

# ***Chemically Resistant Connectors***

***FOR USE IN EXTREME ENVIRONMENTS***



**WHEN RELIABILITY MATTERS  
CONNECT TO CONFIDENCE**



Sulfuric acid corrosion in many materials is dependent upon the acid concentration. Many materials that will not corrode when in contact with 98% concentrations of sulfuric acid may suffer significant corrosion at lower concentrations. Stainless steels are one of the material groups that can withstand very high concentrations of sulfuric acid (93% - 98% concentrations) but suffer significant corrosions at lower concentrations.



*stainless steel sensor body showing the effects of sulfuric acid corrosion*



*remnants of a CTC A2A connector where the polycarbonate has completely disintegrated and the stainless locking ring has been seriously eroded due to the sulfuric acid*

For situations requiring exposure to lower concentrations of sulfuric acid, CTC has developed PPS connectors with no exposed metal.

PPS connectors, like CTC's **A2S** and **A3S**, have an insert, backshell body, and locking ring all made from polyphenylene sulfide.



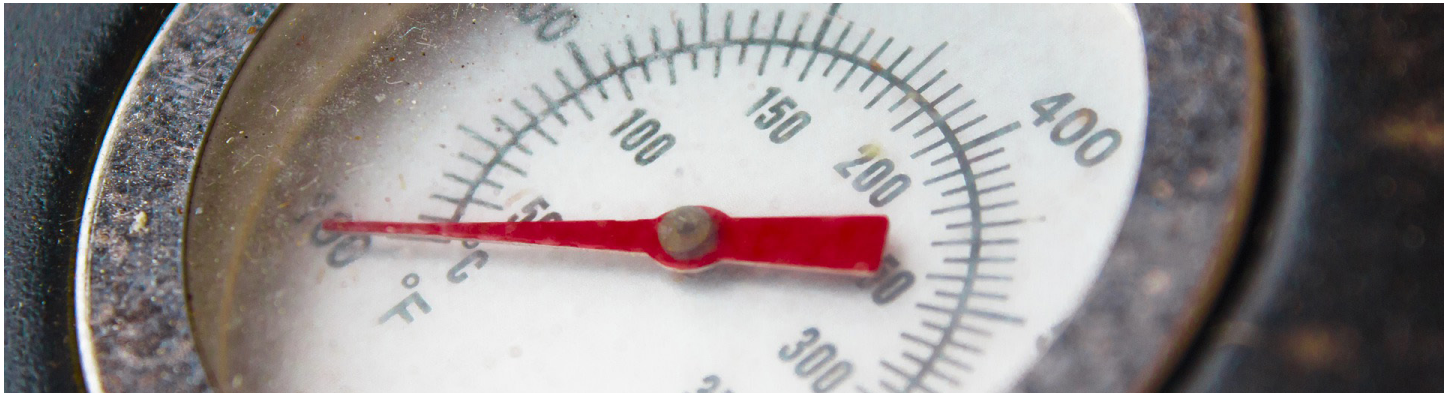
**A2S CONNECTOR**



**A3S CONNECTOR**

### ***What are the Benefits of Polyphenylene Sulfide?***

Polyphenylene sulfide is a high performance thermoplastic material that exhibits extreme solvent resistance up to 200°C (392°F). Actual service temperature of PPS is up to 218°C (424°F). The inner sealing O-ring of the connector is made of Viton®, another acid resistant polymer that displays excellent flexibility at higher temperatures.



PPS was selected for this application because it offers the broadest resistance to chemicals of any available advanced engineering plastic, including bases and acids, and also offers inertness to steam and hydrocarbon based solvents. A very low coefficient of linear thermal expansion makes PPS products ideally suited for the machined components required for CTC's connectors. In addition, PPS products exhibit excellent electrical characteristics that are inherently flame retardant, which make them ideal for use in harsh industrial environments.



CTC is the world leader in the design and manufacture of industrial accelerometers, piezo velocity transducers, 4-20 mA vibration sensors, and proximity probes as well as all related mounting hardware, cabling, and junction boxes. Our products enable efficient vibration monitoring for predictive maintenance in a wide variety of industries. Industries served include cement, mining, petrochemical, food & beverage, auto, steel, wind, paper & pulp, power generation, water & wastewater treatment, pharmaceutical, hospitals, bottling, and more. Our mission is to offer the widest variety of accelerometers and vibration hardware products, which are compatible with data collectors and online monitoring systems, as well as the tools for installation.



The CTC product line features vibration analysis hardware for heavy industry.

All CTC products are backed by our unconditional, lifetime warranty. If any CTC product should ever fail, we will repair or replace it at no charge.



The PRO line offers 4-20mA vibration monitoring solutions and proximity probes.

All PRO products are backed by a lifetime warranty on materials and workmanship. PRO will repair or replace any of our products as long as the product was not subjected to misuse, neglect, natural disasters, improper installation, or modification.

All stock products qualify for a full refund if returned in new condition within 90 days of shipment. Build to order products qualify for a 50% refund if returned in new condition within 90 days of shipment. Custom products are quoted and built specifically to the requirements of the customer, which may include completely custom product designs or private labeled versions of standard products for OEM customers. Custom products ordered are non-cancellable, non-returnable and non-refundable.

