



# Immersion Proof Breathers



AGM CONTAINER CONTROLS, INC.  
PO BOX 40020 • TUCSON ARIZONA 85717-0020  
TEL: 800-995-5590 (520) 881-2130 • FAX: (520) 881-4983  
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ISO 9001:2000  
CERTIFIED



Sustaining Member

CATALOG 041P



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## CHARACTERISTICS & APPLICATIONS

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Membrane keyboards and similar pressure sensitive equipment are often required to operate under adverse environmental conditions, one of which might be immersion under water. This has resulted in a need for a breathing device that permits air pressure equalization, but protects the equipment from water intrusion.

AGM offers a wide range of immersion breathers and breather desiccators designed to meet these requirements. These breathers, due to the nature of their construction, only permit a low air flow rate, approximately 150 cc per minute at 1 psig differential.

Immersion protection can be provided for liquid water depths up to 45 feet for as long as

24 hours. Breathers can withstand water pressure differentials up to 15 psig and will limit water vapor transmission to 0.05 grams in 24 hours. They can operate at temperatures from -40°F to 257°F.

The breathers are solvent and oil resistant, have high filtration efficiency (nominal filtration is 1 micron), are easily installed and are available in a variety of housing materials in thread sizes from M3 to M16.

Typical applications include: computer keyboards, meteorological instruments, IP enclosures, gearboxes and transmissions, hand held terminals, battery housings, azimuth sealed devices and equipment needing protection from hose down requirements.

### WATER VAPOR VS. WATER

Confusion often arises when discussing immersion breathers and their performance when subjected to water vapor and immersion in water. The hydrophobic properties of the membrane prevent the breakthrough of liquid water, but allow the continuous permeation of water vapor.

Other gases with a similar molecular size (~3.1Å or less) to water vapor also permeate through the membrane. Most panel mounting immersion breathers can be fitted with a desiccator to adsorb water vapor and other contaminants.





# Immersion Proof Breathers

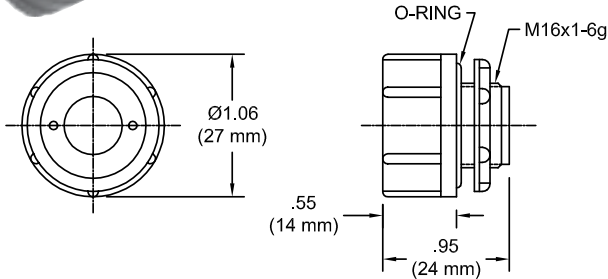
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## BREATHERS & BREATHER DESICCATORS

### PLASTIC IMMERSION BREATHER



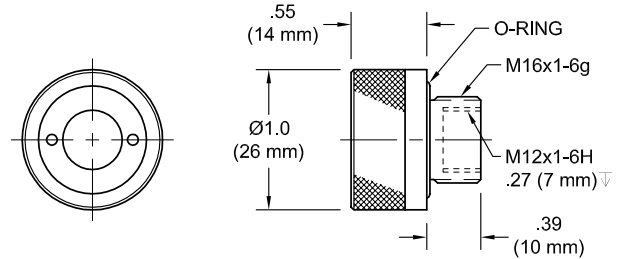
Part No. TA244-1  
 Mounting: Nut Provided  
 Material: Polycarbonate Black  
 O-ring: Nitrile



### IMMERSION BREATHER



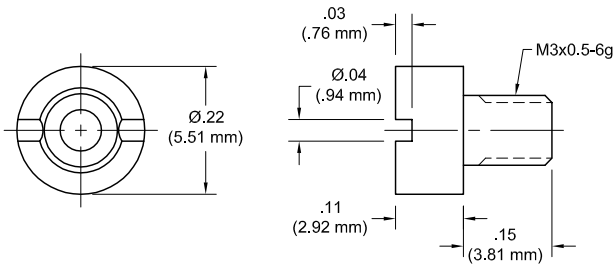
Part No. TA251-1-RF  
 Mounting: Into Threaded Boss  
 Material: Aluminum Alloy  
 O-ring: Fluorosilicone



### MINI IMMERSION BREATHER



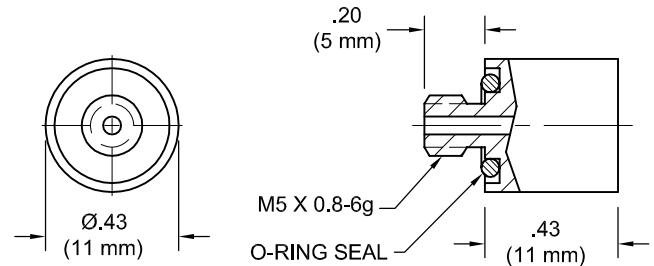
Part No. TA250-1  
 Mounting: Into Threaded Boss  
 Material: Stainless Steel



### HALO IMMERSION BREATHER



Part No. TA252-015  
 Mounting: Into Threaded Boss  
 Material: Aluminum Alloy  
 O-ring: Nitrile

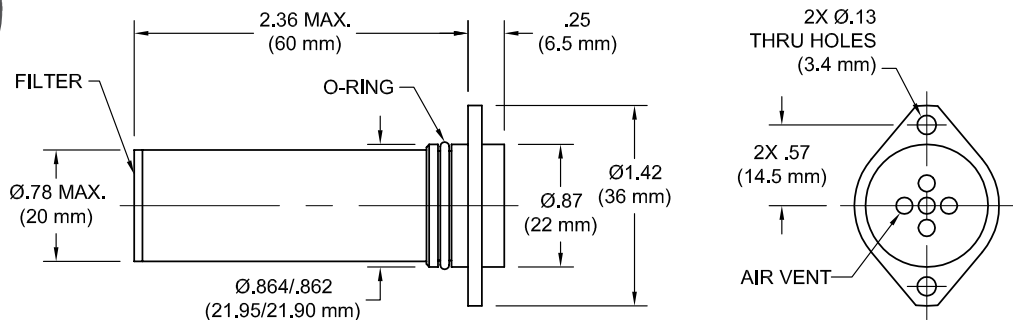


### IMMERSION BREATHER/DESICCATOR



Part No. TA253-1  
 Mounting: Oval Flange MS Screws

Material: Aluminum Alloy  
 O-ring: EPDM



# QUALITY PRODUCTS FROM



Catalog "B"



Catalog "IP"



Catalog "D"



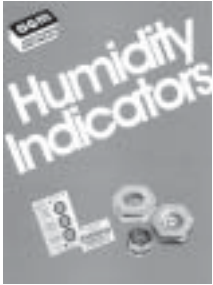
Catalog "T"



Catalog "K"



Catalog "SD"



Catalog "H"



Catalog "R"



Catalog "P"



Catalog "DV"



Catalog "S"



Catalog "SW"

**AGM CONTAINER CONTROLS, INC.**, backed by four decades of leadership in the manufacture of container hardware, has developed many products for military, electronic and industrial packaging, handling, storage and transportation applications. Individual catalogs (illustrated above) describing these products are available upon request. You are also cordially invited to phone, fax or e-mail for specific information regarding custom design, or to request assistance on your current and future requirements.

**BREATHER VALVES** Prevent excessive pressure or vacuum buildup in sealed containers, reducing weight, cube and cost. Meet SAE AS27166. Related item: Manual Relief Valves.

**IMMERSION PROOF BREATHERS** Permit air pressure equalization, but keep out liquid water. For use on membrane keyboards and similar pressure sensitive equipment that must operate under rain or water submersion conditions.

**DESICCATORS** Standard and custom-designed static drying units to fit a wide variety of applications. Valves and/or humidity indicators can be incorporated.

**TIE DOWNS** Patented over-center action of KevLok® fastener locks in tension. Adjustable. Holds tight, with quick release. Assemblies for military, industrial and recreational purposes. Also available: ratchet and cam buckle assemblies.

**TIE DOWN SHELVEING** For transport of delicate instruments in vans, trailers, etc. Meets Navy MIL-S-901D shock test for shipboard use. Padded aluminum shelving has recessed channels which accept adjustable KevLok® straps with quick attach/release end fittings.

**SHELTER STATIC DEHUMIDIFIERS (SSD)** Protect COTS equipment in mobile shelters for up to two years on a single bulk desiccant charge. Can be recharged from outside shelter.

**HUMIDITY INDICATORS** Provide external monitoring of humidity levels inside containers. Meet SAE AS26860. Related items: Propellant Leak Detectors and Observation Windows.

**RECORDS HOLDERS** Provide access to documentation or accessories without opening container. Records Holders compartment is sealed from the inside of the container.

**DESICCANT** AGM is a stocking distributor of Süd-Chemie Performance Packaging's Desi Pak® (which exceeds MIL-D-3464E requirements maintained within MIL-STD- 2073-1C), Sorb-It®, Tri-Sorb®, Desi View® and Container Dri® products. Custom packaging of bulk desiccant available.

**DRUM VENT DRYERS** Prevent contamination of chemical products (powders, liquids and semi-solids) in 55-gallon storage drums. Reusable – saturated color change silica gel desiccant is easily replaced.

**SHOCKMASTER®** Shock overload indicators provide low cost detection of transport and handling damage. Compact, accurate and reusable. "Red-flags" shipments which have been subjected to excessive shock or vibration.

**SHOCKWATCH** Single-use impact-detection device guards against careless handling. Self-adhesive label incorporates a tiny liquid filled tube that turns red when package is dropped.

Employee  
Owned



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