

**ELECTRICAL DEVICE SUCH AS A NETWORK PROTECTOR RELAY WITH
PRINTED CIRCUIT BOARD SEAL**

ABSTRACT OF THE DISCLOSURE

An electrical device such as a network protector relay (1) is protected from ambient conditions by a housing (19) having a printed circuit board (PCB) (23) providing a seal for the housing (19) and air and water tight connections (45) between relay leads (47) and external leads (49). The relay leads (47) are soldered in first plated through apertures (51b) in the PCB substrate (23) while the external leads (49) are soldered in second plated through apertures (51b) connected to corresponding first apertures (51a) by conductive traces (55) on the substrate (23). Potting material (57) confined by a potting dam (59) electrically insulates the solder connections on the external side (23b) of the PCB. Components (71, 75) can be mounted on either side (23a, 23b) of the substrate (23) by soldering the component pins or leads (77) in additional plated through apertures (51r) electrically connected to relay (47) and/or external leads (49) by the conductive traces (55s). Components such as connectors (61) or indicators (67), including, for example, light emitting diodes, can be supported in the potting dam (59) and connected to appropriate ones of the external leads (49c,l) insulated by the potting material (57).

This Sheet Has Been Replaced



THIS SHEET HAS BEEN
REPLACED