

# Static Pressure Probe

## Model A-520



- **Unique dual orifice design to eliminate air flow error**
- **1/4" brass hose barb connection for transducer/switch**
- **Available in 4" and 8" probe lengths**
- **6061T-6 aluminum alloy**
- **Gasketed mounting flange, brass connector and mounting holes guarantee quick and easy installation**

The A-520 Static Pressure Probe is designed to pick up static pressure in a duct, plenum, air handler or other HVAC equipment. The Probe has two orifices vertically opposite each other to cancel out any air flow induced errors. If a bent tube with a single orifice at the end is used to pick up static pressure in a duct, the air flowing across the probe may cause a small low pressure within the probe. This low pressure acts against the duct static pressure and hence induces an error which is exponentially proportional to the air flow. As the air flow increases, this error will increase, also; and as the flow decreases, the error decreases in an exponential relationship.

The engineers at MAMAC Systems resolved this problem with a unique design which incorporates two orifices diametrically opposing each other in a vertical plane. When the air flows across an orifice, it creates a suction towards that orifice. Similarly, when the same air flows across the other orifice, it creates an opposing suction which cancels out the first pressure drop. Regardless of the velocity, the flow error is constantly cancelled out, and the A-520 provides an accurate, repeatable and stable static pressure value.

The A-520 Static Pressure Probe is available in 6061T-6 aluminum alloy for standard HVAC applications. The A-520 is available in two probe length options: 1) 4" aluminum; 2) 8" aluminum. The probe is attached to a 1.5" O.D. flange with two conveniently-located mounting holes for ease of attachment to the sheet metal. The flange also has a neoprene gasket to seal off the mounting holes. An industry standard 1/4" hose barb is provided for PVC/copper tubing connection. The A-520 is designed to substantially reduce the installation time required and to provide a convenient method to pick up static pressure in HVAC equipment.

Installation is completed by drilling a 1/4" hole in the sheet metal, inserting the probe and securing the assembly by using the mounting flange as a template to mark and drill two holes for the self-tapping sheet metal screws.



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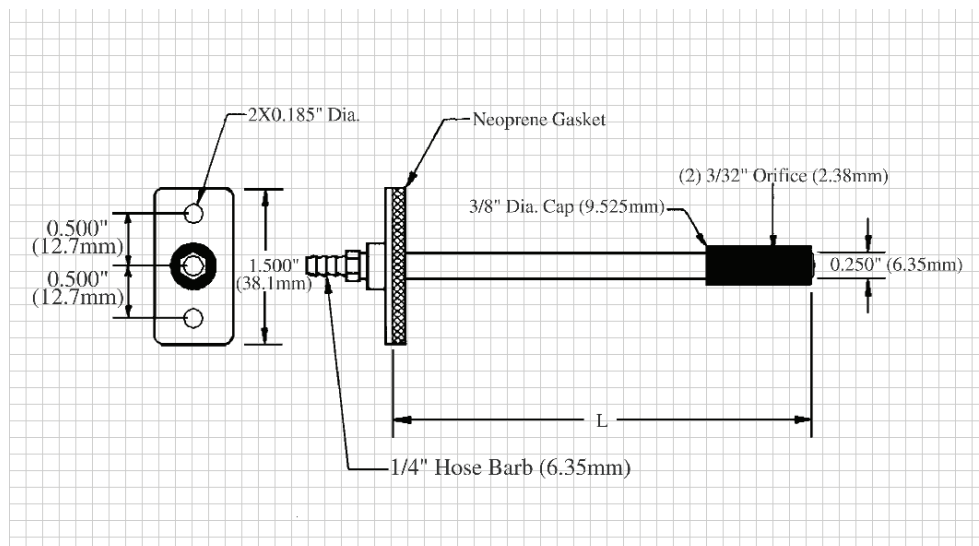
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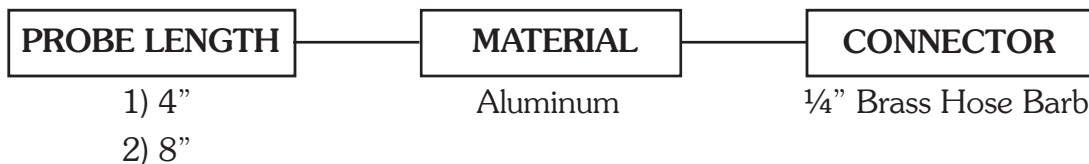


## SPECIFICATIONS:

**Material:** 6061T-6 Aluminum Alloy  
**Port Connections:** 1/4" Brass Hose Barb  
**Gasket Material:** Neoprene  
**Maximum Pressure:** 10 PSIG

**Maximum Temperature:** 250°C  
**Maximum Air Flow:** Unlimited  
**Weight:** 1.5 oz.

## ORDERING INFORMATION:



**WARRANTY:** MAMAC Systems, Inc. warrants its products to be free of defects in material and workmanship for a period of two (2) years from date of shipment. If a unit is malfunctioning, it must be returned to the factory for evaluation. A return authorization number (RMA) will be issued by the customer service department and this number must be written or prominently displayed on the shipping boxes and all related documents. The defective part should be shipped freight pre-paid to the factory. Upon examination by MAMAC Systems, Inc., if the unit is found to be defective, it will be repaired or replaced at no charge to the customer. However, this warranty is void if the unit shows evidence of being tampered with, damaged during installation, misapplied, misused, or used in any other operating condition outside of the unit's published specifications.

**MAMAC Systems, Inc. makes no other warranties or representations of any kind whatsoever, expressed or implied, except that of title. All implied warranties including any warranty of merchantability and fitness for a particular purpose are hereby disclaimed. User is responsible to determine suitability for intended use.**

**LIMITATIONS OF LIABILITY:** The remedies of buyer set forth herein are exclusive and the total liability of MAMAC Systems, Inc. with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the product upon which liability is based. **In no event shall MAMAC Systems, Inc. be liable for consequential, incidental or special damages.** MAMAC Systems, Inc. reserves the right to change any specifications without notice to improve performance, reliability, or function of our products.

Every precaution for accuracy has been taken in the preparation of this manual, however, MAMAC Systems, Inc. neither assumes responsibility for any omissions or errors that may appear nor assumes liability for any damages that result from the use of the product in accordance with the information contained in the manual.



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