

APPLICATION NOTE

www.ittcannon.com**APD 37-way with press-in contacts**

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The Challenge

Cannon's APD Series is a typical solution for various engine / transmission / PC board / junction box applications, particularly requiring fluid resistance against several oil types. Silicone wire seals, which ensure the connector's sealing function, was not the proper solution due to the fact that Silicone material isn't able to fulfill these resistance requirements under all conditions.

Customer's demands were to buy a very cost-effective, but highly reliable and robust connector for a control / junction box application in a military vehicle. Sealing from outside to inside of the box would also need to be guaranteed as well as sealing on the cable connector.

Product Features

Press-in contacts, which provide

- Proper alignment
- Sealing up to IP69K without wire seals
- Tin, Silver or Gold Plating

APD 37-way connectors

- High temperature resistance from -40°C (-40°F) to +125°C (+257°F)
- Voltage Rating 48 V DC maximum
- Shock and Vibration Proof referring to DIN and other specifications (engine compartment environment)
- Easy mating by bayonet supported coupling

Benefits to Customer

- Highly reliable and cost-effective wire-to-wire and wire-to-board solution
- Ready to use Flange PCB connector for harsh environmental usage (sealing up to IP69K in mated condition) and wire to wire solution
- Optional panel gaskets for Flange connector
- Flex tube adapter for Plug available
- Resistance against fluids such as Diesel, Engine oil, Gearbox oil, or Brake Fluid



The ITT Solution

In addition to standard stamped APK16 contacts, ITT started to offer machined press-in crimp and PCB solder contacts. ITT designed a connector that meets the common APD standard (high IP rate up to 69K and on demand IP 68), but without using any wire seals for typical applications which require special fluid resistance (e.g. transmission or the valve area of the engine).

Flange connectors are equipped with socket PCB contacts, Plugs feature pin crimp contacts.

For application assistance, please contact:

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