

CUSTOMER SUCCESS STORY

Significant Oil Drilling Technology Provider

Engineering / R&D Services
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cinch
CONNECTIVITY SOLUTIONS
a bel group

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Product

Dura-Con™ Micro-D

Dura-Con™

Application

High-Speed Telemetry-While-Drilling is made possible by including sensory components in down-hole oil drilling near the tip of drilling bits. The electronic sensory components continuously take Measurements While Drilling (MWD) which are used to evaluate several conditions at the drilling bit, including resistivity of the formation. This information increases production by increasing drilling efficiency and maximizing well placement.

Problem Statement

The components used in the down-hole equipment is subject to High Pressure High Temperature (HPHT) and extreme shock for long durations. In these conditions, the previous solution had low Mean Time Between Failure (MTBF) with electrical shorts within micro-D connector as the cause. Air bubbles were observed within the epoxy insulation used within connectors, which were decreasing its dielectric capabilities.

Cinch Solution

Cinch assigned engineering resources from its Dura-Con™ micro-D product line to work directly with customer's subject matter experts. Together they developed a preformed insulation body with a longer raised rib that protects the crimped area between the pin and the wire insulation. Also, higher temperature liquid crystal polymer was specified as the component polymer.

Cinch quickly addressed the customer's urgent needs, produced test samples and subjected them to the customer's proprietary qualification program.

Competitors Projects

Many offer higher temperature micro-D products by simply replacing materials with more stable versions, however the Cinch design takes into consideration that temperature is not the sole property in the application and therefore Cinch redesigned the structure of the component.

Value Proposition

An oil drilling platform shutdown is very costly. It takes at least two days to remove the tool from the well resulting in over \$2,000,000 in costs.

Part Numbers	Pin	Gender	Termination
DCHM9P6N5-36.0MN-HT1	9	Pin	36" Wire
DCHM15P6N5-36.0MN-HT1	15	Pin	36" Wire
DCHM21P6N5-36.0MN-HT1	21	Pin	36" Wire
DCHM9S6N5-36.0MN-HT1	9	Socket	36" Wire
DCHM15S6N5-36.0MN-HT1	15	Socket	36" Wire
DCHM21S6N5-36.0MN-HT1	21	Socket	36" Wire
DCHM9SCBRPN-HT1	9	Socket	PCB Mount
DCHM15SCBRPN-HT1	15	Socket	PCB Mount
DCHM21SCBRPN-HT1	21	Socket	PCB Mount

