

## Product Profile:

# Humidity Indicator Plugs

Humidity indicator plugs allow for visual inspection of the humidity level inside a package without opening it

### What are humidity indicator plugs?

Mounted through a container wall, humidity indicator plugs measure relative humidity levels while being read from the outside of the container. A large, clear viewing window allows for easy reading. Humidity indicator plugs are compatible with rigid-wall equipment and electrical housings, as well as most flexible barriers. Humidity plugs provide a simple, cost-effective alternative to electrical and mechanical humidity indication units. They are adaptable to virtually all applications for Method II packaging of Mil-P-116 and AS26860 aerospace specifications. The compact plugs are designed to be leak-resistant and temperature-proof and to withstand shock and vibration.

The plugs readily detect any change in relative humidity in a sealed package. Available in a variety of sizes and configurations, the indicating card inside the plug is accurate within 5%. The cards are available to detect from 5-100% relative humidity.



### Installation

These humidity indicator plugs are mounted internally on flexible barriers, plastic and fiber bags, equipment and electrical housing, and other humidity-controlled spaces. Humidity indicator plugs are quickly installed with common hand tools.

### Handling

1. It is recommended that the humidity be read near 75° F.
2. The indicators are water-soluble and should not be placed in direct contact with water or steam. Ammonia gases will damage the indicators.
3. The indicators are totally reversible and will change back and forth depending on the percentage of relative humidity. They should be stored in their original shipping containers until ready for installation.



### Typical Applications:

- Military/Aerospace
- Metallic materials
- Organic materials
- Synthetic materials
- Transportation systems
- Hydraulic systems

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## Appendix: Specifications for Humidity Indicator Plugs

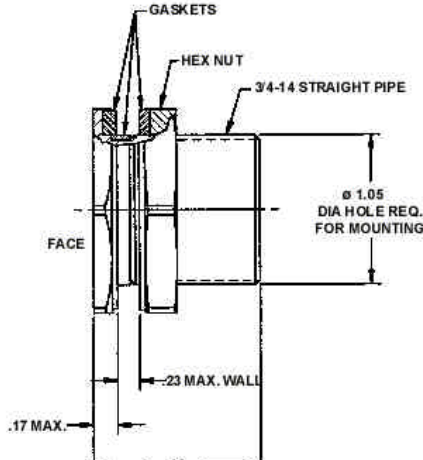
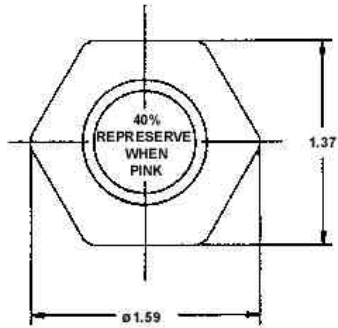
Label and Application	Material Finish	Finish	Thread Size	Max. Internal Pressure	Refer to Profile:
<p><b>2156, 2161, and 2157 Humidity Indicator Plugs</b>                      The 2156 can be installed in a flexible barrier through a 1.05" diameter hole. A locknut and two gaskets are furnished. The 2156 may also be installed in a rigid container through a 1.05" diameter hole by using only one gasket and reversing the locknut. By using only one gasket and the locknut, the 2156 can be installed in a 3/4-14 pipe threaded boss. The 2161 has a round face and O-ring seal for limited space installations. It does not include a locknut. The 2157 has a 1.125" length to allow for installation in containers with thick walls. All plugs meet requirements of AS26860 and Mil-P-116 Method II.</p>	Aluminum QQ-A-225/5 or /6	Clear Anodized	3/4"-14 Straight Pipe	10 PSI	A
<p><b>2155 Humidity Indicator Plug</b>                      The 2155 can be installed in a rigid container through a 1.05" diameter hole. Locknut, gasket, and retaining ring are furnished. It can also be installed in a rigid container, through a 3/4"-14 straight pipe threaded boss, by eliminating the retaining ring and the locknut. It meets requirements of AS26860 as applicable and Mil-P-116 Method II.</p>	Brass QQ-B-626	Zinc Plate	3/4"-4 Straight Pipe	10 PSI	B
<p><b>R2156 Humidity Indicator Plug</b>                      The R2156 is specifically designed for flexible barriers. It has all the features of the 2156, but by reversing its viewing face, it is easier to install. It provides the same tight seal through a 1.05" diameter hole. Locknut and two gaskets are included. It meets requirements of AS26860 as applicable and Mil-P-116 Method II.</p>	Aluminum QQ-A-225/5 or /6	Clear Anodized	3/4"-14 Straight Pipe	10 PSI	B
<p><b>2175 Humidity Indicator Plug</b>                      The 2175 can be installed in a flexible barrier through a 1.45" diameter hole. Locknut and two gaskets are furnished. It may also be installed in a rigid container through a 1.45" diameter hole by using one gasket and reversing the locknut. By eliminating one of the gaskets and the locknut, the 2175 can be installed in a 1.4375"-18 UNEF threaded boss. It meets requirements of AS26860 and Mil-P-116 Method II.</p>	Aluminum QQ-A-225/5 or /6	Clear Anodized	1.4375"-18 UNEF	10 PSI	C
<p><b>2175R Humidity Indicator Plug</b>                      The 2175R can be installed in a rigid barrier through a 1.45" diameter hole. Locknut and gasket are furnished. By using only one gasket, the 2175R can be installed in a 1.43275"-18 UNEF threaded boss. It meets requirements of AS26860 as applicable and Mil-P-116 Method II.</p>	Aluminum QQ-A-225/5 or /6	Clear Anodized	1.4375"-18 UNEF	10 PSI	C
<p><b>SK412 and SK413 Humidity Indicator Plugs</b>                      The SK412 can be installed in shipping containers, storage cabinets, and equipment housings that require a smaller indicator plug. The SK412 can be installed in a container through a 0.5 diameter hole. Locknut, gasket, and retaining ring are furnished. The SK413 is installed in a 1/2"-20 UNEF threaded boss. The SK413 O-ring provides an airtight seal with minimum torque.</p>	Brass QQ-B-626	Zinc Plate	1/2"-20 UNEF	10 PSI	D
<p><b>2184 Humidity Indicator Plug</b>                      The 2184 was created for high pressure applications. The glass window is fused directly to the steel body and the 3/4"-14 pipe thread is tapered for leak tight installations without O-rings or gaskets. The 2184 is easily installed in a threaded boss with a 1 1/8" socket wrench. The indicator plug is protected from contamination by a porous filter and polyethylene spacer. The humidity indicator card, filter, and spacer are held in place by a retaining ring. Locknuts and gaskets are not supplied. It is designed for threaded boss only.</p>	Stainless Steel	Electroless Nickel	3/4"-14 Tapered Pipe	3000 PSI	E

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Profile A:

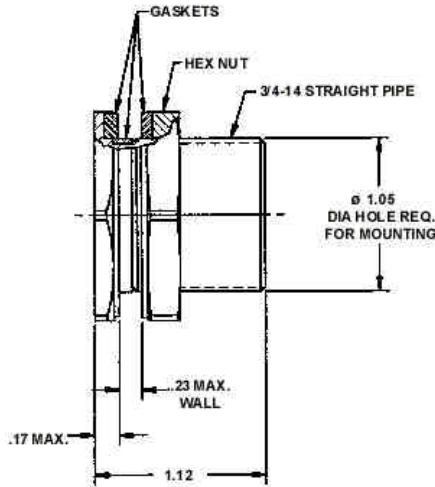
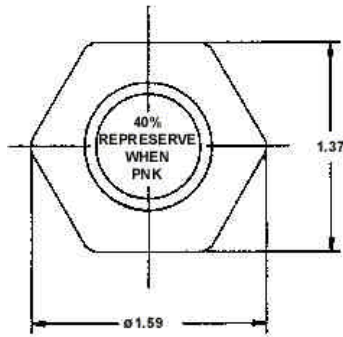
# Humidity Indicator Plugs

## 2156 Humidity Indicator Plug



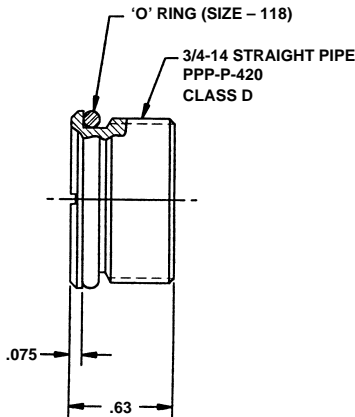
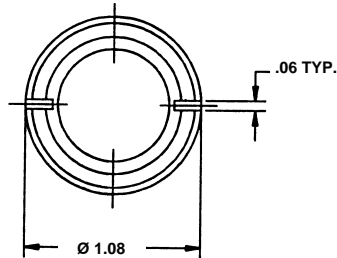
The **2156** can be installed in a flexible barrier through a 1.05" diameter hole. A locknut and two gaskets are furnished. The 2156 may also be installed in a rigid container through a 1.05" diameter hole by using only one gasket and reversing the locknut. The 2156 can be installed in a 3/4"-14 pipe threaded boss.

## 2157 Humidity Indicator Plug



The **2157** is the same as 2156 with a 1.125" length to allow for installation in containers with thick walls.

## 2161 Humidity Indicator Plug



The **2161** is similar to the 2156, except it has a round face and O-ring seal for limited space installations. It does not include a locknut.

## Specs: 2156, 2157 & 2161

- Material:** Aluminum QQ-A-225/5 or /6
- Finish:** Clear Anodized
- Thread Size:** 3/4"-14 Straight Pipe
- Max. Internal Pressure:** 10 PSI
- Military Specifications:** AS26860 Type II and Mil-P-116 Method II

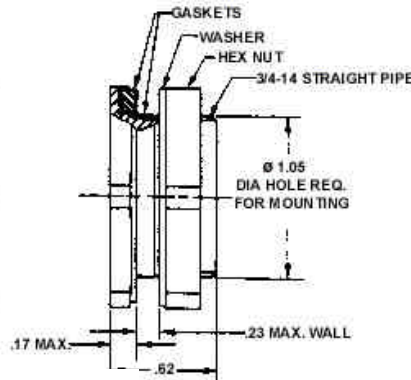
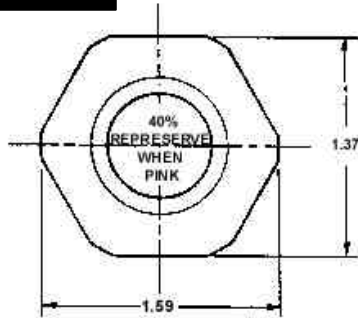
*Samples not to scale*

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## Profile B:

# Humidity Indicator Plugs

### 2155 Humidity Indicator Plug



The **2155** can be installed in a rigid container through a 1.05" diameter hole. Locknut, gasket, and retaining ring are furnished. It can also be installed in a rigid container, through a 3/4"-14 straight pipe threaded boss, by eliminating the retaining ring and the locknut.

**Material:** Brass QQ-B-626

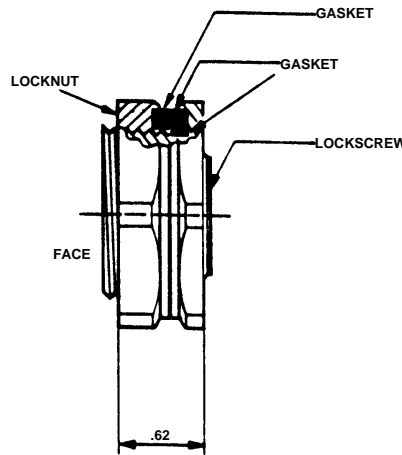
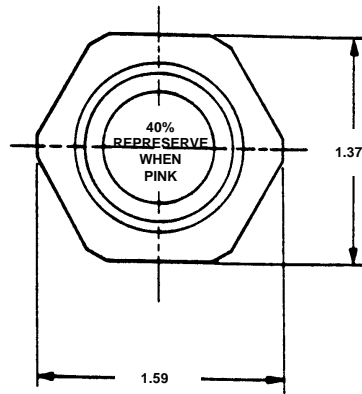
**Finish:** Zinc Plate

**Thread Size:** 3/4"-14 Straight Pipe

**Max. Internal Pressure:** 10 PSI

**Military Specifications:** AS26860 as applicable and Mil-P-116 Method II

### R2156 Humidity Indicator Plug



The **R2156** is specifically designed for flexible barriers. It has all the features of the 2156, but by reversing its viewing face, it is easier to install. It provides the same tight seal through a 1.05" diameter hole. Locknut and two gaskets are included.

**Material:** Aluminum QQ-A-225/5 or /6

**Finish:** Clear Anodized

**Thread Size:** 3/4"-14 Straight Pipe

**Max. Internal Pressure:** 10 PSI

**Military Specifications:** AS26860 as applicable and Mil-P-116 Method II

*Samples not to scale*

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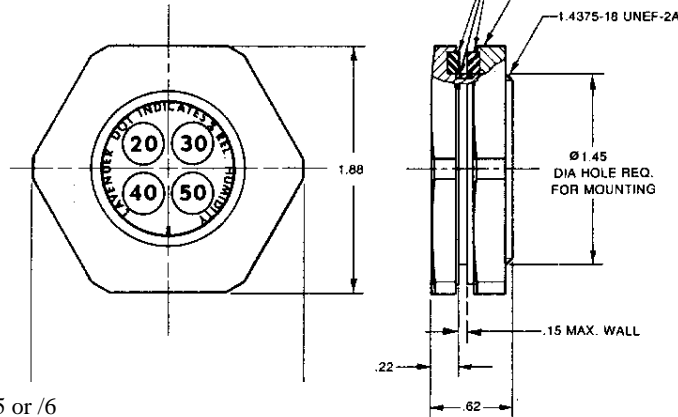
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## Profile C:

# Humidity Indicator Plugs

### 2175 Humidity Indicator Plug



**Material:** Aluminum QQ-A-225/5 or /6

**Finish:** Clear Anodized

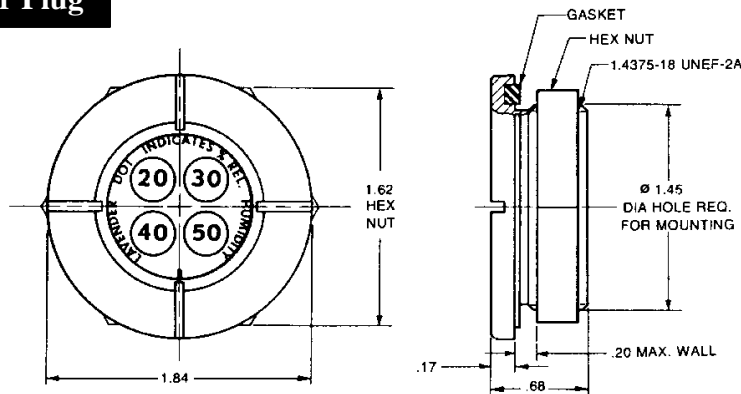
**Thread Size:** 1.4375"-18 UNEF

**Max. Internal Pressure:** 10 PSI

**Military Specifications:** AS26860 and Mil-P-116 Method II

The **2175** can be installed in a flexible barrier through a 1.45" diameter hole. Locknut and two gaskets are furnished. It may also be installed in a rigid container through a 1.45" diameter hole by using one gasket and reversing the locknut. By eliminating one of the gaskets and the locknut, the 2175 can be installed in a 1.4375"-18 UNEF threaded boss.

### 2175R Humidity Indicator Plug



**Material:** Aluminum QQ-A-225/5 or /6

**Finish:** Clear Anodized

**Thread Size:** 1.4375"-18 UNEF

**Max. Internal Pressure:** 10 PSI

**Military Specifications:** AS26860 as applicable and Mil-P-116 Method II

The **2175R** can be installed in a rigid barrier through a 1.45" diameter hole. Locknut and gasket are furnished. By using only one gasket the 2175R can be installed in a 1.43275"-18 UNEF threaded boss.

*Samples not to scale*

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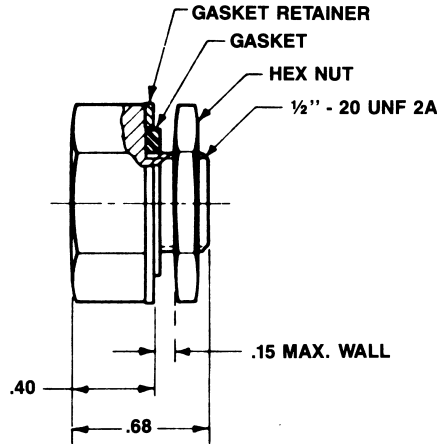
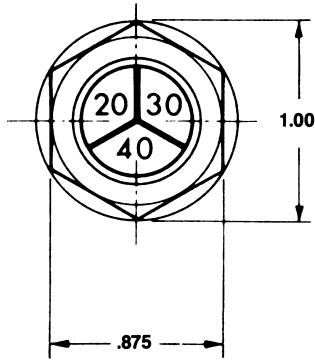
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## Profile D:

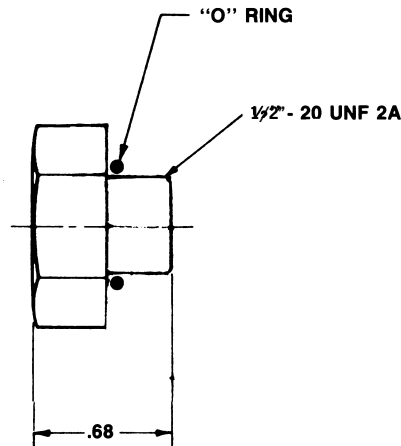
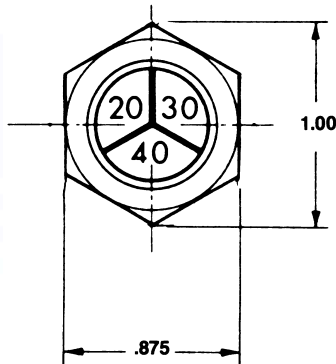
# Humidity Indicator Plugs

### SK412 Humidity Indicator Plug



The SK412 can be installed in shipping containers, storage cabinets and equipment housings that require a smaller indicator plug. The SK412 can be installed in a container through a 0.5 diameter hole. Locknut, gasket, and retaining ring are furnished.

### SK413 Humidity Indicator Plug



The SK413 is installed in a 1/2"-20 UNEF threaded boss. The SK413 O-ring provides an airtight seal with minimum torque.

### Specs: SK412 & SK413

**Material:** Brass QQ-B-626

**Finish:** Zinc Plate

**Thread Size:** 1/2"-20 UNEF

**Max. Internal Pressure:** 10 PSI

**Military Specifications:** MS 18013-3 (SK412-234P Only)

*Samples not to scale*

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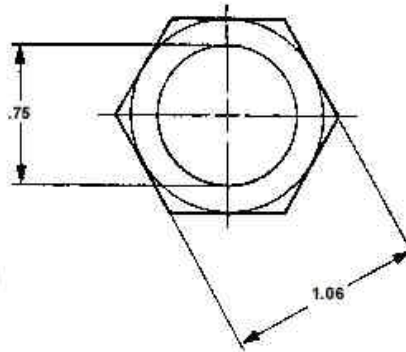
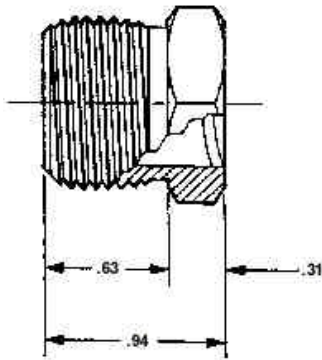
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## Profile E:

# Humidity Indicator Plugs

## 2184 Humidity Indicator Plug



**Material:** Stainless Steel  
**Finish:** Electroless Nickel  
**Thread Size:** 3/4"-14 Straight Pipe  
**Max. Internal Pressure:** 3000 PSI

The **2184** was created for high pressure applications. The glass window is fused directly to the steel body and the 3/4"-14 pipe thread is tapered for leak-tight installations without O-rings or gaskets. The 2184 is easily installed in a threaded boss with a 1 1/8" socket wrench. The indicator plug is protected from contamination by a porous filter and polyethylene spacer. The humidity indicator card, filter, and spacer are held in place by a retaining ring. Locknuts and gaskets are not supplied. It is designed for threaded boss only.

*Sample not to scale*

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