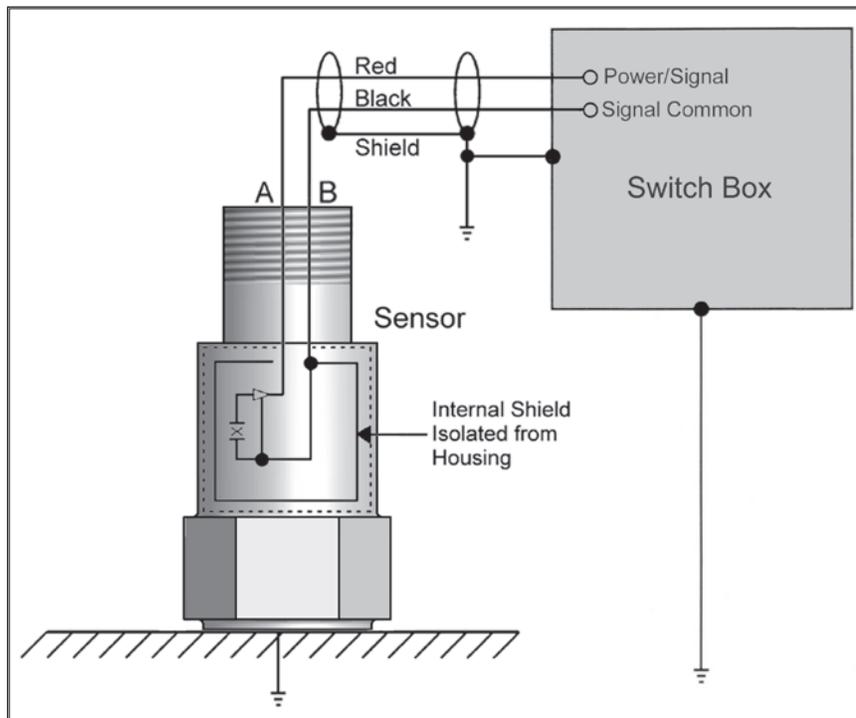


Sensors & Cabling

Sensors

CTC sensors feature all welded stainless steel construction for survival in harsh factory environments. A dual case design shields the sensing element from RFI & EMI interference. PZT ceramic sensing elements are utilized to provide the highest signal to noise ratio available, which is critical for use with data collectors, which often integrate an acceleration signal to velocity. Low frequency noise (Ski Slopes) are avoided by utilizing a sensor with a low noise PZT ceramic sensing element. Shear mode element construction is utilized in all CTC sensors, which virtually eliminates erroneous output due to thermal transient interference. Two pin MIL Spec connectors are generally used to carry the signal output from the sensor, protecting the shielding and hermetic sealing of the sensor. Pin "A" is utilized for the Power/Signal (+), and Pin "B" is utilized for Signal/Common (-). The case of the sensor is electrically grounded to the machinery that is mounted to and electrically isolated from Pin "A" and Pin "B". (See illustration)



Cabling

CTC cables are specially manufactured to transmit signals over long distances, while withstanding the rigorous physical demands of harsh factory environments. CTC cables will accurately transmit sensor signals a minimum of 500 feet to a switch box, with no signal loss or distortion. All CTC cables feature twisted, shielded pair construction, for interference rejection. A drain wire is provided with the shield, for quick and professional grounding. For most CTC cabling, the red conductor is utilized for the Signal/Power (+), the black conductor is utilized for the Signal Common (-) and the drain wire/shield should be connected to earth ground (see illustration above). Proper grounding of cable shielding will ensure clean and interference free data. CTC's permanent installed cables incorporate a strength cord within the construction of the cable. Strength cords relieve the tension of the conductors when a cable is being pulled through conduit or tight spaces.