



Cable Connection

When working in some of the harshest conditions on earth – at the bottom of the ocean, whether in warm-climates or sub-zero temperatures, it is necessary for cable connections to be reliable and watertight.

This prompted PMI to develop its DAM/BLOK electrical splice kit which is designed to make reliable electrical connections capable of surviving harsh marine applications. It enables watertight electrical and optical connections between dissimilar cables.

"The DAM/BLOK offers high protection against seawater intrusion," said Carl Petersen, new products development manager at PMI Industries. "It has been tested in our laboratory to 10 000psig and has proven reliable in assemblies used worldwide by the US government, offshore oil industry and the oceanographic research industry."

The key to preventing leakage can be found in PMI's distinctive

Pin dam – Stops any leak water along the wire strands from passing through the electrical splice

Wire dam – Prevents leak water from travelling along an insulated conductor

Jacket dam – blocks outside seawater from initial entry over a non-bondable cable or pigtail jacket

design and unique combination of precision precast polyurethane compression dams and waterblock solder pins, encompassed by an amber polyurethane overmould to encapsulate the splice, which produces a chemical bond to all surfaces of the compression dams.

This combination of mechanical seals, chemical bonds and positive waterblocking prevents leakwater passage from one conductor to another along the dam surfaces.

At any depth, a pressure corresponding to the external pressure exists throughout the overmould structure. Thus, the leakwater produces no pressure differential across the compression dams with

their 'built-in' squeeze. Depending on the application, customers can choose from three levels of protection to suit their needs.

Each DAM/BLOK electrical splice system arrives in kit form, with job-specific instructions, ready for on-site installation.

The kit includes a disposable mould, room-temperature cure polyurethane, waterblock pins and compression dams. The three standard kits are manufactured to tight tolerances and are tailored specifically for a customer's cable/connector application. If a job should require additional leakwater protection, PMI's experienced engineers are available to design a custom solution.