

Mounting Examples for pHionics D-phi Series™



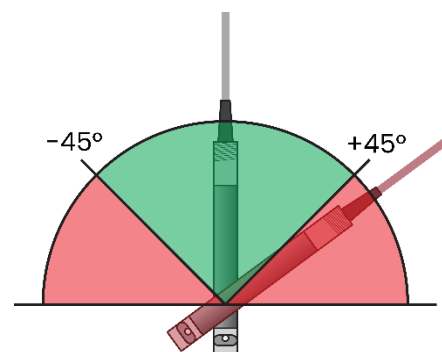
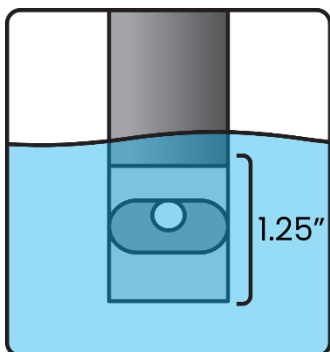
This document provides detailed examples of inline and standpipe mounting, along with general mounting considerations to ensure proper and safe sensor function. *Any planning and installation of a sensor should be performed by a trained professional capable of adequately evaluating and avoiding potential safety or performance hazards involved in your operation.*

Mounting Considerations

- Select the proper D-phi Series model for your application:
 - The **D-phi-s** is for submersion or standpipe mounting with a $\frac{3}{4}$ " NPT thread and straight strain relief connector on the cable end.
 - The **D-phi-i** is for inline mounting with a 1" NPT thread and a 90° cable strain relief connector on the cable end.
- Max temperature of 155°F (70°C)
- Max pressure of 100 psi

Special precautions must be taken for applications involving high temperatures and pressures. It is the user's responsibility to understand and avoid potential hazards when dealing with these types of applications.

- Pipes should be 1 ½" or larger to provide sufficient flow around the sensor.
- Mounting angle of -45° to +45° from vertical (see lower right diagram)
- Sample must contact housing (1.25" submersion depth minimum)

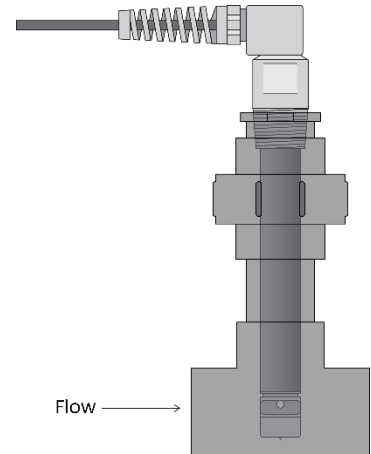


Inline Mounting Example

Model: D-phi-i

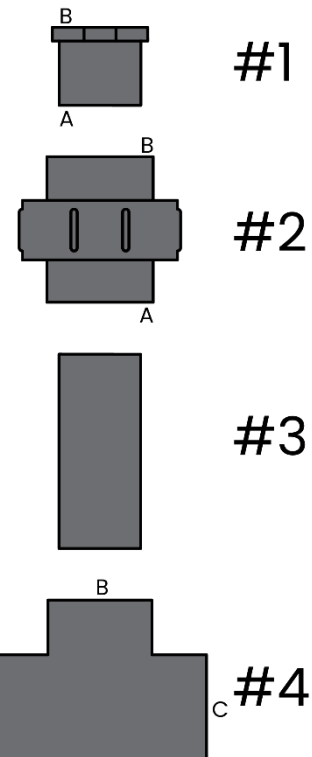
Inline installation of instruments like the pHionics D-phi Series sensors is needed to measure pressurized or gravity-flow samples that are transported through pipes. The sensor must be securely mounted to avoid the risk of blowout, while also being easy to remove for maintenance. We provide an example setup with a **union** because, while they are more expensive than a straight pipe, they allow for easier and safer sensor removal.

Please note these are example parts for an innocuous application. Other materials or parts may be required depending on pressure, temperature, and chemicals in your application. Always work with a trained professional to ensure your system is designed to meet your unique needs.



	Part Name	
#1	Straight Bushing Reducing Adapter Part Number: 4596K828*	A: 1 1/2" Pipe Size B: 1" NPT Thread
#2	Union Part Number: 4881K65*	A: 1 1/2" Pipe Size B: 1 1/2" Pipe Size
#3	1 1/2" Pipe 3.8" Length	
#4	Tee Connector Part Number: 4881K115*	A: 1 1/2" Pipe Size B: 1 1/2" Pipe Size C: 1 1/2" Pipe Size

*All part numbers are from [McMaster-Carr](#) but similar parts may be purchased from different suppliers. pHionics is not affiliated with McMaster-Carr.



Instructions

1. Apply PVC solvent to the areas of the parts that require it and assemble as shown in the diagram above.
2. Hand tighten the sensor into the 1" NPT thread from Part #1. Once done, match up the wrench flats at the top of the sensor with a wrench and twist an additional half turn.
3. Loosen the union, then orient the sensor assembly so the wrench flats are parallel to the pipe. This ensures the electrode is positioned properly in the flowing sample.

Standpipe Mounting Example

Model: D-phi-s

This style of mounting involves placing the sensor at the end of a pipe, then either dipping or permanently fixing the sensor to a certain height in the sample solution. The D-phi-s has a built-in $\frac{3}{4}$ " NPT thread and wrench flat to easily mount the sensor at the end of a pipe.

Please note these are example parts for an innocuous application. Other materials or parts may be required depending on pressure, temperature, and chemicals in your application. Always work with a trained professional to ensure your system is designed to meet your unique needs

Part Name	
#1	$\frac{3}{4}$" Pipe X Length (varies by application)
#2	Straight Adapter A: $\frac{3}{4}$ " NPT Thread Part Number: 4596K845* B: $\frac{3}{4}$ " Pipe Size

*All part numbers are from [McMaster-Carr](#) but similar parts may be purchased from different suppliers. pHionics is not affiliated with McMaster-Carr.

Instructions

1. Cut Part #1 to length.
2. Apply PVC solvent to the inside of Part #2B.
3. Insert Part #1 into Part #2B fully and let set.
4. Run the sensor wire through the part assembly.
5. Apply sealant to the sensor, if needed, then thread into Part #2A.

