

ABSTRACT

ANTENNA GASKET FOR PROCESS HOUSINGS

A method and apparatus for providing wireless communication and optionally power to the interior of a housing assembly is disclosed. In one embodiment, an antenna is molded within a gasket material, such as silicon, so as to be completely encapsulated. The gasket preferably includes at least one support arm, which holds the antenna toward the middle of the housing, so as to minimize interference from the metal housing. In further embodiments, an inductive coil is encapsulated in the gasket. An alternating current is passed through this coil to create a changing magnetic field, which can then be used to create electrical power in physically separate components, such as filtering elements. In certain embodiments, multiple loops are molded to correspond to multiple filtering elements within the housing.

Fig. 1