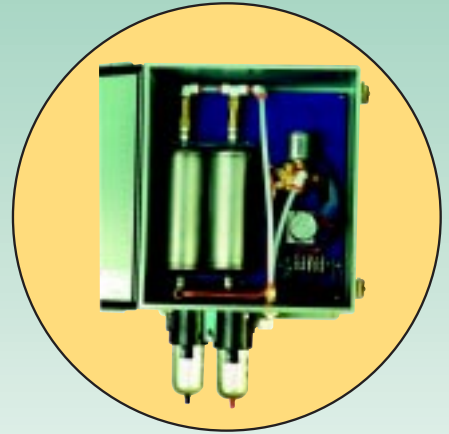
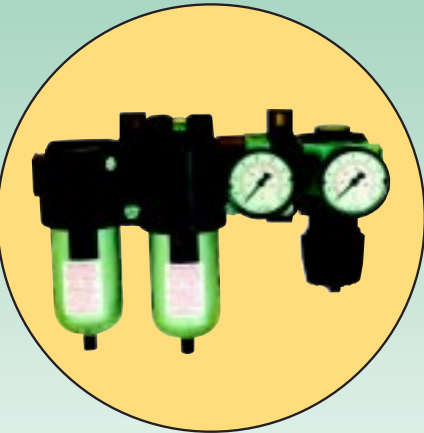
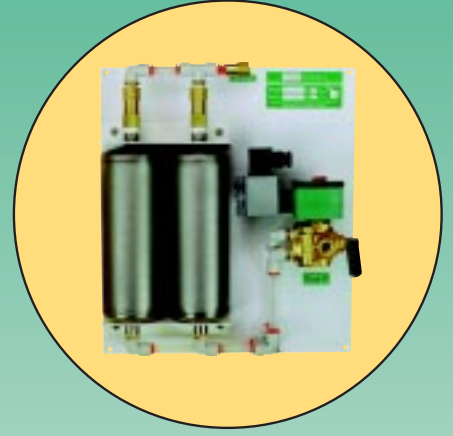
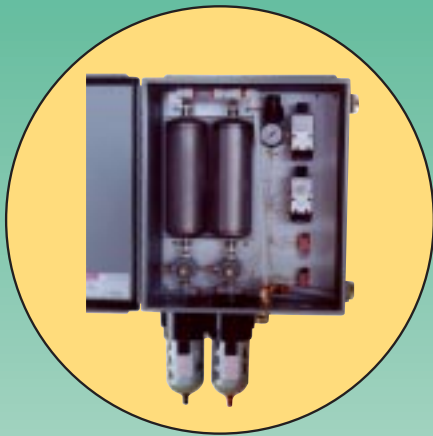
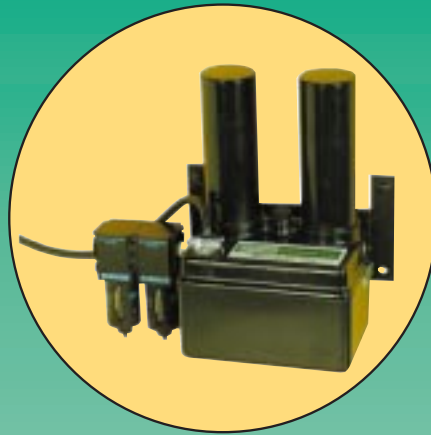


COMPRESSED AIR DRYERS AND ACCESSORIES

- Desiccant Air Dryers
- Point-of-Use Air Dryers
- Accumulators

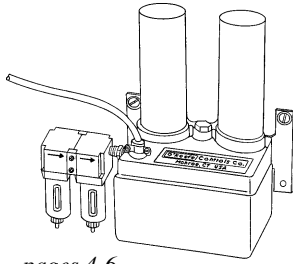
- Automatic Drain Valves
- Filters/Regulators
- Pneumatic Controls



Picture Index

WHERE TO FIND IT

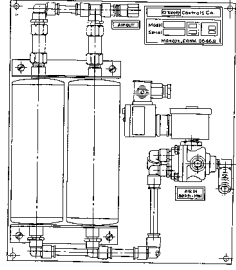
Compact Air Dryer



pages 4-6

Compact Air Dryer is shoebox size. Air flow up to 6 scfm.

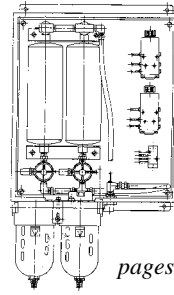
Standard Module



pages 7-9

Standard module is field mountable. Air flows up to 13 scfm. Watertight electric connections.

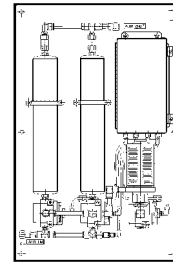
Standard System



pages 10-12

Standard system includes prefilter, coalescing filter and air dryer.

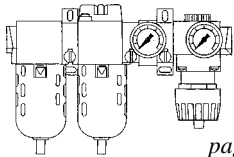
High Flow Module



pages 14-16

High Flow Module will handle air flows up to 20 scfm. Field mountable with watertight electric connections.

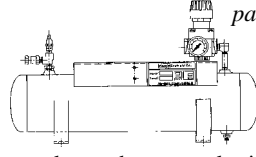
Point-of-Use Dryer



page 17

Point-of-use dryer is located where condensate problems exist.

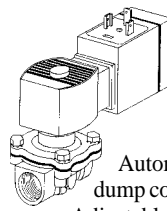
Accumulators



page 13

Accumulators dampen pulsation of air flow and provide storage for surge flow requirements.

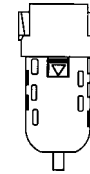
Automatic Drain Valves



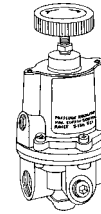
pages 20-21

Automatic drain valves dump collected condensate. Adjustable time duration.

Accessories

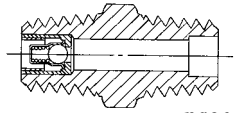


Accessories include filters, regulators, pressure gages, chemical dryers and moisture indicators.



pages 18-19

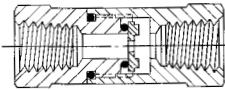
Check Valves



page 22

Check valves for vacuum or pressure applications.

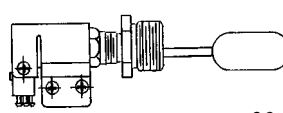
Fixed Flow Controls



page 22

Fixed flow control valves set the stroke speed of cylinders.

Pneumatic Sensors



page 23

Air sensors for liquid level, pressure, temperature, flow and proximity.

About O'Keefe Controls Co.

Founded in 1975, the company manufactures specialty fluid control products in its Monroe, CT location. In addition to the air dryer products is an extensive line of precision orifices for accurate metering of liquids or gases. Other products include miniature in-line screens for use with small orifices, check valves, flow controls and several unique pneumatic sensors used in industrial control applications.

The company provides extensive engineering support for product selection and application to its customers. Accurate calibration of orifices can also be provided using in-house NIST traceable instrumentation.

O'Keefe Controls Co. encourages inquiries for custom fluid control products from its customers. Custom air dryer products can be manufactured; special orifice sizes, configurations, and flow specifications can be satisfied on an attractive economic scale. Please call with your special requirements. See our other catalogs on our website at www.okcc.com.



SELF-REGENERATIVE

Description

The air dryer products of O'Keefe Controls Co. employ a self-regenerative, desiccant style drying system. "Self-regenerative" means that the dryer automatically and continuously discharges collected water vapor which has been removed from the air passing through the system. Desiccant style means that a material (a desiccant) is used to selectively remove water vapor from the air surrounding this material. Three common desiccant materials are silica gel, alumina and molecular sieve.

How It Works!

In the O'Keefe Controls Co. air dryers desiccant material is a molecular sieve. This type desiccant absorbs the water vapor molecule in tiny pores on the surface of each bead of the molecular sieve material. Moist air passing by this desiccant is dried as vapor molecules are selectively attracted to the pores in the molecular sieve beads. A dew point as low as minus 100°F is possible using molecular sieve material.

Another equally important characteristic of the molecular sieve is that extremely dry air (very low dew point) passing by this desiccant will reabsorb the water vapor trapped in the pores; thus providing a means of automatic regeneration of the desiccant.

Two desiccant tanks are employed in each air dryer. Wet pressurized air enters one tank and is dried as it passes through to the outlet. A portion of the dried air is directed into the top of the second tank through a purge orifice and flows at near atmospheric pressure through this tank to atmosphere. As this dry air passes around the molecular sieve beads it reabsorbs water vapor and then exhausts to atmosphere.

Flow Patterns in Desiccant Air Dryer

The flow patterns shown below have a repeating cycle period of 60 seconds. For 30 seconds the left tank is pressurized; for 30 seconds the right tank is pressurized.

Dew Point and Relative Humidity

Dew Point – Temperature at which condensation begins. Air is fully saturated with water vapor at this temperature.

Atmospheric Dew Point – Dew point when air is at atmospheric pressure.

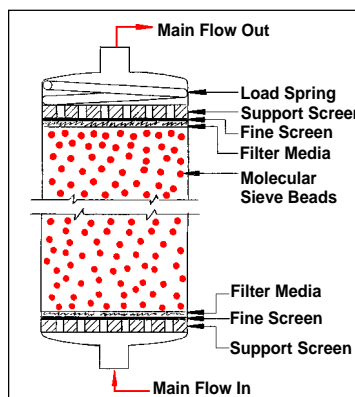
Pressure Dew Point – Dew point when air is at elevated pressure above atmospheric pressure.

Relative Humidity – Ratio of the actual water vapor content to the saturated water vapor content.

See chart below.

Weights shown in grains												7,000 grains = 1 lb.	
Temp	Relative Humidity										Temp.		
°C	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	°F		
-6.7	.124	.247	.370	.494	.618	.741	.864	.988	1.11	1.24	20		
4.4	.285	.570	.855	1.14	1.42	1.71	1.99	2.28	2.56	2.85	40		
15.6	.575	1.15	1.72	2.30	2.87	3.45	4.02	4.60	5.17	5.75	60		
26.7	1.09	2.19	3.28	4.37	5.47	6.56	7.65	8.75	9.84	10.93	80		

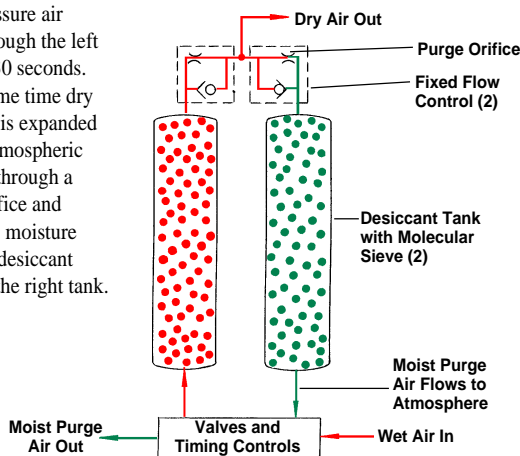
Construction of Desiccant Tank



The desiccant tank construction is vital to reliable operation of the air dryer. As shown at left the desiccant beads are maintained in place by filter media and screens. The unit is spring loaded to counteract high pressure pulses which occur during switching of the air flow.

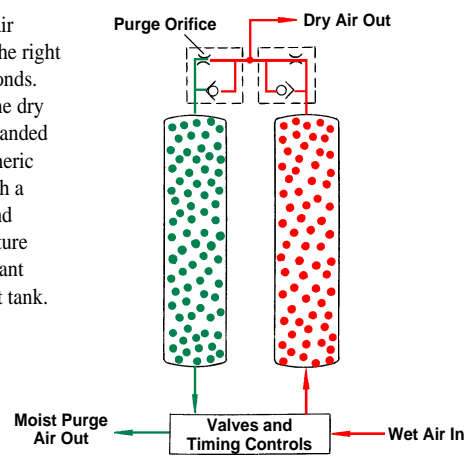
Left Tank Pressurized – First Half of Cycle

High pressure air flows through the left tank for 30 seconds. At the same time dry purge air is expanded to near atmospheric pressure through a purge orifice and reabsorbs moisture from the desiccant beads in the right tank.



Right Tank Pressurized – Second Half of Cycle

High pressure air flows through the right tank for 30 seconds. At the same time dry purge air is expanded to near atmospheric pressure through a purge orifice and reabsorbs moisture from the desiccant beads in the left tank.



Compact Air Dryer

SHOE BOX SIZE

Description

The compact air dryer series meets the needs of certain low flow applications where very dry compressed air is required, i.e., atmospheric dew point of minus 50°F or lower. Designed to minimize space, the shoebox size unit is easily installed in tight spaces.

The self-regenerative air dryer can be operated continuously at flow rates ranging from 0-0.5 scfm up to 0-6 scfm at minimum inlet pressures of 80 psig.

Easy installation requires only inlet and outlet air connections and plug-in to an electric outlet.

Applications

- Instrument air systems
- Dental/medical equipment
- Industrial pneumatic controls
- Air bearing systems
- Pneumatic controls in sub-freezing environments
- Air operated vacuum pickups
- Fluidics/MPL controls
- Cryogenics
- Sub-freezing air blow-off jets
- Paint spray guns
- Microwave air guides

Features

Minimum Maintenance – Simplicity of design, few moving parts, self-regenerating desiccant tanks

Instant Dry Air – No warm-up time

Low Dew Point – Down to -100°F

Quiet Operation – Exhaust muffler

Long Life Desiccant – Under normal conditions, the desiccant material does not require replacement

Metal Bowl Guard – Transparent bowls

Electric Plug/Cord – 10 ft. cord with 3-prong plug

Specifications

Inlet Pressure – 80 to 150 psig

Maximum Inlet Temperature – +125°F

Dew Point – minus 50°F @ 80 psig inlet pressure; consult factory for lower dew point applications

Medium – Oil-free compressed air

Output Flow Rate – See chart page 5

Purge Flow – See chart page 5

Air Connections/Inlet and Outlet – 1/4" NPT – Female

Mounting – 4 mounting holes 5/16" dia. Mount unit with tanks vertical and upright only

Dimensions – See chart page 5

Filter Rating –

1557F 0.1 microns

1558F, 1559F 0.01 microns

Prefilter and coalescing filter combination remove liquid water and oil and solid particles from air stream before it enters into dryer module.

Filter Drains –

1557F Manual

1558F, 1559F Automatic

Weight –

1557F 8 pounds

1558F 10 pounds

1559F 12 pounds

Electric Power – 120 volts/60 hz

Electric Connection – 10 ft. cord with 3-prong plug

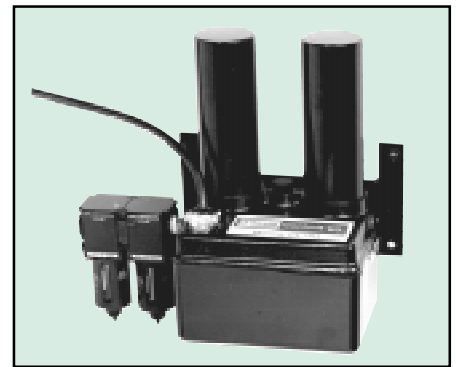
Enclosure Rating – Type 1

Benefits

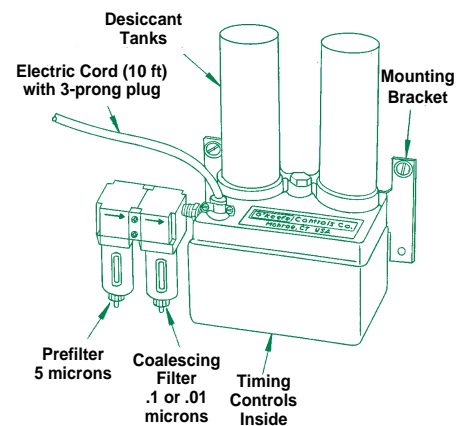
- Pipe rust eliminated
- Longer tool and instrument life
- Drier air than in refrigeration systems
- No heat wasted
- No electrical hazards
- Condensate eliminated
- Water vapor virtually nonexistent



Compact air dryer with 6" desiccant tanks – no filters.

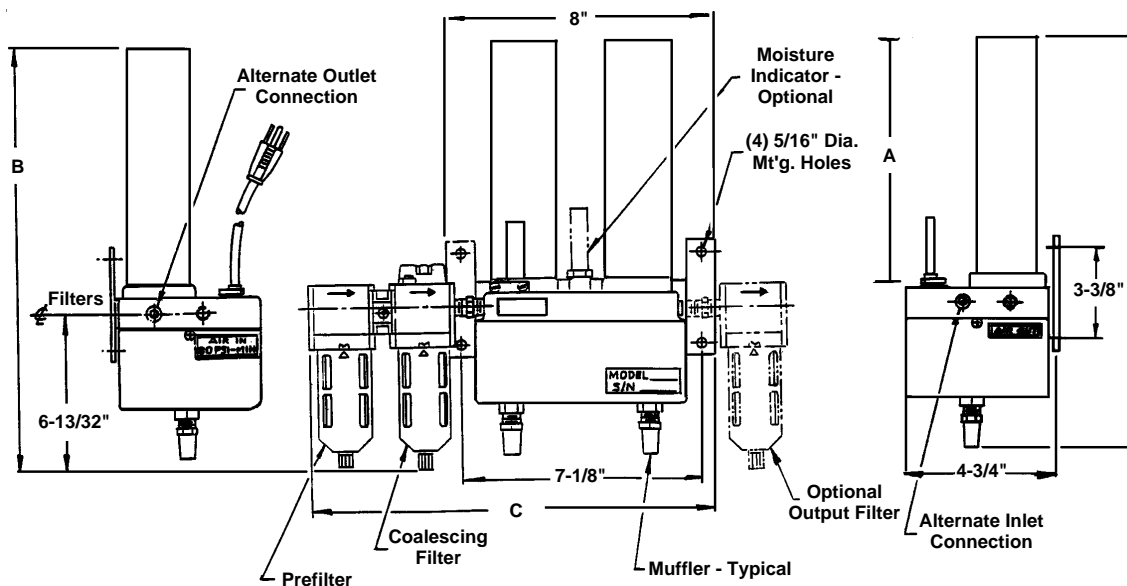


Compact air dryer with 6" desiccant tanks – with prefilter and coalescing filter.



Prefilter and coalescing filters remove solids, liquid water and oil from air stream before it enters into dryer module.

LOW DEW POINT



Dimensions

Part Number	A	B	C	D
OKC-1557 (All)	6"	—	—	11-9/16"
OKC-1558 (All)	9"	—	—	14-9/16"
OKC-1559 (All)	12"	—	—	17-9/16"
OKC-1557F (All)*	6"	10-13/32"	11-1/4"	11-9/16"
OKC-1558F (All)*	9"	15-29/32"	12-13/16"	14-9/16"
OKC-1559F (All)*	12"	18-29/32"	12-13/16"	17-9/16"

Part Numbers

Air Dryer Part Number*	Max Outlet Flow Rate at 80 psig and 70°F	Purge Flow Rate at 80 psig and 70°F	Max System Air Pressure	Dew Point
OKC-1557-1				
OKC-1557-1F	0.5 scfm	0.1 scfm	150 psig	-50°F
OKC-1557-2				
OKC-1557-2F	1.0 scfm	0.2 scfm	150 psig	-50°F
OKC-1557-3				
OKC-1557-3F	1.5 scfm	0.3 scfm	150 psig	-50°F
OKC-1558-1				
OKC-1558-1F	2.0 scfm	0.4 scfm	150 psig	-50°F
OKC-1558-2				
OKC-1558-2F	3.0 scfm	0.6 scfm	150 psig	-50°F
OKC-1558-3				
OKC-1558-3F	4.0 scfm	0.8 scfm	150 psig	-50°F
OKC-1559-1				
OKC-1559-1F	5.0 scfm	1.0 scfm	150 psig	-50°F
OKC-1559-2				
OKC-1559-2F	6.0 scfm	1.2 scfm	150 psig	-50°F

*Dryers with suffix F in part number include prefilter and coalescing filters.

Ordering Information

From the part number chart below left, select an air dryer that will provide the outlet air flow required.

For example

Outlet flow required 2.0 scfm

- Assembly complete with filters; Part Number is OKC-1558-1F
- Assembly without filters; Part Number is OKC-1558-1
- Assembly complete with filters and with moisture indicator; Part Number is OKC-1558-1FM

Optional Moisture Indicator

Add the suffix **M** to the air dryer part number to include the optional moisture indicator. To order the moisture indicator separately, use part number OKC-1739.

Optional Output Filter

Add the suffix **P** to the air dryer part number to include an output filter.

For example

OKC-1558-1FP This assembly is complete with inlet filters and an output filter.

To order the output filter separately, use part number from the chart on page 6.

Compact Air Dryer

REPLACEMENT PARTS

Parts for Compact Air Dryers

Description	Qty.	Part Number
Moisture Indicator 1/4" NPT	1	OKC-1739
Muffler 1/4" NPT	2	OKC-1751
Solid State Timer 120/240 volts 50/60 hz	1	OKC-1752
Solenoid Valve 3-way N.C. 53 VDC (special)	2	OKC-1753-1
Solenoid Valve Repair Kit	2	OKC-1753-2
Solenoid Valve Coil	2	OKC-1753-3
Desiccant Tanks for OKC-1557 (6")	2	OKC-1754-1
Desiccant Tanks for OKC-1558 (9")	2	OKC-1754-2
Desiccant Tanks for OKC-1559 (12")	2	OKC-1754-3
Prefilter Assembly for OKC-1557 (6")	1	OKC-1737-1
Prefilter Cartridge for OKC-1557 (6")	1	OKC-1742-1
Coalescing Filter Assembly for OKC-1557 (6")	1	OKC-1738-1
Coalescing Filter Cartridge for OKC-1557 (6")	1	OKC-1743-1
Prefilter Assembly for OKC-1558 (9")	1	OKC-1737-2
Prefilter Cartridge for OKC-1558 (9")	1	OKC-1742-2
Coalescing Filter Assembly for OKC-1558 (9")	1	OKC-1738-2
Coalescing Filter Cartridge for OKC-1558 (9")	1	OKC-1743-2
Prefilter Assembly for OKC-1559 (12")	1	OKC-1737-2
Prefilter Cartridge for OKC-1559 (12")	1	OKC-1742-2
Coalescing Filter Assembly for OKC-1559 (12")	1	OKC-1738-2
Coalescing Filter Cartridge for OKC-1559 (12")	1	OKC-1743-2
Output Filter Assembly for OKC-1557 (6")	1	OKC-1737-1
Output Filter Cartridge for OKC-1557 (6")	1	OKC-1742-1
Output Filter Assembly for OKC-1558 (9")	1	OKC-1737-2
Output Filter Cartridge for OKC-1558 (9")	1	OKC-1742-2
Output Filter Assembly for OKC-1559 (12")	1	OKC-1737-2
Output Filter Cartridge for OKC-1559 (12")	1	OKC-1742-2

INSERT MODULE

Description

The 311C series air dryer is an insert module intended to be installed within an enclosure. The unit is a self-regenerative compressed air dryer which removes water vapor continuously using a molecular sieve desiccant material. Two stainless steel tanks contain the desiccant. A timer, solenoid valve and two flow control valves sequence the air flow alternately through one tank and then the other. A small amount of purge flow is discharged continuously. A nominal dew point of -50°F is achieved at maximum flow rate; even lower dew point at less than maximum flow. Compressed air supplied to the dryer should be clean (5 microns) and oil-free.

Specifications

- Inlet Pressure** – 80 to 125 psig
- Maximum Inlet Temperature** – +125°F
- Dew Point** – See chart for typical conditions – page 9. The lower the outlet flow, the lower the dew point.
- Medium** – Oil-free air; filtered to 5 microns
- Output Flow Capacity** – See chart for typical conditions – page 9
- Purge Flow** – See chart for typical purge flow – page 9
- Air Connections** – Inlet and outlet – 1/4" NPT Female
- Mounting** – Mount unit with tanks vertical; four mounting holes
- Dimensions** – 14-3/4" x 12-7/8" x 4" – See drawing page 9
- Electric Motor and Solenoid Valve** – 120 volts/60 hz/ single phase/15 watts
- Electric Connections** – Terminal strip
- Weight** – Approximately 21 pounds

Recommended Operation

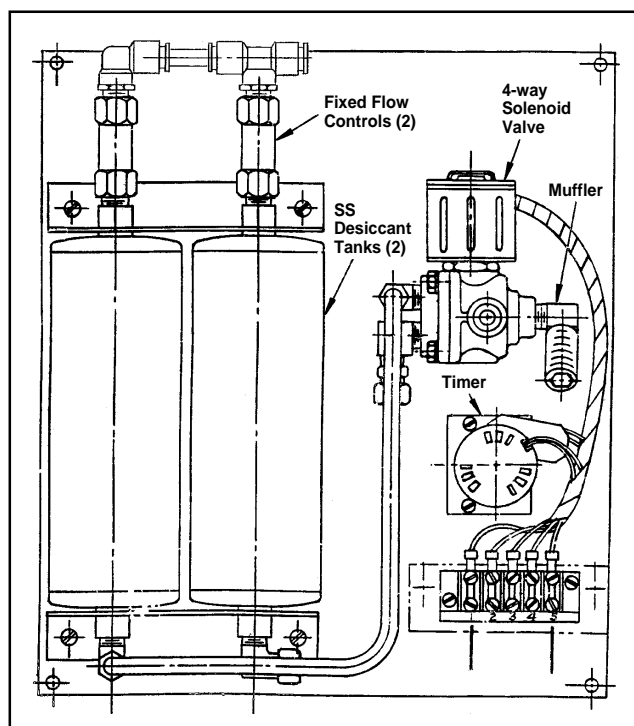
- Install the 311C module in an enclosure to protect against inadvertent contact with electric terminals.
- Always provide clean air to the dryer. Use a prefilter (OKC-730) to remove solid contamination and a downstream coalescing filter (OKC-731) to remove liquid water and oil.
- The dryer can be continuously operated.
- The output air pressure/flow has a momentary pulse as the solenoid valve switches flow (every 30 sec.). To reduce the pulsation, install a check valve and accumulator (see page 13) at the outlet of the air dryer.

Ordering Information

Part Number	Max Flow Rate (scfm)	Purge Flow Rate (scfm)
	80 psig Supply	80 psig Supply
311C-16	2.0	.35
311C-22	3.4	.68
311C-31	6.0	1.2
311C-39	9.0	1.8
311C-46	13.0	2.6



311C series air dryer – module for installation in enclosure. Unit is capable of achieving -50°F atmospheric dew point.



311C air dryer module has field replaceable components. Unit can be continuously operated.

Standard Air Dryer

FIELD MOUNT

Description

The 2016 series air dryer employs a solid state timer. Electric connections employ a DIN 43650 connector which is gasketed and protected against inadvertent contact. The unit is a self-regenerative compressed air dryer which removes water vapor continuously using a molecular sieve desiccant material. Two stainless steel tanks contain the desiccant. A timer, solenoid valve and two control valves sequence the air flow alternately through one tank and then the other. A small amount of purge flow is discharged continuously. A nominal dew point of -50°F is achieved at maximum flow rate; even lower dew point at less than maximum flow. Compressed air supplied to the dryer should be clean (5 microns) and oil-free.

Specifications

Inlet Pressure – 80 to 125 psig

Maximum Inlet Temperature – $+125^{\circ}\text{F}$

Dew Point – See chart for typical conditions – page 9. The lower the outlet flow, the lower the dew point.

Medium – Oil-free air; filtered to 5 microns

Output Flow Capacity – See chart for typical conditions – page 9

Purge Flow – See chart for typical purge flow – page 9

Air Connections – Inlet and outlet – 1/4" NPT Female

Mounting – Mount unit with tanks vertical; four mounting holes

Dimensions – 14-3/4" x 12-7/8" x 4" – See drawing page 9

Electric Timer and Solenoid Valve – 120 volts/60 hz/
single phase/15 watts

Electric Connections – DIN 43650 (see optional cord below)

Mating connector only – P/N OKC-2034

Weight – Approximately 21 pounds

Recommended Operation

- The 2016 series air dryer has protected electrical connections and can be field mounted.
- Always provide clean air to the dryer. Use a prefilter (OKC-730) to remove solid contamination and a coalescing filter (OKC-731) to remove liquid water and oil.
- The dryer can be continuously operated.
- The output air pressure/flow has a momentary pulse as the solenoid valve switches flow (every 30 sec.). To reduce the pulsation, install a check valve and accumulator (see page 13) at the outlet of the air dryer.

Ordering Information

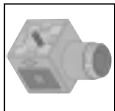
Part Number	Max Flow Rate (scfm)	Purge Flow Rate (scfm)
	80 psig Supply	80 psig Supply
OKC-2016-16	2.0	.35
OKC-2016-22	3.4	.68
OKC-2016-31	6.0	1.2
OKC-2016-39	9.0	1.8
OKC-2016-46	13.0	2.6

Optional Cord P/N OKC-822

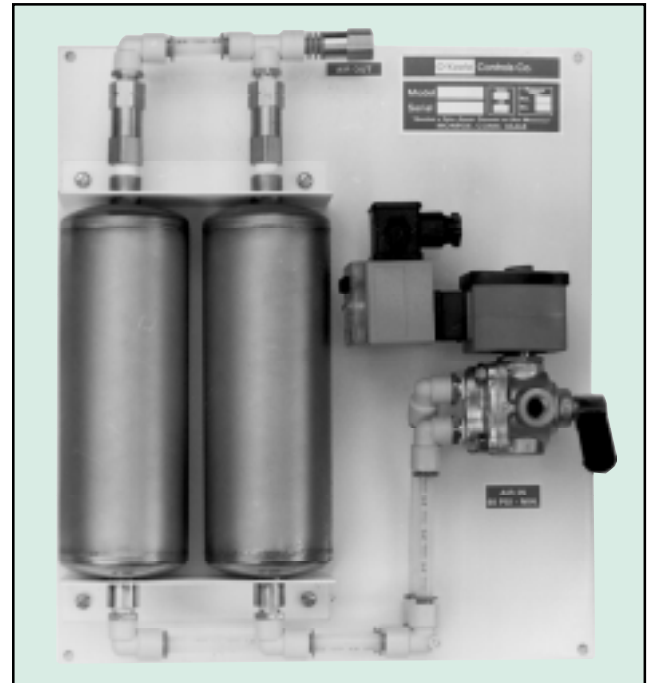


A six foot long cord with a 3-prong plug for 120 volts/60 hz has a DIN connector for attaching to the timer.

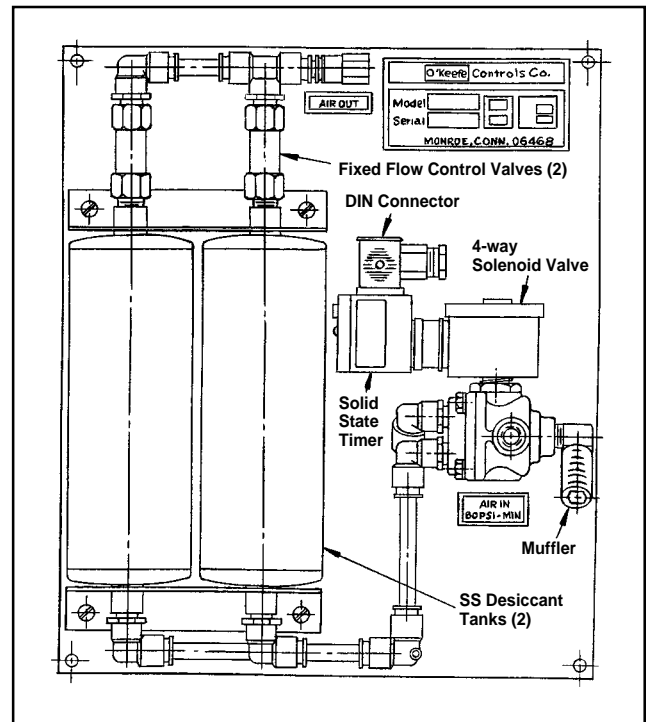
Optional DIN Connector P/N OKC-2034



Connector attaches to timer. Customer supplied 3-wire cord attaches to screw terminals in connector.



Field mount air dryer has gasketed and protected electrical connections.

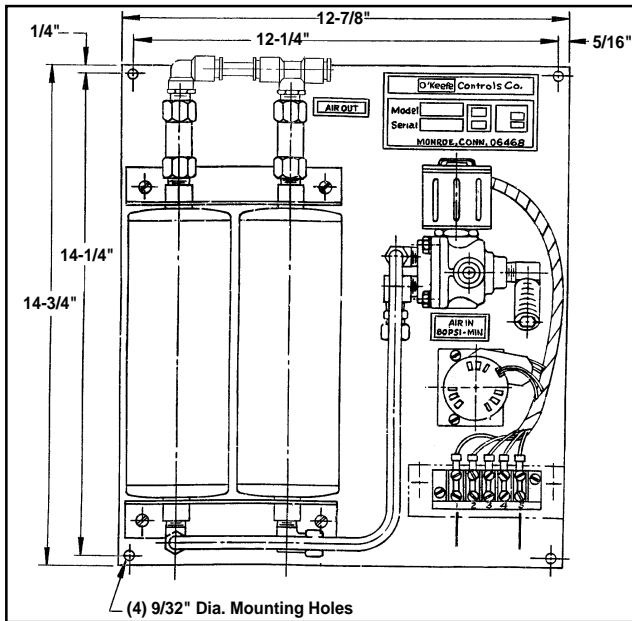


All major components of the 2016 series air dryers are easily replaced.

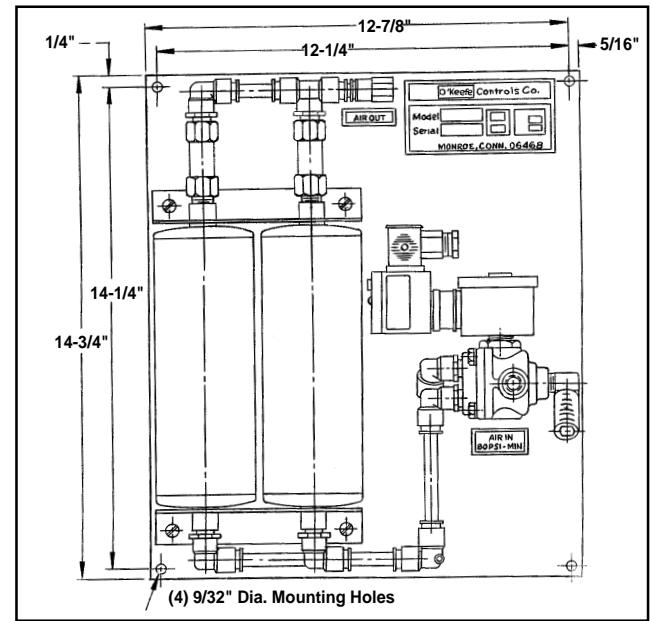
Standard Air Dryer

SPECIFICATIONS

Insert Module



Field Mount



Operating Conditions for Standard Air Dryer

Model 311C, 2016	-16	-22	-31	-39	-46
Inlet pressure – PSIG	80	80	80	80	80
Inlet temperature – °F	70	70	70	70	70
Purge Flow – SCFM	.35	.68	1.2	1.8	2.6
Outlet Flow – SCFM	2.0 1.4 1.2	3.4 2.7 2.2	6.0 4.8 4.0	9.0 7.2 6.0	13.0 10.4 8.8
Atmos. Dew Point – °F	-50 -60 -65	-50 -60 -65	-50 -60 -65	-50 -60 -65	-50 -60 -65
Dew Point @ 80 PSIG – °F	-18 -30 -35	-18 -30 -35	-18 -30 -35	-18 -30 -35	-18 -30 -35

Parts for Standard Air Dryers

Description	Qty/Air Dryer	Part Number
Timer for 311C Series	1	OKC-781
Timer for 2016 Series	1	OKC-2032
Solenoid Valve for 311C Series	1	OKC-779
Solenoid Valve for 2016 Series	1	OKC-2033
Muffler for 311C, 2016 Series	1	OKC-780
Desiccant Tank for 311C, 2016 Series	2	OKC-777
Flow Control Valves for 311C, 2016 Series:		
311C-16, OKC-2016-16	2	Y4F-16-BR-DE
311C-22, OKC-2016-22	2	Y4F-22-BR-DE
311C-31, OKC-2016-31	2	Y4F-31-BR-DE
311C-39, OKC-2016-39	2	Y4F-39-BR-DE
311C-46, OKC-2016-46	2	Y4F-46-BR-DE
Din Connector for 2016 Series	1	OKC-2034

Standard Air Dryer System

ELECTRIC OPERATION

Description

Series 415 and 416 air dryer systems include the 311C series dryer, an enclosure and two filters completely assembled and ready for installation. The filters have automatic drains for discharge of collected liquids. Easily replaced filter cartridges remove solids to 5 microns in the first stage and liquids and solids to .03 microns in the second stage.

Specifications

Inlet Pressure – 80 to 125 psig

Maximum Inlet Temperature – +125°F

Dew Point – See chart for typical conditions – page 12. The lower the outlet flow, the lower the dew point.

Medium – Compressed air

Output Flow Capacity – See chart for typical conditions – page 12

Purge Flow – See chart for typical purge flow – page 12

Air Connections – Inlet and outlet – 1/4" NPT Female

Mounting – Mount unit with tanks vertical; four mounting holes

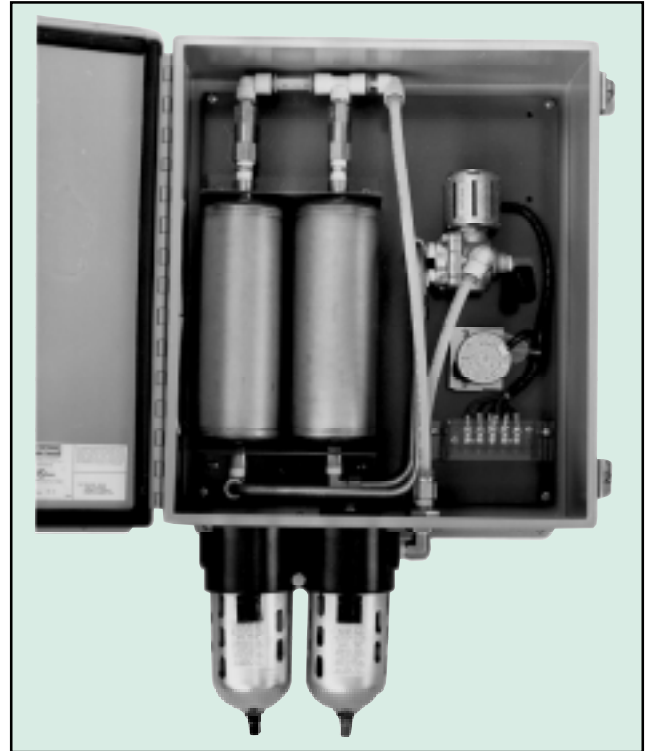
Dimensions – 24" x 14" x 6" – See drawing page 12

Electric Motor and Solenoid Valve – 120 volts/ 60 hz/ single phase/15 watts

Electric Connections – Terminal strip

Filter Rating – Removes 99.99998% of all solid and liquid particles .03 microns and larger.

Weight – Approximately 43 pounds



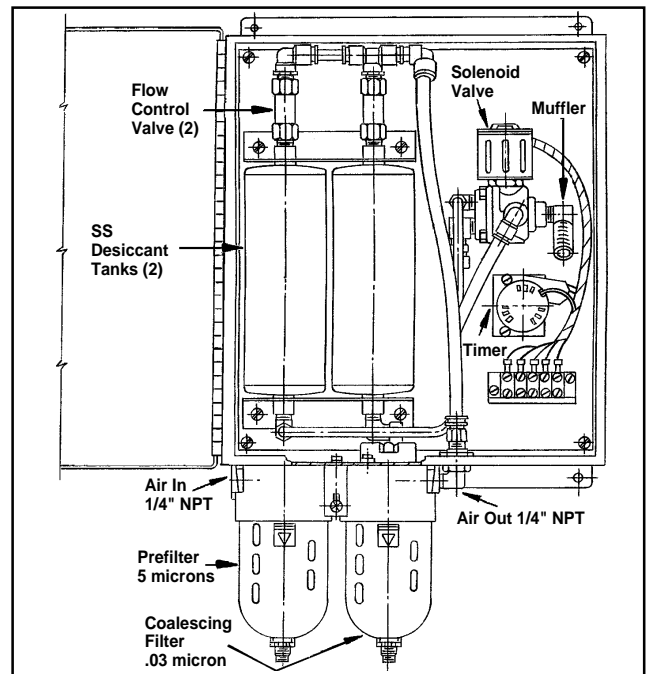
Air dryer systems consist of 311C insert module, enclosure and two filters.

Recommended Operation

- The filters are equipped with automatic float drains. Make provision to collect the discharged liquid in a suitable location. There are 1/8" NPT connections in the bottom of each filter.
- The dryer system works best if the compressed air provided is pre-dried in a refrigeration type air dryer (35 to 50°F pressure dew point).
- The dryer can be continuously operated.
- The output air pressure/flow has a momentary pulse as the solenoid valve switches flow (every 30 sec.). To reduce the pulsation, install a check valve and accumulator (see page 13) at the outlet of the air dryer.

Ordering Information

Part Number	Max Flow Rate (scfm)	Purge Flow Rate (scfm)
	80 psig Supply	80 psig Supply
OKC-416B-1	2.0	.35
OKC-416B-2	3.4	.68
OKC-415B-1	6.0	1.2
OKC-415B-2	9.0	1.8
OKC-415B-3	13.0	2.6



Electric motor timer controls solenoid valve for automatic cycling of air dryer system.

PNEUMATIC OPERATION

Description

Series 141/142 air dryer system has the unique feature of not requiring electric power for operation. Pneumatic timers and air operated relays are used for automatic control of the self-regenerative air dryer system. This pneumatic controlled air dryer can be installed in compressed air lines to decrease the dew point to -50°F . A prefilter and coalescing filter both equipped with automatic drains are standard components of the system.

Specifications

Inlet Pressure – 80 to 125 psig

Maximum Inlet Temperature – $+125^{\circ}\text{F}$

Dew Point – See chart for typical conditions – page 12. The lower the outlet flow, the lower the dew point.

Medium – Compressed air

Output Flow Capacity – See chart for typical conditions – page 12

Purge Flow – See chart for typical purge flow – page 12

Air Connections – Inlet and outlet – 1/4" NPT Female

Mounting – Mount unit with tanks vertical; four mounting holes

Dimensions – 24" x 14" x 6" – See drawing page 12

Control Pressure – Regulator preset to 50 psig. All connections internal.

Filter Rating – Removes 99.99998% of all solid and liquid particles .03 microns and larger.

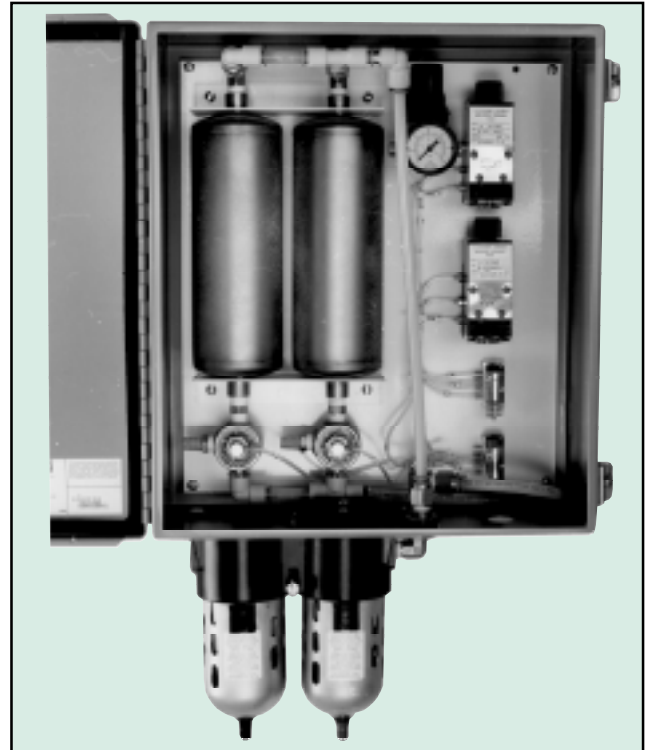
Weight – Approximately 43 pounds

Recommended Operation

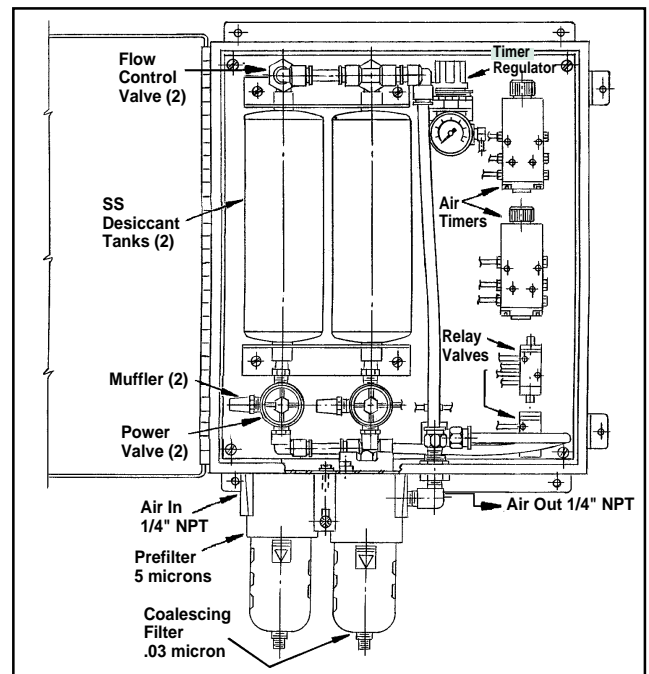
- The filters are equipped with automatic float drains. Make provision to collect the discharged liquid in a suitable location. There are 1/8" NPT connections in the bottom of each filter.
- The dryer system works best if the compressed air provided is pre-dried in a refrigeration type air dryer (35 to 50°F pressure dew point).
- The dryer can be continuously operated.
- The output air pressure/flow has a momentary pulse as the solenoid valve switches flow (every 30 sec.). To reduce the pulsation, install a check valve and accumulator (see page 13) at the outlet of the air dryer.
- The two timers are preset for periods of 30 seconds each. These should never be changed.

Ordering Information

Part Number	Max Flow Rate (scfm)	Purge Flow Rate (scfm)
	80 psig Supply	80 psig Supply
OKC-142C-1	2.0	.35
OKC-142C-2	3.4	.68
OKC-141C-1	6.0	1.2
OKC-141C-2	9.0	1.8
OKC-141C-3	13.0	2.6



Air operated air dryer system does not require any electric power.

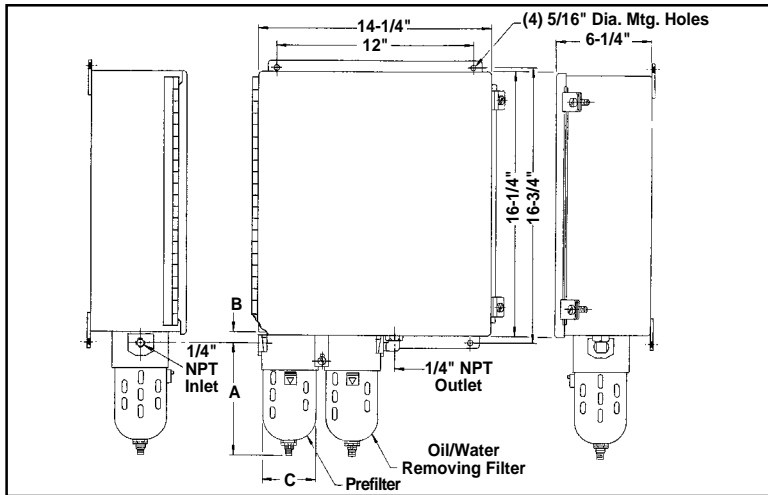


Air timers and air relays automatically cycle the self-regenerating air dryer.

Standard Air Dryer System

DIMENSIONS

For Both Pneumatic and Electric Operation



Dimensions – In.

Series	A	B	C
OKC-141C	6.37"	.98"	3.35"
OKC-142C	5.60"	.90"	3.00"
OKC-415B	6.37"	.98"	3.35"
OKC-416B	5.60"	.90"	3.00"

Operating Conditions for Standard Air Dryer Systems

Series	*-16			*-22			*-31			*-39			*-46		
Inlet pressure – PSIG	80			80			80			80			80		
Inlet temperature – °F	70			70			70			70			70		
Purge Flow – SCFM	.35			.68			1.2			1.8			2.6		
Outlet Flow – SCFM	2.0	1.4	1.2	3.4	2.7	2.2	6.0	4.8	4.0	9.0	7.2	6.0	13.0	10.4	8.8
Atmos. Dew Point – °F	-50	-60	-65	-50	-60	-65	-50	-60	-65	-50	-60	-65	-50	-60	-65
Dew Point @ 80 PSIG – °F	-18	-30	-35	-18	-30	-35	-18	-30	-35	-18	-30	-35	-18	-30	-35

*Series

Parts for Standard Air Dryer Systems

Description	Qty./Air Dryer	Part Number
Muffler for 141C/142C	2	APC-246-2
Muffler for 415B/416B	1	OKC-780
Desiccant Tank for 141C/142C/415B/416B	2	OKC-777
Prefilter Assembly for 142C/416B	1	OKC-740
Prefilter Assembly for 141C/415B	1	OKC-730
Prefilter Replacement Cartridge for 142C/416B	1	OKC-742
Prefilter Replacement Cartridge for 141C/415B	1	OKC-732
Coalescing Filter Assembly for 142C/416B	1	OKC-740
Coalescing Filter Assembly for 141C/415B	1	OKC-731
Coalescing Filter Cartridge for 142C/416B	1	OKC-742
Coalescing Filter Cartridge for 141C/415B	1	OKC-733
Flow Control Valve		
For 416B-1; 142C-1	2	Y4F-16-BR-DE
For 416B-2; 142C-2	2	Y4F-22-BR-DE
For 415B-1; 141C-1	2	Y4F-31-BR-DE
For 415B-2; 141C-2	2	Y4F-39-BR-DE
For 415B-3; 141C-3	2	Y4F-46-BR-DE
Timer for 415B/416B	1	OKC-781
Timer for 141C/142C	2	OKC-893
Solenoid Valve for 415B/416B	1	OKC-779
Power Valve for 141C/142C	2	OKC-892
Relay Valve for 141C/142C (Detent)	1	OKC-894
Relay Valve for 141C/142C (Spring Return)	1	OKC-1220
Pressure Regulator for 141C/142C	1	OKC-1222
Pressure Gage for 141C/142C	1	OKC-1221

AIR RESERVOIRS

Description

Compressed air accumulators serve to reduce or eliminate pulsation which occurs twice in each cycle of twin tower, self-regenerative compressed air dryers. The accumulators are complete with an inlet check valve, a 125 psig relief valve, and an output pressure regulator.

The portable 20 gallon unit can also be used as a storage tank for clean, dry compressed air. Useable for low flow requirements at a remote location that does not have a compressed air source.

Applications

- Pulse reduction in cyclic air dryer system.
- Pressure regulation in precision pneumatic systems.
- Portable air source for temporary low flow requirements.

Specifications

Storage Volume – Series 2055 – 3 gallon
 – Series 2054 – 20 gallon

Maximum Pressure – 125 psig

Relief Valve Setting – 125 psig

Tank Material – Steel

Dimensions – See drawing.

Output Pressure Regulator – Adjustable – see range in chart below.

ASME Code – Series 2054 only.

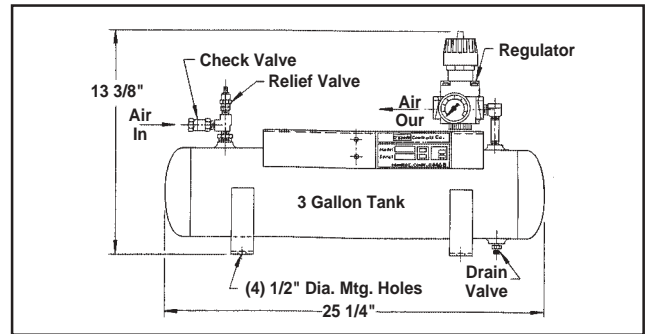
Connections – 1/4" NPT

Ordering Information

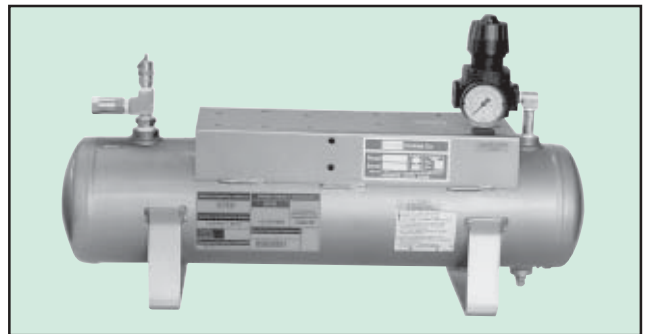
		Output Pressure (psig)	Regulator Type	Gage Range (psig)
<u>3 Gallon</u>	<u>20 Gallon</u>			
OKC-2055-1	OKC-2054-1	0-125	General Purpose	0-160
OKC-2055-2	OKC-2054-2	0-125	Precision	0-160
OKC-2055-4	OKC-2054-4	0-60	Precision	0-60
OKC-2055-5	OKC-2054-5	0-30	Precision	0-30
OKC-2055-6	OKC-2054-6	0-20	Precision	0-20
OKC-2055-7	OKC-2054-7	0-10	Precision	0-15
OKC-2055-8	OKC-2054-8	0-2	Precision	0-3

Custom Assemblies

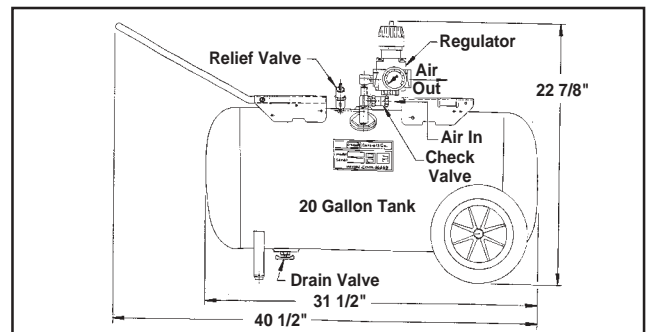
A variety of tank sizes and styles are available for pressures up to 125 psig. The tanks can be equipped with check valves, relief valves, filters, pressure regulators or gages as required. Consult factory with your requirements.



3 gallon accumulator includes check valve, relief valve and output pressure regulator with gage.



Accumulator reduces pressure surges caused by cycling air dryer system, or sudden output flow changes.



20 gallon accumulator is portable. Semi-pneumatic tires and handle are standard.



Portable 20 gallon tank can provide clean, dry compressed air to a remote location.

High Flow Air Dryer Module

20 SCFM • QUIET OPERATION

Description

The series 2042 high flow air dryer will handle up to 20 scfm at supply pressure of 80 to 125 psig. Using a solid state timer, three power valves are sequenced to provide the following features:

- Quiet operation – No large pressure surge during switching.
- Virtual pulse free output pressure – No significant pressure swing during switching.
- Three models rated at 10, 15 and 20 scfm respectively.

Construction is simplified and cost is reduced using an open frame assembly for this series. All electric components are housed in a small Nema 12/13 enclosure. Valves and desiccant tanks are plate mounted.

Specifications

Inlet Pressure – 80 to 125 psig

Maximum Inlet Temperature – +125°F

Dew Point – minus 50°F atmospheric at maximum rated flow; dew point decreases at flow rates less than maximum.

Medium – Clean oil-free compressed air.

Output Flow Capacity – 10, 15 or 20 scfm – See chart below.

Purge Flow – See chart below.

Air Connections – 1/2" NPT or 1/2" OD plastic tubing.

Mounting – Mount unit vertical and upright; six mounting holes.

Dimensions – 33" x 21" x 7" – See drawing page 16.

Electric Connections – Terminal strip inside enclosure.

Required Filtration – Prefilter – 5 micron

Coalescing filter – .01 micron

Weight – Approximately 60#.

Recommended Operation

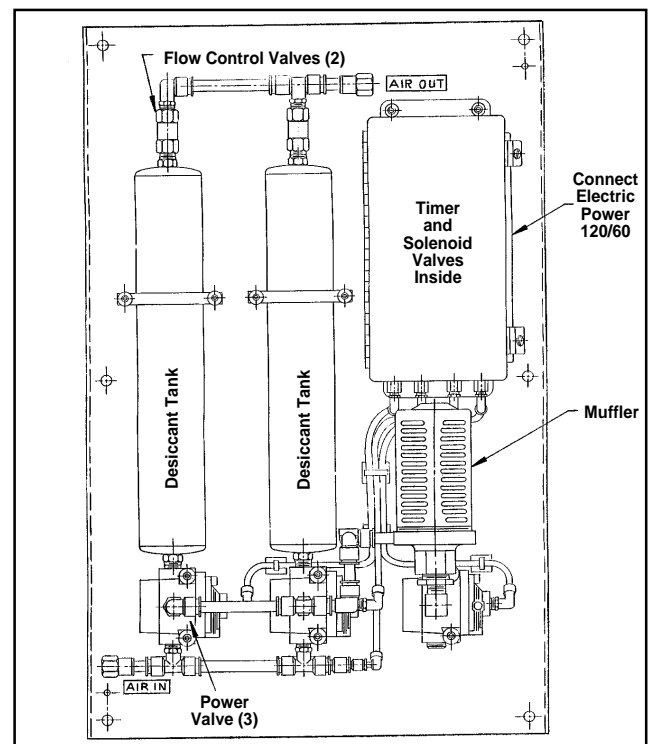
- The 2042 series air dryer has protected electrical connections and can be field mounted.
- Always provide clean air to the dryer. Use a prefilter (OKC-2046) to remove solid contamination and a coalescing filter (OKC-2047) to remove liquid water and oil.
- The dryer can be continuously operated.

Ordering Information

Part Number	Max Flow	Purge Flow	Atmos. Dew Point °F	Pressure Dew Point °F
	Rate (scfm) @ 80 psig	Rate (scfm) @ 80 psig		
OKC-2042-1	10	2	-50	-18
OKC-2042-2	15	3	-50	-18
OKC-2042-3	20	4	-50	-18



Open frame air dryer module can handle up to 20 scfm at 80 psig and deliver an output dew point of -50°F atmospheric.



Air dryer employs a solid state timer, three power valves and two tanks of desiccant to achieve low dew point.

PULSE FREE

Description

The series 2043 high flow air dryer system handles up to 20 scfm at supply pressure of 80 to 125 psig. Using a solid state timer, three power valves are sequenced to provide the following features:

- Quiet operation – No large pressure surge during switching.
- Virtual pulse free output pressure – No significant pressure swing during switching.
- Three models rated at 10, 15 and 20 scfm respectively.

The air dryer is housed in a Nema 12/13 enclosure and a prefilter and coalescing filter are attached externally. The system can handle substantial air flows without attracting attention or creating noise disturbances.

Specifications

Inlet Pressure – 80 to 125 psig

Maximum Inlet Temperature – +125°F

Dew Point – minus 50°F atmospheric at maximum rated flow; dew point decreases at flow rates less than maximum.

Medium – Clean compressed air.

Output Flow Capacity – 10, 15 or 20 scfm – See chart below.

Purge Flow – See chart below.

Air Connections – 1/2" NPT

Mounting – Mount unit vertical and upright; four mounting holes.

Dimensions – 36" x 24" x 7" – enclosure only – See drawing page 16.

Electric Connections – Terminal strip on timer sub-plate.

Filtration – Prefilter with auto drain – 5 micron

Coalescing filter with auto drain – .01 micron

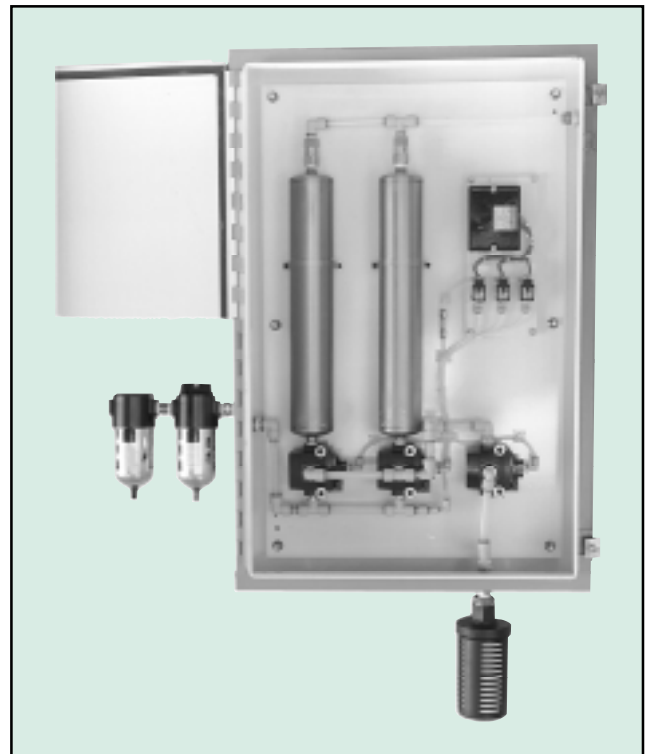
Weight – Approximately 120#.

Recommended Operation

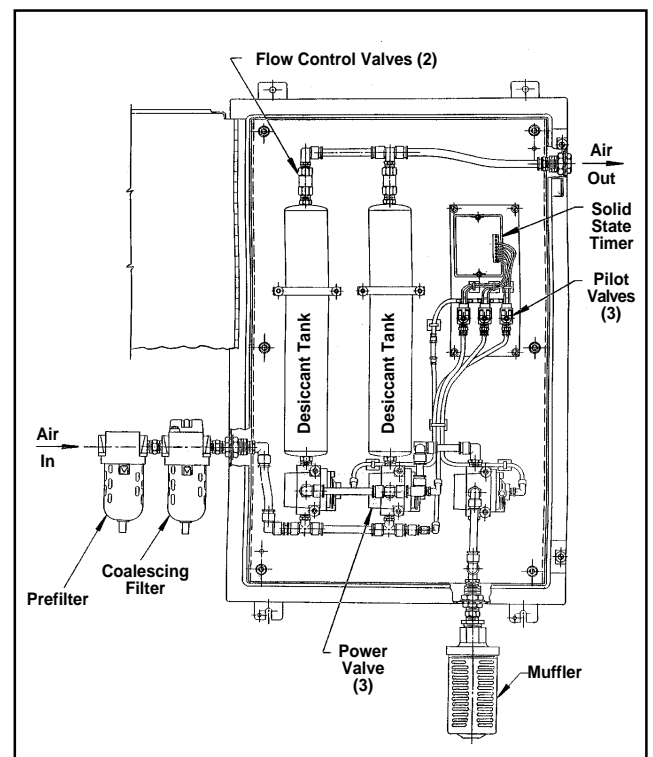
- The filters are equipped with automatic float drains. Make provision to collect the discharged liquid at a suitable location. There are 1/8" NPT connections at the bottom of each filter.
- The dryer system works best if the compressed air provided is pre-dried in a refrigeration type air dryer (35 to 50°F pressure dew point).
- The dryer can be continuously operated.

Ordering Information

Part Number	Max Flow	Purge Flow	Atmos. Dew Point °F	Pressure Dew Point °F
	Rate (scfm) @ 80 psig	Rate (scfm) @ 80 psig		
OKC-2043-1	10	2	-50	-18
OKC-2043-2	15	3	-50	-18
OKC-2043-3	20	4	-50	-18



External filters remove solids and liquids from compressed air. The dryer removes water vapor from the air.

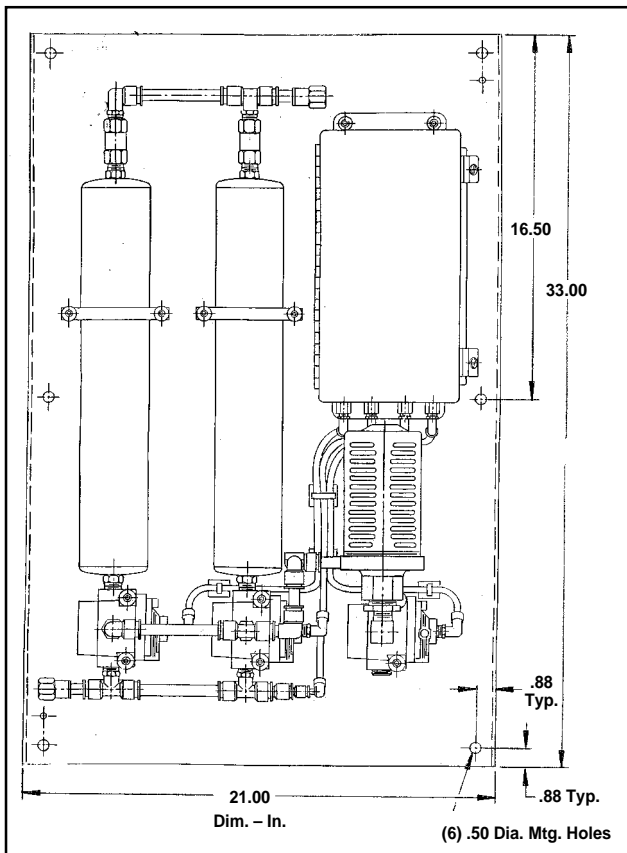


A solid state timer sequences the three power valves to assure quiet, pulse-free operation.

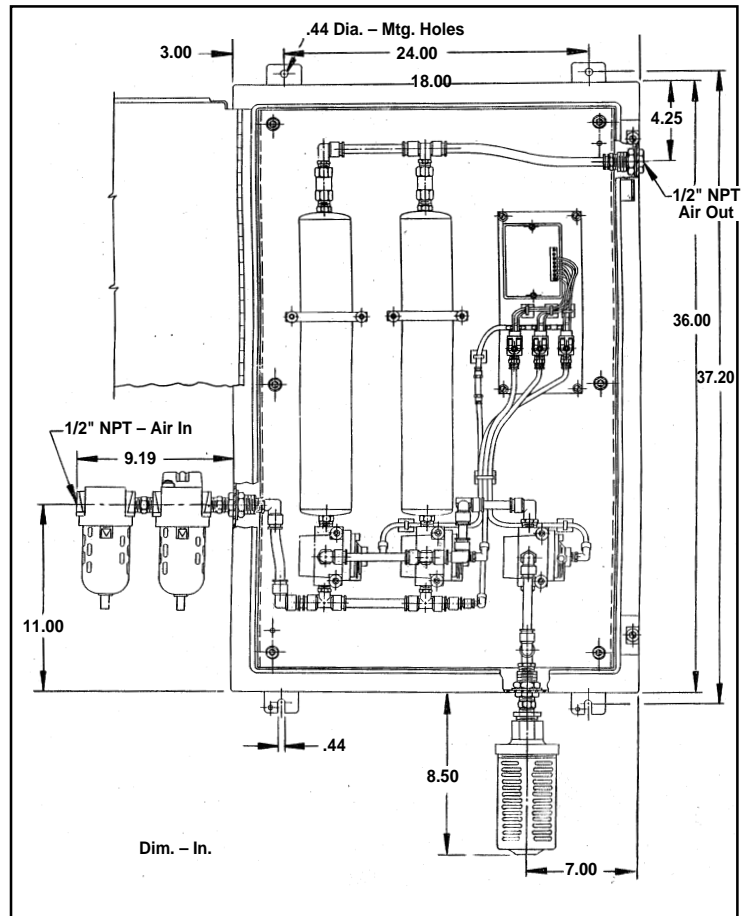
High Flow Air Dryers

DIMENSIONS

Module Series 2042



System Series 2043



Parts for High Flow Air Dryers

Description	Qty./Air Dryer	Part Number
Timer for 2042; 2043 (120/60)	1	OKC-1150-2
Solenoid Valve for 2042; 2043 (120/60)	3	OKC-2050-2
Check Valve for 2042; 2043	1	FFLC-2-BR
Flow Control Valve		
For 2042-1; 2043-1	2	Y6F-41-BR-DE
For 2042-2; 2043-2	2	Y6F-52-BR-DE
For 2042-3; 2043-3	2	Y6F-60-BR-DE
Muffler for 2042; 2043	1	OKC-2051
Desiccant Tank for 2042; 2043	2	OKC-2052
Power Valve for 2042; 2043	3	OKC-2049
Prefilter for 2043	1	OKC-2046
Prefilter Cartridge for 2043	1	OKC-732
Coalescing Filter for 2043	1	OKC-2047
Coalescing Filter Cartridge for 2043	1	OKC-733
Autodrain Assembly for 2043	2	OKC-734

DEW POINT REDUCTION

Description

The "point-of-use" compressed air dryer removes liquid water using filters; and reduces the pressure dew point of the air through pressure reduction. The system consists of a prefilter and a coalescing filter, followed by a pressure regulator. Two gages and mounting hardware are included in the system. Maximum flow rates of 10, 20 and 40 scfm are available as standard.

While depression of dew point with the system is not as dramatic as in desiccant air dryers, it is an economical approach to solving local in-plant air line water problems.

How It Works!

Assume that the air entering the filters contains liquid water and water vapor at 100% relative humidity. The air exiting the filters is virtually free of liquid water, but is still at 100% relative humidity as it enters the pressure regulator.

Since pressure regulators reduce pressure, there is a corresponding decrease in the density of the air at the exit from the regulator. Not only is the density of the air reduced, but also that of the water vapor, resulting in a decrease of the relative humidity. Saturated water vapor entering the regulator is no longer saturated in the reduced pressure at the outlet.

The dew point chart (at right) illustrates the reduction of dew point that can be achieved. The lower the outlet pressure of the regulator the lower is the relative humidity and associated dew point. The assumption for the chart data is that heat transfer maintains the temperature reasonably constant during flow passage through the pressure regulator.

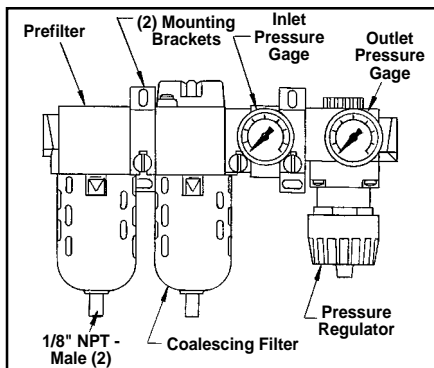
Where To Use the Air Dryer!

Install this dryer close to the "point of use" to insure that there is no substantial temperature decrease between the regulator and downstream use point.

It is good practice to maintain the regulator output pressure a minimum of 20 psi below the regulator input pressure. The two gages provided are for this purpose.



Point-of-use air dryer contains two filters, two pressure gages and one regulator.

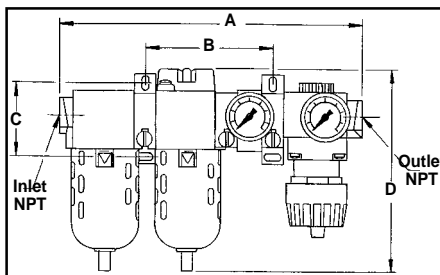


Filters remove condensate before air enters regulator. Regulator reduces outlet pressure and the dew point drops accordingly.

Ordering Information

Part Number	Maximum Flow – SCFM	Connections NPT
OKC-2039-1	10 scfm	1/4"
OKC-2039-2	20 scfm	3/8"
OKC-2039-3	40 scfm	1/2"

Dimensions



Type	A	B	C	D	NPT
OKC-2039-1	10-5/8"	4-5/8"	3"	7-1/2"	1/4"
OKC-2039-2	11-3/4"	4-15/16"	3"	8-1/4"	3/8"
OKC-2039-3	11-3/4"	4-15/16"	3"	8-1/4"	1/2"

Specifications

Media – Compressed air

Connections –

Process – 1/4", 3/8" or 1/2" NPT

Drains – 1/8" NPT male

Inlet Pressure Range – 80-150 psig

Inlet Temperature Range – +40 to 125°F

Maximum Flow Rate – up to 40 scfm

Consult factory for larger flow rates.

Outlet Pressure Range – 1-150 psig

Filtration – .01 micron through dual filters.

Liquid Drains – Automatic float in each filter. 1/8" NPT connection.

Mounting – Integral brackets;

See dimension drawing.

Dimensions – See drawing and chart.

Filter Elements – Replaceable

Materials of Construction –

Filter Bowl – Polycarbonate

Filter Body – Zinc

Regulator Body – Zinc

Bowl Guard – Aluminum

Dew Point Chart Point-of-Use Air Dryer

Regulator Inlet Air Conditions

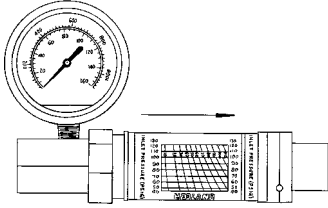
- 100 psig, 70°F, 100% RH
- Contains no condensate
- Barometric pressure 14.7 psia

Output Pressure psig	Relative Humidity %	Pressure Dew Point °F
100	100	70.0
90	91.0	67.3
80	82.6	64.5
70	73.8	61.2
60	65.1	57.7
50	56.4	53.9
40	47.7	49.5
30	39.0	44.0
20	30.3	37.5
10	21.5	29.0
0	12.8	16.5

Air Dryer Accessories

IN-LINE FLOWMETERS WITH PRESSURE GAGE – AIR SERVICE

Calibrated for Inlet Pressures 40-100 psig • Vertical ↑ or Horizontal → Mounting

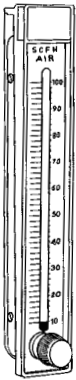


<u>Part No.*</u>	<u>Pipe Size Female NPT</u>	<u>Flow Range SCFM</u>	<u>Approximate Inlet to Outlet Dim.</u>	<u>Maximum Height</u>
OKC-1000-1	1/4"	1-4	6-3/4"	4-1/4"
OKC-1000-2	1/4"	2-9	6-3/4"	4-1/4"
OKC-1000-3	1/4"	2-18	6-3/4"	4-1/4"
OKC-1000-5	1/2"	2-20	9-1/4"	4-3/4"
OKC-1000-6	1/2"	10-60	9-1/4"	4-3/4"
OKC-1000-10	3/4"	5-50	10-1/2"	5-1/4"
OKC-1000-11	3/4"	10-90	10-1/2"	5-1/4"

*Maximum Pressure 150 psig; Maximum Temperature 150°F

FLOW METERS – AIR SERVICE – ROTAMETER STYLE

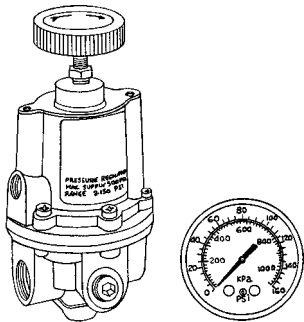
Calibrated for Standard Atmospheric Conditions • Vertical ↑ Mounting Only



<u>Part No.*</u>	<u>Air Flow Range (SCFH)</u>	<u>Dimensions</u>		<u>Connection</u>	<u>Maximum Pressure</u>
		<u>Overall Height</u>	<u>Scale Length</u>		
KRMA-1	.05 - .5	4-9/16"	2"	1/8" NPT	100 psig
KRMA-3	.2 - 2	4-9/16"	2"	1/8" NPT	100 psig
KRMA-5	1-10	4-9/16"	2"	1/8" NPT	100 psig
KRMB-52	5-50	8-1/2"	5"	1/4" NPT	70 psig
KRMB-54	20-200	8-1/2"	5"	1/4" NPT	70 psig
KRMC-104	40-400	15-1/8"	10"	1/2" NPT	35 psig
KRMC-106	100-1000	15-1/8"	10"	1/2" NPT	35 psig
KRMC-108	180-1800	15-1/8"	10"	1/2" NPT	35 psig

*Maximum Temperature 130°F

PRECISION AIR PRESSURE REGULATORS

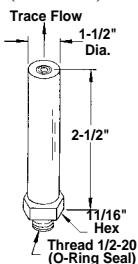


<u>Part No.*</u>	<u>Part No. With Gage</u>	<u>Size</u>	<u>Output Pressure</u>	<u>Supply (max.)</u>	<u>Dimensions</u>		
OKC-1045-1	OKC-1045-1G		0-2 psig				
OKC-1045-2	OKC-1045-2G		0-10 psig				
OKC-1045-3	OKC-1045-3G	1/4"	0-20 psig	400 psig	Inlet to Outlet <3"		
OKC-1045-4	OKC-1045-4G	NPT	0-30 psig				
OKC-1045-5	OKC-1045-5G		0-60 psig				
OKC-1045-6	OKC-1045-6G		0-160 psig				
							Height
							6-1/2" max.

*Maximum Pressure 150 psig; Maximum Temperature 150°F

MOISTURE INDICATORS

These moisture indicators contain silica gel. Moist air with a dew point greater than 4°F will cause the color to change from blue to pink (or clear). When dry air (less than 4°F) flows through the indicator the blue color is restored.



Part No. OKC-1739

Connections –

Inlet – 1/2" - 20 (O-Ring Seal)
Outlet – Flow to Atmos.

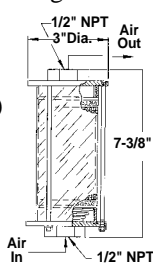
Trace Air Flow – 2 scfh @ 100 psig

Mounting – Vertical/Upright

Media – Oil-free air

Max. Pressure – 125 psig

LINE TEE



Part No. OKC-1015

Connections – 1/2" NPT Female

Flow – In Line (no trace flow)

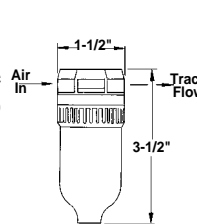
Max. Flow – 15 scfm

Mounting – Vertical/Upright

Media – Oil-free air

Max. Pressure – 100 psig

IN-LINE



Part No. OKC-2038

Connection – 1/4" NPT

Trace Air Flow – 2 scfh

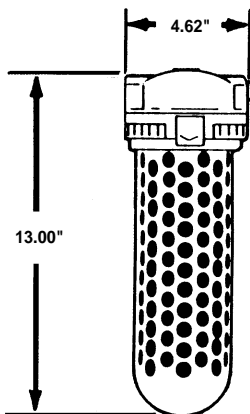
Mounting – Vertical/Upright

Media – Oil-free air

Max. Pressure – 125 psig

REMOTE

CHEMICAL DRYERS



Part No. OKC-2037-1

This dryer will remove moisture from compressed air up to a total of 4400 standard cubic feet per the following specifications.

Inlet Pressure – 100 psig
Maximum Flow – 10 scfm
Atmos. Dew Point – minus 45°F
Desiccant – Silica Gel

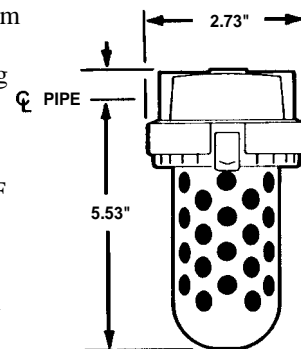
Connections are 1/4" NPT Female

Part No. OKC-2037-2

This dryer will remove moisture from compressed air up to a total of 600 standard cubic feet per the following specifications.

Inlet Pressure – 100 psig
Maximum Flow – 5 scfm
Atmos. Dew Point – minus 45°F
Desiccant – Silica Gel

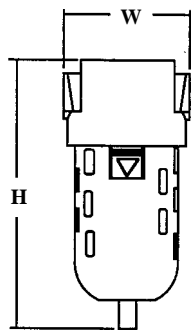
Connections are 1/4" NPT Female



The desiccant when saturated must be replaced. Silica gel changes color from blue to pink as the material becomes saturated.

The application for this dryer is for low flow requirements or for higher flow situations which operate only occasionally.

FINE AIR FILTERS



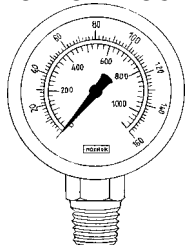
Part No.**	Connection Size	Micron Rating	Drain	Dimensions		Max. Flow SCFM	Max. Pressure*
				W	H		
OKC-1379	1/4" NPT	5	Manual	1.5"	3.6"	3	150 psig
OKC-1380	1/4" NPT	.01	Manual	1.5"	3.6"	3	150 psig
OKC-739	1/4" NPT	5	Auto	3.0"	7.5"	10	150 psig
OKC-740	1/4" NPT	.01	Auto	3.0"	7.5"	10	150 psig
OKC-730	1/4" NPT	5	Auto	3.3"	8.2"	20	150 psig
OKC-731	1/4" NPT	.01	Auto	3.3"	8.2"	20	150 psig

*Maximum Operating Temperature 125°F

**Filter bowls are polycarbonate. Metal bowl guard included.

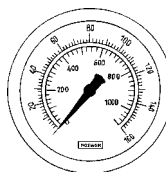
PRESSURE GAGES

BOTTOM MOUNT



Part Number	Pressure Range (psig)
OKC-2035-1	0-5
OKC-2035-2	0-15
OKC-2035-3	0-30
OKC-2035-4	0-60
OKC-2035-5	0-100
OKC-2035-6	0-160

BACK MOUNT



Part Number	Pressure Range (psig)
OKC-2036-2	0-15
OKC-2036-3	0-30
OKC-2036-4	0-60
OKC-2036-5	0-100
OKC-2036-6	0-160

Bottom mount pressure gages have 2-1/2" dial; 1/4" NPT brass connection.

Back mount pressure gages have 2" dial; 1/4" NPT brass connection.

Automatic Drain Valves

TIMED RELEASE

Description

The Automatic Timed Solenoid Valve is a combination of a brass body directional control valve and an attached electronic repeat cycle timer which alternately opens and closes the valve. The valves are industrial quality, suitable for air or water service. The timer has an off time period (valve de-energized) that is adjustable from 1 - 45 minutes. The on time period (valve energized) is adjustable from 1 - 15 seconds. A touch button manual override on the electronic timer allows for manual control of the valve.

Applications

The Automatic Timed Solenoid Valve can be used to discharge water collected in tanks, pipes, filters or refrigeration dryers in compressed air systems. The valve opens periodically for a short duration and discharges collected water into a drain or sump.

The valve can also be used to periodically spray water for cooling or wetting of produce, vegetation, or equipment.

General Specifications

Electronic Timer

Voltage – 120 volts

Frequency – 60 hz

Energize Time – 1-15 seconds

De-energize Time – 1-45 minutes

Manual Override – Touch button

Power On Light – LED • Red

Valve Energized Light – LED • Green

Ambient Temperature – +32° to 125°F

Power Output to Valve – 20 watts max

Connections – DIN Size 30/40

Enclosure Protection – Equivalent to Types 1 and 4

Housing Material – Polycarbonate

Solenoid Valves

Materials – Brass Body • BUNA N Seals

Compatible Fluids – Air, Water

Pressure & Flow (C_v) – See chart on page 21

Power – Less than 20 watts

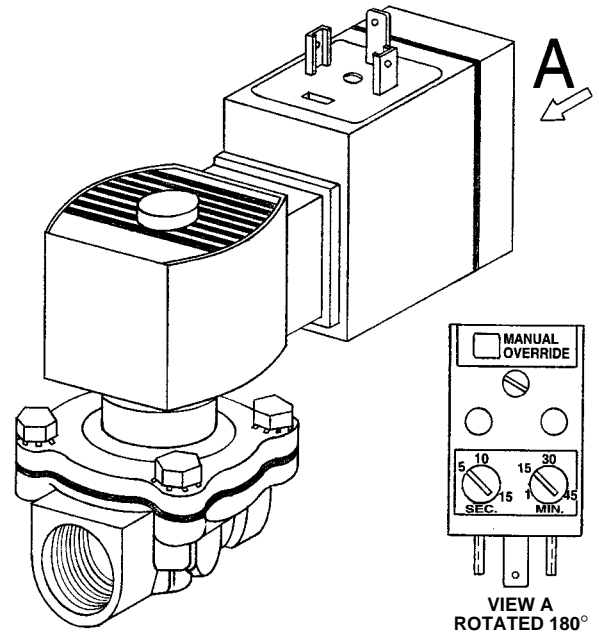
Voltage/Frequency* – 120/60

Enclosure – Types 1, 2, 3, and 4

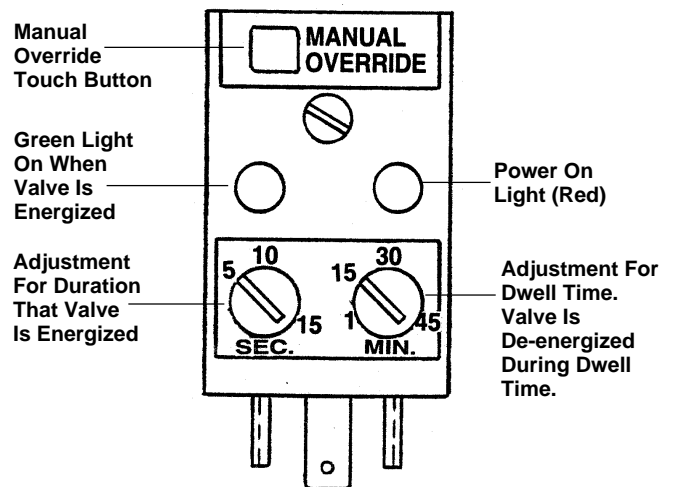
Ambient Temperature – +32° to 125°F

Connections – Female Pipe Threads

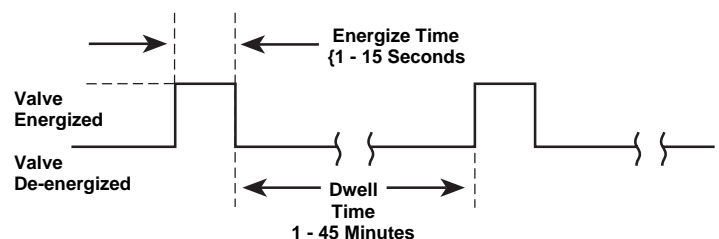
Timed Solenoid Valve



Electronic Timer

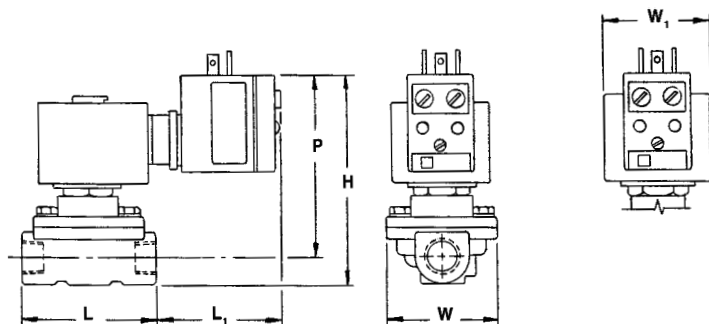


Timing Diagram



ADJUSTABLE TIMING

Dimensions



Dimension Chart

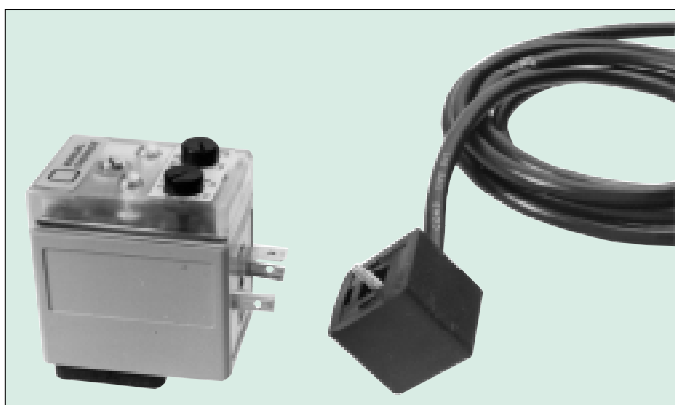
Part Number	Pipe Size (In.)	Type	H	L	L ₁	P	W	W ₁
OKC-821/1G212	1/4	N.C.	3-29/32	1-9/16	3-13/32	3-9/32	—	1-31/32
OKC-821/1G262	1/4	N.O.	3-3/4	1-1/4 DIA.	3-1/2	3-11/32	—	1-31/32
OKC-821/100G1	3/8	N.C.	3-3/4	2-3/4	2-5/8	3-3/16	2-5/16	—
OKC-821/10G93	3/8	N.C.	4-3/8	2-3/4	2-13/16	3-13/16	2-5/16	—
OKC-821/10G33	3/8	N.O.	4-13/16	2-3/4	2-13/16	4-1/4	2-9/32	—
OKC-821/100G2	1/2	N.C.	3-3/4	2-3/4	2-5/8	3-3/16	2-5/16	—
OKC-821/10G94	1/2	N.C.	4-3/8	2-3/4	2-13/16	3-13/16	2-5/16	—
OKC-821/10G34	1/2	N.O.	4-13/16	2-3/4	2-13/16	4-1/4	2-9/32	—
OKC-821/100G3	3/4	N.C.	4-1/2	3-25/32	2-1/8	3-7/8	2-3/4	—
OKC-821/10G95	3/4	N.C.	4-19/32	2-13/16	2-25/32	3-29/32	2-5/16	—
OKC-821/10G35	3/4	N.O.	5-3/32	2-13/16	2-25/32	4-15/32	2-9/32	—
OKC-821/100G4	1	N.C.	5-31/32	3-3/4	2-1/8	4-11/32	2-15/16	—
OKC-821/100G8	1-1/4	N.C.	5-31/32	3-21/32	2-5/32	4-11/32	3-3/8	—
OKC-821/10G22	1-1/2	N.C.	6-15/32	4-3/8	1-13/16	4-1/2	3-3/4	—
OKC-821/1G100	2	N.C.	7-21/32	5-1/16	1-15/32	4-29/32	4-11/16	—

Dimensions – In.

Valve Selection

Select a valve for the application compatible with the pressure and flow requirements. For draining gravity pressurized vessels select a valve with a minimum pressure differential rating of "0" psig. Such a valve will operate even at low liquid levels in the vessel.

Optional Power Cord (120 volts/60 hz)



A six foot long power cord with a 3-prong plug for 120 volts/60 hz has a DIN connector for attaching to the timer. Part No. **OKC-822**.

Options Available

Consult the factory for any of the following options.

Voltage – 24/60 or 240/60

Materials – Stainless Steel Body or Alternate Valve Seals

Slow Closing Construction – to avoid water hammer

Other Fluids – steam, deionized water, or chemicals

Valve Specifications

Brass Body • Buna-N Seals

Part Number Includes
Timer and Valve

Part Number*	Pipe Size (In.)	Type	Differential Pressure PSIG		Fluid Temp. Max – °F	Cv Flow Factor	Coil Watt Rating
			Min.	Max.			
OKC-821/1G212	1/4	N.C.	0	100	180	.88	17.1
OKC-821/1G262	1/4	N.O.	0	100	180	.35	10.1
OKC-821/100G1	3/8	N.C.	5	150	180	3.0	6.1
OKC-821/10G93	3/8	N.C.	0	150	180	3.0	10.1
OKC-821/10G33	3/8	N.O.	0	150	180	3.0	10.1
OKC-821/100G2	1/2	N.C.	5	150	180	4.0	6.1
OKC-821/10G94	1/2	N.C.	0	150	180	4.0	10.1
OKC-821/10G34	1/2	N.O.	0	150	180	4.0	10.1
OKC-821/100G3	3/4	N.C.	5	150	180	6.5	6.1
OKC-821/10G95	3/4	N.C.	0	150	180	5.0	10.1
OKC-821/10G35	3/4	N.O.	0	150	180	5.5	10.1
OKC-821/100G4	1	N.C.	5	150	180	13	6.1
OKC-821/100G8	1-1/4	N.C.	5	150	180	15	6.1
OKC-821/10G22	1-1/2	N.C.	5	150	180	22	6.1
OKC-821/1G100	2	N.C.	5	125	180	43	6.1

*Above part numbers for 120 Volts/60 hz

Ordering Information

The part numbers shown in the valve specifications chart include an assembly consisting of a valve and a timer, e.g., Part Number **OKC-821/100G2** consists of the timer and a 1/2" NPT normally closed solenoid valve: both operating at 120 volts/60 hz.

To order the timer/valve assembly operating at 120 volt/60 hz use the part number selected from the valve specification chart.

To order the six foot long power cord for operation at 120 volts/60 hz specify part number **OKC-822**.

To order a timer only specify part number **OKC-821**.

Pneumatic Controls

CHECK VALVES / FIXED FLOW CONTROLS

Ball Type Check Valves




Ball type check valves are produced in three sizes: 10-32, 1/8" NPT and 1/4" NPT. They are available in brass or stainless steel and are suitable for use with liquids or gases. Free flow occurs in one direction only; reverse flow is prevented.

Standard units are used at pressures up to 200 psig. The high pressure version can operate up to 2000 psig. See chart of characteristics at right.

For additional details request Brochure OK-253.

Ordering Information – Ball Type Check Valves

Type	Cracking Pressure	Body Material	Part Number
FFLC	2	BR	FFLC-2-BR (standard pressure)
BLC	10	SS	BLC-10-SS (standard pressure)
ELCH	15	BR	ELCH-15-BR (high pressure)

Construction	Free Flow Cv	Air Free Flow Inlet - 100 psig Outlet - atmos. scfh	Max. Pressure		Cracking Pressure psid	Max. Liquid Flow gpm	Body Materials
			Standard psig	High (Suffix H)† psig			
Type FFLC 10-32 thread 	.081	331	125	—	0, 2 or 10	.80	Brass or SS
Type BLC, BLCH 1/8" NPT 	.081	331	200	2000	0, 2 or 10	1.1	Brass or SS
Type ELC, ELCH 1/4" NPT 	.225	951	200	2000	0, 2 or 15	3.2	Brass or SS

† High pressure type use suffix H

Disk Type Check Valves






Disk type check valves are produced in three sizes: 1/8" NPT, 1/4" NPT and 3/8" NPT. They are available in brass or stainless steel and are suitable for use with liquids or gases. Free flow occurs in one direction only; reverse flow is prevented.

Disk check valves feature high flow capacity. Only one moving part is required. See chart of characteristics at right. **For additional details request Brochure OK-256.**

Ordering Information – Disk Type Check Valves

Type	Cracking Pressure	Body Material	Disk Material	Part Number
GOC (1/4" male/female)	0	SS (303 SS)	DE (Delrin)	GOC-0-SS-DE
Y6C (3/8" female/female)	0	BR (Brass)	BR (Brass)	Y6C-0-BR-BR

Use delrin disk for air and inert gases

Type	Construction	Pipe Size NPT	End Connections	Cracking Pressure	Body Material	Disk Material	Maximum Pressure	Free Flow Cv
DOC		1/8"	male/female	0	Brass (BR)	303 SS (SS)	150 psig	.43
GOC		1/4"	male/female					.61
Y2C		1/8"	female/female					
Y4C		1/4"	female/female		.61			
Y6C		3/8"	female/female			1.09		

Ball Type Fixed Flow Controls




These fixed flow controls are a parallel arrangement of a ball check valve and a precision orifice. Free flow occurs in one direction and metered flow occurs in the opposite direction. Suitable for both liquids and gases the fixed flow controls are available in brass or stainless steel.

Standard units are used at pressures up to 200 psig. The high pressure version can operate up to 2000 psig. See chart of characteristics at right.

For additional details request Brochure OK-253.

Ordering Information – Ball Type Fixed Flow Controls

Type	Orifice Size No.	Cracking Pressure	Body Material	Part Number
FFLF	10	10	BR	FFLF-10-10-BR (standard pressure)
BLFH	25	15	SS	BLFH-25-15-SS (high pressure)
ELF	60	2	SS	ELF-60-2-SS (standard pressure)

Construction	Free Flow Cv	Air Free Flow Inlet - 100 psig Outlet - atmos. scfh*	Max. Pressure		Cracking Pressure psid	Max. Liquid Flow gpm	Body Materials
			Standard psig	High (Suffix H)† psig			
Type FFLF 10-32 thread 	.084 to .162	346 to 662	125	—	0, 2 or 10	.84 to 1.62	Brass or SS
Type BLF, BLFH 1/8" NPT 	.084 to .162	346 to 662	200	2000	0, 2 or 10	1.2 to 2.3	Brass or SS
Type ELF, ELFH 1/4" NPT 	.228 to .425	950 to 1767	200	2000	0, 2 or 15	3.2 to 6	Brass or SS

† High pressure type use suffix H

Disk Type Fixed Flow Controls

These fixed flow controls are a parallel arrangement of a disk check valve and a precision orifice. Free flow occurs in one direction and metered flow occurs in the opposite direction. Suitable for both liquids and gases the fixed flow controls are available in brass or stainless steel.





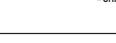
Pressure is limited to 150 psig. Flow capacity is large. Available in 1/8" NPT, 1/4" NPT and 3/8" NPT. See chart of characteristics at right.

For additional details request Brochure OK-256.

Ordering Information – Disk Type Fixed Flow Controls

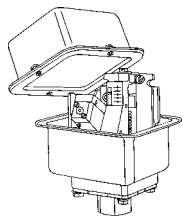
Type	Orifice Size No.	Cracking Pressure	Body Material	Disk Material	Part Number
GOF (1/4" male/female)	10	.010" orifice	SS (303 SS)	SS (303 SS)	GOF-10-SS-SS
Y6F (3/8" female/female)	22	.022" orifice	BR (Brass)	DE (Delrin)	Y6F-22-BR-DE

Use delrin disk for air and inert gases

Type	Construction	Pipe Size NPT	End Connections	Metering Orifice Size No.	Body Material	Disk Material	Maximum Pressure	Free Flow Cv
DOF		1/8"	male/female	4 to 125	Brass (BR)	303 SS (SS)	150 psig	.43 to .51
GOF		1/4"	male/female	4 to 125				.61 to .98
Y2F		1/8"	female/female	4 to 125	or	.43 to .51		
Y4F		1/4"	female/female	4 to 125	303 SS (SS)			.61 to .98
Y6F		3/8"	female/female	4 to 125	Delrin (DE)	1.09 to 1.46		

SENSORS

Pneumatic Pressure Switch

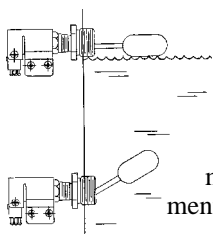


The Pneumatic Pressure Switch combines a pressure sensing element and a spool valve to produce a switching device with an adjustable set point. The assembly is non-electric, using only air or inert gas in the switch unit.

The pressure sensor is compatible with air, water, steam, oil and many corrosive liquids or gases. Setpoint is adjustable – vacuum up to 6000 psig.

Air signals from the 5 ported 4-way valve in the switch unit can be either vacuum or positive pressure up to 100 psig. **Request Bulletin OK-043.**

Pneumatic Liquid Level Switch

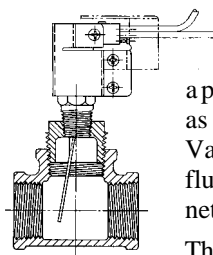


The Liquid Level Switch is an air sensor for detecting liquid level inside a vessel. The float mechanism mounted within the vessel operates a ceramic coated magnet. A magnetically actuated sensor on the outside of the solid metal housing reacts to the inner magnet movement. The movement shifts a 3-way air valve.

Both side mounted (shown here) and top mounted units are available. Wetted materials are brass or stainless steel.

The magnetic sensor unit operates at air pressure from 30 to 100 psig. The 3-way valve signals can pilot alarms or control elements. **Request Bulletin OK-242.**

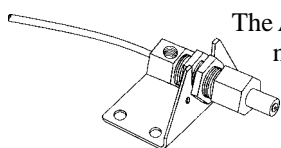
Pneumatic Flow Switch



The Pneumatic Flow Switch is an air sensor for detecting the flow of liquids or gases in a pipe. A paddle extends into the fluid and deflects as the stream velocity increases or decreases. Various sized paddles establish the particular fluid stream flow rate at which the external magnetic sensor is actuated.

The air sensor is a 3-way valve which operates at pressures from 30 to 100 psig. Flow switch units are available from 1/2" to 2" NPT. Wetted materials are brass or stainless steel. **Request Bulletin OK-268.**

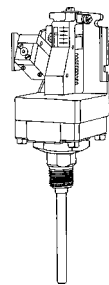
Air Jet Proximity Sensor



The Air Jet Proximity Sensor is a non-contact no-moving-part sensor, capable of detecting the presence of an object at ranges up to 1/8". In the absence of an object, air flows freely from the sensor resulting in a near zero output signal. The presence of an object within the sensing range deflects the normal air flow and results in a positive output signal.

Air supply pressure is 0.5 to 10 psig. Output signals are low pressure and sufficient to actuate air/electric switches or air/air amplifiers. **Request Brochure OK-098.**

Pneumatic Temperature Switch

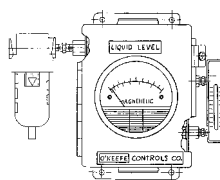


The Pneumatic Temperature Switch combines a temperature sensing element and a spool valve to produce a switching device with an adjustable set point. The assembly is non-electric, using only air or inert gas in the switch unit.

The temperature sensor is available in direct mount (shown here) or with a bulb and capillary. Wetted materials are copper or stainless steel.

Air signals from the 5 ported 4-way valve in the switch unit can be either vacuum or positive pressure up to 100 psig. **Request Bulletin OK-088.**

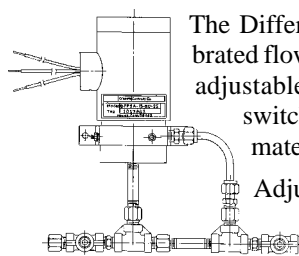
Pneumatic Liquid Level Indicator



The Liquid Level Indicator displays the height of liquid above the tip of an air tube immersed in the liquid. A small amount of air bubbles through the liquid of a vented vessel. The back pressure in the sense tube is displayed on a gage. This back pressure corresponds to the height of the liquid above the top of the sense tube.

Ranges of liquid height vary from 0-1 in. to 0-60 ft. **Request Bulletin OK-267.**

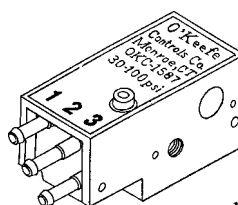
Differential Pressure Flow Switch



The Differential Pressure Flow Switch uses a calibrated flow element to provide pressure signals to an adjustable setpoint differential pressure electric switch. Gases or liquids can be used. Wetted materials are aluminum, brass or stainless steel.

Adjustable flow rate setpoints are available for water flow ranges from 15-50 scfm to 4-12 GPM. **Request Bulletin OK-269.**

Magnetic Proximity Sensor

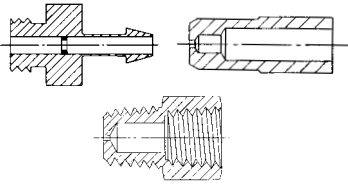


The Magnetic Proximity Sensor detects the presence of a magnetic or steel part in its near vicinity. The 3-way normally closed air valve is actuated when in the presence of a small magnet or steel part. The valve deactuates when the small magnet or steel part is removed.

Since magnetic fields penetrate materials such as aluminum or stainless steel, the proximity sensor readily detects a properly polarized magnetic piston in a cylinder constructed with aluminum or stainless steel barrels. It is often used in place of limit switches to detect end of stroke position.

The sensor is available with mounting straps for attachment to a round cylinder barrel. **Request Brochure OK-248.**

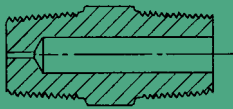
PRODUCTS MANUFACTURED BY O'KEEFE CONTROLS CO.



Precision Orifices

"Over 6000 Choices"

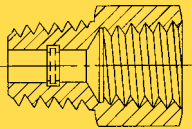
Sapphire, Brass, Stainless Steel



Micro-Orifices®

"Diameter as small as .0003 inch"

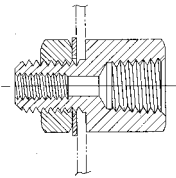
Brass or Stainless Steel



In-Line Screen Products

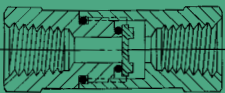
"Protect Small Orifices"

10 to 100 microns



Miniature Stainless Steel Fittings

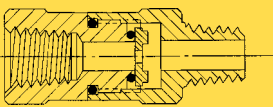
*"Adapters, Bulkheads,
Couplings, Barbs"*



Check Valves

"Vacuum to 2000 psig"

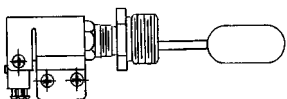
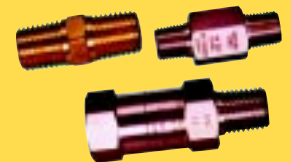
Brass or Stainless Steel



Fixed Flow Controls

"For Cylinder Speed Control"

Brass or Stainless Steel



Pneumatic Sensors

*"For Pressure, Temperature,
Flow, Level, Proximity"*



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