

Your Sensors & Instruments Solutions Guide

How To Get Started

1. Understand and define your application requirements

Many factors should be a part of the sensor system design process. The factors listed below can help you define the sensing requirements for your application.

Define the typical and extremes of these environmental conditions:

- minimum and maximum temperatures
- pressure
- humidity
- shock
- vibration
- flow rate

Also ask:

- What is the sensed medium (a surface or immersed in solid, liquid or gas)?
- Is the medium chemically reactive (corrosive) or hazardous (explosive)?
- Is there high electromagnetic interference potential from power switching, rectification, or radio waves?

Finally, define the significance of these performance specifications in your application?

- sensing accuracy at a calibration point and/or over a temperature span
- repeatability
- stability
- sensor time constant
- insulation resistance

2. Determine which sensing technology options meet your requirements

Several potential sensing technologies may meet the essential environmental and performance specifications of your application. This section of the *Sensors and Instruments Solutions Guide* will provide you with a basic understanding of Minco's sensing and instrumentation technology. For more information go to www.minco.com/sensors/.



3. Compare sensor construction alternatives for best fit and ease of use

While a sensing technology may appear to be capable of meeting the requirements of your application, the actual sensor packaging and construction must be evaluated in order to select the optimal cost/performance balance from the available technology options.

Regardless of which sensing technology you consider, the packaging of the sensor introduces some level of specification compromise in terms of cost, performance or durability. Use this guide to compare Minco's various sensor constructions and instrumentation solutions to find the best fit for your application.

4. Obtain parts for testing as prototypes in your application

Minco has a wide selection of standard sensor components that can often be used for prototype testing and production systems. We would appreciate the opportunity to discuss your application with you. We can help ensure that the right sensor construction is selected for your application as well as any accessory components. Often times, we are able to offer recommendations for customization to improve performance and/or lower installed cost.

Order sensors and instruments easily online with our Sensors Configurator at www.minco.com/sensors_config/ or contact Access: Minco Sales and Support today to talk to an engineer about your application.