



# **APPLICATION NOTE**

www.ittcannon.com

APD - 4 way for 500VDC Application

August 2009

## The Challenge

Cannon's APD series is a typical solution for various engine, transmission, PC board, and Junction box applications. Customers demand a cost-effective, highly reliable, IP graded, robust connector system for control, power distribution box, and Junction box applications in their vehicles. With customers demanding 500V dc / 20A application, standard APD 4-way can't meet the captioned electrical specification. Therefore, we've designed the new 500V dc APD 4-way with no change in overall dimension / layout with the standard APD.





New APD 4-way design with grooves

## The ITT Solution ...

The market for the standard ITT ICS APD family is Transportation / Automotive. The electrical requirements primarily fall between 48V and 240V. For hybrid - electric vehicles, the standard voltage needed is 500 V dc / 20 A per contact. The challenge was to create an new high voltage interconnect system within the same envelope dimensions found with the APD 4 way series keeping the costs in line with use of a plastic housing. ITT ICS combined market VOC and utilized our engineering expertise to design the new APD 500 V dc 4-way plastic circular, further extending this product line.

## **Product Features**

- Referring to DIN 72585 and above
- Up to IP69 with key features
- Voltage rating up to 500V dc
- Same overall dimension / layout with standard APD
- · Color can be chosen by customer
- If "Hot" side of the system is on the chassis, we can develop - the contacts are recessed to provide protection against direct touching for safety concern.

## **Benefit to Customer**

- Bayonet mating
- · High volume capability with low cost
- No change in the overall dimension / layout with standard APD
- Design suitable up to 500 V dc application running in 20A per contact
- Standard APD Accessories can be applied
- High vibration proofed solution
- Ideal solution for medium / high volume application for off-road / electric vehicle / hybrid vehicle

#### For application assistance, please contact:

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