DIELECTRIC®

SPX

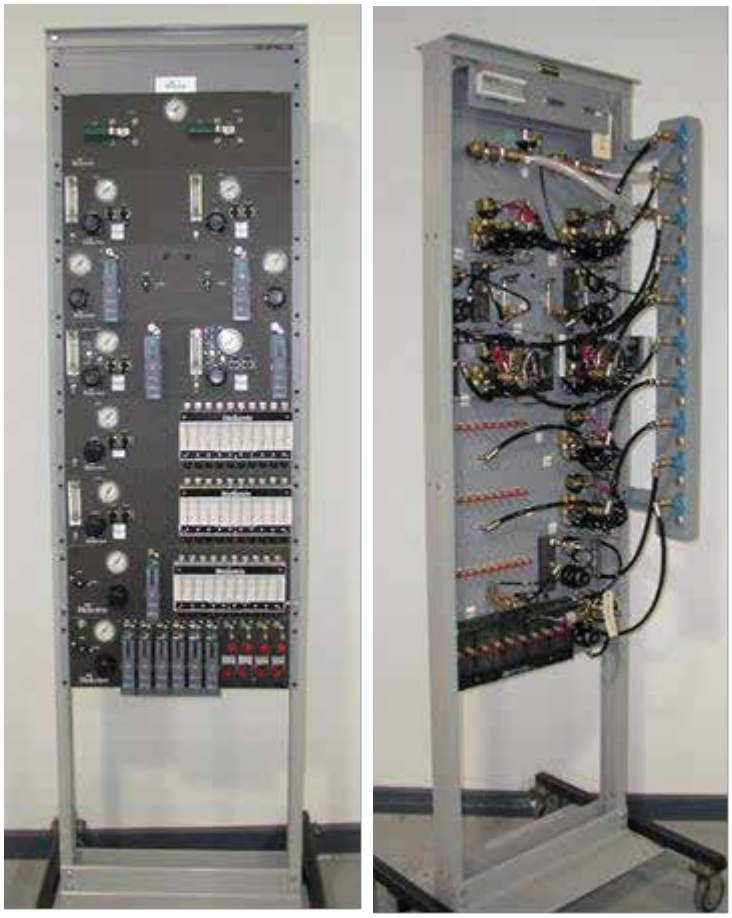
Central Office

Rack and Panel Systems

Dielectric's Central Office Rack and Panel Systems allow you to design your own Central Office Pressurization System to meet the specific requirements of your location. Each Rack System allows for maximum air distribution via an extruded aluminum vertical manifold with direct air feed to each panel. As system requirements change, modular-style panels can be added, rearranged, or removed with minimal effort.

All panels can be equipped with Mark Flow Transducers, which represent the state-of-the-art for monitoring air flow. The non-powered Mark 550 Series Flow Transducers utilize a thick film resistor array to provide a highly accurate 40-step range.

Complete factory assembled pressure systems are available. All flow and optional pressure transducers are pre-terminated to an interconnect panel. Coupling the pressurization distribution system to a cable pressure monitoring system is simplified with the use of standard 50-pin connector cables.



Rack dimensions - 84" high x 24 ¼" wide

Custom Rack Assemblies

Manifold Racks will support a combination of up to 10 panels or 9 panels and the 291 Air Dryer Manifold. Using the 291 manifold allows (2) ¾" inlets for the air dryers. If more than two dryers are in use the system will require a wall mounted Multiple Dryer Manifold in the system.

The Mark Central Office Pressurization System consists of a Model 290 Manifold Rack equipped with any combination of the following panels:

- Model 291 Air Dryer Manifold Panel
- 5022 Interconnect Panel
- 5000 Series Distribution Panels
- 5000 Series Pipe Alarm Panels
- 5000 Series Pipe Feed Panels
- 5000 Series Transducer Panels
- 8000 Series Distribution Panels
- 8000 Series Hi-FloTM 1" Pip Panels
- 8000 Series Pipe Panels

Model 290B

Manifold Rack Assembly

The Model 290B Manifold Rack Assembly is equipped with:

1 - 289 Relay Rack
1 - 88969, 20Port Manifold + Plug Fitting
1 - 5022B Interconnect Panel

The Model 290 Manifold Rack Assembly is the foundation of the Mark Central Office Pressurization Sys- tem. The manifold is attached vertically to the rear of the relay rack allowing a maximum number of panel modules to be utilized within a minimum amount of floor space. The inlet port of the vertical manifold will accept up to 3 - ¾" NPT connections. Each Model 290 Manifold Rack will accommodate 10 panels. Panels are pneumatically connected to the manifold, assuring equal pressures and eliminating pressure drop.

Two or more Model 290 Manifold Rack Assemblies can be interconnected using a single air source.

Model 5022B

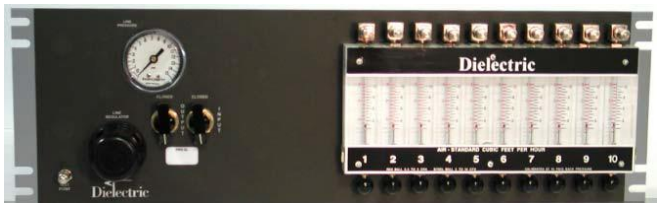
Interconnect Panel

The Models 5022B and BS Interconnect Panels provide a means of easily connecting to a cable pressure monitoring system with the use of standard 50-pin connector cables.

As many as twenty-five model 550 Series Flow Transducers can be connected to the Model 5022B Inter-connect Panel (up to a total of 50 devices, including pressure transducers, on the Model 5022BS).

Radiodetection's distribution panels are available in a number of configurations to meet the requirements of all central office installations, simply choose the model that fits your application. All distribution panels are manufactured with push-connect fitting, high capacity locking regulators and ball valve shut-offs from maximum airflow to your cables.

Other features include the use of steel panels with a specially designed mylar overlay. This overlay is chemical and scratch resistant to provide the durability necessary for central office environments as well as being easy-to-read with white lettering on a dark background.



Regulated 10 Bank

Pipe Feed 10 Bank

Pipe Feed 10 Bank Distribution Panel: Combines the features of a pipe feed panel with a 10 bank distribution panel. This panel is equipped with a totalizing flow meter, regulator and shut-off valves and can be ordered with optional flow and pressure transducers.

Model No.	Description
5051	Pipe Feed - 10 Bank
5051-03	Pipe Feed - 10 bank w/ 553 Flow Transducer
5051-05	Pipe Feed - 10 Bank w/ 555 Flow Transducer
5083	Pipe Feed - 10 Bank w/ Pressure Transducer
5083-03	Pipe Feed - 10 bank w/ 553 Flow Transducer & Pressure Transducer
5083-05	Pipe Feed - 10 Bank w/ 555 Flow Transducer & Pressure Transducer

Regulated 10 Bank Distribution Panel: This panel is equipped with a regulator and shut-off valves and can be ordered with optional flow and pressure transducers.

Model No.	Description
5055	Regulated 10 Bank
5055-03	Regulated 10 bank w/ 553 Flow Transducer
5055-05	Regulated 10 Bank w/ 555 Flow Transducer
5084	Regulated 10 Bank w/ Pressure Transducer
5084-03	Regulated 10 bank w/ 553 Flow Transducer & Pressure Transducer
5084-05	Regulated 10 Bank w/ 555 Flow Transducer & Pressure Transducer

5000 Series Pipe Panels

Dual Pipe Feed Panel

Dielectric's Air Pipe Panels are available in all standard configurations to meet the requirements of central office installations: simply choose the design and either a single or dual panel configuration. All pipe panels are manufactured with push-connect fitting, high capacity locking regulators and ball valve shut-offs from maximum airflow to your pipe system thus assuring adequate pressurization for all of your cables.

Other features include the use of steel panels with a specially designed mylar overlay. This overlay is chemical and scratch resistant to provide the durability necessary for central office environments as well as being easy-to-read with white lettering on a dark background.

Ordering Information

Pipe Feed Panels: Combines the features of a pipe feed panel with a 10 bank distribution panel. This panel is equipped with a totalizing flow meter, regulator and shut-off valves and can be ordered with optional flow and pressure transducers.

Model No.	Description
5063	Single Pipe Feed Panel
5063-03	Single Pipe Feed Panel w/ 553 Flow Transducer
5063-05	Single Pipe Feed Panel w/ 555 Flow Transducer
5087	Single Pipe Feed Panel w/ Pressure Transducer
5087-03	Single Pipe Feed Panel w/ 553 Flow Transducer & Pressure Transducer
5087-05	Single Pipe Feed Panel w/ 555 Flow Transducer & Pressure Transducer
5065	Dual Pipe Feed Panel
5065-03	Dual Pipe Feed Panel w/ (2) - 553 Flow Transducer
5065-05	Dual Pipe Feed Panel w/ (2) - 555 Flow Transducer
5088	Dual Pipe Feed Panel w/ Pressure Transducer
5088-03	Dual Pipe Feed Panel w/ (2) - 553 Flow Transducer & Pressure Transducer
5088-05	Dual Pipe Feed Panel w/ (2) - 555 Flow Transducer & Pressure Transducer

8000 Series Distribution Panels

Model 8415

Model 8416

Radiodetection 8000 Series Distribution Panels are designed to incorporate the advanced features of the 800 Series Flow Transducers. These innovative transducers allow both visual monitoring of the air flow directly on the panel as well as electronic monitoring from the same device.

800 Series Flow Transducers are non-powered and provide industry standard continuous resistance output. These flow transducers are available in different flow ranges and can be easily changed in the field should cable flows go out-of-scale. These updated panels are manufactured from .125 thick steel with an easy-to-read mylar overlay for added durability. All models are equipped with an inlet shut-off and 0 - 15 PSIG pressure gauges for accurate monitoring of cable pressure and most models include a locking pressure regulator.

8000 Series Distribution Panels

Regulated 10 Bank Distribution Panel: This panel is equipped with an inlet shut-off valve, pressure gauge and locking regulator. Individual 800 Series Transducer for up to ten cable positions should be ordered separately.

Model No.	Description
8415	Regulated Distribution Panel, 10 Position, Shipped w/o 800 Series Transducers
8415-P	Regulated Distribution Panel, 10 Position, Shipped w/o 800 Series Transducers & w/ Pressure Transducer

Regulated 10 Bank Distribution Panel w/ Totalizing Flow Meter: This panel is equipped with an inlet shut-off valve, pressure gauge and locking regulator. Panel has one 800 Series position for a totalizing flow meter and an industry standard ten bank flow block for visual monitoring of flows in up to ten cables. Optional totalizing flow meter and pressure transducer can be specified from the chart below.

Model No.	Description
8416	Regulated 10 Bank Distribution Panel
8416-03	Regulated 10 Bank Distribution Panel with 803 Totalizing Flow Transducer
8416-05	Regulated 10 Bank Distribution Panel with 805 Totalizing Flow Transducer
8416-P	Regulated 10 Bank Distribution Panel with Pressure Transducer
8416-P-03	Regulated 10 Bank Distribution Panel w/ 803 Totalizing Flow & Pressure Transducers
8416-P-05	Regulated 10 Bank Distribution Panel with 805 Totalizing Flow & Pressure Transducers

8000 Series Air Pipe Panels

Dual Pipe Alarm Panel

Dual Pipe Feed Panel

Radiodetection's 8000 Series Air Pipe Panels utilize the 800 Series visual / electronic flow transducers and are available in all standard configurations to meet the requirements of central office installations, simply choose the design and either a single or dual panel configuration. All pipe panels are manufactured with push-connect fitting, high capacity locking regulators and ball valve shut-offs from maximum airflow to your pipe system thus assuring adequate pressurization for all of your cables.

Pipe panels are available in both dual and triple configurations for standard 3131 air pipe applications and a single configuration in the Hi-Flo™ design for 1" air pipe. The pipe alarm panels feature a contact alarm for excess air flows that can be monitored independently of either the flow transducer and/or a pressure transducer. Pipe feed panels provide a visual flow indicator in conjunction with a flow transducer and the transducer panel provides only flow transducer output. Other features include the use of steel panels with a specially designed mylar overlay. This overlay is chemical and scratch resistant to provide the durability necessary for central office environments as well as being easy-to-read with white lettering on a dark background.

Ordering Information

Dual Pipe Feed Panels: Utilizing the 800 Series Flow meters these panels can provide a visual reading of the pipe flows as well as providing an industry standard resistance output for remote monitoring. These panels can be ordered with the specific range transducer for the application and with pressure transducer if desired. For installations not requiring a dual panel the extra pipe feed can be left blank or equipped with a "spare position" transducer body. As with all Radiodetection pipe panels the Pipe Feed Panels come standard with shut-off ball valves, locking regulators and gauges for each pipe.

Model No.	Description
8320	8000 Series Dual Pipe Feed Panel
8320-03	8000 Series Dual Pipe Feed Panel w/ (2) 803 Flow Transducers
8320-05	8000 Series Dual Pipe Feed Panel w/ (2) 805 Flow Transducers
8320-P	8000 Series Dual Pipe Feed Panel w/ Pressure Transducers
8320-P-03	8000 Series Dual Pipe Feed Panel w/ (2) 803 Flow & Pressure Transducers
8320-P-05	8000 Series Dual Pipe Feed Panel w/ (2) 805 Flow & Pressure Transducers

Relay Racks

Relay racks provide a simple and unitized method of installing central office pressurization manifolds and multiple panel systems. Equipment racks can be purchased unassembled for on-site assembly and installation or can be supplied completely assembled per customer specifications and ready for installation upon delivery. Standard 23" equipment racks are available in both steel and aluminum with a variety of options as listed below.

Model No.	Description
12024	Unassembled 23" Aluminum Relay Rack
46759	Unassembled Swing Out 23" Aluminum Relay Rack
289	Assembled 23" Aluminum Relay Rack
289-B	Assembled 23" Aluminum Relay Rack and 20 Port Manifold
290-B	Assembled 23" Aluminum Relay Rack, 20 Port Manifold and 5022B Alarm Interconnect Panel
290-C	Assembled 23" Aluminum Relay Rack, 40 Port Manifold and 5022B Alarm Interconnect Panel

Wall Mounting Brackets

Single Panel Wall Bracket	.090 Steel - 10" Deep	Part No. 0048460501
Dual Panel Wall Bracket	.090 Steel - 10" Deep	Part No.40933
Single Panel Heavy Duty Wall Bracket†	.125 Steel - 12" Deep	Part No.46756
Dual Panel Heavy Duty Wall Bracket†	.125 Steel - 12" Deep	Part No.46757

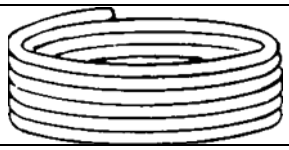
† Suggested for use with Triple Panels for greater strength or where additional wall clearance is desired.

Fittings and Tubing for Cable Pressurization Systems

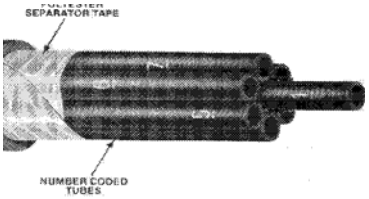
Plastic Poly-Flo Tubing

Single and Multi-Tube plastic Poly-Flo tubing offers significant savings in material cost, installation cost and reduced maintenance requirements. Poly-Flo tubing is light, flexible and easy to handle. In addition, plastic tubing is weather resistant as well as resistant to corrosion by chemicals and most solvents.

Single Tube, Plastic

Radiodetection Part No	Tubing O.D	Tubing Wall	Weight (Lb./100Ft)	
0016854001	¼"	0.040	1.1	
0016854003	⅜"	0.062	2.5	
0016854005	½"	0.062	3.9	

Multi - Tube, Plastic

Radiodetection Part No	Number Of Tubes	Tube I.D.	Weight (Lb./100Ft)	
0017030001	3	¼"	11.4	
0017030002	5	¼"	15.1	
0017030003	10	¼"	22.8	
0017030006	3	⅜"	17.9	
0017030007	5	⅜"	24.6	
0017030008	10	⅜"	44.2	

Ball Valve Shut-offs

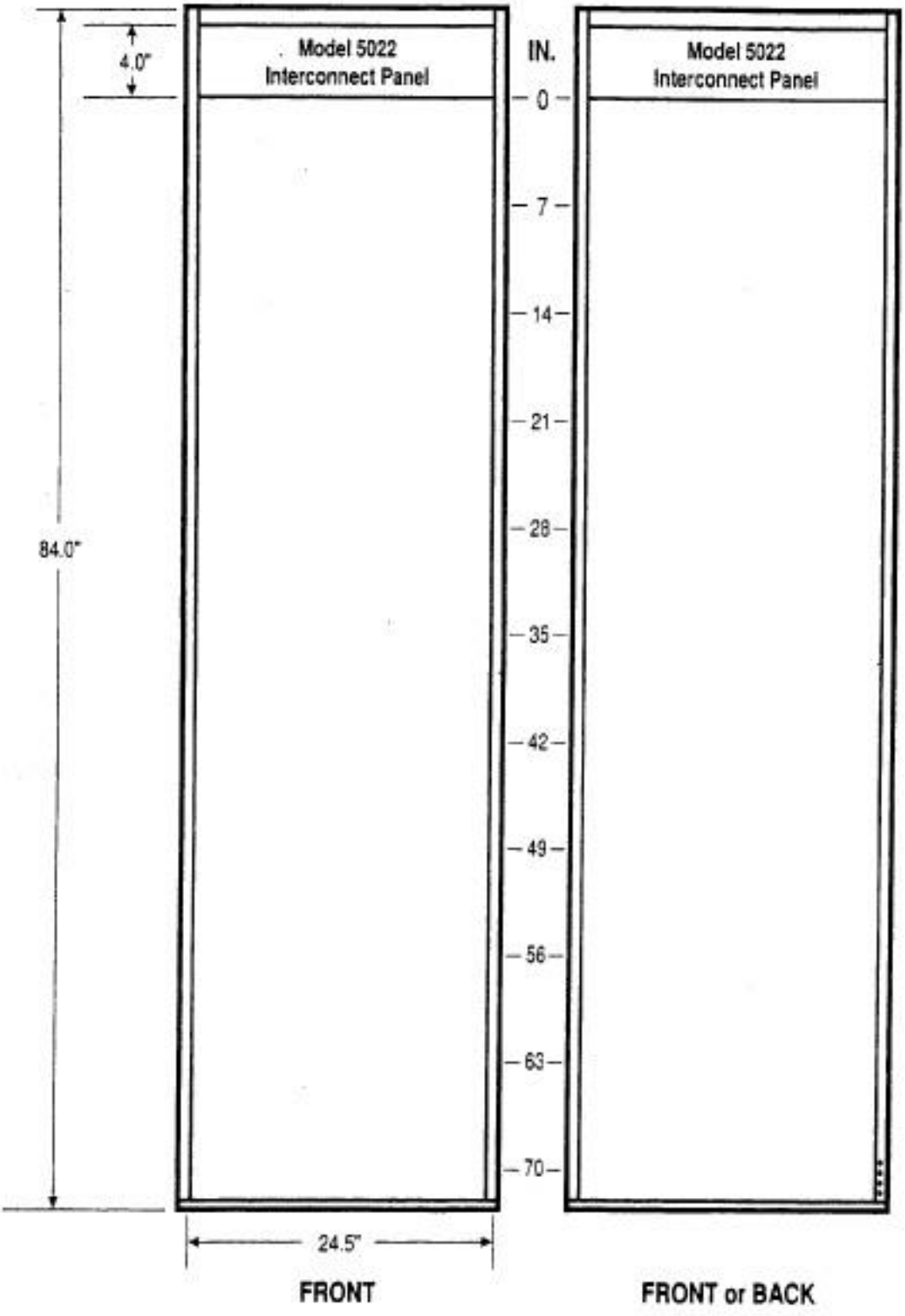
Radiodetection Part No	Pipe Thread NPT	
0019529010	¼"	
0019529011	⅜"	
0019529012	½"	
0019529013	¾"	
0019529014	1"	

Check Valves

Radiodetection Part No	Pipe Thread NPT	
0042437-504	¼"	
0042437-503	⅜"	
0042437-502	½"	
0042437-501	¾"	
0022974-002	1"	

Rack Assembly Worksheet

Use or photocopy this worksheet to sketch your panel arrangement on the rack. Fax or send the sheet in with your order to assure that your equipment is supplied to your specifications.



Note:

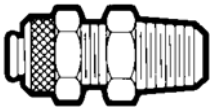
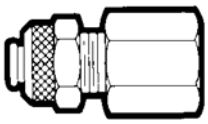
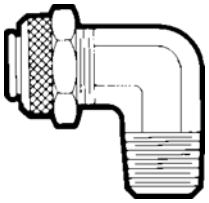
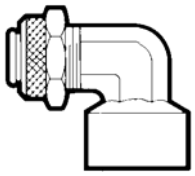
Standard Air Manifold mounting is shown in Figure 1. If other Manifold mounting is required, Sketch the configuration on the BACK view diagram.

Base Depth = 15"

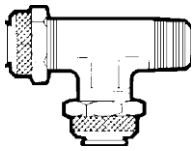
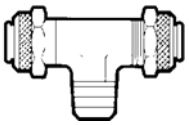
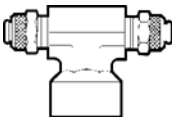
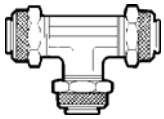
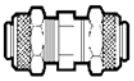
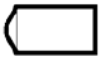
Note:

Panel unit mounting holes in the Model 290 Rack are at 0.5 inch intervals.

Poly-Flo Fittings and Tubing for Cable Pressurization Systems

Radiodetection Part No	Tube O.D	Pipe Size NPT	Description
0016853001	¼"	⅛"	 Male Connector
0016853002	¼"	¼"	
0016853003	⅜"	⅛"	
0016853004	⅜"	¼"	
0016853005	⅜"	⅜"	
0016853006	½"	⅜"	
0016853007	½"	½"	
0016853001	¼"	⅛"	 Female Connector
0016853002	¼"	¼"	
0016853005	⅜"	⅛"	
0016853008	½"	⅜"	
0016853009	½"	½"	
0016853010	¼"	⅛"	 Male Elbow
0016853011	¼"	¼"	
0016853016	¼"	⅜"	
0016853012	⅜"	⅛"	
0016853013	⅜"	¼"	
0016853014	⅜"	⅜"	
0016853066	½"	¼"	
0016853015	½"	⅜"	
0016853068	½"	½"	
0016853030	¼"	⅛"	 Female Elbow
0016853031	¼"	¼"	
0016853032	⅜"	¼"	
0016853033	½"	⅜"	

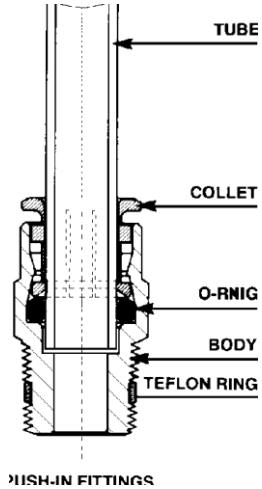
Poly-Flo Fittings and Tubing for Cable Pressurization Systems

Radiodetection Part No	Tube O.D	Pipe Size NPT	Description
0016853038 0016853039 0016853041 0016853042	¼" ¼" ⅜" ½"	⅛" ¼" ¼" ⅜"	 **Male Run Tee**
0016853045 0016853046 0016853049	¼" ¼" ½"	⅛" ¼" ⅜"	 **Male Branch Tee**
0016853080 0016853081 0016853082	¼" ¼" ¼"	⅛" ¼" ⅜"	 **Female Branch Tee**
0016853065 0016853066 0016853067	¼" ⅜" ½"	 **Union Tee**
0016853071 0016853072	¼" ⅜"	 **Straight Union**
0016853059 0016853060 0016853061	¼" ⅜" ½"	 **Sleeve, Plastic**
0016853053 0016853054 0016853055	¼" ⅜" ½"	 **Cap, Plastic**
0016853097 0016853098 0016853099	¼" ⅜" ½"	 **Nut & Sleeve Assy**

PUSH-IN FITTINGS AND TUBING

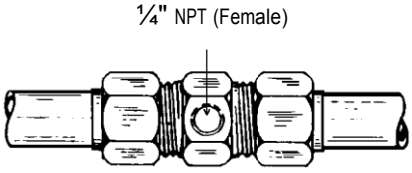
Radiodetection uses push-in fittings in the assembly of its air distribution panels as well as panel and rack assemblies. These fittings utilize the entire inside diameter of the tubing and minimize any pneumatic resistance that might otherwise be encountered at the fitting. In addition, push-in fitting allow the assembly and removal of the tube from the fitting without tools. Push-in fittings can be used anywhere that you might otherwise use a poly-flo fitting and may save up to 75% of the assembly time. Push-in fittings must be used with the tubing listed below and are not compatible with poly-flo tubing.

Description	Part Number
⅜" Tube for Push-in Fittings	41037
½" Tube for Push-in Fittings	41038



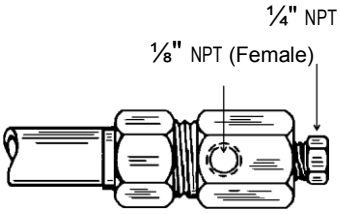
Radiodetection Part No	Tube O.D.	Pipe Size NPT	Description
45006	⅜"	¼"	
45007	⅜"	⅜"	
45008	⅜"	½"	
45009	½"	⅜"	Male Connector
45012	⅜"	¼"	
45013	⅜"	⅜"	Male Elbow
45025	⅜"	¼"	
45026	⅜"	⅜"	
45046	½"	¼"	
45027	½"	⅜"	
45053	½"	½"	Swivel Male Elbow

CA3131 AIR PIPE FITTINGS



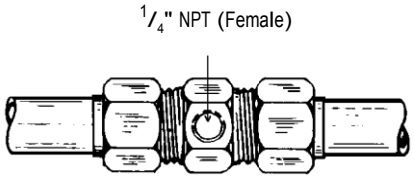
P/N 12443

Provides a connection between two pieces of air pipe and a ⅛" NPT port for a pressure testing valve or a connection to feed the air pipe.



P/N 12444

Provides a terminating point for air pipe and a ⅛" NPT port for a pressure testing valve or a connection for any ¼" male pipe thread to the air pipe.



P/N 12445

Provides a connection between two pieces of air pipe where a ¼" outlet is required or can be used with a P/N 12444 and a ¼" nipple to connect three air pipes.

Specialists in Cable Pressurization

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