use this tubing in vacuum applications

† Indicates special order

O.D.=Outside Diameter; I.D.=Inside Diameter

# Plastic Tubing Specifications

Part Number	I.D. Inches [mm]*	O.D. Inches [mm]	Recommended Working Pressure at 21°C PSI [kPa]	Burst Pressure at 21°C PSI [kPa]	Burst Pressure at 40°C PSI [kPa]	Max Operating Temperature °C [°F]	Min Operating Temperature °C [°F]	Burst Pressure at Max Operating Temperature PSI [kPa]	Minimum Bending Radius Inches[mm]	Spool Length Feet [Meters]
<b>NYLN-063</b>	.057 [1.45]	.089 [2.26]	1000[6895]	1500 [10340]	1000 [6895]	110[225]	-65[-85]	800[5515]	1.25[31.75]	500[152.4] 1000[304.8]
<b>NYLN-125HW</b>	.117 [2.97]	.187 [4.75]	600[4135]	1000 [6895]	750 [5170]	100[212]	-65[-85]	500[3448]	1.75[44.45]	250[76.2]
<b>TFLN-040</b>	.036 [0.91]	.068 [1.73]	500[3448]	700 [4825]	575 [3965]	260[500]	-70[-94]	70[480]	0.50[12.7]	500[152.4]
<b>TFLN-063</b>	.053 [1.35]	.086 [2.18]	500[3448]	700 [4825]	575 [3965]	260[500]	-70[-94]	70[480]	0.75[19.05]	500[152.4]
<b>TFLN-125</b>	.106 [2.69]	.138 [3.51]	200[1380]	350 [2415]	240 [1655]	175[350]	-70[-94]	50[345]	1.25[31.75]	300[91.4]
<b>URTH-031</b>	.027 [.69]	.051 [1.30]	125[860]	375 [2585]	160 [1100]	95[200]	-65[-85]	70[480]	0.188[4.78]	500[152.4]
<b>URTH-040</b>	.034 [.86]	.066 [1.68]	125[860]	350 [2415]	150 [1035]	95[200]	-65[-85]	70[480]	0.25[6.35]	500[152.4]
<b>URTH-063</b>	.054 [1.37]	.086 [2.18]	100[690]	250 [1725]	150 [1035]	95[200]	-65[-85]	50[345]	0.25[6.35]	500[152.4]
<b>VINL-040</b>	.034 [.86]	.066 [1.68]	100[690]	400 [2760]	200 [1380]	65[150]	-40[-40]	35[240]	0.32[8.12]	500[152.4]
<b>VINL-063</b>	.054 [1.37]	.086 [2.18]	90[620]	250 [1725]	160 [1100]	65[150]	-40[-40]	35[240]	0.50[12.7]	500[152.4]
<b>VINL-125†</b>	.106 [2.69]	.138 [3.51]	40[275]	175 [1205]	50[345]	65[150]	-40[-40]	35[240]	0.63[16.0]	500[152.4]

\* All I.D. tolerances are ±0.002" with the exception of TFLN tubing. All TFLN is ±0.003".

† Special Order. Please consult factory.

# Tubing Clamps and Sealant

## Helical Tubing Clamps

These tubing clamps are used to clamp plastic tubing onto the stainless steel tubulations which extend from our Scanivalve modules and line of connectors, reducers, and manifolds. The brass clamps are designed to fit over our vinyl and urethane tubing on the tubulation. The stainless steel clamps are designed to fit over our Nylon and Teflon tubing. Clamps, tools, and tubing sizes are based on Scanivalve nominal stainless steel tubulation outside diameter. Actual dimensions of clamps, tools, and tubing may vary.



To Order, Specify		Brass		Stainless Steel
<b>Stainless Steel Tubulation Size:</b>	<b>Scanivalve Tubing:</b>	<b>For use on Vinyl or Urethane tubing, #:</b>	<b>Scanivalve Tubing:</b>	<b>For use on Nylon or Teflon tubing, #:</b>
.040 Inch [1.02mm] O.D.	VINL-040	CLMP-040	NYLN-040	NYCLMP-040
.063 Inch [1.59mm] O.D.	VINL-063	CLMP-063	TFLN-063 or NYLN-063	NYCLMP-063
.125 Inch [3.18mm] O.D.	VINL-125	CLMP-125	TFLN-125 NYLN-125HW	NYCLMP-125 NYCLMP-125HW

## Pipe Sealant

The use of sealant with the helical tubing clamps is recommended for pressures above 250 psi. It is best used on Nylon and Teflon tubing.

Application: Prior to tubing installation, lightly brush a small amount of sealant over the bulge of the stainless steel tubulation. Then drive the tubing and clamp onto the tubulation, using a small amount of twist to help spread the sealant. For high pressure applications, it is recommended that the SLNT2 is allowed to dry for 12-24 hours before full pressure is applied.

To order, specify as Scanivalve #SLNT2.



# Tubulations and Specialized Tubing Tools

## Bulged Stainless Steel Tubulations

Scanivalve manufactures a complete line of bulged stainless steel tubulations. The tubing is bulged on one end to ensure leak tight connections. Scanivalve's plastic tubing and the brass or stainless steel helical tubing clamps fit over this bulge for a firm grip. It is recommended that the customer should epoxy the non-bulged end into their equipment. The tubulations are manufactured in lengths between 0.55 inches and 8.0 inches.



**To Order, Specify:** Scanivalve Part Number + Tubulation Length

Scanivalve Part Number:	Standard Tubulation Lengths Inches	Tubulation Size Inches [mm]
TUBN-040	.55, .75, 1.0, 2.0, 3.0, 4.0	.040Inch[1.02mm]O.D.
TUBN-063	.56, .75, 1.0, 2.0, 3.0, 4.0	.063Inch[1.59mm]O.D.
TUBN-125	.75, 1.0, 2.0, 3.0, 4.0	.125Inch[3.18mm]O.D.

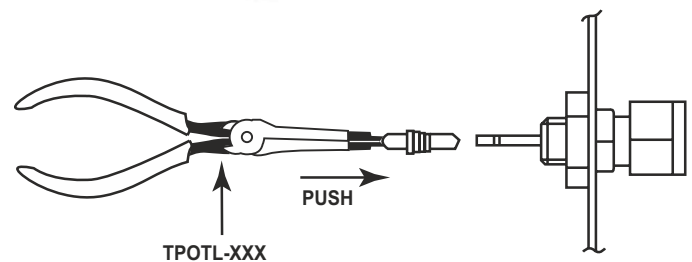
## Tubing Push-on Tool

This tool is designed for use with vinyl, Nylon, Teflon and urethane tubing. The tool is used by grasping the tubing adjacent to the clamp (after the clamp has been screwed onto the tubing) and pushing it onto our standard stainless steel tubulations. It can also be used to push on tubing without clamps. Clamps, tools, and tubing sizes are based on Scanivalve nominal stainless steel tubulation outside diameter. Actual dimensions of clamps, tools, and tubing may vary.



To Order, Specify:	Approximate I.D. of tubing clamp Inches [mm]
TPOTL-031	.046[1.17]
TPOTL-040	.059[1.50]
TPOTL-063	.081[2.06]
TPOTL-125	.136[3.45]
TPOTL-125HW	.177[4.50]

Model      TubulationSize



# Specialized Tubing Tools

## NYCLMP Screw-Back Tool

The Nylon screw-back tool is designed to manually install the helical clamps over the bulge of the tubulation. The screw-back tool is slipped onto the tubing and used to push the NYCLMP toward the tubulation bulge until the bulge is engaged. By rotating the screw-back tool a few revolutions, it will screw the NYCLMP over the bulge. Continue turning the handle on the screw-back tool until the clamp is located 80% over the bulge (on the side of the bulge closest to the termination of the tubing).

The versatile long-handled version, NCSBTL3, is especially suited for installing the NYCLMPs in hard-to-reach areas.

The short-handled version, NCSBTL2, is used on panels where space is available.

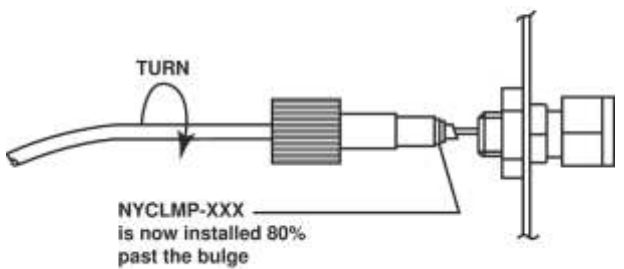
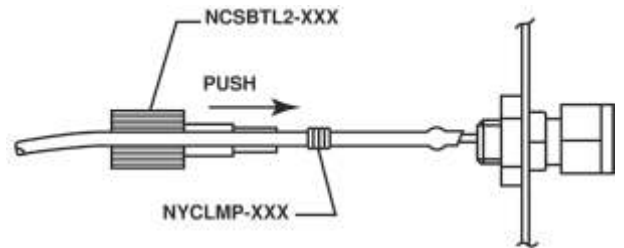
Clamps, tools, and tubing sizes are based on Scanivalve nominal stainless steel tubulation outside diameter. Actual dimensions of clamps, tools, and tubing may vary.



To Order, Specify:	
	NCSBTL2-063
	NCSBTL2-125
	NCSBTL2-125HW
	NCSBTL3-040
	NCSBTL3-063
	NCSBTL3-125
	NCSBTL3-125HW

Model
  Tubulation Size

**Note:** When Heavy Walled (HW) tubing is used, specify the HW Screw-back tool listed in the table.





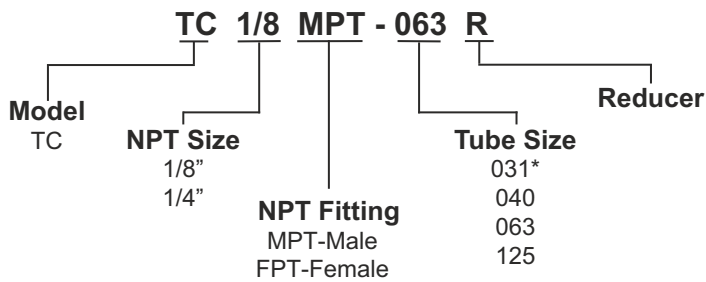
# Tube/Pipe Connectors

## Pipe Connectors

These connectors are useful to connect small diameter plastic tubing with larger 1/8 inch and 1/4 inch NPT threaded pipe. Sizes are governed by the NPT standard.

**Tubulation sizes available:** .031 (non-bulged), .040, .063, or .125 inch OD.

**To Order, Specify:**



\*.031 inch tubulations do not have a bulge



## Tube Adaptors for X-Lok Compression Fittings (1500psi)

Scanivalve has designed easy-to-use tube adaptors that fit X-Lok fittings. The main function of these tube adaptors is to reduce 1/8 or 1/4 inch input fittings to our stainless steel tubulations or other.

These fittings can be hand tightened to form a leak tight O-ring seal. No tools are required. The tube adaptor material is brass or stainless steel with brass or stainless steel tubulations (dependent on configuration).

**To Order, Specify:** Scanivalve Part Number + Dash Number

Scanivalve Part #	Dash Number	Tubulation Size	X-Lok Compression Fitting Size
5365	-1	Cap	1/4" [6mm]
	-12	.040"	
	-2	.063"	
	-4	.083"	
	-3	.125"	
5365	-2	Cap	1/8" [3mm]
	-4	.040"	
	-1	.063"	
	-5	.125"	



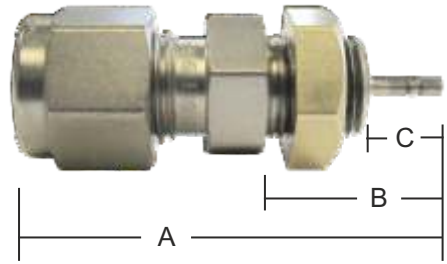


# X-Lok Adaptors

## X-Lok to Tubulation

These fittings provide a compression fitting to one end and a tubulation on the other. This fitting can be threaded or mounted to a wall to provide a pass through option when converting compression fittings to tubulations. The material can be stainless steel or brass. The nut included for the 1/8 pipethread is brass.

**To Order, Specify:** Scanivalve Part Number + Dash number



Scanivalve Part #	Dash Number	Tubulation Size Inches [mm]	Material	Compression Fitting	NPT Size	A	B	C
						Inches [mm]		
57022	-1	.063[1.59]	Brass	1/4"(6mm)	1/8"	1.660 [42.16]	.745 [18.92]	.370 [9.40]
	-2	.125[3.18]				1.880 [47.75]	.965 [24.51]	.590 [14.99]
	-3	.063[1.59]	Stainless Steel			1.660 [42.16]	.745 [18.92]	.370 [9.40]
	-4	.125[3.18]				1.880 [47.75]	.965 [24.51]	.590 [14.99]
57032	-1	.063[1.59]	Brass	1/8"(3mm)	1/8"	1.570 [39.88]	.745 [18.92]	.370 [9.40]
	-2	.125[3.18]				1.770 [44.96]	.945 [24.00]	.570 [14.48]
	-3	.063[1.59]	Stainless Steel			1.600 [40.64]	.775 [19.69]	.400 [10.16]
	-4	.125[3.18]				1.770 [44.96]	.945 [24.00]	.570 [14.48]

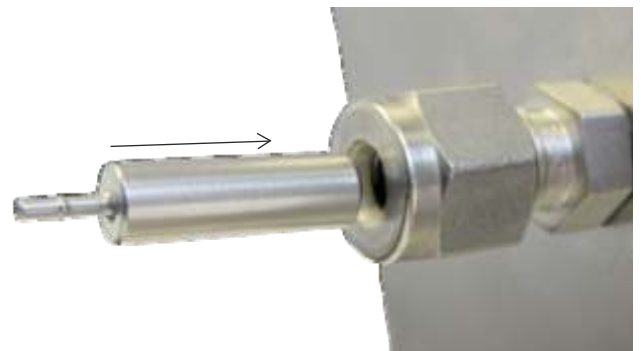
## Tube Inserts for X-Lok Compression Fittings

Scanivalve has designed easy-to-use tube adaptors that fit into X-Lok compression fittings. The main function of these tube adaptors is to utilize the compression fitting and adapt to Scanivalve tubulation sizes. These adaptors are all stainless steel.

**To Order, Specify:** Scanivalve Part Number + Dash Number



Scanivalve Part #	Dash Number	Tubulation Size Inches [mm]	Material	Body O.D - 'D' Inches [mm]
57038	-1	.063[1.59]	Stainless Steel	.250[6.35]
	-2	.125[3.18]		.250[6.35]
	-3	.063[1.59]		.125[3.18]
	-7	.040[1.02]		.125[3.18]



# Pressure Taps and Patch

## Pressure Tap

These pressure taps were designed to be a convenient solution for mounting tubulations to a model or test article. Using a hole drilled in the test article, the pressure tap can be fixed to the test article using adhesive. The through hole design of the tap (Dimension A) will allow for a flush finish on the exterior of the test article. Straight and 90 degree tubulation variants are available.

**Tubulation Sizes Available:** .040" and .063"

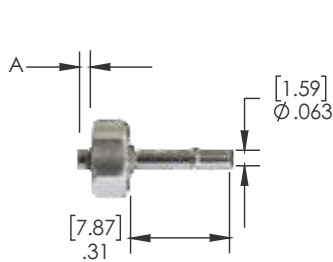
**To Order, Specify:** Scanivalve Part Number + Dash Number



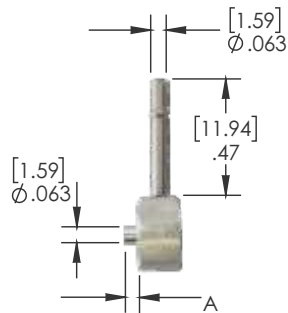
Scanivalve Part Number	Tubulation Size	Orientation
5855	.040	Straight
5856	.063	Straight
5865	.040	90Degree
5866	.063	90Degree

Dash Number						
	- 1	- 2	- 3	- 4	- 5	- 6
'A'	.025 [.635]	.032 [.813]	.050 [1.27]	.063 [1.60]	.093 [2.36]	.125 [3.18]

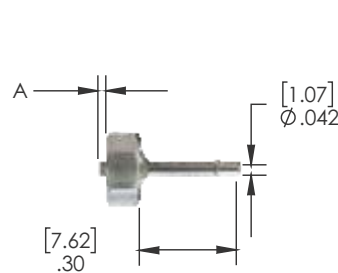
Please consider test article material thickness when choosing the 'A' dimension.



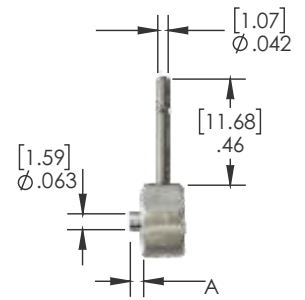
PN: 5856



PN: 5866



PN: 5855



PN: 5865

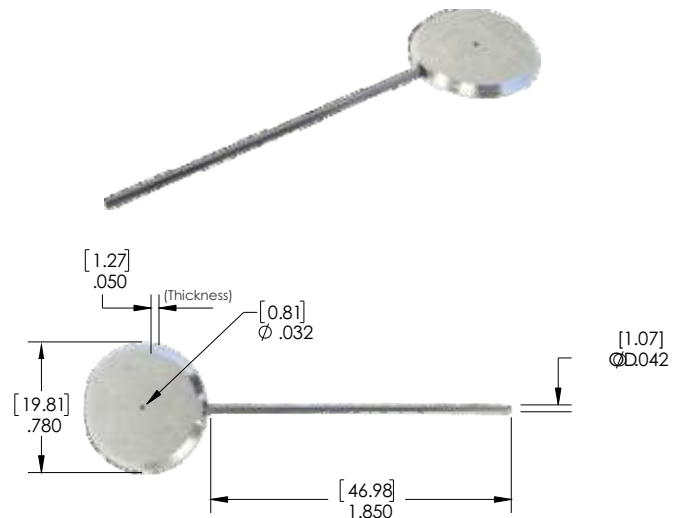
All measurements = Inches [mm]

## Pressure Patch

The Pressure Patch is an alternate solution to the pressure tap in applications where drilling holes in the test article is unacceptable or inconvenient. A stainless steel tube is extruded from the chamber of an aluminum disk. The aluminum body can be fixed to the test article using an appropriate adhesive based on the application. The patch was designed and tested to have minimal aerodynamic influences when fixed to the flat surface of a test article.

**Tubulation Sizes Available:** .040" (non-bulged)

**To Order, Specify:** Pressure Patch (PN: 5857)

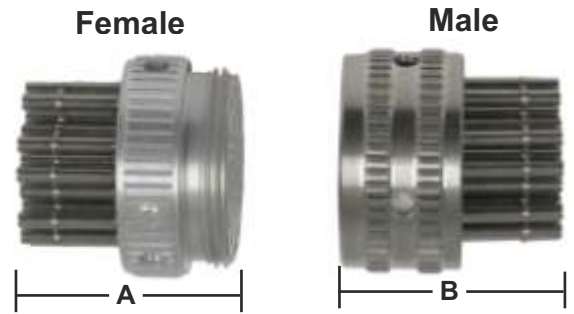


All measurements = Inches [mm]

# Pneumatic Connectors

## Quick Disconnect (50-100psi)

This family of connectors are ideal for making quick disconnects at test break points where space is important. These connectors have some of the highest channel density per connector that Scanivalve offers. A flat gasket is shipped with the male connector for providing an airtight seal. Blanking caps are available for some connector models as shown in the chart below.



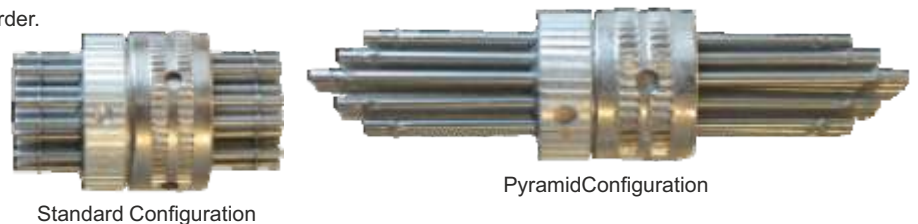
Dimensions: Inches [mm]				
Number of Tubulations	Connector Diameter	A	B	Tubulation Dimensions
7	.345[8.76]	.680[17.3]	.615[15.6]	.040[1.02]O.D.
14	.390[9.91]	.695[17.65]	.680[17.3]	.040[1.02]O.D.
19	.460[11.7]	.660[16.8]	.690[17.6]	.031[.79]O.D. †
19	.460[11.7]	.760[19.3]	.790[20.1]	.040[1.02]O.D.
31	.560[14.2]	.540[13.7]	.650[16.5]	.031[.79]O.D. †
31	.560[14.2]	.540[13.7]	.580[14.7]	.040[1.02]O.D.
31	.900[22.9]	.720[18.3]	.765[19.4]	.040[1.02]O.D.
31	.900[22.9]	.690[17.6]	.765[19.4]	.063[1.59]O.D.
36	.625[15.88]	.615[15.6]	.655[16.6]	.031[.79]O.D. †
36	.625[15.88]	.960[24.4]	1.0[25.4]	.040[1.02]O.D.
55	.700[17.8]	.540[13.7]	.565[14.4]	.040[1.02]O.D.
55	1.125[28.6]	.690[17.6]	.784[19.9]	.063[1.59]O.D.

A and B dimensions are the distance to the longest tube.  
 † All .031 tubulations are non-bulged

To order, specify: Connector # + Tube Size						
Number of Tubulations	Male Connector #	Female Connector #	Tube Size	Spare Gasket #	Male Cap #	Female Cap #
7	7M345 <sup>‡</sup>	7F345 <sup>‡</sup>	040	50968-1	N/A	N/A
14	14M390 <sup>‡</sup>	14F390 <sup>‡</sup>	040	50958-1	N/A	N/A
19	19M460	19F460	031	50059-2	50013-3	50024-3
19	19M460 <sup>^^</sup>	19F460 <sup>^^</sup>	040	50059-2	50013-3	50024-3
31	31M560	31F560 <sup>*</sup>	031	50159-2	50013-2	50024-2
31	31M560 <sup>^</sup>	31F560 <sup>^*</sup>	040	50159-2	50013-2	50024-2
31	31M900	31F900 <sup>*</sup>	040	50139-2	50130-9	50131-2
31	31M900	31F900 <sup>*</sup>	063	50139-2	50130-9	50131-2
36	36M625	36F625 <sup>*</sup>	031	50778-1	50770-3	50776-3
36	36M625 <sup>^^</sup>	36F625 <sup>^^*</sup>	040	50778-1	50770-3	50776-3
55	55M700	55F700	040	50007-3	50013-1	50024-1
55	55M1.125	55F1.125	063	50129-1	N/A	50110-1

<sup>^</sup> Available in pyramid configuration. Specify at time of order.  
<sup>^^</sup> Only available in pyramid configuration.  
<sup>‡</sup> Max Pressure 50psi  
<sup>\*</sup> Available in Female Bulkhead

Note: Male Cap for Female Connector  
 Female Cap for Male Connector  
 Prices may vary based on configuration



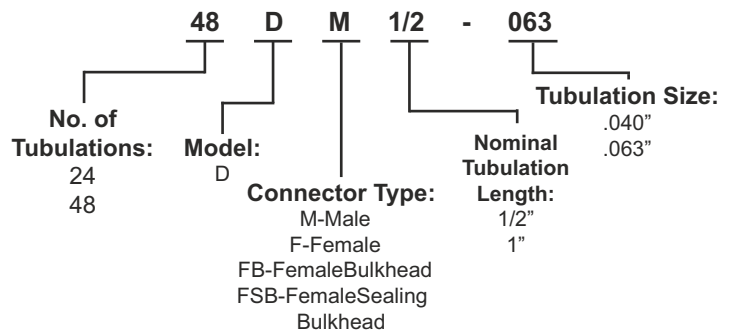
# Pneumatic Connectors

## Model D (300psi)

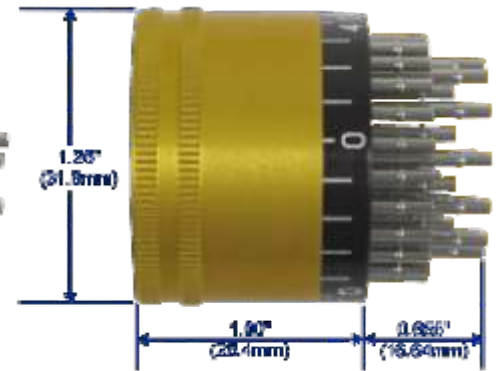
The "D" Connectors make ideal quick disconnects at model test break points when both male and female connectors are used together. Both connectors are available with 24 or 48 stainless steel tubulations. Standard "D" connectors use a gasket and are limited to 100psi. For applications up to 300 psi, a gascage can be used and must be specified at the time of order. Male and female halves can be mated together to act as a reducer. Please consult the factory for this configuration.

**Spare Gasket Part Number:**6088  
**Spare Gascage Part Number:**6058

To Order, Specify:



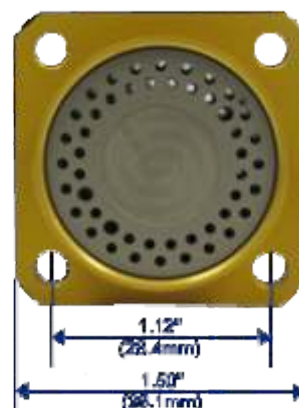
**48DM-1/2**  
(Male)(Female)



**48DF-1/2**



**48DFB-1/2**  
(Female Bulkhead)



**0.16" (4.06mm)**  
Diameter Holes  
4each

# Pneumatic Connectors

## 24C, 48C, and 64C

The line of CM (male) connectors, when used with a CF (female connector), or a CFB (female bulkhead connector), become ideal quick disconnects at pressure break points. The stainless steel tubulations are designed to fit either Scanivalve 040, 063, or 125 tubing. A 2 inch retainer is available as an additional option.

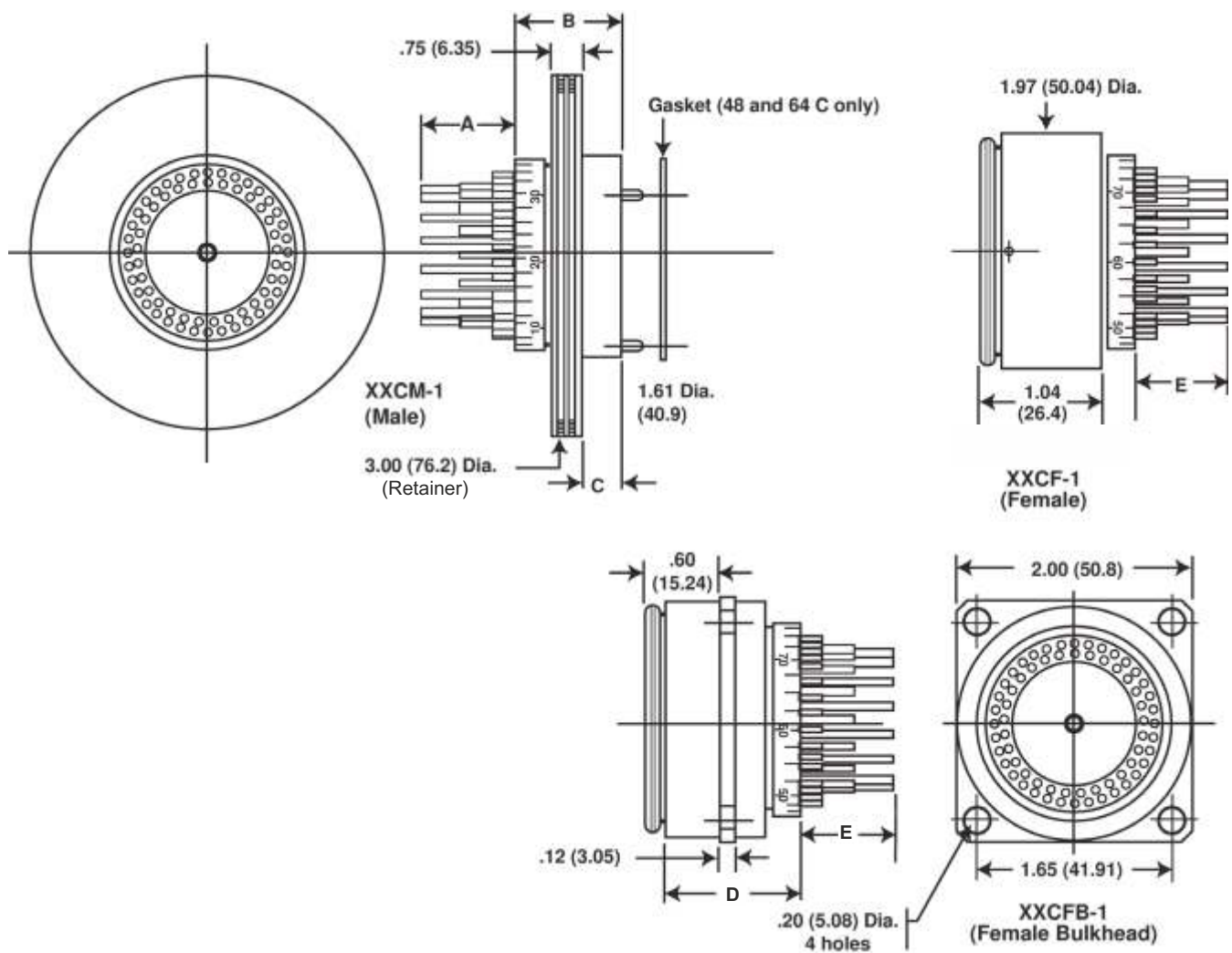
Blanking caps, spare O-rings, gaskets, and gascages can be found in the table on the following page.



64CFB-1



64CF-1



# Pneumatic Connectors

## 24C Connector Dimensions (500psi)

ScanCo#	Description	No. of Tubes	Tubulation Size	A	B	C	D	E	Cap
24CM-1	MaleConnector	24	.063[1.59]	.61[15.5]	.90[22.9]	.36[9.14]			65020-14
			.125[3.18]	.86[21.8]					
24CF-1	FemaleConnector	24	.063[1.59]					.41[10.4]	65010-9
			.125[3.18]					.86[21.8]	
24CFB-1	Female Bulkhead Connector	24	.063[1.59]				1.30[33.0]	.41[10.4]	65010-9
			.125[3.18]					.86[21.8]	
0995-070X-150B-SpareO-Rings									

## 48C Connector Dimensions (500psi)

ScanCo#	Description	No. of Tubes	Tubulation Size	A	B	C	D	E	Cap
48CM-1	MaleConnector	48	.040[1.02]	.38[9.7]	.82[20.8]	.34[8.64]			NA
			.063"[1.59]	.82[20.8]					
48CF-1	FemaleConnector	48	.040[1.02]					.42[10.7]	6386-1
			.063"[1.59]					.83[21.1]	
48CFB-1	Female Bulkhead Connector	48	.040[1.02]				1.13[28.7]	.42[10.7]	6386-1
			.063"[1.59]					.83[21.1]	
6025	Spare Gasket								
5180	Optional Gascage								

## 64C Connector Dimensions (100psi)\*

ScanCo#	Description	No. of Tubes	Tubulation Size	A	B	C	D	E	Cap
64CM-1	MaleConnector	64	.063[1.59]	.77[19.6]	.87[22.1]	.34[8.64]			NA
64CF-1	FemaleConnector	64	.063[1.59]					.78[19.8]	NA
64CFB-1	Female Bulkhead Connector	64	.063[1.59]				1.17[29.2]	.78[19.8]	NA
6305	Spare Gasket								
6015	Optional Gascage								

\*Canbeusedupto500psiwithgascage.Pleaseconsultfactory.  
Allmeasurements=Inches[mm]

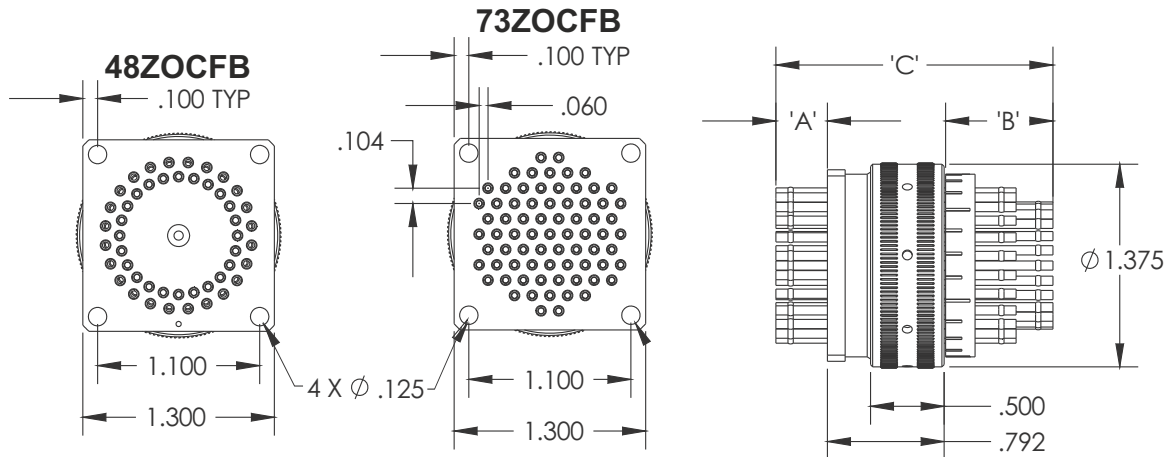
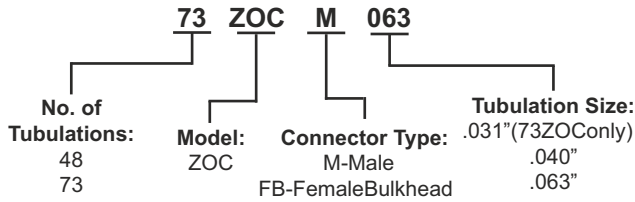


# Pneumatic Connectors

## ZOC (500psi)

This high density 48 or 73 channel connector is a very popular bulkhead quick disconnect. It contains either .063 inch O.D. tubulations or .040 inch O.D. tubulations. This pneumatic connector is also used on our ZOCTCU Thermal Control Units. It is capable for use up to 500 psi. Male and female halves can be mated together to act as a reducer. Please consult the factory for this configuration.

To Order, Specify:



ScanCo#	Description	No. of Tubes	Tubulation Size	A	B	C (M&F/FB)	Spare Gascage	Mating Cap
48ZOC-M	Male Connector	48	.040[1.02]		.990[25.14]	2.04[51.82]	5180-1	6541-4
			.063[1.59]		1.3[33.02]	2.44[61.98]		
48ZOC-FB	Female Bulkhead Connector	48	.040[1.02]	.260[6.60]			5180-1	6530-3
			.063[1.59]	.350[8.89]				
73ZOC-M	Male Connector	73	.031[.79]*		.300[7.62]	1.350[34.29]	6557-1	6561-9
			.040[1.02]		1.050[26.67]	2.070[52.58]		
			.063[1.59]		1.380[35.05]	2.500[63.5]		
73ZOC-FB	Female Bulkhead Connector	73	.031[.79]"	.260[6.60]			6557-1	6570-4
			.040[1.02]	.230[5.84]				
			.063[1.59]	.330[8.38]				

\*.031 tubulations are non-bulged and non-staggered  
All measurements = Inches [mm]

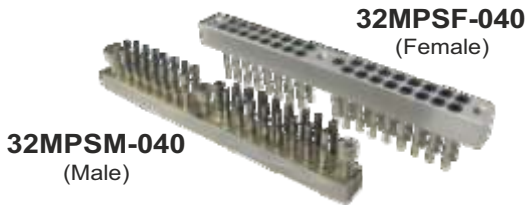


# Pneumatic Connectors

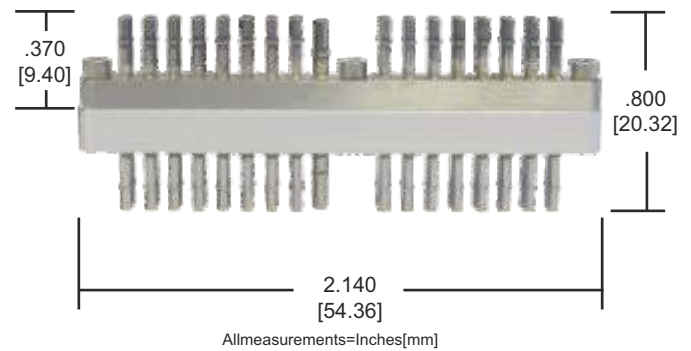
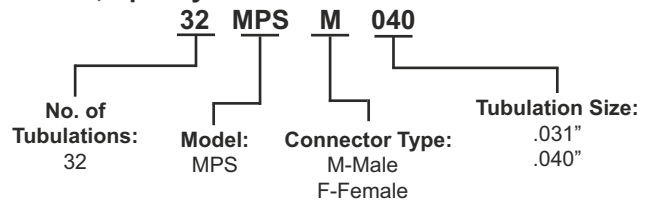
## 32MPS (100psi)

The “32MPS” Connectors make ideal quick disconnects at model test break points when both male and female connectors are used together. These connectors were based around the MPS4264 input header and contain the same ports. The connector consists of 32 ports of 0.031 (non-bulged) or 0.040 tubulations, and one purge port (always 0.063). The female connector has threaded holes and houses the O-Ring that seals the ports. Male and female halves with different tubulation sizes can be mated together to act as a reducer. Please consult the factory for this configuration.

Spare O-Rings for 32MPS Connector Part Number: 1443  
Blanking cap for Male and Female connectors are available.



To Order, Specify:

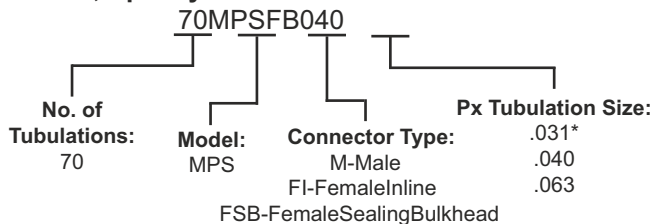


## 70MPS (500psi)

The “70MPS” Connectors make ideal quick disconnects at model test break points when both male and female connectors are used together. These pneumatic connectors are used on the MPSTCU and are rated for operating temperatures from -60°C to 125°C. The connector consists of 70 tubulation ports - 64 ports for “Px” connections in 0.031 (non-bulged, non-pyramid), 0.040, or 0.063 tubulations. The remaining 6 tubulations are always 0.063 tubulations - which were designed for the control inputs on the MPS. A gas cage will be supplied with each male connector. Male and female halves with different tubulations sizes can be mated together to act as a reducer. Please consult the factory for this configuration.

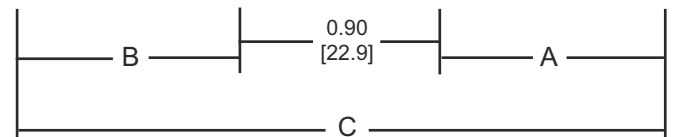
Spare Gas Cage Part Number: 6557  
Blanking cap for Male and Female connectors are available.

To Order, Specify:



**70MPSFI-040**

**70MPSM-040**



	A	B	C	Diameter
70MPS(0.063)	1.380 [35.1]	1.350 [34.3]	3.62 [91.9]	1.375 [34.9]
70MPS(0.040)	1.050 [26.7]	1.060 [26.9]	3.00 [76.2]	
70MPS(0.031*)(non-pyramid)	0.510 [13.0]	0.390 [9.9]	1.830 [46.5]	

All measurements = Inches [mm]  
\* All 0.031 tubulations are non-bulged

# Pneumatic Connectors - High Pressure

## Model L (1500psi)

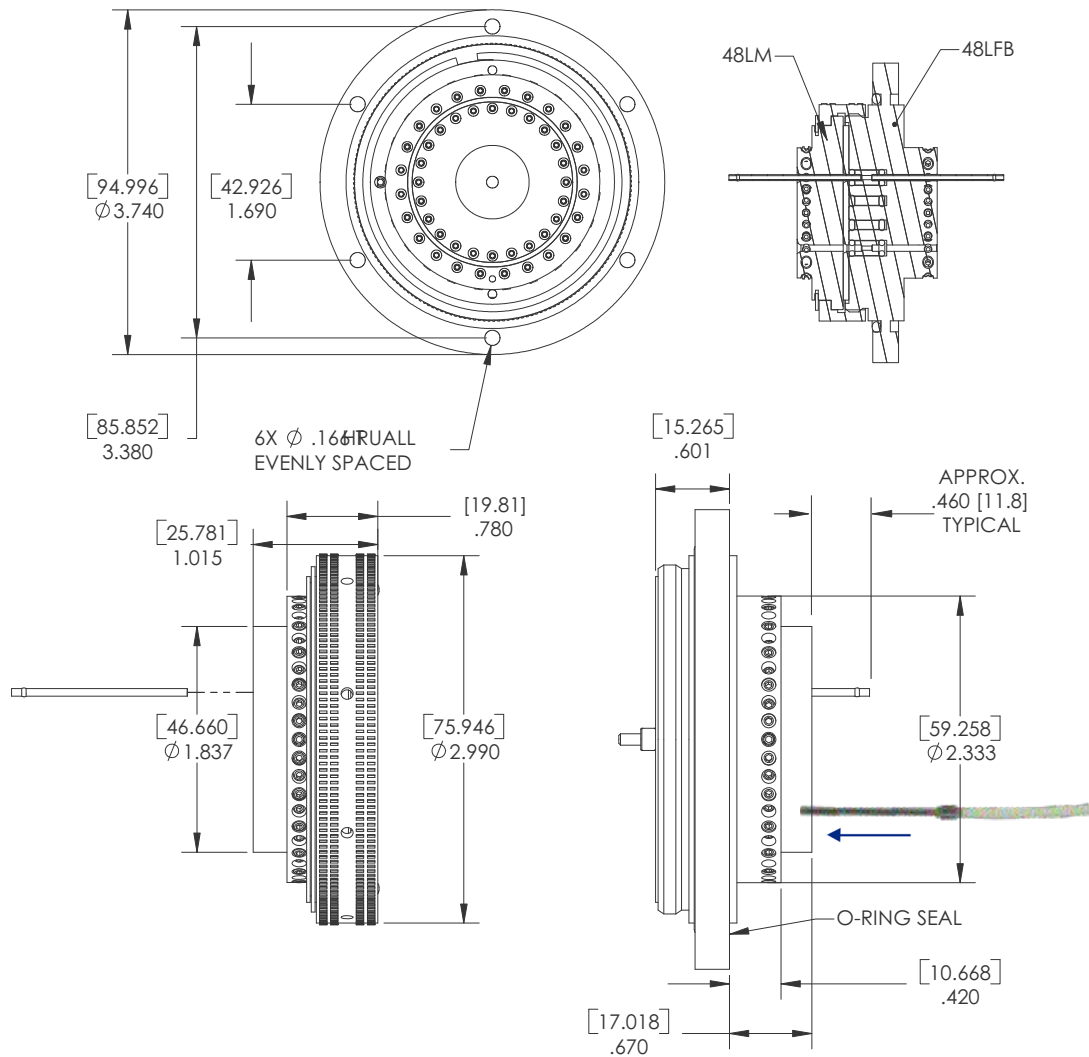
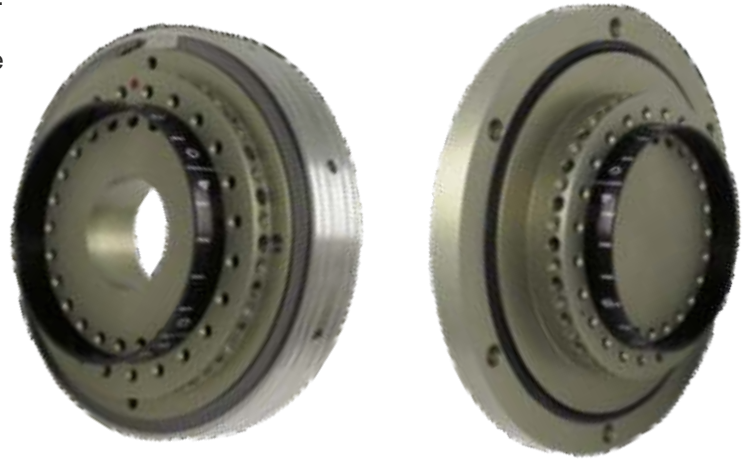
The 48L series connectors are ideal for making quick disconnects at test break points. These connectors accept stainless steel tubing that is locked in place with a set screw. This tubing must be smooth ended .063" O.D. stainless steel tubing. Six mounting holes are drilled in the Female Bulkhead connector half which allow 8-32 screws to be used for mounting.

**Note:** Tubing supplied by customer must have smooth end, or order PN: TUBN-063-X (See page 4 for reference)

**Blanking caps are available:**  
 To cap off 48LM, order PN: 6245-1  
 To cap off 48LFB, order PN: 6244-1

**48LM**  
Male

**48LFB**  
Female  
Bulkhead



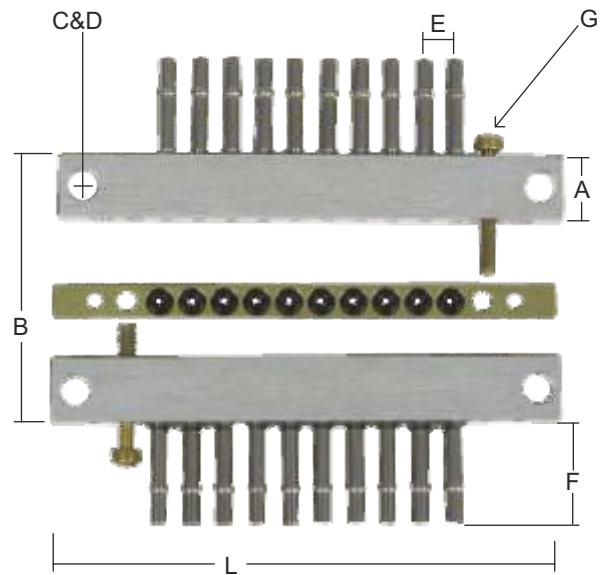
# Rectangular Connectors

## RC2 (300psi)

The materials of construction for these connectors are stainless steel tubulations cemented into anodized aluminum blocks. These connectors utilize a gascage to retain the o-rings and provide a leak-tight seal when connected. When configured with .031, .040, or .063 tubulations, differential halves can be mated together to act as a reducer (this does not apply to the 125 tubulations). Please consult factory for this configuration.

**Available Colors:** CLR (clear), GLD (gold), BLK (black), RED, GRN (green) and BLU (blue). If color is not specified at the time of order, Scanivalve will supply a color based on availability.

**Tubulation Sizes Available:** .031 (non-bulged), .040, .063 and .125 inches O.D.

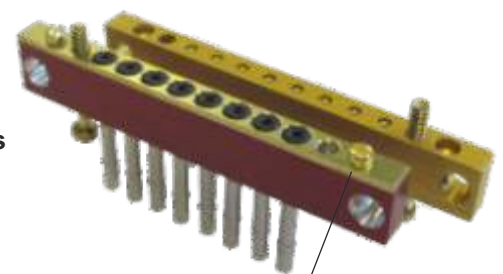
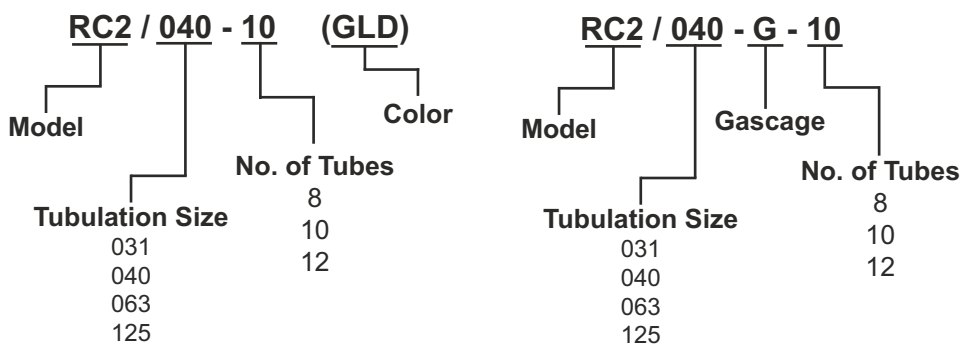


Number of Tubes	Connector Length "L" in Inches [mm]	
	For Tube Diameters:	
	.031, .040, .063	.125
8	1.700[43.2]	2.875[73.0]
10	1.950[49.5]	3.375[85.7]
12	2.200[55.9]	3.875[98.4]

Dimensions in Inches [mm]								
Tube Diameter	Thickness	A	B (Assembled)	C (Hole Diameter)	D	E	F	G (Scanco #)
.031	.125[3.18]	.250 [6.35]	.532[13.51]	.125[3.18]	No.4 Mounting Screw	.125 [3.18]	.325[8.26]	20300-02
.040							.375[9.53]	
.063							.385[9.78]	
.125	.250[6.35]	.375 [9.53]	.782[19.86]	.140[3.56]	No.6 Mounting Screw	.250 [6.35]	.47[11.94]	20300-06

*Each half of the connector can have different tubulation size, but body size will remain unchanged.*

**To Order, specify:** Two (2) each RC2 connectors plus a gascage are required to make one connector assembly.

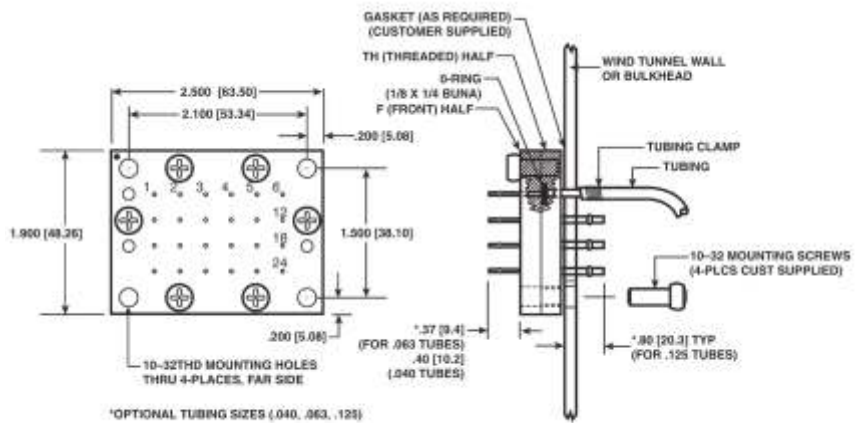


Screws supplied with gascage to fasten gascage to one half of the connector.

# Rectangular Connectors

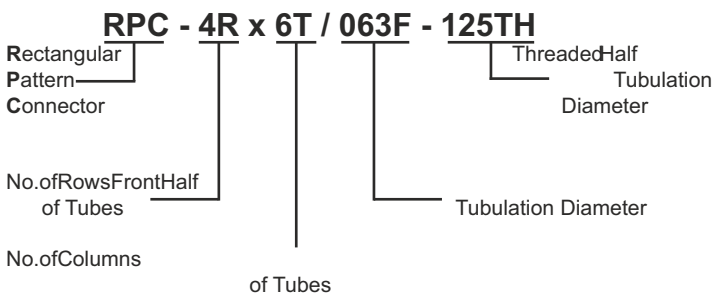
## RPC (100-500psi\*)

This Rectangular Pattern Connector (RPC) is ideal for making a quick disconnect at test break points. It is panel mounted and contains stainless steel tubulations. The sectioned side view of the drawing shows the front half of the connector which is not threaded. All of the holes are threaded in the threaded half (TH). Each side of the connector can have different tubulation sizes. O-rings are incorporated on the threaded half (TH) connector.



Dimension Inches (mm) - Standard Connector Size			
No. of Rows	No. of Columns	No. of Px	Dimensions: Height x Length Inches (mm)
2	4	8	1.3x1.9(33.0x48.3)
2	5	10	1.3x2.2(33.0x55.9)
3	4	12	1.6x1.9(40.6x48.3)
3	6	18	1.6x2.5(40.6x63.5)
4	4	16	1.9x1.9(48.3x48.3)
4	5	20	1.9x2.2(48.3x55.9)
4	6	24	1.9x2.5(48.3x63.5)
4	8	32	1.9x3.1(48.3x78.7)
4	10	40	1.9x3.7(48.3x94.0)
5	10	50	2.2x3.7(55.9x94.0)
6	6	36	2.5x2.5(63.5x63.5)
6	8	48	2.5x3.1(63.5x78.7)
6	9	54	2.5x3.4(63.5x86.4)
6	10	60	2.5x3.7(63.5x94.0)
8	8	64	3.1x3.1(78.7x78.7)
8	12	96	3.1x4.3(78.7x109.2)
10	10	100	3.7x3.7(94.0x94.0)
10	12	120	3.7x4.3(94.0x109.2)
12	12	144	4.3x4.3(109.2x109.2)

To order, specify Scanivalve #:



\*150psi for 144 tube connector.  
Small tube quantity connectors capable up to 500psi

# Pneumatic Manifolds (500PSI)

The pneumatic manifolds are available in two designs, single manifold and double manifold. Tubulation sizes are .040 inch, .063 inch and .125 inch O.D. Lengths of the manifold are customer specified based on number of tubes. The maximum number is 12 tubes for a single manifold and 24 tubes for a double manifold.

**Materials:** Connector body is anodized aluminum. Tubulations are stainless steel.

**Available Colors:** CLR (clear), BLK (black), GLD (gold), RED, BLU (blue), and GRN (green). If a color is not specified at time of order, Scanivalve will supply a color based on availability.

## M - Single Manifold (12 tube Maximum)

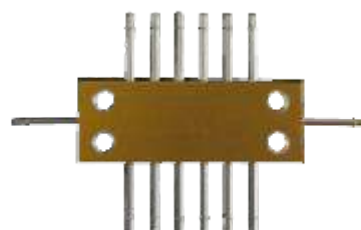


8 Tube Shown



12 Tube Shown

## 2M - Double Manifold (24 tube Maximum)



12 Tube Shown



24 Tube Shown

To order, specify Scanivalve #:	
Single Manifolds	Double Manifolds
TC040-M3(Color)	TC040-2M4(Color)
TC063-M3(Color)	TC063-2M4(Color)
TC125-M3(Color)	TC125-2M4(Color)

Tube Connector Specify Color  
 Tubulation Size No. of Tubes

Single Manifold

Tube Connector Specify Color  
 Tubulation Size No. of Tubes

Double Manifold


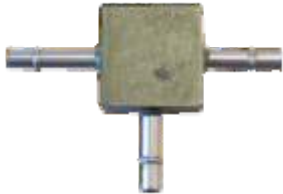

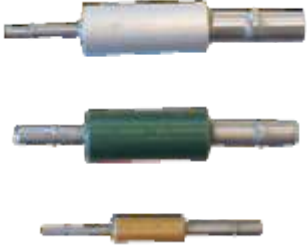

# Tube Connectors

These connectors are made by turning stainless steel tubulations into colored anodized aluminum blocks. The tube connectors are optionally available with a brass body with stainless steel tubulations soldered to the connector body for enhanced durability in harsh environments. All tubulations are bulged (except .031 and .250) for use with Scanivalve Helical Tubing Clamps.

**Available Colors:** CLR (clear), GLD (gold), BLK (black), RED, GRN (green), and BLU (blue). If a color is not specified at the time of order, Scanivalve will supply a color based upon availability.

**Sizes Available:**

.031 (no bulge), .040, .063, .125, .250 (no bulge) inches O.D. All tubulation size combinations are available.

To order, specify:			
Item:	Scanivalve #:	Type:	Design:
Tube Connector "X" Design	TC040X (specify color) TC063X TC125X	"X"	
Tube Connector "T" Design	TC040 T (specify color) TC063 T TC125 T	"T"	
Tube Connector "I" Design (for color identification of pressure lines)	TC040I (specify color) TC063I TC125I	"I"	
Tube Connector "R" Design*	TC 040-031 R (specify color) TC063-031R TC063-040R TC125-031R TC125-040R TC125-063R TC187-125R TC250-063R	"R"	
Tube Connector "P" Design	TC040P (specify color) TC063P TC125P	"P"	

Connector Size      Tube      Tubulation      Design Type

\*Two sizes required for "R" Connector



# Quick Couplers

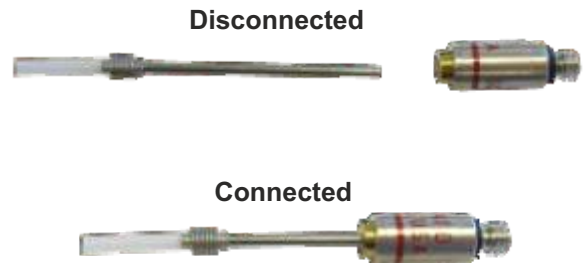
## Quick Coupler (Patented)

This quick coupler is designed for use during pressure testing where there is a need for changing pressure inputs quickly. They can be used with various lengths of stainless steel tubing with chamfered ends. The QC063-2 quick coupler is capable of operating at pressures up to 1000 psi.

### Use:

1. To connect, push smooth end of tubing into coupler. Tubing is sealed with a captured internal O-ring and mechanically held by the collet which is initially closed by spring force. When the coupler is pressurized, an internal piston applies additional closing force to the collet.

2. To disconnect, shut off the air supply and then depress the collet.



## Quick Coupler Designs

### QC-XXX-2

The model-2 quick coupler design incorporates 2 collets in order to accept a steel tubulation at each end.



QC063-2

### QC-XXX-TH

The model-TH quick coupler design incorporates a collet at one end and a threaded nose and O-Ring at the other end. The .063 version comes with an 8-32 thread, and the .125 version has a 1/4-28 thread.



QC063-TH8

### QC-XXX-TUBN-XXX

The model -TUBN quick coupler design incorporates a collet at one end and a .063 or .125 inch tubulation on one end.



QC063-TUBN063

### TUBN-XXX-X

See Stainless Steel Tubulations on page 3.

### CAUTION:

Do not push bulged end of tubulation into coupler. A chamfered edge is required.

### Ordering Information

To order, specify Scanivalve #:		.063 O.D. Tubulation Size	.125 O.D. Tubulation Size
Collet Each End	Model-2	QC063-2	QC125-2
Thread One End	Model-TH	QC063-TH8	QC125-TH25
Tube One End	Model-TUBN	QC063-TUBN063	QC125-TUBN125



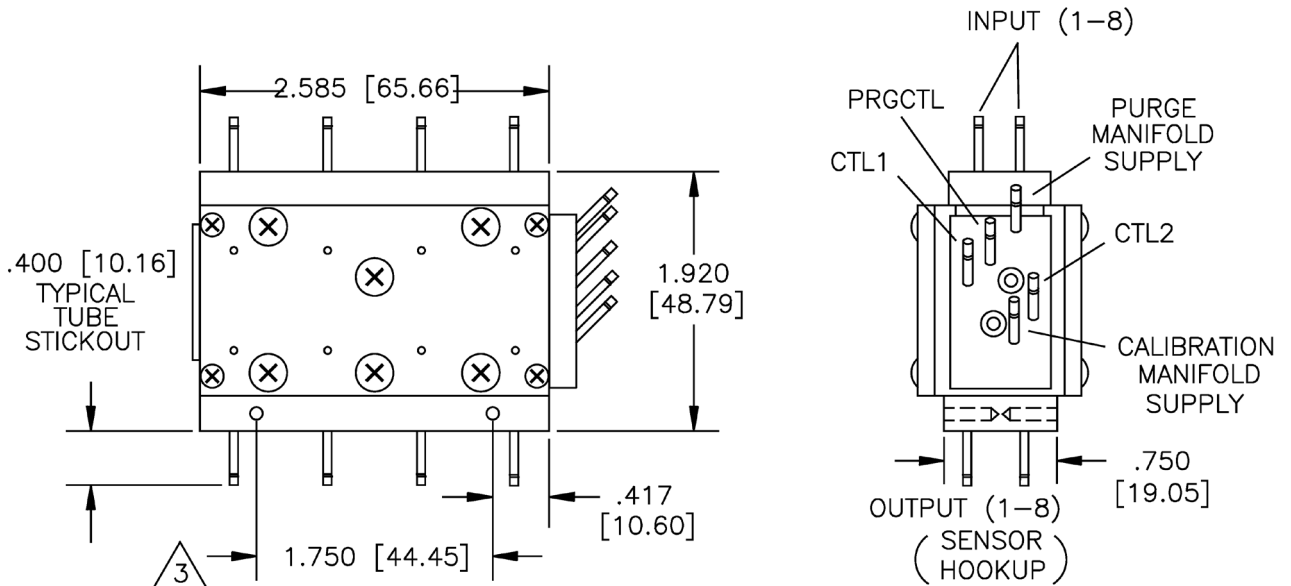
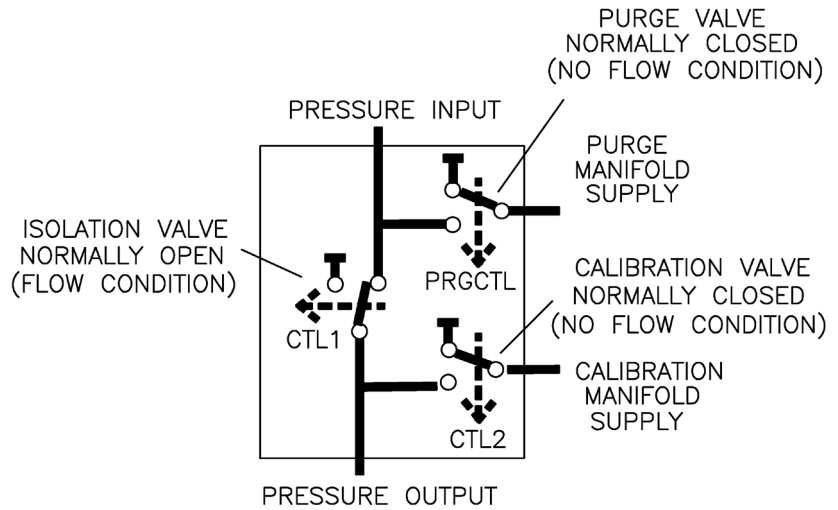
# Pneumatic Calibration/Purge Valve

The pneumatic calibration/purge valve is a 3way, 8 channel (8P-3T) pneumatic logic valve ideal for calibrating up to 8 individual pressure transducers of similar pressure range. A 90-120 psi control pressure is required to switch the valve from the default measurement mode to the calibration, purge, or isolate mode.

**Ordering Information:** ZOCCAL/ADPT

In calibration mode, input pressures are isolated allowing the user to apply a calibration to the 8 ports that are now manifolded together.

The Purge mode allows a purge pressure to be input to purge condensation or contamination back through the input tubes and away from the measurement equipment.



All measurements = Inches [mm]

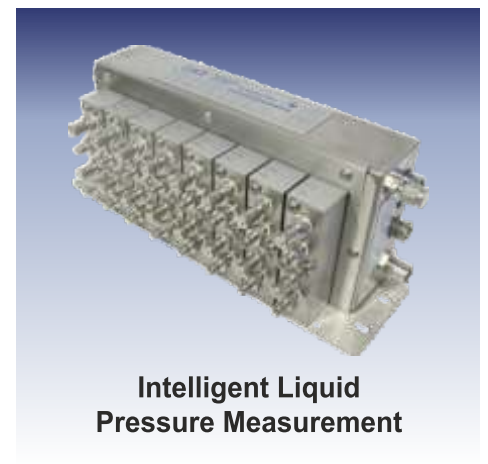
## Scanivalve Ethernet based Intelligent Pressure and Temperature Instruments.



**Miniature Intelligent Pressure Measurement**



**Intelligent Gas Pressure Measurement**



**Intelligent Liquid Pressure Measurement**



**Intelligent Rack Mounted Pressure Measurement**



**Flight/Wind Tunnel/ Auto Pressure Test**



**Miniature Analog Pressure Scanners**



**Ethernet Scalable Remote A/D**



**Servo Pressure Calibrator**



**Intelligent Thermocouple Scanner 16, 32, and 64 Channels**

### Contact Information:

Evolution Measurement Limited  
7 Regents Court, South Way,  
Walworth Business Park,  
Andover, Hampshire, SP10 5NX UK  
E: [enquiries@evolutionmeasurement.com](mailto:enquiries@evolutionmeasurement.com)  
T: +44 (0)1264 316470  
[www.EvolutionMeasurement.com](http://www.EvolutionMeasurement.com)

