

Materials: PVC, CPVC, Natural Polypropylene, PVDF

Marquest Scientific's complete line of Mini gauge and instrument isolators are engineered to provide total isolation of all instruments from corrosive and ultra pure fluids in an ultra compact size.

Features & Benefits

- Provides a compatible, protective barrier between process fluids and instruments
- Adds system reliability by eliminating instrument failures.
- Ultra compact size for limited space applications
- Extremely low cost for O.E.M. integration
- Replaceable composite PTFE/FKM diaphragm
- Integral wrench provisions
- Diaphragm safety features
- Displacement capacity for up to 2 1/2" diameter gauges
- Self-venting, 1/4" female NPT instrument connection



SERIES MTG-22FS-PVC

2" ECONOMY GAUGE
1/4" Fem NPT Inlet
PVC Body

SERIES MTG-22SB-PPR

2.5" STAINLESS/BRASS GAUGE
1/4" Male NPT Inlet
Nat Polypro Body

SERIES MTG-25SS-PVD

2.5" ALL STAINLESS GAUGE
1/2" Male NPT Inlet
PVDF Body

(1) Please see backside of data sheet for ordering info, including configuration & material options.

Specifications

Instrument Connection: Venting 1/4" Female NPT

Process Connections: 1/4" & 1/2" MNPT, 1/4" Female NPT

Materials of Construction:

Upper Housing: PVC, CPVC, Natural Polypro, PVDF

Lower Housing: PVC, CPVC, Natural Polypro, PVDF

Composite Diaphragm: PTFE, System / Process Side
FKM, Instrument Side

Working Pressure: 0 - 250 psi at 70 Deg F.

Codes & Standards: ARRA Section 1605 "Buy American"
Compliant. ASME A112.18.1M

Markets / Applications

- Wastewater Treatment
- Semiconductor Manufacturing
- Chemical Plants
- Chemical Feed Systems
- Food & Beverage
- Wet Processing
- Chemical Odor Control
- PCB Manufacturing
- Pharmaceutical Processing
- Pool & Spa Filter Gauges

O-Ring, Instrument Seal, FKM

Mini Upper Chamber,
1/4" Female NPT Venting
Thread

Mini Composite
Diaphragm, PTFE, FKM

Mini Lower Chamber
Male & Female NPT Options



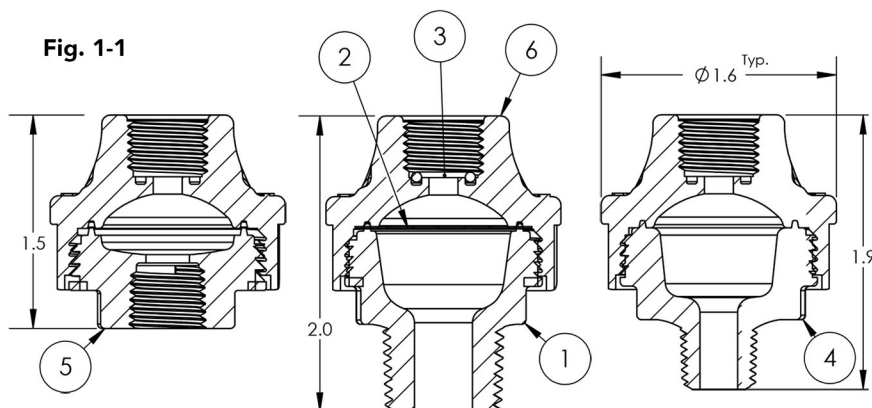
Where Quality Meets Service & Value™



MARQUEST SCIENTIFIC
Fluid Handling Products

Dimensional Data / Parts List

Fig. 1-1



*Dimensions in inches

ITEM NO.	DESCRIPTION	QTY
1	Mini Lower 1/2" Male NPT	1
2	Mini Composite Diaphragm PTFE / FKM	1
3	O-Ring, Instrument Seal, FKM	1
4	Mini Lower 1/4" Male NPT	1
5	Mini Lower 1/4" Female NPT	1
6	Mini Upper 1/4" Female NPT Venting Thread	1

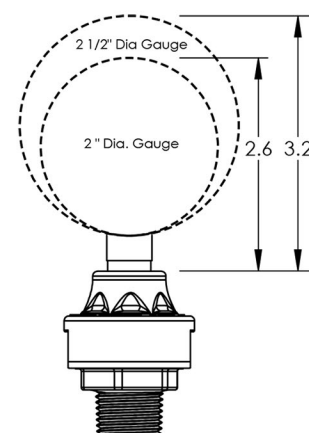
Pressure / Temperature Data

WORKING PRESSURES PSI

Material	10°C 50°F	20°C 68°F	30°C 86°F	40°C 104°F	50°C 122°F	60°C 140°F	70°C 158°F	80°C 176°F	90°C 194°F	100°C 212°F	120°C 248°F	Net Weights Pounds*
PVC	200	250	250	220	140	135	----	----	----	----	----	.13
CPVC	230	250	250	230	200	200	150	120	60	----	----	.14
PP	200	240	240	210	145	125	75	60	----	----	----	.12
PVDF	240	250	250	250	250	230	220	200	160	140	80	.16

WEIGHTS

Temperature Ranges: **PVC:** 14 to 140°F (10 to 60°C), **CPVC:** 50 to 194°F (10 to 90°C), **PP:** 46 to 176°F (8 to 80°C), **PVDF:** -22 to 248°F (-30 to 120°C). * Weights are for unfilled 1/4" Female NPT x 1/2" MNPT without gauges.



(1) Model MTG-25 shown above with 2" & 2.5" diameter case dimensions. Please combine dimensions from fig.1-1 to total full assembly height dimensions.

How to Order Mini Tuff Guard

Part No: **MTG - 2 5 060 SS - PVC**

MODEL	INSTRUMENT PORT	PROCESS INLET PORT	GAUGE PRESSURE RANGE*	GAUGE INSTALLED	BODY MATERIAL
Mini Tuff Guard	2 = 1/4" Vented Female NPT (1) Viton FKM O-ring seal is used for sealing instrument to thread. Zero pressure build during instrument install.	5 = 1/2" Male NPT 2 = 1/4" Male NPT 2F = 1/4" Female NPT	LEAVE BLANK = No Gauge H030 = 0-30 in Hg Vacuum 015 = 0-15 PSI 030 = 0-30 PSI 060 = 0-60 PSI 100 = 0-100 PSI 160 = 0-160 PSI 200 = 0-200 PSI 300 = 0-300 PSI	LEAVE BLANK = No Gauge S = Standard 2" Black Painted Steel Case, Marquest, Dry Case, 2-3-2 % Accuracy SB = Stainless Case / Brass Internals 2.5" Wika 212.53, Glycerin Filled Case, 2.5% Accuracy SS = All Stainless 2.5" Ashcroft 1008s, Glycerin Filled Case, 1.5% Accuracy	PVC = Polyvinyl Chloride CPVC = Chlorinated Polyvinyl Chloride PPN = Natural Unpigmented Polypropylene PVDF = 100% HP Virgin PVDF
<p>Example: MTG-25060SS-PVC (Gauge Installed) PVC Mini Tuff Guard Isolator, 1/2" Male NPT Inlet, PTFE/FKM Composite Diaphragm, 0-60 PSI All Stainless 2.5" Dia. Ashcroft 1008s Glycerin Filled Gauge Assembled & Tested.</p> <p>Example: MTG-22-PVDF (No Gauge Installed) PVDF Mini Tuff Guard Isolator, 1/4" Vented Female NPT x 1/4" Male NPT Inlet, PTFE/FKM Composite Diaphragm, No Gauge Installed</p> <p>(1) Assemblies with gauge installed have an Aqueous Glycerin (70% USDA 99.5% Glycerin / 30% Distilled Water) internal fill in the upper chamber and gauge stem internals. Silicone & Halocarbon fills available. Units ordered with out an instrument, need to be filled per installation instructions.</p> <p>(1) Only specify pressure range when ordering with a gauge installed. When ordering a unit with no gauge installed (X), please leave section blank.</p> <p>(2) We offer both dual scale and compound pressure ranges. Please contact factory.</p> <p>(1) We offer a variety of other gauge & instrument options from Ashcroft, Wika, & US Ametek including 1.5", 2", & 2.5" Dial Sizes. The Mini Tuff Guard is also perfectly suited for a variety of pressure sensors. Please contact factory.</p>					

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