

DRYPOINT® FDR

modular point-of-use membrane drying packages



Features and Benefits

+ Twist 45 Technology

Highest possible performance with 45° wound fibers

+ Maximum Reliability

Designed to perform even in the toughest environments

+ Nearly Instant Results

Achieves dew point in 10-minutes or less



+ Maintenance Free

With no moving parts, reliable even in mobile applications

+ Perfect Design

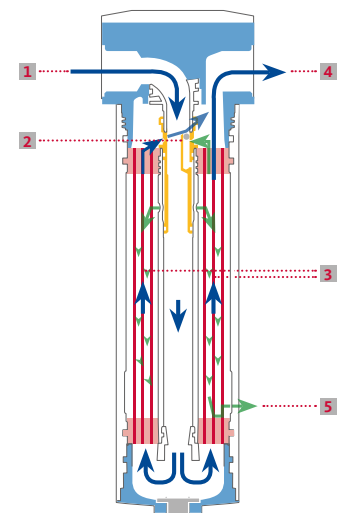
Small footprint with several configurations

+ Modular System

Easily alter dew point, flow rate capacity, or both with a single component change

How it Works

- 1 The compressed air flows into the center tube at the core of the membrane dryer.
- 2 The purge air required for drying is continuously diverted at the outlet zone of the membrane element and is atmospherically expanded through a defined nozzle opening. This purge air is significantly drier due to the expansion process, as the humidity contained in the compressed air is now increased to a larger volume. The dry purge air then passes over the outside of the membrane fibers.
- 3 Two air flows with different moisture contents move in a countercurrent through the membrane element, and are only separated by the membrane wall. The humid compressed air flows inside the hollow-fibers of the membrane, and the dry purge air flows outside. As a result of the different moisture contents, the humidity diffuses from the compressed air into the purge air. The drying process is highly efficient thanks to the tightly controlled and specific method of winding the membrane fibers, the TWIST 45 technology.
- 4 The dry compressed air leaves the membrane dryer as flows downstream.
- 5 The humid purge air is released into the environment.



Technical Details

DRYPOINT® FDR Membrane Dryers

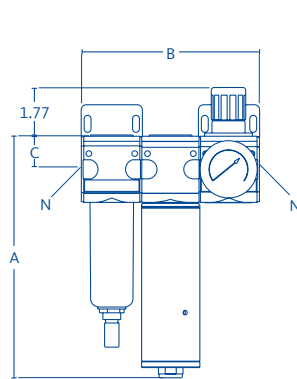
pre-configured filter, dryer and pressure regulator packages

- › Pre-configured FDR packages include all required filtration
- › Custom configurations available to suit application
- › Min. ambient air temperature: 34 °F
- › Max. standard operating conditions: 140 °F / 100 psig
- › Max. optional operating conditions: 120 °F / 180 psig

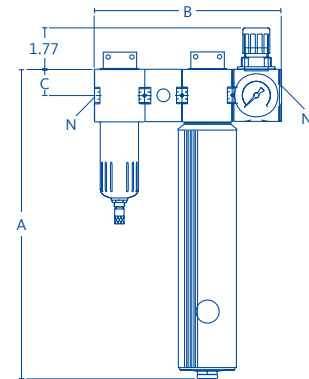
Micro-Filter	
Medium	Compressed Air
Connection Size	1/4" NPT
Drain Type	Automatic Float
Filtration Grade	0.01 µm
Particle Separation	0.01 µm
Residual Oil Content	0.01 mg/m ³
Operating Pressure	21 to 232 psig
Temperature range	32°F to 140°F

Membrane Dryer	
Medium	Compressed Air
Connection Size	1/4" NPT
Differential Pressure	1.45 to 4.35 psid
Max. Standard Operating Conditions	140°F / 100 psig
Max. Optional Operating Conditions	120°F / 180 psig
Minimum Ambient Air Temperature	34°F

Regulator	
Medium	Compressed Air
Connection Size	1/4" NPT
Max. Supply Pressure	232 psig
Temperature range	32°F to 140°F



Filter + membrane dryer + pressure regulator + wall bracket



Filter + membrane dryer + pressure regulator + wall bracket

DRYPOINT® FDR	FDR 2	FDR 4	FDR 6	FDR 8	FDR 10	FDR 12	FDR 17
Connection Size (NPT)	¼"	¼"	¼"	¼"	¼"	¼"	¼"
Inlet Flow Rate (scfm)	2.09	4.18	6.27	8.36	11.34	12.55	16.73
Dimensions and Weight							
A (inches)	7.48	9.44	11.02	13.38	13.38	16.14	18.50
B (inches)	5.51	5.51	5.51	5.51	6.88	6.88	6.88
C (inches)	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Weight (lbs)	2.97	3.15	3.30	3.50	6.39	6.83	7.27



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