

# **DM Series** Desiccant-Membrane Dryer

## **Compact Dryer Provides Moisture Protection For Portable Applications**

Perma Pure DM Series desiccant-membrane dryers are ideal for applications requiring portability. No power or purge gases are required, yet the compact-sized dryer removes water vapor from a flowing gas stream for hours, leaving other components in the gas unaffected. The dryer can be reused repeatedly and can be recharged in moments by replacing its desiccant.

#### **Key Features**

- Removes only water vapor
- Continuous drying
- Low sample dew point
- No utilities needed

- Fast response time
- Rugged construction
- Excellent corrosion resistance
- Lightweight and portable

### Principle of Operation

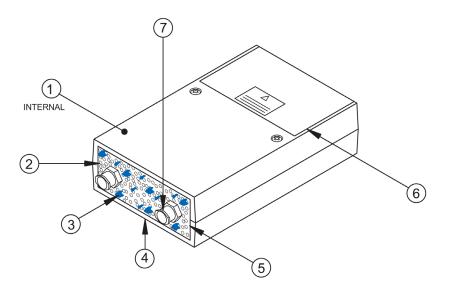
Perma Pure's DM Series gas dryers combine the selectivity of Nafion<sup>™</sup> with the simplicity of desiccant canister dryers. Gas sample flowing through the dryer contacts only Nafion<sup>™</sup> tubing, which very selectively absorbs water vapor from the gas while quantitatively retaining the remaining sample components in the gas stream. Typically water passing through the Nafion<sup>™</sup> tubing wall is carried away by a dry purge gas; in the DM Series dryers, desiccant packed around the tubing absorbs the water.



The sample gas flows through a 24-inch strand of Nafion<sup>™</sup> tubing with polypropylene monofilament braiding for protection. Water passing through the tubing wall is absorbed by a molecular sieve desiccant. Scattered crystals of indicating desiccant can be observed through the clear window to monitor the condition of the desiccant. The impact-resistant molded plastic case contains a snap-lock door for easy removal and replacement of desiccant. Luer and barb gas connections are standard. Other fittings are available on request.

Model	DM-060-24	DM-110-24
Flow Rate	Up to 500 mL/min.	Up to 1 L/min.
Drying Efficiency	Down to -30°C dew point	Down to -30°C dew point
Housing	Molded ABS, 4.2" x 2.4" x 1.0"	Molded ABS, 5.0" x 2.75" x 1.5"
Desiccant	4 Å molecular sieve	

Making Analysis Possible



Description	
24″ Nafion™ tube dryer	
Molecular sieve desiccant	
Scattered crystals of indicating desiccant	
Clear window	
Molded ABS plastic case	
Snap lock door	
Gas connection fittings (Luers shown)	

#### Sample Fittings

Both the DM-060 and DM-110 are supplied with the following fittings:

- Female luer fittings, mounted to the enclosure
- 1/8" barb adapter

An optional 1/8" tube compression fitting is available using part numbers DM-060-24-COMP-2 or DM-110-24-COMP-2

Model	DM-060-24	DM-110-24
Replacement Dryer	ME-060-24BB	ME-110-24BB
Replacement Desiccant	DM-AR	DM-AR
Desiccant	2.5 oz.	5.5 oz.
Housing	4.2" x 2.4" x 1.0"	5.0" x 2.75" x 1.5"
Dryer Tube Inner Diameter	0.052″	0.086″
Drying Per Charge	72 liters per desiccant refill	150 liters per desiccant refill

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