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By their very nature, vehicle loop detectors using antenna like runs of cable are prone to lightening related damage. Solar powered detectors, utilizing low currents and sensitive electronics, are particularly susceptible because they cannot tolerate protection methods which dampen the loop field. In addition, the sensitive electronics used are prone to failure from lightening.

Protection using Gas Discharge Tubes, Zener Diodes, MOV's, Fuses, and other methods suffer from high voltage turn on points, no protection from low voltage-high current surges, low life expectancy, and poor general performance.

Utilizing the latest technology, Diamond Traffic Products new generation of loop protection circuits suffer from none of these problems. They draw less than 1 microampere from loop, turn on almost instantaneously at voltages over 8VDC, can shunt 75 Amps to ground, remain on as long as any significant current is being drained, and automatically turn off when it is safe to resume operation.

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