

Accelerometer connector solution

Wilcoxon's 6Q series of IP68 connectors are tremendously rugged, factory or field installable boots for MIL-C-5015 style 2- or 3-pin sensors. The 6Q connectors can be used with bulk cable for a cost-effective and flexible solution. Learn more about the most versatile connectors on the market for harsh industrial environments.



- >> Compatible with 2- and 3-pin MIL-C-5015 style sensors
- >> Provide wash down protection
- >> Isolated and non-isolated configurations

The 6Q connectors are manufactured using DuPont Viton®B fluoroelastomer. Viton®B offers a service temperature range from -25°C to 200°C (-10°F to 392°F) and is highly resistant to most industrial chemicals including oils, fuels, lubricants, and most mineral acids.

The connector assembly is rated as IP68, qualifying it for continuous submersion in water to depths greater than one meter. The mechanical design of 6Q Series connectors has been evaluated by Wilcoxon and found to temporarily withstand depths of 70 meters (230 feet).

Models 6Q and 6QI

2 socket connectors compatible with the following cables: coaxial (J5A, J9T), twisted pair with a PVC jacket (J9A), twisted pair with a Teflon® jacket (J9T2A), twisted pair with Teflon® jacket and stainless steel braid (J9T2AS), twisted pair with Enviroprene™ (J10), and underwater coaxial (J61)

6Q: Electrical contact between shield and transducer
6QI: Electrical isolation between shield and transducer

Models 6QA and 6QAI

2 socket connectors compatible with shielded twisted pair cable with a Teflon® jacket (J9F)

6QA: Electrical contact between shield and transducer
6QAI: Electrical isolation between shield and transducer housing

Models 6GQ and 6GQI

3-socket, splash proof (IP66) connectors compatible with shielded 3-conductor Tefzel® coated (J9T3) and shielded 3-conductor Teflon® coated (J9T3A) cables

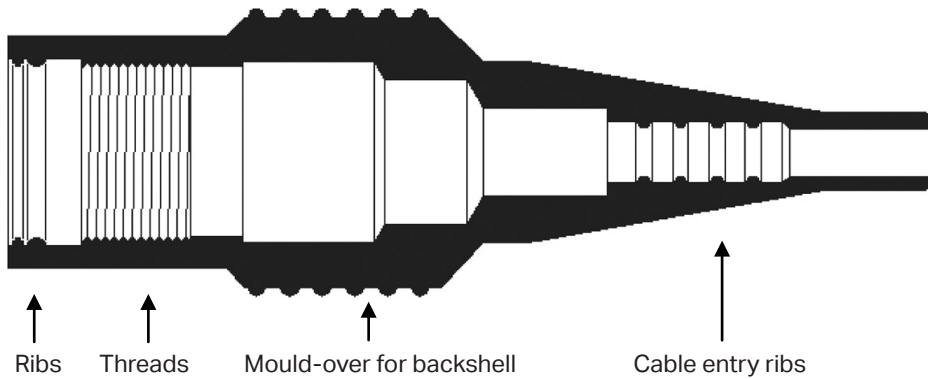
6GSL: Electrical contact between shield and transducer housing
6GSLI: Electrical isolation between shield and transducer housing

6Q series connectors

- >> MIL-C-5015 style
- >> 2-socket and 3-socket versions available
- >> IP68 rated, submersible
- >> High temperature: operable up to 200°C (392°F)
- >> Field installable
- >> Cost-effective

Compatible with listed Wilcoxon cables as well as other 0.19+ .005 inch diameter cables. Armored and stainless steel braid versions are available.





Ribs on sensor end of boot

Even before water can enter the threaded portion of the sensor end of the boot, there are two ribs. They seal the face of the boot against the sensor connector body to "grip" the connector.

Threads interior to boot

At the front of the boot there are 5/8-24 UNEF-2A threads molded into the boot. These molded threads mate to and engage the sensor connector threads to form a tight fit. This fit operates in a similar fashion to a labyrinth seal whereby the pressure under water keeps it from entering the connector boot interior body.

Epoxy-filled backshell, boot molded to fit

When a 6Q connector is installed, the connector electrical connections are sealed inside the metal backshell with epoxy to prevent moisture from entering the back of the electrical connections.

Ribs on cable entry

At the rear of the boot are four sets of ribs that "grip" the cable. Wilcoxon uses cable fillers to insure the roundness of the cables. When combined with the ribs at the cable entry the roundness of the cable insures a tight fit and works to minimize water entry around the cable.

Grease connector "cup" of sensor

When field-installing a 6Q cable to a sensor, Wilcoxon recommends to fill the sensor connector "cup" with non-conductive grease. Wilcoxon has a 5.3 ounce tube of SILGREASE or a single-use SILPAK of non-conductive grease for this purpose. The grease displaces most, if not all, of the air in the face of the connector and provides further sealing of the electrical connections from water entry.

