



### Custom Flex Circuit Assembly

#### BACKGROUND

A Customer is a manufacturer of rotary and linear encoders. They have been an Amphenol connector customer for many years. The concept of using a flex circuit was discussed in the past but was not seriously considered by the customer until cost pressures from competitors and quality issues forced them to redesign their encoder.

#### PROBLEM

The current design utilized hard wiring which added additional cost in labor and assembly. In addition, due to the heavy Industrial environment that the encoders operate in, oils and other fluids were leaking onto the wires causing field failures. Under extreme pressure from their competition, the encoder was redesigned and due to its inherent reliability, a flex circuit was evaluated and designed in.

#### AIO SOLUTION

After a flex circuit was approved as a go-ahead for the new design connecting an Amphenol 5015, built at ATIO in Shenzhen, to the internal board, a value-added flex assembly was proposed and approved as an additional cost-cutting measure for the customer. The flex assembly was widely received and allowed the customer to further reduce costs by changing their castings. Further discussions on this topic led to a complete turn-key assembly where Guangzhou Amphenol Sincere is locked-in as the only supplier of a customized flex circuit assembly delivered to the customer inside their own casting.

