

# MINI IMMERSION BREATHERS



## Product Description

Mini Breathers have been designed for equipment that are limited to the amount of space available. For example, handheld radios, battery packs, remote control devices and membrane keyboards.

### M3 Thread Stainless Steel Immersion Breather

This Immersion Proof Breather is the smallest unit we offer and made from stainless steel. The hydrophobic membrane allows free breathing to occur but will not allow liquids to pass through. The unit is very low profile and utilises a standard M3 metric thread for fitting. It is IP67 rated meaning the unit can be immersed in water of 1 metre for 2 hours. It comes in another type which features an O-ring groove for sealing.

### M3 Thread Plastic Immersion Breather

This Immersion Proof Breather is the smallest unit we offer and made from black nylon parts which are injection moulded. The unit is very low profile and utilises a standard M3 metric thread for fitting. It is IP67 rated meaning the unit can be immersed in water of 1 metre for 30 minutes.

### 10-32UNF-2A Thread AA Immersion Breather

The unit is very low profile and utilises a 10-32UNF-2A thread for fitting.

## Industries Served

- Aerospace
- Electronics
- Engineering
- Power & Refinery



## Models Available

### M3 Thread Stainless Steel Immersion Breather



### M3 Thread Plastic Immersion Breather



### Mini Immersion Breather M5



### 10-32UNF-2A Thread AA Immersion Breather



## Key Features

- Air transfer "in & out"
- Threaded or lock nut mounted option
- Immersion protection to 5m
- Immersion time period up to 24hrs
- Constant pressure equalization
- Solvent and oil resistant
- Temperature range from -40 degrees to +125 degrees
- High filtration efficiency
- Choice of housing materials
- Easy installation
- IP 67 rating



## Product Specifications

- Computer Keyboards
- Meteorological Instruments
- IP Enclosures
- Handheld Terminals
- Battery Housings
- Azimuth Sealed Applications
- Roto Molded Cases

## Related Products



Silica Gel



Immersion Proof Breathers



Splash Proof Breathers



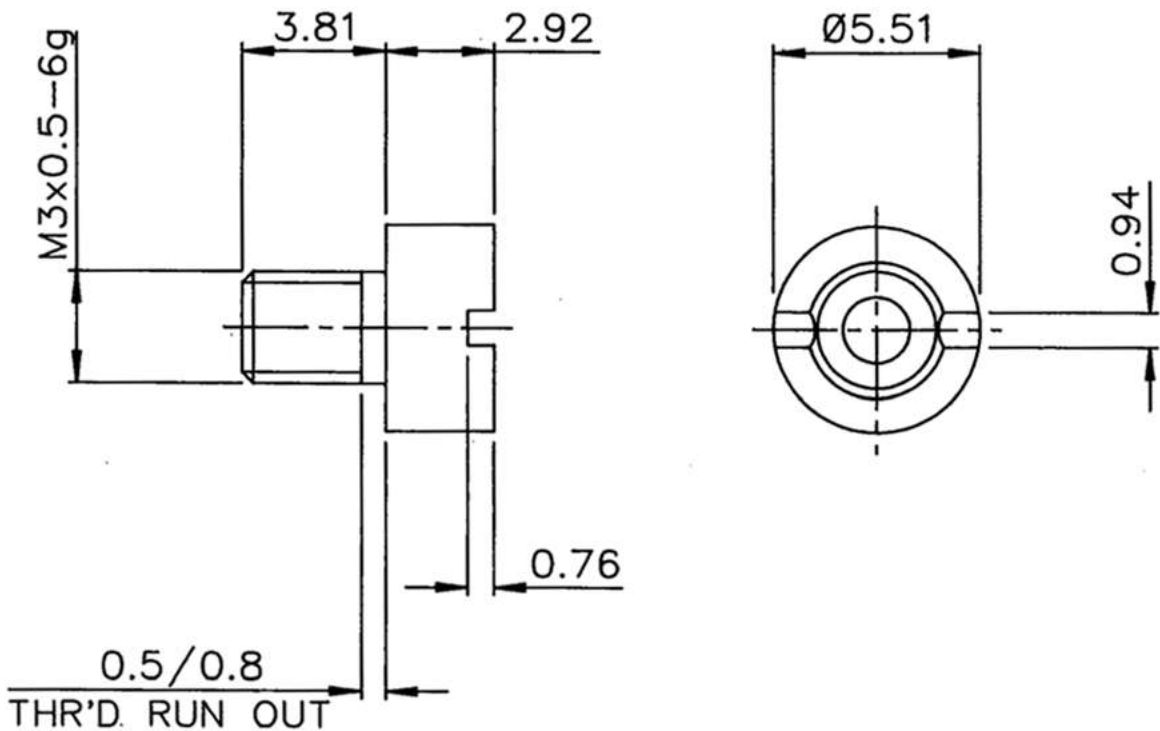
Vent Breathers



DRG No  
BL/D 9036 INST  
USED ON

THIRD ANGLE  
PROJECTION

REMOVE ALL BURRS  
& SHARP EDGES

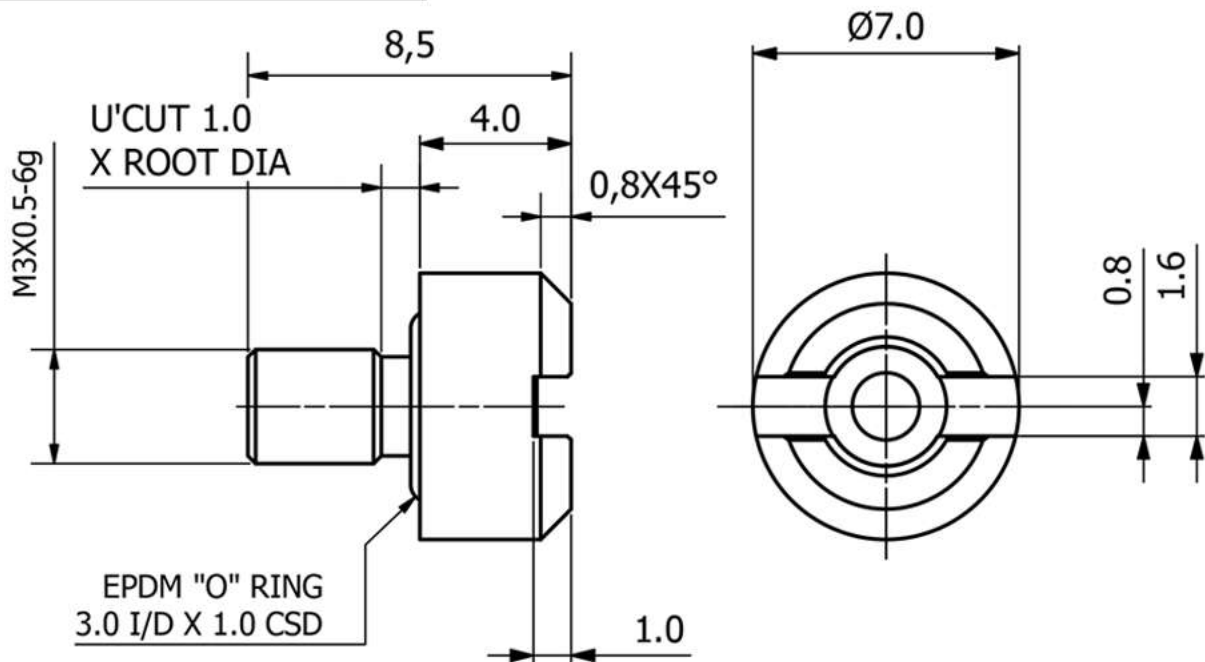


**NOTES**

- MATERIAL: BODY – STAINLESS STEEL TO BS970 PT 1, 303S31.  
FINISH: CLEAN.  
MEMBRANE – MODIFIED ACRYLIC COPOLYMER CAST ON A NONWOVEN POLYESTER SUPPORT. POST TREATED FOR HYDROPHOBICITY THROUGH UV/E BEAM POLYMERIZATION.
- MEMBRANE TO CONFORM TO THE FOLLOWING TEST:  
MIL-STD-810E METHOD 512.3 PROCEDURE 1 AT A DEPTH OF 1 METRE FOR 2 HOURS.

MATERIAL	PROTECTIVE FINISH				
SEE NOTES	SEE NOTES				
EST. WT. —		REDRAWN	5869	B	13/12/01
DIMNS IN mm	SURFACE ROUGHNESS			A	5/7/01
SCALE 5 : 1		CHANGE	MOD No	ISSUE	DATE
		TOLERANCES		GEN TOL ±0.2	
				ANG TOL ±0.5°	
BROWNELL LIMITED LONDON NW10				DRAWN LJ	CHKD S
SUB CONT.		SUB CONT. DRG REF.			
TITLE		DRAWING No			
MINI IMMERSION BREATHER		BL/D 9036 INST			

DRG No BL/D 9290 INST	REMOVE ALL SHARP EDGES UNLESS SPECIFIED	DO NOT SCALE - ASK
USED ON		



**NOTES:**

**1. PERFORMANCE SPECIFICATION:**

NOMINAL FLOW RATE: 30cc/min AT 1" Wg.  
85cc/min AT 6" Wg.  
OPERATING TEMPERATURE RANGE: -40°C TO +75°C.  
STORAGE TEMPERATURE RANGE: -50°C TO +85°C.  
HUMIDITY: 0 TO 100%.  
IMMERSION: DEPTH 1 METRE FOR A DURATION OF 2 HOURS.

**2. MEMBRANE MATERIAL: MODIFIED ACRYLIC COPOLYMER CAST ON A NONWOVEN POLYESTER SUPPORT. POST TREATED FOR HYDROPHOBICITY THROUGH UV/E BEAM POLYMERIZATION.**

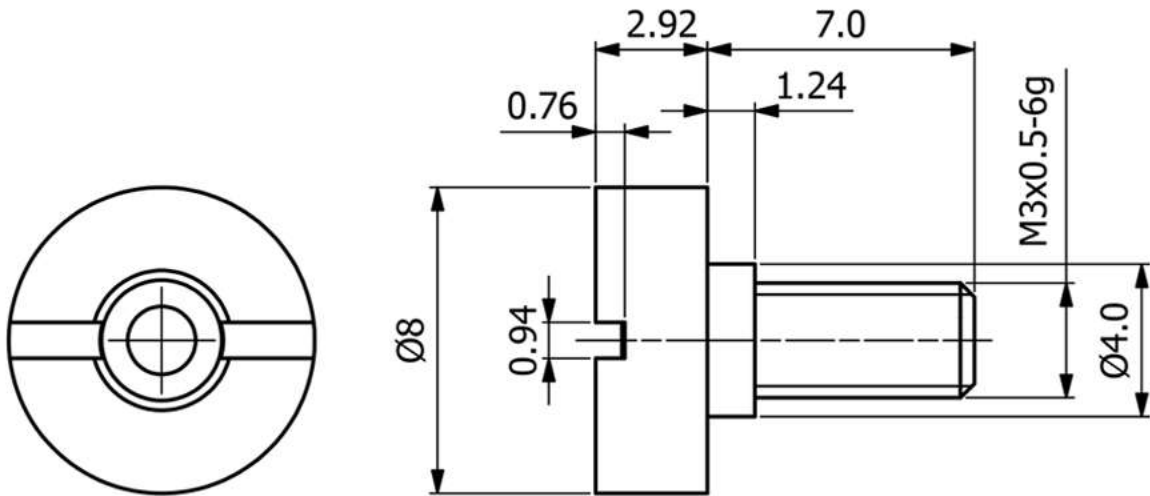
MATERIAL 316 STAINLESS STEEL IAW BS EN 10088-3	PROTECTIVE FINISH  NATURAL (CLEAN FINISH)	MATERIAL CHANGED	6744	6	17/08/15
		EXTERNAL CHAMFER ADJUSTED TO 0.8mm	6314	5	10/07/09
		OUTER AND INNER CHAMFER CHANGED TO 0.1mmX45°	6309	4	22/05/09
		BREATHER HEAD REVISED - SLOT DEEPER & CHAM. ADDED	6057	3	20/08/03
EST. WT. -	THIRD ANGLE PROJECTION	CHANGE	MOD No	ISSUE	DATE
DIMS IN mm	SURFACE TEXTURE	TOLERANCES : UNLESS OTHERWISE STATED	+/- 0.1		
SCALE 5:1	-				
 RED DOT = ORIGINAL  BLACK DOT = COPY	<b>BROWNELL LTD</b> LONDON NW10 7XF		DRAWN	CHECKED	
			RB		
TITLE MINI BREATHER			DRAWING No. BL/D 9290 INST		

DRG No  
BL/D10518 INST

REMOVE ALL SHARP EDGES  
UNLESS SPECIFIED

DO NOT SCALE - ASK

USED ON -----



**NOTES :-**

- 1) MATERIAL :-  
BODY - BLACK 30% GLASS FILLED NYLON 66  
FINISH : CLEAN AND FLASH FREE.
- 2) MEMBRANE : PTFE FILTER MEMBRANE ON A  
POLYPROPYLENE SUPPORT.
- 3) BREATHER WILL WITHSTAND IMMERSION IN WATER TO A DEPTH OF  
1 METRE FOR 2 HOURS WITHOUT ANY WATER INGRESS. MAXIMUM  
TEMPERATURE DIFFERENCE BETWEEN WATER AND BREATHER : 15°C.

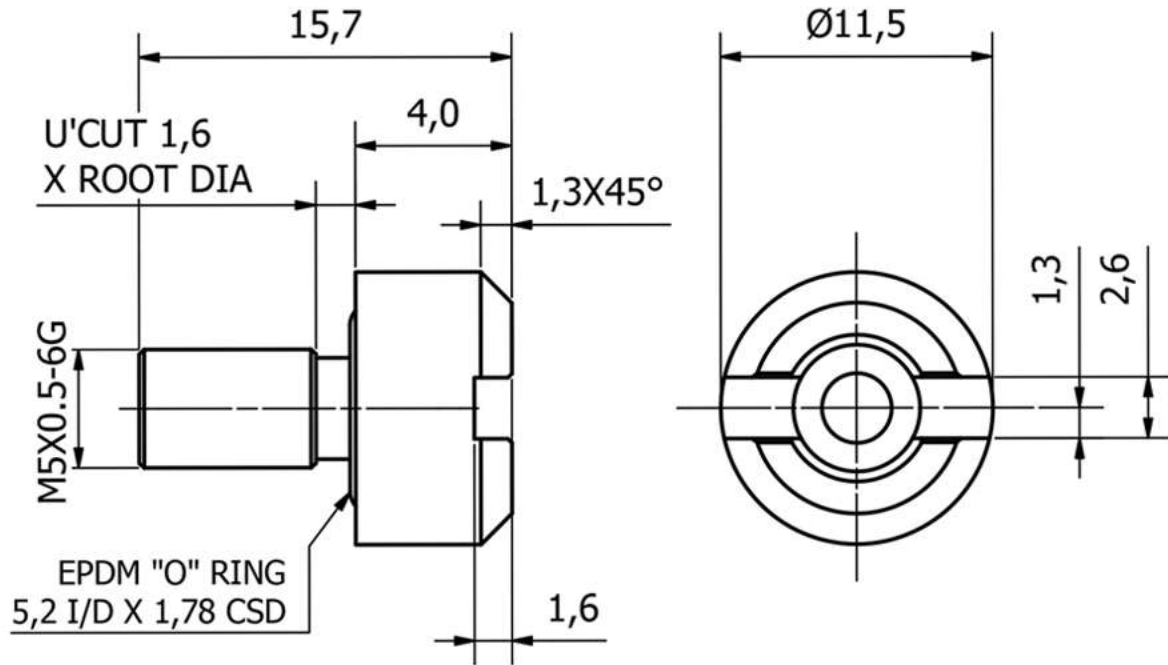
MATERIAL	PROTECTIVE FINISH				
SEE NOTE	NATURAL				
		ORIGINAL		1	05-01-09
EST. WT. -----	THIRD ANGLE PROJECTION	CHANGE	MOD No	ISSUE	DATE
DIMS IN mm	SURFACE TEXTURE	TOLERANCES : UNLESS OTHERWISE STATED		±0.2	
SCALE 5:1	3.2µm				
 RED DOT = ORIGINAL BLACK DOT = COPY	<b>BROWNELL LTD</b> LONDON NW10 7XF		DRAWN PK	CHECKED	
TITLE MINI IMMERSION BREATHER (PLASTIC)		DRAWING No. <b>BL/D10518 INST</b>			

DRG No  
BL/D12424 INST

REMOVE ALL SHARP EDGES  
UNLESS SPECIFIED

DO NOT SCALE - ASK

USED ON -----



MATERIAL 316 STAINLESS STEEL IAW BS EN 10088-3	PROTECTIVE FINISH  NATURAL				
EST. WT. ---	THIRD ANGLE PROJECTION	ORIGINAL		1	24/11/16
DIMS IN mm	TOLERANCES UNLESS OTHERWISE STATED	SURFACE TEXTURE	ANGULAR DIMS	LINEAR DIMS	
SCALE 5:1		-----	-----	-----	
RED DOT = ORIGINAL BLACK DOT = COPY	<b>BROWNELL LTD</b> LONDON NW10 7XF		DRAWN RB	CHECKED	

TITLE  
MINI BREATHER

DRAWING No.  
BL/D12424 INST

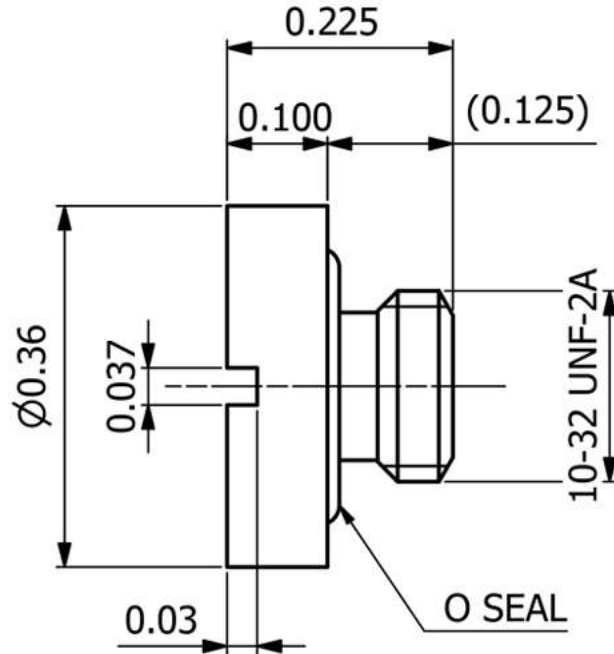
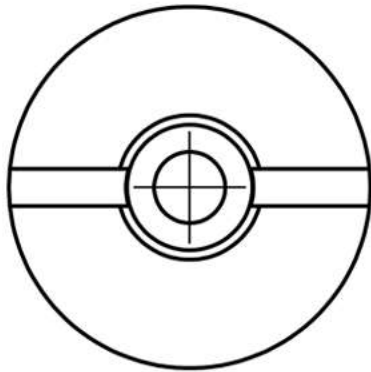
DRG No  
BL/D10241 INST

THIRD ANGLE PROJECTION

USED ON -----



( 1 : 1 )



**NOTE :-**

MEMBRANE MATERIAL : MODIFIED ACRYLIC COPOLYMER, CAST ON A NONWOVEN POLYESTER SUPPORT. POST TREATED FOR HYDROPHOBICITY THROUGH UV/E BEAM POLYMERIZATION.

MATERIAL ALUMINIUM ALLOY	PROTECTIVE FINISH ANODISE & DYE BLACK	ORIGINAL		1	29-11-07
EST. WT. ---	SURFACE TEXTURE	CHANGE	MOD No	ISSUE	DATE
DIMS IN ins	----	TOLERANCES : UNLESS OTHERWISE STATED	±0.005		
SCALE 5:1	<b>BROWNELL LTD</b> LONDON NW10 7XF		DRAWN PK	CHECKED	

● RED DOT = ORIGINAL  
● BLACK DOT = COPY

TITLE  
MINI BREATHER

DRAWING No.  
BL/D10241 INST