



### Smart Transformer Connector

#### BACKGROUND

More than ever, electric utilities and other users of distribution transformers are emphasizing sustainability and looking for technologies that can lower operating costs, improve energy savings, and reduce environmental impact. A reduction of unscheduled maintenance costs is one way distribution transformer users can lower operating costs. A smart transformer communicates estimated end of life information back to the end user and based on this information it can be replaced during a scheduled maintenance visit.

#### PROBLEM

Most high power distribution transformers are required to be assembled completely, filled with transformer fluid and undergo a hi-pot test relative to the size to ensure the capability of the transformer. Many of the electronic components that make the transformer a "smart" transformer would not survive this test.

#### AIO SOLUTION

Amphenol Industrial Operations has developed a connection system where the receptacle, made of materials resistant to the transformer fluid, can be wired and assembled into the distribution transformer then withstand the necessary hi-pot test. After completion of the test the "brains" of the smart transformer are then attached to the outside of the transformer. Products such as circular connectors with viton inserts, thermocouple contacts and Amphe-Power circulars using RADSOK® contacts could find a home here.