



Isolator bases for accelerometers

SF21, SF22, SF23, SF24

Use an isolator mounting base to protect a vibration sensor from **up to 1500 Volts** of electricity by electrically isolating it from the case of the machine.



SF21: Isolator base, 1 inch (25 mm) across the flats, 1/4-28 to 1/4-28, integral stud



SF22: Isolator base, 1 inch (25 mm) across the flats, 1/4-28 to M8, integral stud

SF23: Isolator base, 1-1/8 inch (29 mm) across the flats, 1/4-28 to 1/4-28, integral stud

SF24: Isolator base, 1-1/8 inch (29 mm) across the flats, 1/4-28 to M8, integral stud



High voltage spikes can damage an accelerometer. The new isolators from Wilcoxon Research serve as a mounting base for most standard industrial accelerometers and electrically isolate the sensor from the case of the machine. The high voltage potential is not transmitted to the accelerometer, providing another level of protection against:

- ▀ Static electricity build-up and ESD shocks
- ▀ Improper grounding

- Poor ground bonding
- Poor earth ground coupling
- Ground loops
- Different ground potential

The SF21 and SF22 have a 0.82 inch (20mm) mounting pad that can accommodate up to medium diameter Wilcoxon sensors that range in size from the 780A to the 786A, and small diameter side-exit accelerometers such as the 775A.

The SF23 and SF24 have a 0.94 inch (24 mm) mounting pad that can accommodate large diameter Wilcoxon top-exit sensors that range in size from the 793 to the PC420 Series.

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Installation

1. The machine surface should be prepared using Wilcoxon Research's spot face tool. This one piece tool prepares the surface while precisely centering the hole for the mounting stud. Properly done, the result is the machine surface being flat within one mil and a drilled hole within 1° of perpendicularity of the surface. The hole is then tapped according to the stud thread on the bottom of the isolation pad. The isolator bottom is the side that mates with the machine surface when the Wilcoxon Research engraving is right side up.

2. The tapped hole must be at least two threads deeper than the stud. This will prevent a gap between the isolator bottom and the machine mounting surface.

3. Proper torque on the mounting studs is required. Under-torquing reduces the stiffness of the coupling. Over-torquing will damage the isolator.

1/4-28 stud	24 inch-pounds (2.7 N-m)
M8 stud	40 inch-pounds (4.5 N-m)



4. Ensure the mounting surface is clean and clear of all debris so that there is good contact between all mating surfaces. A coupling grease is recommended. The coupling grease protects the mounting surface and optimizes the frequency response by increasing the coupling stiffness. Suggested coupling greases are machine oil or vacuum grease, such as Wilcoxon item SILPAK.

5. It is recommended that a thread adhesive such as Loctite 222 be used between the machine and the isolator (not between the isolator and the sensor).

6. Once the isolator has been properly mounted on the desired surface, a sensor (with a 1/4-28 mounting hole) should be attached to the isolator. Proper torque for the sensor is 24 inch-pounds (2.7 N-m).

7. Because the sensor is not grounded to the machine, it is important the sensor shield be grounded at the far end of the cable (non-sensor end). Wilcoxon cable connectors 6Q, 6QA, and 6SL are recommended as they connect the sensor case and cable shield. This will help minimize any stray electrical noise pickup by the cable.