

## **Some simple guide lines for selection of Dytran Sensors.**

### **1. What is the physical footprint required?**

Finding out any size restraints upfront can save a lot of time. It is disappointing to get involved in a purchase for an application after selecting a sensor that matches the sensitivity requirement, price, performance and delivery only to discover that the sensor has to fit in a very tight and restrained space.

### **2. What type of measurement is required?**

Dytran manufactures sensors for measuring dynamic (not static) pressure, force, and acceleration. Dytran also have a broad line of impulse hammers for modal testing as well as signal conditioners, cables, and accessory items.

### **3. Describe the environment.**

Consider the temperature extremes and other details about the environment such as moisture and possible exposure to harsh chemicals, oil or salt water. Know as much about the application as is possible. Dytran can provide special cables and accessories to deal with most environments.

### **4. What type of data acquisition will be used?**

Dytran voltage mode sensors require 2-20mA constant current excitation and 18-30VDC. If the data acquisition system does not provide this type of power then select one of Dytran's single or multi-channel signal conditioners. Data Physics analysers and controllers provide the ability to power up constant current (LIVM) accelerometers. Ask Kingdom Pty Ltd for a Dytran catalog.

### **5. What cable length is required?**

Long cable lengths are not much of a concern with voltage (constant current or LIVM) mode sensors but can be an issue with charge mode sensors because of the high impedance signal output. Measurement system frequency response ultimately depends on cable length, frequency of interest, and amplitude of the vibration signal.

### **6. Determine the type of sensor required and the required location of the electrical connector on the sensor.**

Dytran sensors are available in the following configurations:

single axis,

triaxial (accelerometers only), and

thru-hole or ring-type with electrical connections on the top or side.

### **7. Determine What sensor characteristics are desired?**

Consider sensitivity (e.g. mV/g), frequency range (e.g. 100-5000 Hz), vibration amplitude to be measured, resolution required, maximum weight allowable and the desired size limitations.

### **8. Get the Model numbers of existing units for reference.**

If you are already using a sensor, know the Model number and we will attempt to cross-reference it to a Dytran product.

Contact Kingdom Pty Ltd for more information.

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